PRELIMINARY REPORT OF THE EXCAVATIONS ON LIPI KURGAN[1]

ლიპის ყორღანის წინასწარული ანგარიში

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Abstract

The Lipi Kurgan, excavated in 2021 within Georgia's Tetritskaro Municipality, represents a significant contribution to the study of Early and Middle Bronze Age mortuary practices associated with the Trialeti cultural horizon. Situated between the villages of Lipi, Ipnara, and Samghereti, the site comprises a burial mound characterized by concentric cromlechs, stratified stone armouring, and a central chamber. Despite prior looting, the chamber yielded human remains and a diverse assemblage of grave goods, including bronze artifacts, faience and gold beads, a golden goblet, and an alabaster bowl. Notably, cartwheel imprints and a bovine skeleton suggest ritual conceptions involving an ox-drawn cart as a symbolic vehicle for the deceased's passage to the afterlife. Palynological and stratigraphic analyses revealed the deliberate inclusion of medicinal herbs, salted meats, and traditional Georgian foodstuffs, offering insight into funerary provisioning and dietary customs. Climatic indicators point to a colder environmental phase during the Middle Bronze Age, with evidence suggesting that interments were seasonally timed to winter months. These findings underscore the Trialeti culture's technological sophistication, symbolic complexity, and ecological responsiveness. The Lipi Kurgan thus emerges not merely as a funerary site, but as a ritualized landscape wherein mortuary architecture, cosmological symbolism, and environmental adaptation converge. This study contributes to a deeper understanding of prehistoric lifeways in the South Caucasus and affirms the enduring cultural legacy embedded within its kurgan traditions.

Keywords: Georgia, Kvemo Kartli, Kurgan, Middle Bronze Age, Trialeti Culture.

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დიმიტრი ნარიმანიშვილი

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აბსტრაქტი

ლიპის ყორღანის არქეოლოგიური კვლევა ჩატარდა საქართველოში, თეთრიწყაროს მუნიციპალიტეტის, ლიპის, იფნარასა და სამღერეთის სოფლებს შორის, მდ. ტორნეს მარჯვენა ნაპირზე 2021 წელს. ის წარმოადგენს მნიშვნელოვან არქეოლოგიურ ობიექტს, რომელიც კარგათ ასახავს შუა ბრინჯაოს ხანის თრიალეთის კულტურის მატარებელი ხალხის ყოფას, კულტურას და მითო-რელიგიურ მსოფლმხედველობას. ყორღანში აღმოჩნდა თრიალეთის კულტურისთვის დამახასიათებელი არა-ერთი მნიშვნელოვანი არტეფაქტი. არქეოლოგიური სამუშაოებისას გამოვლინდა მოზრდილი ქვებით გამართული ორი კრომლეხი, ორ ფენად განლაგებული ქვის საფარი, რომელიც ფარავდა ყორღანის მიწაყრილს, ხარის სამარხი და ცენტრალური დასაკრძალავი კამერა. მიუხედავად ძარცვის კვალისა, დასაკრძალავ კამერაში აღმოჩენდა ადამიანის ნაშთები და მრავალფეროვანი სამარხი ინვენტარი, მათ შორის სხვადასხვა ტიპის თიხის ჭურჭლები, ბრინჯაოს ნივთები, ფაიანსისა და ოქროს მძივები, ოქროსა და ალაბასტრის თასები. ცენტრალური დასაკრძალავი კამერის იატაკზე დადასტურებული ეტლის ბორბლების ანაბეჭდები და ხარის ჩონჩხი მიუთითებს რიტუალზე, რომლის მიხედვითაც გარდაცვლილის სული, ეტლში შებმული ხარებით ან ხარით, გადადიოდა საიქიოში. პალინოლოგიურმა და სტრატიგრაფიულმა ანალიზებმა გამოავლინა სხვადასხვა ჯიშის სამკურნალო და საკვები მცენარეების და დამარილებული ხორცის არსებობა. ჩატარებული ლაბორატორიული კვლევების საფუძველზე შეიძლება ითქვას, რომ ყორღანის გამართვისას და დაკრძალვის რიტუალის პერიოდში შედარებით ცივი გარემო იყო. ლიპის ყორღანი წარმოჩნდება არა მხოლოდ როგორც სამარხი სტრუქტურა, არამედ როგორც რიტუალიზირებული ლანდშაფტი, სადაც კარგად არის ასახული არქიტექტურის, კოსმოლოგიური სიმბოლიზმის და გარემოს ურთიერთშეხამება. ლიპის ყორღანზე ჩატარებულმა კვლევებმა კიდევ ერთხელ ხაზი გაუსვა თრიალეთის კულტურის მაღალ განვითარებას. კვლევა ამდიდრებს როგორც საქართველოს ისე სამხრეთ კავკასიის პრეისტორიული საზოგადოების შესახებ არსებულ ცოდნას.

საკვანძო სიტყვები: საქართველო, ქვემო ქართლი, ყორღანი, შუა ბრინჯაოს ხანა, თრიალეთის კულტურა.

Introduction

The Lipi Kurgan is situated in Georgia's Tetritskaro Municipality, nestled between villages Lipi, Ipnara, and Samghereti (Fig. 1), on the right bank of the River Torne [Narimanishvili 2021].

Intensive research on burial mounds in the region began in the 1950s. The first kurgan was excavated in 1952 and was located five kilometres west of Tetritskaro. In 1956-1971, the Tetritskaro archaeological expedition discovered burial mounds on the southern slope of the Khrami-Algeti watershed mountain at an altitude of 1200-1850 meters above sea level. The expedition traced sixty-three burial mounds, of which only eleven have been archaeologically studied. Eight groups of kurgans

were recorded: the first and second groups of burial mounds are located at the foot of the southern slope of the Bedeni Mountain, in the territory of medieval settlements. Of these, only the second group's N11 burial mound was excavated near the village of Menkalisi; the third group's N3 burial mound was located in the so-called Zaaliseuli forest; and the fourth group's burial mounds were near place Nadarbazevi, at an altitude of 1300 meters above sea level; the fifth group of burial mounds included twelve burial mounds located on the Bedeni Plateau, at an altitude of 1600-1700 meters above sea level; the sixth group was found in the western part of the Bedeni Plateau, above the village of Kldeisi. Eleven burial mounds were included in this group, and only one burial mound, N10, was excavated. The seventh group is located on the road to Tsalka, and the eighth group is located at the top of the Bedeni mountain, at an altitude of 1750-1800 meters above sea level. The burial mounds of the seventh and eighth groups have not been archaeologically studied. Ten burial mounds excavated by the expedition belong to the Bedeni culture, while burial mound N11 belongs to the Trialeti culture of the Middle Bronze Age [Gobejishvili 1980].

Methodology

The excavation of the Lipi Kurgan was conducted using a systematic, multidisciplinary approach that integrated field archaeology, stratigraphic documentation, spatial analysis, bioarcheological examination, and laboratory-based environmental studies. Before excavation, the mound was surveyed and mapped, with detailed documentation of external structural elements such as cromlechs and stone armouring. Excavation proceeded through controlled removal of surface and subsurface layers, following natural stratigraphy. Each layer was recorded using standardised field forms, scaled drawings, and photographic documentation. Stratigraphic cuts were employed to identify and differentiate geological horizons within the burial chamber, which was excavated in quadrants to preserve contextual integrity and allow for phased documentation.

Results and analysis

In 2021 the “Centre for the Protection and Study of Antiquities – Trialeti” excavated one of the kurgans in a field located east of the village of Lipi (Fig. 2). The diameter of the kurgan is 26 meters, and the average height of the mound is two meters. The highest point is 1081.15 meters above sea level, and the modern surface of the field is 1079.2 meters. The mound is surrounded by a cromlech made of large stones. In the inner space of the cromlech, about four meters from the large circle, there is a second circle made of relatively more minor stones, a diameter of about seventeen meters. The space between the first and second circles is filled with medium and small stones. The second cromlech begins with a relief mound of earth removed during the excavation of the burial chamber and abuts the burial chamber in an arc. The mound starts from the old surface of the planet. Its first layer contains black soil and is seventy centimetres high, and a layer of yellow clay thirty centimetres thick is poured on top of it. On this yellow layer is poured a twenty-centimetre-thick black soil, which completely covers the edge of the burial mound inside the second cromlech. On this layer is laid the first armour made of small stones, the thickness of which is about forty centimetres. The first stone armour starts from the edge of the second cromlech and covers the burial mound completely. Small stones of white limestone are stacked side by side on the armour. This entire mass, extending from the edge of the first cromlech, is again covered with a fifteen-twenty-centimetre-thick layer of black soil on which a stone armour is

arranged. This layer of stones is also covered with a layer of minor white limestones. So, two strips of white limestone pebbles surround the edge of the barrow. Thus, the first armour starts directly from the edge of the yellow earthen barrow and completely covers the inner space of the small cromlech. The second armour begins from the edge of the large cromlech and completely covers the barrow (Fig. 3). The burial chamber was filled with stone. As a result of the excavation, no traces of the roofing of the burial chamber were confirmed.

The burial chamber is in the central part of the burial mound, cut into the ground and oriented from west to east; the floor was recorded at a depth of 3.25 meters from the current ground surface and more than five meters from the highest point of the burial mound. Four geological layers can be read in the chamber cut: I - black soil; II - greyish soil; III - yellow loam; IV - brown loam.

The shape of the burial chamber is a triangle with rounded corners in plan (Fig. 4); the corners of the western part are rounded, and the walls of the chamber narrow to the east so that a narrow end is formed in the eastern part, the top of which is rounded. Its shape is like that of a cart. The length of the chamber in the central part, on the west-east axis, is six meters, and the maximum width, on the north-south axis, at the western wall and in the central part, is three meters.

The burial mound was robbed twice. Traces of one of the trenches dug by the robbers were visible in the northwestern section of the burial mound, where a white spot was visible in the cut of the stone; its width was 2.1 meters. The robbers' trench led at an oblique angle towards the centre of the burial chamber. It was impossible to trace the trench to the floor of the burial chamber because the medieval ceramics (including glazed ones) found in this strip stopped at a height of two meters from the floor. Subsequent excavations showed that this was the second robbery attempt and that it took place in the Middle Ages.

Human skeletal bones were found along the western wall of the burial chamber, at a height of 2.2 meters above the floor of the burial chamber. In the same plane, at a height of 40-70 centimetres from the floor, many fragments of various ceramic vessels were found. We believe that these two facts, and the fact that the pottery in the burial chamber was practically not found *in situ*, may indicate that the first robbery occurred not long after the construction of the kurgan.

Thus, the tomb was looted. However, it was observed that one group of pottery vessels brought into the tomb was located along the northern wall of the burial chamber; another group was in the central part of the tomb and slightly to the east; and a third group was in the southwestern part of the tomb, directly along the southern wall.

Notably, the animal bones were not displaced, as indicated by the smoothness of the bone joints. The following were found on the tomb floor: 1. Two pairs of ox legs; 2. Small-footed cattle bones; 3. Large-footed cattle bones; 4. Large-footed cattle (horse?) limb bone.

According to anthropological analysis, three human individuals were confirmed in Lipi Kurgan. As it seems, the main deceased were placed in a coffin, on which cattle bones were placed. The coffin was woven with one-centimetre-wide ribbons, the total length of which was about 3.5 meters, and the width was two meters. It did not seem to cover those parts of the burial chamber where the pottery was placed (Fig. 4). The coffin was damaged in many places. One such damaged place was to the southwest of the deceased's skeleton, where the alabaster bowl was found. It is noteworthy that after the preparation and removal of the coffin, the following were found: 1. The golden goblet, which has

a wide, open mouth and a flattened side. The side is ribbed towards the base, with a small, arched heel. The height is about seven centimetres, and the heel is about five centimetres. The diameter of the base is 3.8 centimetres; 2. Alabaster Bowl; 3-8. Golden biconical bead; 9. Gold biconical bead, on the surface of which there is a circular gem socket, is decorated with a coarse circle. The side of the bead is decorated with two rows of granulated circles and the lower, wider part with one row of granulation. 10. A large golden bead; 11. A gold bead consists of nine spherical beads. Each sphere consists of two hemispheres joined together. There are circular gems on the surface of the sphere. In five of them, inlay with red carnelian has been preserved, and in one - with white glass. Granules surround the edges, and the middle part of the sphere is also granulated. The back of the bead is plain; 12. Andesite(?) sharpener (Fig. 5). All artefacts found in the burial mound indicate that the mound belongs to the Trialeti culture of the Middle Bronze Age, 23rd-18th centuries BC.

The imprints of four cartwheels were observed after removing the soil on the floor of the burial chamber. An axle shaft was preserved on one of the wheel fragments. The diameter of the cartwheels was probably up to one meter. Notably, small stones were confirmed at the ends of the footprints of all four cartwheels.

The distance between the wheels in the western part of the burial chamber is 1.75 meters, which is the exact distance between the front wheels. The distance between the front and rear axles is 1.5 meters. The deceased was laid to rest between the rear wheels, 80 centimetres from the western wall. Twisted wooden poles were identified along the burial chamber's southern wall. Their total length is 2.2 meters, and their width is 5-7 centimetres. It is possible that they were cart handles or parts of a yoke. It should also be noted that several pits are cut into the chamber's floor.

A two-meter-diameter stone mound was found east of a burial chamber. After removing the stone mound, a pit was discovered, which was cut into the bell that was dug out during the excavation of the burial chamber. Its depth is fifty-five centimetres. A whole bull was buried in the pit, which was laid on its right side (Fig. 6). The head was turned to the east, although no part of the skull was found in the pit. The bull's skull was also not found in the burial chamber. Considering the shape of the burial chamber and the fact that a cart was brought in for the deceased, the discovery of the bull's skeleton undoubtedly indicates the Bronze Age burial ritual and belief, according to which the soul of the deceased was transported to the afterlife by an ox harnessed to a cart [Narimanishvili 2015].

The palynological material discovered in the Kurgan is highly significant, providing valuable insights into ancient burial practices and the use of medicinal and culinary plants.

Sample L/12, taken from the northwestern corner of the chamber, consists of remains from a coffin, indicating that a deceased individual was laid upon it. This coffin rested on a pine bed, as evidenced by numerous salt crystals from human bones and flax fibres in the sample. Additionally, abundant parenchymal cells of pine wood were identified.

Samples L/19 and L/23, collected from small pits within the burial mound, were particularly noteworthy. They contained salted meat wrapped in plant leaves, and more salted meat, likely smoked, was found in vessel #3.

Sample L/34, obtained from the middle part of pit #1, showcased a rich palynological spectrum. Most medicinal plants within this sample suggest that these plants were intentionally placed in the pit.

A palynological analysis of the contents of the vessels discovered in the burial mound revealed that nearly all were intended for culinary use. Notably, wheat and various types of sowing grains predominated in the spectrum of vessel contents, which were rich in starch and phytoliths. The remains of various edible herbs, including mallow, nettle, sorrel, and celery, found in the vessels may indicate that the population during the Lipi Kurgan period were preparing "mkhali," a traditional Georgian dish seasoned with walnuts and hazelnuts.

The ecological conditions of the region during the Middle Bronze Age, particularly the climate, appear to have been harsher than those of the Late and Early Bronze Ages. None of the Lipi burial mound samples contained remnants of chestnut, linden, vine, laurel, or fig, typically indicators of a warmer climate. Interestingly, very few remains of insects and ticks were found in the examined material, suggesting that the deceased were buried during the colder months of the year.

Conclusion

The investigations at the Lipi Kurgan have revealed a site of significant archaeological and cultural value, shedding light on the mortuary rites, craftsmanship, and daily life practices of the Trialeti culture. Despite evidence of looting, the preservation of burial architecture, artefacts, and organic remains offers a rare and nuanced glimpse into beliefs regarding the afterlife, as reflected in the symbolic inclusion of a bull and cart, the use of medicinal plants, and the preparation of ritual foods. The meticulous stratigraphic and palynological analyses underscore the sophistication of these ancient communities, attesting to their technological skills and their deep connection with the environment. The discoveries at Lipi Kurgan not only enrich our understanding of the South Caucasus' prehistoric societies but also highlight the enduring legacy of their traditions, echoing across millennia in the archaeological record.

Figure Caption:

Fig. 1 – Location of the Lipi Kurgan.

Fig. 2 – Lipi Kurgan.

Fig. 3 – Lipi Kurgan after removing part of the soil and stone layers.

Fig. 4 – Pottery found in the Kurgan.

Fig. 5 – Main part of small artefacts found in the kurgan.

Fig. 6 – Burial chamber and pit grave of the bull.

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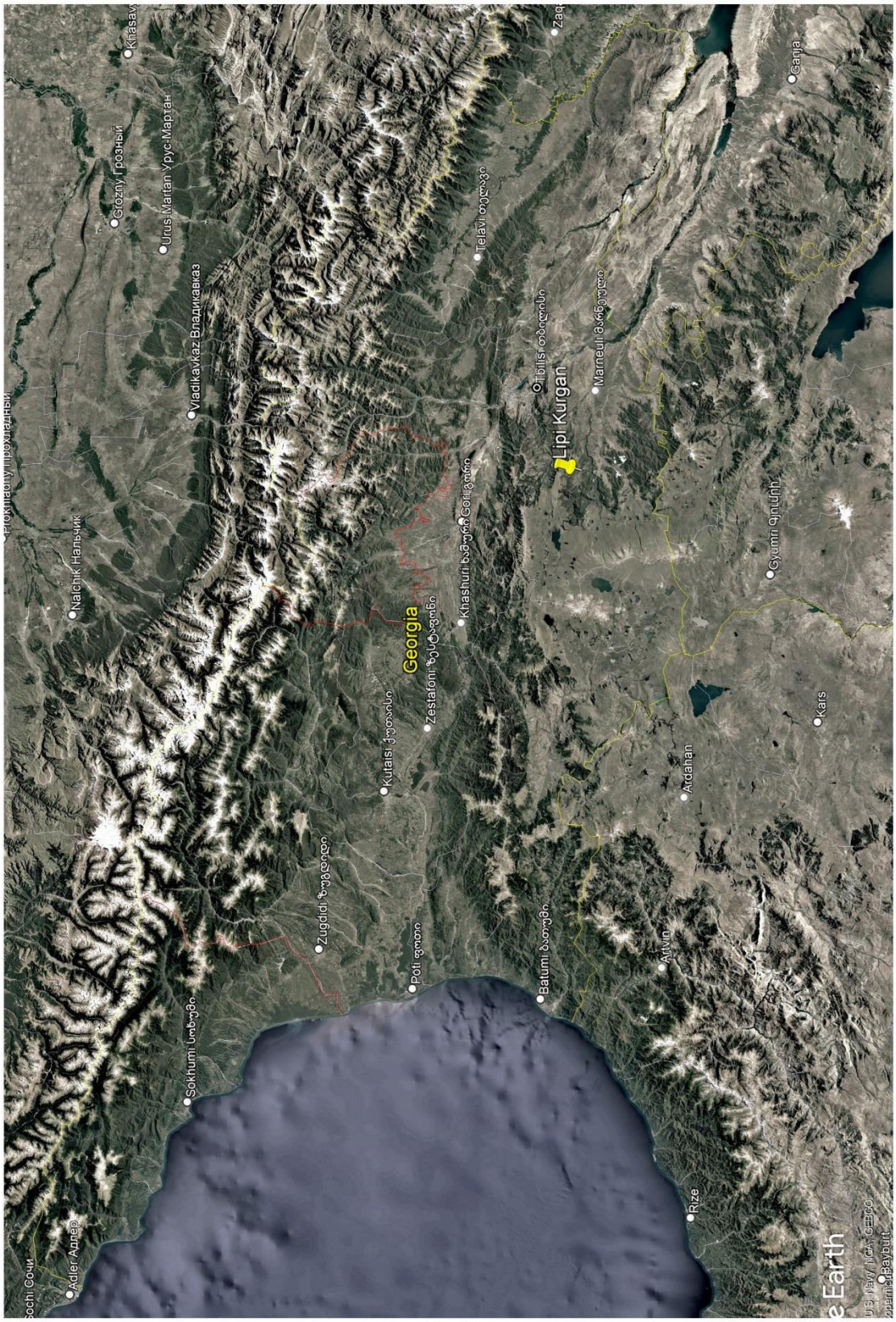
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Fig. 1

Fig. 2

Fig. 3

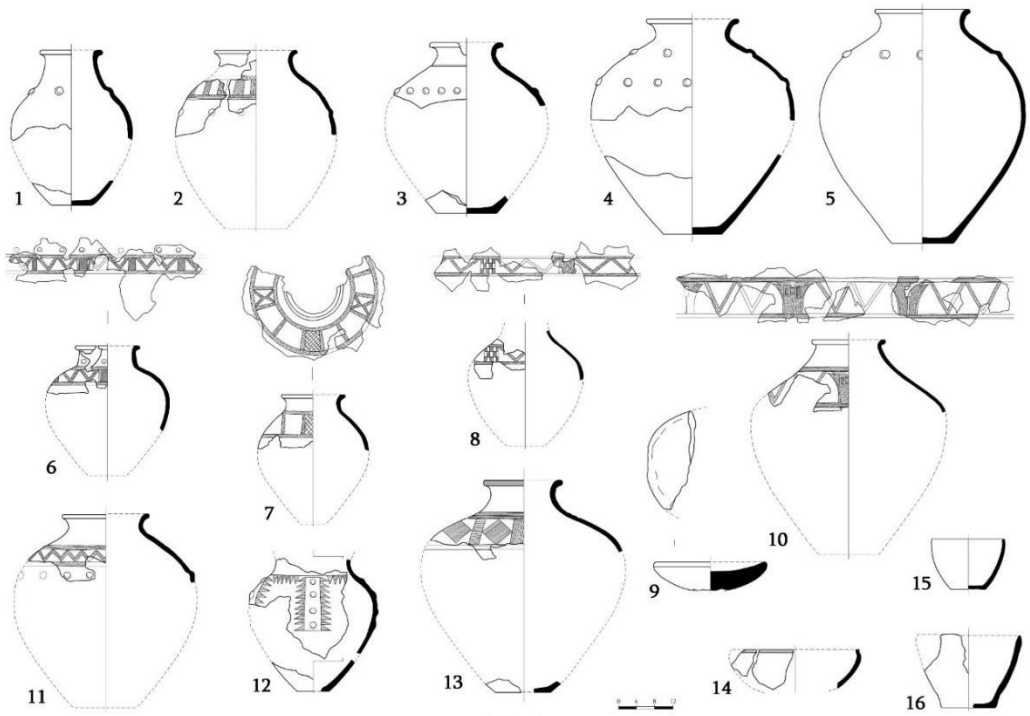

Fig. 4

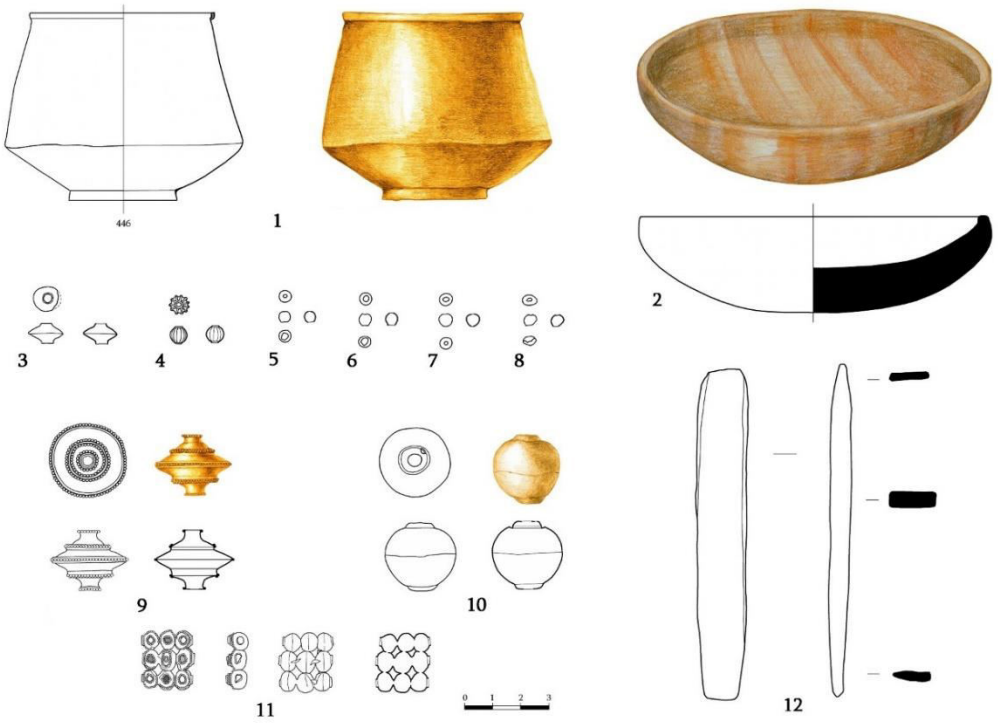

Fig. 5

Fig. 6