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Stone Age of Armenia

Kanazawa University

2014

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Kanazawa University

Institute of Archaeology and Ethnography of
the National Academy of Sciences of
the Republic of Armenia

Gfoeller Fund of America Corporation, Armenian Branch

Center for Cultural Resource Studies, Kanazawa University

Stone Age of Armenia

A Guide-book to the Stone Age Archaeology in the Republic of Armenia

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Boris GASPARYAN

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Scientific advisory board:

Pavel AVETISYAN, Sumio FUJII

Monograph of the JSPS-Bilateral Joint Research Project

Center for Cultural Resource Studies,
Kanazawa University

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And finally, but most importantly, we extend our profond thanks to all the colleagues spending their energies, times and efforts to make this publication a reality.

CONTENTS

CHALCOLITHIC

Introduction

Our initial reason for producing this volume was to publish the proceedings of the workshop titled "Stone Age in Armenia". This workshop was organized by staff at the Institute of Archaeology and Ethnography of the National Academy of Sciences of the Republic of Armenia, and Kanazawa University, Japan, with the support of the Armenian Branch of the Gfoeller fund of America Corporation. The main aim of the workshop was to share and exchange a growing body of knowledge emerging from archaeological investigations by researchers in Armenia. Additionally, organizers – who included the authors of this paper – invited young researchers and graduate students to make presentations at the workshop, since it was thought their involvement would be indispensable to the future development of the field of archaeology. The workshop was held in the library at the Institute of Archaeology and Ethnography, Republic of Armenia, on 5 March 2013 (Figure 1). Fifteen talks were given, introducing the latest results from field studies and scientific analyses dating from the Paleolithic, Neolithic, and Chalcolithic periods. Although the workshop was quite long and tiring, participants filled the room with a palpable sense of excitement (Figures 2-8).


Սեմինար

Քարի դարը Հայաստանում

Քարեդարյան հնագիտության վերջին նվաճումները Հայաստանի Հանրապետությունում: Անցած ուղին և հետանկարները

Վերջին շրջանում Հայաստանի քարի դարի հուշարձանների հետազոտման տեսական, ժամանակագրական և հնամիջավայրային ուսումնասիրությունների ասպարեզում որակական նոր տեղաշարժ է նկատվում: Չնայած դեռես առկա բազմաթիվ «բացերին», վերջին տարիների ընթացքում մեր գիտելիքներն այս ուղղությամբ էապես ավելացել են: Սեմինարում կներկայացվեն հայ մասնագետների 15 զեկուցումներ՝ նվիրված քարի դարի նորագույն հետազոտություններին Հայաստանում: Մեր հիմնական նպատակն է տեղեկություններ շրջանառել և փոխանակել նոր հնագիտական պեղումների և հետազոտությունների արդյունքների վերաբերյալ: Սեմինարի ընթացքում հուսով ենք խնամատարել արդի գիտական նվաճումների նշանակությունը և արժևորել քարեդարյան հնագիտության զարգացման հետանկարները Հայաստանում:

- Տեղը՝ Հնագիտության և ազգագրության ինստիտուտի գրադարան (Չարենցի փողոց)
- Օրը և ժամը՝ Մարտի 5, 11:00
- Կազմակերպիչներ՝ Բորիս Գասպարյան (borisg@virtualarmenia.am, Հեռ. 055 411 459)
  Մակոտո Արիմուրա (arimura.mako@gmail.com, Հեռ. 098 726 462)

Workshop for

Stone Age in Armenia

What' s done and what must be done. Recent Achievements of Stone Age Archaeology in the Republic of Armenia

A new wave of research is now beginning to lay a robust theoretical, chronological, and paleoenvironmental foundation for the county' s Stone Age sites. Although there are still many "missing links" periods in our knowledge, it is true that our knowledge in this direction has dramatically increased since last decade.

The workshop will give some 15 presentations by Armenian specialists studying Stone Age of Armenia to present their recent activities. The main purpose is to share and exchange information from recent archaeological excavations and studies. Through the workshop, we hope that we will understand our achievements at the present and take future perspective for Stone Age Archaeology in Armenia.

- Place: Library in the Institute of Archaeology and Ethnography (Charents street)
- Day and time: 5 March, 11:00 AM
- Contact persons: Boris Gasparyan (borisg@virtualarmenia.am, tel: 055 411 459)
  Makoto Arimura (arimura.mako@gmail.com, tel: 098 726 462)

Institute of Archaeology and Ethnography, National Academy of Sciences of RA

"Gfoeller" Fund of America Corporation Armenian Branch

Kanazawa University

Figure 1
Announcement posters for the workshop in Armenian and English.

Since some authors prepared their papers after the workshop's conclusion, and others not in attendance expressed interest in contributing to the series of papers, we decided to prepare a monograph presenting recent findings of archaeological research conducted on the Stone Age sites in the Republic of Armenia.

By means of this publication, we hope that readers will become aware of our achievements to date, and come to understand the future prospects for Stone Age archaeology in Armenia. In addition, this workshop marks the beginning of cooperative efforts between Armenian and Japanese archaeologists - after all, both countries have unique and long-standing historical-cultural traditions in this field.

Pavel Avetisyan

Director of the Institute of Archaeology and Ethnography, the National Academy of Sciences of the Republic of Armenia

Sumio Fujii

Director of the Center for Cultural Resource Studies, Kanazawa University, Japan

Figure 2
Participants and audince in the workshop.

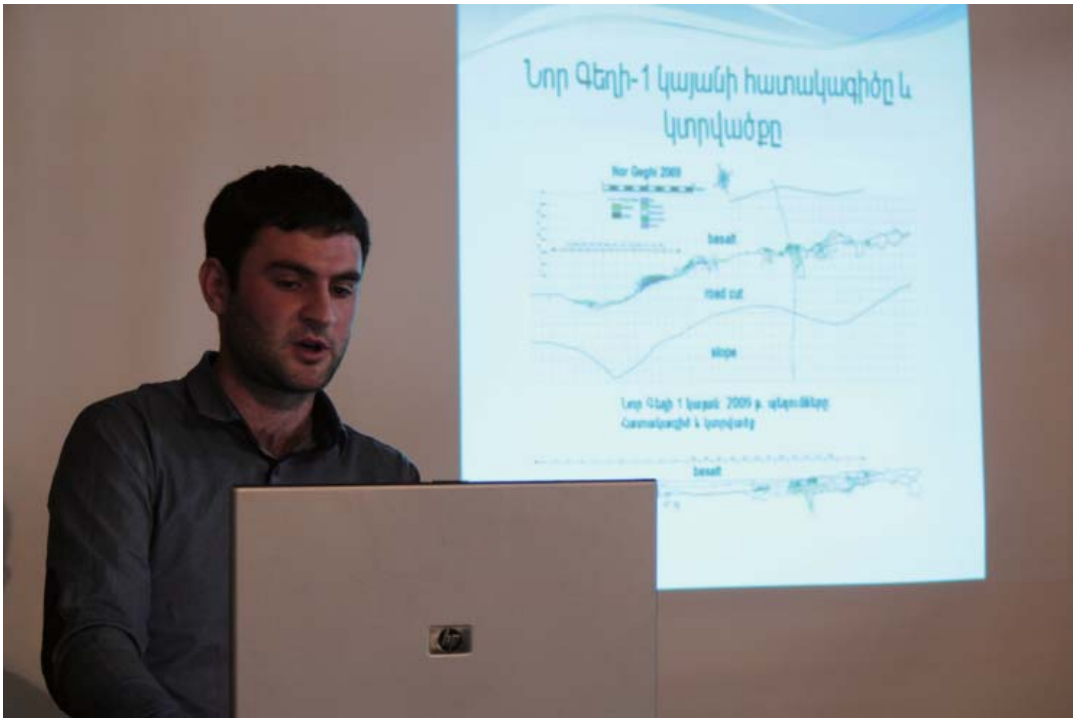

Figure 3
Presentation by Karen Azatyan.

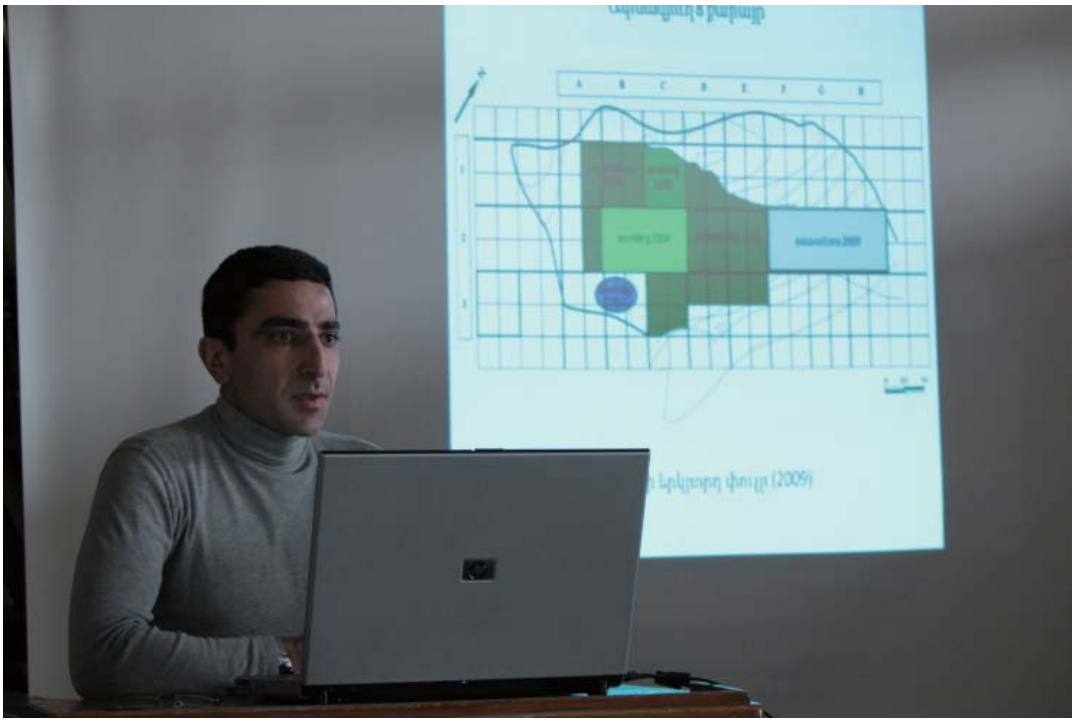

Figure 4
Presentation by Arthur Petrosyan.

Figure 5
Presentation by Diana Zardaryan.

Figure 6
Participants and audience in the workshop.

Figure 7
Young participants.

Figure 8
Participants and audience in the workshop.

About Some Types of Decorations on the Chalcolithic Pottery of the Southern Caucasus

Diana Zardaryan

1. Introduction

Society's transition from the nomadic lifestyle of hunters and gatherers to a sedentary way of life—which included the development of agriculture and cattle husbandry—required diverse, durable ware that could be produced quickly and easily. Together with the development of ceramic shapes, which varied according to their functional purposes, symbolic patterns were routinely used to decorate this pottery. These decorations symbolized a certain culture bearer's way of thinking, and served as an expression of his aesthetic interpretation of natural phenomena. The symbols also represented real objects, such as the objects of worship for example.

The methods used to apply these artistic treatments to ancient farmers' ceramics were quite variable. The pottery surface could be left untreated or slipped, burnished, painted, and otherwise decorated. All these various treatments were popular in the Neolithic-Chalcolithic period, but the most interesting and informative pottery is the painted and decorated ware. The painted pottery of the southern Caucasus could be monochrome, bichrome, and polychrome. It was mainly imported from the Near East, but there is also evidence of the existence of locally made painted ware.

The pottery decorations can be divided into the following groups, according to their techno-morphological characteristics:

Relief knobs and ellipsoids, ledges, buttons, rings, dots, horseshoe-like applications, ropes, strips, waves and zigzags, and anthropomorphic and zoomorphic applications were moulded from clay pieces, and then attached to the ware surfaces, or pulled out of it;

Impressed notches, nail impressions, oval imprints, round imprints, punctuated

impressions, relief impressions, cord impressions, grain patterns, and pinched-out rims, etc. were made with fingers, or by using special tools, which were pressed into the wet surfaces;

Incised lines, waves, zigzags, and chevrons were designs made on damp surfaces with sharp objects;

Perforated openings were created by making through-holes and blind holes, and by pressing soft surfaces with an awl; and

Combed surfaceswere a specific decorative treatment made by smoothing a wet surface with a comb.

The rare or frequent usage of specific kinds of decorations depended on the particular period and traditions of the time and the functional peculiarities of the vessels bearing specific decorations were of great importance. Some types of decorations—the favourites of the early potters—were used for a relatively long time, compared with other decorations. Among these were relief knobs and ellipsoids, anthropomorphic applications, impressed notches, and perforations.

2. A comparison of Late Chalcolithic pottery from the Areni-1 cave with pottery from other sites

Excavations of the Areni-1 cave provided the stratigraphic sequence of the three Late Chalcolithic Horizons, together with an enormous collection of ceramic material. With knowledge of the stratigraphy and contexts, it became possible to define the peculiarities of the pottery production of the Late Chalcolithic period, and a comparative analysis with the ceramics from other sites of the southern Caucasus allowed us to posit some general patterns of its development (particularly the decorations).

Among the Late Chalcolithic pottery from the Areni-1 cave, the decorated pottery is quite remarkable. It represents almost all the groups and kinds of decorations known to have been used in Neolithic-Chalcolithic pottery production. The most part of these were the **relief decorations** (36% of the general number). Moreover, the most commonly used were **relief knobs** and **ellipsoids** (57% of all relief decorations, and 20.4% of the general number of all the pottery decorations of Areni-1), which were located either below the rim, or on the shoulder of the vessel. On the pottery from Areni-1 these take conical, hemispherical, and oval shapes, and their diameters range from 4.0 to 0.7 cm. These shapes decorate vessels from the First, Second and Third Chalcolithic Horizons (Figure 1).

In the Third Horizon of Areni-1 (Late Chalcolithic I, 4,300–4,000 Cal BC), such decorations are found both on pithoi, or large storage vessels, and jars, on which the decorations are mostly located on the shoulders in the form of one, two, or more rows of knobs. One such fragment

resembles the vessel from Ovçular Tepesi (Marro *et al*. 2011, p. 60, Photo 3).

The ellipsoid relief decorations appeared in the Second Horizon (Late Chalcolithic II, 4,000–3,800 Cal BC). These were attached to the rim vertically. The relief knobs were used mainly to decorate the rims, but sometimes they appeared on the shoulders, too. The number of decorations on the pottery varied from one to three. Morphologically, the vessels decorated with relief knobs/ellipsoids in this Horizon were high-necked jars, pithoi, bowls, and cauldrons. It is quite interesting to note that these decorations are very rare among the ceramics of the synchronous sites of Teghut, Leylatepe, and Böyük Kesik.

It is worth mentioning that the relief knobs and ellipsoids from the Second and the Third Horizons often create compositions with other kinds of decorations (outside and within the same category) (Figure 2: 3, 8). These can also be found on the painted vessels (Figure 2: 3, 9).

In the First Horizon (Late Chalcolithic III, 3,700–3,400 Cal BC) the relief knobs usually appeared on the Kura-Araxes-like vessels, reflecting the transition from the Late Chalcolithic to the Early Bronze Age, with one knob or double knobs placed below the rim of the jar, and on the shoulders of the bowls. The use of these decorations decreased slightly in this period, as they were mainly being replaced by ledge-rims. The same changes were observed on pottery from the synchronous sites of Nerkin Godedzor and Ahvesi Ghrer.

The appearance of relief knobs was first noticed on the ware of Umm Dabaghiyah (Mellaart 1975, p. 139, table 80), which is dated back to the beginning of the Pottery Neolithic or PNA (6,500–6,000 Cal BC). In the southern Caucasus, such decorations appeared in the "Aratashen-Shulaveri-Shomutepe" cultural tradition (6,000–5,200 Cal BC), localized below the rim, on the shoulder, or in the lower part of the storage vessels, and on smaller jars. Most often, the knobs were organized into groups and rows, and were sometimes surrounded by other varieties of relief decorations (relief stripes, horse-shoe like applications, rings, etc.). The relief knobs and ellipsoid applications are mostly known from the early agricultural settlements of the Shulaverisgora I-III, VI-IX, Imirisgora VII-I, Arukhlo-I, Khramis Didigora V-VII, Shomutepe (Chelidze and Gogelia 2004, p. 47, Fig. 3; p. 62, Plate VIII: 1-10; p. 63, Plate IX: 2, 7; p. 64, Plate X: 1, 3-4, 9; pp. 72-73, Plates XVIII-XIX; Hansen *et al.* 2007, S. 15, Abb.31, S.16, Abb. 35–37; Munchayev 1982, table XXXI: 3-4; table XXXIV: 1-3, 6; table XXXV: 5; table XXXVI: 6, 11; table XXXVII: 1-4, 6, 12; table XXXVII: 1, 22-23, 25-26, 28-31; table XXXIX: 1-2, 4, 6, 8, 10-12, 14, 18).

In the first phase of the Middle Chalcolithic period (4,800–4,500 Cal BC) the relief knobs and ellipsoids appeared on the pottery of Aknashen (I) (Harutyunyan 2008, table 1: 17, 20-21; table 2: 3-4, 7, 12-13, 18, 20), Kültepe I in Nakhijevan (Abibullayev 1982, table IX: 6, 8), and

Alikemektepesi (Makhmudov and Narimanov 1972, p. 481). During the second phase of this period (4,500–4,300 Cal BC), these decorations were being used on the vessels from Shengavit I (Munchayev 1982, table XLVII: 10), Adablur (Sardaryan 2004, pp. 152-153, table XXVIII: 1-3, table XXIX: 1, 3-4, 7). There also, as on the early pottery, the knobs were usually arranged in groups and located on the upper parts of the vessels, or sometimes decorate the whole body (like the pot from Damtsvari Gora) (Kiguradze and Sagona 2003, Fig. 3.12). During the Middle Chalcolithic, the relief decorations were typical of those on large storage vessels, cauldrons, and deep bowls.

It is noteworthy that these kinds of decorations derived from the Neolithic period and continued to exist up to the Early Bronze Age on the Kura-Araxes pottery. Here also these appear as one knob, or two or three adjacent knobs, on the deep bowls and large vessels (Badalyan and Avetisyan 2007, p. 248, Plate IV: 13; p. 269, Plate V: 2, 7; Sagona 1984, Fig. 4: 5, Fig. 19: 2, Fig. 25: 7-8, Fig. 37: 2).

Anthropomorphic applications, best known from the ceramic material in the earliest sites, are also evident in the Late Chalcolithic layers of the Areni-1 cave. However, here it is present on just one fragment from a large, brown, thick-walled storage vessel from the Third Horizon (Figure 2: 12). The application depicts a human as a five-pointed figure (length from head to toes is 11 cm, the distance from one hand to the other is 10 cm). As already mentioned, anthropomorphic applications are typical for relatively early periods, particularly in the "Aratashen-Shulaveri-Shomutepe" culture. Some of the vessels from Imirisgora, Khramis Didigora, Arukhlo I, Shomutepe decorated with anthropomorphic applications are similar to those from Umm Dabaghiyah and Tell Sotto, although morphologically this ware is different (Akhundov 2012, p. 340, table 174; Chelidze and Gogelia 2004, p. 65, Plate XI: 1-5; Munchayev 1982, p. 113, table XXXIX: 16). Potsherds with anthropomorphic decorations of the Middle Chalcolithic period, apparently, have not been recorded yet.

At the site of Ovçular Tepesi (located not far from Areni-1), synchronous with the Third Horizon of the Areni-1 cave, the vessels with zoomorphic applications (Marro *et al*. 2011, p. 60, Photo 4; p. 62, Photo 5) were found, but no anthropomorphic ones. An anthropomorphic application depicting a man was found on a large vessel from the site of Abdal Aziztepe (Aliyev and Narimanov 2001, pp. 65, 122, table XIX). All these kinds of decorations are found on grain storage vessels. Most likely, the anthropomorphic applications on the ceramics could play the role of the anthropomorphic figurines, and could "protect" the contents of the "special" pots.

Impressed decorations were another popular artistic treatment used by the early potters (27%). **Impressed notches** and **grooves** carved on rims were the second most prevalent

embellishment used (15% of all the varieties of the decorations) and it is found on pottery from three studied horizons of Areni-1 (Figure 3). In the Third Horizon, fine or deep notches covered the rims of jars, and grooves were etched on the edges of braziers, cauldrons, and bowls. In the Second Horizon fine notches adorned the thin rims of high-necked jars, and the braziers were decorated with either notches or grooves. Rows of notches on the vessels were applied to the rims obliquely or perpendicularly, and sometimes those orientations changed.

In the First Horizon, oblique notches decorated the rims of the horned brazier (Figure 3: 1). Besides the notches, this brazier exhibits other kinds of decoration such as round impressions and through-holes. The impressed grooves in this horizon decorated the rims of storage vessels.

The first notches appeared on pithoi from sites of the "Aratashen-Shulaveri-Shomutepe" tradition, and look like deep grooves—turning the rim into a toothed edge. This kind of decoration continued to exist until the final phase of the Late Chalcolithic period, appearing as either fine notches or wide grooves. Among the sites where the impressed decorations were present are Shulaverisgora (II), Chalagantepe, Kechili, Alikemektepesi, Tsopi, Samele Klde, Sioni, Aratashen Horizon 0, Ovçular Tepesi, Böyük Kesik, Leylatepe, Samertskhle Klde (Bakhshaliyev *et al.* 2010, table XVII; Kiguradze and Sagona 2003, pp. 51-53, Fig. 3.6: 1, 7-8; Fig. 3.7: 1, 3-5, 13; Fig. 3.8: 1-4; Kushnareva and Chubinishvili 1970, pp. 31-32, ill. 9: 18; pp. 46-47, ill. 18: 21; Museyibli 2007, table XIX, 3; Narimanov 1987, p. 231, ill. 3: 2, 10; p. 242, ill. 46; Narimanov *et al.* 2007, ill. V, 1-2, 9; Palumbi 2007, pp. 66, 68-69, Fig. 3, ill. 5; Munchayev 1982, p. 149, table XXXVII: 7-9), etc.

Perforations were among the most frequently used pottery decorations of the Neolithic-Chalcolithic period (15%). Impressing the wet surface with an awl created a horizontal row of holes. This kind of decoration is seen mostly on pottery from the Third and Second Horizons in Areni-1 (Figure 4). These decorations are quite famous for their use on ceramic material from the Middle and Late Chalcolithic sites, and can be seen mainly on braziers with undercut bases and flared sides, or on those with rounded bases and straight walls.

Some researchers consider that the perforated braziers from southern Caucasus sites were used as strainers or funnels, and, according to them, the holes had a functional purpose. This suggestion originates from early publications concerning perforated pottery from Mesopotamia. So, the earliest ceramics with perforations appear in the Hassuna and Halaf cultures (6,200–5,100 Cal BC), and among the material from Tell Hassuna and Tepe Gaura, where it's presented both on real strainers with perforated bodies and bases, and bowls with some perforations below the rim (Perkins 1949, pp. 2, 51, 167). These vessels, or strainers, were used for processing milk and making cheese

(Salque *et al.* 2012).

Concerning the perforated pottery from the southern Caucasus, this point of view seems acceptable for the vessels bearing numerous perforations all over their bodies and/or bases, as are those from Ilanlitepe, Böyük Kesik and Didube (Kiguradze and Sagona 2003, Fig. 3.18: 3, 6-7; Museyibli 2007, table XXII: 16; Narimanov 1987, p. 238, ill. 42). As for the ware with perforations below the rim, these seem to be decorated pottery and could not be used as strainers. Moreover, there are examples that confirm this point of view, among the ceramic material from the Third and the Second Horizons of Areni-1.

Along with perforated pottery with through-holes (Figure 4: 1-4), there is also a collection of ceramics decorated by "incompletely perforated", or blind holes (Figure 4: 5, 10, 11). The latter are used to decorate either the external or the internal surfaces. Also worth mentioning are the high-necked jars decorated with a row of perforations below the rim. With regard to the pottery from Areni-1 that has been described, its morphological features prohibit its use as strainers, since the perforations have no capacity for filtration.

In the First Horizon, the perforated decorations appear only on braziers, and only in the form of through-holes. Sometimes these are accompanied by other decorations (Figure 3: 1).

The pottery with perforated decorations from Areni-1 finds its parallels among the ceramic materials of Aratashen, Aknashen, Kechili, Mashtotsblur, Terteri Dzor, Adablur, Tsopi, Ovçular Tepesi, Teghut, Böyük Kesik, Khizanaatgora (Harutyunyan 2008, table II: 14-16, 21; Kiguradze and Sagona 2003, Fig. 3.21: 3; Kushnareva and Chubinishvili 1970, p. 32; Museyibli 2007, table XVIII: 9, table XXII: 13, table XXIII: 2, 5, 8, 9; Narimanov 1987, p. 231, ill. 3: 1, 11; Torosyan 1976, p. 77, ill. 14; p. 82, table V: 4; Palumbi 2007, pp. 70-71, plate 2, ill. 7; plate 3, ill. 1-3; Sardaryan 2001, p. 152, table XXVIII: 5-7; p. 153, table XXIX: 2, 6, 8; Munchayev 1982, table XLVII: 1-2), etc.

Thus, among the wide assortment of pottery decorations found—anthropomorphic applications, impressed notches and grooves, and perforated decorative treatments—were those most used by the Neolithic-Chalcolithic population of the Near East and the southern Caucasus. Possibly, each of these types of decorations had a symbolic meaning and was applied by the early potters for a specific purpose.

Unfortunately, to date there has been no special study devoted to solving the problem of the decorated pottery of the Neolithic-Chalcolithic period of the southern Caucasus. Descriptions of this ware are only mentioned briefly in publications. In our opinion, this subject deserves more attention, including a study of the typology, technical and technological features of the ceramics.

Knowing the significance of the various applications of certain types of decorations on certain types of ware, made for certain purposes, could help us understand the development of cultural and spiritual specificities among early societies.

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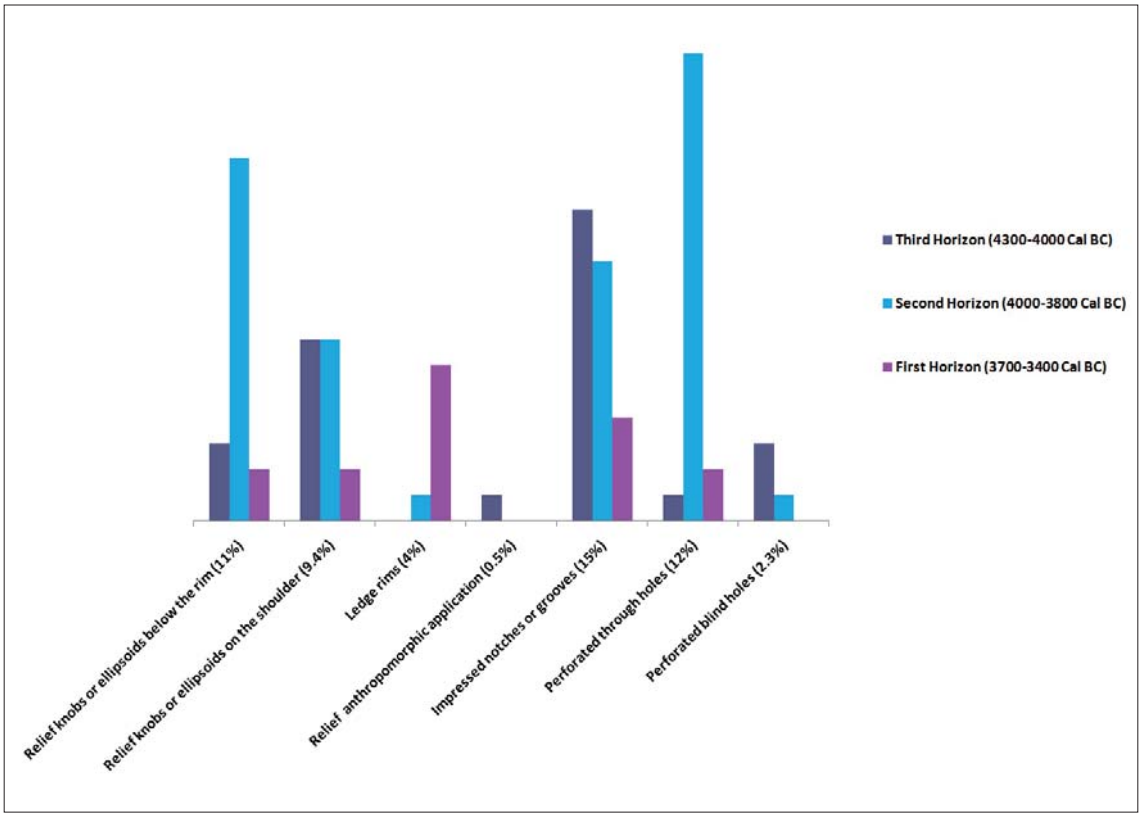

Figure 1

The quantitative comparison of the relief, impressed and perforated decorations of the pottery from three Late Chalcolithic Horizons of Areni-1 cave.

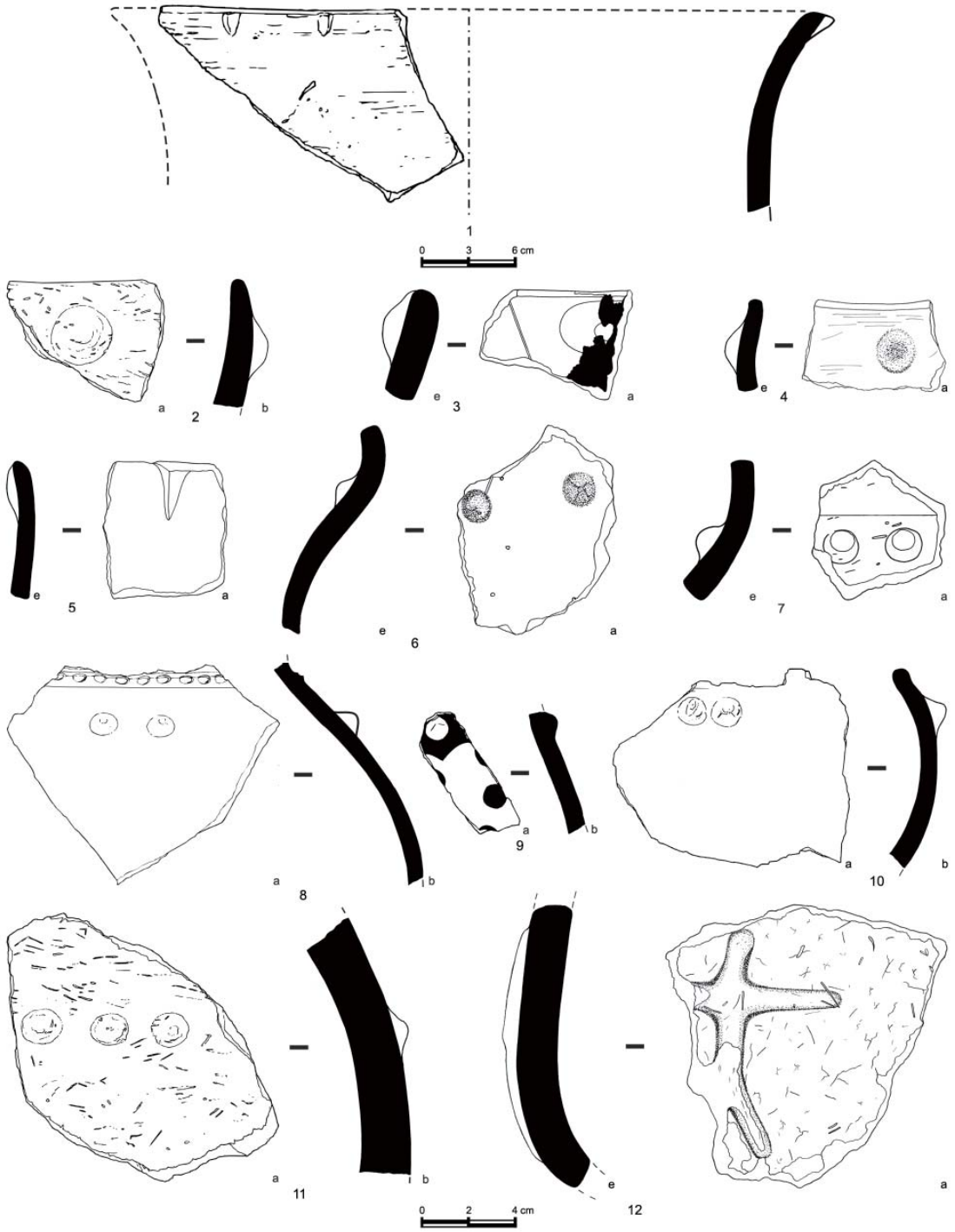

Figure 2

Relief decorations.

1-5. Knobs/ellipsoids below the rim; 6-1. Knobs/ellipsoids on the shoulder; 12. Anthropomorphic application (10: Horizon I; 1, 4-6, 9: Horizon II; 2-3, 7-8, 11-12: Horizon III).

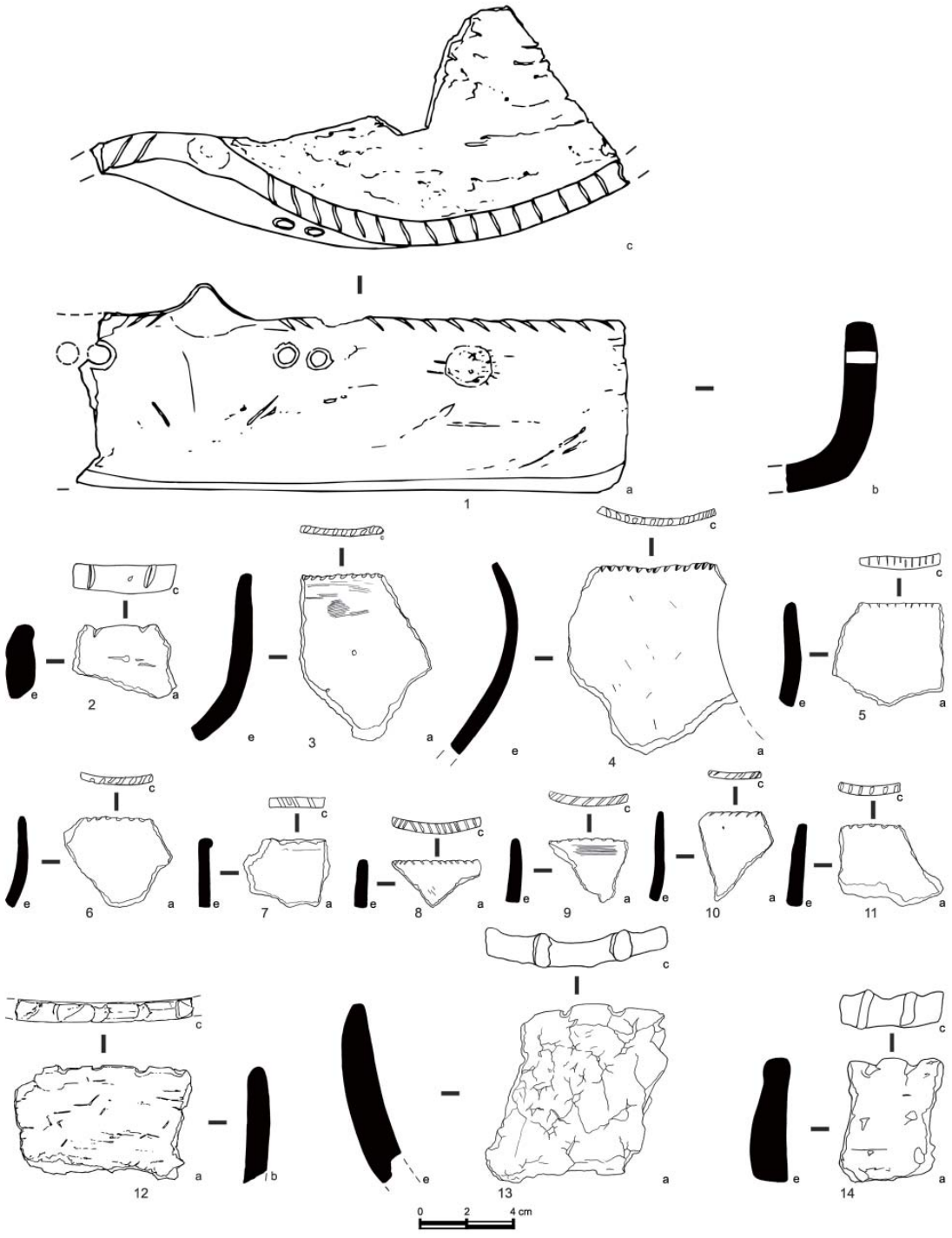

Figure 3

Impressed decorations. Notches and grooves.

1. Horned brazier with notches, perforated and impressed decorations.

(1, 12: Horizon I; 2, 5-6, 10: Horizon II; 3-4, 7-9, 11, 13-14: Horizon III).

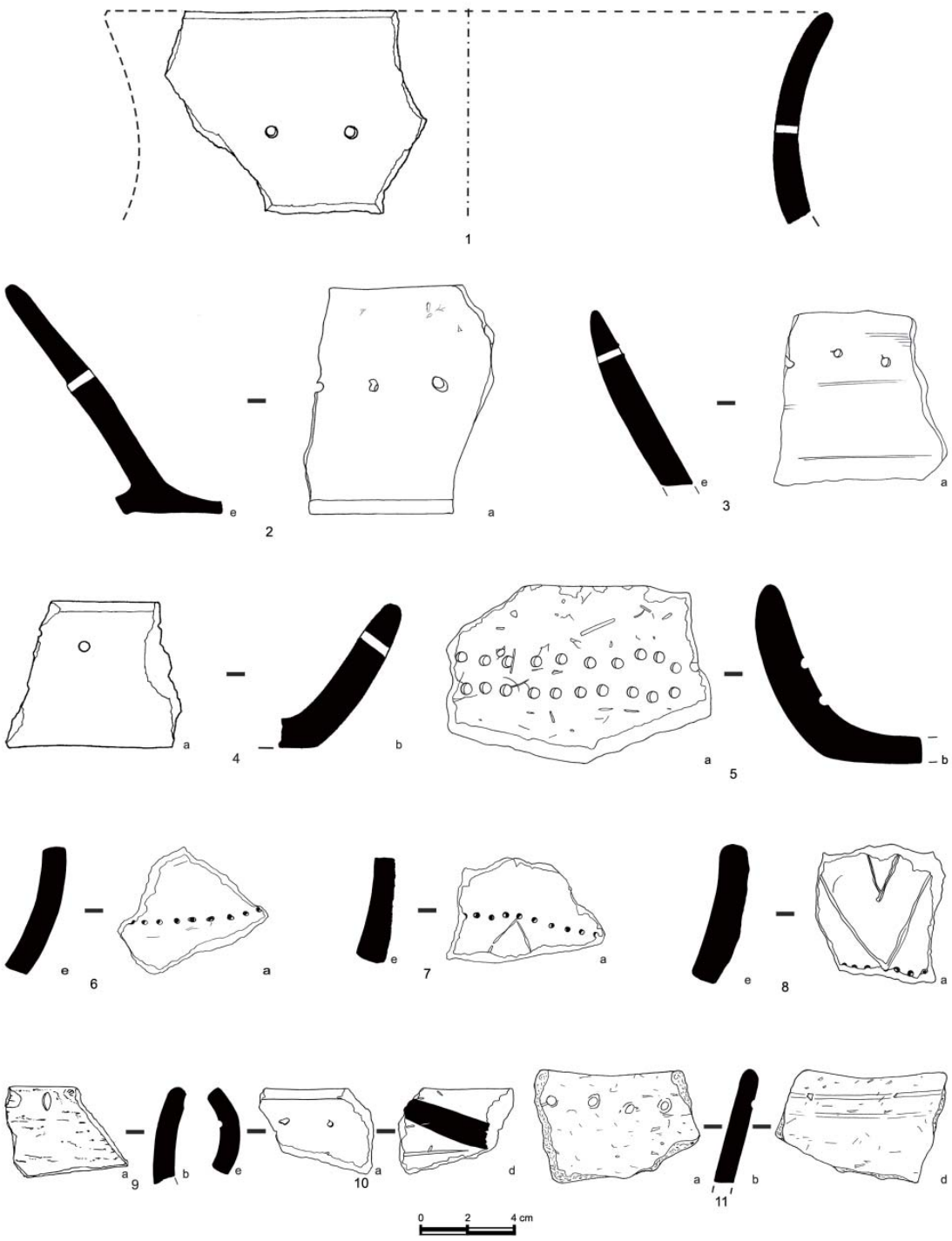

Figure 4

Perforated and impressed decorations.

1-4. Through-holes; 5, 10-11. Blind holes; 6-8. Punctuated decorations; 9. Grain pattern.

(1-4, 6-9: Horizon II; 5, 10-11: Horizon III).

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