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Diversification of the funerary practices in the Southern Caucasus from the Neolithic to the Chalcolithic



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ABSTRACT

The funerary practices of the Neolithic and Chalcolithic populations of the Southern Caucasus are poorly known. However, in the last few years, research in funerary archaeology intensified in the region, using recently developed approaches such as archaeoethnatology. Thanks to the excavation of burials according to this method as well as to the reassessment of the published data, it is possible to achieve a state of knowledge on funerary behavior of these populations. Across the whole region, 23 sites with burials have been recorded: Neolithic (2), Chalcolithic (15), Neolithic and Chalcolithic (2) and uncertain chronological attribution (Neolithic and/or Chalcolithic) (4). All data collected revealed a diversification of the practices from the Neolithic to the Chalcolithic. Neolithic funerary practices are less homogeneous than previously thought and burial sites appear to have been closely related to living places. During the Chalcolithic, a diversification of the ways of burying the dead occurs with the appearance of new types of tombs (burials in ceramic vessels and kurgans) and an evolution of the relations between the place of life and the place of the dead can be seen.

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1. Introduction

From a geographical perspective, the Southern Caucasus presents important subdivisions due to the mountainous terrain, but also a network of ancient communications over the valleys of major rivers and tributaries that connects the various components and ensures their contacts with neighboring cultural centers (Chataigner, 1995). This region has always served as a privileged way of passage for humans and cultures but the prehistory of the Southern Caucasus was until recently poorly known. In the past fifteen years, archaeological research on ancient societies in the Southern Caucasus experienced a new development and a growing interest in the international scientific community as shown by the many ongoing research programs in the region: e.g. *Azerbaijani-*

Japanese Project (directors: F. Guliyev and Y. Nishiaki); *Mission Caucase* (French Ministry of Foreign Affairs, director: C. Chataigner); *Mission Boyuk Kesik* (French Ministry of Foreign Affairs: director: B. Lyonnet); ANR-DFG project *Ancient Kura* (ANR-09-FASHS-002, directors: B. Lyonnet and B. Helwing); ANR-DFG project *Kura in Motion* (ANR-12-FRA-0011, directors: B. Lyonnet and B. Helwing). International excavations have multiplied, producing new data (e.g. ¹⁴C dates, environmental data, data regarding metal objects, ceramics, lithics) which, thanks to current methods of study, helped to review the chronology and the diffusion of the prehistoric cultures.

In the Southern Caucasus, the Neolithic is primarily known through the Shomu-Shulaveri culture, identified in the 1960s in Azerbaijan and Georgia (Kushnareva, 1997; Kiguradze and Menabde, 2004) and long regarded as dating from the 5th millennium. Recent research has shown that this culture actually appeared at the end of the 7th millennium and that it extended further south in the Ararat plain (Kiguradze and Menabde, 2004; Badalyan et al., 2007; Guliyev and Nishiaki, 2012; Lyonnet et al., 2012). Another Neolithic culture, the Kamiltepe culture, was recently described in the Mil plain in Azerbaijan where it has been highlighted from 5600 BC (Helwing et al., 2012; Lyonnet et al.,

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2012). This culture is partly characterized by short-term occupations. The ceramic is painted with geometric patterns that resemble those found on ceramics from the Iranian Highlands. In addition, bone industry is limited and flint and obsidian are both used to make lithic tools (Helwing et al., 2012; Lyonnet et al., 2012).

During the 5th millennium, a new culture, the Sioni culture, developed and extended over a wide area, covering Azerbaijan, Georgia, Armenia, but also part of the North Caucasus, north-western Iran, and eastern Turkey. Houses were still round, but consist of semi-buried huts, and mudbricks disappear. In addition, heavy material such as grinding wheels or sling projectiles become less frequent. All these elements reflect a more mobile lifestyle than during the Shomu-Shulaveri culture (Kiguradze and Menabde, 1981; Kiguradze, 2000). Another culture, the Leilatepe culture, dated to the first half of the 4th millennium, is also known in the region (Aliev and Narimanov, 2001; Lyonnet, 2007, 2009). This culture, with features of the “pre-Uruk expansion”,

has been noted on several sites (including Leilatepe, Boyuk Kesik, Soyuk Bulaq in Azerbaijan and Berikldeebi in Georgia) (Lyonnet, 2007). At Berikldeebi and Leilatepe, a new architecture made of mudbricks and using a rectangular plan, has been observed. The common ceramic seems connected with that of the “Late Chalcolithic” horizon of Mesopotamia (Akhundov, 2007).

Until recently, the funerary practices of the Neolithic and Chalcolithic populations in the Southern Caucasus were very poorly known, due to the small number of burials uncovered (Chataigner, 1995). The available information was characterized by a lack of ^{14}C dates. The description of bodies in the burials was sketchy, when it existed, and the illustrations were rare (Tables 1–3). The published data focused, for the most part, on the grave architecture and on the grave furniture. It thus appears that these data were too uncertain to reach any firm conclusion. The recently collected data are still very few but they suggest new hypotheses which will be tested against data from future excavations.

Table 1

Available information regarding burials of uncertain chronological attribution (Neolithic and/or Chalcolithic) in the Southern Caucasus.

Site	Country	Number of burials	Number of burials with illustration	Number of burials with description	Number of skeletons for which anthropological data have been published	References
Alikemek	Azerbaijan	8	0	Brief general description of the graves	0	Chataigner, 1995
Baba Dervish	Azerbaijan	2	0	Brief general description of the graves	0	Chataigner, 1995
Chalagan Tepe	Azerbaijan	20	0	Brief general description of the graves	0	Chataigner, 1995
Kul Tepe	Nakichevan	85	5	40	0	Abibullaev 1982

Table 2

Available information regarding Neolithic burials in the Southern Caucasus.

Site	Country	Number of burials	Number of burials with illustration	Number of burials with description	Number of skeletons for which anthropological data have been published	References
Aknashen	Armenia	3	3	3	3	Poulmarc'h, 2014a
Mentesh Tepe	Azerbaijan	2	2	2	1	B. Lyonnet and L. Pecqueur, pers. comm.; Lyonnet et al., 2012, this volume; Poulmarc'h, 2014a
Kamiltepe	Azerbaijan	3	3	3	3	Poulmarc'h, 2014a; B. Helwing and M.B. D'Anna, pers. comm.
Aruchlo	Georgia	1	0	1	1	Hansen et al., 2007; J. Wahl pers. comm.

NB: The description of the burial as well as the anthropological study of the human remains have been made by the authors of this article except of Aruchlo and the multiple burial (31 individuals) of Mentesh Tepe.

Table 3

Available information regarding Chalcolithic burials in the Southern Caucasus.

Site	Country	Number of burials	Number of burials with illustration	Number of burials with description	Number of skeletons for which anthropological data have been published	References
Aknalich	Armenia	1	1	1*	1 ¹	F. Muradyan, pers. comm.; Poulmarc'h, 2014a
Areni	Armenia	At least 3	0	3	3 ²	Wilkinson et al., 2012
Godedzor	Armenia	2	2	2*	2 ¹	Poulmarc'h et al., 2011; Poulmarc'h, 2014a
Alkhantepe	Azerbaijan	At least 12	3	3*	0	Akhundov et al., 2010, 2011; T. Akhundov, pers. comm.
Boyuk Kesik	Azerbaijan	6	3	6	0	Museyibli, 2007; Museyibli and Huseynov, 2008
Chinartepe	Azerbaijan	Unknown	0	0	0	Akhundov, 2007
Kamiltepe (MPS 16)	Azerbaijan	1	1	1*	1 ¹	Lyonnet et al., 2012
Leilatepe	Azerbaijan	4	0	4**	0	Akhundov, 2007
Mentesh Tepe	Azerbaijan	1	1	1*	1 ¹	B. Lyonnet and L. Pecqueur, pers. comm.; Poulmarc'h, 2014a
Ovçular Tepese	Azerbaijan	At least 1	0	1**	0	C. Marro, pers. comm.; Marro et al., 2011
Polutepe	Azerbaijan	5	0	0	0	Akhundov et al., 2010
Poylu II	Azerbaijan	6	1	5	1 ³	Museyibli, 2008b, 2009
Soyuk Bulaq	Azerbaijan	27	12	27	0	Lyonnet et al., 2008; Museyibli, 2008a, 2010
Berikledebi	Georgia	1	0	1**	0	Makharadze, 2007; A. Sagona, pers. comm.
Kavtiskhevi	Georgia	1	1	1	No skeletal remains	Makharadze, 2007
Tsiteli Gorebi	Georgia	3	0	0	0	Chataigner, 1995
Tsopi	Georgia	1	0	1**	0	Chataigner, 1995

*Description made by the authors of this article; ** Short description; ¹Study by the authors of this article; ²Only age and sex are available; ³Typological study.

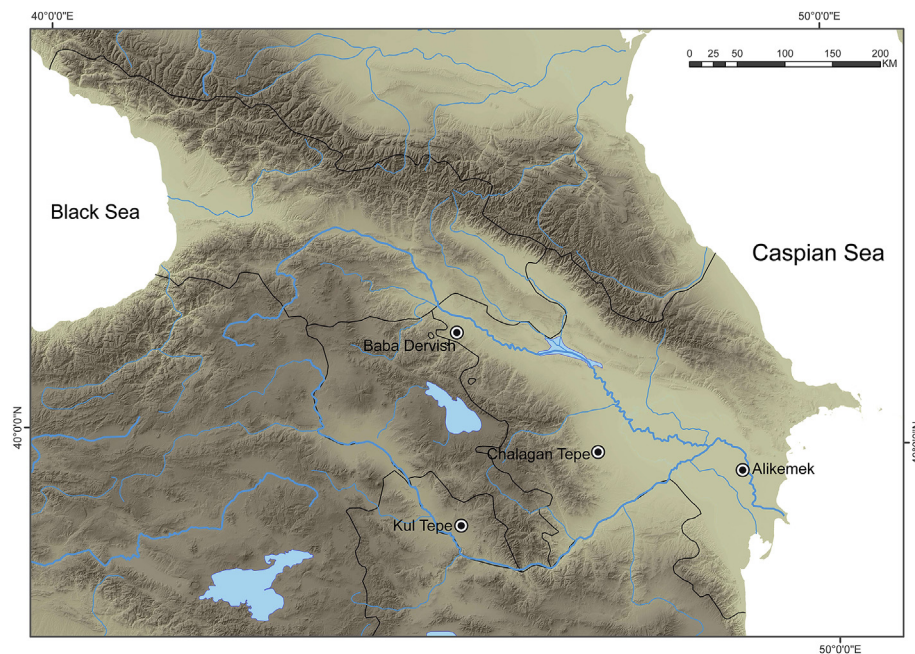


Fig. 1. Distribution map of the Southern Caucasus sites where the presence of burials of uncertain chronological attribution was recorded.

2. Material and methods

Throughout the Southern Caucasus, 23 Neolithic and Chalcolithic sites with funerary deposits are known. Twenty have been geo-located (Poulmarc'h 2014a), using published data (Lyonnet et al., 2008, 2012; Cassard et al., 2010; Wilkinson et al., 2012) as well as unpublished data (T. Akhundov, R. Berthon, C. Chataigner, C. Marro, F. Muradyan and A. Ricci, pers. comm.), in order to analyze the geographic distribution of the different types of tombs. For each site, all the available data – unpublished field data, published data, biological data from the human remains – regarding the burials

have been collected. The amount and type of information available vary greatly from one site to another.

The methods of archaeoethnology (Duday et al., 1990; Duday, 2009), developed in France during the 1980s, were applied to certain sites in this region that have been recently excavated or are in the process of being excavated (Aknashen and Godedzor in Armenia, Mentesh Tepe in Azerbaïdjan) by international teams that include anthropologists who use this method. This innovative approach is based upon field anthropological observations. It includes an accurate record of the position of each bone as well as the recording of any element of the tomb enabling a detailed analysis of

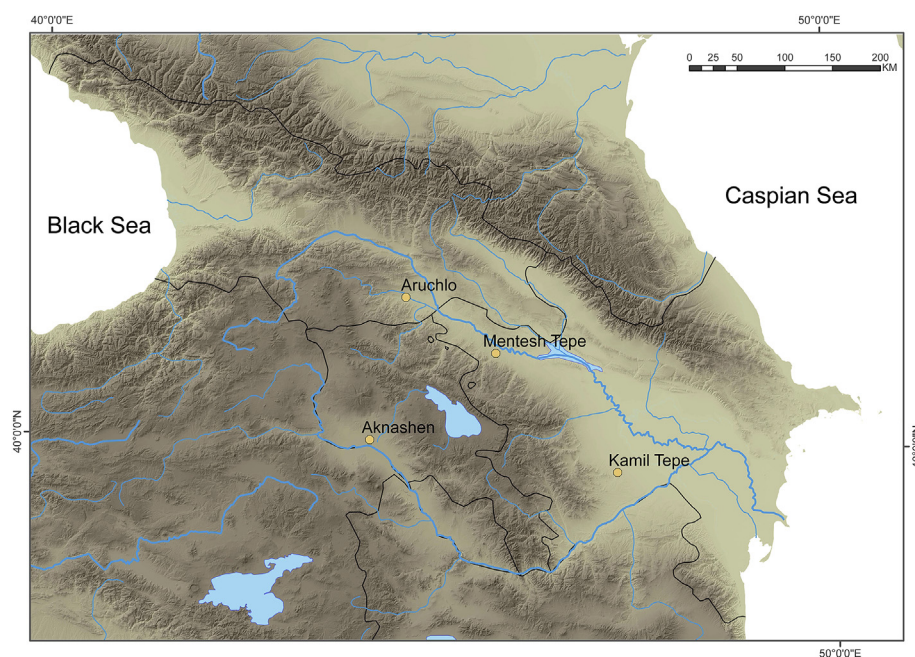


Fig. 2. Distribution map of the Southern Caucasus sites where the presence of Neolithic burials was recorded.

the acts related to the treatment and management of the dead; it permits a reliable description of the mortuary behaviour of the ancient populations. Graphic documentation from other excavations was also analyzed with the same approach.

When the human remains were available (sites of Aknashen, Godedzor and Aknalich in Armenia, sites of Kamiltepe and Mentesh Tepe in Azerbaijan) they were analyzed according to the following methods. The age at death of the immature individuals was estimated based on the degree of dental maturity, using the method of Moorrees et al. (1963a, b), which enables evaluation of the stages of dental formation and resorption; in the case of the individuals who died perinatally, the method of Adalian based on the length of long bones (Adalian, 2001; Adalian et al., 2002), was preferred. For the adults, the age at death was estimated according to the method developed by Schmitt (2005), based on the observation of the sacro-pelvic surface. Sex of the adults was determined using the morphoscopic method of Bruzek (2002).

3. Results

Before describing Neolithic and Chalcolithic funerary practices in the Southern Caucasus, note that the dating of graves found at 4 sites remains uncertain.

The Chalcolithic dating of the graves discovered at the sites of Baba Dervish, Alikemek and Chalagan Tepe (Makhmudov and Narimanov 1974a, 1974b, 1976; Narimanov 1987) (Fig. 1; Table 1) can be considered as unreliable. According to recent studies, it could be possible that ceramics from these sites belong to Neolithic levels (B. Lyonnet, pers. comm.) but no precise date is available for the burials. At Kul Tepe (Fig. 1; Table 1) in Nakhichevan, 85 Neolithic and Chalcolithic graves have been uncovered, either under the floor of the houses or between the buildings (Abibullaev, 1982). Out of the 40 burials that were described, 85% are single burials, 10% contained the remains of 2 individuals and 5% those of 3 or 4 individuals. When the pits contain more than one individual, the available data are not sufficient to determine if the deceased were buried at the same time or successively. The deceased include adult and immature individuals. The bodies lie in a flexed position, resting on the right or left side (79%), or on the back (15%); the burial position is unknown for the other 6%. Grave goods (necklaces, obsidian blades, ceramics) have been found in 71% of the burials (Abibullaev, 1982; Poulmarc'h, 2014a). Unfortunately, we do not know which of the burials are Neolithic.

At these four sites, only pit burials have been discovered, and the published descriptions of the burials mention other on the bodies (Chubinisvili, 1971; Abibullaev, 1982; Chataigner, 1995). Given the uncertain chronological attribution of the tombs discovered at these sites, we do not consider them in our study.

3.1. Neolithic funerary practices

In the Southern Caucasus, Neolithic burials are rare. They have been found at not more than 4 sites: Aknashen in Armenia, Kamiltepe and Mentesh Tepe in Azerbaijan, Aruchlo in Georgia (Fig. 2; Table 2), currently under excavation, and date to the 6th millennium.

On the tell of Aknashen, in the Ararat plain, five levels –four dated to the 6th millennium and one to the first half of the 5th millennium– have been identified (Arimura et al., 2010; Badalyan et al., 2010). The remains of at least three individuals, that were the object of ^{14}C dating (Table 4) and all dated to the 6th millennium, have been recently uncovered in the settlement (Poulmarc'h, 2014a). They include the incomplete skeleton of a perinatal individual (Tr 1 UF 8), whose age at death is estimated at 38 (± 3.34) weeks of gestation, and of at least two adults. The perinatal remains

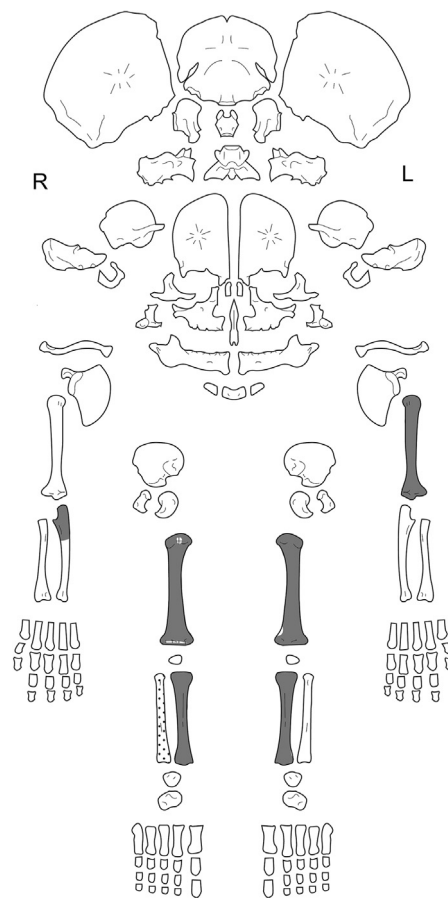


Fig. 3. Aknashen (Armenia), preservation file for the perinatal remains (dotted: the side of the bone is unreliable).

having been accidentally disturbed at the time of their discovery, the way in which they were deposited, as well as the exact place of the deposit, are not known. Nevertheless, taking into account the bones that were found (Fig. 3), it seems probable that they come from a primary burial. The adult skeletal remains probably belong to disturbed burials but it was not possible to determine the time when the perturbation occurred. The remains of one of the individuals (Tr 3 UF 10 F18) have been discovered in a compact and homogeneous level of beaten earth which contains faunal and lithic artifact (Fig. 4). The subject is represented by the skull (Fig. 5) without mandible and possibly by the left coxal bone (age at death estimated to 20–39 years). The other adult individual (Baulk 6–8 UF 7 F1) was found during the excavation of the baulk situated between the trenches 6 and 8 (Fig. 4), a direct relation with adjacent structures could not be established. It is represented by the left lower limb and the right foot and a few hand phalanges (Fig. 6); the preservation of unstable anatomical connections (distal parts of the foot) indicates a primary deposit.

At Kamiltepe, a child burial was discovered in 2013 in the sounding MPS 103 of the Mil Plain Survey (B. Helwing and M.B. D'Anna, pers. comm.). It is a primary deposit located in a building; the body of the child, whose age at death is estimated between 5 and 6 years, was lying on the right side in a flexed position (Poulmarc'h 2014a); no grave goods were found (B. Helwing and M.B. D'Anna, pers. comm.).

In 2012, the site of Mentesh Tepe, which has been occupied from the Neolithic to the early Bronze Age, yielded a Neolithic collective burial, which represents the oldest one discovered in Southern Caucasus (B. Lyonnet and L. Pecqueur, pers. comm.; Lyonnet et al.,

Table 4
Aknashen (Armenia), ¹⁴C dates of the human remains.

Burial	Laboratory code	Date BP	Date cal. BC
Tr 1 UF 8	LTL-5734A	6860 ± 45	5850–5650
Tr 3 UF 10 F18	LTL 13037A	6970 ± 35	5980–5750
Baulk 6–8 UF 7 F1	Poz 56369	6640 ± 50	5636–5486

this volume). Another Neolithic burial, that of a child aged between 5 years and 3 months and 6 years and 6 months, had also been found at the site in 2011, in the filling of a round building, against a wall. Many seeds of hackberry have been identified in the sediment at the level of the body and above (Lyonnet et al., 2012; this volume; Poulmarc'h 2014a).

Unlike the other Neolithic sites, Aruchlo yielded a cremation which was discovered in a house (Hansen et al., 2007). No other cremation has been found yet in the prehistoric sites of the Southern Caucasus. According to Wahl (pers. comm.), the deceased

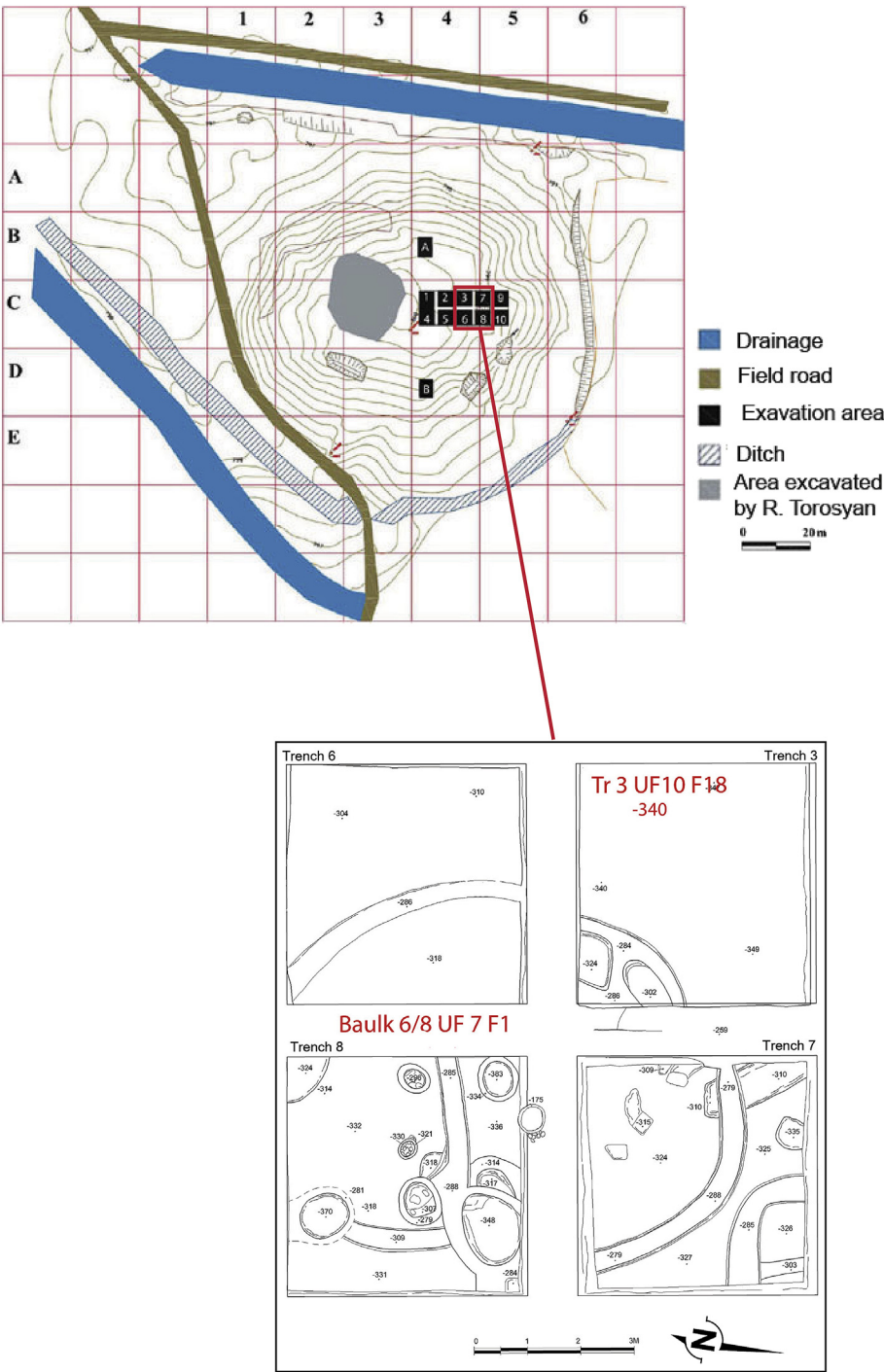


Fig. 4. Aknashen (Armenia), plan of Aknashen with the location of adult remains (Tr 3 UF 10 F18 and Baulk 6–8 UF 7 F1) (after a plan made by L. Ter-Minasyan and Badalyan et al., 2010).



Fig. 5. Aknashen (Armenia), Tr3 UF 10 F18, skull in the course of excavation.

was an adult male and various stages of burning can be observed on the bones. This would mean either that there was not enough fuel or that the corpse was partly covered. Furthermore, the total mass of the bones (590 g) as well as the lack of teeth could indicate a secondary deposit of burnt bones.

According to recent discoveries, Neolithic funerary practices in Southern Caucasus appear less homogeneous than previously thought. At Aknashen, Kamil Tepe, Mentesh Tepe, and Aruchlo, the place of living and the place of the dead seem to have been closely linked, but the type of burial may vary from single to collective deposits and from inhumation to cremation, although burials are always in pits.

3.2. Chalcolithic funerary practices

In Southern Caucasus, many changes appear with the Chalcolithic (5th millennium to the middle of the 4th millennium) (e.g.

Chataigner, 1995; Kiguradze and Menabde, 2004). They concern the way of life as well as the funerary practices. Chalcolithic burials are more numerous than Neolithic burials, and 17 sites with Chalcolithic funerary deposits were inventoried (Fig. 7, Table 3).

During the Chalcolithic, pit graves remain the most frequent in the Southern Caucasus but two new types of tombs, burials in ceramic vessels and kurgans, appear (Fig. 7). Different types of tombs may be found at the same site as at Poylu II and Alkhantepe where pit burials and burials in ceramic vessels were recognized (Museyibli, 2008b, 2009; Akhundov et al., 2010, 2011).

3.2.1. Pit graves

Pit graves were uncovered at 6 sites – Aknalich, Alkhantepe, Godedzor, Mentesh Tepe, Polutepe, Poylu II – (Fig. 7), either under the floor of the houses or between the buildings, except for the site of Tsiteli Gorebi where the burials were located in the periphery of the village (Chataigner, 1995). They contained the remains of one adult or immature individual. The bodies were lying in a flexed position, most of them resting on the right or left side. Peculiarities were noted on certain sites.

At Tsiteli Gorebi, heaps of stones covered the pit burials (Chataigner, 1995). They might have been intended to indicate on the surface the presence of a tomb. Heaps of stones of the same type are known throughout the Kura-Araxes culture, during the early Bronze Age (Poulmarc'h 2014a,b).

At Poylu II, in tomb 2, the skull was missing but the mandible was present (Museyibli, 2008b). The hypothesis of a post-mortem removal of the skull can be formulated but the absence of graphic document does not allow either to confirm or counter it.

Furthermore, the recent excavation of two graves at Godedzor in Armenia (Fig. 8) brought new elements on the Chalcolithic pit graves (Poulmarc'h et al., 2011; Poulmarc'h, 2014a). The site is situated at approximately 1800 m asl, in the Vorotan valley. It includes two phases of occupation: one Iron Age and the other Chalcolithic. Compared to the other Southern Caucasus Chalcolithic sites, the occupation of Godedzor is very late: 3600–3300 cal B.C. The inhabitants of Godedzor seem to have had a mobile lifestyle and a subsistence strategy based on livestock (Chataigner et al., 2010).

Tomb 1 contained the remains of a child whose age at death is estimated between 4 years and 9 months and 6 years. It was dated by two ^{14}C dates: 4560 ± 40 BP i.e. 3370–3100 cal BC (charcoal, UGAMS-02291) and 4403 ± 45 BP i.e. 3330–2900 cal BC (human bone, LTL-5728A). The body was lying in an oval pit, resting on the right side in a flexed position, and partly covered by large potsherds (Fig. 9a and b). A detailed analysis of the position of the bones, especially those that would have been in disequilibrium after decay of the soft tissues, indicates that body decomposition occurred in a filled space, which means that the pit was filled with earth immediately after burial. This tomb is unique as far as no other deceased covered by potsherds is known in the Southern Caucasus during the Chalcolithic.

An adult female over 40 years was buried in tomb 2, also dated by two radiocarbon dates: 4475 ± 45 BP i.e. 3360–3010 cal BC (human bone, LTL-5729A) and 4441 ± 45 BP i.e. 3340–2920 cal BC (human bone, LTL-5730A). The body was resting on the back in a tightly contracted position, the legs bent sharply to the left of the trunk. The left upper limb was under the lower limbs and the right one was flexed in front of the face with the hand lying partly under the skull (Fig. 10). The examination of the relative depth of the bones indicates that the pit was shaped like a slightly flared basin.

3.2.2. Burials in ceramic vessels

Ceramic vessels containing burials of immature individuals are known at eight Southern Caucasus Chalcolithic sites: Alkhantepe,

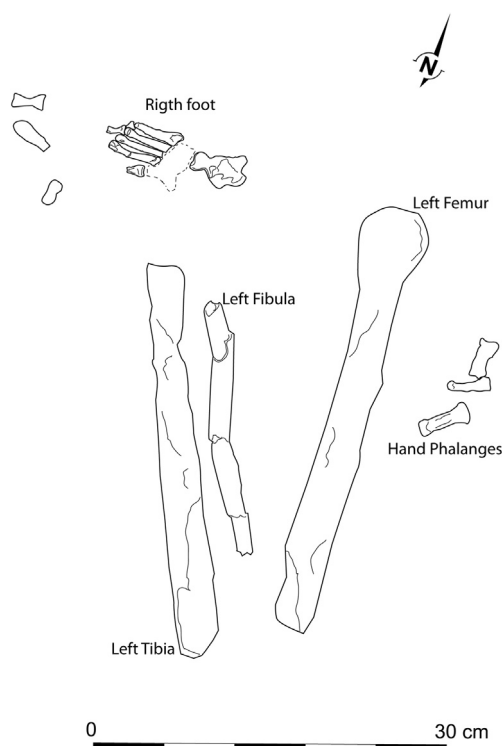


Fig. 6. Aknashen (Armenia), Baulk 6–8 UF 7 F1, preserved part of an adult burial.

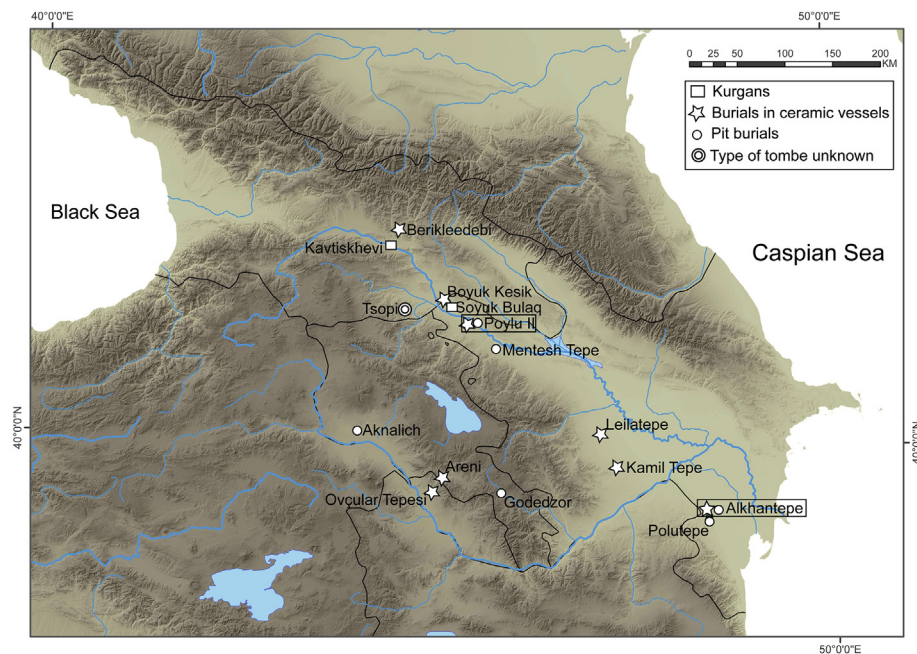


Fig. 7. Distribution map of the Southern Caucasus sites where the presence of Chalcolithic burials was recorded.

Berikleedebi, Boyuk Kesik, Chinartepe, Kamiltepe (MPS 16), Leilatepe, Ovçular Tepesi, Poylu II (Fig. 7). They all belong to the Late Chalcolithic culture of Leilatepe (first half of the 4th millennium), except for Ovçular Tepesi dated to the end of the 5th millennium (Marro et al., 2011). The age at death of the deceased is known only for a burial recently discovered at Kamiltepe (MPS 16) (Lyonnet et al., 2012) which contained the remains of an infant who died between 5 and 6 months (Fig. 11).

Grave goods were found at Poylu II and Ovçular Tepesi. At Poylu II, stones that seem to have been used and obsidian blade were associated to the human remains in one of the graves (Jar Grave 4) (Museyibli, 2008b). At Ovçular Tepesi, one of the graves contained three metal axes, and another one two copper rings and a white pearl. The presence of the three metal axes would indicate a particular status for the buried individual (Marro et al., 2011).

Another kind of burial in ceramic vessels has been recently uncovered in the Areni-1 Cave in Armenia (Wilkinson et al., 2012). At this site, three pots sealed by ball-shaped plaster clay tops contained each a human skull, dated to the second half of the 5th millennium. One of the skulls belongs to a female of about 15 years of age. The age at death of the two others is estimated respectively to 11 ± 2.5 years and 8 ± 2 years (Wilkinson et al., 2012). Secondary burials in ceramic vessels thus also existed, at least in the region of Areni.

3.2.3. Kurgans

Excavations conducted at Kavtiskhevi in Georgia (Makharadze, 2007) and Soyuk Bulaq in Azerbaijan (Lyonnet et al., 2008; Museyibli, 2008a) (Fig. 7) have shown that, contrary to what was assumed for a long time, in the Southern Caucasus the first kurgans appeared during the Chalcolithic (Makharadze, 2007; Lyonnet et al., 2008; Museyibli, 2008a). The Kavtiskhevi kurgan has been partly destroyed, and no skeletal remain was found inside. Chaff tempered ceramics contained therein are characteristic of the end of the Chalcolithic and have direct analogies with those that have been discovered in the Chalcolithic levels, dated to the first half of the 4th millennium, at Berikleedebi, 50 km to the west (Makharadze, 2007).

^{14}C dating performed on the kurgans of Soyuk Bulaq confirmed the existence of kurgans in the Southern Caucasus from the Late Chalcolithic (Lyonnet et al., 2008; Museyibli, 2008b). The diameter of the 27 kurgans excavated at the site varies from 5 to 15 m. The shape of the burial chambers also varies: rectangular, oblong, or horseshoe shaped. The walls are made of mudbricks or pebbles. Out of the 27 kurgans, eight included grave goods consisting mainly of ceramics and beads in



Fig. 8. Godedzor (Armenia), location of the two burials.



Fig. 9. Godedzor (Armenia), tomb 1: a) in the course of excavation, b) after removing the ceramics (photo I. Kalantarian).



Fig. 10. Godedzor (Armenia), tomb 2 (photo C. Chataigner).



Fig. 11. Kamil Tepe (MPS 16) (Azerbaijan), ceramic vessel containing a burial (photo B. Helwing).

gold, cornelian, soapstone, and lapis lazuli. Part of the ceramics are linked to the Sioni culture, and others seem to show links with the cultures of northern Mesopotamia. Moreover, a similar stone scepter was discovered at Soyuk Bulaq and in one of the contemporary kurgans of Sé Girdan in north-western Iran (Muscarella, 2003; Lyonnet et al., 2008).

Skeletal remains were found in only half of the kurgans, in the form either of sub-complete skeletons in connection, or parts of skeletons in connection or teeth and scattered fragments of bones (Lyonnet et al., 2008; Museyibli, 2008a). The burial position is described only for two kurgans; in one of them (kurgan 5), a body

whose age and gender are not specified was lying on the right side, in a contracted position; in the other one (kurgan 12), an adult individual was resting on the back (Museyibli, 2008a). The absence of skeletal remains in half of the kurgans is difficult to explain taking into account the available data. Various factors such as the nature of the sediment and the funerary gestures can be responsible for the disappearance of the human remains. It is also possible that some kurgans never contained a deceased.

During the first half of the 4th millennium, we thus observe a diversification of the funerary practices and an evolution of the relations between the places of life and the places of burial.

4. Discussion and conclusions

During the last decade, intensification of archaeological research in the Southern Caucasus led to a better knowledge of the prehistory of this region and, in particular, to the highlighting of an evolution and increasing diversification of the funerary practices during the Neolithic and the Chalcolithic.

Only one Mesolithic burial is known in the area, discovered at Kotias Klde in Western Georgia and dated to the 8th millennium. This single primary burial contained the body of an adult individual resting on the back in an extended position (Meshveliani et al., 2006, 2007). This type of burial exists throughout the Neolithic and the Chalcolithic. Pit graves represent the only type of graves known for the Neolithic and the majority of the Chalcolithic graves, but the extended position is not common.

The discovery of a cremation at Aruchlo raises the question of links between the Southern Caucasus and northern Iran during the 6th millennium. Contemporary cremations were also discovered at Hajji Firuz Tepe and Tepe Sialk in Iran (Voigt, 1976; Soltysiak and Nashli, 2010).

Children's burials in ceramic vessels were also a frequent practice in Mesopotamia and Iran during the 5th millennium and the first half of the 4th millennium. They are known, for example, at Tepe Gawra (Peasnell, 2002) and Tell Abu Hasaini (Chiocchetti, 2007) in Iraq as well as at Tepe Sialk in Iran (Girshman, 1938). This type of burial does not seem to have existed in the North Caucasus at the same time. This practice in the Southern Caucasus might result from a Mesopotamian and Iranian influence. The presence of metal deposits in certain burials (e.g. Ovçular Tepesi)

that can be compared to those found at Mesopotamian sites such as Hacinebi Tepe and Korucutepe in Turkey or Tell Qalini Agha and Tepe Gawra in Iraq (Brereton, 2013) also suggests a Mesopotamian influence.

As far as the origins of the Southern Caucasian kurgans are concerned, the debate is still currently open. On one hand, some metal objects, the shapes of some beads and also the funerary structure of these kurgans clearly recall the kurgans of the Maikop culture from the Northern Caucasus (which also dates to the first half of the 4th millennium) (Ivanova, 2013). On the other hand, the grave goods from the Southern Caucasian kurgans also point to connections that are different from the Northern Caucasus. The stone scepter found in the kurgan 1 of Soyuk Bulaq for instance, shows some similarities with that found in the kurgan 3 of Sé Girdan in Northern Iran and so as do the beads that were found in the kurgans of these two sites (Lyonnet et al., 2008). Finally, the pottery from the South Caucasian kurgans belongs to the chaff-tempered technological horizon, this latter typifying the ceramic traditions of the Southern Caucasus during the Chalcolithic period, while at the same time some morphological traits of these ceramic vessels seem to share common elements and analogous profiles with the ceramic repertoires from Northern Mesopotamia (Lyonnet et al., 2008). Thus the finds from Chalcolithic Southern Caucasus kurgans testify relations with more or less distant areas (Lyonnet et al., 2008).

The recent development of archaeological research concerning the recent prehistory of the Southern Caucasus, by bringing numerous new data on the funeral practices, has already allowed better understanding of the behavior of the populations confronting death. The pursuit of research will contribute to draw a more complete picture of the diversity of the funeral gestures of these populations.

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Appendix A. Supplementary data

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