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*The Kura-Araxes culture from the Caucasus to Iran, Anatolia and the Levant:
Between unity and diversity*

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Between unity and diversity*

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THE KURA-ARAXES CULTURE IN THE SHIDA KARTLI REGION OF GEORGIA: AN OVERVIEW

E. ROVA

Abstract: *Located in the centre of present-day Georgia, in what is traditionally considered the heart of the Kura-Araxes culture, the Shida Kartli region hosts a relatively high number of excavated Kura-Araxes sites, as well as several sites of the preceding Late Chalcolithic and of the following Early Kurgan cultures. It therefore offers a good opportunity to analyse one of the regional variants of the Kura-Araxes culture in its diachronic development. The paper describes the stratigraphy of the main Kura-Araxes sites of the region, discusses available evidence concerning architecture, settlement patterns, burial customs, pottery and other categories of finds, and attempts at drawing up a relative chronology of the region on the basis of stratigraphy, chrono-typology and recent ¹⁴C evidence. The origins and the end of the Kura-Araxes culture in Shida Kartli, and the changing patterns in the subsistence and social organisation of the local population are discussed in the wider framework of contemporary developments in the neighbouring regions.*

Résumé : *Située au centre de l'actuelle Géorgie, dans ce qui est traditionnellement considéré comme le coeur de la culture Kura-Araxe, la région de Shida Kartli abrite un nombre relativement élevé de sites Kura-Araxe fouillés, mais aussi plusieurs sites antérieurs, du Chalcolithique récent, et postérieurs (époque des 'Early Kurgans'). Cette région offre donc une bonne opportunité pour analyser l'une des variantes régionales de la culture Kura-Araxe dans son développement diachronique. Dans cet article, la stratigraphie des principaux sites Kura-Araxe de la région est décrite; y sont examinées les données disponibles sur l'architecture, la répartition des sites, les coutumes funéraires, la poterie et d'autres catégories de mobilier. Une chronologie relative de la région est dressée sur la base de données stratigraphiques, chrono-typologiques et de datations radiocarbone récentes. Les origines et la fin de la culture Kura-Araxe dans la région de Shida Kartli et l'évolution des modes de subsistance et d'organisation sociale de la population locale sont présentées dans le cadre élargi des développements contemporains dans les régions voisines.*

Keywords: *Early Bronze Age; Ceramics; Architecture; Burial customs; Metallurgy.*

Mots-clés : *Bronze ancien ; Céramique ; Architecture ; Coutumes funéraires ; Métallurgie.*

INTRODUCTION

The Shida (Inner) Kartli province lies in the centre of present-day Georgia, between the Likhi range to the west, the Trialeti range to the south, the Great Caucasus to the north, and the Aragvi River to the east (fig. 1). The modern administrative division roughly replicates the province's historical borders, except for the presence of the autonomous province of South Ossetia. In the following, we will especially focus on the Kura River valley, which represents the core of the region.

Areas which are historically part of the Shida Kartli province or are culturally related to it, *e.g.* the Mtskheta-Mtianeti province, will be occasionally included in the discussion.

The area belongs to what is traditionally considered the heart of the Kura-Araxes (KA) culture, and is home to one of its regional variants, as opposed, for instance, to the “Kvemo (Lower) Kartlian”, or “Armenian” variants (Sagona 1984: 97-106; Lordkipanidze 1991: 43-54; Palumbi 2008: 206-207). It hosts a relatively high number of excavated sites of the period, some of which of comparatively large dimensions and with a longer sequence of occupation. Evidence for the preced-

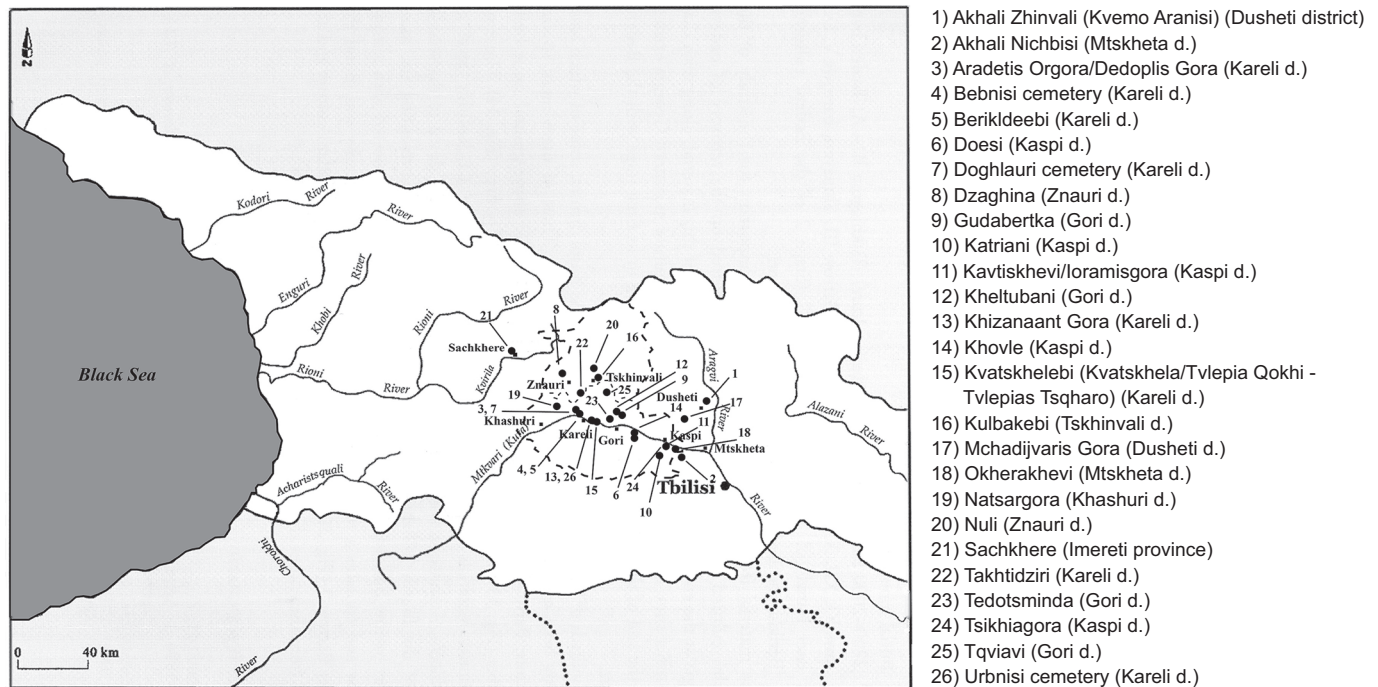


Fig. 1 – Map of Georgia with administrative limits of the Shida Kartli province and approximate location of the main EBA archaeological sites (modified from Sagona and Abramishvili 2008) (d. = district).

ing cultures of the Late Chalcolithic and for the Martqopi and Bedeni cultures of the final (Early Kurgan) stage of the Early Bronze Age (EBA) is also present in the area, which therefore offers a good opportunity to analyse diachronic developments at a regional level, and to compare them with contemporary developments elsewhere in the Southern Caucasus.

The Shida Kartli variant is characterised by a high degree of internal homogeneity and conservatism, and by less intense external connections than other variants of the KA culture. However, some categories of finds, *e.g.* metal objects, prove that Shida Kartli was well integrated in the interregional network along which people, raw materials and artefacts of different types circulated over the northern portion of the Near East during the EBA.

THE LATE CHALCOLITHIC PERIOD AND THE ORIGINS OF THE KURA-ARAXES CULTURE

It is by now admitted that the origins of the KA culture are deeply rooted in the early-mid 4th millennium BC develop-

ments at the north-eastern periphery of Greater Mesopotamia (Kiguradze and Sagona 2003; Marro 2008; Palumbi 2008: 23-51). At this time, the Southern Caucasus was involved in the spreading of the Chaff-Faced Ware (CFW) ceramic tradition (Marro 2007; 2008 and 2010). The origins of this most probably lie in the late 5th millennium developments of the final Obeid phase; in Georgia at least, CFW appears to represent an intrusive element, which co-exists with a local tradition, characterised by mineral-tempered ceramic wares.¹

North of the Lesser Caucasus, the CFW tradition is especially well represented in Azerbaijan ('Leilatepe culture'), while finds from Georgia are fairly sporadic. The comparative stratigraphy of the period in Georgia is fraught with uncertainties, and the local sequence of cultures remains approximate. Traditionally, these finds were attributed to the Sioni period (Kiguradze and Sagona 2003); this however covers quite a long span of time, while the presence of CFW is limited to its latest

1. The diffusion, between the late 5th and mid-4th millennia, of vegetal-tempered pottery over a wide geographic area and the related question of the area of origin of the CFW tradition are complex and still debated issues (see lately Marro 2010), which cannot be discussed here.

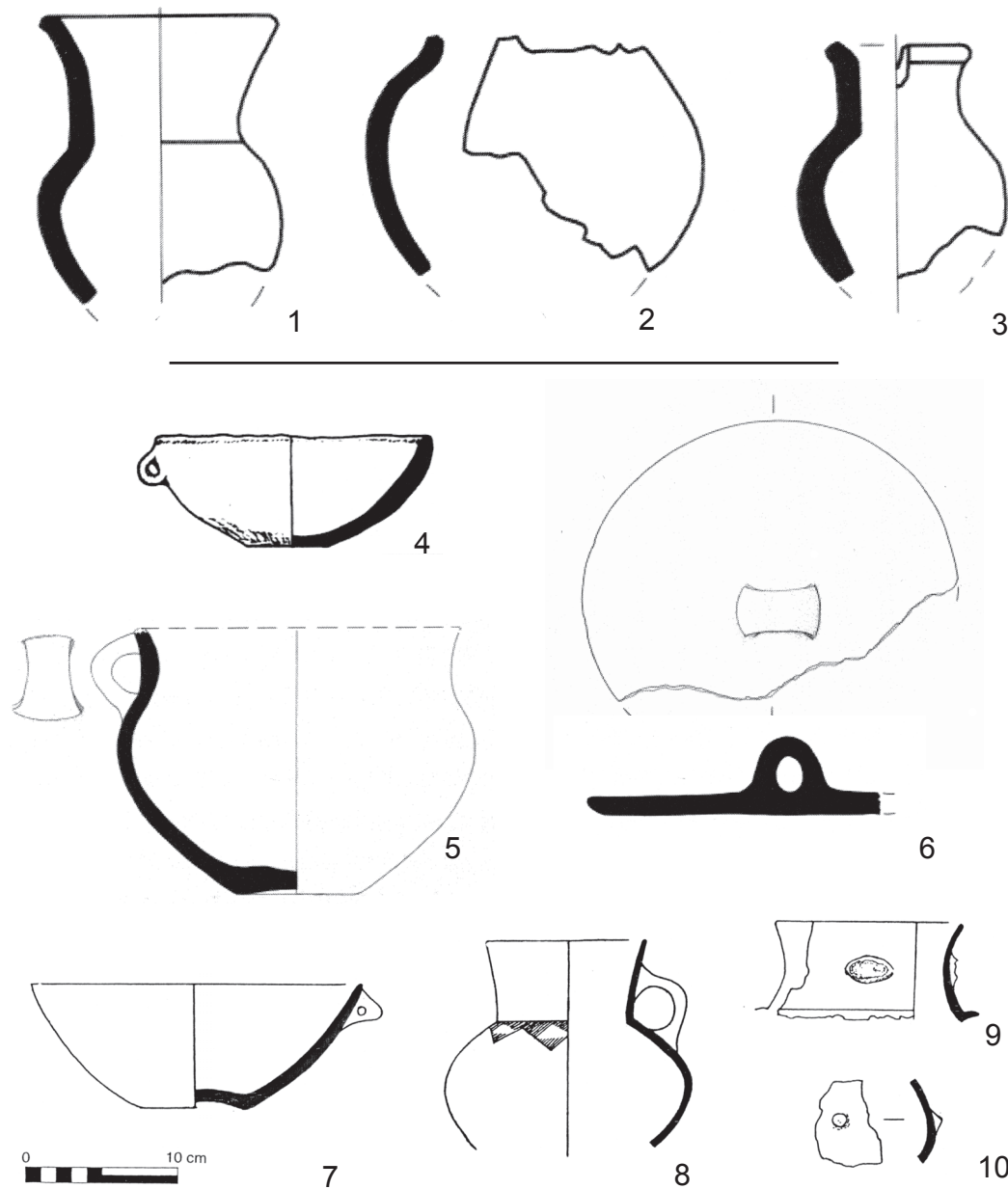


Fig. 2 – Pottery of the Proto-KA (1-3) and KA I phases (4-10) from the Shida Kartli region. **1-3** Berikldeebi, level V (from Palumbi 2008: fig. 2.5, 8-10); **4-6** Berikldeebi, Level IV (from Palumbi 2008: fig. 2.6, 3, 5-6); **7-10** Khizanaant Gora, Phase E (from Kiguradze and Sagona 2003: fig. 3.25, 3; fig. 3.23: 1, 6, 10).

part. In Shida Kartli, this stage is represented by settlement levels at Berikldeebi (Dzhavakhishvili 1998; Makharadze 2007: 126-131; see Palumbi 2008: 30-35)² and by a kurgan

at Kavtiskhevi (Makharadze 2007: 123-126; 2008: 67). In Period V at Berikldeebi, a few examples of pottery reminiscent of the later KA production (fig. 2: 1-3) were unearthed together with a majority of items belonging either to the CFW tradition, or to a local, ‘Sioni-derived’ tradition of mineral-tempered wares. This pottery, which is mainly mineral-tempered, has

2. The important site of Aradetis Orgora was probably also occupied during this phase (Makharadze 2007: 128; Fürtwängler *et al.* 2008: 41-42).

burnished surfaces of dark grey to brownish-pink colour, and shows a number of Kura-Araxian morphological features, has been defined as 'Proto-KA' (Kiguradze and Sagona 2003: 91-92; Makharadze 2007: 128-131; Palumbi 2008: 30-34, fig. 2.5: 8-10; Marro 2008: 14-15). This term has been used by several authors in different geographical contexts and referring to different ceramic materials (see Marro 2008: 14-19); we believe that it can be used to define a chronological stage in which, at Berikdeebi as well as, *e.g.*, at Sos Höyük (period VA) in Northeastern Turkey (Kiguradze and Sagona 2003: 48), a minority of KA pottery with very archaic features is associated with a majority of pottery of Late Chalcolithic tradition. Red-Black Burnished Ware, often considered the hallmark of the KA culture, is not yet present in Shida Kartli during this phase, and is still rare even in the following one; this supports Palumbi's hypothesis (2008: 43-44, 308-312 and elsewhere), that it was the result of the adoption by the local communities of a foreign firing technique.

THE MAIN KURA-ARAXES SITES OF THE REGION³

Outside of the administrative borders of the province, but culturally connected with it, are a number of sites of the Mtskheta-Mtianeti province, the most important of which are the multi-level mound of Mchadijvaris Gora (Tsitlanadze 2008) in the Dusheti district and Akhali Zinvali (Kvemo Aranisi) in the Aragvi River valley (Japaridze 1992: 188), where architecture and pits of the KA III phase were excavated.

The multilevel settlement of Tsikhiagora in the Kaspi district (Makharadze 2008) includes five main levels, the earliest of which (Level I, including phases A and B), dates back to the EBA. More specifically, level IB (subdivided into B1, B2 and B3) is attributed by the excavator to the final KA III/Martqopi, and level IA to the Bedeni phase.⁴ Phase A yielded poor remains of mud-brick walls, sub-phases B2 (the best preserved one) and B3 some examples of wattle-and daub dwellings.

3. Only selected references are provided in this paragraph. Original publications in Georgian, general syntheses about the KA culture (Sagona 1984), the archaeology of Georgia and of the Southern Caucasus (Lordkipanidze 1991; Japaridze 1992; Kushnareva 1997), and earlier publications are cited only if the information they contain is not duplicated elsewhere.

4. A discussion of the interpretation of the Tsikhiagora sequence can be found in the paragraph devoted to the end of the Kura-Araxes culture and its relation with the Early Kurgan cultures, *infra*.

The mound of Gudabertka, 7 km north-west of Gori (Mindiashvili *et al.* 2012) was probably a rather important centre. The KA sequence, corresponding to up to five occupational layers, was up to 1 m thick, and probably spanned the KA II-III phases. The settlement was surrounded by a thick mud-brick wall; various examples of wattle-and daub dwellings and large grain storage pits were excavated, as well as a building of oval shape, which was interpreted as a temple, and a metallurgical workshop. The mound was flanked on the north side by a cemetery area. At the northern limit of the Gori district, three KA kurgans were excavated at Tqviavi (Jalabadze *et al.* 2012: 90). From here in northern direction, a number of KA sites are located along the valley of the Liakhvi river, in the hilly area of the Tskhinvali district (South Ossetia). The most important of them is Kulbakebi (Sagona 1984: 41, 202; Japaridze 1992: 187-188). Only pottery and other small finds were found at this site, which was interpreted as a seasonal camp used by pastoralists.⁵ In the Znauri district of the same region, twelve KA graves were excavated at Dzaghina (Jalabadze *et al.* 2012: 84-90) and a single KA grave is reported from Nuli (Jalabadze *et al.* 2012: 90).

Following the Kura River valley towards west, the Kareli district is the seat of a cluster of important KA sites. Two of them, Kvatskhela and Khizanaant Gora, lie in at a short distance from each other in the territory of the Urbnisi village, in dominant positions on the river cliff. Kvatskhela is composed of two different sites, Kvatskhela (Tvlepi Kokhi) and Tvlepias Tsqharo—hence the plural, Kvatskhelebi, with which it is also known (Palumbi 2008: 170-179). The main mound was occupied during the Medieval (Phase A) and KA periods (Phases B and C, each one subdivided into three sub-phases). Phase C is attributed to the KA II, and Phase B to the KA III phase. The settlement was relatively large, showed a significant continuity of occupation, and was extensively excavated; it provides a wide sample of domestic architecture (a total of 40 houses) and offers the rare opportunity to gain an idea of the internal organisation of a KA village. Best preserved is the Phase C1 settlement, which had been destroyed by fire, but continuity in architectural plans and building techniques appears to have been high. Two different cemeteries are connected with the site (Jalabadze *et al.* 2012: 60-70). The first one, Kvatskhela cemetery, lies at the northern edge of the settlement. Graves belong to two different levels, I and II, which are later than Phase C3, and have been tentatively connected with Phases C2 and C1, which however covers some of the

5. Another KA site in the same region is Tskhinvali Natsargora, which yielded a thin occupational layer and five graves (Sagona 1984: 202-203).



Fig. 3 – View of the Aradetis Orgora (Dedoplis Gora) mound, from NW, with the Western Prone River on the right, and the Kura River on the background (©Georgian-Italian Shida Kartli Archaeological Expedition).

graves. The second, Tlepias Tsqharo, lies on a little promontory 250 m to the north-east. It dates to Phases CI and later, when the settlement had expanded over the area occupied by the earlier cemetery.

The multilayer settlement of Khizanaant Gora lies south of the Urnisi village, on another spur dominating the Kura river valley (Palumbi 2008: 35-37, 180-184). The KA levels were published by I. Kikvidze, who divided them into 4 main phases of occupation: B, C, D, and E, with further subdivisions. All of these yielded examples (19 in total) of domestic architecture. Phase E, the earliest, belongs to the KA I phase; Phases C and D are attributed to the KA II, Phase B to the KA III phase. The settlement's cemetery lay in the southern part of the Urnisi village (Jalabadze *et al.* 2012: 70-74): it contained nine graves of the KA II phase.

Close to the district's administrative centre, at a short distance from each other are the two multi-period sites of Berikldeebi and Aradetis Orgora, which was probably the most important centre of the region. At the former, Period IV, unfortunately still unpublished, which yielded some remains of domestic architecture, is attributed to the KA I phase (Palumbi 2008: 34-35, fig. 2.6).

Aradetis Orgora (fig. 3), situated on the western bank of the Western Prone River near its confluence with the Kura, consists of three different mounds and a cemetery area. On the main mound (Dedoplis Gora), an important Late Hellenistic/Early Roman palace covers a several meters thick virtually unexcavated sequence of pre-classical levels (Fürtwängler *et al.* 2008; Gagoshidze and Elashvili 2013). Preliminary investigations, in 2013, by the joint Georgian-Italian expedition, confirmed the



Fig. 4 – View of the Natsargora mound from SE, with cemetery area in the foreground (©Georgian-Italian Shida Kartli Archaeological Expedition).

presence of KA levels in different parts of the mound. The Early Bronze Age cemetery lies in the flat area between the main mound and the present highway, and is known under the names of Aradetis Orgora or Doghlauri cemetery. Thirteen graves of the KA III phase were excavated between 1979 and 1981 (Jalabadze *et al.* 2012: 75-82); most recently, emergency excavations resulted in the discovery of about 50 additional KA graves (Gagoshidze 2012). Another KA site was identified near Takhtidziri, about 10 km north of the confluence of the Prone with the Kura (Jalabadze *et al.* 2012: 82-84), where a test trench resulted in the discovery of a KA I occupational layer and three late KA II graves.

Natsargora (fig. 4) is located in the Khashuri district, at the western limit of the province, some 7 km to the north of the Kura River valley. It consists of a small mound flanked by a 'lower town' settled area, which may have extended over *ca* 2 hectares, and by a cemetery. Both were excavated between 1984 and 1992 by a Georgian team; in 2011-2012 the EBA levels on top of the mound were further investigated by the Georgian-Italian expedition (Rova *et al.* 2014). The EBA levels had a total thickness of less than 1 m and were heavily disturbed by LBA pits and foundation trenches. This gave rise to different interpretations of the site's stratigraphic sequence. According to the Georgian excavators, all layers contained both KA and Bedeni material; the site had thus to be dated to the final phase of the KA culture, and witnessed to the co-existence of the latter with the Bedeni culture. The results of the new excavations suggest, however, that an earlier KA II settlement was followed by an abandonment, followed in its turn by an ephemeral re-occupation of the site during the

Early Kurgan period.⁶ In the cemetery area, 26 EBA graves were excavated by the Georgian team (Puturidze and Rova 2012): they are contemporary with the KA occupation of the site, and consist for the most part of simple pit graves of rectangular shape, occasionally lined with stones and/or covered by an irregular group of stones.

Mention must also be made of a number of sites located near the present town of Sachkhere in the valley of the Kvirila River, at the north-eastern edge of the Imereti province of Western Georgia, whose material culture shows some affinities with that of Shida Kartli (Sagona 1984: 200-201; Kushnareva 1997: 61). They include occupational layers and burials; all of them are dated to the final phase of the KA culture.

The distribution pattern of KA settlements in Shida Kartli is not easy to assess. Although not all sites were occupied at the same time (the occupation of many of them actually appears to have been rather short-lived and/or intermittent); it is however obvious that the KA presence on the territory was quite widespread. The main sites were situated along the course of the Kura, in dominant positions at relatively regular distances from each other on the edge of the river terrace. They have comparatively large dimensions (2-3 hectares and possibly more), show a longer occupational sequence than the remaining ones, and were probably continuously occupied over most of the period. They were surrounded by smaller sites which had a less stable occupation, and are more difficult to spot on the present landscape, which may have depended on them. From the Kura valley, occupation spread to the north, along its tributaries, deep in the hilly area at the feet of the Caucasus range, where sites may have included seasonal camps for pastoralists. From a chronological point of view, the majority of sites were occupied during phase II, which represents the maximum flourishing of the KA culture in the region, and all of them, with the exception of Tsikhiagora, appear to have been abandoned by the end of the KA III phase.

6. It appears that the abundant Bedeni ceramic material almost invariably came either from mixed layers, or from Bedeni pits, possibly of ritual purpose, which cut the earlier KA layers. The recovery at the site, mostly in secondary contexts (pits, disturbed layers), of a few later KA (KA III) and Martqopi sherds may at most suggest the presence of pits, or of a thin occupational layer of this phases, completely obliterated by later disturbances (for a detailed discussion of the site's stratigraphy, see M. Puturidze and E. Rova, *Khashuri Natsargora: The Early Bronze Age Settlement*, Publications of the Georgian-Italian Shida Kartli Archaeological Project II, Turnhout: Brepols (*Subartu*), in preparation).

CERAMIC SEQUENCE

The KA culture has traditionally been divided into three main phases (KA I, II, and III), although their definitions, limits and proposed absolute dates vary in the different scholars' opinions;⁷ we will discuss here how this division applies to Shida Kartli, and define the ceramic features of the three phases in the region. At the present stage of research, although general ceramic developments are clear enough, other categories of finds show a high degree of continuity, and cannot therefore be attributed to any particular phase. Due to the complex and disturbed stratigraphy of multilevel settlements, and to the incomplete publication of the finds from many sites, a precise phase attribution of individual levels and/or sites is in many cases impossible or at best tentative (table 1).

Phase KA I is represented by Berikldeebi IV and Khizanaant Gora E: the former represents an earlier, the latter a slightly later stage of development. Contemporary material was also discovered at Takhtidziri. CFW, as well as other types of Late Chalcolithic (LC) tradition, have disappeared, and pottery is now usually mineral-tempered. The morphological repertoire (fig. 2: 4-10) is dominated by typical KA features (burnished surfaces, handled vessels, flat lids, etc.). Continuity with the previous period is low, but can be traced in the persistence of some traditional manufacturing techniques and special shapes, e.g. the low tray with a row of perforations running all around the rim (Kiguradze and Sagona 2003: 50). Pottery is often poorly fired, mostly monochrome and undecorated; its outer surface is burnished, and varies in colour between brown, pinkish-beige and dark grey. At Khizanaant Gora Monochrome Ware is accompanied by a small amount of Red-Black Burnished Ware; this has a black outer surface and a reddish-brown or pinkish inner surface. Fabric and morphological repertoire are similar to those of contemporary sites in the territory of modern Tbilisi (Didube, Trelis) and in Kvemo Kartli (Grmakhevistavi, Kiketi, Samshvilde), and show no marked regional features. Among the most characteristic types are large bowls of truncated conical shape with a small loop handle attached to the rim, jars and open pots with high cylindrical neck and oval-shaped-body, and flat lids with a central handle. A small number of sherds bear an incised decoration; relief knobs or ledges are also present.⁸

The following KA II phase shows the development of a distinctive 'Shida Kartli' variant of the culture (fig. 5: 1-9). This

7. See the synoptic tables in Palumbi 2008: 19, 211, 327.

8. For descriptions of the KA I ceramic repertoire in Shida Kartli and elsewhere, see Sagona 1984: 97-98; Kiguradze and Sagona 2003; Palumbi 2008: 23-51.

Table 1 – Table showing selected typical features of the different KA phases in the Shida Kartli region and the tentative attribution to these phases of settlements levels and burials.

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

phase, which can be divided into an earlier and a later stage, is represented at many settlement sites (Khizanaant Gora D-C, Kvatskhela C, Natsargora, Gudabertka, etc.); most cemeteries also belong here. It is especially characterised by a variety of single or double-handled vessels of different dimensions, which invariably have a large mouth, an outturned rim and a flat or flattened base, and show a more or less sharp carination about half-way up the body. In the later sub-stage, a trend can be noticed toward more elongated and sinuous profiles and slightly raised bases. Other typical shapes are one-handled carinated jugs with ovoid-shaped body and slightly concave shoulder and small three-handled jars.⁹ All these types are attested both in cemetery and in settlement contexts: in the latter, they are joined by large 'scoops' (see fig. 5: 10), flat lids with central handle and, rarely, large flat-bottomed basins, both continuing from the previous phase. KA II pottery is typically undecorated; a few examples of incised decoration appear around the end of the phase. Monochrome Ware is still present, but rare, and Red-Black Burnished Ware represents a significant portion of the assemblage. The vessels' inner surfaces and, often, their rim and neck are reddish, while the outer surfaces are black, dark grey or dark brown. Surfaces are

sometimes slipped and constantly burnished, but do not have the highly shiny appearance that is typical of other regions. Black Burnished Ware is absent, or extremely rare.¹⁰

The late (KA III) stage of the culture (fig. 5: 10-19) is represented by Khizanaant Gora B, Kvatskhela B, Tsikhiagora Level I (which covers the transition to the EK period), as well as by the Doghlauri graves. Contemporary materials were also excavated at Mchadijvaris Gora and Kvemo Aranisi, and in the Sachkhere area. Black Burnished Ware becomes common during this phase: these vessels have a highly burnished black surface, quite different from those of the previous phases. Morphological continuity with phase II is high, but vessels now generally have a slightly raised base and more elongated and sinuous profiles. Especially typical are bowls and mugs with almost vertical shoulder and outflaring rim, and pots with accentuated belly marked by a slight carination both under and over it. Another distinctive feature is the presence of incised and grooved decoration. Incised decoration generally occupies a band which develops around the vessel's point of maximum diameter; it often consists of groups of oblique lines forming zigzag or cross patterns, but some jars show more complex patterns (double volutes compositions, bands of thickly hatched designs). Relief decoration (spirals,

9. These are also sporadically attested outside of the Shida Kartli region (Puturidze and Rova 2012: 45, footnote 34; Sagona 1984: 99).

10. For descriptions of the KA II ceramic repertoire in Shida Kartli and elsewhere, see Sagona 1984: 98-102; Palumbi 2008: 157-213, etc.

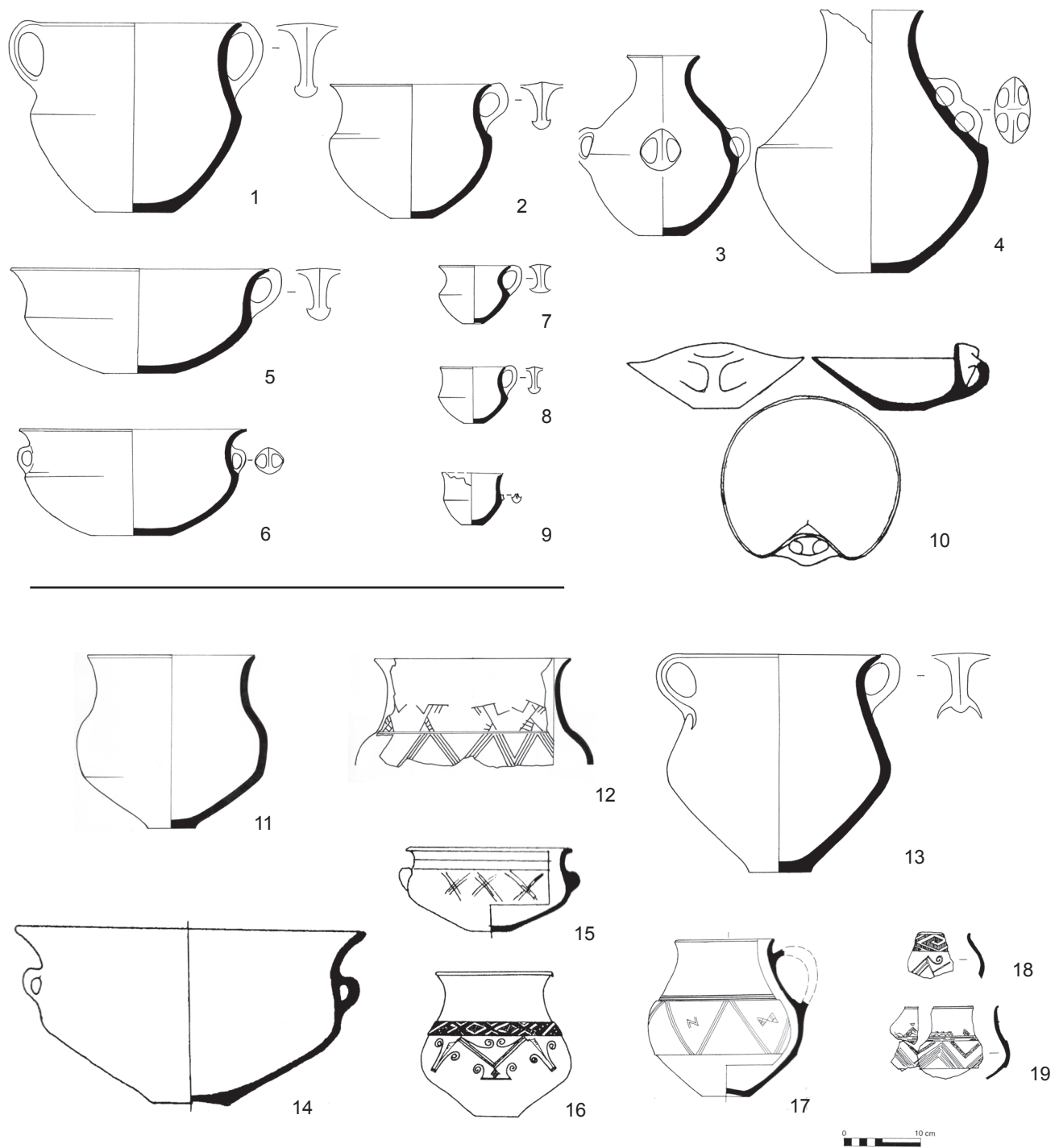


Fig. 5 – Pottery of the KA II (1-9) and III phases (10-19). **1-7** Kvatskhela cemetery (from Puturidze and Rova: fig. 13, c1; fig. 16, b1; fig. 17, a1, b2; fig. 18, 1-3); **8-9** Urbnisi cemetery (from Puturidze and Rova 2012: fig. 23, 3-4); **10** Tsikhiagora Level I (from Makharadze 2008: fig. 16, 2); **11-13** Aradeti Orgora / Doghlauri cemetery (from Puturidze and Rova 2012: fig. 30, 4 and 6; fig. 33, 2); **14-19** Tsikhiagora, Level I (from Makharadze 2008: fig. 11, 2; fig. 12, 1; fig. 13, 1; fig. 24, 3 and 7).

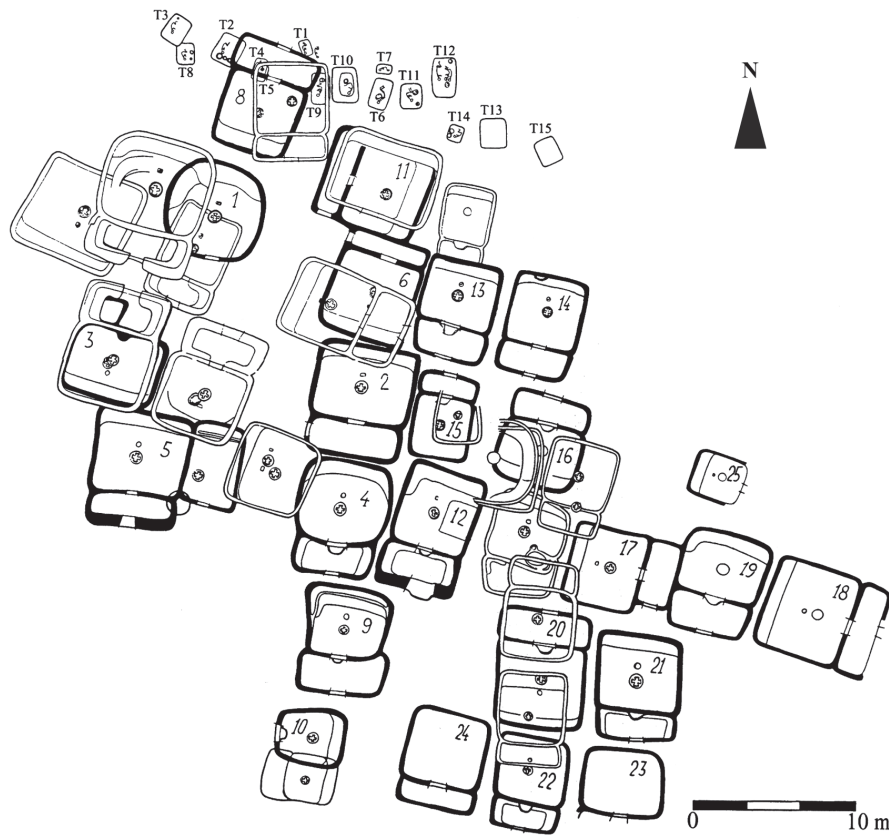


Fig. 6 – Plan of the Kvatskhela village (Phase C in black, Phase B in white) with location of the excavated graves (from Puturidze and Rova 2012: fig. 11b).

concentric circles, rare zoomorphic designs) is also attested, but more rarely than in the neighbouring regions. The presence of rare painted sherds has been also recorded (Sagona 1984: 39; Palumbi 2008: 179-180). This pottery has close similarities with contemporary pottery from Southern Georgia (Amiranis Gora) and Armenia (Karnut-Shangavit group, see Smith *et al.* 2009: 47-51; see also Palumbi 2008: 192-200; Sagona 1984). Some of its features appear to anticipate, both in shape and in decoration, the later Martqopi production.

TOPOGRAPHY AND ARCHITECTURE

Kura-Araxes levels have rarely been exposed over larger areas, the only significant exception being the Phase C1 village at Kvatskhela, where 25 different dwelling units were excavated (fig. 6), which is therefore considered to be representative of KA villages in Shida Kartli. It was composed

of architectural units of the same type, which differed from each other only in dimensions (from 30 to 50 m²) and smaller details, standing close to each other, grouped into clusters separated by alleyways and small courtyards. The standard plan (fig. 7: 2) is composed by a squarish room with rounded corners, generally with a rectangular annex ('vestibule') on the front. A fixed clay hearth with inner projections was lying in the centre of the main room¹¹ and a post-hole for supporting the roof was placed next to it. A low bench was generally running along the back wall, and two similar benches were sometimes leaning to the annex's side walls. Houses generally had stone foundations, walls built of wattle and daub, sometimes combined with mud-bricks, clay floors and wooden roofs. The walls were about 30-40 cm thick and were made of poles set at a distance of 18-20 cm from each other, coated by a thick layer of clay. This module is repeated with significant homogeneity

11. In some cases, a second hearth of the same type was placed near one of the room's corners.

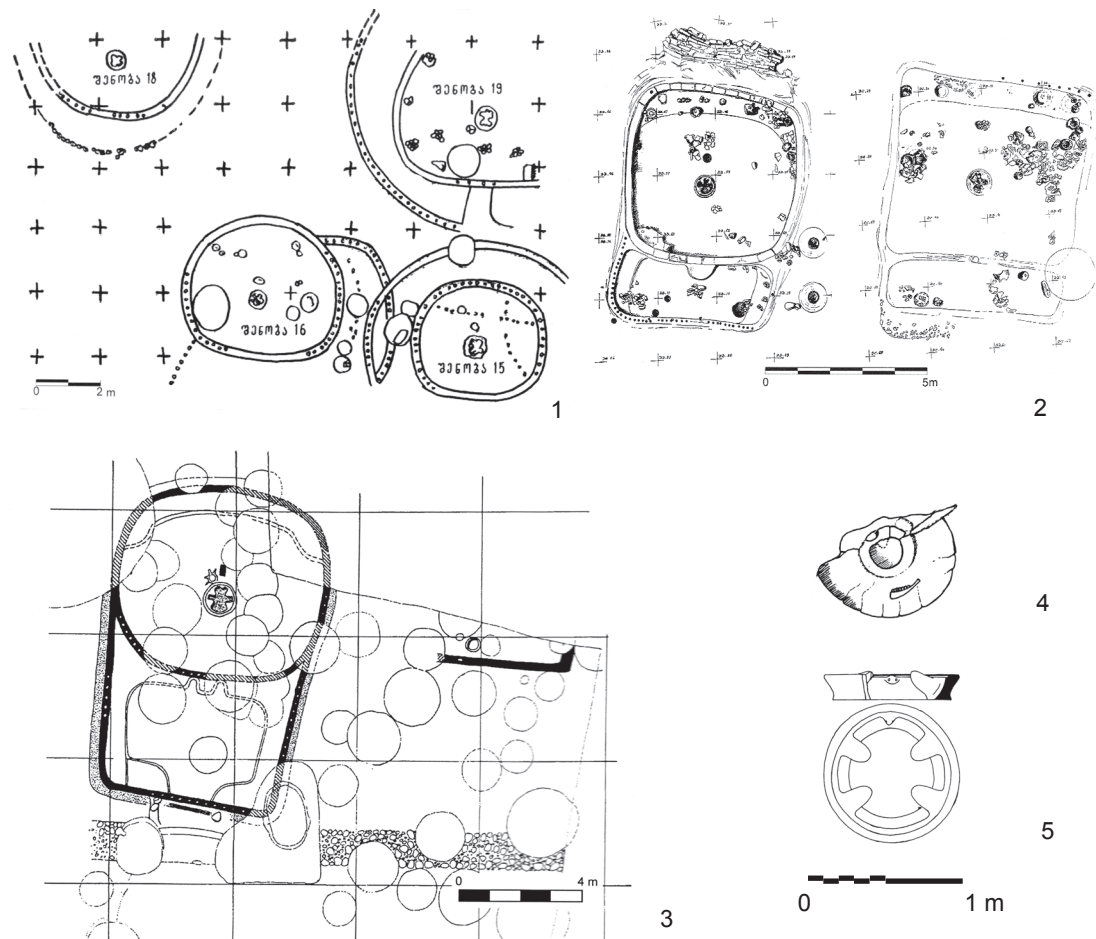


Fig. 7 – Examples of KA architecture (1-3). **1)** Khizanaant Gora, Phase D (from Palumbi 2008: fig. 5.18, 1); **2)** Khavtskhela, phase C1 (from Palumbi 2008: fig. 5.12, 3-4); **3)** Tsikhiagora, Level B2 (from Makharadze 2008: fig. 9) – Examples of hearths (4-5). **4)** round hearth from Takhtidziri (from Puturidze and Rova 2012: fig. 39a); **5)** ‘clover-leaf-shaped’ hearth from Tsikhiagora (from Makharadze 2008: fig. 18).

at all the KA II and III settlements of the region (Gudabertka, Khizanaant Gora C-D, Tsikhiagora (fig. 7: 3), Mchadijvaris Gora) in which intelligible house plans have been discovered, and can therefore be considered typical of it. Outside Shida Kartli, it is occasionally attested in the Elaziğ region of the Upper Euphrates, *e.g.* at Norşuntepe, Değirmen-tepe, and Taşkun Mevkii (Sagona 1984: 99, 104; see also Palumbi 2008: 270, figs. 6.43-44). It appears to have evolved from a rounded house plan, which is typical of Phase KA I (Khizanaant Gora E, Berikldeebi IV), and is still attested in the early KA II phase: Khizanaant Gora D¹² (fig. 7: 1), Natsargora (?).

12. The houses from Khizanaant Gora D were surrounded by an outer wall, or fence, of circular shape.

Fixed clay hearths were the most common installations. They seem to have evolved from a circular type with a central hole, typical for phase KA I (Berikldeebi IV, Khizanaant Gora E, Takhtidziri) (fig. 7: 4) into the ubiquitous type with inner projections (‘clover-leaf-shaped’), which is a hallmark of the KA II and III phases in the region.¹³ This type has three or four large projections, at times joined by a smaller one, which sometimes shows anthropomorphic features (fig. 7: 5). While projections are clearly intended for supporting a pot, and therefore suggest an utilitar-

13. Outside Shida Kartli, examples have been found in the Turkish Upper Euphrates (Norşuntepe: see Palumbi 2008: Figs. 6.43-44). A slightly different type is found in Armenia, *e.g.* at Shengavit (Kushnareva 1997: 57-58; Sagona 1984: 55).

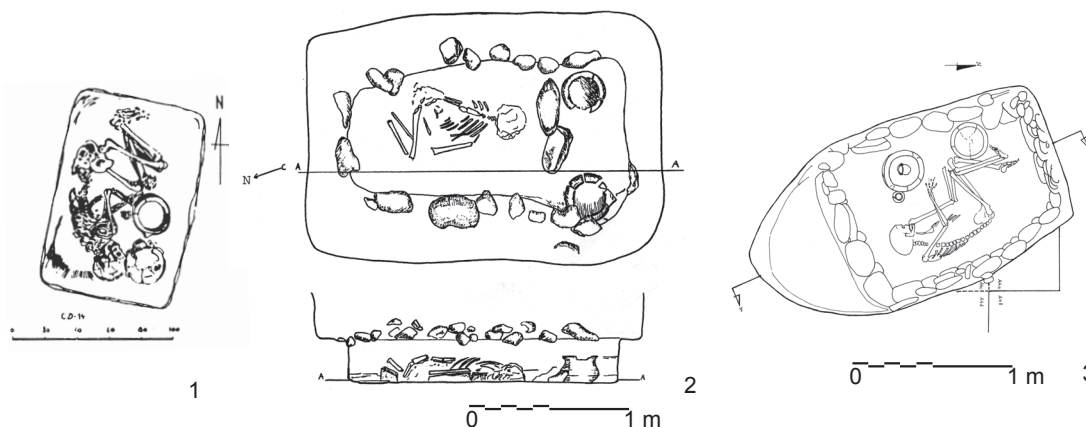


Fig. 8 – Examples of KA graves. 1) Kvatskhela, grave 5 (from Puturidze and Rova 2012: fig. 14a); 2) Aradetis Orgora, grave 23 (from Puturidze and Rova 2012: fig. 32); 3) Takhtidziri, grave 35 (from Puturidze and Rova 2012: fig. 42a).

ian use, the presence of anthropomorphic features indicates that hearths also had a symbolic value, and were probably the seat of domestic rituals (Smogorzewska 2004). Recent excavations at Natsargora have however shown that ‘clover-leaf-shaped’ hearths were by no means the only pyrotechnical installations in use in the region, but were joined by a large variety of mainly open-air firing installations of different types (Rova *et al.* 2014).

To sum up, KA villages in Shida Kartli appear as small clusters of rather undifferentiated dwelling units with little or no inter-settlement specialisation. Buildings possibly devoted to cultic activities are reported from Kvatskhela and Gudabertka: they do not significantly differ from the remaining units, except for their curvilinear plan and for the presence of a painted decoration and ‘special’ finds. There is also hardly any evidence for specialised areas devoted to economical activities, or for other communal structures. Although metal objects and objects connected with metal production are well attested, the presence of ‘a metallurgical workshop’ is reported only at Gudabertka, thus suggesting that these activities were carried out at domestic level. Storage facilities, mainly consisting of pits, were probably attached to individual houses. Only at Natsargora part of the site appears to have been occupied by an open area mainly used for cereal processing activities, and the rare cases of prepared paths which cross the villages (*e.g.*, at Tsikhiagora B2) do not certainly require a high level of planning and coordination by their inhabitants.

Settlements were generally unfortified,¹⁴ although most of them were situated in naturally protected locations, typi-

14. Fortifications appear to be present at KA sites in Armenia, although even there in some cases their dating is not beyond doubt (see Kohl 2009: 249-250).

cally on the cliff overlooking the river (Khizanaant Gora, Kvatskhela), or on steep-sided natural mounds (Natsargora). It had been suggested that the sides of these natural hills were artificially shaped in order to improve their defensive power, *e.g.* by creating a sort of ditch around them (Lordkipanidze 1991: 44), but this was not confirmed by geological investigations (Furlani *et al.* 2012: 63).

BURIAL CUSTOMS

The Shida Kartli variant of the KA culture stands out for a strong homogeneity in burial customs (Puturidze and Rova 2012: especially 29-38).¹⁵ Stone cist graves, frequent in Kvemo Kartli, Armenia and Southeastern Turkey, and horse-shoe-shaped ones, attested in Kvemo Kartli and Armenia, are completely absent; typically, KA graves in Shida Kartli are simple pit graves, occasionally lined with stones and covered by a group of stones (figs. 8-9). Kura-Araxes kurgans have been reported only from Tqviavi (three examples, two of which appear to have been collective burials).¹⁶

Nearly 90 graves were published up to now: the largest group (26) comes from Natsargora cemetery, followed

15. On burial customs between the Southern Caucasus and the Upper Euphrates valley, see Palumbi 2007-2008 and 2008: 136-156, 107-135, 157-213, etc.; on burial customs in the KA and Early Kurgan cultures, see Sagona 2004.

16. The kurgans from the Sachkhere area represent under many respects a separate group, and will be therefore not discussed in detail.

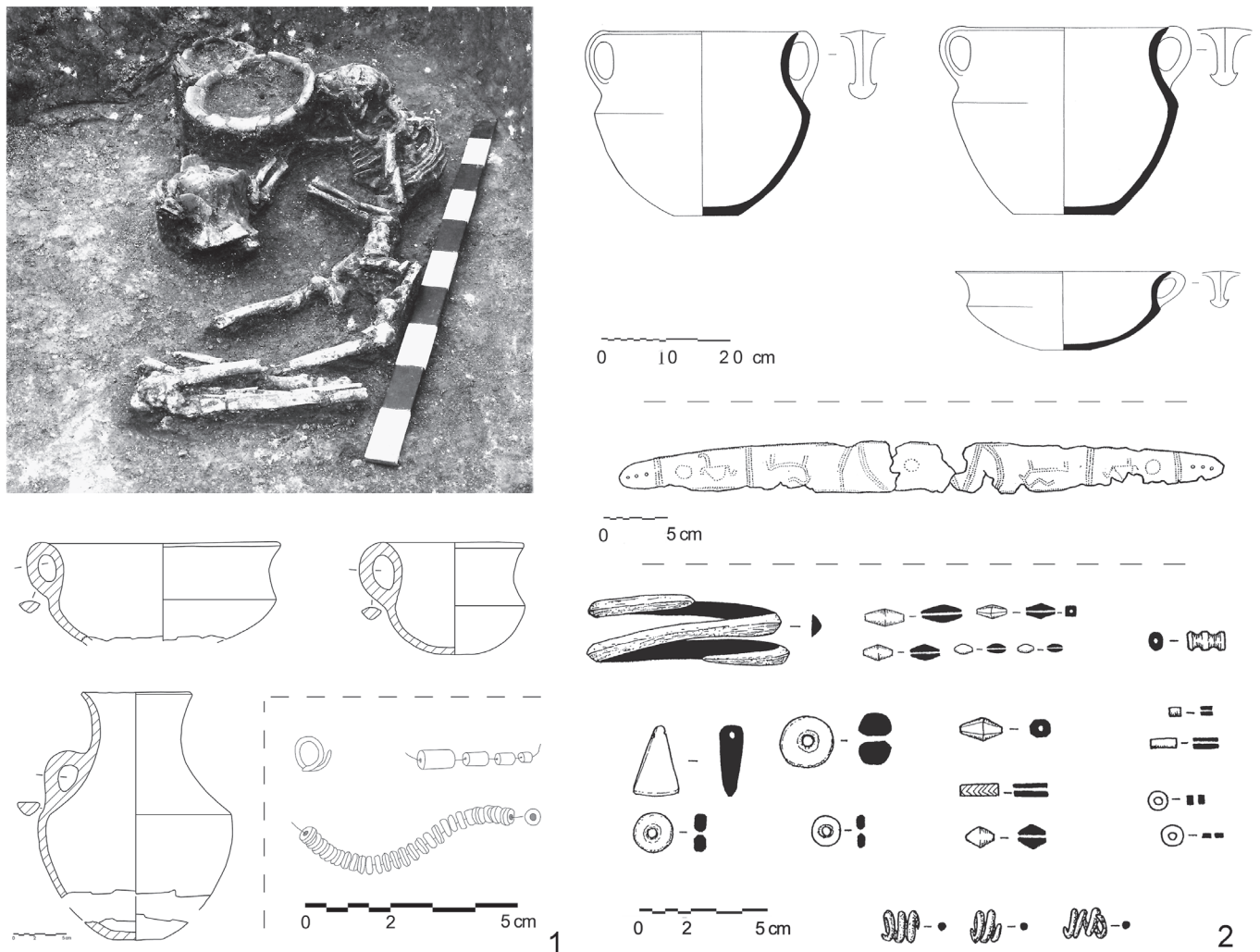


Fig. 9 – Burial goods. 1) grave 243 at Natsargora (from Puturidze and Rova 2012: pl. 16, 1; fig. 3b);
2) grave 2 at Kvatskhela (from Puturidze and Rova 2012: fig. 12).

by Kvatskhela-Tvlepia (19), Aradeti Orgora/Doghauri (13), Dzaghina (12), Urnisi (9), Takhtidziri, Tqviavi and Nuli (Puturidze and Rova 2012). To the exception of the graves from Aradeti Orgora/Doghauri, which can be attributed to the KA III phase, and of the Tqviavi kurgans, whose date is unclear, all of them apparently belong to the KA II phase, though possibly with slight chronological differences among them.¹⁷

In most cases, one is dealing with cemeteries, often but not always associated with a nearby settlement. None of them was completely excavated, but it can be assumed that they were

generally of rather small size; the case of Kvatskhela suggests that the location of the village cemetery could change in the course of time. Individual graves in shallow pits of rectangular shape are numerically dominant. The body was generally lying directly under the stones, but in a few cases the pit may have been covered by a wooden roof. Double or triple inhumations are, though not frequently, attested (they often contain at least one child), but collective burials with more than three skeletons are quite rare.¹⁸ Orientation and position of the body were governed by very strict rules: it almost invariably lay on

17. Thus, the cemeteries of Kvatskhela, Natsargora and Dzaghina West may represent a slightly earlier phase, those at Urnisi, Takhtidziri and Dzaghina East a slightly later sub-phase.

18. Kurgan 1 at Tqviavi, which contained the remains of 42 individuals, represents a real exception. Collective graves become more frequent in the late phase of the period, and are typical of the Sachkhere area.

one side in contracted position, generally with both hands in front of the face, oriented in north-south direction with the head pointing south.

Burial goods were in most cases rather poor (fig. 9). They included a small number of pottery vessels, sometimes accompanied by a few metal ornaments or weapons, some beads of metal, stone and ‘paste’, and, more rarely, flint blades or arrowheads, and bone or clay spindle-whorls. In general, multiple burials contain a larger amount of items than individual ones. The presence of an open and of a closed vessel appears to be a constant feature; it seems reasonable to think that they represented a sort of standard equipment of an adult individual grave, which could be integrated by additional items. Vessels were generally located between the head and the chest, a position which is suggestive of a laid meal for the dead. The position of metal and other items, on the contrary, suggests that these should be interpreted as personal belongings worn by the deceased rather than as offerings by the survivors.

While the homogeneity of burial goods and their low number would suggest a fundamentally egalitarian society, at least one find, grave no. 2 at Kvatskhela (fig. 9: 2), appears to contradict this impression. This grave is actually one of the richest of the whole Southern Caucasus, and shows interesting similarities with the roughly contemporary “Royal tomb” of Arslantepe (Palumbi 2008: 107-156, 174-175). It contained the remains of two individuals, probably a male and a female, facing each other in strongly contracted position, accompanied by three pottery vessels. The female (?) skeleton was adorned with a decorated copper diadem and wore a copper bracelet; a large number of copper, carnelian and ‘paste’ beads and a carnelian pendant were found scattered in the area of the chest and neck, and four silver spirals on the back.

CLAY, METAL AND OTHER SMALL FINDS

Most small finds categories are similar to those from other areas of distribution of the KA culture; we will therefore not describe all of them in detail, but concentrate only on the most significant ones.

CLAY

Mobile hearths and andirons, one of the most typical items of the KA “cultural package” (Smogorzewska 2004), are also attested in Shida Kartli though, seemingly, not so often as else-

where (fig. 10: 1-4). This fact, together with the ubiquity of fixed clay hearths, may suggest that the local population practiced a more sedentary style of life compared with other regions. Be that as it may, horseshoe-shaped andirons and small portable hearths with inner projections are present at Kvatskhela and Khizanaant Gora together with portable hearths in the shape of house models (so-called ‘incense burners’) with parallels in Southern Georgia (Shanshiashvili and Narimanishvili 2009). Other clay items associated with pyrotechnical activities are small clay objects, either pierced or unpierced, in the shape of a cylinder or a truncated cone (Smogorzewska 2004: 157; Tonussi 2014).

Animal figurines of sheep, bulls and dogs are rather commonly found, and rough anthropomorphic figurines are reported from different sites (Khizanaant Gora, Kvatskhela, Gudabertka, Tsikhiagora) (fig. 10: 5-6); the possible presence of terracotta wagon models is suggested by the recovery of terracotta wheels.¹⁹ According to Georgian archaeologists (*e.g.*, Lordkipanidze 1991: 51-53) these objects have often been found in contexts (*e.g.* at Kvatskhela and Gudabertka) which suggest that they had a cultic function.

METAL

It is a well-known fact that KA people were skilled metallurgists, and the Shida Kartli region represents no exception to the rule:²⁰ metal objects have been found at many sites in the region, though, with the exception of the Sachkhere barrows, generally not in substantial numbers. Evidence for metal working is equally widespread, though not very conspicuous: the discovery of a metallurgical workshop is reported only at Gudabertka, but crucibles and casting moulds (fig. 11: 1-3) have been found at several sites (Kvatskhela, Khizanaant Gora, Mchadijvaris Gora, Natsargora) (Gambashidze *et al.* 2010: 214-219). All these sites, located in the Kura River plain or in its vicinity, but at a short distance from ore sources,²¹ were probably centres in which ‘transformation metallurgy’ (melting and casting) was performed. Such activities, if carried out on a small, domestic, scale, do not actually require large

19. Notice, however, that some of these ‘wheels’ might also be interpreted as spindle-whorls.

20. Gambashidze *et al.* 2010 offer a complete catalogue of KA metal objects from Georgia, with results of chemical analyses on their composition; for a comprehensive analysis of metallurgy in the Caucasus, see Courcier 2007; 2010a and b.

21. *E.g.*, according to Courcier 2010a: 232, Khvatskhela, Khizanaant Gora and Gudabertka were all located less than 10 km from the nearest known cupriferous sources.

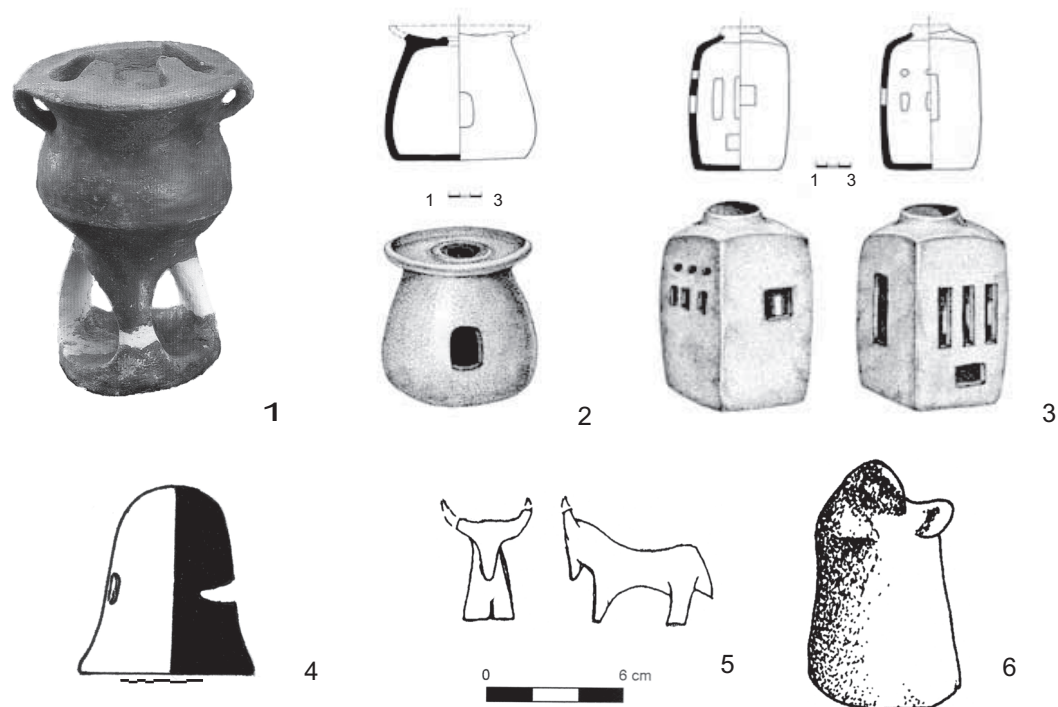


Fig. 10 – Clay objects: mobile hearths and andirons (1-4), animal and human figurines (5-6). **1**) Kvatskhela (from Miron und Orthmann 1995: Abb. 36); **2**) Khizanaant Gora (from Shanshiashvili and Narimanishvili 2009: fig. p. 14); **3**) Khvatskhela (from Shanshiashvili and Narimanishvili 2009: fig. p. 15); **4**) Takhtidziri (from Puturidze and Rova 2012: fig. 39b, 1); **5**) Tsikhiagora (from Makharadze 2008: fig. 29, 1); **6**) Tsikhiagora (from Makharadze 2008: fig. 16, 1).

facilities and heavy equipment (Tonussi 2014). In northwest direction, the Kvirila River valley (Sachkhere), which is also favourably located for the access to metal ores, was probably another important centre of metallurgical production (Courcier 2010a: 232). All the finds connected to metallurgy from Shida Kartli belong to well-known types which occur throughout the distribution area of the KA culture, and witness to a shared set of technological knowledge and habits.

Similarly, most metal objects belong to popular types, which between the late 4th and the mid-3rd millennia BC circulated over the whole territory occupied by the KA groups and even beyond this. By far their majority is made of copper alloys; silver is also attested, but is exceptionally rare.²² Arsenical copper, containing between 1-2 and 10% of the former, is virtually exclusive, in accordance with evidence from the remaining KA regions. Copper-arsenic-antimony alloys

22. Silver 'spirals' (hair-rings) were found in graves at Kvatskhela and at Aradeti Orgora (Courcier 2010a: 208). Other silver rings and, notably, one gold ring were found in the Sachkhere burials (Gambashidze *et al.* 2010: 231, etc.).

are attested in the Sachkhere area; they possibly come from sources located in the Rioni River valley, in which natural deposits of these minerals occur (Gambashidze *et al.* 2001: 99-100; Gambashidze *et al.* 2010).

The most important finds from the region are the three diadems made of a copper sheet decorated by *repoussé* technique with geometric and zoomorphic designs (fig. 11: 4-6), from Kvatskhela and Gudabertka (Gambashidze *et al.* 2010: 222-224; Mindiashvili 2012). They are very similar to each other, and almost identical to the three diadems from the "Royal tomb" of Arslantepe (Palumbi 2008: figs. 4.3, 4.8, 4.18).

Pins (fig. 11: 7-10) belong for the most part to the double-volute (or 'double-spiral')-headed type, one of the most typical productions of the late 4th-early 3rd millennia cultures of the Southern Caucasus, which from there spread into the Upper Euphrates region and beyond.²³ Particularly characteristic of the KA II phase in Shida Kartli is the variant characterised

23. For a general discussion of the different types of double-spiral-headed pins and of their distribution, see Palumbi 2008: 128; Puturidze and Rova 2012: 49-50; Courcier 2010a: 205.

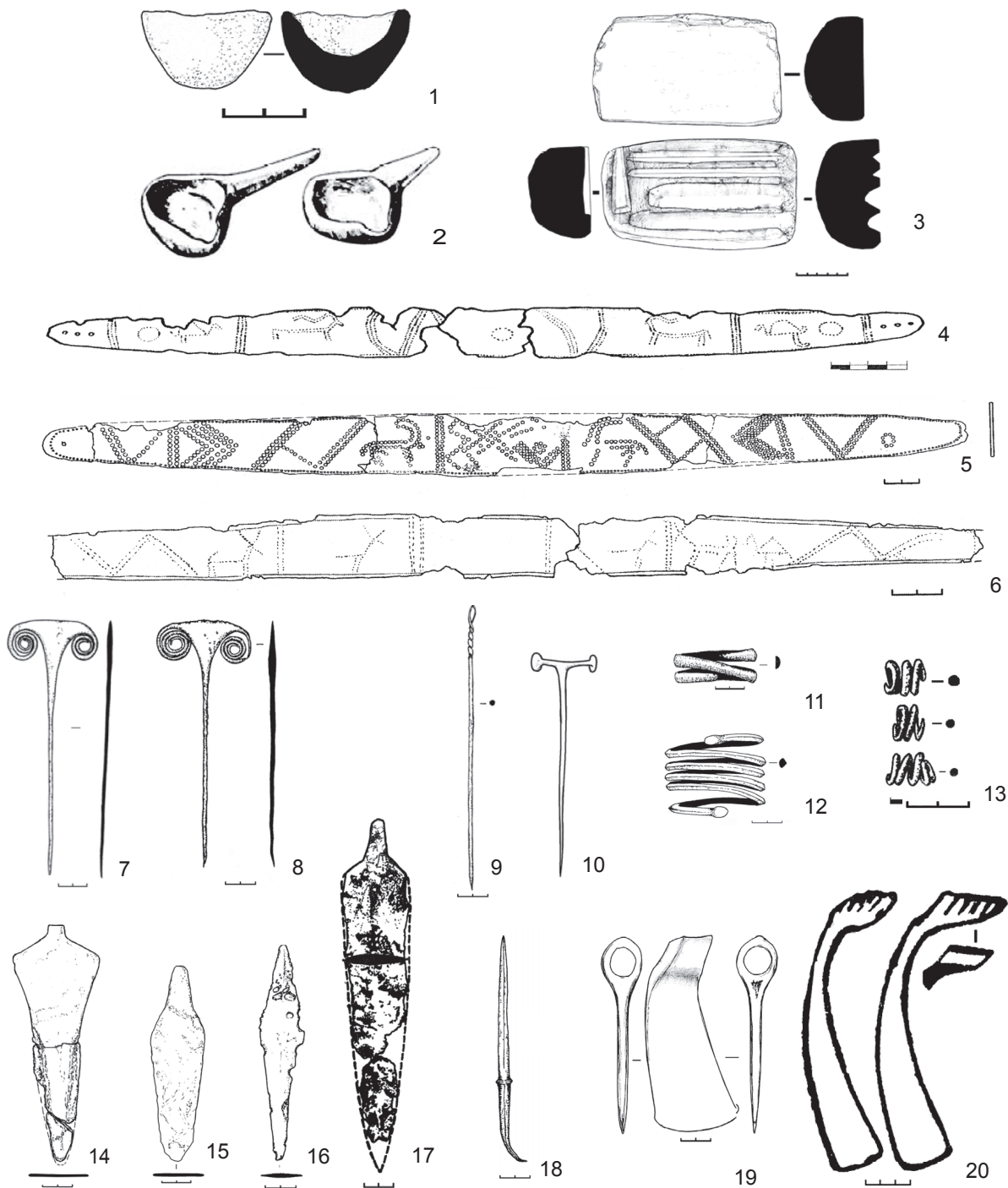


Fig. 11 – Crucibles and moulds (1-3), metal ornaments (diadems, pins, bracelets, ‘spirals’) (4-13) and metal weapons (14-20). **1-2** Khizanaant Gora (from Gambashidze et al. 2010: pl. V, 78, 88); **3** Gudabertka (from Ibid.: pl. VIII, 139); **4** Kvatskhela cemetery (from Ibid.: pl. VII, 116); **5-6** Gudabertka (from Ibid.: pl. X, 153-154); **7** Urbnisi cemetery (from Ibid.: pl. V, 90); **8** Kvatskhela 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** Tlepias 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.

by a nearly flat triangular head.²⁴ Pins with an upper twisted shank and/or loop-shaped head are rare, and probably late, in the province, but more numerous in the Sachkhere area (Gambashidze *et al.* 2010: 184-185, 187, 191);²⁵ pins with a “T-shaped” head have a similar distribution (*Ibid.*: 184, 186, 190; Courcier 2010a: 205).²⁶

Bracelets (fig. 11: 11-12) are invariably of the spiral type, either with triangular or (more rarely) oval-flat cross section.²⁷ This simple shape is relatively common in Georgia; it is typical of the KA period and apparently does not occur in the following periods, when thick one-coil bracelets came into use. Spiral-shaped rings (fig. 11: 13) are quite frequent in the KA II and III cemeteries of the region (Gambashidze *et al.* 2010: 208-210, 211-213; Puturidze and Rova 2012: 51-52). These objects have a very wide distribution, from the Northern Caucasus to Southern Mesopotamia, over most of the 3rd millennium BC. They are very common on KA sites and it can be supposed that they belonged to the typical ornaments of these population groups. Small pendants and beads of different types (Gambashidze *et al.* 2010: 192-195 and elsewhere) complete the repertoire of metal ornaments.

Metal weapons (fig. 11: 14-20) are not very common, but this may depend on the chances of discovery, as proved by the important group of finds from Gudabertka (Gambashidze *et al.* 2010: Pl. IX). Most common are ‘daggers’,²⁸ which occur at different sites and in different variants (*Ibid.*: 157-166), all of which belong to the standard KA assemblage and have a wide geographical distribution.²⁹ Bayonet-like spearheads with quadrangular section occur at Tvlepias Tsqharo, Khizanaant Gora, and Kvemo Aranisi (*Ibid.*: 167, 169-170, 176, 179-180),³⁰ while other common spearhead types (*e.g.*, those with tripartite blade) appear to be limited to the Sachkhere area. Socketed axes are occasionally reported, often as chance finds (*Ibid.*: 146-150): they belong to rather simple and common types.³¹

Elaborated socketed axes (probably with a ceremonial function) (*Ibid.*: 152-153, 156) are, on the contrary, a peculiarity of the Sachkhere area, where they occur in funerary contexts, though one of them was also found in Kareli.³² Metal tools are also not very frequent; all of them belong to well-known and widely distributed types, and do not need to be individually discussed.

CHIPPED LITHICS

The raw material for chipped lithics was mainly flint, presumably of local origin. Obsidian was available to the inhabitants of the Shida Kartli region, but only rarely used for formal tools: according to provenance analysis, it came from the Ch’ikiani volcano in the Paravani district of Southern Georgia.³³ Flint tools belong to very common types and find numerous parallels in EBA contexts in Georgia and elsewhere. Serrated blades occur in a variety of shapes and generally show evidence of gloss along their worked edge. Most of them were probably used as segments of composite sickles, as shown by the recovery of still in situ examples.³⁴ Small arrow-heads with straight or tanged base (the latter generally with small, disproportional wings) are also rather typical; they have been found both in settlement and in funerary contexts.

SUBSISTENCE AND ECONOMY, EXTERNAL CONNECTIONS, SOCIAL ORGANISATION

In Shida Kartli as elsewhere, cumulative evidence for reconstructing these aspects of the KA culture offers a contradictory picture, and is open to different interpretations. A first point at issue concerns the degree of sedentism of the KA population, and the importance of pastoralism within its economical system. The presence in the Kura River plain of numerous KA settlements, some of which relatively large and with a significant continuity of occupation, suggests the existence of a substantial sedentary population. The widespread occurrence of cereal grains and the large number of flint sickle-blades confirm that cereal agriculture represented an

24. Gambashidze *et al.* 2010: 182, 186, 188, variant b. Variant a is attested at Dzaghina East cemetery, and variant c is found in the cemeteries of the Sachkhere area.

25. This type has a wide international distribution: see Bobokhyan 2008: 61, pls. 30/11-15, 73/1, map 14; Palumbi 2008: 130.

26. At a later time, this type spread to the Northern Caucasus and from there to Eastern Europe (Bobokhyan 2008: 61, footnote 694, pl. 30).

27. Gambashidze *et al.* 2010: 203, 205-206; for discussion and parallels, also Puturidze and Rova 2012: 51.

28. Some of these may equally be defined as swords, or spearheads.

29. For a general discussion, see Courcier 2010a: 200-201, fig. 3.34; more in general, see also Courcier 2007: 222, fig. 26.

30. For the distribution of this type outside Shida Kartli, see Bobokhyan 2008: 57, pl. 23; Courcier 2010a: 203-204, fig. 3.8. See also Courcier 2007: 215, fig. 16, and 2010b: 79, fig. 6.

31. See also Bobokhyan 2008: 54.

32. For a discussion of these types of axes, see also Courcier 2010a: 198-199.

33. Badalyan 2010: 33, 36, now confirmed by new analyses carried out by B. Gratuze on the finds from Natsargora and Okherakhevi: see B. Gratuze and E. Rova’s text in Puturidze and Rova, in preparation (note 6).

34. *E.g.*, at Tsikhiagora (Makharadze 2008: fig. 18, 5-7) and Natsargora (see note 6, Puturidze and Rova in prep.).

important element in the subsistence economy.³⁵ Agriculture was widely integrated by animal husbandry; the presence of cattle and notably pigs besides sheep/goats suggests, however, that animal exploitation was balanced and not addressed to a particular species or to a particular product. There are, in sum, not many clear elements in favor of a specialised pastoral economy, which is sometimes supposed to be typical of KA groups. On the other hand, part of the evidence might indeed be compatible with a relatively mobile style of life, at least by part of the population. The modest depth of KA levels even at sites which show a longer sequence of occupation, and the ephemeral character of most architectural units, frequently re-built in slightly shifted position on the very same spot, may be indicative of frequent, maybe even seasonal, periods of abandonment of the villages by at least part of their population. Small settlements in mountain areas may be interpreted as seasonal camps used by transhumants or pastoralists, though evidence in this direction is hitherto inconclusive.

Considering the question from another point of view, the presence of strong local features in the architecture, burial customs and material culture of Shida Kartli and its homogeneity over the territory would suggest that one is dealing with communities which were deeply rooted in their land, in contact with each other following the valleys of the Kura and its tributaries. Like in other historical periods, the Likhi range at the western limit of the region and the Greater and Lesser Caucasus to the north and to the south represented, on the contrary, not only natural, but also cultural borders. On the other hand, as already noticed many years ago by Sagona in his pioneering study (1984: 97-105), a number of typically 'Shida-Kartlian' features (wattle-and-daub houses with front annex, hearths with inner projections, three-handled jugs, double-volute pins) appear to have been 'exported', during the KA II phase, to other areas. The Upper Euphrates region is particularly prominent among these, while connections with Southern Georgia and Armenia appear to be looser in this phase. The distinctly 'Shida-Kartlian' look of some of the ornaments of the royal tomb of Arslantepe may so much as suggest that the occupants of the grave had a direct contact with our region.³⁶ During the KA III phase, connections of the Shida Kartli region with Southern Georgia and Armenia apparently increased, as

shown by analogies in decorated pottery. At the same time or slightly later, the Sachkhere area at the north-west limit of the province developed new contacts also with Western Georgia and possibly with the Northern Caucasus.

Leaving aside the general question of population movements and of the various factors which have been invoked for explaining the expansion of the KA culture into different regions,³⁷ it can be assumed that metallurgy was one of the intermediaries of the wide-ranging contacts of the Shida Kartli region. In fact, the graves from Kvatskhela and the important finds from Gudabertka suggest that the role of the region as a centre of 'transformation metallurgy' and export of finished goods has probably been underestimated. Imports in the region from the neighboring areas, on the other hand, are not obvious, to the exception of obsidian, which came from sources located at a distance of no more than 70 km.

Different lines of evidence suggest that the socio-political organisation of the KA communities of the Shida Kartli region was rather simple and characterised by very little, if any, social stratification. Most settlements are simple unfortified villages of rather small size;³⁸ they exhibit very little internal differentiation, being generally composed by simple dwelling houses very similar to each other in both plan and size. Handicraft activities appear to have been carried out at the level of individual households and with the help of rather simple installations, and the same is probably valid for cultic activities, in spite of the possible existence of small village shrines. This picture is also supported by funerary evidence: the strong homogeneity in grave construction, body disposition and burial goods, and the absence of conspicuous wealth accumulation suggest that differences in status, if existing at all, were not purposely emphasised. At most, one can observe, toward the end of the period, a trend toward richer collective graves, which may represent the emergence of leading families. Grave 2 at Kvatskhela represents the only possible exception to this picture, although the number of precious items it contained is much lower in comparison with the contemporary 'royal tomb' of Arslantepe.³⁹ Moreover, the types of burial goods (exclusively ornaments and pottery) and the fact that they were apparently associated with the female skeleton may suggest that aspects other than simple

35. For palaeobotanical and palaeozoological data we rely on the preliminary results of ongoing research by experts in the framework of the 'Georgian-Italian Shida Kartli Archaeological project' (see note 6, Puturidze and Rova in prep.).

36. Notice, however, that other features of the Arslantepe tomb suggest connection with other sectors of the Caucasian world (Palumbi 2008: especially chapter 4).

37. For recent summaries of the different hypotheses, see, e.g., Batiuk and Rothman 2007; Kohl 2009.

38. Large settlements of more than 10 ha, as attested in Armenia, Iran or Southern Georgia (Kohl 2009: 250), are hitherto missing.

39. For a thorough discussion of the Arslantepe grave in the context of the relations of the Upper Euphrates region with the Caucasus, see Palumbi 2008: 148-155.

status exhibition and emerging leadership may have played a role in this case.

THE END OF THE KURA-ARAXES CULTURE AND THE EARLY KURGAN CULTURES

The end of the KA culture and the transition to the cultures of the following Early Kurgan (EK) period are still a matter of debate. The traditional view, according to which KA, Martqopi and Bedeni cultures were chronologically following each other, and the KA/EK transition was marked by a significant cultural change, has been called into doubt, in the last decades, by scholars suggesting a degree of continuity, and/or a partial contemporaneity between them. In Georgia, KA, Martqopi and Bedeni materials have been reported to have been associated with each other at several sites (in Shida Kartli, at Tsikhiagora and Khashuri Natsargora);⁴⁰ furthermore, continuity between the KA and the Martqopi culture has been underscored to the detriment of that between the latter and the Bedeni culture.⁴¹

At Tsikhiagora, Level IB1 was attributed by the excavator to the Martqopi, Level IA to the Bedeni stage: in both of them KA pottery was still frequent. A re-examination of the Tsikhiagora material⁴² would however suggest that little, if any, Bedeni material was uncovered at the site, and that most of its pottery is either KA, or Martqopi;⁴³ as a consequence, Level IA should be dated to the Martqopi stage at the latest. As for Natsargora, new research by the Georgian-Italian expedition suggests that the Bedeni material came either from disturbed contexts, or from Bedeni pits cutting the KA II level (Rova *et al.* 2014).⁴⁴ The traditional KA/Martqopi/Bedeni sequence is thus apparently confirmed, allowing for the persistence of KA pottery types into the Martqopi stage.

Evidence for the EK period is less abundant in Shida Kartli than in the provinces of Southern and Eastern Georgia, but

seemingly characterised by similar developments.⁴⁵ In marked contrast to the preceding period, settlement sites are extremely few: most KA villages appear to have been abandoned by the end of the period or shortly after that, and substantial Bedeni settlement layers are hitherto attested only at Berikldeebi (Level III).⁴⁶ This picture is similar to that from the nearby regions,⁴⁷ and suggests increased population mobility and limited settled occupation, apparently often in connection with places which were the seat of ritual activities, as also proved by the increased presence of cultic paraphernalia.⁴⁸

Most available evidence comes from funerary sites: in Shida Kartli, like elsewhere, the EK period is characterised by the spreading of monumental barrow graves. Martqopi kurgans have been found at Tedotsminda and Akhali Nichbisi; Bedeni ones are reported from Berikldeebi (Bebnisi), Doesi, Okherakhevi, and Katriani, and kurgans yielding both Martqopi and Bedeni materials from Khovle and Kheltubani.⁴⁹ They are mostly located in flat areas along the Kura River or in the proximity of smaller water sources. Kurgans from Shida Kartli are smaller in size (less than 30 m in diameter) than contemporary kurgans from Eastern and Southern Georgia, and contain rather modest inventories. The mounds are made of stones and/or earth, and generally have a low underground or overground chamber; they generally host one or two skeletons, but 'cenotaphs' and examples containing only a few bone fragments are also attested. Burial goods consist of a small number of vessels associated with few metal (weapons, pins) and lithic objects; in two cases, traces of wheel-furrows were detected on the chamber's floor. Although on a lesser scale, these kurgans

40. The sites from the Sachkhere area can also be considered 'transitional', since their pottery is definitely of KA tradition, but other aspects of their culture show closer connections with EK developments elsewhere.

41. For a recent summary of the relevant scholarly debate in Georgia, see Puturidze 2012.

42. This is based on published evidence and on a brief examination of the original material carried out by the author in 2009-2010.

43. The material is very similar to that from Badaani (Mirtskhulava 2008) and from kurgan I at Ananauri in Kakheti (W. Orthmann, personal comm.).

44. A detailed analysis of the site's stratigraphical sequence will be given in Puturidze and Rova, in prep. (note 6).

45. See E. Carminati, "The Martqopi and Bedeni Components of the Early Kurgan Complex in Shida Kartli (Georgia): A Reappraisal of the Available Data", poster presented at the International Congress "At the Northern Frontier of Near Eastern Archaeology" (Venice, 09-11/01/2013).

46. This level, unfortunately still unpublished, contained six distinct building horizons. It yielded simple units of squarish shape provided with a large central hearth (Miron und Orthmann 1995: 69, fig. 48), some 'sacrificial platforms' and a large number of ritual (?) pits (M. Jalabadze, personal comm.). Bedeni occupation at Natsargora was proved (see note 6, Puturidze and Rova in prep.) to consist mainly of pits. It is possible, however, that EK levels at some larger sites (notably at Aradeti Orgora: Furlani *et al.* 2012: 63) are still hidden by later occupation.

47. For a Bedeni period 'sanctuary' at Akhali Zhinvali in the Aragvi River valley, see Gogochuri 2008; for a Martqopi settlement at Badaani, see Mirtskhulava 2008.

48. Fragments of cultic relief at Natsargora, hearth with anthropomorphic protrusions at Berikldeebi (Shanshiashvili and Narimanishvili 2009: 14-16), decorated hearth at Akhali Zhinvali (Gogochuri 2008: Figs. 11-12).

49. For complete references, see E. Carminati (note 45); Jalabadze *et al.* 2012: 90-94 (Bebnisi); Rova *et al.* 2010: 17-22 (Okherakhevi); Makhharadze 2008: 67 (Katriani).

apparently attest to phenomena (large investment of workforce in grave construction, wagon-accompanied funeral processions) similar to those characterising the EK period in other regions.

In pottery production, while the Martqopi phase shows, both in technology and in morphology/decoration, a moderate degree of continuity with the previous period, the Bedeni phase witnesses the introduction of remarkable innovations in all these fields, the most significant one being the clear distinction between fine wares, characterised by elaborate shapes (mainly small drinking vessels) and decorations, and coarse wares (Rova *et al.* 2010: 15-16; Puturidze and Rova 2012: 56-57). Continuity in other aspects of material culture appears to be rather low, though available evidence is insufficient to judge.⁵⁰

To sum up, in spite of a modest continuity in some elements of material culture, the transition from the KA to the EK period in Shida Kartli is characterised by a significant change in life style (abandonment of settlements, increased mobility), as well as in social organisation (emergence of local leader burials) and in the sphere of rituals (presence of ‘sanctuaries’, elaborate funerary rituals). It remains a task for future research to ascertain whether this should be connected with endogenous developments, possibly driven by the emulation of foreign traditions, or with the arrival in the region of new population groups.

ABSOLUTE CHRONOLOGY

Internal evidence is still insufficient for building up a reliable absolute chronology of the KA culture in Shida Kartli. Although plausible in general terms, the regional relative chronology is based on the sequences of few, sometimes summarily published multilayer sites, and mainly relies on the comparison of artefact types, which were in use for a long time and show a considerable morphological continuity. In spite of recent research focusing on the collection of new samples for ¹⁴C analysis,⁵¹ radiometric dates for both the KA and the preceding and following periods are still very rare, and those from

50. *E.g.*, metal objects are too few to allow a precise comparison with KA ones. At Berikldeebi, Bedeni architectural units appear to be vaguely reminiscent of KA ones, but miss the typical vestibule, and typical KA ‘clover-leaf-shaped’ hearths appear to be missing as well.

51. In particular, by E. Boaretto (Weizmann Institute of Science, Rehovot, Israel), in the framework of the ‘Georgian-Italian Shida Kartli archaeological project’.

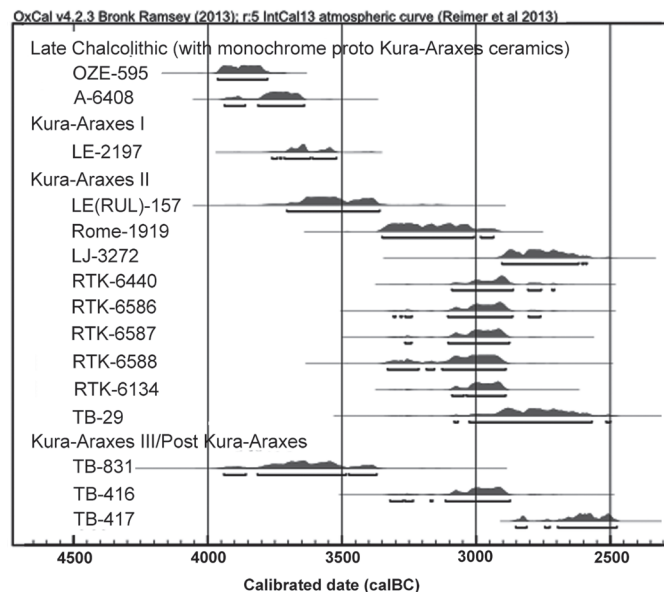


Fig. 12 – Calibrated ¹⁴C dates from the Shida Kartli region.

samples collected a few decades ago are not always reliable. The question should be therefore better tackled by means of a thorough revision of the general chronology of the KA culture over its whole distribution area, a task which lies beyond the scope of the present article, and is fraught with a number of still unsolved difficulties, to start with the same definition of KA in the different regions. We will thus limit ourselves to present the available ¹⁴C data for Shida Kartli (recalibrated, arranged in chronological order and grouped into phases according to our understanding of the regional relative chronology) (table 2; fig. 12) and briefly comment on the most probable dates for each phase.

The ‘Proto-KA’ phase can be probably dated to the first-second quarter of the 4th millennium BC, as confirmed by recent dates for the contemporary Leilatepe and LC 3-4 horizons in the regions of Azerbaijan and of Upper Mesopotamia, while a date between 3600 and, maybe, 3200 BC can be considered reasonable for the KA I phase. Dates for the earlier KA II phase (in particular those from Kvatskhela C1) offer a somehow contradictory picture; recent dates from the contemporary KA level at Natsargora appear however to cluster around the 30th century BC. The rest of KA II phase may thus be fitted into the first quarter of the 3rd millennium.

For the KA III and the KA/EK transitional phases, not only available dates are very few and contradictory, but they cannot be corroborated by dates for the following Martqopi and Bedeni cultures, which are completely missing for Shida

Table 2 – Available ^{14}C dates for the EBA in Shida Kartli (data from Marro et Hauptmann 2000; Sagona and Abramishvili 2008; Palumbi 2008). Samples marked with an asterisk have been analysed in the framework of the ‘Georgian-Italian Shida Kartli Archaeological project’. Notice that some dates (e.g., LE-157, LE-2197) are rather old and their level of reliability is therefore not comparable to that of the more recent ones.

Site, Level, Sample	Lab.	$^{14}\text{C} \pm 1\sigma$ year uncal. BP	Calibrated range BC ($\pm 1\sigma$)	Calibrated range BC ($\pm 2\sigma$)
LATE CHALCOLITHIC:PROTO-KURA-ARAXES				
Berikldeebi, Level V1	OZE-595	5070 \pm 40 BP	3947BC (21.7%) 3909BC 3879BC (46.5%) 3802BC	3964BC (95.4%) 3778BC
Berikldeebi, Level V2	A-6408	4955 \pm 55 BP	3785BC (68.2%) 3661BC	3938BC (12.1%) 3869BC 3812BC (83.3%) 3641BC
KURA-ARAXES I				
Berikldeebi, Level IV1	LE-2197	4850 \pm 50 BP	3701BC (53.3%) 3632BC 3561BC (14.9%) 3537BC	3761BC (2.7%) 3725BC 3715BC (60.6%) 3619BC 3610BC (32.1%) 3521BC
KURA-ARAXES II				
Kvatskhela, Level C1, seeds	LE(RUL)-157	4760 \pm 90 BP	3640BC (52.6%) 3502BC 3428BC (15.6%) 3381BC	3706BC (95.4%) 3361BC
Kvatskhela, Level C1, building 1	Rome - 1919	4465 \pm 55 BP	3331BC (36.7%) 3214BC 3186BC (8.6%) 3156BC 3127BC (12.8%) 3085BC 3064BC (10.1%) 3029BC	3351BC (90.3%) 3009BC 2983BC (5.1%) 2935BC
Kvatskhela, Level C1, charcoal from building 1	LJ-3272	4190 \pm 60 BP	2888BC (17.1%) 2841BC 2813BC (51.1%) 2678BC	2904BC (94.2%) 2619BC 2607BC (0.7%) 2600BC 2593BC (0.5%) 2588BC
Natsargora (Georgian excavation), animal bone from KA pit*	RTK-6440	4300 \pm 55 BP	3011BC (15.9%) 2977BC 2971BC (1.9%) 2966BC 2961BC (4.8%) 2949BC 2944BC (45.6%) 2880BC	3091BC (89.7%) 2862BC 2807BC (5.0%) 2758BC 2718BC (0.7%) 2708BC
Natsargora (Georgian-Italian excavation) seeds from KA surface*	RTK-6586	4325 \pm 60 BP	3017BC (68.2%) 2893BC	3309BC (0.3%) 3300BC 3283BC (0.2%) 3277BC 3265BC (1.4%) 3240BC 3105BC (91.6%) 2865BC 2806BC (1.9%) 2760BC
Natsargora (Georgian-Italian excavation), seeds from KA burnt layer*	RTK-6587	4340 \pm 55 BP	3019BC (68.2%) 2902BC	3308BC (0.1%) 3304BC 3265BC (1.5%) 3241BC 3105BC (93.7%) 2877BC
Natsargora (Georgian-Italian excavation), seeds from filling of KA pit*	RTK-6588	4380 \pm 65 BP	3091BC (68.2%) 2912BC	3331BC (14.9%) 3215BC 3186BC (2.8%) 3156BC 3127BC (77.7%) 2890BC
Aradeti Orgora, charcoal from KA level*	RTK-6134	4345 \pm 45 BP	3013BC (68.2%) 2907BC	3091BC (10.4%) 3044BC 3036BC (85.0%) 2891BC
Khizanaant Gora, seeds from Level C1	TB-29	4220 \pm 90 BP	2911BC (23.1%) 2835BC 2817BC (44.4%) 2666BC 2643BC (0.7%) 2640BC	3082BC (0.6%) 3068BC 3026BC (94.0%) 2569BC 2516BC (0.7%) 2501BC
KURA-ARAXES III/ POST KURA-ARAXES				
Tsikhiagora, Level I, B2	TB-831	4850 \pm 110 BP	3771BC (68.2%) 3519BC	3940BC (6.2%) 3858BC 3815BC (76.9%) 3485BC 3475BC (12.3%) 3371BC
Argweti (Sachkhere), charcoal, upper building level floor	TB-416	4340 \pm 60 BP	3023BC (68.2%) 2897BC	3321BC (2.1%) 3272BC 3266BC (2.2%) 3236BC 3171BC (0.3%) 3162BC 3115BC (90.7%) 2874BC
Argweti (Sachkhere), charcoal, pit	TB-417	4060 \pm 40 BP	2833BC (6.0%) 2819BC 2661BC (3.9%) 2650BC 2635BC (39.1%) 2563BC 2534BC (19.2%) 2494BC	2852BC (10.4%) 2812BC 2745BC (2.4%) 2726BC 2696BC (82.6%) 2476BC

Kartli. Recourse to dates from the neighbouring regions is not very helpful, not only because these suffer from the same problems, but especially because there is still no agreement about when the KA culture disappeared and whether and to what extent it survived contemporary with the cultures which follow it in each area.⁵² With these caveats, considering that we do not have any firm evidence for the co-occurrence, in Shida Kartli, of KA and Bedeni materials, we are inclined to consider a date between 2600-2500 BC at the latest for the disappearance of the KA culture in the area.⁵³

To conclude, only the infusion of fresh ¹⁴C data and the publication of new, well stratified materials from archaeological excavations both in the region and in the surrounding areas may further refine this chronological framework and solve the still existing problems in the internal periodisation of the LC-EBA cultures of the Shida Kartli region, and thereby contribute to a more complete understanding of the peculiarities of the 'Shida-Kartlian' variant of the KA culture.

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Elena ROVA

Università Ca' Foscari di Venezia
Dipartimento di Studi Umanistici
Marcorà-Malcanton – Dorsoduro 3484 D
30123 Venezia – ITALY
erova@unive.it

BIBLIOGRAPHY

BADALYAN R.S.

2010 Obsidian of the South Caucasus: The Use of Raw Materials in the Neolithic to Early Iron Age. In: HANSEN S., HAUPTMANN A., MOTZENBÄCKER I. und PERNICKA E. (Hrsg.), *Von Majkop bis Trialeti. Gewinnung und Verbreitung von Metallen und Obsidian in Kaukasien im 4.-2. Jts. v. Chr.*: 27-38. Bonn: Rudolf Habelt GmbH (*Kolloquien zur Vor- und Frühgeschichte* 13).

BATIUK S.D. and ROTHMAN M.S.

2007 Unraveling Migration, Trade, and Assimilation. *Expedition* 49: 7-17.

BOBOKHYAN A.

2008 *Kommunikation und Austausch im Hochland zwischen Kaukasus und Taurus, ca. 2500-1500 v. Chr.* Oxford (*BAR Int. Ser.* 1853).

COURCIER A.

2007 La métallurgie dans les pays du Caucase au Chalcolithique et au début de l'Age du Bronze: bilan des études et perspectives nouvelles. In: LYONNET B. (éd.): 199-231.

2010a *Les débuts de la métallurgie dans les pays du Caucase, de la fin du VI^e au milieu du III^e millénaire avant notre ère (Chalcolithique et début de l'âge du Bronze): recherches sur*

leur origine d'après le potentiel métallifère, l'analyse d'objets et les relations observées avec les régions voisines. Thèse non publiée: Université de Paris 1 Panthéon-Sorbonne.

2010b Metalliferous potential, metallogenous particularities and extractive metallurgy: interdisciplinary research on understanding the Ancient metallurgy in the Caucasus during the Early Bronze Age. In: HANSEN S., HAUPTMANN A., MOTZENBÄCKER I. und PERNICKA E. (Hrsg.), *Von Majkop bis Trialeti. Gewinnung und Verbreitung von Metallen und Obsidian in Kaukasien im 4.-2. Jts. v. Chr.*: 75-93. Bonn: Rudolf Habelt GmbH (*Kolloquien zur Vor- und Frühgeschichte* 13).

EDENS C.

1995 Transcaucasia at the End of the Early Bronze Age. *Bulletin of the American School of Oriental Research* 299-300: 53-64.

FURLANI S., MONEGATO G., STINGHEN A., ROVA E., KUPARADZE D., BOSCHIAN G., MASSIRONI M. and BONDESAN A.

2012 Paleohydrographic Evolution and its Influence on Human Settlement in the Karthaliny Basin (Georgia). *Alpine and Mediterranean Quaternary* 25: 57-66.

FÜRTWÄNGLER A., GAGOSHIDZE I., LÖHR H. and LUDWIG N.

2008 *Iberia and Rome: The Excavations of the Palace at Dedoplist Gora and the Roman Influence in the Caucasian Kingdom of Iberia.* Langenweissbach: Beier & Beran (*Schriften des Zentrums für Archäologie und Kulturgeschichte des Schwarzmeerraumes* 13).

GAGOSHIDZE I.

2012 Doghlauri (Aradeti Orgora) Cemetery. *Online Archaeology* 3: 12-19.

52. See, for instance, Sagona's view (2004, with references to previous literature) that in Northeastern Anatolia elements of the KA culture persist until the end of the 3rd millennium BC and even beyond it.

53. See Edens 1995: 56-57 (with list of ¹⁴C dates in footnote 1), supported by preliminary results of analyses on samples from Bedeni kurgans in different regions of Georgia collected by E. Boaretto.

- (<http://heritagesites.ge/files/Axali%20Jurnali%203%20iEnglish/>)
- GAGOSHIDZE I. and ELASHVILI M.
2013 Dedoplis Gora. *Online Archaeology* 4: 104-113. (<http://heritagesites.ge/files/Axali%20Jurnali%204%20nomeri/Jurnali-4%20English/>)
- GAMBASHIDZE I., HAUPTMANN A., SLOTTA R. und YALCIN Ü. (Hrsg.)
2001 *Georgien. Schätze aus dem Land des Goldenen Vlies*. Bochum: Deutsches Bergbau-Museum.
- GAMBASHIDZE I., MINDIASHVILI G., GOGOCHURI G., KAKHIANI K. and JAPARIDZE I.
2010 *Udzelesi metalurgia da samto saqme Saqartveloshi dzv. ts. VI - III atatsleulebshi (Alte Metallurgie und Bergbau in Georgien in 6.-3. Jt. v. Chr.)*. Tbilisi: Mtsignobari (in Georgian).
- GOGOCHURI G.
2008 Archaeological Sites of the Early Barrow Period in the Aragvi Gorge. In: SAGONA A. and ABRAMISHVILI M. (eds.): 37-62.
- JALABADZE M., GHLONTI L., KORIDZE I., KETSKHOVELI M. and CHILASHVILI L.
2012 Early Bronze Age Cemeteries from Shida Kartli (Kura-Araxes, Bedeni). In: PUTURIDZE M. and ROVA E. (eds.), *Khashuri Natsargora: The Early Bronze Age Graves (Publications of the Georgian-Italian Shida Kartli Archaeological Project I)*: 59-94. Turnhout: Brepols (*Subartu* 30).
- JAPARIDZE O. (ed.) (= DZHAPARIDZE)
1992 *Sakartvelos arkeologia. v. II. Eneolit – adre brinjaos khana (Archaeology of Georgia. Vol. II. The Eneolithic and Early Bronze Age)*. Tbilisi: Metsniereba (in Georgian).
- JAVAKHISHVILI A. (= DZHAVAKHISHVILI)
1998 Ausgrabungen in Berikdeebi (Shida Kartli). *Georgica* 21: 7-20.
- KIGURADZE T. and SAGONA A.
2003 On the Origins of the Kura-Araxes Cultural Complex. In: RUBINSON K., SMITH A.T. (eds.), *Archaeology in the Borderlands. Investigations in Caucasia and Beyond*: 38-94. Los Angeles: University of California. The Cotsen Institute of Archaeology (*Monograph* 47).
- KOHL P.
2009 Origins, Homelands and Migrations: Situating the Kura-Araxes Early Transcaucasian 'Culture' within the History of Bronze Age Eurasia. *Tel Aviv* 36: 241-265.
- KUSHNAREVA K.Kh.
1997 *The Southern Caucasus in Prehistory: Stages of Cultural and Socioeconomic Development from the Eight to the Second Millennium B.C.* Philadelphia: University Museum, University of Pennsylvania.
- LORDKIPANIDZE O.
1991 *Archäologie in Georgien von der Altsteinzeit zum Mittelalter*. Weinheim: VCH Acta Humaniora.
- LYONNET B. (éd.)
2007 *Les cultures du Caucase (VI^e-III^e millénaires avant notre ère). Leurs relations avec le Proche-Orient*. Paris : CNRS Éditions, ERC.
- MAKHARADZE Z.
2007 Nouvelles données sur le Chalcolithique en Géorgie orientale. In: LYONNET B. (éd.): 123-132.
- 2008 The Settlement of Tsikhiagora and the Early Barrows at Kavtiskhevi. In: SAGONA A. and ABRAMISHVILI M. (eds.): 63-104.
- MARRO C.
2007 Upper-Mesopotamia and Transcaucasia in the Late Chalcolithic Period (4000-3500 BC). In: LYONNET B. (éd.): 77-94.
- 2008 Late Chalcolithic Ceramic Cultures in the Anatolian Highlands. In: RUBINSON K.S. and SAGONA A. (eds.), *Ceramics in Transitions. Chalcolithic Through Iron Age in the Highlands of the Southern Caucasus and Anatolia*: 8-37. Leuven, Paris, Dudley, MA: Peeters (*Ancient Near Eastern Studies Suppl.* 27).
- 2010 Where Did Late Chalcolithic Chaff-Faced Ware Originate? Cultural Dynamics in Anatolia and Transcaucasia at the Dawn of Urban Civilization (ca 4500-3500 BC). *Paléorient* 36,2: 35-55.
- MARRO C. et HAUPTMANN H. (éd.)
2000 *Chronologie des Pays du Caucase et de l'Euphrate aux IV^e-III^e Millénaires*: 329-373. Istanbul: IFEA; Paris (*Varia Anatolica* XI).
- MINDIASHVILI G.
2012 Earliest Diadems from Shida Kartli. *Studies in Caucasian Archaeology* I: 4-11.
- MINDIASHVILI G., IREMISHVILI S. and SHERAZADISHVILI Z.
2012 Gudabertka Settlement (Excavations of 2005, 2009 Years). *Studies in Caucasian Archaeology* I: 234-250.
- MIRON A. und ORTHMANN W. (Hrsg.)
1995 *Unterwegs zum Goldenen Vlies. Archäologische Funde aus Georgien*. Saarbrücken: Stiftung Saarländischer Kulturbesitz.
- MIRTSKHULAVA G.
2008 The Badaani Settlement. In: SAGONA A. and ABRAMISHVILI M. (eds.), *Archaeology in the Southern Caucasus: Perspectives from Georgia*: 105-116. Leuven: Peeters.
- PALUMBI G.
2007-2008 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'Antichità* 14,1: 141-167.
- 2008 *The Red and Black. Social and Cultural Interactions between the Upper Euphrates and Southern Caucasus Communities in the 4th and 3rd Millennium BC*. Roma: Università di Roma "La Sapienza" (*Studi di Preistoria Orientale* 2).
- PUTURIDZE M.
2012 The Dynamic of Continuity in Ceramic Production at the Middle of the III Millennium B.C. *Studies in Caucasian Archaeology* I: 12-70.
- PUTURIDZE M. and ROVA E. (eds.)
2012 *Khashuri Natsargora: The Early Bronze Age Graves (Publications of the Georgian-Italian Shida Kartli Archaeological Project I)*. Turnhout: Brepols (*Subartu* 30).
- ROVA E., MAKHARADZE Z. and PUTURIDZE M.
2014 New Research on the 3rd Millennium BC Cultures of the Southern Caucasus: The 2010 and 2011 field campaigns of the Georgian-Italian Shida Kartli Archaeological Project. In: BIELIŃSKI P., GAWLIKOWSKI M., KOLIŃSKI R., ŁAWECKA D., SOŁTYSIK A. and WYGNAŃSKA Z. (eds.), *Proceedings of the*

- 8th International Congress on the Archaeology of the Ancient Near East (ICAANE)*, Warsaw, 30/04-04/05/2012, vol. 2: 401-416. Wiesbaden: Harrassowitz Verlag.
- ROVA E., PUTURIDZE M. and MAKHARADZE Z.
2010 The Georgian-Italian Shida Kartli Archaeological Project: A Report on the First Two Field Seasons 2009 and 2010. *Rivista di Archeologia* 34 [2011]: 5-30.
- SAGONA A.
1984 *The Caucasian Region in the Early Bronze Age*. Oxford (BAR Int. Ser. 214).
2004 Social Boundaries and Ritual Landscapes in Late Prehistoric Trans-Caucasus and Highland Anatolia. In: SAGONA A. (ed.), *A View from the Highlands. Archaeological Studies in Honour of Charles Burney*: 475-538. Leuven, Paris, Dudley, MA: Peeters (*Ancient Near Eastern Studies Suppl.* 12).
- SAGONA A. and ABRAMISHVILI M. (eds.)
2008 *Archaeology in Southern Caucasus: Perspectives from Georgia*. Leuven, Paris, Dudley, MA: Peeters (*Ancient Near Eastern Studies Suppl.* 19).
- SHANSHIASHVILI N. and NARIMANISHVILI G.
2009 Cultural Interactions of Mesopotamia and the South Caucasus in the Early Bronze Age. In: SKINNER P., TUMANISHVILI D., SHANSHIASHVILI A. (eds.), *Georgian Art in the Context of European and Asian Cultures. 1st International Symposium of Georgian Culture*: 13-17. Tbilisi: Georgian Arts and Culture Center.
- SMITH T.A., BADALYAN R.S. and AVETISYAN P.
2009 *The Archaeology and Geography of Ancient Transcaucasian Societies, Volume 1: The Foundations of Research and Regional Survey in the Tsaghkahovit Plain, Armenia*. Chicago: University Press (OIP 134).
- SMOGORZEWSKA A.
2004 Andirons and their Role in Early Transcaucasian Culture. *Anatolica* 30: 151-177.
- TONUSSI M.
2014 Pierced Andirons and Vessel Supports for Fireplaces from the Caucasus to the Near East in the 4th – 3rd Millennium BC: A Way to Optimize the Heat of Fire? In: BIELIŃSKI P., GAWLIKOWSKI M., KOLIŃSKI R., ŁAWECKA D., SOŁTYSIAK A. and WYGNAŃSKA Z. (eds.), *Proceedings of the 8th International Congress on the Archaeology of the Ancient Near East (ICAANE)*, Warsaw, 30/04-04/05/2012, vol. 3: 31-46. Wiesbaden: Harrassowitz Verlag.
- TSITLANADZE L.
2008 Mchadjivari Gora. In: SAGONA A. and ABRAMISHVILI M. (eds.): 185-203.