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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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NEW DATA ON THE PERIODIZATION AND CHRONOLOGY OF THE KURA-ARAXES CULTURE IN ARMENIA

R.S. BADALYAN

Abstract: *This article discusses the following issues: The Kura-Araxes sequence was of discrete character; its periodization can be dated in-between 3600/3500-2900 (KA I) and 2900-2600/2500 (KA II) BC. The discreteness of the Kura-Araxes phenomenon is reflected in the largely single-layered character of both early (KA I) and late (KA II) settlements: a destructive layer demonstrates the discontinuity of certain multi-layered (KA I-II) settlements. The KA I phase represented throughout Armenia is marked by 'Elar-Aragats' type ceramics, which belong to a rather homogeneous complex, widespread almost all over the Armenian Highland. The homogeneity of the complex disintegrates around 2900 BC, and the relative unity is followed by a mosaic of local ceramic styles. The KA II phase contains a series of ceramic complexes similar in basic characteristics but stylistically rather specific. Today, at least three synchronous complexes can be identified on the territory of Armenia, whose areas correspond to physical-geographical regions of the country: the 'Shresh-Mokhrablur' complex in the central part of Ararat valley, 'Karnut-Shengavit' to the north and east (Aragatsotn, Shirak, Kotayk, Lori-Pambak regions), and 'Ayrum-Teghut' in the basins of Aghstev and Debed rivers.*

Résumé : *L'article discute les questions suivantes : la séquence Kura-Araxe est discontinue ; sa périodisation peut être résumée en deux phases principales, datées de 3200-2900 (KA I) et 2900-2600/2500 (KA II) av. J.-C. La discontinuité du phénomène Kura-Araxe est reflétée par le fait que la plupart des sites n'appartiennent qu'à une phase, soit KA I, soit KA II et que dans certains établissements fréquentés dans les deux phases la transition est marquée par un niveau de destruction. La phase KA I, qui est présente dans toute l'Arménie, est caractérisée par une céramique de type « Elar-Aragats », qui appartient à un complexe relativement homogène, largement répandu sur presque tout le plateau Arménien. L'homogénéité de ce complexe se désintègre autour de 2900 av. J.-C. et l'unité relative qui prévalait auparavant fait place à une mosaïque de styles céramiques locaux. La phase KA II recouvre une série de complexes céramiques ayant les mêmes caractéristiques de base, mais qui présentent des traits spécifiques en ce qui concerne les styles. Actuellement, trois complexes synchrones, au moins, peuvent être identifiés sur le territoire de l'Arménie et leurs aires d'expansion semblent plus ou moins correspondre à des zones physico-géographiques : le complexe 'Shresh-Mokhrablur' dans la partie centrale de la plaine de l'Ararat, celui de 'Karnut-Shengavit' au nord et à l'est (régions d'Aragatsotn, Shirak, Kotayk, Lori-Pambak) et le 'Ayrum-Teghut' dans les bassins de l'Aghstev et du Debed.*

Key words: Early Bronze Age; Periodization; Radiocarbon dates; Elar-Aragats; Shresh-Mokhrablur; Karnut-Shengavit ceramics.

Mots-clés: Bronze ancien; Périodisation; Datations radiocarbone; Elar-Aragats; Shresh-Mokhrablur; Céramique Karnut-Shengavit.

INTRODUCTION

Over 150 years since the first discoveries and 70 years since the identification of a culture that subsequently became known as 'Shengavit' / 'Kura-Araxes',¹ the problem of its status, nam-

ing, periodization, and chronology remains a topic of debate, stimulated by the results of new excavations in various parts of the Kura-Araxes *oikumene*.

1. In Armenian archaeology, the designations 'Shengavit' and 'Kura-Araxes' were correlated differently at different times. The term 'Shengavit' suggested by E. Bayburtyan in 1939 later became synonymous with the term

"Kura-Araxes" coined by B. Kuftin (1943). Recently the former came to denote the integral part of "Kura-Araxes cultural affiliation" / "Dagestan-Palestinian archaeocultural area" (Badalyan 2011a: 7-8). Compare with the formula "Velikent culture of Kura-Araxes cultural-historical unity" that has lately replaced the term "North-eastern Caucasian/Dagestan variant of Kura-Araxes culture" (see Magomedov 2006: 149, 152).

The multitude of names and taxonomic categories designed to denote the same historical-cultural phenomenon is not a mere tribute to the formation of its historic sources in 1936-1944 alongside various evidence of heritage. First and foremost the above multitude is an articulate reflection of both the heterogeneity of the phenomenon (particularly the part derived from the names of the sites – ‘Shengavit’, ‘Karaz’, ‘Yanik’, ‘Khirbet Kerak’, ‘Velikent’) and the issues preconditioned with its status (culture: local/local chronological variants of the culture, a cultural-historical affiliation/a compound of closely related cultures).

In this respect ‘Kura-Araxes’ indeed appears as a “multi-headed monster” (to borrow the phrase of M. Frangipane and C. Marro), persistently defying attempts to place it into a framework common for researchers. Its dynamics have not been translated into a consistent hypothesis primarily due to chronological issues—postulated thousand-year range of the culture is either shifted or stretches along tens of centuries one way or the other, although the dominant tendency is of constant ageing. Recently the range of these fluctuations acquired a grotesque scale, with some researchers dating the dawn of the culture to the end of the 5th millennium BC, while others place its decline in the middle of the 2nd millennium BC.

This paper discusses a new version of periodization and chronology of the Kura-Araxes culture in Armenia, in the context of a general Kura-Araxes framework, based on evidence from a series of Kura-Araxes ceramic sub-complexes. What follows is a possible solution to the problem of geographical and chronological location of the sub-complexes determining their status and that of the phenomenon as a whole.

TPOLOGY AND PERIODIZATION – HISTORIOGRAPHIC ‘EXCURSUS’

The Republic of Armenia at present time contains around 200 sites that fall under the traditional definition of ‘Kura-Araxes’.²

The first studies that coined the notion of ‘Shengavit/Kura-Araxes’ culture pointed to the typological diversity of ceramics (Bayburtyan 2011: 51-52; Kuftin 1941: 115-117). All subsequent schemes of periodization and chronology of Kura-Araxes materials in Armenia stemmed from several typologically selected ceramic complexes (Piotrovskij 1949a: 34-36 and 1949b: 175-177; Munchaev 1961: 159 and 1975: 194;

Martirosyan 1964; Khanzadyan 1967). Although definitions of the latter, save for rare exceptions, appear to be a result of convention rather than of methodologically justified formalized procedure, the objectivity of organizing Kura-Araxes ceramics in Armenia in the framework of more or less clearly identifiable ‘styles’, ‘types’ and ‘groups’ is clear.

The current discourse seems to bring the variety of Kura-Araxes ceramics to several (four/six) major groups, *e.g.*, ‘Elar-Aragats’, ‘Shresh-Mokhrablur’, ‘Karnut-Shengavit’,³ ‘Ayrum-Teghut’.

The cited complexes were related to one or another stage of Early Bronze Age/Kura-Araxes culture. They were considered as chronological groups and placed into Early Bronze Age sequence in a varying order, capturing the entire chronological range of Armenia’s Kura-Araxes culture. The different sequence of these complexes in different schemes was the result of a lack of objective information, such as stratigraphic data⁴ and radiocarbon dates, as well as subjective, often contradictory, perceptions about the development trends of ceramics.

As a result of the revision of the relative position and absolute age of ‘Elar-Aragats’ ceramics (Badalyan 2003: 20-26), periodization of Kura-Araxes culture of Armenia within the traditional tripartite periodization and no less traditional chronology was until recently discussed as a sequence of ‘Elar-Aragats’, ‘Shresh-Mokhrablur’ and ‘Karnut-Shengavit’ ceramics, spanning a period from the middle of the 4th millennium BC to the 24th/22nd centuries BC (Avetisyan *et al.* 1996: 8-10; Badalyan and Avetisyan 2007).

Such sequence was set according to existing stratigraphic data. The lower level of the Mokhrablur settlement (horizons XI-IX), containing ceramics characterized by only dimple and relief ornaments (‘Elar-Aragats’, Ruben Badalyan), is covered by a layer containing ceramics of Shresh-blur (‘Shresh-Mokhrablur’, R. Badalyan) type, decorated with a frontal grooved design. The latter corresponds to ceramics from layer II of Shengavit site, which in turn varies from overlaying layers of Shengavit III and IV, described with linear geometric

2. The author’s data for December 2012.

3. For a typological repertoire, morphological description and some technological characteristics of the groups, see Badalyan *et al.* 2009: 42-51 and Iserlis *et al.* 2010, respectively.

4. Obviously it was the very neglect of the latter that preconditioned the unjustified tendency to allocate the relatively homogeneous material of certain sites all over the range of ‘periodizational-chronological’ scale of the culture—in particular, Sardaryan’s version (1967) of Shengavit stratigraphy, that served as a resource pool for our periodizational-chronological schemes of 1996. The same is true for the opposite, when rather diverse and undoubtedly multitemporal material of a certain settlements (for instance Arevik, Harich, Baba-Dervish) was analyzed in summary, undifferentiated based on mere morphologic and functional categories.

ornament ('Karnut-Shengavit', R. Badalyan). In other words, the three main typologically specified ceramic complexes of Armenia's Kura-Araxes culture seem to form a stratigraphically conditioned sequence (Badalyan 2011b) (table 1).

Table 1 – *Traditional tripartite periodization of the Kura-Araxes culture in Armenia.*

Mokhrablur	Shengavit	KA
horizons VIII – III 'Shresh-Mokhrablur' ceramics	IV 'Karnut Shengavit' ceramics IV	III
horizons XI – IX 'Elar-Aragats' ceramics	II 'Shresh-Mokhrablur' ceramics	II
		I

The absolute dating of 'Karnut-Shengavit' ceramics at 26-24/22 centuries BC was based on alternative data—the two dates for Karnut settlement and two dates for Shengavit IV. Moreover, one pair of dates for Karnut and Shengavit (AA-7787 and LE-672) is placed in the second half of the 3rd millennium BC, while the other (AA-7555 and LE-458) is dated to the first half. The choice of the former for 'Karnut-Shengavit' complex was conditioned by the very provision that 'Karnut-Shengavit' ceramics belong to EB III, determined by existing data on stratigraphy of Shengavit and therefore its chronological disposition in the aftermath of 'Shresh-Mokhrablur' type (Badalyan 1996: 12-14; Badalyan *et al.* 1997: 199; Avetisyan 2003).

Newly obtained data, particularly the latest results from excavations of an Early Bronze Age layer in Gegharot settlement, the increase of radiocarbon dates, and series of accumulated observations define the revision of the aforementioned scheme of Kura-Araxes culture periodization and chronology.

FIRST PHASE OF KURA-ARAXES – THE STAGE OF HOMOGENEITY

According to the stratigraphic position and radiocarbon data, the first phase of Kura-Araxes (KA I) covers the materials of the 'Elar-Aragats' group and a number of ceramic complexes related to them through the unity of the typological repertoire and certain morphological similarities (figs. 1 and 2).

Elar-Aragats pottery (Badalyan *et al.* 2009: 43) appears in large part to have been handmade, using molds. The vessels have a burnished outer surface, generally gray to light brown (reddish yellow) and the inside surface is the same colour. Later in the phase, there are some examples with a black burnished exterior and red interior. The vessels have flat or concave bases and rounded bodies; the handles are generally set

on the shoulder or between the neck and shoulder. The ornamentation is scanty, but heterogeneous: large dimples on either side of handles, embossed oblique lines, single or paired raised knobs, geometric or zoomorphic designs either scratched or applied in relief, oblique checkerboard bands on the shoulder scratched after burnishing.

Thus this type of ceramics is found almost everywhere throughout the Republic of Armenia (fig. 3 and table 2), except for the southeastern region of Syunik, where Kura-Araxes sites remain virtually unexplored, although in certain places this area is outlined only by a dotted line—accidental discoveries of single vessels.

The mentioned complex has typological analogies with the pottery of the 'Didube-Kiketi' group and materials morphologically affiliated with it on the territory of Eastern Georgia, in Kvemo Kartli and Trialeti as well as Samtskhe-Javakheti (table 2). Berikldeebi IV and Khizanaant Gora E (Palumbi 2008: Pl. 2.2: 1-2; figs. 2.6; 2.7; Glonti, Javakhishvili 1987; Sagona 1984: 98) also exhibit certain similarities with the above-mentioned, making possible to fix the territory of Shida Kartli into the area of 'Didube-Kiketi' pottery dissemination. The area of examined pottery also includes Baba-Dervish (Ismailov 1977), Zaglik (Kuftin 1943: 91-92, fig. 49; tables XVI-9, XX-4, XXII-4), the basin of Lake Urmia (Geoy tepe, layer K) (Burton Brown 1951), Nakhichevan (second layer of Nakhichevan Kültepe I (Abibullaev 1982: 126-138, tables XIX-XXIV), Kültepe II (Bakhshaliyev, Marro 2009: 71), Ani (Sagona 1984: Fig. 12, 9; Işikli 2007: 40-51),⁵ the basin of Lake Van (Ernis: Burney 1958: Figs. 77-103, 108-109; Yiğitraşa: Can 2012), Dilkaya, Zülfiyülak ("... pottery decorated with patterns incised after firing": Burney 1958: 186, figs. 64-68); to the west it crosses the upper streams of Araxes (Sos Höyük VA,VB: Sagona and Sagona 2000) reaching the premises of the Upper Euphrates (Arslantepe VI B1, Kura-Araxes inventory of "Royal" Tomb S150-T1) (Frangipane *et al.* 2001).

Currently, we have 26 radiocarbon dates from six Elar-Aragats sites of Armenia (fig. 4): Aparan III settlement (Badalyan and Avetisyan 2007: 58), Horom (Badalyan *et al.* 1993: 3; and 1994: 14), Talin cemetery (Palumbi 2003: 98; Badalyan and Avetisyan: 2007: 244), Mokhrablur and Norabats settlements,⁶ Gegharot (Badalyan *et al.* 2008: Table 1; and in press). Thus almost all dates of the 'Elar-Aragats' complex (save for R-2627 date) synchronize between 3500/3350-2900 BC.

5. Vessel 8 (Işikli 2007: Table II, 8) is particularly early.

6. I express my gratitude to G. E. Areshyan for the opportunity to get acquainted with yet unpublished dates of Mokhrablur and Norabats. The list does not include the LE-1324 date with deviation at ± 120 .

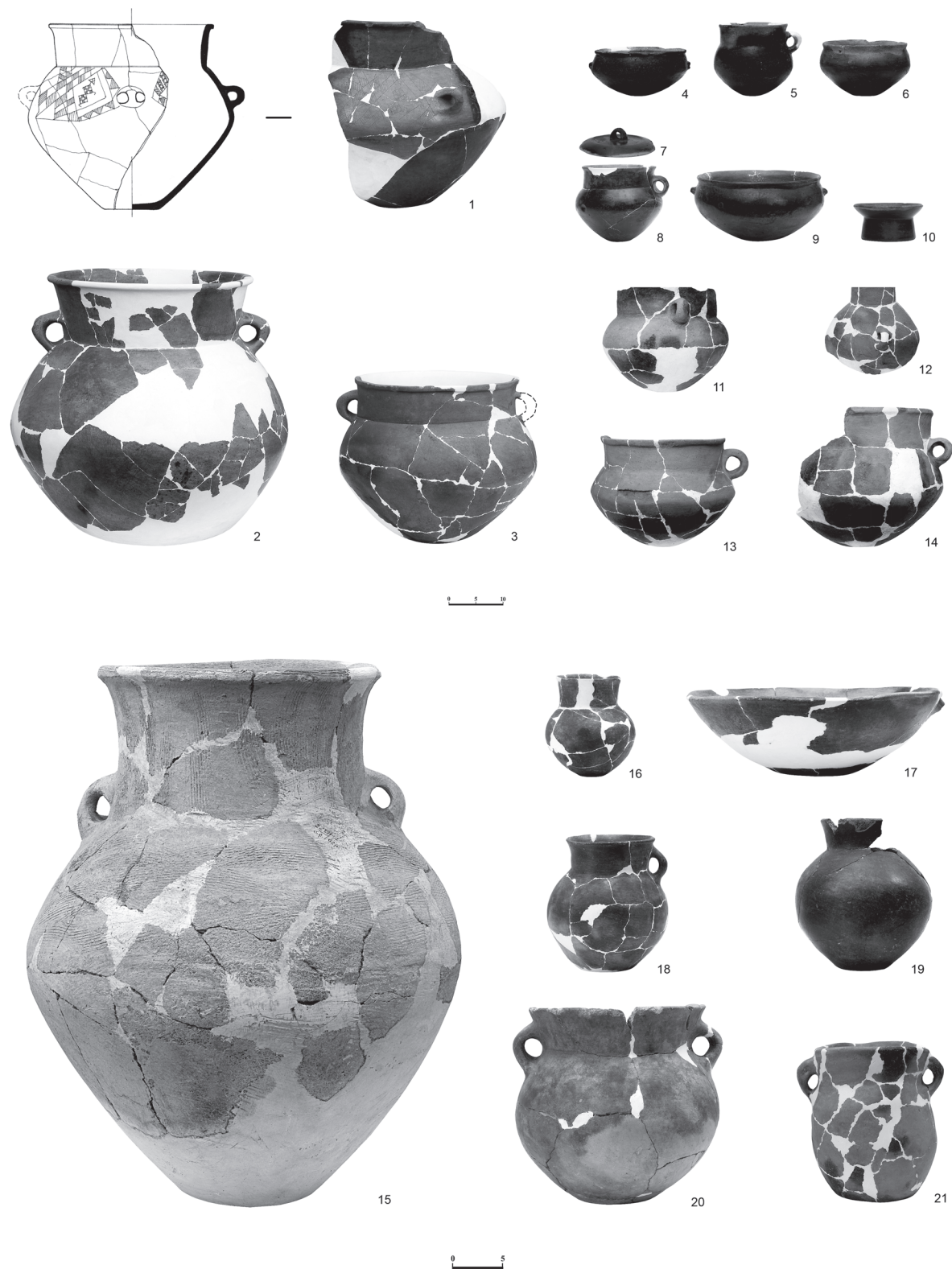


Fig. 1 – Kura-Araxes I ceramics. **1-3)** Aparan III; **4-6)** Horom, burial 1 (after Badalyan et al. 1994); **7-10)** Elar, burial 15; **11-14)** Gegharot, trench 12A; **15)** Arevik; **16-21)** Avan, burial 1 (photos by V. Hakobyan; drawing H. Sargsyan).

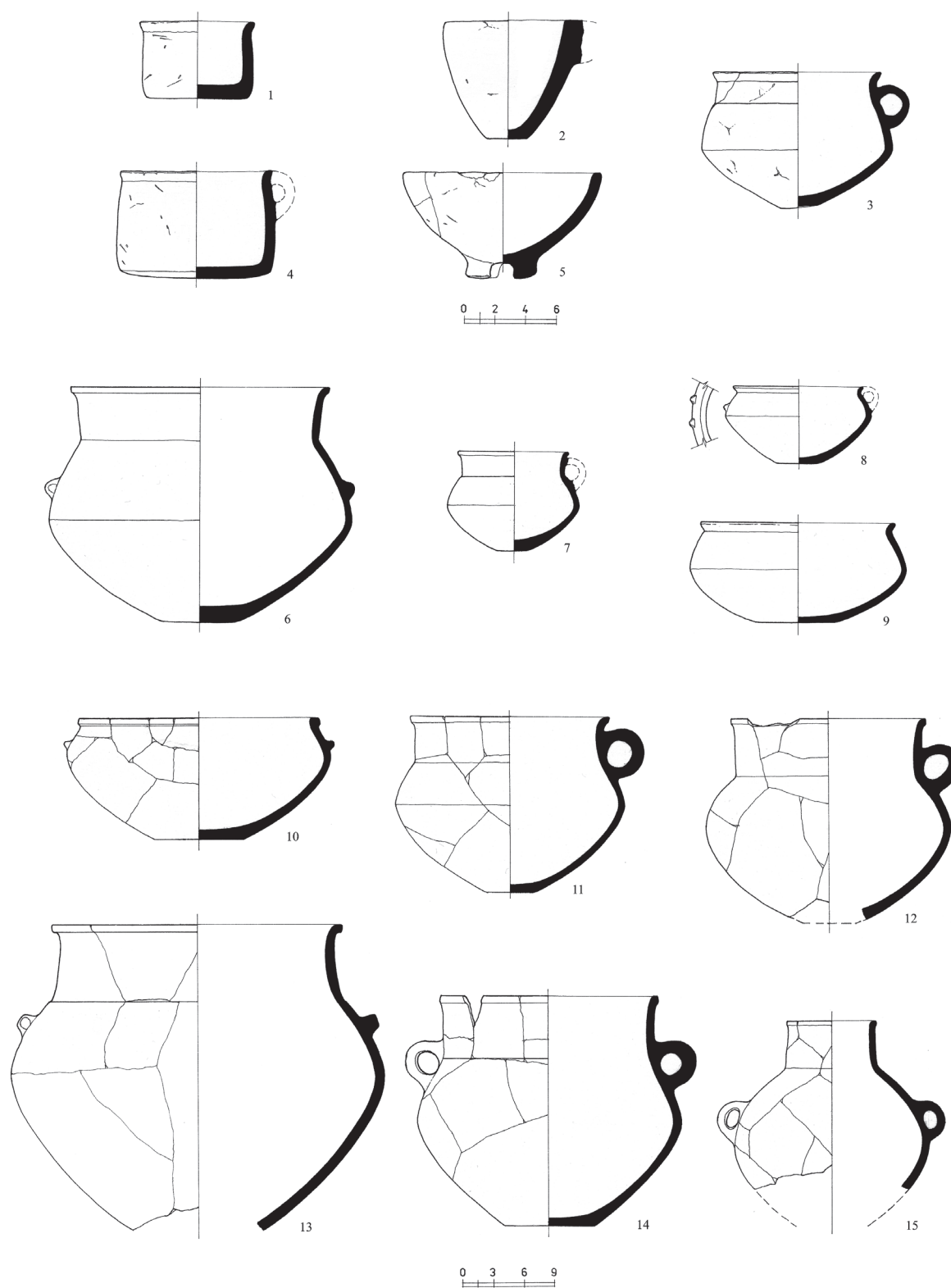


Fig. 2 – Kura-Araxes I ceramics. Lower layer of Gegharot. **1-5**) trench 18; **6-9**) burial 1 (trench 2E, locus 662); **10-15**) trench 12A, locus 2 (from Badalyan 2011) (drawings by H. Sargsyan).

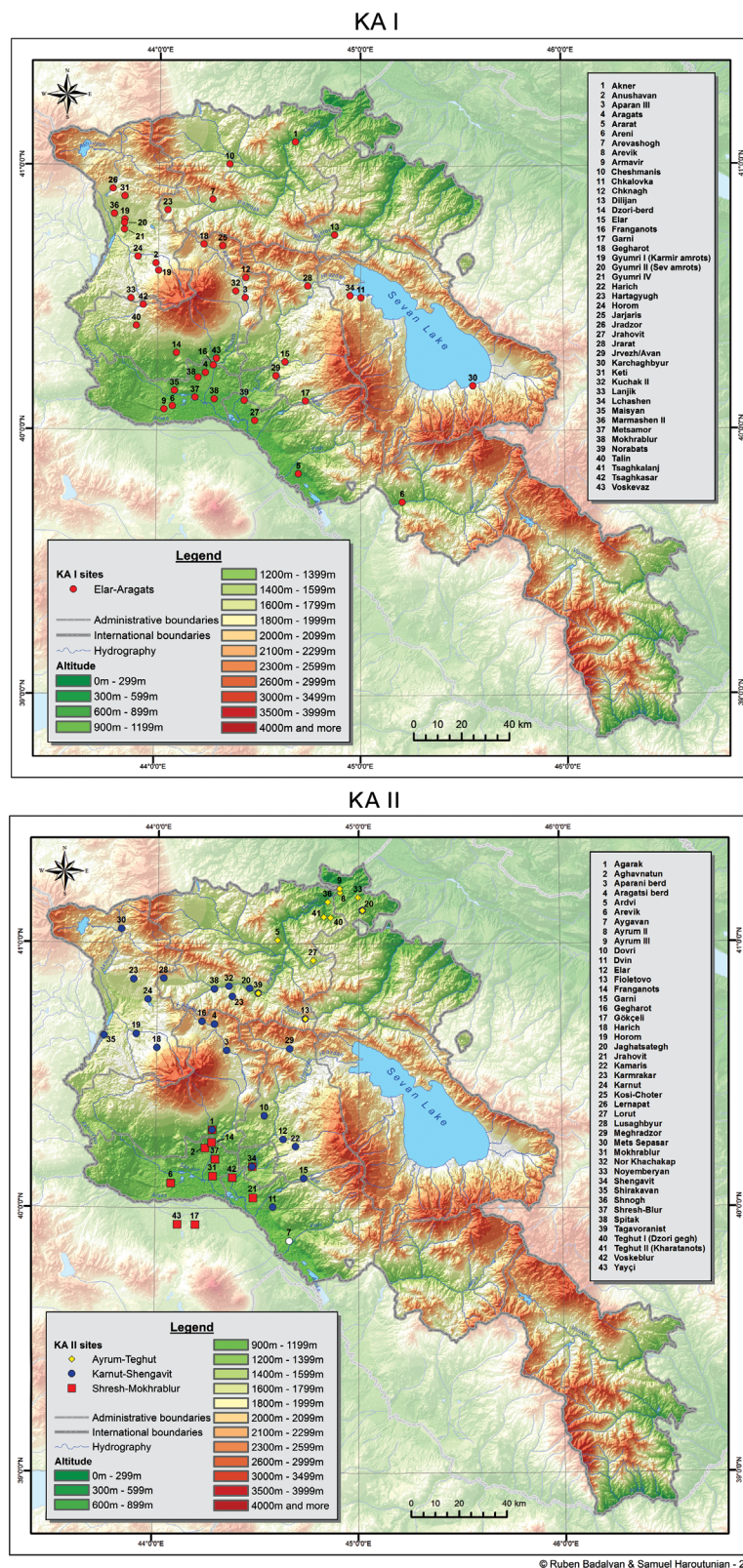


Fig. 3 – Map of main Kura-Araxes sites (I and II) on the territory of the Republic of Armenia.

Table 2 – List of sites belonging to the first phase of the Kura-Araxes Culture (KA I).

Sites KA I	Bibliography and remarks	Fig. 3 top
'ELAR-ARAGATS' GROUP		
Akner		1
Anushavan	Badalyan and Avetisyan 2007: 37-40	2
Aparan III	Badalyan and Avetisyan 2007: 56-61	3
Aragats	Martirosyan 1964: 42-46. Except for the complex, thoroughly studied in 1962, (materials are kept in the Ejmiatsin Historical-ethnographic Museum (EHEM), inv. No. 3930-3966) the site is also represented by a burial, excavated by R. Torosyan in 1980 and burial III, studied by F. Muradyan in 2012	4
Ararat (early complex)	HMA stocks, inv. No. 2463.	5
Areni	Areshian <i>et al.</i> 2012; Wilkinson <i>et al.</i> 2012	6
Arevashogh		7
Arevik	Khanzadyan 1969b: 157-170. See the material in History Museum of Armenia (HMA) stocks, inv. No. 2248, 2289.	8
Armavir	Kuftin 1943: 92-93, fig. 50, tables XX-2, XXIII	9
Cheshmanis	Devedjian 2001	10
Chkalovka (early complex)	Petrosyan 2002: 26-31	11
Chknagh	Badalyan and Avetisyan 2007: 80-81	12
Dilijan	Dilijan Regional Museum stocks, inv. No. 1973/1-10	13
Dzori Berd	Badalyan and Avetisyan 2007: 83	14
Elar (NE and E slopes of the settlement; burials 1, 3-4, 6, 8-10, 14-18, 24, 36-37)	Khanzadyan 1979	15
Frangarots	Badalyan and Avetisyan 2007: 87	16
Garni	Khanzadyan 1969a	17
Gegharot (lower horizon of EB layer, burial)	Badalyan <i>et al.</i> 2008	18
Gyumri I (Karmir amrots)	Badalyan and Avetisyan 2007: 128-129	19
Gyumri II (Sev amrots)	Excavations of S. Ter-Markaryan	20
Gyumri IV	HMA stocks, inv. No. 1510-1511; History Museum of Shirak (HMSH) stocks, 470, 474	21
Harich (early complex)	Khachatryan 1975	22
Hartagyugh	Badalyan and Avetisyan 2007: 112-113	23
Horom (lower horizon of EB layer, burial)	Badalyan <i>et al.</i> 1992: 31-48; and 1993: 1-24	24
Jarjaris	Badalyan and Avetisyan 2007: 122-123	25
Jradzor	Badalyan and Avetisyan 2007: 125-127	26
Jrahovit	Service for the Protection of Historical Environment and Cultural Museum Reservation stocks, inv. No. 116-120, 124, 126-133.	27
Jrarat		28
Jrvezh/Avan	Tumanyan 1993: 7-14. Two more burials were excavated by F. Muradyan in 2012 on the territory of the cemetery. Due to revision of administrative boundaries, the precinct is now called Avan	29
Karchaghbyur	Engibaryan <i>et al.</i> 2013	30
Keti (Sghnakhner settlement, burials 1-7, 9)	Petrosyan 1989; Badalyan and Avetisyan 2007: 156-173	31
Kuchak II		32
Lanjik	Badalyan and Avetisyan 2007: 198-200	33
Lchashen (burial 156)	HMA stocks, inv. No. 2489/135-141: 157-158	34
Maisyan (burial 10)	Areshyan 1987: 558-559. HMA stocks, inv. No. 2829/74-91	35
Marmashen II	HMSH stocks	36
Metsamor	Khanzadyan <i>et al.</i> 1973	37
Mokhrablur XI-IX	Areshyan 1974: 144-154 and 1978: 503; Areshyan, Ghafadaryan 1996: 34	38
Norabats	Areshyan 1980	39
Talin (burials 7, 10-12)	Badalyan and Avetisyan 2007: 243-249; Avetisyan <i>et al.</i> 2010: 161-165	40
Tsaghkalanj (burial 36)	Badalyan and Avetisyan 2007: 273, 275	41
Tsaghkasar	Excavations of P. Avetisyan	42
Voskevaz (burial)	HMA stocks, inv. No. 2953	43
'DIDUBE-KIKETI' GROUP		
Barmaksiz	Kuftin 1941: 117, fig. 126, table CXXV; Zhorzhikashvili, Gogadze 1974: 50, table 37 (269-270)	
Beshtasheni	Kuftin 1941: 115, fig. 122, table CXXIII; Zhorzhikashvili, Gogadze 1974: Tables 31-34, 40-41	
Chobareti	Kakhiani <i>et al.</i> 2013	
Didube	Kuftin 1943; Kiguradze, Sagona 2003: Figs. 3.15- 3.18, 3.19 (4-8), 3.20; Palumbi 2008: Fig. 2.8	
Gomareti/Papunaant tskaro	Tskvitinidze 2001: 105-107	
Grmakhevistavi	Abramishvili <i>et al.</i> 1980	
Kiketi	Pkhakadze 1963; Palumbi 2008: Figs. 5.2; 5.3	
Koda	Pkhakadze 1976: 45-48	
Kurgan 3 of Kvemo Shulaveri	Dzhavakhishvili <i>et al.</i> 1975: 211, fig. 59, 14-21, tables XXXII-XXXIII	
Nachivchavebi, burials 1-3, 5	Chikovani <i>et al.</i> 2010: 95-109	
Ozni	Kuftin 1948; Zhorzhikashvili, Gogadze 1974: 36, 38-41; tables 19 (8-10), 21 (18-25), 24(61-62, 64-68), 25 (79), 27 (109-111), 29 (119-121, 126-127, 131), 30 (141, 142), 39, 40	
Safar-Kharaba	Shanshiashvili 2010: Pl. IX, 3	
Sakdrisi/Balichi-Zezvebi	Stöllner <i>et al.</i> 2010: 111-115	
Samshvilde	Mirtskhulava 1975; Palumbi 2008: Figs. 5.6; 5.7; 5.8; 5.10	
Tash-Bash	Kuftin 1941: 117, fig. 126, table CXXV; Zhorzhikashvili, Gogadze 1974: 50-51; table 37 (271-277),	
Treli	Tbilissi 1978: Figs. 7-13, tables VI-XI	

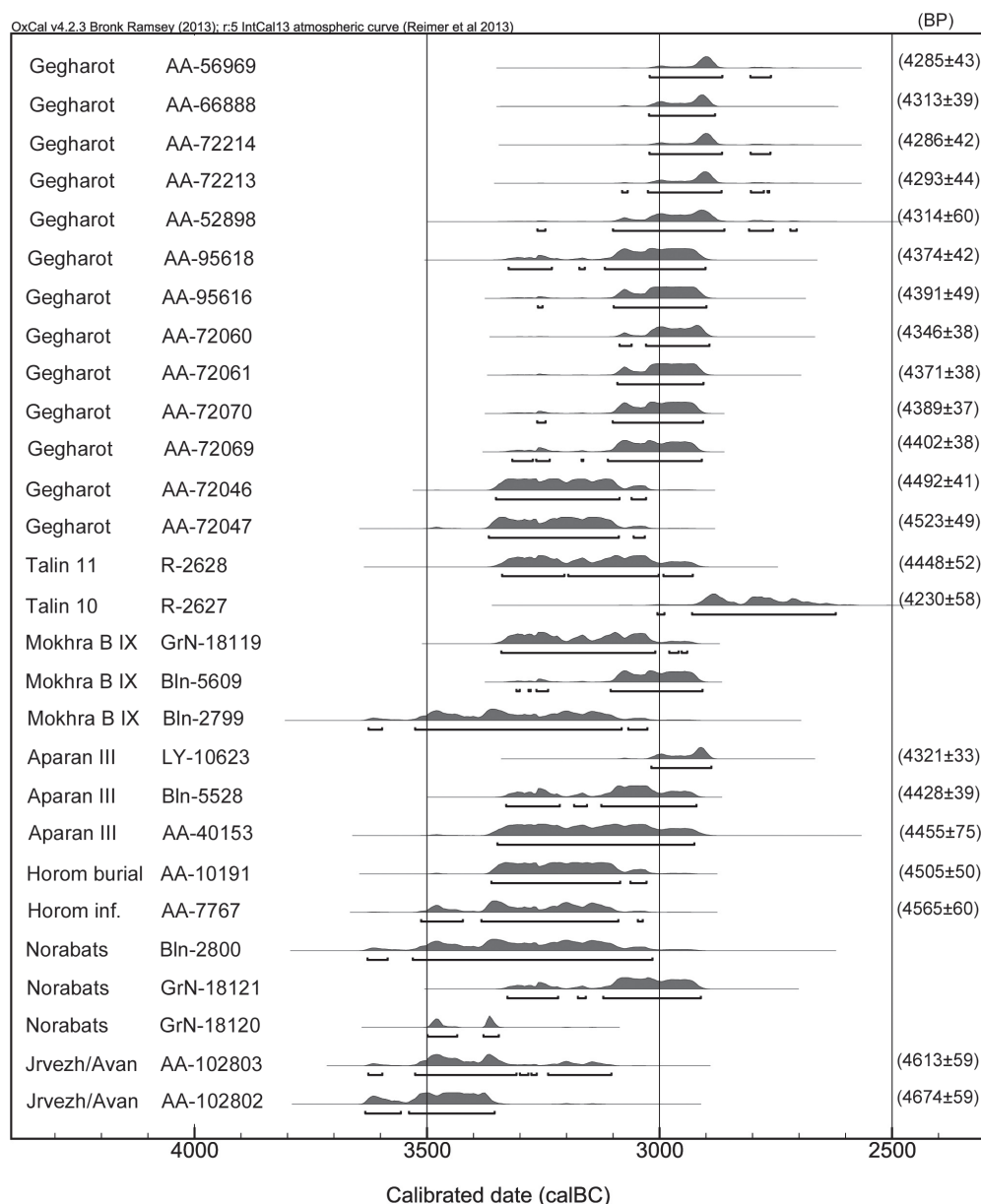


Fig. 4 – Radiocarbon dates from 'Elar-Aragats' sites (KA I).

The majority of similar complexes in Georgia fits into the same range, particularly the date of Didube (OZF 720) (Kiguradze and Sagona 2003: 93), eleven dates from Chobareti (WK-34451 to WK-34459; SacA-27471; SacA-27472) (Kakhiani *et al.* 2013: 20-26), two from Sakdrisi (ETH-33225; Hd-24207) (Stöllner *et al.* 2010: Table 1) although, the latter is not directly related to a typical Balichi-Zezvebi complex.

In the western part of the area, dates of analogous materials Sos VA (Beta-74452, Beta-107912, Beta-120452), partially of

Sos VB (Beta-107909) (Sagona 2000: 351, fig. 6) and the burial date in Arslantepe (Ua 18081) (Frangipane *et al.* 2001: 135) are equally concurrent to the dates of the 'Elar-Aragats' complex.

Obviously, the other dates⁷ demand a more careful approach. The date of Shengavit (Bln-5526) (Görsdorf 2004: 402) is abso-

7. I believe that the bulk of earlier dates of Kura-Araxes sites of Armenia, Georgia and Azerbaijan (see Kavtaradze 1983; Di Nocera 2000) are largely useless due to their singularity, lack of reliable stratigraphic information, and the scope of stratigraphic mistakes.

lutely synchronous to the mentioned dates. Unfortunately, the stratigraphic context of the sample, whose age sharply differs from the dates of the new findings (Simonyan 2013: Table I) from Shengavit, remains unknown. It is also noteworthy that we did not manage to find indisputable Elar-Aragats materials among the museum collections of Shengavit.⁸

Two dates from the Satkhe settlement (AA-12853 and AA-12854) (Badalyan *et al.* 1994: 29), concurrent with Elar-Aragats/ Didube-Kiketi, were obtained from typologically different materials and placed by the authors at a later stage of Kura-Araxes culture, *i.e.* the period of early kurgans or at stage III of Kura-Araxes culture dated to the first half and the middle of 3rd millennium BC (Kikodze *et al.* 1998: 44, tables III-V).⁹

Synchronous to the above dates is also the date of Kvatskhelebi C1 (R-1619) (Glonti *et al.* 2008: 155-156), thus Shida Kartli materials are concurrent with Elar-Aragats/ Didube-Kiketi pottery and consequently, KA I is represented by a series of local ceramic complexes as well. In this case, however, a single date would hardly be a reliable criterion of dating. Due to their strictly local character it would rather make sense to attribute Shida Kartli materials to KA II (Rova *et al.* 2010: 13) and suggest that KA I is represented on this territory by Didube-Kiketi materials of Berikldeebi IV and Khizanaant Gora E. Unfortunately, the magnitude of the statistical error of Berikldeebi IV Le-2197 (Kiguradze 2000: 327) renders it useless.

Thus, in 3500/3350-2900 BC the fairly homogeneous ceramic complex of KA I stretched from the basin of Lake Urmia to the middle reaches of the Kura River and upper streams of the Euphrates, *i.e.* throughout the entire Armenian Highland. If the upper chronological border of the mentioned range, accurately matching the lower milestone of KA II (see below), does not seem to cause serious doubts, the inception of KA I is still fraught with controversy.

The question of Kura-Araxes's genesis is marked by two opposing tendencies. The first one is characterized by the rejuvenation of its lower chronological border, preconditioned with constant elevation of the upper chronological line of new Eneolithic complexes (Godedzor). The second tendency is to deepen the lower chronological boundary of Kura-Araxes up until the first half of 4th and even the end of 5th millennium BC.

8. HMA stocks, inv. No. 1330, 1442, 1618, 2269, 2274, 2275, 2332, 2333, 2389, 2390, 2391, 2392, 2692.

9. A. Orjonikidze, *Kuro-Arakskaia kul'tura v Vostochnoj Gruzii (The Kura-Araxes culture in Eastern Georgia)*. Avtoreferat dissertatsii na soiskanie uchenoj stepeni doktora istoricheskikh nauk (Abstract of dissertation for degree of Doctor of Historical Sciences). Tbilisi, 2000: 56.

The proponents of this opinion argue for the coexistence of Late Eneolithic and Kura-Araxes population (Areni, Ovçular Tepesi).

Clearly the outlined KA I phase can in its turn be discussed in the framework of 'early' (KA Ia), 'middle' (KA Ib), and 'late' (KA Ic) stages. The perspectives of chronological division of KA I, argued by G. Palumbi in particular, distinguished between early (Trelî, Grmakhevistavi, Samshvilde I, Berikldeebi IV, Sos VA) and relatively late (Mokhrablur XI-IX, Didube, Samshvilde II, Khizanaant Gora E) sites (Palumbi 2008: 43). The list of early ones (KA Ia) should be expanded with materials (in certain instances with organic impurities in the paste and/or combed surface) from Arevik (fig. 1: 15), Ararat, Gyumri II (Sev Amrots), Jrvezh/Avan (fig. 1: 16-21) complex and equally archaic materials of Nachivchavebi burial 1, Mentesh Tepe kurgan and others, that appear definitely earlier than the bulk of 'Elar-Aragats' ceramics dated between 3350-2900 BC.

In that event, the KA Ia phase, whose chronological framework according to Jrvezh/Avan burial 1 (AA-102802, AA-102803) and Mentesh Tepe kurgan dates (Beta – 252224 and Beta – 272312) should encompass the years *ca* 3600/3500-3350 BC, proves to be synchronous with the Eneolithic layer of Godedzor, dated between 3600-3300 BC.¹⁰ This circumstance may bear no contradiction, taking into account that the Godedzor settlement seems to be a cultural enclave, an isolated trading station, whose seasonal population might have coexisted but not established contacts with the surrounding Kura-Araxes population.

Thus, the existing data suggest that the beginning of Kura-Araxes hardly stands much further than the already common date of 3500 BC. I believe that findings from Ovçular Tepesi (Marro *et al.* 2011) and Areni (parallel publications contain outright contradictions over the latter) (Areshian *et al.* 2012; Wilkinson *et al.* 2012), stretching the dawn of Kura-Araxes culture towards the end of 5th millennium BC, require a proof of the stratigraphic situation over vast spaces.

Further changes in the color and ornamentation of the ceramics take place against the relatively stable background of typological repertoire and morphology of the vessels. In other words, the appearance of black and red color scheme (that certain authors take as the starting point for KA II) is, in my opinion, only a secondary criterion, marking the beginning of KA Ib.

But for chronological demarcation of the rest of the materials (in terms of the concepts KA Ib – KA Ic) data are currently

10. For Godedzor excavations, see Avetisyan *et al.* 2006; Chataigner *et al.* 2010. I express my cordial gratitude to P. Avetisyan, C. Chataigner and G. Palumbi for the opportunity to learn the recent radiocarbon dates.

insufficient as dates from both Monochrome ware (Aparan III, fig. 1: 1-3; Gegharot T-12, fig. 1: 11-14) and Red-Black Burnished ware (burials of Horom, fig. 1: 4-6 and Gegharot, fig. 2: 6-9) complexes seem to be more or less concurrent. It may even be that Aparan III and Horom are a little older than Gegharot.

In the final part of the review of the KA I phase it is important to mention that quite a number of sites of this time located in the Republic of Armenia are one-layered: settlements of Norabats, Tsaghkasar, Aparan III, Ketī (Sghnakhner), Kuchak II, cemeteries of Aragats, Talin, Jrvezh/Avan. Ceramic collections of the second level of Nakhichevan Kültepe also suggest homogeneity; *i.e.*, it is likely that the entire settlement belongs to KA I. In cases where the settlement was also inhabited in KA II, the passage to the second phase is marked by a pronounced hiatus—either sterile or destruction layer. In the Gegharot settlement, the ‘Elar-Aragats’ horizon with burned out rooms and *in situ* preserved interior is covered by a clay-sandy colluvial layer caused by erosion. The sub-horizontal surface of the layer points to leveling of the hillside with the aim of forming a construction site for building the upper ‘Karnut-Shengavit’ horizon. The hiatus, expressed by a wedge-shaped colluvial layer was quite brief, according to radiocarbon dates of EB horizons (Badalyan *et al.* 2008: 49, fig. 4a; Badalyan 2011b: 64, appendix 3; Badalyan *et al.* in press).

According to G. Tumanyan, the lower Kura-Araxes horizon of Agarak (10-12 cm), preserved mainly in uneven rocky terrain and containing insignificant number of small ceramic fragments of ‘Elar-Aragats’ type, was formed by a washout from hypsometrically higher areas (Tumanyan 2012: 8-9). It seems more probable, however, that the aforementioned situation is a result of a levelling of the Elar-Aragats horizon during the construction of KA II buildings. It is clear, nevertheless, that there is no direct continuity between KA horizons of Agarak.

As for the Mokhrablur settlement, a brief chronologic hiatus is allowed between IX (the upper horizon of the ‘Elar-Aragats’ layer) and VIII (the lower horizon of the ‘Shresh-Mokhrablur’ layer) horizons (Areshyan, Ghafadaryan 1996: 34).

In other words, the substantial part of KA I settlements is found either deserted at the end of the period or destroyed by the very virtue of its resettlement in KA II.

SECOND PHASE OF KURA-ARAXES – THE STAGE OF HETEROGENEITY

Under the previous periodization and chronological schemes only the sites of ‘Shresh-Mokhrablur’ type were related to the second phase of Kura-Araxes (KA II). Such affiliation

was determined by the stratigraphy of the Mokhrablur settlement, while the ‘Karnut-Shengavit’ complex was placed in final (III) stage of Kura-Araxes.

The ‘Shresh-Mokhrablur’ wares (Badalyan *et al.* 2009: 47) have burnished black exteriors (often so highly burnished that they have a silver sheen) with red or black interiors (fig. 5). Beakers are the dominant form in the assemblage; they have a tripartite profile, with narrow concave bases, concave lower bodies and wide concave necks. Distinctive motifs include very large pressed circular dimples and embossed symmetric vegetal emblems.

This complex includes nine settlements (fig. 3 and table 3). A similar ceramic complex is found with a number of sites in Igdir plain, on the right bank of the Araxes River: Yayci, Gökçeli (Burney 1958; Khanzadyan 1967: 73).

Currently we have twelve dates from the ‘Shresh-Mokhrablur’ complex drawn from VII–III horizons of Mokhrablur settlement, most of which synchronize between 2900-2600/2500 BC (fig. 6). The series¹¹ reflects the direct chronological connection of stratigraphically fixed sequence of ‘Elar-Aragats’ and ‘Shresh-Mokhrablur’ complexes of Mokhrablur.

Meanwhile in the multilayered EB settlements beyond Ararat valley: in Kotayk plateau (Elar), on the northwestern slope of Mount Aragats (Harich, Horom), on the southern side of Pambak ridge (Gegharot), we currently fix different stratigraphic realities. If the lower layers of the aforementioned settlements contain pottery of the ‘Elar-Aragats’ type, and, therefore—also based on radiocarbon dates from Horom and Gegharot—synchronize with the lower layers of Mokhrablur, their upper layers are characterized by ceramics of the ‘Karnut-Shengavit’ type (table 4).

The ‘Karnut-Shengavit’ wares (fig. 7; see Badalyan *et al.* 2009: 49) are generally handmade; however, a petrographic analysis suggests manufacture on a slow wheel in some cases (Karnut). Most vessels have burnished black exteriors and red interiors. Beakers, wide-mouthed pots and mid-sized jars have the traditional tripartite form; *pithoi* tend to be vertically elongated vessels without handles. The most distinctive decorative elements of this group are a belt of geometric designs incised on the lower shoulder before firing and embossed symmetric designs on the body. This complex includes 24 settlements (fig. 3 and table 3).

We have thirteen dates regarding the ‘Karnut-Shengavit’ complex obtained from the upper horizon of EB layer of Gegharot settlement – AA-52900 to AA-72067 (Badalyan *et*

11. The current list of radiocarbon dates from the Mokhrablur settlement does not include LE-1323 date with deviation at ± 120 years.

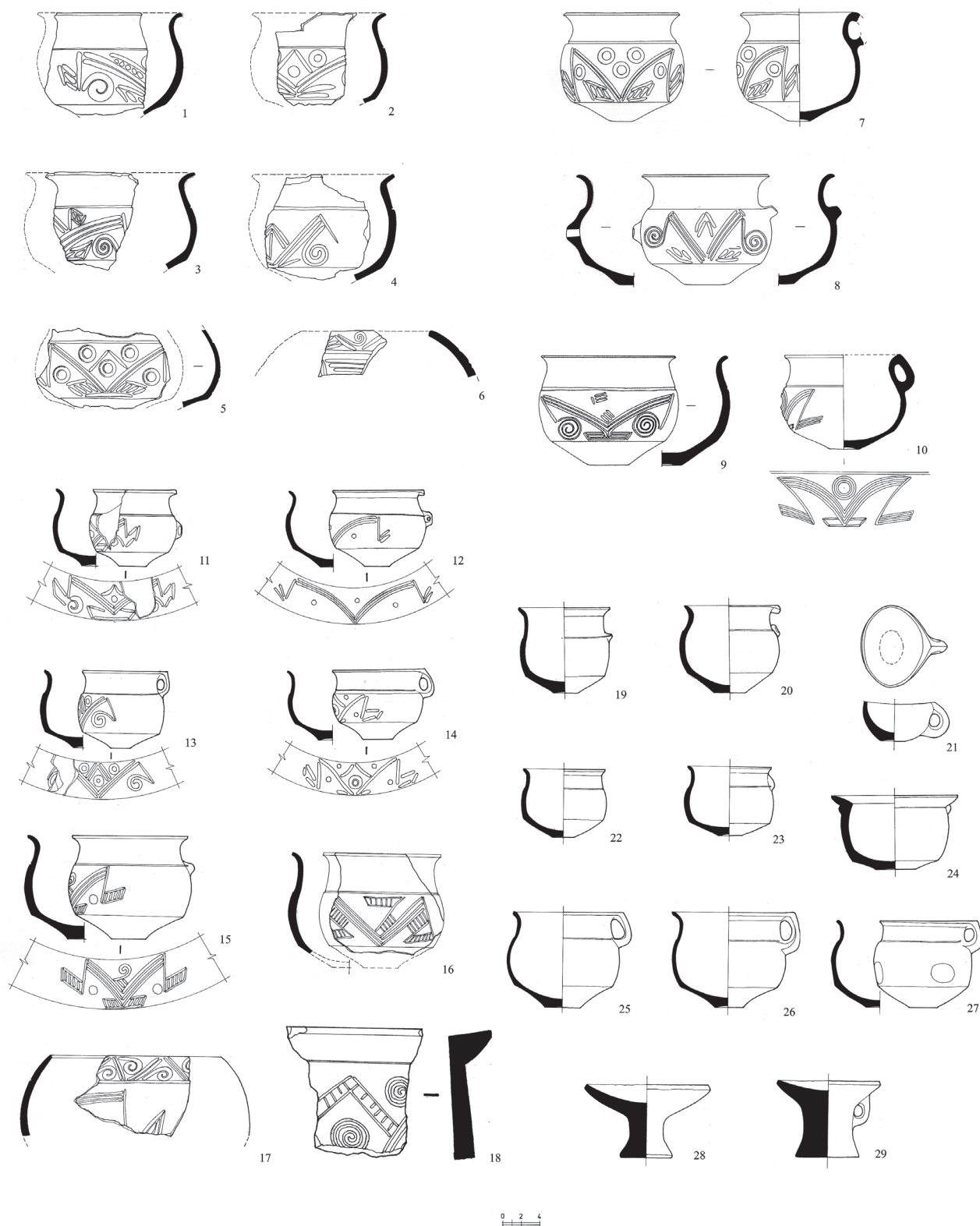


Fig. 5 – ‘Shresh-Mokhrablur’ type ceramics (KA II). **1-6** Shengavit; **7-8** Jrahovit; **9-10** Agarak (after Tumanyan 2012); **11-29** Mokhrablur (after Badalyan et al. 2009) (drawings 1-8 by N. Mkhitarian and 11-29 by H. Sargsyan).

Table 3 – List of sites belonging to the second phase of the Kura-Araxes Culture (KA II).

Sites KA II	Bibliography and remarks	No. Fig. 3 bottom
'SHRESH-MOKHRABLUR' GROUP		
Agarak	Tumanyan 2012	1
Aghavnatun		2
Arevik	Khanzadyan 1969b	6
Franganots	Badalyan and Avetisyan 2007: 86-88	14
Jrahovit		21
Mokhrablur	Khanzadyan 1967: tables XIX-XX	31
Shengavit	Sardaryan 1967: tables L. 1, 4-5; LII. 3; LIII; LX.3	34
Shresh-blur	Khanzadyan 1967: figs. 12, 21; tables XIX-XX; Sardaryan 1967: tables LII.2; LXV	37
Voskeblur	Chanzadjan 1982: tab. XI, abb.7-1	42
'KARNUT-SHENGAVIT' GROUP		
Agarak	Tumanyan 2012	1
Aparani berd	Badalyan and Avetisyan 2007: 43-45	3
Aragatsi berd	Badalyan <i>et al.</i> in press	4
Dovri	Hmayakyan <i>et al.</i> 1987: 33-35	10
Dvin	Kushnareva 1977	11
Elar (trench P-3)	Khanzadyan 1979	12
Fioletovo		13
Garni	Khanzadyan 1969a	15
Gegharot (upper horizon of EB layer)	Badalyan <i>et al.</i> 2008: 56-58; Badalyan <i>et al.</i> in press	16
Harich (late complex)	Khachatryan 1975	18
Horom (upper horizon of EB layer)	Badalyan <i>et al.</i> 1994: Fig. 14: 1-3, 7-11; Badalyan <i>et al.</i> 1997: Abb. 6-7	19
Kamaris	HMA stocks, inv. No. 3066	22
Karmrakar	Badalyan and Avetisyan 2007: 130-133	23
Karnut	Badalyan and Avetisyan 2007: 136-149	24
Kosi-Choter	Badalyan and Avetisyan 2007: 180-185	25
Lernapat	Lori-Pambak Regional Museum (LPRM) stocks, inv. No. 1270-1273	26
Lusaghbyur	Badalyan and Avetisyan 2007: 204-207	28
Meghradzor	Materials of A. Petrosyan 2012 survey	29
Mets Sepasar	Eganyan 2005	30
Nor Khachakap	Engibaryan 2005	32
Shengavit	Bayburtyan 2011; Sardaryan 1967; Khanzadyan 1967	34
Shirakavan	Torosyan <i>et al.</i> 2002	35
Spitak		38
Tagavoranist	Kuftin 1943: table XXX, 1,5,7; Sardaryan 1967: tables LXIV, 4,6; LXVII, 3-5; Devedjian 2001: tables V, 1,3, 6, 8; VI, 1-4	39
'AYRUM-TEKHUT' GROUP		
Ardvi	Devedjian 2001	5
Ayrum II	Esayan 1976	8
Ayrum III	Esayan 1976	9
Jaghatsategh/Jujevan	Esayan 1976	20
Lorut	Devedjian 2001	27
Noyemberyan area		33
Shnogh		36
Teghut I (Dzori gegh)	Excavations of S. Hobosyan, 2010	40
Teghut II (Kharatanots)	Excavations of S. Hobosyan, 2011-2012	41

al. 2008: Tab. 1), AA-92621 to AA-95627 (Badalyan *et al.* in press) (fig. 6). The series of radiocarbon dates relating both to 'Elar-Aragats' and 'Karnut-Shengavit' complexes of Gegharot (13 dates each) are as consistent as in Mokhrablur. Accordingly, the dates of 'Karnut-Shengavit' complex of Gegharot (2900–

2600/2500 BC) turn out to be synchronous to those of the 'Shresh-Mokhrablur' complex of Mokhrablur (table 4; fig. 6).

Besides radiocarbon dates, synchronicity of 'Shresh-Mokhrablur' and 'Karnut-Shengavit' complexes is also proved by stratigraphic data from Agarak (here one construction hori-

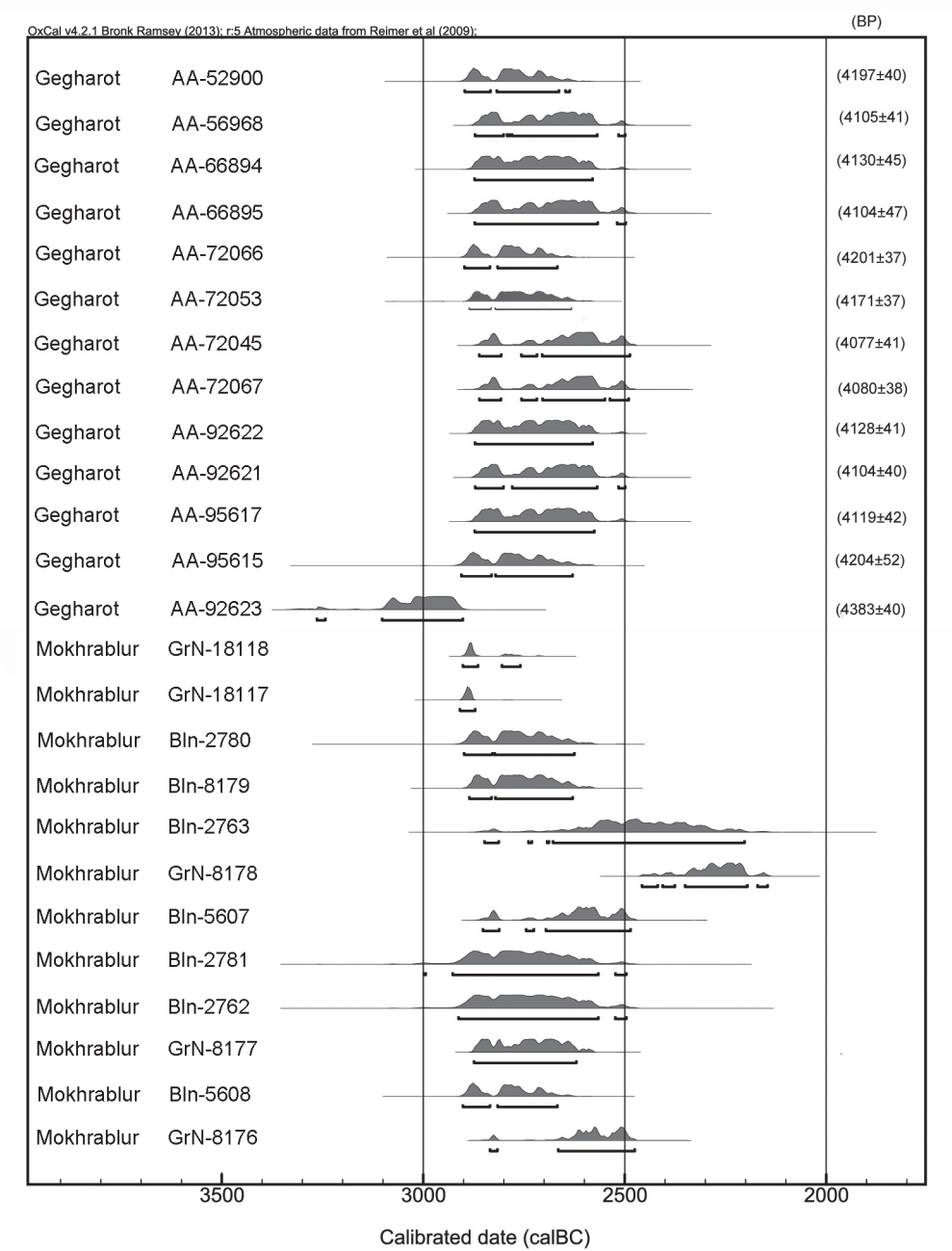


Fig. 6 – Radiocarbon dates from ‘Shresh-Mokhrablur’ and ‘Karnut-Shengavit’ groups (KA II).

Table 4 – Compared stratigraphies of Horom and Gegharot, and Mokhrablur.

Horom (Shirak), Gegharot (Aragatsotn)	Mokhrablur, Ararat valley	
Upper KA layer ‘Karnut-Shengavit’ ceramics	Horizons VIII–III ‘Shresh-Mokhrablur’ ceramics	2900 – 2600/2500
Lower KA layer ‘Elar-Aragats’ ceramics	Horizons XI - IX ‘Elar-Aragats’ ceramics	3500/3350 – 2900

zon contains evidences of both complexes with prevalence of ‘Shresh-Mokhrablur’ ceramics) (Tumanyan 2012: 19-20) and, perhaps, Shengavit (according to museum collections, ‘Shresh-Mokhrablur’ pottery constitutes a minority here). Evidently, both sites, located on the boundaries of Ararat valley and mountainous regions, mark an area of cultural contacts (Badalyan 2011b: 65, footnote 6) between the areas of the discussed complexes.

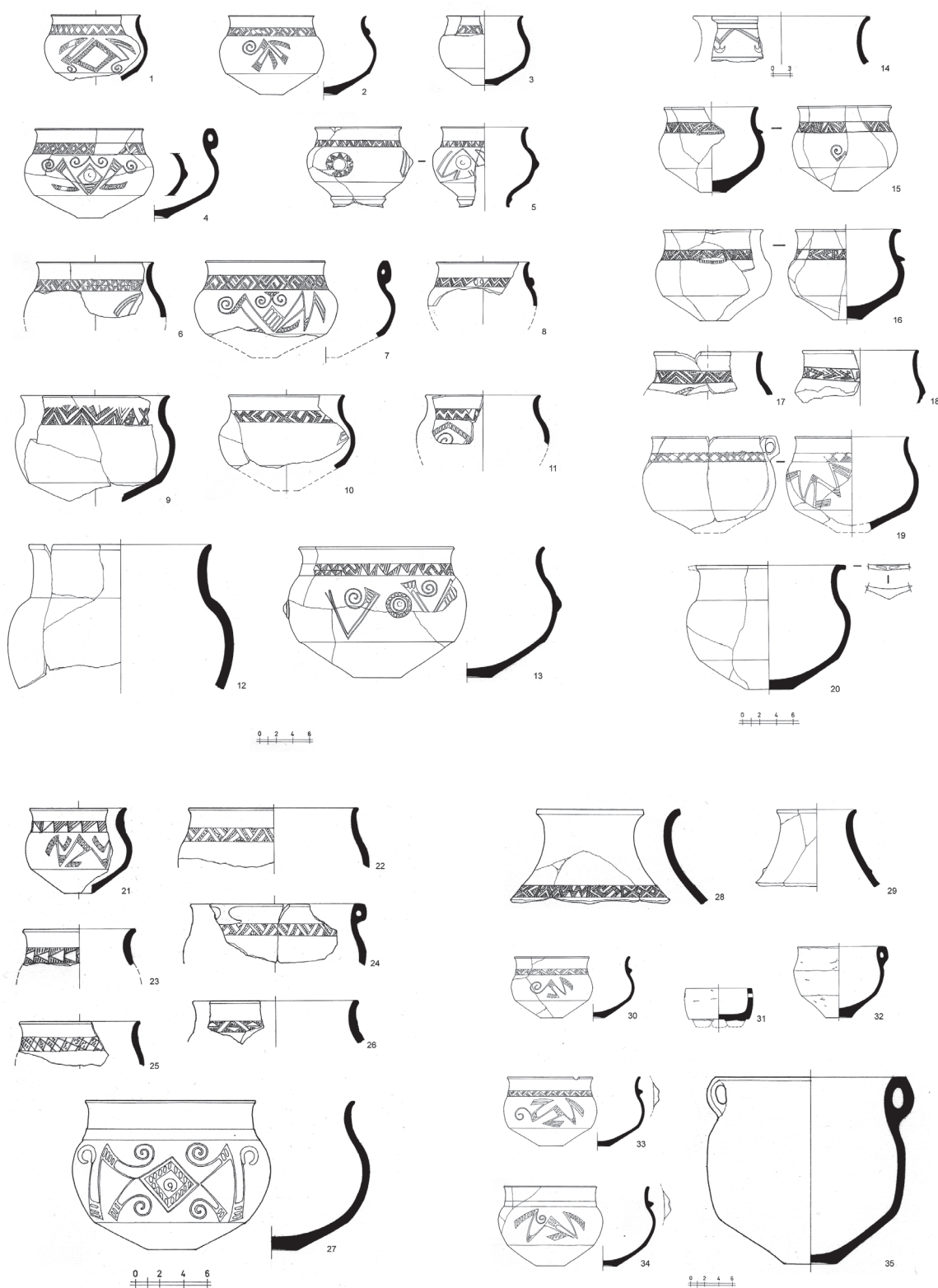


Fig. 7 – ‘Karnut-Shengavit’ type ceramics (KA II). Upper level of Gegharot. **1-13**) trench 21, locus 35; **14-20**) trench 20; **21-27**) trench 19; **28-35**) trench 2E (from Badalyan 2011) (drawings by H. Sargsyan).

Given that 'Karnut-Shengavit' complexes are spread mainly in the East of Ararat valley, in Kotayk, Aragatsotn, Shirak and Lori-Pambak,¹² while the 'Shresh-Mokhrablur' complexes are located in the heart of Ararat valley, on its northern (Agarak) and northeastern (Shengavit) boundaries, on the right bank of the Araxes as well as in Igdir plain, but are not found outside the outline area, we can assume that the KA II phase is represented on the territory of Armenia with at least two synchronous local ceramic complexes – 'Shresh-Mokhrablur' in the central part of Ararat valley and 'Karnut-Shengavit' in the north and east. In other words, 'Karnut-Shengavit' pottery does not belong to KA III, but rather represents a local complex of KA II (table 5).

It seems that along with the mentioned groups belonging to Kura-Araxes sub-complexes of Armenia there is yet another to be identified.¹³ 'Ayrum-Teghut' (fig. 8) is presented with rather peculiar pottery (largely chance-finds and materials of exploratory excavations) characterized by tripartite profiles, carenated lower bellies and double superimposed handles. As is the case with Karnut-Shengavit wares, the Ayrum-Teghut ceramics are also distinguishable by bands of geometric designs incised on the rim and lower neck and by isolated volute-shaped embossed motifs on the body.

The Ayrum-Teghut complex includes nine sites (table 3) and quite likely also Tagavoranist, Fioletovo, and Meghrazor. The listed sites are concentrated in Armenia's northeast, in the basins of the Aghstev and Debed rivers (fig. 3). The area of the 'Ayrum-Teghut' complex also includes the Baba-Dervish (Ismailov 1977: Fig. 3, tables XIV, XVII)¹⁴ settlement in the lower reaches of the Aghstev River.

12. Typological similarities of this complex are particularly obvious in Sos IVb materials. However, only one OZD-711 date out of 13 appears to be synchronous with 'Karnut-Shengavit' complex, while the rest are dated within the first half of 2nd millennium BC (Sagona 2000).

13. We should pay attention to the peculiarity of some more groups of ceramics. First of all, they are part of Shengavit, Kamaris and Aygevan pottery ornamented with belt of obliquely shaded, top down triangles. Originality of this group was for the first time noted by Khanzadyan (1967: 77) and Sagona (1984: 55). If in Shengavit and Kamaris these ceramics are found alongside those of 'Karnut-Shengavit' (in the latter case the predominant), in Aygevan (stocks of HMA, 2488, 2550, 2568, 3156), they seem to form comparatively a homogeneous complex. Secondly, goblets ornamented only with large dimples constitute complexes on the sites of Sevan basin (burials of Hatsarat, Shorzha, settlements of Norashen, Sotq II); they are typical for Garni (Geghama ridge), but can also be found on sites in Ararat valley in typologically diverse contexts (Mokhrablur, Arevik, Sev blur, Shengavit, Agarak).

14. It will do no harm to mention that initially G. Ismailov (1977: 101) discussed the entire Kura-Araxes ceramics of Baba-Dervish in summary as a single undifferentiated complex—same as in many cases of Southern Caucasus archaeology, when studies lack due stratigraphic examinations—dated in-between 4th and 3rd millennium BC. The possibility of a chronological division of Kura-Araxes complexes, *i.e.* the probability of the discreteness

Table 5 – New periodization of the 'Elar-Aragats', 'Shresh-Mokhrablur', 'Karnut-Shengavit' and 'Ayrum-Teghut' complexes.

Ararat valley	Aragatsotn, Shirak, Kotayk, Lori-Pambak	Aghstev-Debed	
'Shresh-Mokhrablur' complex	'Karnut-Shengavit' complex	'Ayrum-Teghut' complex	KA II 2900 – 2600/2500
'Elar-Aragats' complex			KA I 3500/3350 – 2900

Morphologic and stylistic parallels to 'Ayrum-Teghut' pottery can be traced among materials of Kvemo-Kartli (Dangreuli Gora, Imiris Gora, Shulaveris Gora, Gaytmazi) (Dzhavakhishvili *et al.* 1975: Fig. 55), early kurgans of Trialeti (IV, XIV, XIX, XXIV) (Kuftin 1941: 105; Zhorzhiashvili, Gogadze 1974) and over to Shida Kartli (Tsikhiagora A, B) (Makharadze 1994) and Kakheti (Ilto) (Dedabrishvili 1969: fig. 6). Although the lack of radiocarbon dates prevents us from dating the 'Ayrum-Teghut' group, judging by the aforementioned analogies, its affiliation with late Kura-Araxes causes no doubt. Moreover, the combination of a bowl with 'Karnut-Shengavit' ornament and the vessels similar to early Trialetian and 'Ayrum-Teghut' group excavated from burial 2 of Ilto can be evidence of the synchronization of the 'Karnut-Shengavit' and 'Ayrum-Teghut' groups. Nevertheless, its exact periodization and chronological place require clarification and its allocation to KA II is conditional and preliminary.

The typology and chronology of the post-'Karnut-Shengavit' period, such as 'Martkopi-Bedeni' type complexes, are thoroughly studied by P. Avetisyan¹⁵ (see also Badalyan *et al.* 2009:

of EB ceramics, was ignored by Ismailov. As noted by Kushnareva and Chubinishvili (1970: 81, 144), the pottery of the settlement is very diverse, which hints at its diversity. The Armenian sites used by the author as analogous examples reflect various stages of Early Bronze Age culture development. One might think about at least two or even three successive phases of Early Bronze Age (Chubinishvili 1971: 104-105). Later on, Kushnareva (1993: 89-90) placed the early materials of Baba-Dervish at the EB I (3500-3200 BC), then shifted them towards EB IV (2600-2300 BC). On the other hand, Dzhavakhishvili (1973: 217) argued that despite samples of archaic ceramics found with the complex, the latter can neither point to double settlement of the hill (in early and late stages of Kura-Araxes intermittently) nor to cultural continuity, from early to late period of its development. Munchaev (1994: 49) also disagreed with the opinion that Baba-Dervish ceramics represent several periods of EB, including the earliest. He suggested that the archaic forms of the vessels could have survived in the settlement as leftovers. Nonetheless, later on Ismailov himself (1983: 32; 1987: 79) identified among this material two consecutive ceramic complexes of different ages, corresponding to the first and second stages of the Kura-Araxes culture (3200-2800 and 2800-2600 BC respectively).

15. P. Avetisyan, Hayastani mijin bronzi zhamanakagrutyune ev pulabazhanume (Avtoreferat dissertatsii na soiskanie uchenoj stepeni kandidata istoricheskikh nauk) (Chronology and periodization of the Middle Bronze

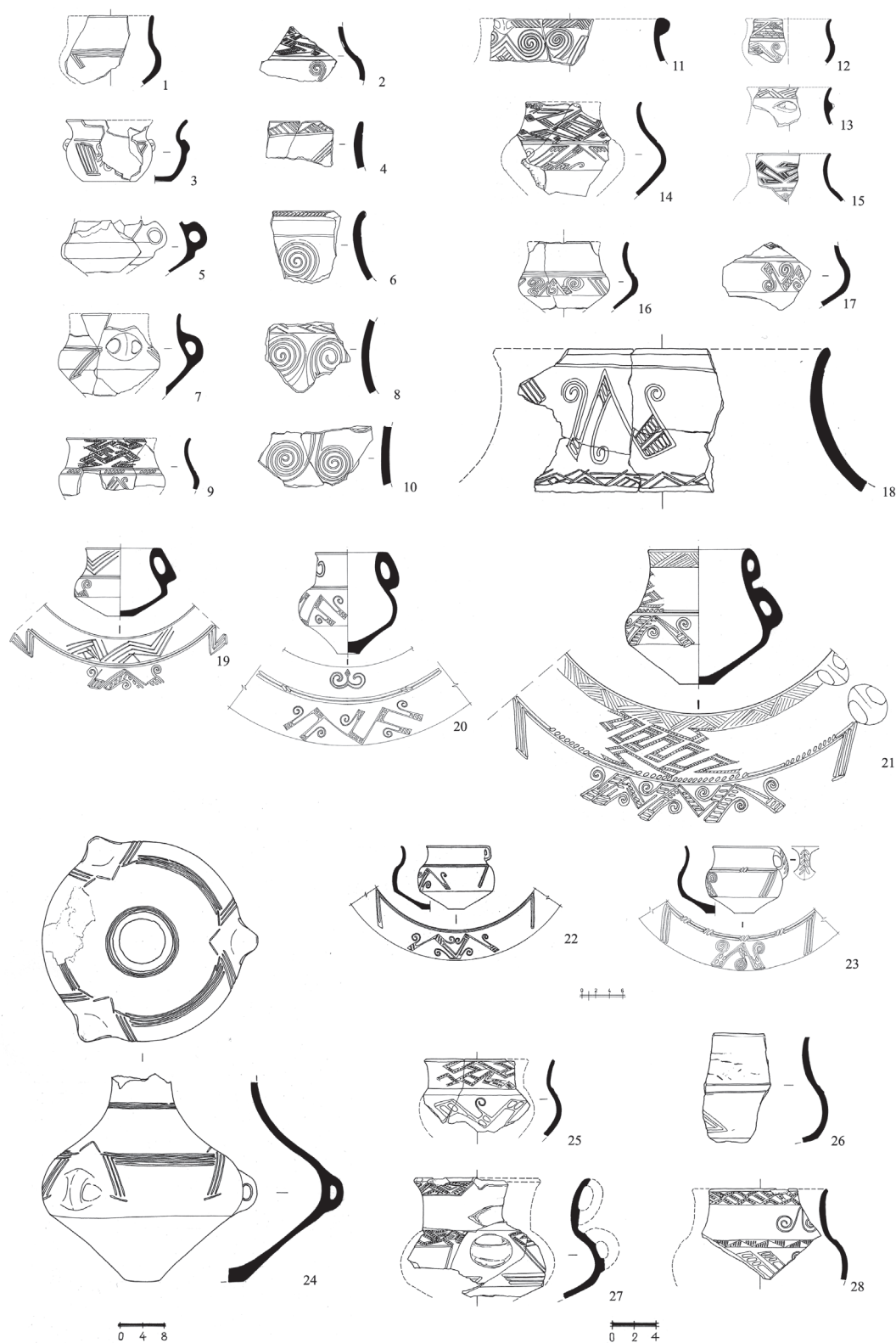


Fig. 8 – ‘Ayrum-Teghut’ type ceramics (KA II). **1-18** Teghut II; **19, 21** Shnogh; **20** Lorut; **22** Ardvi (from Devedjian 2001); **23** Jujevan; **24** Teghut I; **25-26** Ayrum III; **27-28** Ayrum II (drawings 1-18, 24-28 by N. Mkhitarian; 19-21 and 23 by H. Sargsyan).

52-55). In Armenia, the latter are represented as both homogeneous burial complexes (Berkaber/Joghaz, Shengavit, Dvin) and materials of settlement layers (Shengavit). Unfortunately, the last excavations in Shengavit (Simonyan 2013) have not shed light onto the stratigraphic picture of the settlement and in particular on the issue of the interrelationship of 'Karnut-Shengavit' and 'Martkopi-Bedeni' materials. It is noteworthy that 'Kura-Araxes' pottery of Shengavit, Khashuri Natsargora (Ramishvili 2013: 202) and Tsikhiagora (Makharadze 1994), where we notice a similar situation, is represented by entirely different types.

If the stratigraphic overlapping of the 'Kura-Araxes' and 'Martkopi-Bedeni' ceramics reflects coexistence rather than intrusion of the latter or a result of casual digging (Rova *et al.* 2010: 14-15), it could be a decisive factor in favor of synchronicity among 'Karnut-Shengavit' and 'Shida Kartli' ceramics and Tsikhiagora materials, more so that such overlap has not been detected in another Shida Kartli settlement, Berikldeebi. Here Bedeni materials are only found in the layer III of the settlement (Dzhalabadze 1998: 33; Glonti, Dzhabakhishvili 1987), overlying horizon IV, which contains ceramics quite similar to 'Didube-Kiketi' (KA I) samples. In this regard, it is evident that homogeneous 'Karnut-Shengavit' sites (Karnut, Gegharot) are older (KA IIa?) than layers of Shengavit containing both 'Karnut-Shengavit' and 'Martkopi-Bedeni' pottery (KA IIb?). The final stage of Kura-Araxes (KA IIc / KA III?) is marked by burials of Shengavit and Dvin bearing uniform materials, lacking 'Karnut-Shengavit' ceramics typical for both settlement layers.

Regrettably the existing radiocarbon dates, determining the chronology of 'Martkopi-Bedeni' materials are extremely vague and can be placed in-between the 3rd and first half of 2nd millennium BC. Consequently, their interpretation yields quite diverse conclusions (Kavtaradze 1983: 116; Edens 1995: 57; Gej 2000: 207; Trifonov 2001; Avetisyan, see note 15; Chernykh, Orlovskaya 2007). But, by virtue of the presented observations, their lower chronological boundary should be fixed at the end of Gegharot sequence, at 2600/2500 BC.

In any case, the bulk of KA II settlements is composed of single-layered (in the framework of KA) sites (Esayan 1976: 32) established in uninhabited areas (Kamaris, 'Karnut-Shengavit' settlements of Karnut, Mets Sepasar, Tagavoranist, Kosi-Choter, and most likely Karmrakar, Lusaghbyur, Spitak, 'Ayrum-Teghut' sites of Jaghatsategh, Ayrum II, Ayrum III, Teghut I, Teghut II and so on). In the event of an underlying 'Elar-Aragats' layer, the stratigraphic situation generally suggests no continuity between the two layers of Kura-Araxes.

of Armenia - Abstract of dissertation for degree of Candidate of Historical Sciences), Yerevan, 2003.

CONCLUSION

First and foremost, it is necessary to note that the overall picture presented above is a working hypothesis, built upon the scrutiny of ceramic materials, with many of the pivotal challenges inherent to Kura-Araxes set aside. This is particularly the case with the stratigraphic and typological distinction of the complexes pertinent to the inception and concluding phases of Kura-Araxes, as well as their dating. The latent nature of the final phase, in particular, is preconditioned by the lack of clarity in stratigraphic correspondence between the late Kura-Araxes and 'Martkopi-Bedeni' materials, which remains exposed to the stratification of the KA II and/or dissociation of KA III as an unresolved issue.

In addition, in the framework of the above typology it has been possible to identify only part of the known sites due to the restriction and/or inexpressiveness of the materials; the boundaries of the dissociated areas within the KA sub-complexes shall alternate and adjust as a consequence of excavating new sites and comparative studies of other cultural aspects.

Nevertheless, the overall picture is sufficiently clear in the framework of the above presentation.

Two clearly distinct phases in the development of the Kura-Araxes cultural phenomenon can be identified. The first phase (KA I) is represented through rather homogenous ceramic complexes, widespread virtually throughout the Armenian Highland in 3600/3500-2900 BC.

Around 2900 BC, this homogenous complex starts to disintegrate, and the relative uniformity is gradually superseded by a mosaic of local ceramic styles. The second phase (KA II; 2900-2600/2500 BC) is apparent in a series of ceramic complexes closely related by their basic characteristics yet stylistically specific. There are two or three synchronic complexes observed in contemporary Armenia (the areas considered as more or less correspondent to the physical-geographical regions), namely 'Shresh-Mokhrablur' in the central part of the Ararat valley, and 'Karnut-Shengavit' towards north and east (Kotayk, Aragatsotn, Shirak, Lori-Pambak); with some probability there is also a third complex, *i.e.* 'Ayrum-Teghut' in the basins of the Aghstev and Debed rivers.

The discreteness of the Kura-Araxes phenomenon is manifested through predominantly single-layered nature of both early (KA I) and late (KA II) settlements. In a whole series of multi-layered (KA I-II) settlements the discreteness is identifiable by virtue of a destructive layer or a hiatus fixable in one way or another. The mechanism of the transformation of KA I into KA II is obscure; while the stratigraphy discloses an absence of

hereditary realities in the livelihood of the settlements in most of the cases, the material culture—and ceramics in the first turn—represent evidence of undoubtedly genetic ties.

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