

ISTRAŽIVANJA TUMULA NA LJUBAČKOJ KOSI 2007. GODINE

U okviru terenske nastave studenata arheologije Odjela za arheologiju Sveučilišta u Zadru 2007. godine poduzeta su istraživanja triju tumula na Ljubačkoj kosi. Pri tom je otkriveno sedam inhumacijskih pokopa i brojni prilozi po kojima se posebno ističe tumul 1. Pronađeni prilozi omogućili su datiranje tumula približno u II. fazu liburnske kulture ili 8./7. st. pr. Kr.

KLJUČNE RIJEČI: *Ljubač, tumuli, željezno doba, Liburni, jantar*

Ljubačka kosa čini dio jednoga većega grebena koji se proteže od Posedarja na jugoistoku do Ljupča na sjeverozapadu u dužini od oko 15 km, s najvišim vrhom na 162 m nv. Izgrađena je od pjeskovite zemlje-lesa, gline i crvenice, s primjesama vapnenca, pješčenjaka, te s mnogo oblutaka, koji se mogu naći na površini, a koji su korišteni za izradu oruđa tijekom prapovijesnog vremena. Različito je prekrivena raslinjem iako se može reći da je gornji dio same Ljubačke kose ogoljen i prekriven tek travom ili sitnim raslinjem, dok je šire okruženje obraslo gustom šumom hrasta, smreke i bora.

Područje cijele Kose izrazito je bogato arheološkim nalazištima od kojih najstarija potječu još iz srednjeg paleolitika, a posebno se ističe njezin sjeverozapadni dio, gdje se počevši od rta Ljubljana nekoliko kilometara na jugoistok nalazi stotinjak grobnih humaka, veliko liburnsko groblje ravnih grobova, sedam gradinskih naselja od kojih su četiri iz brončanog doba (Mali Šibenik, Jazvinički brig, Dvorine i jedno bezimeno), dva iz željeznog doba (Venac i Veliki Šibenik), s tim da Venac traje i u rimsko doba, dok je sama Ljubljana naseljena od željeznog doba pa sve do osmanskih osvajanja.¹

2007 EXCAVATION OF TUMULI AT LJUBAČKA KOSA

Excavations of three tumuli at Ljubačka Kosa were conducted in 2007 as part of field studies for archaeology students at the Department of Archaeology of the University of Zadar. On this occasion, seven inhumations and numerous grave goods were unearthed, among which Tumulus 1 particularly stands out. The unearthed items enabled the dating of the tumuli to approximately the second stage of the Liburnian culture or 8th-7th century BC.

KEY WORDS: *Ljubač, tumuli, Iron Age, Liburnians, amber*

Ljubačka kosa is part of a larger ridge, stretching around 15 km from Posedarje in the south-east to Ljubač in the north-west. Its highest point is 162 m above sea level. It is constituted of sandy earth-loess, clay and red soil, with admixtures of limestone and sandstone, with many pebbles that can be found on the surface and which were used for the production of tools in the prehistoric period. It is partly covered with vegetation. We can say that the upper part of Ljubačka Kosa itself is almost bare, covered solely with grass or low vegetation, while its broader surroundings are overgrown with thick oak, spruce and pine forest.

The entire Kosa area is extraordinarily rich in archaeological sites, the oldest originating from the Middle Palaeolithic. In particular, its north-western part stands out. Here, there are about a hundred grave mounds stretching several kilometres from Ljubljana Cape and continuing towards the south-east, including a great Liburnian flat cemetery as well as seven hill-fort settlements. Four of these originate from the Bronze Age (Mali Šibenik, Jazvinički Brig, Dvorine and an unnamed one) and two from the Iron Age (Venac and Veliki Šibenik), the former continuing into the Roman period, while Ljubljana itself was populated from the Iron Age until the Ottoman conquests.¹

1 Š. BATOVIĆ, S. KUKOČ, 1988, 5-6.

1 Š. BATOVIĆ & S. KUKOČ, 1988, 5-6.

Za istraživanje provedeno u lipnju i srpnju 2007. godine odabran je prostor zapadno od zaseoka Stojići, dio bogat grobnim humcima koji se pronalaze sve do gradine Venac. Humci su poznati od prije, a arheološki su dokumentirani rekognosciranjem koje je vodio Š. Batović. U svojim radovima navodi: *Grobni humci na sjeverozapadnom dijelu kose, u dužini oko 5 km, vrlo su gusto razmješteni po cijeloj širini njenog zaravnjenog vrha, širine oko 200 do 500 m. Različito su i bez nekog uočljivog reda razmješteni i udaljeni jedan od drugog, u gušćim ili rjeđim skupinama, od nekoliko do 50 metara, ili poneki na udaljenostima i preko 100 metara. Većinom su promjera desetak do dvadesetak metara, a neki su i manji, ili su pojedini i veći do tridesetak metara. Visine su od 0,5 do 3 m iako ima i nešto viših.*²

Na žalost, osim rekognosciranja i manjih arheoloških zahvata, nikad se nije pristupilo istraživanju ovoga iznimno bogatog područja. Ipak, materijal iz grobova djelomično nam je poznat, prije svega jer su tzv. *arheolozi-amateri* godinama devastirali grobove i prikupljali materijal. Posebno treba spomenuti Vinka Stojića, koji je uništavanjem stotinjak grobova, kako iz nekropole na ravnom tako i humaka, prikupio veliku količinu predmeta, za većinu koje se i danas ne zna gdje se nalaze.³ Također, većina poznatog materijala pronađena je u grobovima na ravnom zemljištu, tako da se prije početka istraživanja vrlo malo znalo o samim tumulima i materijalu koji možemo očekivati u njima.

Za potrebe istraživanja izabrana su tri tumula. Dva se nalaze uz put koji vodi prema gradini Venac, dok je jedan nešto sjevernije (Sl. 1). Izabrani su nasumično zbog svoje veličine, ali i zbog toga što su izgledali nedevasirano. Tumuli su označeni brojevima 1, 2 i 3. Iskopavanja su se vodila u okviru terenske nastave Odjela za arheologiju Sveučilišta u Zadru, a sudjelovali su studenti svih godina studija.⁴

Prije početka istraživanja provedene su uobičajene pripreme s geodetskim snimanjem i mjerenjima tumula. Tumul 1 imao je promjer oko 18 m, s manjim suženjem na pravcu sjever-jug (17 m). Visina na središtu iznosila je 1,1 m. Tumul 2 bio je

For the excavations conducted in June and July 2007, the area west of the hamlet of Stojići, which is rich in grave mounds all the way to the Venac hill-fort, was selected. The mounds were known earlier, and were documented in the course of archaeological prospecting led by Š. Batović, who stated: *Grave mounds in the north-western part of Kosa which has a length of approximately 5 km, are densely distributed along the entire width of its flattened peak, which is between 200 and 500 m wide. Their distribution and mutual distance vary and no particular order of arrangement is visible; they appear both in rather dense and rather scarce groups, at distances ranging from several metres to up to 50 metres, and even sometimes at more than 100 metres. Their diameters are mostly between ten and twenty metres, some are even smaller, though certain individual tumuli are also larger: up to thirty metres. They are between 0.5 and 3 m high, although some are also higher.*²

Unfortunately, apart from archaeological prospecting and minor archaeological interventions, this extraordinarily rich area has never been excavated. However, we are partly familiar with the grave inventory, primarily because *amateur archaeologists* have for years been devastating graves and collecting artefacts. In particular, Vinko Stojić should be mentioned. By destroying about a hundred graves from both the flat necropolises and mounds, he collected a large quantity of artefacts, although it is not known where most of these ended up.³ The majority of known artefacts were found in graves on flat land, which meant that before the beginning of the campaign very little was known about the tumuli themselves and the artefacts we could expect in them.

Three tumuli were chosen for the needs of the campaign. Two of them are situated beside the path leading to the Venac hill-fort, while the third is somewhat more to the north (Fig. 1). They were selected randomly, due to their size, but also because they did not seem to be devastated. The tumuli were numbered 1, 2 and 3. The excavations were conducted as part of the field studies of the Department of Archaeology of the University of Zadar, with students of all years participating.⁴

2 Š. BATOVIĆ, S. KUKOČ, 1988, 7.

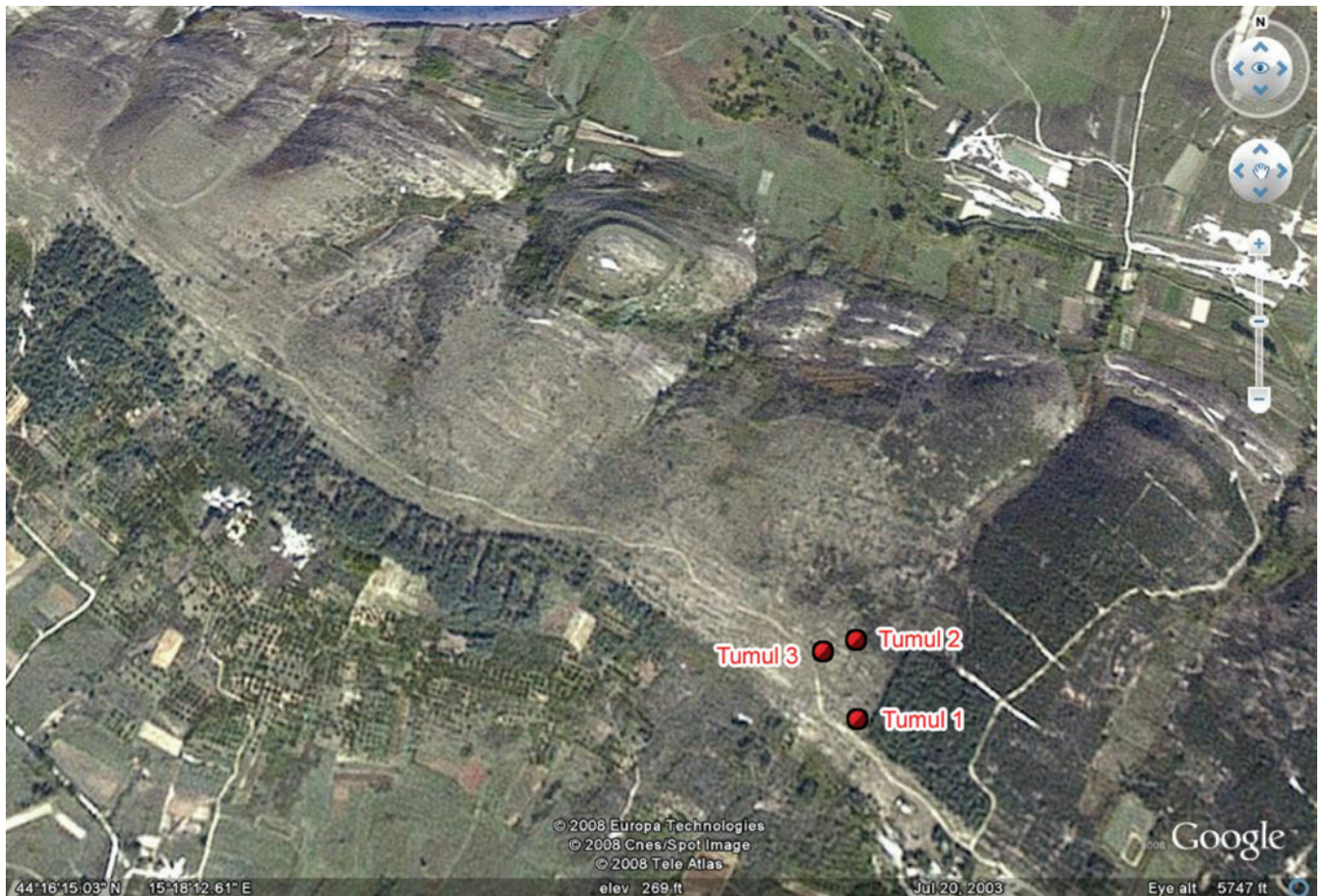
3 Manji je dio završio u Arheološkom muzeju u Zadru i Muzeju u Mainzu, dok je većina nestala ili završila po privatnim zbirkama.

4 Iskopavanje i terensku nastavu vodio je prof. dr. sc. B. Marijanović uz sudjelovanje autora ovoga priloga. Prof. dr. sc. B. Marijanoviću zahvaljujem na mogućnosti objavljivanja rezultata iskopavanja.

2 Š. BATOVIĆ & S. KUKOČ, 1988, 7.

3 A smaller number ended up in the Archaeological Museum in Zadar and the Museum in Mainz, while most disappeared or ended in private collections.

4 The excavations and field studies were led by Professor B. Marijanović. The author of this article also participated. I would like to thank Professor B. Marijanović for allowing me to publish the excavation results.



SL. 1. / FIG. 1.

Satelitski snimak s označenim položajem tumula (Google Earth 2009).

Satellite image with the position of the tumuli marked (taken from Google Earth 2009).

nešto uži i pravilniji. Njegov promjer iznosio je oko 13 m, a visina 1,4 m, iako treba napomenuti da je tumul podignut na kosom terenu, a navedena visina iskazuje odnos prema najnižoj točki na neposrednoj okolnoj površini. Tumul 3 bio je izdužena oblika, jer je jedan dio plašta na sjeverozapadnoj strani izlazio iz oblika kruga i produžavao tumul za još 2 m. Po pravcu sjever-jug njegova dužina bila je 14 m, a po pravcu istok-zapad 16 m. Visinska razlika u odnosu između najviše i najniže točke iznosila je 1,50 m. Kao što se vidi, odabrana su tri tumula sličnih dimenzija, a možemo reći da ulaze u prosjek veličina većine tumula na ovom području.

Iskopavanje je provedeno s uobičajenom podjelom tumula na četiri kvadranta, a koordinatni sustav postavljen je u smjeru glavnih strana svijeta. Zbog

Before the beginning of the campaign, the usual preparations were carried out, including geodetic surveying and measurements of the tumuli. Tumulus 1 had a diameter of approximately 18 m, and was slightly narrower from north to south (17 m). Its height at the centre was 1.1 m. Tumulus 2 was somewhat narrower and more regular. Its diameter was around 13 m, and its height 1.4 m, although it should be pointed out that the tumulus was erected on a slope, and the stated height expresses its relationship to the lowest point in the immediate surrounding area. Tumulus 3 had an elongated form, as part of the mantle on the north-western side extended out of the shape of the circle, prolonging the tumulus for another 2 m. From north to south, its length was 14 m, while from east to west it was 16 m. The difference in height between the highest and lowest points was 1.50 m. As can be seen, three tumuli of similar dimensions were chosen, and we can say that they represent the average size of most of the tumuli in the area.

The conducted excavations included the usual division of tumuli into four quadrants, and the coordinate system was set in accordance with the four cardinal points. Due to the size and structure of the tumuli, control profiles were not maintained, and

veliĉine i strukture tumula kontrolni profili nisu zadržavani, nego je iskopavanje provedeno prema naĉelu istodobnih otvaranja suprotnih kvadranta. Kvadranti su oznaĉeni rimskim brojevima, i to u pravcu kazaljke na satu, poĉevši od sjeverozapadnog kvadranta.

Nakon poĉetnih mjerenja i dokumentiranja pristupilo se skidanju humusnog sloja koji je formirao artifiĉijelni plašt tumula. Nisu uoĉena nikakva oštećenja niti je u površinskom dijelu pronaĉen bilo kakav arheološki materijal.

Već pri iskopavanjima prvih kvadranta utvrĉeno je da se u nasipu tumula mogu razlikovati dva sloja, gornji, tamni, humusni i subhumusni, i donji, svijetli sloj s pjeskovitom zemljom. Pokopi se nalaze upravo na granici tih dvaju slojeva. U oba se sloja nalazi sliĉna keramika, i to u približno ujednaĉenim odnosima, što potvrĉuje da osnovu korpusa tumula ne ĉini originalna prapovijesna površina, nego je ona formirana za potrebe pokapanja. Oba su sloja sastavljena od zemlje i kamenja, ali se u donjem uoĉava nešto pravilnije slaganje krupnijega kamenja, ĉime se jasno razlikuje od okolnog prostora, na kojem matična stijena izvire na površinu.

Tumul 1: Na površinu, iz koje matična stijena na nekim mjestima izbija na površinu i do 0,30-ak m, postavljen je sloj krupnijega kamenja koje je popunilo praznine, nakon ĉega je nasuta zemlja. Tumul nije imao nikakav obzid, iako se po rubu kvadranta I i dijelom kvadranta IV javlja nešto veće kamenje, ali ono nije bilo niĉim odvojeno od ostatka nasipa, nije tvorilo pravilnu liniju niti je postojalo na većem dijelu tumula. Vjerojatno je rijeĉ samo o postavljanju krupnijeg kamenja koje je na nekim dijelovima trebalo osigurati kompaktnost nasipa, dok je na drugom dijelu tu funkciju imala matična stijena. Prije iskopavanja tumul je imao promjer oko 18 m, a nakon iskopavanja pokazalo se da je nasip djelomice razvuĉen, a da su njegove stvarne dimenzije 11 m u pravcu sjever-jug i 12,5 m u pravcu istok-zapad.

U kvadrantu I uoĉen je niz krupnijega kamenja postavljenog u dva paralelna reda, koja prate smjer matične stijene (sjeverozapad-jugoistok), i koja na prvi pogled podsjećaju na konstrukciju groba. No istraţivanje je pokazalo da nije rijeĉ o grobu, nego se vjerojatno radi o sluĉajnosti do koje je došlo prilikom nasipanja korpusa tumula. Unutar te konstrukcije, ali i izvan nje, konstatirane su površine s koncentriranim ulomcima keramike, ĉiji najveći dio pripada trima posudama. Ta se pojava redovito povezuje s razbijanjem posuda pri pogrebnim obredima, a

the excavations were conducted according to the principle of simultaneously opening opposite quadrants. The quadrants were marked with Roman numerals in a clockwise direction, starting from the north-western quadrant.

After initial measuring and documenting, the removal of the humus layer commenced. This constituted the artificial mantle of the tumuli. No damage was identified and nor were any archaeological artefacts unearthed from the surface.

Two layers were identified during the excavation of the first quadrants in the tumulus mound: an upper dark humus and sub-humus layer, and a lower light layer of sandy earth. The burials are located exactly on the border between the two layers. In both layers, there is similar pottery in approximately equal relations, confirming that the base of the tumulus body does not comprise the original prehistoric surface, but that it was formed for burial needs. Both layers consist of earth and stones, but in the lower layer, a somewhat more regular arrangement of rather large stones can be identified, which clearly distinguishes it from the surrounding area in which the parent rock rises to the surface.

Tumulus 1: On the surface, from which in certain spots the parent rock rises as much as 0.30 m, a layer of large stones was laid which filled the spaces, after which earth was spread over it. The tumulus had no walls around it, although on the edge of Quadrant I and part of Quadrant IV somewhat larger stones appear. However, these are neither separated from the rest of the mound and nor did they form a regular line or stretch over a larger part of the tumulus. Probably the larger stones were only laid in some parts to make the mound more compact, while elsewhere the parent rock served this purpose. Before the excavations, the tumulus diameter was approximately 18 m. However, the excavations proved the mound to have expanded in places, and that its actual dimensions were 11 m from north to south, and 12.5 m from east to west direction.

In Quadrant I, a whole range of larger stones were identified, arranged in two parallel rows following the direction of the parent rock (north-west/south-east). At first glance, these are reminiscent of a grave construction. However, the excavations showed that this was not a grave, but probably a coincidence that occurred during the erection of the tumulus body. Within the construction, but also outside it, surfaces were identified with concentrated pottery shards, most of which belong to three ves-



SL. 2. / FIG. 2.

Tumul 1 – pogled prije iskopavanja.

Tumulus 1 – view before excavations.

potvrđena je na tumulima iz okolnih područja.⁵ Podloga je na kraju zasuta pjeskovitom zemljom.

Na taj donji sloj postavljani su pokojnici, i to tako da svi, osim središnjega groba (grob 3), leže na sloju sitnog kamenja. U tumulu 1 pronađeni su ostaci više osoba grupirani na pet mjesta, koja su označena kao grobovi 1-5. Zbog činjenice da je gornji sloj razvučen, kao i zbog suhih klimatskih uvjeta, kosturi su se većinom raspali, a u većini slučajeva sačuvani su samo zubi grupirani na nekoliko mjesta, pa bez detaljnije analize na prvi pogled nije bilo moguće odrediti broj ukopanih osoba. Prema analizama dr. Marija Šlausa s Odsjeka za arheologiju Hrvatske akademije znanosti i umjetnosti u tumulu 1 bilo je ukopano najmanje šest osoba (većinom odraslih, ali ima i djece). Bolje od ostalih sačuvan je samo kostur u središnjem grobu, koji je bio i nešto dublje ukopan.

sels. This phenomenon is regularly associated with breaking vessels into pieces during the burial ceremony, and was also confirmed in tumuli from the surrounding areas.⁵ Finally, the base was covered with sandy earth.

On this bottom layer, the deceased were laid in such a way that, with the exception of the central grave (Grave 3), all the bodies were on a layer of smaller stones. In Tumulus 1, the remains of several individuals grouped in 5 locations marked as graves 1-5 were unearthed. Due to the fact that the upper layer was carried off, as well as due to the dry climatic conditions, the skeletons were mostly decayed, and in most cases only the teeth were preserved, grouped in several locations, so that without a more detailed analysis, at first glance it was not possible to determine the number of buried individuals. According to analyses conducted by Dr Mario Šlaus of the Archaeology Department of the Croatian Academy of Sciences and Arts (HAZU), in Tumulus 1 at least 6 individuals (mostly adults, but also children) were buried. A single skeleton in the central grave, which was sunk somewhat deeper, is better preserved than the others.

5 Š. BATOVIĆ, 1973; Š. BATOVIĆ, 1983; Š. BATOVIĆ, 1984; Š. BATOVIĆ, 2005; Š. BATOVIĆ, S. KUKOČ, 1988.

5 Š. BATOVIĆ, 1973; Š. BATOVIĆ, 1983; Š. BATOVIĆ, 1984; Š. BATOVIĆ, 2005; Š. BATOVIĆ & S. KUKOČ, 1988.

Grob 1: nalazi se na rubnom dijelu kvadranta I uz istočni profil (T. I). U potpunosti je raspadnut. Sve što se sačuvalo od njega su jedan zub i ulomak donje čeljusti odrasle osobe. Zub je pozelenio zbog oksidacije brončanog predmeta u blizini. Kost i nalazi su razbacani na prostoru 30 cm x 30 cm. Za razliku od okolnog područja, gdje se većinom javlja krupno kamenje, kosti i nalazi leže na sloju sitnoga kamenja. Uz zube pronađene su četiri cijele i jedna fragmentirana jantarna perla bikoničnog oblika i tri koštane perlice kružnog oblika koje potječu od ogrlice, te u potpunosti raspadnuta brončana igla (T. III, 1). Naknadnim spajanjem dijelova pronađen je i prsten, ali zbog fragmentiranosti teško je govoriti je li riječ zaista o prstenu i ulomku ukrasne igle, ili pak o igli s prstenastom glavom ili alkom.

Grob 2 se nalazi u kvadrantu IV. Radi se o nizu kostiju, većinom zubi razbacanih na području oko 1x1 m (T. II). Kost leži na sloju šljunka. Nema tragova arhitekture, iako kosti okružuje nekoliko kamenja srednje veličine, ali bez ikakve pravilnosti. Među sačuvanim kostima prisutno je više mliječnih i trajnih zubi više osoba, iako se stvarni broj ne može utvrditi. Među nalazima prisutna su i dva životinjska zuba. Osim kostiju pronađene su i četiri bikonične jantarne perle (T. III, 4).

Grob 3: riječ je o središnjem grobu (Sl. 3; T. II, 2). Oko kostura se nalazi nekoliko većih kamenja koja djelomično oblikuju četvrtasti oblik, iako se vjerojatno ne radi o arhitekturi. Zbog suhe zemlje kosti su jako krhke i lome se na dodir. Pokojnik je pokopan u zgrčenom položaju, na desnom boku, s glavom koja gleda na jugozapad. Uz njega nisu pronađeni nikakvi nalazi ili prilozi. Kost su loše sačuvane, ali analiza pokazuje da je riječ o ženskoj osobi starosti između 40 i 50 godina. Na sačuvanim kostima se ne primjećuju nikakve patološke promjene. Za razliku od ostalih, grob 3 je bio dublje zakopan i bolje sačuvan, te ne sadrži priloge, što možda može ukazivati da je riječ o starijem, tj. prvom ukopu, dok su ostali ukopi naknadni.

Grob 4: nalazi se unutar kvadranta II. Nalazi su rasuti na prostoru cca. 1 m² (T. II, 3). Jedin dokaz o postojanju kostura su tri ulomka lubanje koja su poprimila zelenu boju zbog oksidacije brončanog predmeta. Ostaci pripadaju odrasloj osobi, ali na osnovu sačuvanog uzorka nije moguće odrediti spol i starost te osobe. No pronađeni su brojni prilozi: ostaci ogrlice, tj. tri bikonične jantarne perlice, tri staklene perlice i 14 koštanih perlica kružnog oblika. Osim ostataka ogrlice pronađene su i dvije brončane fibule. Jedna je obična lučna fibula od brončane žice

Grave 1 is situated in the marginal part of Quadrant I, next to the eastern profile (T. I). It is completely decayed. Only a tooth and a fragment of the lower jaw of an adult individual were preserved. The tooth had turned green as a consequence of the oxidation of a nearby bronze artefact. The bones and finds are scattered over an area of 30 x 30 cm. Unlike the surrounding area, where mostly large stones appear, the bones and finds are in a layer of small stones. Apart from the teeth, the following were also found: 4 whole and one fragmented amber bead of a biconical shape and 3 bone beads of a round shape, originating from a necklace, and a completely decayed bronze pin (T. III, 1). After the parts had been connected, a ring was also found, but due to its fragmentation it is hard to tell whether it is actually a finger ring and a fragment of a decorative pin or whether it is from a pin with a ring-shaped head.

Grave 2 is located in Quadrant IV. It contained a series of bones, mostly teeth, scattered over an area of approximately 1 x 1 m (T. II). The bones lie on a layer of pebbles. There are no traces of architecture, although the bones are enclosed within several medium-sized stones, but without any regularity. Among the preserved bones, there are several deciduous and permanent teeth of several individuals, although the actual number cannot be determined. Among the finds, there are also two animal teeth. Apart from the bones, four biconical amber beads were also unearthed (T. III, 4).

Grave 3 is a central grave (Fig. 3; T. II, 2). Around the skeletons, there are a few larger stones, partly forming a rectangular shape, although probably it is not part of the architecture. As a result of the dryness of the earth, the bones are very fragile and break upon touch. The deceased was buried in a crooked position, on her right hip, with her head facing south-west. No grave goods or other finds were unearthed with it. The bones are poorly preserved, but analysis has shown that it was a female person aged between 40 and 50. No pathological changes can be noticed on the preserved bones. Unlike other graves, Grave 3 was sunk deeper and was better preserved. It contains no grave goods. This suggests an older burial, i.e. the first one, while the other burials followed subsequently.

Grave 4 is situated within Quadrant II. The finds are scattered over an area of approximately 1 m² (T. II, 3). The only proofs of the existence of a skeleton are 3 skull fragments that have turned green due to the oxidation of a bronze artefact. The remains belong to an adult individual, but the



SL. 3. / FIG. 3.

Tumul 1 - Grob 3.

Tumulus 1 – Grave 3.

bez ukrasa na luku, dok druga pripada tipu Sundwalls IIIb.⁶ Kost i nalazi kao i kod grobova 1 i 2 leže razbacani na sloju sitnog kamenja (T. III, 3).

Grob 5: nalazi se u blizini groba 2 gdje je između nakupine većeg kamenja pronađen manji sloj tamne zemlje, oko kojega su pronalazeni mliječni i trajni zubi, te manji ulomci kostiju od najmanje dvije osobe. Uz njih pronađene su i dvije jantarne perle (T. III, 5). Zbog blizine grobova 2 i 5 nije isključeno da nalazi pripadaju istom ukopu, ali i u tom slučaju na tom području su prisutni i mliječni i trajni zubi od najmanje tri osobe. Na žalost, premali je broj sačuvanih ostataka da bi se moglo govoriti o stvarnom broju pokopanih osoba.

Kremen: u tumulu 1 su pronađena samo dva obrađena primjerka gotovog alata. U prvom slučaju riječ je o udupku izrađenom na drugotnom odbojku, vrlo grube izrade i musterijskih karakteristika. Srednjopaleolitski nalazi su već poznati s Ljubačke kose i okolice, tako da je ovaj predmet vjerojatno dospio sa zemljom kojom se tumul zasipao. Drugi predmet je slomljeno sječivo od svijetlosivog rožnjaka. Strane su mu oštećene, ali se na desnoj bočnoj strani primjećuje uporabni retuš. Za ovaj predmet ne može

preserved sample does not allow the determining of their gender or age. However, numerous burial objects were unearthed: remains of a necklace, i.e. 3 biconical amber beads, 3 glass beads and 14 bone pearls of a round shape. Apart from the necklace remains, two bronze fibulae were also unearthed. One is a simple bow fibula made of bronze wire without any ornamentation on the bow, while the other belongs to the Sundwalls IIIb type.⁶ The bones and finds lie scattered on a layer of small stones, as is the case with Graves 1 and 2 (T. III, 3).

Grave 5 is located in the vicinity of Grave 2, where in a pile of larger stones a smaller layer of dark earth was found. Around this, deciduous and permanent teeth, and smaller bone fragments belonging to at least two individuals were unearthed. Along with these, two amber beads were also found (T. III, 5). Due to the vicinity of Graves 2 and 5, it has not been excluded that the finds belonged to the same burial. In that case, both deciduous and permanent teeth belonging to at least three individuals are present in the area. Unfortunately, the number of preserved remains is too small to allow the actual number of buried individuals to be determined.

Flint: In Tumulus 1, only two worked specimens of ready-made tools were found. In the first case, it is a notch made on a secondary decortication flake, of very coarse workmanship and with Mousterien characteristics. Middle Palaeolithic finds are already known from Ljubačka Kosa and its surroundings, and this artefact probably arrived with the earth with which the tumulus was covered. The other artefact is a broken blade made of light grey chert. Its sides are damaged, but on the right side a retouch is evident. It cannot be said with certainty to which period this artefact belongs. Other unearthed fragments belong to decortication flakes of various sizes which were chipped from pebbles that can still be found in great numbers at Ljubačka Kosa. Altogether, 17 flakes have been unearthed.

6 D. GLOGOVIĆ, 2003, 22-23, T. 13.

6 D. GLOGOVIĆ, 2003, 22-23, T. 13.

se reći sa sigurnošću kojem razdoblju pripada. Ostali pronađeni ulomci pripadaju odbojcima različitih veličina, odbijenim od oblutaka koji se i danas mogu pronaći u velikom broju na Ljubačkoj kosi. Sveukupno je pronađeno 17 odbojaka.

Keramika: uklapa se u opću sliku lončarstva u liburnskoj kulturi. Pronađeno je 913 ulomaka različitih posuda. Tri ulomka, pronađena u gornjem sloju, pokazuju karakteristike kasnijih razdoblja. Ostali ulomci pripadaju posudama grube izrade, izrađenim od gline više ili manje miješane s kalcitom. Oblikovane su bez lončarskog kola, koje u liburnskoj kulturi nije poznato sve do dolaska Rimljana.⁷ Različito su pečene, ali najveći dio je lošije pečen, na otvorenoj vatri, pa se lako lome. Posude su tamnosmeđih ili crvenkastih, rjeđe crnih tonova. Stjenke su deblje, s vrijednostima koje se kreću između 7 i 10 mm. Malo je ulomaka keramike tanjih stjenki, a i one su većinom grube izrade. Većina takvih ulomaka pripada istoj posudi, pronađenoj na dnu tamnog sloja na maloj površini u kvadrantu II, približno 1 m od groba 4. Pronađeno je preko 150 ulomaka posude debljine stjenki 5 mm, ali nažalost većina njih ima površinu manju od 2 cm² i izlizane rubove, tako da nije bilo moguće rekonstruirati posudu.

Sačuvano je 28 ulomaka dna, koji su dijelovi 10 različitih posuda (T. IV). Većina posuda imala je ravno dno. Kod jednog primjerka dno je blago udubljeno, a kod jednoga ono je prstenasto prošireno. Prijelaz dna prema posudi je ili blag ili u manjem broju slučajeva blago proširen. Pronađeno je i šest drški kružnog presjeka, od čega dvije pripadaju istoj posudi. U dva slučaja riječ je o jezičastim drškama. Jedna drška je koljenasta, ali joj je vrh slomljen.

Oblici posuda se kreću od poluloptastih i loptastih prema tipičnim stožastim oblicima. Obodi su jednostavni, najčešće zaobljeni ili zaravnjeni i više ili manje prošireni. Pronađena su 32 ulomka oboda koji potječu od 19 različitih posuda, s tim da trećina prikupljenih komada pripada dvjema kasnije rekonstruiranim posudama (T. V, 1-2).

Većina ulomaka nije ukrašena, a preostali dio pokazuje opće karakteristike liburnske kulture. Većinom je riječ o otiscima prsta na obodu ili drški, te rebrastom ojačanju na prijelazu vratnog u rameni segment posude (T. IV). Na jednoj posudi izvedeno je malo bradavičasto izbočenje (T. V, 3).

Pottery: This fits the overall picture of Liburnian culture pottery. 913 shards of various vessels were unearthed. Three fragments, found in the upper layer, demonstrate characteristics of a later period. Other fragments belong to coarse vessels made of clay with a greater or smaller calcite admixture. They were modelled without a potter's wheel, which in Liburnian culture was not known until the arrival of the Romans.⁷ Their firing varies, but the majority are poorly fired on an open fire, and therefore break easily. The vessels are dark brown or reddish, and more seldom black. The walls are rather thick, their thickness varying between 7 and 10 mm. There are a small number of pottery shards with rather thin walls, and whose workmanship is mostly coarse. Most of these shards belong to the same vessel, unearthed at the bottom of a dark layer covering a small area in Quadrant II, approximately 1 m from Grave 4. More than 150 shards of a vessel with 5-mm-thick walls were unearthed, but unfortunately most of them are less than 2 cm² and have worn edges. Consequently, it was not possible to reconstruct the vessel.

28 shards of bottoms were preserved. These constitute parts of 10 vessels (T. IV). Most vessels had a straight bottom. One specimen had a mildly depressed bottom, while another had a bottom which expanded in rings. The transition from the bottom to the vessel is either gentle, or in a small number of cases slightly expanded. Six handles with a round cross-section were also unearthed, of which two belong to the same vessel. Two of them are tongue handles. One handle is knee-shaped, but its point is broken.

The vessel forms vary from semi-rounded and rounded to typical conical forms. The rims are simple, mostly rounded or flattened and extended to greater or lesser degrees. 32 rim shards were unearthed, originating from 19 different vessels. One third of the collected pieces belong to two vessels which were later reconstructed (T. V, 1-2).

Most shards are not decorated, and the ones that are demonstrate the general characteristics of the Liburnian culture. The decorations mostly include finger prints on the rim or handle, and a ribbed reinforcement where the neck segment turns into the shoulder of the vessel (T. IV). One vessel has a small knob-shaped embossment (T. V, 3).



SL. 4. / FIG. 4.

Nakupina keramike u kvadrantu I.

Pottery pile in Quadrant I.

Veće se skupine keramike javljaju u kvadrantima I, II i IV (T. I, 1; Sl. 4). Iz tih ulomaka spojeni su i rekonstruirani dijelovi dvije posude. Jedna je posuda s razgrnutim otvorom i konkavnim vratom koji na prijelazu prema ramenu posude ima malo zaravnjenje. Recipijent je blago bikoničan. Sudeći prema sačuvanom korijenu posuda je imala dvije drške okrugla presjeka. Faktura je izrazito porozna (Sl. 5; T. V). Druga posuda ima poluloptasti profil koji se sužava prema dnu. Obod je ravno zasječen (Sl. 5; T. V).

Druga veća skupina pronađena je u kvadrantu II, oko 1 metar istočno od groba 4. Svi ulomci pripadaju istoj posudi, ali zbog istrošenosti rubova, te usitnjenosti ulomaka rekonstrukcija posude nije moguća. Jedino se može reći da je imala ravno dno, malo prošireno na prelasku na recipijent posude. Treći nalaz potječe s ruba kvadranta IV. I ovdje zbog istrošenosti rubova ulomke nije moguće međusobno povezati i tipološki odrediti.

Manje nakupine keramike utvrđene su oko groba 5 i sjeverno od groba 2. Također u kvadrantu IV, u blizini zapadnog profila pronađeni su ulomci vrča S-profila s kratkim izvijenim obodom. Posuda je imala ravno dno i jednu veću dršku kružnog presjeka postavljenu od oboda do ramena. Nema ukrasa osim jednog manjeg bradavičastog ispupčenja na ramenu posude (T. V, 3).

Nakit: U tumulu 1 pronađene su različite vrste perlica koje pokazuju da su se na pokojnike stavljale ogrlice. Čak u tri od pet grobova pronađeni su ostaci takvih ogrlica od jantara, stakla i koštanih perli. Najbogatija je ona iz groba 4, sastavljena od



SL. 5. / FIG. 5.

Idealna rekonstrukcija posuda.

Ideal reconstruction of vessels.

Larger groups of pottery appear in Quadrants I, II and IV (T. I, 1; Fig. 4). These shards have been reconnected as parts of two vessels. One of them has a bared opening and a concave neck with a small flattening where it turns into the shoulder. The container is slightly biconical. Judging from the preserved remains, the vessel had two handles with a round cross-section. Its workmanship is extraordinarily porous (Fig. 5; T. V). The second vessel has a semi-round profile which gets narrower towards the bottom. Its rim is cut straight (Fig. 5; T. V).

Another larger group was found in Quadrant II, approximately 1 metre east of Grave 4. All the fragments belong to the same vessel, but as the rims are rather worn and the shards too small, it is not possible to reconstruct the vessel. It can only be said that it had a flat bottom, slightly expanded in the transition to the vessel's container. The third find originates from the edge of Quadrant IV. Due to the fact that the rims are worn, it is not possible to reconnect and typologically classify the fragments.

Smaller pottery piles were identified around Grave 5 and north of Grave 2. In addition, in Quadrant IV, in the vicinity of the western profile, fragments of a beaker with an S profile with a short inverted rim were uncovered. The vessel had a flat bottom and a rather large handle with a round cross-section fixed between the rim and the shoulder. There is no ornamentation apart from a rather small knob-shaped boss on the vessel's shoulder (T. V, 3).

Jewellery: In Tumulus 1, different types of beads were unearthed, suggesting that the deceased wore necklaces. In 3 out of 5 graves, the remnants of

tri kružno oblikovane jantarne perlice,⁸ tri staklene perlice promjera 5,5-6 mm i debljine 1,5-4 mm i 14 koštanih perlica kružnog oblika (T. III, 3).⁹ Ovakve ogrlice se pojavljuju na nalazištima liburnske kulture, a posebno su bogate na japodskim nalazištima. Svojom formom nisu kronološki osjetljive iako nam mogu dati određene okvire.

Jantar se uvezio kao sirovina s dalekih baltičkih obala, te trgovačkim putem dolazio do odredišta. Iako je ranije smatrano da potječe iz lokalnih izvora, analizama je potvrđeno da jantar s naše obale odgovara upravo baltičkom.¹⁰ Staklo je pak u prapovijesnim kulturama bilo zamjena za drago kamenje, osobito vrijedan proizvod koji je imao i visoku tržišnu vrijednost.¹¹ Dakle, i jantar i staklo su bili luksuzna roba koja je pokazivala bogatstvo pojedinca ili roda. Pretpostavka je da su predmeti od jantara bili osobna svojina pojedinca, te da su zaštitna svojstva materije djelovala osobno i nisu bila prijelazna.¹² Jantar se na našem prostoru pojavljuje rano, od kasnog brončanog doba, iako su u to vrijeme rijetki nalazi jantarnih predmeta. Pronalaze se tek manja kuglasto-plosnata i glatka zrna i veća valjkasto-plosnata, ukrašena brazdama i rebrima.¹³ Krajem drugog i početkom prvog tisućljeća pr. K. jedno do dva stoljeća gotovo da i nema dokaza o jantaru na istočnom Jadranu, da bi se u 8 st. pr. Kr. stvari promijenile.¹⁴ Jantar se od ovoga vremena pronalazi u velikim količinama i raznolikim oblicima. Vrlo je čest u liburnskoj kulturi gdje se koristi za izradu perlica, ali i složenijih predmeta. Za sada nisu poznati nalazi iz I. faze liburnske kulture, nego se pojavljuju tek u II. fazi, dakle u 8. st. pr. Kr.¹⁵ Zanimljivo je da se ne nastavljaju isti oblici od brončanog doba, što pomaže u kronološkom određivanju. Zrna su u željeznom dobu obično

necklaces of amber, glass and bone beads were unearthed. The richest is that from Grave 4, made of 3 round amber beads,⁸ 3 glass beads of a diameter of 5.5-6 mm and 1.5-4 mm thick, and 14 round bone beads (T. III, 3).⁹ Such necklaces appear at Liburnian culture sites, and are particularly rich at Iapodian sites. Their form is not chronologically sensitive, although they may provide a certain framework.

Amber was imported as raw material from the far-off Baltic coast, and transported to its destination via trade routes. Although earlier it was believed that it originated from local sources, analyses have confirmed that the amber from the Adriatic coast corresponds exactly to that from the Baltic.¹⁰ Glass in prehistoric cultures served as a replacement for precious stones, and was a particularly valuable product that also had a high market value.¹¹ This means that both amber and glass were luxury goods demonstrating the wealth of an individual or clan. It is assumed that amber artefacts were the personal belongings of individuals, and that their protective characteristics worked individually and were not transferable.¹² On the territory of present-day Croatia, amber had appeared as early as the Late Bronze Age, although finds of amber artefacts from that period are rare. Only rather small flat spherical and smooth and somewhat larger flat cylindrical grains decorated with furrows and ribbing appear.¹³ Near the end of the second and at the beginning of the first millennium BC, for a century or two there is almost no evidence of amber in the eastern Adriatic, but in the eighth century BC things changed.¹⁴ From this period, large quantities and various forms of amber are found. It is very frequent in the Liburnian culture, where it was used to produce both beads and also more complex artefacts. So far, there have been no finds from the first stages of the Liburnian culture: they appear only in the second

8 Perlice su različitih dimenzija. Promjer im se kreće od 6 do 15 mm, a debljina od 5 do 8 mm.

9 Koštane perlice su različitih veličina. Dužine im se kreću od 5,5 do 4,1 mm, a širina od 1,9 do 1 mm.

10 A. PALAVESTRA, V. KRSTIĆ, 2006, 33-34; L. BAKARIĆ *et al.*, 2006, 62.

11 L. BAKARIĆ *et al.*, 2006, 10.

12 L. BAKARIĆ *et al.*, 2006, 68.

13 Š. BATOVIĆ, 1981, 13. Zrnca jantara poznata su iz jednog groba u Vrsima i jednog iz Privlake, a to su uz 18 zrna s Krka (Baška) jedini i najraniji proizvodi od jantara na liburnskom području, v. Š. BATOVIĆ, 1981, 13.

14 A. PALAVESTRA, V. KRSTIĆ, 2006, 44.

8 The beads are of different dimensions. Their diameter varies between 6 and 15 mm, and their thickness between 5 and 8 mm.

9 The bone beads are of various sizes. Their diameter varies between 5.5 and 4.1 mm, and their thickness between 1.9 and 1 mm.

10 A. PALAVESTRA & V. KRSTIĆ, 2006, 33-34; L. BAKARIĆ *et al.*, 2006, 62.

11 L. BAKARIĆ *et al.*, 2006, 10.

12 L. BAKARIĆ *et al.*, 2006, 68.

13 Š. BATOVIĆ, 1981, 13. Amber grains are known from one grave in Vrsi and another from Privlaka. Along with 18 grains from Krk (Baška), these are the only and earliest amber products in the Liburnian area, Š. BATOVIĆ, 1981, 13.

14 A. PALAVESTRA & V. KRSTIĆ, 2006, 44.

dvostožastog, romboidnog ili trapezoidnog presjeka, što odgovara nalazima s Ljupča.

Staklo se pak na liburnskom području javlja otprilike u isto vrijeme kao i jantar, ali je broj nalaza daleko manji. Rijetko se nalaze ogrlice od staklenih zrna, a češće se u grobovima pronalaze samo pojedina zrna.¹⁶ Kao i kod nalaza s Ljupča riječ je najčešće o staklenim perlicama ovalna oblika, izrađenim od stakla plavkastih nijansi¹⁷ (T. III, 3).

Koštane perlice nisu kronološki osjetljive, iako se na području Slovenije u rano željezno doba česte ogrlice od okruglih koštanih zrna, a nešto slabije su sačuvane i poznate u liburnskoj kulturi.¹⁸

Od ostalog nakita pronađene su dvije igle, dvije fibule i dva neodrediva željezna predmeta. Prva pronađena igla nalazila se na prelasku kvadranta II u kvadrant III, nedaleko od kasnije pronađenih fibula, te nije isključeno da je pripadala grobu 4, iako između tih predmeta nije bilo nikakve poveznice. Izrađena je od bronce i pripada tipu igle s profiliranom glavicom.¹⁹ Duga je 22 cm, a promjer joj iznosi 0,7 cm (T. III, 2). Na liburnskom prostoru nisu tipičan nakit. Jedna je pronađena na Cresu, koju D. Glogović uspoređuje sa sličnim nalazima iz Podbežja ili Ostrožnika u Sloveniji, a koje se datiraju u fazu Ha B2,²⁰ a što se tiče Liburnije zbog malog broja im pripisuje utjecaj predalpskog prostora i stavlja ih u 9 ili 8. st.²¹

Druga igla, također od bronce, pronađena je u grobu 1. Potpuno je fragmentirana, ali spajanjem ulomaka uspjela se djelomično rekonstruirati (T. III, 1). Uz ulomke igle pronađena je i alka ili prsten kružnog presjeka. Dužina sačuvanih dijelova iznosi cca. 10 cm, a prsten ima promjer cca 1,6 cm. Nema jasnog spoja između ta dva dijela, ali činjenica da su pronađeni na istom mjestu, ukazuje da bi mogli pripadati istom predmetu. Postoje dvije mogućnosti. S jedne strane može biti riječ o igli s prstenastom glavom. Ovakav oblik igle je kronološki neodređen, a javlja se još od rane bronce. Također dijelovi mogu pripadati igli s utaknutom alkom, predmetu koji je

phase, i.e. in the eighth century BC.¹⁵ Interestingly, forms from the Bronze Age do not continue, which is helpful in chronological determination. In the Iron Age, the grains usually have a biconical, rhomboidal or trapezoidal cross-section, which corresponds to the finds from Ljubač.

On the other hand, glass appears in the Liburnian region approximately at the same time as amber, but the number of finds is far smaller. Necklaces with grains of glass are rarely encountered, and more frequently only individual grains are found in graves.¹⁶ As with the finds from Ljubač, most frequently the small glass beads have an oval shape, and are made of glass with shades of blue (T. III, 3).¹⁷

Bone beads are not chronologically sensitive, although on the territory of Slovenia Early Iron Age necklaces with round bone grains are frequent. These are somewhat less preserved and less well-known in the Liburnian culture.¹⁸

Other types of jewellery found also include two pins, two fibulae and two indeterminable iron artefacts. The first of the found pins was located at the transition from Quadrant II to Quadrant III, in the vicinity of the subsequently unearthed fibulae, and it has not been excluded that it belongs to Grave 4, although there were no links between these artefacts. It is made of bronze and belongs to the type of pins with a profiled head.¹⁹ It is 22 cm long, and its diameter is 0.7 cm (T. III, 2). This jewellery is not typical of the Liburnian area. One such pin was found on Cres, and D. Glogović compares it with similar finds from Podbrežje and Ostrožnik in Slovenia dated to stage Ha B2.²⁰ As far as Liburnia is concerned, due to their small number, Glogović attributes a subalpine influence and dates them to the 9th or 8th century.²¹

The second pin, also made of bronze, was found in Grave 1. It was completely fragmented, but was partly reconstructed by reconnecting the fragments (T. III, 1). Apart from pin fragments, a ring with a round cross-section was also found. The length of the preserved parts is approximately 10 cm, and the

15 Š. BATOVIĆ, 1981, 28.

16 Š. BATOVIĆ, 1981, 28.

17 Jedna perlica je tamnoplave, druga svijetloplave, a treća perlica je izrađena od staklene paste neprozirne crne boje.

18 L. BAKARIĆ *et al.*, 2006, 118.

19 H. MÜLLER-KARPE, 1959, 124.

20 D. GLOGOVIĆ, 1989, 10-11.

21 D. GLOGOVIĆ, 1989, 10.

15 Š. BATOVIĆ, 1981, 28.

16 Š. BATOVIĆ, 1981, 28.

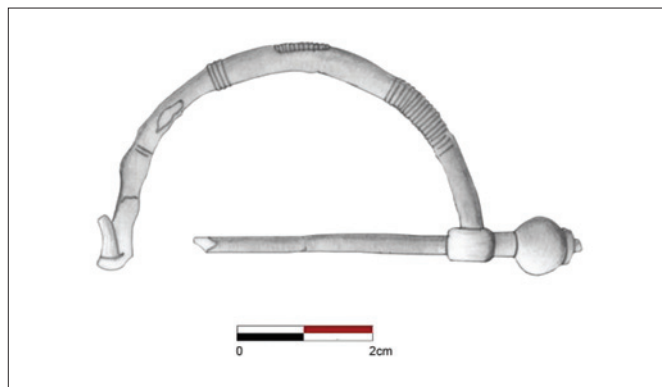
17 One bead is dark blue, the other is light blue, and the third bead is made of a glass paste of an opaque black colour.

18 L. BAKARIĆ *et al.*, 2006, 118.

19 H. MÜLLER-KARPE, 1959, 124.

20 D. GLOGOVIĆ, 1989, 10-11.

21 D. GLOGOVIĆ, 1989, 10.



SL. 6. / FIG. 6.

Fibula tipa Sundwalls IIIb.

Sundwalls IIIb fibula type.

SL. 7. / FIG. 7.

Idealna rekonstrukcija fibule prema već pronađenoj fibuli s Ljupča (v. D. GLOGOVIĆ, 2003, T. 13).

Fibula reconstruction based on previously unearthed fibula from Ljubač (D. GLOGOVIĆ, 2003, T. 13).

rijetak na liburnskom području, ali je pronađen prilikom istraživanja humka 13 u Nadinu.²²

Prva pronađena fibula pripada tipu običnih lučnih fibula. Izrađena je od jednog komada brončane žice, savijene s jednim navojem da se dobije igla. Ove se fibule javljaju kroz starije željezno doba, a njihovu pojavu s ukrasom na luku D. Glogović stavlja u 9. st. pr. Kr.²³ Naš tip pripada jednostavnim lučnim fibulama manjih dimenzija (dužina fibule je 60 mm, a visina luka je 37 mm) i bez ukrasa, koje Š. Batović stavlja u A stupanj II. faze liburnske kulture (8. st.), i za koje kaže da se prestaju koristiti već krajem ove faze (T. III, 3).²⁴

Druga fibula je brončana dvodijelna fibula koja prema osnovnom obliku luka spada u grupu Sundwalls IIIb (SL. 6, 7; T. III, 3). Riječ je o dvodijelnoj fibuli s lukom s tragovima kosih crta i horizontalnom pločastom nogom sa spiralom. Na glavi igle nalazi se kuglasto zadebljanje s kratkim nastavkom. Ovakav tip fibule se na liburnskom području javlja u starije željezno doba, a D. Glogović ih, oslanjajući se na talijansku kronologiju, datira na početak

ring's diameter is approximately 1.6 cm. There is no clear connection between the two parts, but the fact that they were found at the same spot suggests that they might have belonged to the same object. There are two possibilities: firstly, it might be a pin with a ring-shaped head. This form of pin is chronologically indeterminable and appears from the Early Bronze Age. In addition, the parts might belong to a pin with a ring inserted, an artefact which is rarely encountered in the Liburnian area, but which was unearthed during the excavations of Tumulus 13 in Nadin.²²

The first unearthed fibula belongs to the type of common bow fibulae. It is made of a single piece of bronze wire bent into a coil to form a pin. These fibulae occur throughout the Early Iron Age, and D. Glogović dates the form with a decoration on the bow to the 9th century BC.²³ Our type belongs to the simple bow fibulae of smaller dimensions (fibula length 60 mm, bow height 37 mm) without ornamentation. Š. Batović classified them as stage A of phase II of the Liburnian culture (8th century), and concluded that their usage had already ceased near the end of this phase (T. III, 3).²⁴

The second fibula is a bronze two-part fibula which, according to its basic bow form, belongs to the Sundwalls IIIb group (Figs. 6, 7; T. III, 3). It is a two-part fibula with a bow with traces of diagonal lines and a horizontal plate-like foot with a spiral. On the pin head, there is a spherical thickening

22 S. KUKOČ, 2004, 194.

23 D. GLOGOVIĆ, 1989, 19.

24 Š. BATOVIĆ, 2005, 20.

22 S. KUKOČ, 2004, 194.

23 D. GLOGOVIĆ, 1989, 19.

24 Š. BATOVIĆ, 2005, 20.

željeznog doba, tj. u 9. st. pr. Kr. S Ljupča je već poznat jedan primjerak fibule ovog tipa.²⁵

Kod fibule iz groba 4 luk, ukrašen urezanim linijama, ulazi u proširenje na igli koja na jednom kraju ima brončanu perlu. Drugi kraj igle, na žalost, nije sačuvan do kraja. Noga fibule je savijena. Uz fibulu je pronađen i još jedan ulomak koji pripada nastavku noge. Dužina fibule je 66 mm, visina luka 29 mm, a promjer brončane perle iznosi 7 mm.

Treba spomenuti i dva željezna predmeta pronađena u tumulu 1. Prvi je pronađen u kvadrantu II u blizini groba 4, iako nije bilo naznaka da je povezan s njim. Pronađen je u gornjem, tamnom sloju. Izgleda kao komad lučno savijene željezne žice. Malih je dimenzija (dužina 48 mm, promjer žice 4 mm). Nakit izrađen od željeza vrlo je rijedak u liburnskoj kulturi starijeg željeznog doba. Zbog slabe istraženosti, može se samo pretpostavljati kada kod Liburna počinje intenzivna upotreba željeza, točnije, koliko se ona zbilja prije 4-1. st. pr. Kr., kada se osobito umnožavaju različiti liburnski željezni predmeti.²⁶ Drugi željezni predmet je komad trake od željeznog lima dužine 52 mm, širine 15 mm i debljine 2 mm, također nepoznate namjene.

Tumul 2: tumul je podignut na strmini, s padom od oko 20 stupnjeva na sjeveroistočnoj strani. Zbog toga je na toj strani, u kvadrantu II, prilikom nasipanja tumula teren niveliran. Naime, tu je položen niz krupnog kamenja koje se jasno izdvaja od matične stijene i leži na sloju pjeskovite zemlje. Niz kamenja, blago zakrivljen u smjeru sjeverozapad-jugoistok, pokriva gotovo čitavu površinu kvadranta (Sl. 8; T. VI). Taj niz kamenja istodobno određuje i sjeveroistočnu granicu tumula, budući da ga izvan površine ovoga kvadranta uopće nema. S druge strane, budući da tako krupnog kamenja nema na rubovima drugih kvadranta, jasno je da ono u kvadrantu II ima konstruktivni karakter.

Nakon nivelacije terena, kao i kod tumula 1, formirana je osnova od gusto postavljenog kamenja srednje veličine i pjeskovite zemlje s okolnog prostora. Donji sloj formacije imao je svijetliju oker boju. Na taj sloj postavljen je jedan grob. Grob se nalazi u kvadrantu IV, blizu središta tumula. Nema nikakvih tragova arhitekture. Pokojnik je položen na podlogu i prekriven kamenjem. Sačuvalo nam se samo nekoliko krhkih i fragmentiranih kostiju, a analiza pokazuje da je riječ o osobi starijoj od 35 godina, iako

with a short joined piece. This fibula type appears in the Liburnian area in the Early Iron Age, and based on Italian chronology, D. Glogović has dated it to the beginning of the Iron Age, i.e. the 9th century BC. A specimen of this fibula type is already known from Ljubač.²⁵

The fibula from Grave 4 has a bow, decorated with engraved lines, inserted into a widening of the pin, which has a bronze bead at one end. The other end of the pin has unfortunately not been entirely preserved. The fibula foot is bent. Apart from the fibula, another fragment was unearthed which belongs to the joined part of the foot. The fibula length is 66 mm, the bow height 29 mm, and the diameter of the bronze bead 7 mm.

It is also worth mentioning two iron artefacts found in Tumulus 1. The first was unearthed in Quadrant II in the vicinity of Grave 4, although there were no indications that it was in any way related. It was unearthed in the upper, dark layer. It looks like a piece of a bow-like bent iron wire. It is of small dimensions (length 48 mm, wire diameter 4 mm). Jewellery made of iron is very rare in Early Iron Age Liburnian culture. Due to the poor state of excavations, it can only be assumed when the Liburnians started to use iron more intensively and the extent to which its use occurred before the 4th-1st century BC, when various Liburnian iron artefacts multiplied.²⁶ The other iron artefact is a strip of sheet iron, 52 mm in length, 15 mm wide and with a thickness of 2 mm, but whose function is also unknown.

Tumulus 2: The tumulus was erected on an approximately 20-degree slope on the north-eastern side. As a result, on that side, in Quadrant II, the terrain was levelled during its construction. A series of large stones was laid here, which clearly stand out from the parent rock, lying on a layer of sandy earth. A series of stones, slightly curved in a north-west/south-east direction, cover almost the entire surface of the quadrant (Fig. 8; T. VI). At the same time, this series of stone also defines the north-eastern border of the tumulus, since there are no stones at all outside the area of the quadrant. Since there are no such large stones on the margins of the other quadrants, it is clear that in Quadrant II this has a construction function.

As with Tumulus 1, after the terrain had been levelled, a base was built of densely arranged medium-

25 D. GLOGOVIĆ, 2003, 22-23, T 13.

26 S. KUKOČ, M. ČELHAR, 2009.

25 D. GLOGOVIĆ, 2003, 22-23, T 13.

26 S. KUKOČ & M. ČELHAR, 2009.



SL. 8. / FIG. 8.

Kvadrant II.

Quadrant II.

neodredivog spola. Raspored kostiju ne ukazuje na položaj pokojnika. Uz kosti nisu pronađeni nikakvi nalazi ili prilozi (Sl. 8; T. VII, 1).

Kremen: U nasipu tumula pronađena su tri kremenena artefakta. Kod prvoga riječ je o kombinaciji strugala i grebala, trokutastog presjeka i vrlo grube izrade. Obrada je rubna i strma. Po karakteristikama se može reći da predmet pripada paleolitiku i to vrlo vjerojatno srednjem, što nije rijetko na području Ljupča. Predmet je vjerojatno slučajno dospio u tumul prilikom njegova nasipanja. Drugi artefakt je slomljeno sječivo izrađeno od sivkastog rožnjaka. Rubovi su oštećeni, pa se ne može govoriti o obradi. Treći predmet je sličnih karakteristika, samo što je izrađen od bijelog rožnjaka. Po tehnološkim i tipološkim karakteristikama navedeni predmeti se ne mogu uže kronološki odrediti.

sized stones and sandy earth from the surrounding area. The lower layer of the formation had a lighter shade of ochre. There was a single grave in this layer. The grave is in Quadrant IV, near the centre of the tumulus. There are no traces of architecture. The deceased was laid on the base and covered with stones. Only several fragile and fragmented bones have been preserved, and analysis indicates that it was an individual older than 35 years of age, whose gender cannot be determined. The arrangement of bones does not suggest the position of the deceased. No grave goods or other finds were unearthed next to the bones (Fig. 8; T. VII, 1).

Flint: In the tumulus mound, three flint artefacts were unearthed. The first represents a combination of a side scraper (*racloir*) and an end scraper (*grattoir*). It has a triangular cross-section and very coarse workmanship. It was steeply chipped at its edges. Its characteristics suggest that the artefact belongs to the Palaeolithic, most probably to the Middle Palaeolithic, which is not uncommon in the Ljubač area. The artefact probably came into the tumulus by coincidence during its construction. The second artefact is a broken blade made of greyish chert. Its



SL. 9. / FIG. 9.

Tumul 2 - ostaci groba.

Tumulus 2 – grave remains.

Keramika: Keramikom je ovaj tumul nešto siromašniji nego tumul 1, ali ona pokazuje slične karakteristike. Pronađena su 243 ulomka. U gornjem sloju pojavljuje se 60-ak komada keramike debelih stjenki bez primjesa, zastupljene u većim količinama pogotovo na rubnim dijelovima. Od ovog broja jedan dio sigurno pripada amforama mlađeg porijekla. Jedan ulomak je karakterističan i ukazuje da je tu riječ o amfori grčko-italskog tipa, koja se datira u 3. st. pr. Kr. Kako su ovi ulomci vezani samo uz gornji, tamniji sloj, i kako ih je najveći broj pronađen na rubnom području, dakle u dijelu nasipa koji je razvučen izvan originalne površine tumula, sigurno je da ti ulomci nisu vezani uz nasipanje tumula nego su posljedica različitih kasnijih radnji vezanih uz ovaj prostor.

edges have been destroyed, and therefore its workmanship cannot be defined. The third artefact has similar characteristics, but is made of white chert. The technological and typological characteristics of the above described artefacts do not allow a more precise chronological classification.

Pottery: This tumulus is somewhat poorer in pottery than Tumulus 1, but it demonstrates similar characteristics. 243 fragments were unearthed. In the upper layer, approximately 60 pieces of pottery with thick walls without admixtures appear, represented in larger quantities in particular on the marginal parts. Among them, there are parts that certainly belong to amphorae. There is one fragment that suggests an amphora of the Greco-Italic type, dated to the 3rd century BC. As these shards are associated only with the upper, darker layer, and as the majority were unearthed on the margins, i.e. that part of the mound which has spread from the original tumulus surface, it is certain that these fragments are not connected with the tumulus construction, but are the consequence of later activities associated with the area.



Sl. 10. / FIG. 10.

Brončani predmet iz tumula 2.

Bronze artefacts from Tumulus 2.

Ostali ulomci pripadaju posudama grublje izrade i debljih stijenki (7 do 10 mm), tamnosmeđih, crvenkastih i rjeđe crnih tonova (T. VII). Oblici posuda su isti kao kod tumula 1. Blago stožaste posude s razgrnutim obodom ili posude s blago uvučenim ili izvučenim, zaravnjenim obodom. Pronađeni su ulomci dna četiriju posuda. Dna su ravna, s blagim ili malo proširenim prijelazom na recipijent. Osim njih pronađene su i dvije drške. Jedna je trakasta, elipsoidnog presjeka, dok je druga jezičasta. Samo je jedan ulomak ukrašen, i to rebrastim zadebljanjem na prijelazu vrata u recipijent posude.

Među nalazima samo su dva metalna predmeta. Kod prvoga riječ je o predmetu lučnog oblika dužine 3 cm, ukrašenog malim bradavičastim ukrasima po cijeloj površini, a kao glavni ukras luka javlja se brončana kugla promjera 9 mm (Sl. 9; T. VII, 2). Ona na svom gornjem dijelu i sa svake strane ima po jednu malu udubinu širine 3,5 mm. Također na jednom kraju luka postoji veće ispupčenje s utorom. Na prvi pogled činilo se da je riječ o dijelu fibule, no takva vrsta fibula nema izravne usporedbe. Također, predmet s Ljupča ima ispupčenje s utorom postavljeno s vanjske strane i bradavičaste ukrase oko cijelog sačuvanog dijela, pa se vjerojatno i ne radi o luku fibule. Zbog loše sačuvanosti predmeta i malog ulomka za sada nije moguće govoriti o njegovoj namjeni. Osim ovog predmeta, u tumulu je pronađena i jedna mala brončana alka promjera 10 mm.

Tumul 3: Nalazi se uz put, cca 300 m sjeverozapadno od tumula 1. Na prvi pogled tumul ima izduženi oblik, s dužom stranom u pravcu sjeverozapad-jugoistok. No iskopavanjem je utvrđeno da

Other shards belong to vessels of coarser fabrics, with thicker walls (7 to 10 mm) and of dark brown, reddish and less commonly black hues (T. VII). The vessel forms are the same as in Tumulus 1: mildly conical vessels with a bared rim or vessels with mildly recessed or inverted, flattened rims. Fragments of the bottoms of four vessels were unearthed. The bottoms are flat, with a mild or slightly expanded transition to the container. In addition, two handles were also unearthed. One of them is a ribbon handle with an elliptical cross-section, while the other is a tongue handle. Only one fragment is decorated, with a ribbed thickening as the neck turns into the container of the vessel.

Among the finds, there are only two metal artefacts. The first is a 3-cm-long, bow-shaped artefact whose entire surface is decorated with small knob-shaped ornaments, with a bronze sphere 9 mm in diameter as the main decoration on the bow (Fig. 9; T. VII, 2). On its upper part and on each side, the sphere had a small, 3.5-mm-wide recess. On one end of the bow, there is also a quite large boss with a groove. At first glance, it seemed to be part of a fibula, but this fibula type has no direct analogies. The artefact from Ljubač also has a boss with a groove on the outside and knob-shaped decorations around the entire preserved part. Therefore it is probably not a fibula bow at all. Due to the poor state of the artefact and the small size of the shard, so far it has not been possible to determine its function. Apart from this artefact, a small bronze ring 10 mm in diameter was also unearthed in the tumulus.

Tumulus 3: This is located along the path, approximately 300 m north-west of Tumulus 1. At first glance, the tumulus has an elongated form, its longer side stretching in a north-west/south-east direction. However, excavations have shown that the tumulus was on an existing uneven rocky surface whose oval form was already like a tumulus, which



SL. 11. / FIG. 11.

Matična stijena u kvadrantu I koja je poslužila za niveliranje terena.

Parent rock in Quadrant I that served for terrain levelling.

je tumul naslonjen na već postojeću stjenovitu neravninu, koja svojim ovalnim oblikom podsjeća na tumul i koja mu je na gotovo svim stranama odredila veličinu. Tumul nakon iskopavanja djeluje puno manji, pa u smjeru sjever-jug njegova dužina iznosi 12,5 m, a u smjeru istok-zapad 11,5 m.

Na matičnu stijenu i kod ovoga je tumula postavljena podloga, najprije od većeg kamenja, dok je u gornjem dijelu nasipa postavljeno manje kamenje. Podloga je najdeblja u kvadrantu III, gdje je visinska razlika između središnjeg dijela tumula i periferije bila najveća. Time se iznivelirao teren (Sl. 11; T. VIII).

Na tako pripremljenu podlogu postavljen je jedan pokojnik. Grob se nalazio u kvadrantu I, blizu središta samog tumula. Otkriven je već prilikom skidanja prvog površinskog sloja kamenja. Blizina površine znatno je utjecala na stanje kostiju, koje su krhke i raspadaju se na dodir. Nema arhitekture

determined its size on almost all sides. After the excavations, the tumulus seemed much smaller, so that its length from north to south was 12.5 m, and from east to west 11.5 m.

On the parent rock of this tumulus, there was also a base made initially of larger stones, and then in the upper part of the mound of smaller ones. The base is thickest in Quadrant III, where the height difference between the central part of the tumulus and the periphery was the greatest. In this way, the terrain was levelled (Fig. 11; T. VIII).

One deceased person was laid on a base prepared in this way. The grave was situated in Quadrant I, near the centre of the tumulus itself. It was uncovered during the removal of the first surface layer of stones. The vicinity of the surface significantly influenced the state of the bones, which are fragile and fall apart upon touch. There is no actual architecture, although there is a series of medium-sized stones, set probably after the inhumation in order to better protect the burial and partly also to form the tumulus body.



SL. 12. / FIG. 12.

Tumul 3 – grob.

Tumulus 3 – grave.

u pravom smislu riječi, iako postoji niz kamenja srednje veličine koje je postavljeno vjerojatno nakon polaganja pokojnika, zbog djelomične zaštite ukopa i nasipanja korpusa tumula.

Pokojnik je položen u zgrčeni položaj, na lijevom boku, s glavom koja gleda prema jugozapadu. Orientacija groba je jugoistok-sjeverozapad. Od lubanje su sačuvani samo manji ulomci i zubi. Desna ruka sačuvana je u cijelosti dok je od lijeve ostao tek pokoji ulomak. Noge su u lošem stanju, ali vidljiv je zgrčeni položaj (Sl. 12; T. IX). Na temelju sačuvanih ostataka i opće robusnosti kostiju procjenjuje se da je pokojnik bio osoba muškog spola stariji od 30 godina. U grobu nisu pronađeni prilozi niti nalazi.

Keramika: Tumul 3 je dao dosta ulomaka keramike, iako je najveći dio pronađen na rubnim dijelovima, izvan stvarne površine tumula, na dijelu gdje je plašt razvučen. Pojava mlađe keramike, koja se javlja i u tumulu 2, ovdje je još izraženija. Pronađena su 63 ulomka keramike debelih stijenki, od kojih jedan dio pripada građevinskom materijalu, a drugi, kao i kod tumula 2, amforama i drugim posudama debelih stijenki. Nije sačuvano previše karakterističnih dijelova da bi se one točno datirale, svega dvije ručke, koje mogu pripadati različitim tipovima.²⁷ Još jednom napominjem da su ovi nalazi

The deceased was buried in a crooked position, on his left hip, with the head facing south-west. The orientation of the grave is south-east/north-west. Only smaller fragments of the skull and teeth were preserved. The right hand was fully preserved, while only several fragments of the left hand were preserved. The feet and legs are in a bad state, but the crooked position is visible (Fig. 12; T. IX). On the basis of the preserved remains and generally robust constitution of the bones, it is believed that the deceased was a male person over 30 years of age. No grave goods or other finds were unearthed in the grave.

Pottery: Tumulus 3 yielded quite a large number of pottery shards, although the major part was unearthed on the margins, outside the actual surface area of the tumulus, in the part where the mantle was carried off. The occurrence of later pottery, which also shows up in Tumulus 2, is even more evident here. 63 fragments of pottery with thick walls were unearthed, of which one part belongs to construction artefacts, and the other, as is the case with Tumulus 2, to amphorae and other vessels with thick walls. Not many typical pieces have been preserved to enable an accurate dating: only two handles that can belong to various types.²⁷ I would like to point out once again that these finds are associated with the upper, darker layer, and were not unearthed in the original tumulus surface and are probably a consequence of later activity.

27 Po I. Borziću jedna pripada amfori grčko-italskog tipa, a druga vjerojatno Lamboglia tipu.

27 According to I. Borzić, one belongs to an amphora of the Greco-Italic type, and the other probably to the Lamboglia type.

vezani uz gornji, tamni sloj, nisu pronađeni na izvornoj površini tumula i vjerojatno su posljedica kasnijih aktivnosti.

Od keramike prapovijesnih karakteristika pronađeno je 57 ulomaka. Kao i kod ostala dva tumula i ovdje je riječ o posudama grublje izrade i debljih stijenci (7 do 10 mm), tamnosmeđih i crvenkastih tonova. Većinom su to atipični komadi po kojima se teško određuje oblik posude. Pronađena su dva ulomka oboda, oba ukrašena s nizom polukružnih udubljenja po vrhu. Dva ulomka dna ukazuju da su posude imale ravno ili prstenasto dno. Pronađena je samo jedna drška, zapravo donji dio trakaste drške elipsoidnog presjeka (T. IX).

Sahranjivanje pokojnika u grobne humke bio je običaj koji je u Liburniji trajao kroz brončano i željezno doba i odvijao se jednim dijelom paralelno s pokapanjem u grobovima na ravnom zemljištu. Gusto su raspoređeni, u velikom broju, ali bez nekih jasnih naznaka grupiranja ili bilo kakve podjele. Sva tri iskopana humka pripadaju tumulima srednje veličine. Formirani su od zemlje i kamenja, s podlogom koja ima dvostruku funkciju. Primarno je služila kao nivelacija terena, a potom i kao osnova za polaganje pokojnika. U dva tumula pokopana je samo jedna osoba, dok su u tumulu 1 pronađeni ostaci najmanje šest pokojnika. Nema sigurnih potvrda da su pokojnici bili u rodu, ali sudeći po kasnijim rimskim natpisima, kod Liburna se zajedno sahranjivala samo uža rodbina.²⁸ To je nesumnjivo ranije nasljeđe, koje ujedno potvrđuje življenje u užim obiteljskim zajednicama.²⁹

S obzirom na položaj grobova u tumulu 1, središnju poziciju groba 3, njegovu veću dubinu ukopa i bolju sačuvanost od ostalih grobova, ali i činjenice da jedino u njemu nema priloga, dok su u ostalim grobovima oni ujednačeni, nameće se pretpostavka da je on glavni grob, tj. razlog zbog kojeg je tumul prvotno i podignut, a da su ostali ukopi naknadni. A s obzirom na spomenute običaje pokapanja uže obitelji, tumul 1 bi mogao biti obiteljska grobnica.

U tumulu 1 je uočeno i nekoliko pojava koja se mogu povezati s kulturnim radnjama. Prije svega tu su brojni ulomci keramike, razbacani po cijelom tumulu, iako se može izdvojiti nekoliko mjesta s

57 shards of pottery with prehistoric characteristics were unearthed. Just as with the other two tumuli, these also belonged to vessels of a rather coarse workmanship with thick walls (7 to 10 mm) of a dark brown and reddish colour. These are mostly atypical pieces that barely allow a determining of the vessel forms. Two rim fragments were unearthed, both decorated with a series of semi-circular depressions on their top. Two bottom fragments suggest that the vessel had a flat or ring-shaped bottom. Only one handle was unearthed, the lower part of a ribbon handle with an elliptical cross-section (T. IX).

Burying the dead in grave mounds was a rite that in Liburnia lasted throughout the Bronze and Iron Ages, and partly continued in parallel with burials in flat graves. The graves were densely distributed in large numbers, but without clear indications of any grouping or division. All three excavated mounds belong to medium-sized tumuli. They were built of earth and stones, with a base that had a dual function. Primarily it served for levelling the terrain, and then also as a base upon which the dead could be laid. In two tumuli, only one individual was buried, while in Tumulus 1 the remains of at least six deceased were unearthed. There is no certain proof that the deceased were related, but according to later Roman inscriptions, Liburnians buried only close relatives in common graves.²⁸ Undoubtedly this was the heritage of earlier times, at the same time confirming life in close family communities.²⁹

Given the position of the graves in Tumulus 1, the central position of Grave 3, the fact that its burial was deeper and that it has been better preserved than the other graves, as well as it being the only grave without grave goods, while the other graves are uniform, we may assume that it was the main grave, i.e. the reason for erecting the tumulus in the first place, and that the other burials were subsequent. Given the mentioned rites concerning the burying of close family, Tumulus 1 might be a family tomb.

In Tumulus 1, several phenomena were also noticed that might be associated with cult rites. In the first place, there are numerous pottery shards scattered all over the tumulus, although several positions stand out with a greater concentration of shards, from which three vessels have been reconstructed. The distribution of finds suggests that the fragments did not enter with the earth with which the mound

28 Š. BATOVIĆ, 2005, 56.

29 Š. BATOVIĆ, 2005, 56.

28 Š. BATOVIĆ, 2005, 56.

29 Š. BATOVIĆ, 2005, 56.

povećanom koncentracijom ulomaka od kojih je napravljena rekonstrukcija triju posuda. Raspored nalaza ukazuje da ulomci nisu dospjeli sa zemljom kojom je nasipan humak, nego su posude razbijene na tumulu, možda kao dio obreda prilikom gradnje tumula i pokapanja pokojnika. Sličnu pojavu imamo na širem području još od vremena ranog brončanog doba.³⁰

Osim razbijanja keramike na jednom mjestu je pronađena i skupina životinjskih kostiju, što se također može povezati s obrednim radnjama. Prilaganje hrane je također poznato iz tumula na širem području.³¹ Kao treću pojavu vezanu za ritual možemo izdvojiti savijanje i lomljenje metalnih predmeta. Naime, iako su predmeti pronađeni plitko i u lošem stanju, jasno se primjećuje da kod obje igle i lučne fibule nije riječ samo o propadanju materijala, nego su one oštećene (savijene) i prije, vjerojatno prilikom stavljanja u grob. Ovakvo tretiranje priloga može se povezati u širi kontekst vjerovanja još od brončanog doba, da prilozima pripadaju pokojniku i da se ne mogu upotrebljavati nakon njegove smrti, što se najbolje očituje u ukopima s lomljenim oružjem. Sličnu pojavu imamo i na obližnjem tumulu Jokina glavica u Krnezi, gdje je sigurno potvrđeno da su predmeti savijeni i oštećeni prije negoli su stavljeni u urne.³²

Datiranje tumula je bitno otežano slabom zastupljenošću prepoznatljivih ukrasa ili oblika, ili pak nedostatkom kronološki osjetljivog materijala u tumulima. Prema nalazima nekropolu na Ljubačkoj kosi možemo dijelom usporediti s nekropolom u Ninu, čiji se sjeveroistočni dio datira u razdoblje od 9. do 7. st. pr. Kr. Tamo se također u grobovima javljaju lučne fibule, a pronađena je i ogrlica od bikonično oblikovanih jantarnih perli raznih veličina.³³

Preciznije datiranje mogu nam dati nalazi nakita, ponajprije oni iz tumula 1. Pronađena igla s profiliranom glavicom može se staviti u razdoblje 9. i 8. st. pr. Kr.³⁴ Lučne fibule javljaju se u 9. st., ali one manjih dimenzija i bez ukrasa na luku koriste se samo u A stupnju II. faze liburnske kulture,

was constructed, but the vessels were shattered on the tumulus, possibly as part of a rite during the tumulus construction and burying of the dead. A similar phenomenon is encountered in the wider area from the Early Bronze Age.³⁰

Apart from shattered pottery, in one spot, a group of animal bones was also unearthed, which can also be associated with ritual activities. Interring food is also known from tumuli in the wider area.³¹ As a third phenomenon associated with rites, we can point to the bending and breaking of metal artefacts. Although the artefacts were found dug shallowly into the ground and in a poor condition, it is evident that with both pins, and also the bow fibula, not only had the artefacts decayed, but they had also been damaged (bent) previously, probably on the occasion of laying them in the grave. Such treatment of grave goods can be associated with the wider context of beliefs present since the Bronze Age, that grave goods belonged to the dead and were not to be used after their death, which is most evident in burials with broken weapons. A similar phenomenon is also encountered in the nearby tumulus of Jokina Glavica in Krneza, where it was confirmed with certainty that the artefacts had been bent and destroyed before being put into the urns.³²

The dating of the tumulus is significantly harder due to the small number of recognisable ornaments or forms, and a lack of chronologically sensitive artefacts in the tumuli. Based upon the finds, the necropolis at Ljubačka Kosa can partly be compared with that in Nin, whose north-eastern part is dated to the period from the 9th until the 7th century BC. Here, bow fibulae also appear in graves, and a necklace made of biconically shaped amber beads of various sizes was also found.³³

A more precise dating can be provided by jewelry finds, especially those from Tumulus 1. The unearthed pin with a profiled head can be dated to the period of the 9th and 8th centuries BC.³⁴ Bow fibulae occur in the 9th century, but smaller ones and without ornamentation on the bow were present only in level A of stage II of the Liburnian culture, i.e. the 8th cen-

30 Š. BATOVIĆ, 1973; Š. BATOVIĆ, 1983; Š. BATOVIĆ, 1984; Š. BATOVIĆ, 2005.

31 Š. BATOVIĆ, 1983; Š. BATOVIĆ, 1984; Š. BATOVIĆ, S. KUKOČ, 1988.

32 B. MARIJANOVIĆ (u tisku).

33 Z. BRUSIĆ, 2003, 219-222.

34 D. GLOGOVIĆ, 1989, 10.

30 Š. BATOVIĆ, 1973; Š. BATOVIĆ, 1983; Š. BATOVIĆ, 1984; Š. BATOVIĆ, 2005.

31 Š. BATOVIĆ, 1983; Š. BATOVIĆ, 1984; Š. BATOVIĆ & S. KUKOČ, 1988.

32 B. MARIJANOVIĆ (forthcoming).

33 Z. BRUSIĆ, 2003, 219-222.

34 D. GLOGOVIĆ, 1989, 10.

tj. u 8. st.³⁵ Fibula iz groba 4 pripada tipu Sundwalls IIIb, koji se datira u 9 st.³⁶ I na kraju pojava jantara i staklenih perli obilježava početak II. faze liburnske kulture, dakle javlja se od 8. st.³⁷ Time se zaokružuje jedna cjelina koja ukazuje na razdoblje 8. st. pr. Kr., tj. II. faze liburnske kulture prema Š. Batoviću. Preostala dva tumula nemaju previše elemenata za datiranje, nego ih jedino na osnovu tumula 1 možemo smjestiti u isto razdoblje.

Iskopavanja tumula na Ljubačkoj kosi dopunjavaju naša saznanja o ranoj fazi željeznog doba liburnske kulture, ali i potvrđuju važnost ovog prostora u istraživanju prapovijesti jadranske obale, što će se zasigurno pokazati i daljim istraživanjem.

turey.³⁵ The fibula from Grave 4 belongs to the Sundwalls IIIb type, dated to the 9th century.³⁶ Finally, the occurrence of amber and glass beads is characteristic of the beginning of stage II of the Liburnian culture, as it appears from the 8th century.³⁷ This completes the picture suggesting the 8th century BC, i.e. stage II of the Liburnian culture according to Š. Batović. The two remaining tumuli do not have many elements for dating. Therefore we can only date them to the same period on the basis of Tumulus 1.

The tumuli excavations at Ljubačka Kosa represent an addition to our understanding of the early phase of the Iron Age of Liburnian culture, at the same time also confirming the importance of this region in exploring the prehistoric period of the Adriatic coast, as will certainly be confirmed in further excavations.

35 Š. BATOVIĆ, 2005, 20.

36 D. GLOGOVIĆ, 2003, 22-23, T. 13.

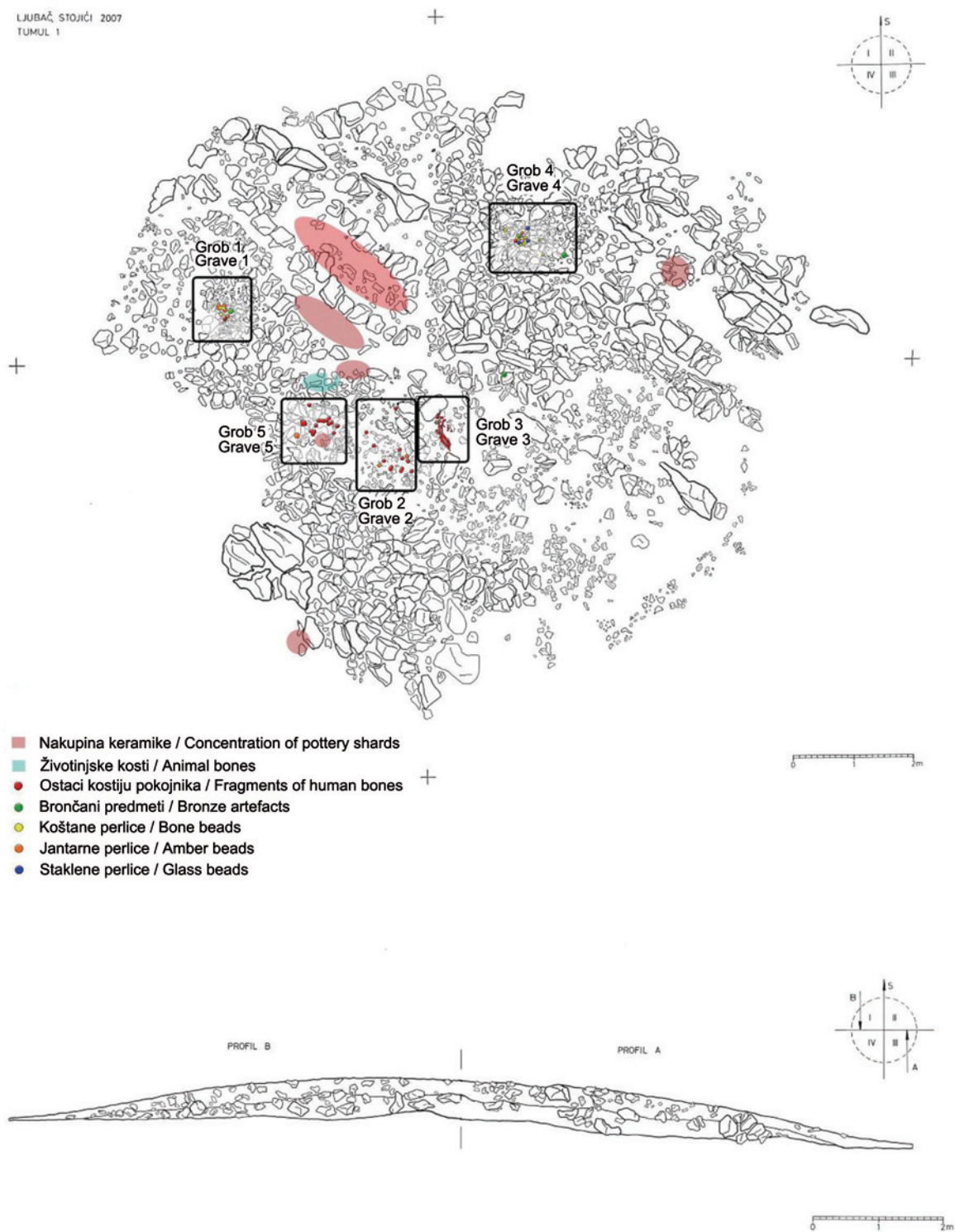
37 Š. BATOVIĆ, 1981, 28.

35 Š. BATOVIĆ, 2005, 20.

36 D. GLOGOVIĆ, 2003, 22-23, T. 13.

37 Š. BATOVIĆ, 1981, 28.

T. I.

LJUBAČ STOJICI 2007
TUMUL 1

T. II.

LJUBAČ, STOJČIĆ 2007
TUMUL I
KVADRANT IV
GROB 2



1

LJUBAČ, STOJČIĆ 2007
TUMUL I
KVADRANT IV
GROB 3



2



Staklene perlice
Kakšane perlice
Fisula
Jantarne perlice

3

LJUBAČ, STOJČIĆ 2007
TUMUL I
KVADRANT IV
GROB 5



4



5



6

T. III.



1



2



3

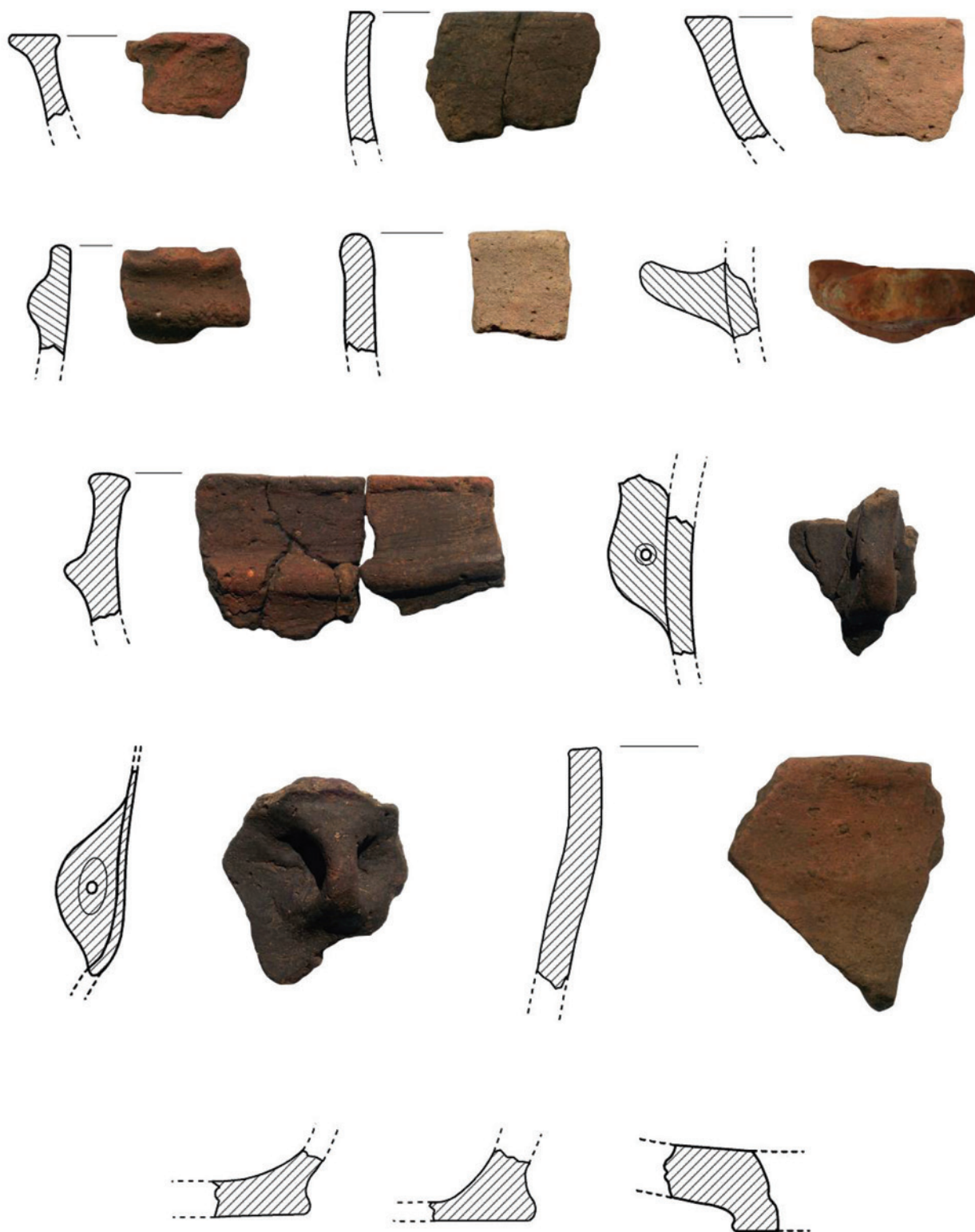


4



5

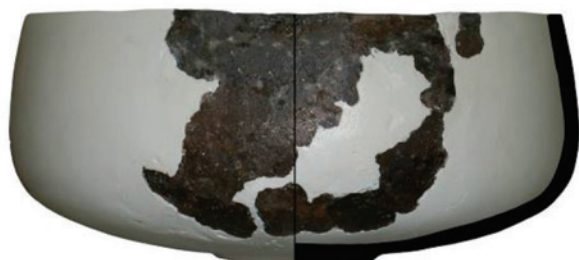
T. IV.



T. V.



1



2



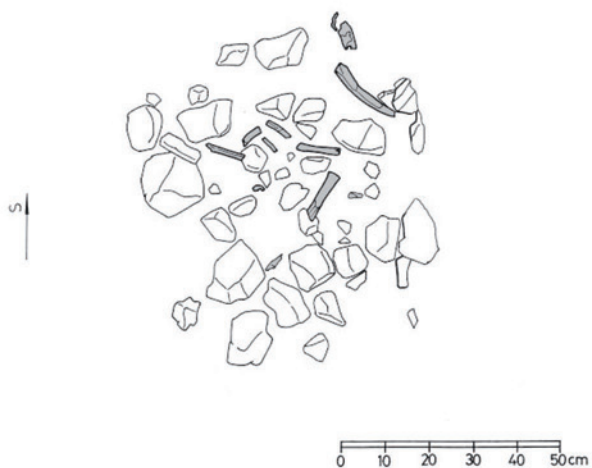
3

T. VI.

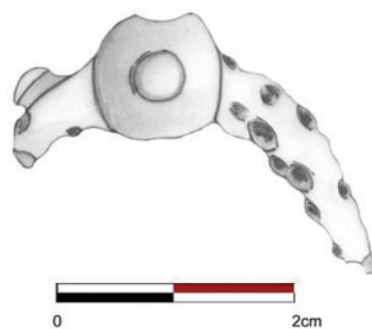


T. VII.

LJUBAČ, STOJICI 2007
TUMUL II



1



2



T. VIII.

LAUBAČ STOJČIĆI 2007
TUMUL 3

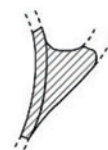


T. IX.

LJUBAČ, STOICI 2007
TUMUL III
KVADRANT I



0 10 20 30 40 50 60 cm



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