FEMALE BURIAL FROM DOGHLAURI: FOR THE CHRONOLOGY OF LATE BRONZE AGE CAUCASUS¹

ქალის სამარხი დოღლაურიდან: გვიანდელი ბრინჯაოს ხანის კავკასიის არქეოლოგიურ კულტურათა ქრონოლოგიისათვის

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¹ This work was supported by Shota Rustaveli National Science Foundation of Georgia (SRNSFG) [FR-19-735]

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Abstract. Present paper is about the N194 tomb of female individual from the Doghlauri burial ground - one of the largest monuments identified in the South Caucasus both in terms of the area and number of tombs. From the large number of burials excavated at Doghlauri burial ground, the tomb N194 unearthed in 2013 is of special importance due to the archaeological material and data obtained during the excavations, which allow us to make important conclusions in terms of arrangement of the burial, reconstruction of the burial rite, and finding parallels of the items intended for the deceased.

The burial was partially damaged, but the skeleton and grave goods were relatively well preserved. The burial inventory is quite diverse. Pottery is represented with four vessels typical for the Doghlauri burial ground as well as for the extensive territory of the central Transcaucasia of the Late Bronze Age. Jewelry from the N194 tomb is diverse. Parallels are known from the several monuments, which allow us to circle the geographical area of their distribution and determine the chronological framework.

Key words: Doghlauri; Late Bronze Age; Caucasus; Burial; Pottery; Jewelry;

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აბსტრაქტი: წარმოდგენილი სტატია შეეხება N194 ქალის სამარხს დოღლაურის სამაროვნიდან, რომელიც სამხრეთ კავკასიაში გამოვლენილი ძეგლებიდან ერთ-ერთი მასშტაბურია როგორც ფართობით, ასევე სამარხთა რაოდენობითაც. სამარხი ნაწილობრივ დაზიანებული იყო, თუმცა მიცვალებულის ჩონჩხი და არქეოლოგიური მასალა შედარებით კარგად შემოინახა. აღნიშნული სამარხი ერთ-ერთია დოღლაურის სამაროვნის იმ სამარხთაგან, რომელიც მნიშვნელოვანი დასკვნების გაკეთების საშუალებას გვაძლევს, როგორც სამარხის მოწყობის წესისა და დაკრძალვის რიტუალის რეკონსტრუქციის, ისე მიცვალებულისათვის განკუთვნილი ნივთების ასორტიმენტისა და ინტერდისციპლინური კვლევების შედეგად მიღებული პასუხების კუთხით.

კერამიკული ნაწარმი წარმოდგენილია ოთხი ჭურჭლით, რომელიც შეიძლება ითქვას, ტიპიურია როგორც დოღლაურის სამაროვნის, ასევე ცენტრალური ამიერკავკასიის გვიანდელი ბრინჯაოს კერამიკისა. მრავალფეროვანია სამარხში აღმოჩენილი სამკაული. პარალელები დაფიქსირებულია სხვადასხვა მეგლზე, რაც საშუალებას გვაძლებს შემოვხაზოთ მათი გავრცელების გეოგრაფიული არეალი და ქრონოლოგიური ჩარჩო.

საკვანძო სიტყვები. დოღლაური; გვიანბრინჯაოს ხანა; კავკასია; სამარხი; კერამიკა; სამკაული;

Introduction: The Caucasus in the Late Bronze-Early Iron Age (second half of the 2nd millennium BCE - beginning of the 1st millennium BCE) represents a rather complex region, primarily due to the numerous monuments of material culture the interdisciplinary research of which has just begun. The individual characteristics of each of the explored archaeological sites, despite the parallels and similarities existing throughout the Caucasus or the Near East, make it difficult to develop a precise chronological scheme appropriate for the whole region.

The Doghlauri burial ground is located at the southern end of the Dedoplis Mindori, the left bank of the River West Prone (Ptsa) to the north-west of the village Doghlauri (Kareli municipality), on the second terrace of the river, the height of which reaches 20 meters above the river level (fig. 1).



Figure 1. Location of the Doghlauri burial ground (View from Google Earth)

Information regarding Doghlauri burial ground appeared in the scientific literature in the 70s of the last century (Ghambashidze, 1974: 150-168). In 1979-1982 an archaeological expedition (led by Iulon Gagoshidze) of the S. Janashia Museum of Georgia (currently Georgian National Museum) excavated a kurgan of the transitional period from the Middle Bronze to the Late Bronze Age, in which a chariot drawn by two horses was found. Simultaneously, 56 pit-graves of The Late Bronze and Early Iron Age were revealed. In 2012, 153 burials of the Early Bronze and the Late Bronze Age were excavated during the construction of Ruisi-Agara section of Tbilisi-Senaki-Leselidze highway; in 2013 during the salvage excavations 257 burials were studied, while the campaign of 2015 revealed additionally 33 tombs.

Most of the tombs have been looted or damaged, only the small amount of them were preserved intact, according to which we can restore the burial rite and determine the cultural belonging of archaeological material. As a result of the work of heavy machinery during the highway construction significant information needed for scientific research was lost.

Methods:

Doghlauri burial ground is one of the largest monuments identified in the South Caucasus both in terms of the area and number of tombs. Interdisciplinary research of the burial ground, which was carried out within the project financed by Shota Rustaveli National Science Foundation of Georgia, allows us to arrange the information recovered from the burial ground on the basis of comparative and radiocarbon methods and make some adjustments in the existing general chronological scale of the Caucasus.

Palynological study of the pottery contents allowed us to evaluate the environment and reconstruct paleoclimate, vegetation cover and food ration of the population of that time. This research is crucial not only for determining the purpose of the ceramic vessels found at Doghlauri burial ground, but also for determining their role in the burial rite. Palynological research was performed at the Institute of Paleoanthropology and Paleobiology of the Georgian National Museum.

According to the anthropological research the gender, age, average life expectancy and demographic characteristics (gender and age ratio of population) from this archaeological site were determined. Anthropological research was performed at the anthropological Laboratory of the Institute of history of Ivane Javakhishvili Tbilisi State University.

Selected osteological material was sent to the Poznan Radiocarbon Laboratory to determine the chronological scheme of the Doghlauri burial ground and the region itself.

Discussion and Results:

From the large number of tombs excavated at Doghlauri burial ground, the burial N194 unearthed in 2013 is of special importance due to the archaeological material and data obtained during the excavations which allow us to make important conclusions in terms of arrangement of the burial, reconstruction of the burial rite, and finding parallels of the items intended for the deceased. The burial was partially damaged, but the skeleton and grave goods were relatively well preserved. The bottom of the burial pit was on 1.5 m depth from the ground surface. Pit had rectangular shape elongated from the north-west to the south-east. It is noteworthy that most of the tombs studied at Doghlauri burial ground represent the pitgraves, part of which were covered with stone embankment or wooden beams as remains of wood attested in some cases indicate.

The skeleton of a young female was buried in a crouched position on the left side on the floor of the tomb (fig. 2).



Figure 2. Burial N194

The burial inventory is quite diverse. Three clay vessels were placed at a distance of 20 cm from the skull in the northeastern corner and a small jar near the western wall of the tomb. The jewelry is represented with several examples: two bronze



Figure 3. *Jar from the burial N194*

bracelets on the wrist of the deceased's left hand, and 3 rings on the phalangae of the same hand. Additionally three rings, including two made of ornamented bronze plates; a pendant and a bronze needle were discovered in the chest area. There were numerous carnelian and bronze beads scattered throughout the neck and chest of the skeleton, while another group of bronze beads were located near the left wrist, around the bracelets. Pottery is represented with four vessels typical for the Doghlauri burial ground as well as for the

extensive territory of the central Transcaucasia of the Late Bronze Age.

An interesting specimen is a clay jar found near the skull of the deceased. The height of the vessel reaches 13 cm, the diameter of the rim - 8 cm, and the bottom - 3 cm. The jar has open rim and elongated neck. It is made of fine-grained clay with small inclusions and has black polished surface. The base of the neck is adorned with wavy ornament and horizontal incised line (fig. 3). A similar line is incised in the middle of the belly. This kind of vessel is known in the scientific literature as Melighele vessel according to the Melighele archaeological site in the Kakheli region (Pitskhelauri, 1973: 112-113, pls. XXV-XXVI) and is characteristic to the Central Transcaucasia of the Late Bronze Age. Close parallels in form as well as ornamentation are found in the N47 tomb of Tserovani burial ground in Shida Kartli region (Sadradze, 1991, pl. XII, 3);

on the territory of modern Armenia, on the settlement of Gegharot (Badalyan et. al., 2008: 70, fig. 23h) and in Yerevan (Esayan, 1969: pl.32). As for the ornament, the wavy ornament on these types of jars is also attested on the Shilda shrine of the Late Bronze Age, among the material derived from the pit N1 (Maisuradze, Pantskhava, 1984: 101, pl. LXXI) and in the N16 burial of Chiliankhevi burial ground (Kobaidze, 1984: 109, pl. LIX) and etc.

Three pots of different sizes placed in the northeastern corner of the tomb are of particular importance. Each of them has high, narrow neck, wide rim and wide belly. The similar form is the most widespread among the vessels of the Late Bronze Age at the Doghlauri burial ground. They are made of coarse clay, with large inclusions. The surfaces of the vessels were badly preserved with blackgrayish polished with numerous cracks (fig. 4, 5).

Palynological analysis was processed on the contents of relatively well-preserved pot (fig. 5). The beech (*Phagus Orientalis*) and pine (*Pinus*) dust predominates in the palynological spectrum. Small amount of Caucasian fir (*Abies*

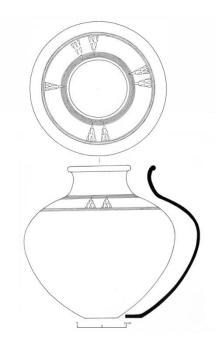


Figure 4. Pot with wedge-shaped imprints

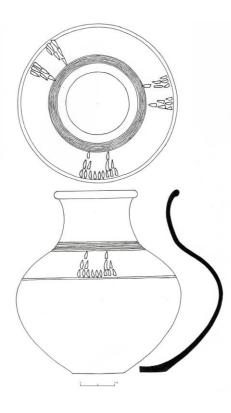


Figure 5. Small pot with wedgeshaped imprints

nordmanniana), alder (Alnus) and elm (Ulmus) dust and pores of forest ferns (Polypodiaceae) and other forest herbivores were preserved in the pot. Among the non-perishable remains, starch prevails here too. There are many fungal spores, and they include mold fungus (Mucoracea). Many insects and ticks, claws, epidermis and other types of zoological remains were attested during the palynological research.

According to the palynological research the dish supposedly made from the beech seeds was placed into the pot. The remains of numerous insects and mites have also been found here, which have eaten the beech leaving the epidermis and starch of the beech in the vessel. In addition to beech pollen, pores of other plants were detected that only grow in the forest.

Ornamentation technique of pottery should also be noted. The shoulders of all three vessels are decorated with triangles composed of wedge-shaped imprints. In case of one pot the triangles are composed of relatively large wedges, whereas thin elongated wedges are placed on the other ones (fig. 4).

Wedge-shaped ornaments with various compositions are quite widespread on pots and jars from the Doghlauri burial ground. According to the

opinion of K. Pitskhelauri the geographic dispersion of the wedge-shaped ornament coincides with the distribution area of Trialeti culture of the Middle Bronze Age (Pitskhelauri, 1973: 151-156). At present, the available data does not allow us to confirm any connection of this ornament to Trialeti culture of the Middle Bronze Age; however, from the geographical point of view, pottery decorated with wedges really fall within the mentioned boundaries.

Massive distribution of wedge-shaped imprints is mostly observed in the territory of Central Transcaucasia: Dedoplis Gora (Gagoshidze, Rova, 2018); Artik (Khachatryan, 1979); Gegharot (Badalyan et. al., 2008: 67-70); Samtavro (Kalandadze, 1980: fig. 645); Katlaniskhevi (Khakhutaishvili, 1964: pl. XXII); Tserovani (Sadradze, 1991); Natakhtari II (Sadradze et al., 2018); Khovlegora (Muskhelishvili, 1978), Ghrmaghele (Koridze, 1955) and etc. The lower chronological range of the monuments, on which the vessels decorated with this ornament were recorded, does not go beyond the 15th-14th centuries BCE.

The information obtained from the different archaeological sites is not enough to indicate the exact origin of aforementioned ornament; However this very décor with various combinations was developed exactly in the Shida Kartli region, mainly in its' lowland part.

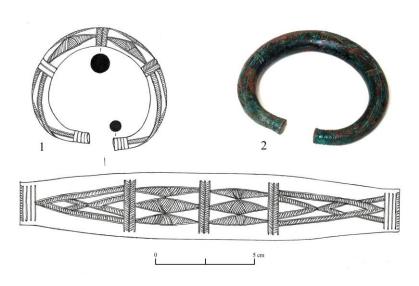


Figure 6. Bronze bracelets from N194 tomb

Different ornaments composed of wedges are attested in the archaeological sites of the Near East and Asia Minor, especially in Alalakh and Troy. Black-burnished wedge-shaped pottery with imprints from Alalakh is attributed by L. Woolley to the material from the V layer and differences between the IV and VI layer are noted (Woolley, 1955: 343, pl. C). Blackburnished ware adorned with wedge-shaped imprints recorded in the VI layer of Troy (Chabot Aslan, 2011: 415; fig. 25). In both cases, it is difficult to indicate any connection between

upon mentioned monuments and Transcaucasian archaeological sites of the Late Bronze Age, as the pottery is radically different in regard of shapes; although it is quite possible that the ornament composed of wedge-shaped imprints originated from the territory somewhere between the Caucasus and Asia Minor.

Judging by the radiocarbon data, the chronological diffusion of upon mentioned ornament falls within the second half of the $14^{\rm th}$ century BCE to the second half of the $13^{\rm th}$ century BCE; however, it is not excluded that the upper chronological limit reaches $12^{\rm th}$ century BCE. Interestingly, the pottery with wedge-shaped imprints from the N68 (2012) tomb from the Doghlauri

burial ground finds similarities with the motives of pottery from Alalakh and Troy.

Jewelry from the N194 tomb is diverse. Parallels are known from the several monuments of Transcaucasia, which allow us to circle the geographical area of their distribution and determine the chronological framework. Exact analogies of the bronze bracelets adorned with lozenge-shaped ornaments and oblique incised lines (fig. 6 1.2) discovered on the wrist of the deceased were recorded in the N5 tomb of the Tserovani burial ground (Sadradze, 1991, pl. VII, 2, 3) and Tskhinvali (Tekhov, 1963: 93, fig. 409).

As for Doghlauri burial ground itself, identical bracelets are found in 3 tombs, which, judging by the inventory and the posture of the skeleton, also belong to female individuals. Currently, the geographic distribution area of these bracelets is limited to the Shida Kartli region, which indicates their narrow geographical diffusion.

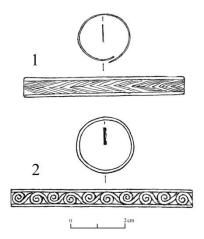


Figure 7. Bronze rings from N194 tomb

In a whole 6 rings were found in the N194 tomb. 4 of them represent simple bronze rings, while other two are made of bronze plate with engraved motifs. One of them is decorated with a coniferous ornament (fig. 7 1), which finds a direct parallel to the N27 tomb of the Tserovni burial ground (Sadradze, 1991: pl. 1915). The second ring also bears an interesting pattern, decorated with circular meanders (fig. 7 2), the close analogy of which was detected in the N46 tomb of Nasadgomari burial ground (Kakheti region) (Pitskhelauri, 1982: pl. XXVIII).

The beads are the most numerous specie of jewelry from the N194 tomb. In total 141 carnelian and 71 bronze beads were discovered in the tomb.



Figure 8. Bronze pendants from N194 tomb

Bronze teardrop-shaped pendant (fig. 8 1) and part of a bronze pendant (fig. 8 2) were also recovered from the chest area of the deceased.

Conclusion:

Future research of the Doghlauri burial ground will play an important role in the periodization of archeological cultures of the Late Bronze Age. Nowadays, according to our available data, this particular archaeological site and the Late Bronze Age layers of Dedoplis Gora nearby are closely connected with other sites of Transcaucasia, especially Shida Kartli region of modern Georgia and the northern part of Armenia.

Considering the palynological data from the Doghlauri burial ground the climate of The Late Bronze Age was not as warm as in the period of the Early Bronze Age Kura-Araxes culture. Heat-loving vegetation is no longer represented in the investigated material of the Late Bronze Age which are well observed in the material of the Early Bronze Age settlements and tombs in the territory of Kartli region. As for human economic activity, samples taken from Doghlauri burial ground have shown that population was engaged in farming as well as cattle breeding (Kvavadze et al., 2020).

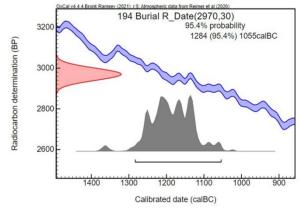


Figure 9. Radiocarbon data from the tomb N194

According to the radiocarbon data, we have the possibility to date the burial N194 to the 13^{th} - 12^{th} centuries BCE (fig. 9). The Late Bronze Age burials based on the comparative-chronological and radiocarbon methods could be placed between the 15^{th} - 14^{th} and 12^{th} centuries BCE, which indicates about 200-300 years of one particular stage of development.

დამოწმებული წყაროები და ლიტერატურა

- კალანდაძე, ალ. (1980). მცხეთა IV. არქეოლოგიური კვლევა-ძიების შედეგები. სამთავრო. *წინარეანტიკური ხანის არქეოლოგიური ძეგლები.* თბილისი.
- კობაიძე, ლ. (1984). ჩილიანხევის სამაროვანი "A", *კახეთის არქეოლოგიური ექსპედიციის შრომეზი*, VI. თბილისი.
- მაისურაძე, ბ., ფანცხავა, ლ. (1984). შილდის სამლოცველო. თბილისი.
- მუსხელიშვილი, დ. (1978). *ხოვლეს ნამოსახლარის არქეოლოგიური მასალა.* თზილისი.
- სადრაძე, ვ., ხოხობაშვილი, თ., ღლიღვაშვილი ე., ძნელაძე მ. (2018). *ნატახტრის შუა და* გვიანბრინჯაოს ხანის სამაროვნები. თბილისი.
- ფიცხელაური, კ. (1973). აღმოსავლეთ საქართველოს ტომთა ისტორიის ძირითადი პრობლემები (∂g . \ddot{g} . XV-VII სს.). თბილისი.
- ფიცხელაური, კ., მენაბდე, ც. (1982). გადრეკილის არქეოლოგიური ძეგლები. თბილისი.
- ქორიძე, დ. (1955). თბილისის არქეოლოგიური ძეგლები. თბილისი.
- ღამბაშიძე, ოთ. (1974). ბრინჯაოს ხანის ძეგლები სოფელ დოღლაურიდან. *მასალები საქართველოს და კავკასიის არქეოლოგიისთვის.* ტომი VI. თბილისი.
- ხახუტაიშვილი, დ. (1964). უფლისციხე. თბილისი.
- Есаян, С. (1969). Ереван. Ереван.
- Садрадзе, В. (1991). *Михета в XV-XIII вв. до н.э. (Вопросы хронологии и периодизации памятников Шида Картли).* Тбилиси.
- Техов, Б. (1963). *К Истории изучения памятников эпохи энеолита и бронзы в нижнем течении реки Большой Лиахви*. Тбилиси.
- Хачатрян, Т. (2018). Артикский некрополь. Ереван.
- Badalyan, R., Smith, A., Lindsay, I., Khatchadourian, L., Avetisyan, P. (2008). Village, fortress and town in Bronze and Iron Age southern Caucasia: A preliminary report on the 2003–2006 investigations of project ArAGATS on the Tsaghkahovit plain, republic of Armenia.
- Chabot Aslan, C. (2011). A place of burning. Hero or ancestor cult at Troy. Hesperia 80.
- Gagoshidze, I., Rova, E. (2018). New investigations at Aradetis Orgora, a multi-period centre in the Shida Kartli region in Georgia. In: A. Batmaz, G. Bedianashvili, A. Michalewicz and A. Robinson, (eds.). *Context and Connection: Essays on the Archaeology of the Ancient Near East in Honor of Antonio Sagona (Orientalia Lovaniensia Analecta 268)*, Peeters: Leuven, pp.521-546.
- Kvavadze, E., Chichinadze, M., Martkoplishvili, I. (2020). *Ancient human activities and environment:* palynological date from Early Bronze Age of Georgia, Caucasus.
- Woolley, L. (1955). *Alalakh.* An account of the excavations at Tell Atchana in the Hatay, 1937-1949. Oxford.

REFERENCES

- k'alandadze, al. (1980). *mtskheta IV*. arkeologiuri k'vleva-dziebis shedegebi. samtavro. ts'inareant'ik'uri khanis arkeologiuri dzeglebi. *[Mtskheta* VI. The results of archaeological Investigations: I Samtavro sites of before Classical Period, II The results of archaeological investigations of 1976–78.].
- k'obaidze, l. (1984). *chiliankhevis samarovani "A", k'akhetis arkeologiuri eksp'editsiis shromebi, VI. [Chiliankhevi cemetery "A", works of Kakheti archaeological expedition, VI.* Tbilisi].
- maisuradze, b., pantskhava, l. (1984). shildis samlotsvelo. [Shilda shrine. Tbilisi].
- muskhelishvili, d. (1978). khovles namosakhlaris arkeologiuri masala. [Archaeological material o Khovle settlement. Tbilisi].
- sadradze, v., khokhobashvili, t., ghlighvashvili e., dzneladze m. (2018). nat'akht'ris shua da gvianbrinjaos khanis samarovnebi. [Natakhtari cemeteries of the middle and late Bronze Age, Tbilisi].
- pitskhelauri, k'. (1973). aghmosavlet sakartvelos t'omta ist'oriis dziritadi p'roblemebi (dzv.ts'. XV-VII ss.). . [Main issues of the history of eastern Georgian tribes (15th-7th cc. BC). Tbilisi].
- pitskhelauri, k'., menabde, ts. (1982). *gadrek'ilis arkeologiuri dzeglebi. [Archaeological monuments of Gadrekili.*]. Tbilisi.
- koridze, d. (1955). *tbilisis arkeologiuri dzeglebi.* [Archaeological monuments of Tbilisi.].

 Tbilisi.
- ghambashidze, ot. (1974). brinjaos khanis dzeglebi sopel doghlauridan. *masalebi sakartvelos da k'avk'asiis arkeologiistvis.* t'omi VI. [Bronze age sites from Doghlauri. *Materials for the archaeology of Georgia and Caucasus.* Vol. VI. Tbilisi].
- khakhut'aishvili, d. (1964). *uplistsikhe.* [Uplistsikhe, Tbilisi].
- Badalyan, R., Smith, A., Lindsay, I., Khatchadourian, L., Avetisyan, P. (2008). Village, fortress and town in Bronze and Iron Age southern Caucasia: A preliminary report on the 2003-2006 investigations of project ArAGATS on the Tsaghkahovit plain, republic of Armenia.
- Chabot Aslan, C. (2011). A place of burning. Hero or ancestor cult at Troy. Hesperia 80.
- Gagoshidze, I., Rova, E. (2018). New investigations at Aradetis Orgora, a multi-period centre in the Shida Kartli region in Georgia. In: A. Batmaz, G. Bedianashvili, A. Michalewicz and A. Robinson, (eds.). *Context and Connection: Essays on the Archaeology of the Ancient Near East in Honor of Antonio Sagona (Orientalia Lovaniensia Analecta 268),* Peeters: Leuven, pp.521-546.
- Kvavadze, E., Chichinadze, M., Martkoplishvili, I. (2020). Ancient human activities and environment: *palynological date from Early Bronze Age of Georgia, Caucasus.*
- Woolley, L. (1955). *Alalakh*. An account of the excavations at Tell Atchana in the Hatay, 1937-1949. Oxford.

Esayan, C. (1969). Yerevan. [Erevan].

Khachatryan, T. (2018). Atkikskii nekropol. Yerevan. [Artik necropolis, Yerevan].

- Sadradze, V. (1991). *Mtskheta v XV-XIII vv. do. n. e. (Voprosi khronologii I periodizacii pamyatnikov shida kartli*, Tbilisi. [Mtskheta in 15th-13th cc. BC. (Issues on the chronology and periodization of the sites of Shida Kartli), Tbilisi].
- Tekhox, B. (1963). *K istorii izucheniya pamyatnikov epokhi eneolita I bronzi v nijnem techenii reki Bolshoi liakhvi*. Tbilisi. [On the history of the sites of Chalcolithic and Bronze age from the lower flow of Didi Liakhvi river. Tbilisi].