Archaeology

Chalcolithic Settlement at Bronze Cave, Tsutskhvati Cave Complex (Republic of Georgia, Imereti)

Nikoloz Tskvitinidze^{*}, Nikoloz Tsikaridze^{**}, Eliso Kvavadze^{**}, David Lordkipanidze[§]

* School of Arts and Sciences, Ilia State University, Tbilisi, Georgia ** Georgian National Museum, Research Institute of Paleoanthropology and Paleobiology, Tbilisi, Georgia

§ Academy Member, Georgian National Museum, Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia

The present paper provides brief research of new Chalcolithic materials discovered at Bronze cave, Tsutskhvati cave complex. Scarce number of Chalcolithic sites in west Georgia, enhances importance of this discovery and makes it unique. Chalcolithic culture of west Georgia is very distinct. It has close connections with both the earlier Neolithic culture, and the later Early Bronze. Compared to the Neolithic period, the Chalcolithic lithic and ceramic industries show change. Lithic techniques are more concentrated on pressure flaking, while pottery loses decorative elements and becomes focused on utilitarian functionality without aesthetic embellishment. The discovery of copper objects and crucibles shows evidence of cold forging and the emergence of metallurgy. Previously, upper layers of Bronze cave thought to belong the Early Bronze Age, but following a comparative-typological analysis of the discovered materials, we can conclude that Bronze cave was inhabited in the Chalcolithic era and used as a permanent or temporary shelter. This discovery provides us with important update about west Georgian Chalcolithic period, enriches its scarce collections, is a novelty for the site and finally this research is important to qualify holistically the process of site formation. © 2020 Bull. Georg. Natl. Acad. Sci.

Chalcolithic, prehistoric, west Georgia, Tsutskhvati

Research on the Chalcolithic period in west Georgia is more focused over the past few decades. With some sites published in monographs, yet there are still a number of topics that remain unclear.

Research on the Chalcolithic period in western Georgia has great potential, especially considering that the number of known pertinent sites is smaller than those from other periods in the region.

In the Soviet period, when many cave sites were excavated with an interest in documenting the

Palaeolithic or Mesolithic, the recovered cultural remains from Chalcolithic period did not receive the same attention and remained unpublished. Today, the documentation or materials from those excavations are unfortunately lost, which leaves us with no information about the sites. Consequently, it is vital to expand research into the Chalcolithic period of western Georgia and integrate it within the wider context of the period.

Chalcolithic culture of west Georgia is very distinct. It has close connections with both earlier Neolithic culture, and later Early Bronze [1].

Compared to Neolithic period, the Chalcolithic lithic and ceramic industries show change. Lithic techniques are more concentrated on pressure flaking, while pottery loses decorative elements and becomes focused on utilitarian functionality without aesthetic embellishment. Of course there are still decorations, such as incised rims and circles on the body, also knobs, but they are less rich than Neolithic. The discovery of copper objects and crucibles shows evidence of cold forging and the emergence of metallurgy [1-4]. In terms of habitation and settlement patterns, in the Neolithic period, humans left caves and established new, the open-air type settlements, with only few cave sites known to have had Neolithic occupation. In the Chalcolithic period, we find both cave (Darkveti layers III-II [1], Samele Klde [2,3], Sagvarjile [4], Samertskhle klde [2,3] etc.) and open-air settlements (Akhalsopheli in Tkibuli municipality [5], Chikhori [6], Dzevri [7], Tetramitsa [8]). Moreover, some scholars attribute aforementioned sites to the Neolithic [9].

It should be emphasized that humans started to re-occupy caves in the Chalcolithic, and numerous theories about why people decided to return to the caves triggered ongoing, sometimes polemical, debates on this topic. But recent research suggests that last 7000 years humid subtropical climate has been established in west Georgia. About this time, the Black Sea reached its present level with insignificant alterations [10]. Should be noted as well that, in Chalcolithic, the region saw a slight decrease in temperature and increase in aridity [11], probably influencing humans to exploit caves again.

In the Chalcolithic period, new material culture elements emerge that differ from earlier periods, which include projectile points (arrow and spearheads), sickle blades, spindle whorls, stone bracelets, and so-called Sochi-Adler type hoes. Similar artefacts of the same period are found along the north-east shoreline of the Black Sea and Maykop, which implies connections between these regions. While the Sochi-Adler type hoes are mostly found along north-east Black Sea littoral, we also have some examples from west Georgia. So far, the easternmost point where this type of hoe is detected in the Terjola municipality in Imereti. The hoe, a surface find, is exhibited in Chkhari Museum. Sochi-Adler type hoes are also similar to hoes found at Tell Hassuna, Jemdet Nasr and other sites in Upper and Lower Mesopotamia [10].

In the frame of the project "Neanderthals in the south Caucasus" (initiated in 2017 by the Georgian National Museum and funded by the Shota Rustaveli National Science Foundation of Georgia), which pursues interdisciplinary research of Neanderthal settlement of the South Caucasus, archaeological excavations were carried out at Bronze Cave, Tsutskhvati.

The Tsutskhvati cave complex is located in western Georgia, 25km north-east of Kutaisi, in the valley of the Shabatagele River. In the 1970s, the first archaeological excavations took place in the Tsutskhvati caves; short-term work was also carried out in 1998-1999 and 2003-2004. Despite the discovery of the Middle Paleolithic artifacts, faunal remains and a Neanderthal tooth, the Tsutskhvati caves are only partially studied. In 2017 and 2018, excavations at Bronze Cave revealed 16 distinct layers containing Chalcolithic, Upper and Middle Paleolithic artifacts. For the aforementioned project it is important to study remains of more recent periods, to qualify holistically the process of site formation.

At the beginning of the most recent excavations, there were expectations of discovering only Bronze Age layers, especially given that the cross section was closer to the cave wall, where the possibility of uncovering of the cultural layers was greater. After removing top sediment in the eastern corner of the cave, in layer I, which consisted of medium size lime stones and loose sediments, we uncovered prehistoric archaeological materials of later periods, which were especially prominent in that area.

This layer is probably a witness of the Late Bronze Age or a bit later occupation, when the newcomers cleared the remains left by Chalcolithic settlers and piled them against the cave wall.

Most of the materials are fragmented and represented by ceramic sherds, flint flakes, bone tools, and zoological remains.

Ceramic sherds date back to various time periods, and include wheel and handmade pottery. They evince vessels in a broad range of shapes, sizes and fabrics. walled, sometimes with a slightly widened body (Fig.).

Rims are flat on the top and edged. In one case, we have comparatively large fragment with a knob which might be functional rather than decorative, perhaps used as a handle. This diagnostic sherd also has straight walls, with a slightly flared narrow rim (Fig.). On the whole, the excavated ceramics have no decoration if we do not consider knob as a decorative element. The brown-greyish, brown or grey pottery with quartz, sand, lime stone and mica inclusions, also with straight walls, knobs or ledged handles is known from other west Georgian Chalcolithic sites [1,2]. This group of ceramics



Fig. 1,3,4 - Pottery from Bronze Cave. 2 - Ceramic from Darkveti.

One group of ceramics, which drew our attention, is represented by a brown-greyish (Munsell colour chart for soil 2.5YR 4/3. 10YR 7/4. 10YR 5/4. 10YR 6/3.) handmade ware. Single sherds show mottled colouration varying from brown to grey, which indicates uncontrolled firing or the fact that the vessels were used in cooking. The fabric has quartz or sand inclusions, occasionally mica. Vessels are mostly straight discovered at Bronze Cave, with its fabric, shape and features, has close parallels with pottery known from Chikhori, Darkveti, Samele Klde, etc. (Fig.) [5, 1-3].

We also want to pay attention to one bone tool which was discovered in the same context. It represents a long bone of large mammal (the animal cannot be identified) which cracked lengthwise. The tip is artificially rounded and has pitting at the end. Nami and Scheinsohn [12] carried out experimental research on pressure flakers made by bone and observed the same type of marks on the tools which have intensive pitting on the distal end to the extent of modifying the shape of the point. On the basis of preliminary research, we concluded that this bone tool could have been used as a pressure flaking/retouching tool. In the Neolithic period of the region, mostly composite tools were used, hafted with geometric microliths. Pressure flaking was the most common technique in the Chalcolithic west Georgia compared to later periods. Flint sickle blades were used until the Late Bronze Age [13]. To make more precise suggestions about the function and the date of the tool, we need to carry out more research and evaluate radiocarbon dates which we will receive shortly.

Also, it is interesting that from previous excavations at Bronze caves the same layer was reported to be a fragment of the stone bracelet, the indicator and additional proof of Chalcolithic occupation of the cave. [14]

Following a comparative-typological analysis of the materials and the only radiocarbon date from west Georgia Chalcolithic from Dzudzuana cave dating back to 4366±217 BC [8] we can conclude that Bronze Cave was inhabited in the Chalcolithic era between 7-5 millenniums BC and used as a permanent or temporary shelter until the arrival of the Bronze Age settlers. This discovery is a novelty for the site; it provides us with important update about the west Georgian Chalcolithic period and enriches its scarce collections.

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არქეოლოგია

ქალკოლითური დასახლება ბრინჯაოს მღვიმეში, ცუცხვათის მღვიმოვანი, საქართველო, იმერეთი

Б. ცქვიტინიბე*, Б. წიქარიბე**, ე. ყვავაბე ** , დ. ლორთქიფანიბე $^{\$}$

სტატიაში წარმოდგენილია ცუცხვათის მღვიმოვანში, კერძოდ, ბრინჯაოს მღვიმეში ახლადაღმოჩენილი ქალკოლითური მასალის კვლევის შედეგები. დასავლეთ საქართველოს ქალკოლითური მეგლების სიმწირე ბრინჯაოს მღვიმეში აღმოჩენილი მასალის მნიშვნელობას ზრდის და სიახლეს წარმოადგენს. საქართველოს ქალკოლითური კულტურა მალზე თავისე-

^{*} ილიას სახელმწიფო უნივერსიტეტი, მეცნიერებათა და ხელოვნების ფაკულტეტი, თბილისი, საქართველო

^{**} საქართველოს ეროვნული მუზეუმი, პალეოანთროპოლოგიისა და პალეობიოლოგიის კვლევითი ინსტიტუტი, თბილისი, საქართველო

[§] აკადემიის წევრი, საქართველოს ეროვნული მუზეუმი, ივანე ჯავახიშვილის თბილისის სახელმწიფო უნივერსიტეტი, თბილისი, საქართველო

ბურია. მას ბევრი საერთო აქვს როგორც წინამორბედ ნეოლითურ, ასევე მომდევნო ადრებრინჯაოს კულტურებთან. ნეოლითთან სიახლოვის მიუხედავად, ქალკოლითში უკვე ჩნდება ამ კულტურისგან განმასხვავებელი ნიშნები, რომლებიც ქვის ინდუსტრიის და კერამიკის თავისებურებებში გამოიხატება: ქვის დასამუშავებლად მირითადად წნევით ატკეცვის ტექნიკა გამოიყენება, ხოლო კერამიკა კარგავს დეკორატიულ ელემენტებს და უფრო ფუნქციურ დატვირთვას იძენს. სპილენძის იარაღებისა და ტიგელების აღმოჩენა ცივად ჭედვისა და მეტალურგიის ჩასახვაზე მიგვანიშნებს. წინათ მიიჩნევდნენ, რომ ბრინჯაოს მღვიმის ზედა ფენები მხოლოდ ადრე ბრინჯაოს ხანას განეკუთვნებოდა, თუმცა მოპოვებული მასალის შედარებით-ტიპოლოგიური ანალიზის საფუძველზე, ბრინჯაოს მღვიმე ქალკოლითის ეპოქაშიც დასახლებული ჩანს, იმ დროს ბრინჯაოს მღვიმე მუდმივ ან დროებით საცხოვრებლად უნდა ყოფილიყო გამოყენებული. ეს აღმოჩენა გვაძლევს მნიშვნელოვან ინფორმაციას, ამდიდრებს დასავლეთ საქართველოს ქალკოლითის მწირ კოლექციებს. მეგლისთვის სიახლეს წარმოადგენს და ბოლოს ეს კვლევა მნიშვნელოვანია მეგლის ფორმირების ჰოლისტური გააზრებისთვის.

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