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The collection of Early Iron Age metal finds from Pavlovica, Rostovo, Central Bosnia

Skup metalnih nalaza ranog željeznog doba sa Pavlovice, Rostovo, centralna Bosna

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This paper discusses the collection of metal finds discovered in the Pavlovica area, in the immediate vicinity of the Rostovo plateau, within the Vranica mountain massif in central Bosnia. The described items were found just below the forest humus, at the edge of a larger mound with a diameter between 7 and 8 metres, among displaced stones that likely constituted some form of construction. All the finds were lying in close proximity to the ruined stone construction, across a surface area of 1 by 1.5 metres. Several typologically and chronologically indicative items, such as a double-looped fibula with a foot in the shape of a Boeotian shield, a fibula with three buttons on the bow, and a perforated belt buckle, suggest a time frame between the 7th and 6th centuries BCE. Particularly interesting are two conical buckles with an eyelet on the inner side and engraved decorations, as these forms have mostly been found thus far in contexts dating to the transition from the Late Bronze Age to the Early Iron Age (9th/8th century BCE). The find from Pavlovica, along with several other buckles and ornaments of the same type recently found in central Bosnia, suggests the persistence of these specific forms into the Early Iron Age.

Keywords: Early Iron Age, central Bosnia, jewellery, belt buckles, fibulae

U radu su predstavljeni metalni nalazi pronađeni na području Pavlovice u neposrednoj blizini visoravni Rostovo unutar masiva planine Vranice u centralnoj Bosni. Opisani predmeti pronađeni su neposredno ispod šumskog humusa na rubu jedne oveće kupe promjera između 7 i 8 metara među dislociranim kamenjem, koje je vjerovatno činilo neku vrstu konstrukcije. Svi nalazi ležali su u međusobnoj blizini unutar razorene kamene konstrukcije, na površini veličine 1 x 1,5 metara. Nekoliko tipološki-kronološki indikativnih predmeta kao što su dvopetljasta fibula sa nogom u obliku beotskog štita, fibula sa tri dugmeta na luku te probušena pojasna kopča upućuju na vrijeme između 7. i 6. stoljeća pr. n. e. Posebno zanimljive su dvije stožaste kopče sa ušicom na unutarnjoj strani i urezanim ukrasima te šest masivnih kupastih toka jer je riječ o oblicima koji su dosada uglavnom bili poznati iz konteksta datiranih na prijelaz između kasnog brončanog i ranog željeznog doba (9./8. stoljeće pr. n. e.) Nalaz iz Pavlovice, kao i nekoliko drugih kopči i toka istog tipa pronađenih nedavno na području centralne Bosne, upućuju na trajanje ovih specifičnih oblika nakita i u vrijeme ranog željeznog doba.

Ključne riječi: rano željezno doba, centralna Bosna, nakit, pojasne kopče, fibule

INTRODUCTION

Archaeological finds from the Bronze and Iron Ages in central Bosnia are primarily linked to river valleys such as the Lašva, the upper course of the Vrbas, the valleys and basins along the Bosna, and numerous smaller tributaries. These areas still represent the main settlement zones today within this distinctive mountainous landscape, with major communication routes following the river courses. The primary sources of information about this period, which spans from the 2nd to the beginning of the 1st millennium BCE, are hillfort settlements. These are typically located on the terraces and prominent, dominant positions above river valleys.¹ Previous research and surveys have indicated that most of the hillfort sites can be approximately dated to the Late Bronze and Early Iron Age (13th – 8th centuries BCE), suggesting a densely populated area at this time. Excavations at several sites, such as Pod near Bugojno² and Kopilo near Zenica,³ have revealed that some settlements were long-lasting, with layers and characteristic finds indicating continuous occupation over a period of 1,000 years or more. In addition to the relatively large number of registered hillforts, several more have been discovered in recent years.⁴ This further supports the hypothesis of intensive human activities in central Bosnia during the Late Bronze and Early Iron Ages. Additionally, certain local differences in settlement patterns and site selection have been observed, closely tied to the geo-topographic characteristics of specific river valleys.

Contrasting with the large number of settlements, there have been a disproportionately small number of graves discovered to date in this region. Only the recently discovered necropolis of the Kopilo hillfort settlement has been fully archaeologically documented.⁵ For most other finds presumed to be from graves, the evidence mainly consists of groups of metal objects occasionally found with bones or remains of stone constructions,⁶ as is the case with the objects from Pavlovica discussed here.

What sets Pavlovica apart from similar find sites like Grbavica near Vitez,⁷ Klačonica near Travnik,⁸ Nević Polje near Novi Travnik,⁹ or Gračanica near Visoko¹⁰ is its exceptionally high location, far from any major river courses or valleys. Previously, little was known about the occupation of the mountainous areas between the river valleys and basins of central Bosnia. However, recent research in the areas around Zenica, Travnik and Vitez indicates that elevated positions at altitudes around 1,000 metres, with nearby clearings, terraces, and meadows, were quite attractive to Bronze and Iron

UVOD

Arheološki nalazi brončanog i željeznog doba na području centralne Bosne uglavnom su vezani za doline rijeka kao što su Lašva, gornji tok Vrbasa, doline i bazeni uz rijeku Bosnu te niz manjih pritoka koje u ovom specifičnom planinskom krajoliku i danas predstavljaju glavne prostore naseljavanja, a uz tokove rijeka pružaju se i glavni komunikacijski pravci. Glavni izvor informacija o ovom periodu, koji pokriva vrijeme drugog do početka prvog milenija p.n.e., predstavljaju gradinska, odnosno visinska naselja koja su u pravilu locirana na rubovima, terasama i istaknutim, dominantnim pozicijama iznad riječnih dolina.¹ Dosadašnja istraživanja i rekonosciranja pokazala su kako se najveći broj visinskih naselja može okvirno datirati u vrijeme kasnog brončanog i ranog željeznog doba (13. – 8. stoljeće p.n.e.) pa se iz toga može zaključiti kako je u to vrijeme prostor centralne Bosne bio relativno gusto naseljen. Kako su pokazala iskopavanja na nekoliko lokaliteta kao što su Pod kod Bugojna² ili Kopilo kod Zenice,³ neka od naselja na istaknutim i u pravilu bedemom utvrđenim položajima bila su dugotrajnog karaktera sa slojevima i karakterističnim nalazima koji ukazuju na kontinuitet kroz period od 1000 godina pa i više. Pored relativno velikog broja registriranih visinskih naselja, u posljednjim godinama otkriveno ih je još nekoliko, koja dodatno podupiru pretpostavku o intenzivnom naseljavanju centralne Bosne, a primijećene su i određene lokalne razlike kada je riječ o obrascima naseljavanja i odabiru mjesta, što je opet vezano za geotopografske karakteristike pojedinih riječnih dolina.⁴ Nasuprot velikom broju naselja stoji nesrazmjerno mali broj dosada otkrivenih grobova u ovoj regiji od kojih je jedino nedavno otkrivena nekropola kod naselja Kopilo u potpunosti arheološki dokumentirana.⁵ U slučaju većine drugih nalaza za koje se pretpostavlja da potječu iz grobova radi se uglavnom o skupinama metalnih predmeta uz koje su ponekad pronađene kosti ili ostaci kamenih konstrukcija,⁶ kao što je slučaj i sa ovdje razmatranim objektima sa Pavlovice.

Ono što Pavlovicu izdvaja od sličnih skupina nalaza kao što su Grbavica kod Viteza,⁷ Klačonica kod Travnika,⁸ Nević-Polje kod Novog Travnika⁹ ili Gračanica kod Visokog¹⁰ jest izrazito visoki položaj udaljen od svih većih riječnih tokova, odnosno dolina. O naseljavanju planinskog prostora između pojedinih riječnih dolina i kotlina centralne Bosne dosada se malo znalo, no novija istraživanja na području Zenice, Travnika i Viteza pokazuju da su povišeni položaji na nadmorskoj visini od oko 1000 metara sa obližnjim proplancima, terasama i livadama bili itekako atraktivni zajednicama brončanog

1 Čović 1983; 1987; Gavranović, Sejfuli 2018.

2 Čović 1965; 1987.

3 Trajković 1971; Gavranović *et al.* 2021.

4 Perić 2004; Bujak 2006; Gavranović, Sejfuli 2018; Gavranović *et al.* 2021.

5 Gavranović *et al.* 2023; 2023b.

6 Čović 1983, 439; 1987, 511; Gavranović, Sejfuli 2018, 38.

7 Sielski 1931.

8 Gavranović, Sejfuli 2015.

9 Gavranović 2011, Pl. 21.

10 Čović 1984, 31.

1 Čović 1983a; 1987a; Gavranović, Sejfuli 2018.

2 Čović 1965; 1987a.

3 Trajković 1971; Gavranović *et al.* 2021.

4 Perić 2004; Bujak 2012; Gavranović, Sejfuli 2018; Gavranović *et al.* 2021.

5 Gavranović *et al.* 2023a; 2023b.

6 Čović 1983a, 439; 1987a, 511; Gavranović, Sejfuli 2018, 38.

7 Sielski 1931.

8 Gavranović, Sejfuli 2015.

9 Gavranović 2011, T. 21.

10 Čović 1984, 31.

Age communities.¹¹ In the case of Pavlovica, the site is situated along a mountain pass at an altitude of about 1,050 metres, connecting the valley of the Upper Vrbas on one side with the valley of the Lašva on the other. Additionally, it is worth noting that a nearby hill, approximately 300 metres east of the site where the metal finds were discovered, bears the name Gradac. This could suggest the existence of a hillfort that controlled the entire small plateau called Rostovo, which also hosts the medieval necropolis of Maculje.¹² Current routes to the nearby valleys of the Vrbas and Lašva pass through the narrow gorges of the Bistrička river towards Gornji Vakuf/Uskoplje and the small Grlovnica river, which flows into the Lašva near Nević Polje.

In the context of thus-far published metal finds¹³ within the local framework, it is worth noting that no well-documented grave from the Bronze or Iron Age has yet been found in the Upper Vrbas Valley between Donji Vakuf and Gornji Vakuf/Uskoplje. Rare individual metal finds, such as a spear discovered in Koščani near Prusac,¹⁴ or a sword from Klimenta near Donji Vakuf,¹⁵ could potentially represent grave goods, but their contexts remain unclear. Considering the long-term settlement at Pod near Bugojno, along with other registered and partially researched settlements such as Čolaci,¹⁶ Prusac,¹⁷ Gorica,¹⁸ Vesela Straža,¹⁹ and the documented hillforts around Gornji Vakuf/Uskoplje,²⁰ the question arises: Where are the remains of the thousands of people who inhabited the Upper Vrbas Valley (Skopaljsko Polje or Uskoplje) over several centuries, from the 12th to the 3rd/2nd centuries BCE? Individual burials in caves, such as the one at Krupa near Gornji Vakuf/Uskoplje,²¹ where a hillfort settlement is also located, suggest the possibility of various burial practices. However, our current knowledge about the Late Bronze and Iron Age burials in this microregion remains very limited.

A significantly larger number of metal finds have been discovered in the neighbouring Lašva Valley. Besides Veliki Mošunj near Vitez (9th–8th centuries BCE)²² and Rankovići

i željeznog doba.¹¹ U slučaju Pavlovice riječ je o planinskom prijevoju na visini od oko 1050 metara koji spaja dolinu gornjeg Vrbasa sa jedne te dolinu Lašve sa druge strane. Treba također spomenuti činjenicu da obližnje brdo oko 300 metara istočno od mjesta pronalaska metalnih nalaza nosi topnim Gradac, što bi moglo ukazivati na postojanje gradinskog naselja koje je kontroliralo cijelu omanju visoravan zvanu Rostovo na kojoj je smještena i srednjovjekovna nekropola Maculje.¹² Sadašnje komunikacije prema obližnjim dolinama Vrbasa i Lašve vode kroz uske klance Bistričke rijeke prema Gornjem Vakufu / Uskoplju, odnosno riječice Grlovnice koja se u ulijeva u Lašvu kod Nević-Polja.

U kontekstu dosada poznatih metalnih¹³ nalaza u lokalnim okvirima vrijedi istaknuti kako u dolini gornjeg toka Vrbasa između Donjeg i Gornjeg Vakufa (Uskoplje) dosada nije pronađen niti jedan bar približno dokumentirani grob brončanog ili željeznog doba. Rijetki, pojedinačni metalni nalazi, kao što je koplje pronađeno u Koščanima kod Prusca¹⁴ ili mač iz Klimente kod Donjeg Vakufa,¹⁵ mogli bi potencijalno predstavljati grobne nalaze, međutim, kontekst je i ovdje ostao nejasan. Uzimajući u obzir dugotrajno naseljavanje na Podu kod Bugojna, kao i druga registrirana i djelomice istražena naselja kao što su Čolaci,¹⁶ Prusac,¹⁷ Gorica,¹⁸ Vesela Straža¹⁹ te dosada zabilježene gradine oko Gornjeg Vakufa / Uskoplja,²⁰ postavlja se pitanje gdje se nalaze ostaci više hiljada ljudi koji su obitavali na prostoru doline uz gornji tok Vrbasa (Skopaljsko polje ili Uskoplje) između 12. i 3./2. stoljeća p.n.e.? Pojedinačni ukopi u spiljama kao npr. u Krupi kod Gornjeg Vakufa / Uskoplja, gdje se nalazi i jedno gradinsko naselje, ukazuju na to da se može računati sa raznim vrstama sahranjivanja,²¹ no ostaje činjenica da su trenutna saznanja o pogrebnim običajima kasnog brončanog i željeznog doba u ovoj mikroregiji izrazito skromna.

Daleko veći broj metalnih nalaza pronađen je u susjednoj dolini Lašve. Pored Velikog Mošunja kod Viteza (9. – 8. stoljeće p.n.e.)²² i Rankovića kod Novog Travnika (11. – 10. stoljeće

11 Kreševljaković 1989; Gavranović *et al.* 2020; Gavranović *et al.* 2021.

12 Rostovo is also a common name for the neighbouring plateau between Bugojno and Novi Travnik, which also connects the valleys of Lašva and Vrbas. In the local dialect, the plateau between Bugojno and Novi Travnik is sometimes called Ravno Rostovo, while the plateau between Gornji Vakuf/Uskoplje and Novi Travnik, described here, is referred to as Rostovo.

13 Since material analyses have not been conducted for the vast majority of early Iron Age metal finds from the central Bosnia region, it cannot be stated with certainty that they are made of bronze as an intentional alloy of copper and tin. In principle, it is possible that some items were made without the addition of tin and, therefore, could not be classified as bronze.

14 Gavranović 2011, Fig. 183.

15 Harding 1995, 48.

16 Pravidur 2012.

17 Marjanović 2011.

18 Čremošnik 1951.

19 Odavić 1984.

20 Miletić 1988, 12.65 (Paloč); Marjanović 1988, 12.81 (Boljkovac); Marijan 1988, 12.86 (Krupa); Marijanović, Andelić 1988, 12.233 (Jagnjid). This list should include the hillfort site between the villages of Odžak and Pavice in the municipality of Bugojno (see Map 1, 9) with numerous ceramics typical of the Late Bronze and Early Iron Ages. Despite its impressive plateau and visible remains of an earthen rampart with multiple terraces containing surface finds, this site has only recently been registered.

21 Zukanović *et al.* 2012.

22 Truhelka 2013; König 2004, 225.

11 Kreševljaković 1989; Gavranović, Petschko 2020; Gavranović *et al.* 2021.

12 Rostovo je uobičajen naziv i za susjednu visoravan između Bugojna i Novog Travnika koja također povezuje doline Lašve i Vrbasa. U lokalnom govoru visoravan između Bugojna i Novog Travnika ponekad se naziva i Ravno Rostovo, dok se za ovdje opisanu visoravan između Gornjeg Vakufa/Uskoplja i Novog Travnika koristi naziv Rostovo.

13 Pošto za veliku većinu metalnih nalaza ranog željeznog doba sa prostora centralne Bosne nisu vršene analize materijala, ne može se sa sigurnošću reći da se radi o bronci kao intencionalnoj leguri bakra i kositra. U principu je moguće da su pojedini predmeti izrađeni i bez dodavanja kositra pa se samim tim ne bi mogli označiti kao brončani.

14 Gavranović 2011, sl. 183.

15 Harding 1995, 48.

16 Pravidur 2012.

17 Marjanović 2001.

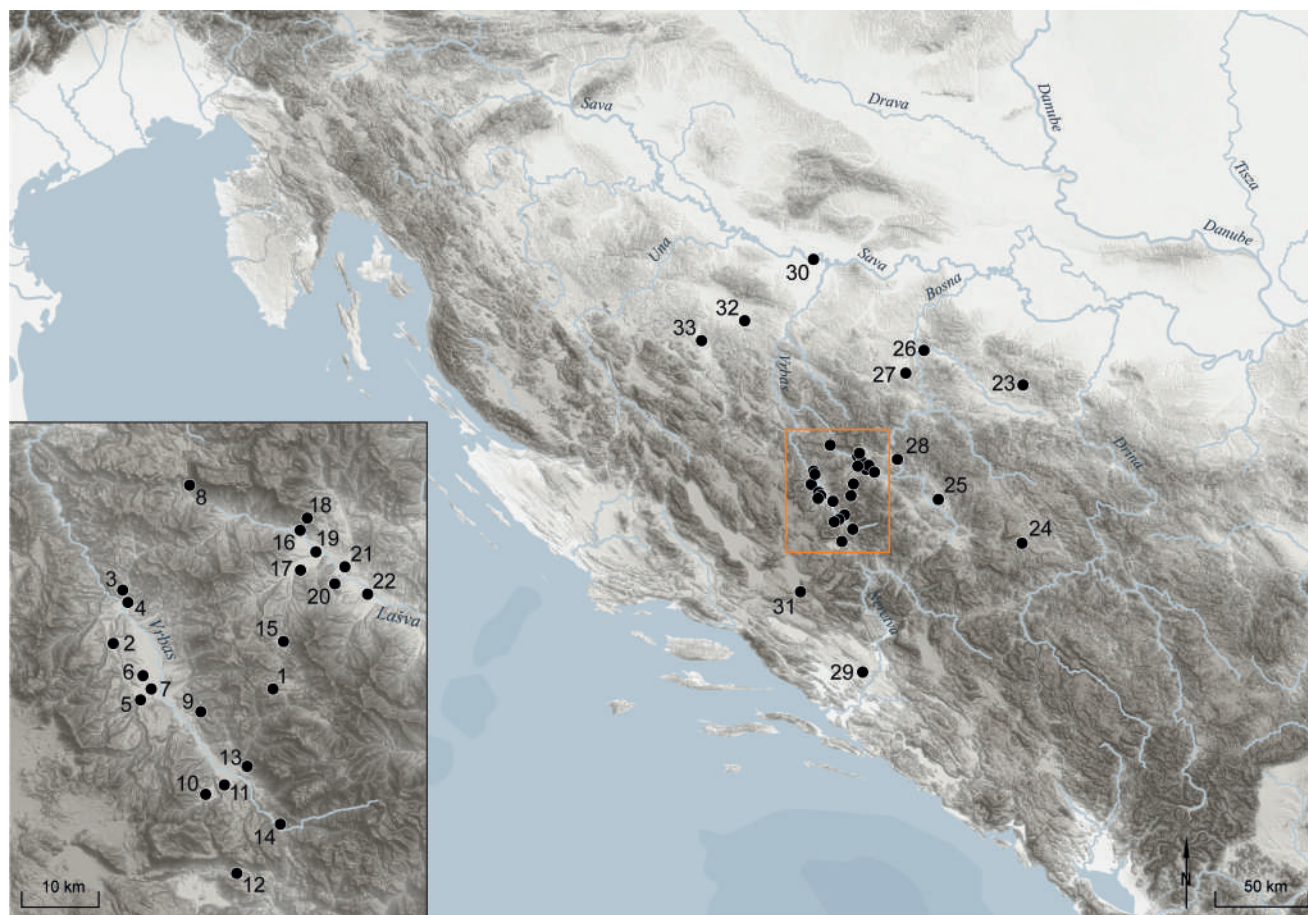
18 Čremošnik 1951.

19 Odavić 1984.

20 Miletić 1988, 12.65 (Paloč); Marjanović 1988, 12.81 (Boljkovac); Marijan 1988, 12.86 (Krupa); Marijanović, Andelić 1988, 12.233 (Jagnjid). Ovdje treba ubrojiti i visinsko naselje između sela Odžak i Pavica na teritoriji bugojanske općine (karta 1, 9) sa mnoštvom keramičkih nalaza tipičnih za kasno brončano i rano željezno doba. Ovaj lokalitet, unatoč imponantnom platou i vidljivim ostacima zemljanog bedema sa više terasa na kojima se nalaze površinski nalazi, tek je nedavno registriran.

21 Zukanović *et al.* 2012.

22 Truhelka 1913; König 2004, 225.



Map 1. Sites mentioned in the text. 1. Pavlovica; 2. Prusac; 3. Čolaci; 4. Klimenta; 5. Vesela Straža; 6. Pod; 7. Gorica; 8. Turbe; 9. Odžak-Pavice; 10. Jagnjid; 11. Paloč; 12. Ometala; 13. Krupa; 14. Boljkovac; 15. Opara; 16. Klaonica; 17. Rankovići; 18. Velika Bukovica; 19. Nević Polje; 20. Veliki Mošun; 21. Bila; 22. Grbavica, Vitez; 23. Gornja Tuzla; 24. Ilijak; 25. Gračanica, Visoko; 26. Lipac; 27. Tešanj-Paklanica; 28. Kopilo; 29. Krehin Gradac; 30. Donja Dolina; 31. Crvenice; 32. Radosavska; 33. Sanski Most (prepared by I. M. Petschko, Austrian Archaeological Institute)

Karta 1. Nalazišta spomenuta u tekstu. 1. Pavlovica; 2. Prusac; 3. Čolaci; 4. Klimenta; 5. Vesela Straža; 6. Pod; 7. Gorica; 8. Turbe; 9. Odžak-Pavice; 10. Jagnjid; 11. Paloč; 12. Ometala; 13. Krupa; 14. Boljkovac; 15. Opara; 16. Klaonica; 17. Rankovići; 18. Velika Bukovica; 19. Nević Polje; 20. Veliki Mošun; 21. Bila; 22. Grbavica, Vitez; 23. Gornja Tuzla; 24. Ilijak; 25. Gračanica, Visoko; 26. Lipac; 27. Tešanj-Paklanica; 28. Kopilo; 29. Krehin Gradac; 30. Donja Dolina; 31. Crvenice; 32. Radosavska; 33. Sanski Most (izradila I. M. Petschko, Austrijski arheološki institut)

near Novi Travnik (11th–10th centuries BCE),²³ which have been interpreted as hoards, metal objects likely originating from destroyed Late Bronze and Iron Age graves are known from Grbavica near Vitez,²⁴ Nević Polje,²⁵ Putićevo,²⁶ and Klaonica near Travnik.²⁷ All these sites are located within the fields of the Lašva Valley. Among higher altitude sites, Velika Bukovica (976 m) on Vlašić is noteworthy, where tumuli were excavated in the early 20th century.²⁸ However, detailed data is scarce, with only a fibula, socketed axe, and two decorated buttons reported. Additionally, the site of Kaurške Ravni, located at a high altitude (1,200 m), contains a significant number of stone tumuli that most likely date to the prehistoric period.²⁹

p.n.e.),²³ koji su interpretirani kao ostave, metalni predmeti koji najvjerojatnije potječu iz razorenih grobova kasnog bronzanog i željeznog doba poznati su iz Grbavice kod Viteza,²⁴ Nević-Polja,²⁵ Putićeva²⁶ i Klaonice kod Travnika.²⁷ Svi ovi lokaliteti smješteni su u samoj dolini rijeke, odnosno u poljima Lašvanske doline. Od nalazišta na višim položajima vrijedi istaknuti Veliku Bukovicu (976 m) na Vlašiću, gdje su zabilježeni tumuli koji su iskopavani početkom 20. stoljeća, no bliži podaci, osim da su pronađeni jedna fibula, dio sjekire – kelta i dva ukrašena dugmeta, ne postoje.²⁸ Također na dosta visokom položaju (1200 m) nalazi se lokalitet Kaurške ravni na kojem je zabilježen veći broj kamenih tumula koji bi se također mogli pripisati prehistorijskom periodu.²⁹

23 Gavranović, Sejfuli 2015, 80.

24 Sielski 1931, Pl. 10; Korošec 1950.

25 Čović 1987, 483; Gavranović 2011, T. 21.

26 Čović 1975, 30; Gavranović 2011, T. 22.

27 Gavranović, Sejfuli 2015, Fig. 2–3.

28 Mandić 1926, 35.

29 Kreševljaković 1989, no. 133.

23 Gavranović, Sejfuli 2015, 80.

24 Sielski 1931, T. 10; Korošec 1950.

25 Čović 1987a, 483; Gavranović 2011, T. 21.

26 Čović 1975, 30; Gavranović 2011, T. 22.

27 Gavranović, Sejfuli 2015, sl. 2–3.

28 Mandić 1926, 35.

29 Kreševljaković 1989, br. 133.

Relevant to the collection from Pavlovica is a single conical decorated belt buckle from Bila, which until now was the only find of this type from central Bosnia.³⁰ Prehistoric activities and communication between the Lašva Valley and Rostovo, including Pavlovica, are further evidenced by a socketed axe from Opara, on the road to Novi Travnik, dated to the period of the older Urnfield culture (13th–12th centuries BCE, or BA D–Ha A1 stage).³¹

FINDING CIRCUMSTANCES

The finds were discovered during the cutting of a forest road in 2017, and their context, mutual relationship and arrangement can only be speculated to.³² Subsequent field inspections by the author determined that all items were found in close proximity, and that there was a stone structure at the edge of an earthen mound, which could indicate a destroyed grave (or graves), though no bones were recorded. The lack of bones could be explained by the shallow location just below the humus, while the uniform patina suggests that the items may well have been deposited at approximately the same time. It also remains possible that the findings represent a hoard. Due to the circumstances of the discovery, it cannot be considered a closed find, and contextualisation is currently possible only through typological-chronological comparisons of the archaeological material.

THE TYPO-CHRONOLOGICAL AND SPATIAL CONTEXT OF THE FINDS

The double-looped bow fibula with a catch plate in the form of a Boeotian shield (Fig. 1: 1) represents one of the most characteristic types of Early Iron Age jewellery across the Balkans.³³ Due to a certain degree of concentration in eastern Bosnia and western Serbia, some authors, like S. Gabrovec and R. Vasić,³⁴ have directly linked this type of jewellery to the so-called Glasinac Group, as defined by B. Čović in his studies.³⁵ Several studies have addressed the origin, spread and typology of these fibulae, including D. Gergova for the eastern Balkans,³⁶ B. Čović for the Glasinac area,³⁷ and R. Vasić for the central Balkans.³⁸ The most recent comprehensive typo-chronological analysis was undertaken by D. Heilmann, dividing this type into three main variants.³⁹ According to current research, the earliest examples of this type, specifically Variant 1 according to Heilmann (fibulae sized 7–12 cm with a high foot and large arched cutouts on the shield plate), appear between the end of the 8th and the first half of the 7th century BCE in the eastern Balkans, i.e.

Od pojedinačnih nalaza iz Lašvanske doline važna za Pavlovicu je jedna stožasta ukrašena pojasna kopča iz Bile koje je dosada ujedno predstavljala i jedini nalaz ovog tipa iz centralne Bosne.³⁰ O prahistorijskim aktivnostima i komunikaciji između Lašvanske doline i Rostova, odnosno Pavlovice, svjedoči i jedan nalaz sjekire – kelta iz mjesta Opara na putu prema Novom Travniku koji se datira u razdoblje starije kulture žarnih polja (13. – 12. stoljeće p.n.e., odnosno stupanj Bz D–Ha A1).³¹

OKOLNOSTI NALAZA

Nalazi sa Pavlovice pronađeni su prilikom usijecanja šumskog puta 2017. godine te se o njihovom kontekstu i međusobnoj vezi te rasporedu može samo nagađati.³² Naknadnim pregledom terena od strane autora utvrđeno je da su svi pronađeni u neposrednoj blizini, kao i da je postojala kamena konstrukcija na rubu jedne zemljane kupe, što bi moglo upućivati na to da je riječ o razorenom grobu ili grobovima, no na mjestu pronalaska nisu zabilježene nikakve kosti. Nedostatak kostiju mogao bi se objasniti plitkim položajem odmah ispod humusa, dok ujednačena patina govori u prilog tome da su predmeti ipak mogli dospjeti u zemlju u približno isto vrijeme. Ostaje također mogućnost da je riječ o ostavi predmeta. Uslijed okolnosti pronalaska, ne može se ni u kom slučaju govoriti o zatvorenom nalazu, dok je sama kontekstualizacija zasada moguća samo putem tipokronoloških komparacija arheološkog materijala.

TIPOKRONOLOŠKI I PROSTORNI KONTEKST NALAZA

Dvopetljaste lučne fibule sa nogom u obliku beotskog štita (sl. 1: 1) predstavljaju jedan od najkarakterističnijih tipova nakita ranog željeznog doba na gotovo cijelom Balkanu.³³ Uslijed određene koncentracije nalaza na području istočne Bosne i zapadne Srbije, neki autori poput S. Gabrovca i R. Vasića³⁴ doveli su ovaj tip nakita u neposrednu vezu sa tzv. Glasinačkom grupom kako ju je u svojim studijama definirao B. Čović.³⁵ Pitanjem porijekla, širenja i tipologije ovih fibula bavilo se nekoliko studija, uključujući D. Gergovu za područje istočnog Balkana,³⁶ B. Čovića za glasinačko područje³⁷ i R. Vasića za centralni Balkan,³⁸ a posljednju iscrpnu tipokronološku analizu uradila je D. Heilmann podijelivši ovaj tip u tri glavne varijante.³⁹ Prema trenutnom stanju istraženosti, najraniji primjerci ovog tipa, odnosno varijante 1 po Heilmann (fibule veličine 7–12 cm sa visokom nogom i velikim lučnim

30 Nikolić 1962, 75; Gavranović 2017, Fig. 6; Jašarević 2022, Fig. 9.

31 Žeravica 1993, 90; König 2004, 16; Gavranović 2011, 69.

32 The metal finds are currently on restoration and will then be stored in the collection of the Regional museum in Travnik.

33 Gabrovec 1970, Map 10; Kilian 1975; Bader 1983, 85; Vasić 1999, 65; Heilmann 2016.

34 Gabrovec 1970, 40; Vasić 1973, 133.

35 Čović 1983b; Čović 1987b.

36 Gergova 1987, 52.

37 Čović 1987b, 602.

38 Vasić 1999, 65–71.

39 Heilmann 2016, Fig. 2.

30 Nikolić 1962, 75; Gavranović 2017, sl. 6; Jašarević 2022, sl. 9.

31 Žeravica 1993, 90; König 2004, 16; Gavranović 2011, 69.

32 Metalni nalazi trenutno su u procesu restauracije te će nakon toga biti pohranjeni u zbirci Zavičajnog muzeja u Travniku.

33 Gabrovec 1970, Karta 10; Kilian 1975; Bader 1983, 85; Vasić 1999, 65; Heilmann 2016.

34 Gabrovec 1970, 40; Vasić 1973, 133.

35 Čović 1983b; Čović 1987b.

36 Gergova 1987, 52.

37 Čović 1987b, 602.

38 Vasić 1999, 65–71.

39 Heilmann 2016, sl. 1.

between the Lower Danube and northern Greece. Among the oldest examples are fibulae from graves in Sofronievo (Bulgaria)⁴⁰ and Mikro Doukato in northern Greece, where a single-looped fibula with a Boeotian shield plate was also found.⁴¹ Variant 1 has not yet been found in the western Balkans, indicating that this type of fibula in its unique form indeed originated in the eastern Balkans, making its close association with the Glasinac Group questionable.

Variant 2, according to Heilmann, features fibulae sized between 6 and 10 cm, a circular or polygonal cross-section of the bow with ring-like reinforcements, with the shield-shaped catch plate or foot usually being decorated with a double-incised V line. Subvariants 2a and 2b differ primarily in the shape of the catch plate, which is either flatter (2a) or has relatively shallow cutouts on the sides (2b). Variant 2 is the most common form of this type, with a wide distribution between the Bulgarian-Romanian Danube region and the southeastern Alps.⁴² The fibula from Pavlovica undoubtedly belongs to this variant. Geographically, closer finds of the same variant include a fibula from Grbavica near Vitez,⁴³ likely fibulae from Nević Polje and Travnik,⁴⁴ one example from Livno,⁴⁵ and several examples from Glasinac⁴⁶ and Donja Dolina.⁴⁷ A fibula very similar to Variant 2 was also found at the settlement of Pod, in the so-called 'fire horizon' that divides the Pod C and Pod D phases, and which, according to Čović, dates to the late 7th century BCE.⁴⁸ In the chronological classification of finds from Glasinac, Čović identified this variant as the leading type of phase Glasinac IVc1, while in Donja Dolina, these fibulae are characteristic of the oldest phase of burials within the cemetery, such as Grave 2, Greda Miće Petrovića, or Grave 3, Greda Stipe Čegrlje.⁴⁹ In absolute terms, the appearance of Variant 2 can be placed between 650 and 600 BCE. Regarding the origin of Variant 2, R. Vasić suggests that this form originated in the central Balkans (including Glasinac), and then spread westward, northward and eastward.⁵⁰ As indicated by the finds from Pavlovica, Grbavica, Travnik, Nević Polje, and Pod, central Bosnia can certainly be included in the primary distribution area of this variant.

From the Pod settlement, younger variants of fibulae with a Boeotian shield (Variant 3 acc. Heilmann) are also known, characterized by smaller dimensions, with the bow often being decorated with incised lines.⁵¹ Fibulae of Variant 3 mainly occur in the context of the first half of the 6th century BCE, as is the case with the example from Pod. Thus, it can be concluded that this type of jewellery was present in central Bosnia between the mid-7th and mid-6th centuries BCE,

izrezima na nozi), pojavljuju se u vremenu između konca 8. i prve polovice 7. stoljeća p.n.e. na prostoru istočnog Balkana, odnosno između donjeg toka Dunava i sjeverne Grčke. Među najstarije primjerke ubrajaju se fibule iz grobova u Sofronijevu (Bugarska)⁴⁰ i Mikro Doukato u sjevernoj Grčkoj, u kojem je pronađen i jedan primjerak jednopetljaste fibule sa nogom u obliku beotskog štita.⁴¹ Varijanta 1 dosada nije pronađena na zapadnom Balkanu te se može pretpostaviti kako je ovaj tip fibule u izvornom obliku zaista nastao na prostoru istočnog Balkana, čime se i njegovo usko vezivanje uz Glasinačku grupu čini upitnim.

Varijanta 2 prema Heilmann odlikuje se veličinom između 6 i 10 cm, kružnim ili poligonalnim presjekom luka na kojem se nalaze prstenasta pojačanja, dok je noga u pravilu ukrašena duplom urezanom V linijom. Subvarijante 2a i 2b razlikuju se prije svega po obliku noge koja je pljosnatija (2a), odnosno ima dosta plitke izreze sa strane (2b). Varijanta 2 najčešći je oblik ovog tipa fibula sa širokom distribucijom između bugarsko-rumunjskog Podunavlja i jugoistočnih Alpi,⁴² a njoj se bez sumnje može pripisati i fibula sa Pavlovice. Od geografski bližih nalaza, istoj varijanti pripada i fibula iz Grbavice kod Viteza,⁴³ zatim vjerovatno i fibule iz Nević-Polja i Travnika,⁴⁴ jedan primjerak iz Livna⁴⁵ te više primjeraka sa Glasinca⁴⁶ i iz Donje Doline.⁴⁷ Vrlo slična varijanti 2 je i jedna fibula pronađena u naselju Pod u tzv. horizontu požara koji dijeli faze Pod C i Pod D prema Čoviću te se datira na konac 7. stoljeća p.n.e.⁴⁸ U kronološkoj podjeli nalaza sa Glasinca, Čović je upravo ovu varijantu izdvojio kao vodeći tip faze Glasinac IVc1, dok su u Donjoj Dolini ove fibule karakteristične za grobove najstarije faze kao što su grob 2, Greda Miće Petrovića, ili grob 3, Greda Stipe Čegrlje.⁴⁹ Radi se o fazama koje se apsolutno mogu smjestiti u vrijeme između 650. i 600. godine p.n.e. Što se tiče područja nastanka varijante 2, R. Vasić pretpostavlja kako je ovaj oblik nastao na centralnom Balkanu (uključujući i Glasinac) te se potom proširio prema zapadu, sjeveru i istoku.⁵⁰ Kako sugeriraju nalazi iz Pavlovice, Grbavice, Travnika, Nević-Polja i Poda, prostor centralne Bosne može se bez sumnje uključiti u primarni prostor rasprostiranja ove varijante. Iz naselja Pod poznate su pritom i mlađe varijante fibula sa nogom u obliku beotskog štita (varijante 3 prema Heilmann) koje se odlikuju manjim dimenzijama, dok je luk često ukrašen urezanim linijama.⁵¹ Fibule varijante 3 uglavnom potječu iz konteksta prve polovice 6. stoljeća p.n.e., što je slučaj i sa primjerkom iz Poda. Može se dakle zaključiti da je ovaj tip nakita na

40 Hänsel 1976, 174; Gergova 1987, 64; Teržan 1987, 17; Metzner-Nebelsick 2002, 110.

41 Triantifilos 1983, 200; Heilmann 2016, 12.

42 Heilmann 2016, Fig. 4.

43 Gavranović 2011, Fig. 174.

44 Čović 1987, 482.

45 Čović 1987c, Pl. 48:19.

46 Benac, Čović 1957, Pl.22:1–2; Pl.24:2–5; Pl. 25:1–2; Pl. 36:3–4.

47 Čović 1961, Y22; Čović 1987d, Pl. 25:5–6.

48 Čović 1987, 492, Pl. 52:15.

49 Čović 1987b, 602–603; Gavranović 2011, 128–136.

50 Vasić 1999, 65.

51 Čović 1987, Pl. 52:16; Gavranović 2011, 191; Heilmann 2016, 16, Fig. 3.

40 Hänsel 1976, 174; Gergova 1987, 64; Teržan 1987, 17; Metzner-Nebelsick 2002, 110.

41 Triantifilos 1983, 200; Heilmann 2016, 12.

42 Heilmann 2016, sl. 4.

43 Gavranović 2011, sl. 174.

44 Čović 1987a, 482.

45 Čović 1987c, T. 48: 19.

46 Benac, Čović 1957, T. 22: 1–2; T. 24: 2–5; T. 25: 1–2; T. 36: 3–4.

47 Čović 1961, Y22; 1987d, T. 25: 5–6.

48 Čović 1987a, 492, T. 52: 15.

49 Čović 1987b, 602–603; Gavranović 2011, 128–136.

50 Vasić 1999, 65.

51 Čović 1987a, T. 52: 16; Gavranović 2011, 191; Heilmann 2016, 16, sl. 3.

most commonly represented by Variant 2 (acc. Heilmann), which includes the example from Pavlovica.

The fibula with three buttons on the bow (Fig. 1: 2) belongs to a type of jewellery from the late 7th and 6th centuries BCE, predominantly distributed throughout central Italy, the northern Adriatic and the southeastern Alps.⁵² Several examples have been found in Bosnia, such as at the settlement of Pod and in graves at Donja Dolina.⁵³ The fibula from Pavlovica is distinguished by its cup-shaped or plug-shaped buttons and the cross-section of the bow, which are characteristic of the Brezje type according to Lo Schiavo's classification.⁵⁴ This differs from previously known examples from Pod or Donja Dolina, which have spherical or oval-shaped buttons with necks, and can be broadly attributed to Lo Schiavo's Grottazzolina type.⁵⁵ Brezje-type fibulae have so far been recorded in central Italy, Istria, the Kvarner region, western and central Slovenia, and Lika,⁵⁶ with one example also having been found in Ripač near Bihać.⁵⁷ Grave finds with this type of fibula from the eponymous Brezje,⁵⁸ as well as from Libna⁵⁹ and Stična,⁶⁰ date to the Ha C2–Ha D1 stage, which corresponds to the end of the 7th and the beginning of the 6th century BCE.⁶¹ Multiple finds from the settlement of Pod reveal that, from the 7th century BCE, the contacts between central Bosnia and the Adriatic-Italian region significantly increased, resulting in the appearance of Mediterranean jewellery and metalware. Attributed to Mediterranean influence is also the well-known bowl with an Umbrian-Etruscan inscription from Pod, found in the fire layer from the late 7th and early 6th centuries BCE.⁶² This same layer includes the aforementioned bow fibula with a Boeotian shield plate of Variant 2 according to Heilmann.⁶³ Fibulae with three buttons on the bow, as well as related fibulae with two buttons on the bow, according to Čović, were found in the earliest horizons after the fire layer, corresponding to the Pod D phase.⁶⁴ The fibula with three buttons on the bow of the Brezje type from Pavlovica is currently the easternmost find of this kind. Its presence in the mountainous zone of Vranica can be seen as further evidence of the intensification of communication between Iron Age communities in central Bosnia and the Adriatic region in the late 7th and early 6th centuries BCE.⁶⁵ In this context, it is also important to mention the fibula with two buttons on the

prostoru centralne Bosne bio prisutan između sredine 7. i sredine 6. stoljeća p.n.e., a najčešće je zastupljen varijantom 2 prema Heilmann, u koju se ubraja i primjerak sa Pavlovice.

Fibula sa tri dugmeta na luku (sl. 1: 2) pripada tipu nakita kasnog 7. i 6. stoljeća p.n.e. sa glavnim težištem rasprostiranja na području između centralne Italije, sjevernog Jadrana i jugoistočnih Alpi,⁵² a u bližoj okolini više primjeraka pronađeno je u naselju Pod te u grobovima u Donjoj Dolini.⁵³ Fibula sa Pavlovice odlikuje se čašastim, odnosno čepastim oblikom dugmadi i presjekom luka kakvi su karakteristični za tip Brezje prema kvalifikaciji Lo Schiavo,⁵⁴ čime se razlikuje od dosada poznatih primjeraka iz Poda ili Donje Doline, koji imaju kuglasto, odnosno ovalno oblikovanu dugmad sa vratom te se u širem smislu mogu pripisati tipu Grottazzolina prema Lo Schiavo.⁵⁵ Fibule tipa Brezje dosada su zabilježene na području centralne Italije, Istre, Kvarnera, zapadne i centralne Slovenije i Like,⁵⁶ a jedan primjerak pronađen je i u Ripču kod Bihaća.⁵⁷ Grobni nalazi sa ovim tipom fibula iz eponimnog Brezja,⁵⁸ zatim Libne⁵⁹ i Stične⁶⁰ datiraju u stupanj Ha C2–Ha D1 koji odgovara koncu 7. i početku 6. stoljeća p.n.e.⁶¹ Kako pokazuje niz nalaza iz naselja Pod, od 7. stoljeća p.n.e. dolazi do intenzivnijeg kontakta između centralne Bosne i jadransko-italskog prostora, koji je rezultirao pojavom nakita i metalnog posuđa mediteranskog tipa, a ovim utjecajima može se pripisati i poznata zdjela sa umbro-ertruskim natpisom koja je pronađena u tzv. sloju požara kasnog 7. i ranog 6. stoljeća p.n.e.⁶² Istom sloju, između ostalog, pripisana je i već spomenuta fibula sa nogom u obliku beotskog štita varijante 2 prema Heilmann,⁶³ dok su fibule sa tri dugmeta na luku kao i srodne fibule sa dva dugmeta na luku prema Čoviću pronađene u prvim horizontima nakon sloja požara, odnosno u fazi Pod D.⁶⁴ Fibula sa tri dugmeta na luku tipa Brezja sa Pavlovice zasada je najistočniji nalaz ove vrste, a njena pojava u planinskoj zoni Vranice još je jedan dokaz intenziviranja komunikacija željeznodobnih zajednica centralne Bosne i jadranske regije.⁶⁵ U ovom kontekstu treba spomenuti i fibule sa dva dugmeta na luku iz višestruko korištene grobnice Crvenice-Ritke Liske na južnom rubu duvanjskog polja kao geografsku poveznicu centralne Bosne i jadranske obale,⁶⁶ odnosno kao naznaku mogućih komunikacijskih pravaca između obale i zaleđa.

52 Lo Schiavo 1970, 433; Lollini 1976, 129; Egg 1986, 187; Ogrin 1998, 123; Glogović 2003, 64.

53 Gavranović 2011, 199.

54 Lo Schiavo 1960, 437.

55 Lo Schiavo 1960, 438. In the Most na Soči necropolis, this type of fibulae appears in the late 7th century BCE, and persists throughout the entire 6th century; see Teržan *et al.* 1984, 21. The same applies to the Dolenjska region; see Gabrovec 1987, 49; Parzinger 1988, 47.

56 Glogović 2003, 64, Pl. 52:473, 476; Preložnik 2007, 130, Fig. 1.

57 Radimsky 1894, Pl. 19:30.

58 Kromer 1959, Pl. 15:9.

59 Guštin 1976, T. 58: 4.

60 Wells 1981, Fig. 146.

61 Teržan 1987; Gavranović 2011, Fig. 1.

62 Čović 1964; Šalabalić 1967.

63 Gavranović 2011, Pl. 62:7.

64 Čović 1987, 499, Pl. 52:23–24.

65 Gavranović 2007.

52 Lo Schiavo 1970, 433; Lollini 1976, 129; Egg 1996, 187; Ogrin 1998, 123; Glogović 2003, 64.

53 Gavranović 2011, 199.

54 Lo Schiavo 1970, 437.

55 Lo Schiavo 1970, 438. Ovaj tip fibula pojavljuje se u nekropoli Most na Soči u kasnom 7. stoljeću p.n.e. i traje kroz cijelo 6. stoljeće, vidi Teržan *et al.* 1985, 21. Isto vrijedi i za Dolenjsku, vidi Gabrovec 1987, 49; Parzinger 1988, 47.

56 Glogović 2003, 64, T. 52: 473, 476; Preložnik 2007, 130, fig. 1.

57 Radimský 1897, T. 19: 30.

58 Kromer 1959, T. 15: 9.

59 Guštin 1976, T. 58: 4.

60 Wells 1981, sl. 146.

61 Teržan 1987; Gavranović 2011, sl. 1.

62 Čović 1964; Šalabalić 1967.

63 Gavranović 2011, T. 62: 7.

64 Čović 1987a, 499, T. 52: 23–24.

65 Gavranović 2007a.

66 Čović 1969, sl. 4: 2; Dizdar, Potrebica 2020, 24.

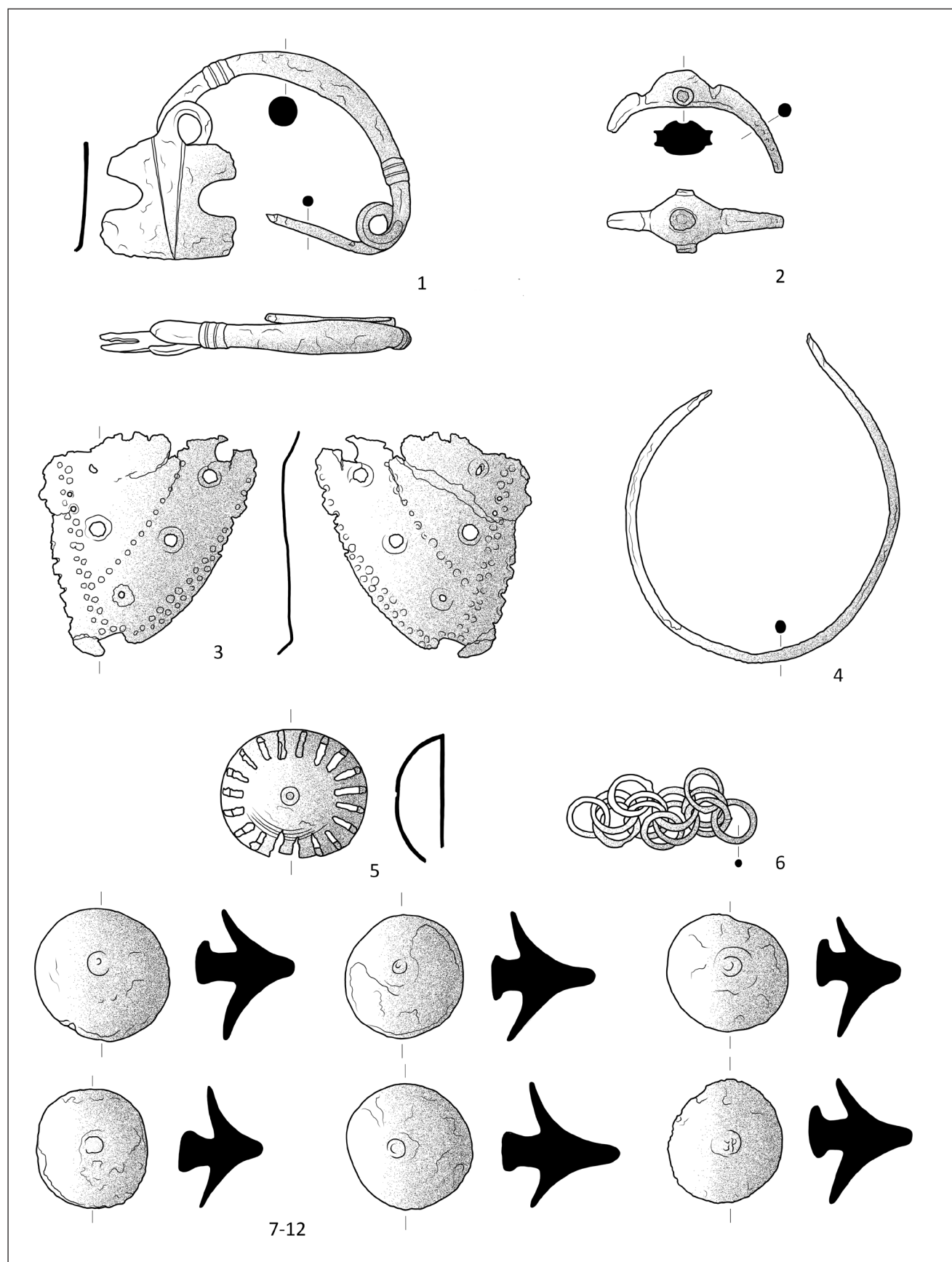


Fig. 1. Metal finds from Pavlovica (drawing: M. Bešliagić)

Sl. 1. Metalni nalazi sa Pavlovice (crtež: M. Bešliagić)

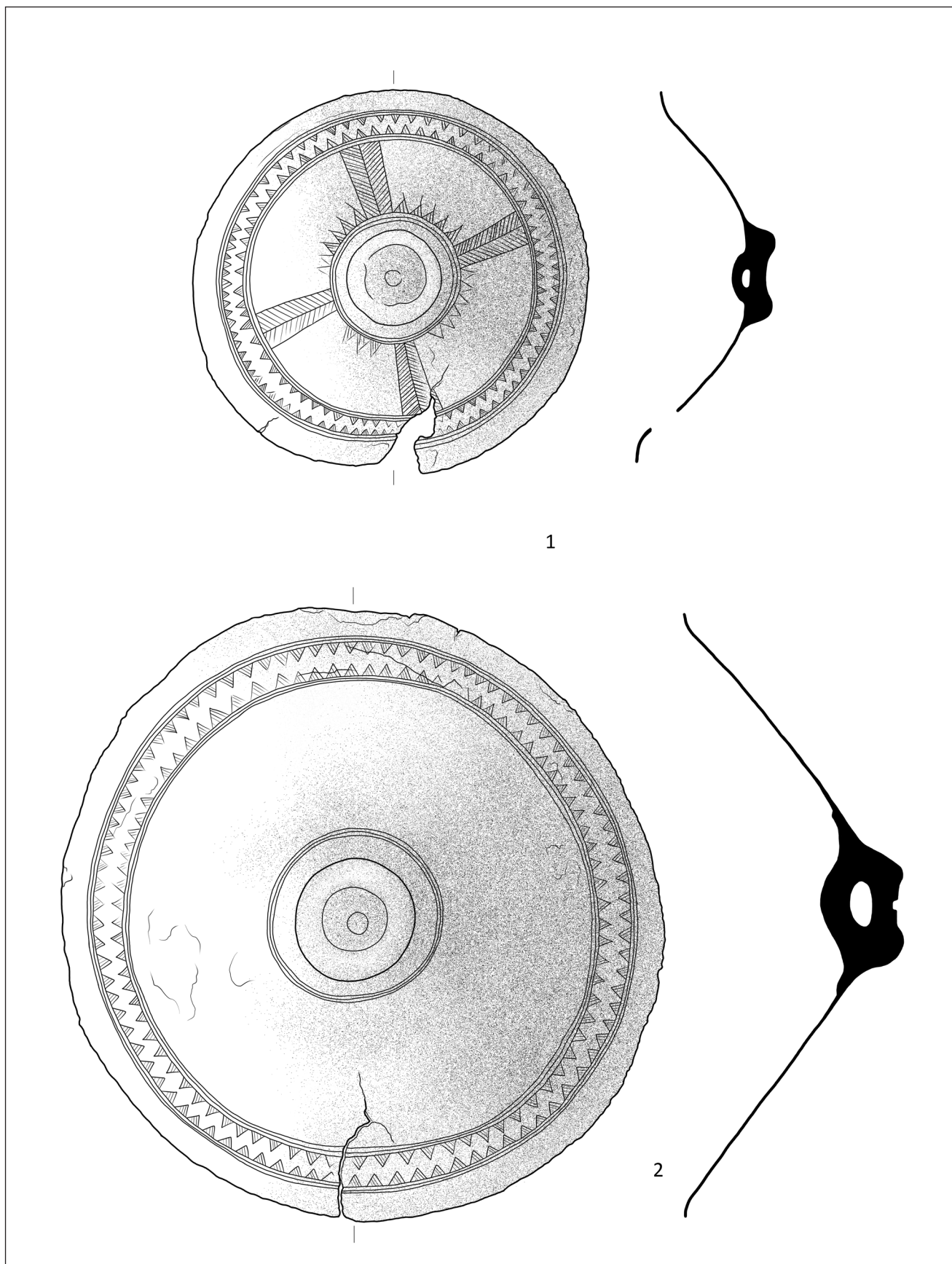


Fig. 2. Metal finds from Pavlovice (drawing: M. Bešliagić).

Sl. 2. Metalni nalazi sa Pavlovice (crtež: M. Bešliagić)

bow from the tomb at Crvenice-Ritke Liske on the southern edge of the Duvno field as a geographical link between central Bosnia and the Adriatic coast,⁶⁶ suggesting possible communication routes.

A special feature of the collection from Pavlovica is two conical belt buckles (Fig. 2: 1–2) with engraved geometric decorations on the front, as they represent a specific form previously predominantly associated with the end of the Bronze Age and the beginning of the Iron Age in northern Bosnia.⁶⁷ Specimens from Grave 3 of Tešanj-Paklenica,⁶⁸ from a skeletal burial in Gornja Tuzla,⁶⁹ and from a cremation grave in Petkovo Brdo-Radosavska,⁷⁰ as well as five recently published buckles from Lipac near Doboja,⁷¹ can most likely be attributed to the late 9th and 8th centuries BCE, while finds from Donja Dolina (Grave 3, Greda Miće Petrovića Jr.)⁷² and especially from Grave 103 of the Sanski Most⁷³ necropolis were found in the much later context of the late 7th and 6th centuries BCE.⁷⁴ The only known example from central Bosnia thus far has been a single find from Bila near Travnik.⁷⁵

Unlike previously published buckles, which all feature standardized geometric decorations with six semi-circular motifs that can be additionally enriched with simple line rows, hatched triangles, and hourglass motifs, the buckles from Pavlovica lack this ornamental composition, which, as clearly seen in the case of the finds from Lipac, was executed with a compass. As with other buckles, the edge of the outer side of both Pavlovica finds is decorated with a series of opposing hatched triangles forming a so-called 'wolf's tooth' motif, while around the central part of the smaller buckle, a row of hatched triangles with an extended tip is present. Additionally, the smaller buckle is decorated with four symmetrically positioned fishbone motifs connecting the edge and the central, protruding part. Although the composition is somewhat different, with some decorative elements known from much larger belt buckles from the Herzegovinian hoards of Krehin Gradac and Ometala, and from the nearby hoard of Veliki Mošunj, all dating to the end of the 9th century BCE,⁷⁶ the Pavlovica examples undoubtedly belong to conical buckles of the same type as those from Lipac, Tešanj or Gornja Tuzla. This is also indicated by the very similar loop on the inner side and dimensions that generally match the known examples from northern Bosnia. If we assume that the buckles were deposited at approximately the same time as the rest of the Pavlovica collection, they must have been in use during the 7th century BCE. Although the buckles from Early Iron Age graves in Sanski Most and Donja Dolina have so far mostly been interpreted as so-called "inherited old items"

Poseban karakter skupu nalaza sa Pavlovice daju dvije stožaste pojase kopče (sl. 2: 1–2) sa urezanim geometrijskim ukrasima na prednjoj strani, jer je riječ o specifičnom obliku koji se dosada uglavnom vezivao za kraj brončanog i početak željeznog doba na području sjeverne Bosne.⁶⁷ Primjerci iz groba 3 nekropole u Tešnju – Paklenici,⁶⁸ iz skeletnog ukopa u Gornjoj Tuzli,⁶⁹ iz paljevinskog groba nekropole u Petkovom Brdu – Radosavska⁷⁰ te pet nedavno prezentiranih primjeraka iz Lipca kod Doboja⁷¹ mogu se najvjerovatnije pripisati razdoblju kasnog 9. i 8. stoljeća p.n.e., dok su primjerci iz Donje Doline (grob 3, Greda Miće Petrovića mlađeg)⁷² i pogotovo iz groba 103 nekropole u Sanskom Mostu⁷³ nađeni u znatno mlađem kontekstu kasnog 7., odnosno kraja 6. stoljeća p.n.e.⁷⁴ Jedini poznati primjerak iz centralne Bosne bio je jedan slučajni nalaz iz Bile kod Travnika.⁷⁵ Za razliku od dosada publiciranih kopči koje se sve odlikuju standardiziranim geometrijskim ukrasom sa šest polukružnih motiva koji dodatno mogu biti obogaćeni jednostavnim crticama, motivima šrafiranih trokuta ili pješčanog sata, kopče sa Pavlovice nemaju ovu ornamentalnu kompoziciju koja je, kako se to jasno vidi na primjercima iz Lipca, izvođena uz pomoć šestara. Kao i kod drugih kopči, rub vanjske strane je kod oba primjerka sa Pavlovice ukrašen nasuprotno postavljenim nizom šrafiranih trokuta koji tvore motiv tzv. vučijeg zuba, dok je oko centralnog dijela kod manje kopče izveden red štrafiranih trokuta sa produženim vrhom. Pored toga, manja kopča ukrašena je sa četiri simetrično postavljena motiva riblje kosti koji spajaju rub i centralni, ispupčeni dio. Iako je sama kompozicija nešto drugačija sa elementima kakvi su poznati i sa znatno većih pojasnih kopči iz hercegovačkih ostava Krehin Gradac i Ometala te iz obližnje ostave Veliki Mošunj koje datiraju u konac 9. stoljeća p.n.e.,⁷⁶ primjerci sa Pavlovice tipološki nesumnjivo pripadaju stožastim kopčama kakve su poznate iz Lipca, Tešnja ili Gornje Tuzle. Na to upućuje i jako slična ušica sa unutarnje strane te dimenzije koje u principu odgovaraju dosada poznatim primjercima iz sjeverne Bosne. Ako pretpostavimo približno isto vrijeme deponiranja nalaza sa Pavlovice, kopče su morale biti u opticaju i kroz vrijeme 7. stoljeća p.n.e. Iako su primjerci iz željeznodobnih grobova iz Sanskog Mosta i Donje Doline dosada uglavnom interpretirani kao tzv. "naslijeđeni stari predmet" koji je nakon više generacija priložen u grob, nalazi sa Pavlovice otvaraju mogućnost trajanja ili barem kolekcioniranja ovog istaknutog tipa nakita i kroz rano željezno doba. Ovu pretpostavku dodatno podupiru i dvije kopče istog tipa pronađene u grobu 18 nekropole Kopilo kod Zenice (sl. 3).⁷⁷ Iako dosta

66 Čović 1969, Fig. 4:2; Dizdar, Potrebica 2021, 24.

67 Čović 1987d, 238; Pare 1998, 358; Teßmann 2004, 142; Gavranović 2017, 116; Jašarević 2022, 72–74.

68 Truhelka 1907, 59.

69 Čović 1957, 252, Fig. 1; Jašarević 2022, Fig. 3.

70 Čović 1966, 162, Fig. 3.

71 Jašarević 2022, Pl. 1:4–8.

72 Truhelka 1904, Pl. 42:24.

73 Fiala 1899, 91, Fig. 106.

74 Teßmann 2004, 140; Gavranović 2011, 136.

75 Nikolić 1962.

76 König 2004, 141.

67 Čović 1987d, 238; Pare 1998, 358; Teßmann 2004, 142; Gavranović 2017, 116; Jašarević 2022, 72–74.

68 Truhelka 1907, 59.

69 Čović 1957, 252, sl. 1; Jašarević 2022, sl. 3.

70 Čović 1966, 162, sl. 3.

71 Jašarević 2022, T. 1: 4–8.

72 Truhelka 1904, T. 42: 24.

73 Fiala 1899, 91, sl. 106.

74 Teßmann 2004, 140; Gavranović 2011, 136.

75 Nikolić 1962.

76 König 2004, 141.

77 Gavranović *et al.* 2023a; 2023b.

buried in graves after several generations, the Pavlovica find opens the possibility that this prominent type of jewellery also persisted – or at least continued to form a part of metal collections – through the Early Iron Age. This hypothesis is further supported by two buckles of the same type found in Grave 18 of the Kopilo cemetery near Zenica (Fig. 3).⁷⁷ Although relatively damaged due to the shallow situation of the inhumation burial, they display the standard ornamentation, with six semicircular motifs and additional lines (Fig. 3: 13–14), as known from the piece from Gornja Tuzla.⁷⁸ Beside the two buckles, this grave, which contained the remains of an individual between 25 and 35 years of age at the time of death, also yielded several earrings or temple rings of the so-called Dalmatian type (Fig. 3: 6–10), similar to those found at Pod in layers Pod C and Pod D,⁷⁹ and in several graves in Herzegovina and the Dalmatian hinterland, which date from the late 7th to early 5th centuries BCE.⁸⁰ This type of earring is recorded in several graves at the Kopilo necropolis, always in the head area, and can be dated to the period between the 7th and 6th centuries BCE.⁸¹

Grave 18 at Kopilo also contained four bell-shaped – or so-called ‘bird-cage’ – pendants (Fig. 3:2–5) with oval loops. Specimens with this type of loop are considered somewhat younger than those with triangular loops, such as those known from a grave in the Jablanica necropolis in north-eastern Bosnia, which can be dated to the first half of the 7th century BCE.⁸² Bell-shaped pendants with oval loops similar to those from Kopilo appear in several graves in Donja Dolina⁸³ and Glasinac,⁸⁴ dating to between the late 7th and the end of the 6th century BCE, aligning with the general dating of this widely distributed pendant variant.⁸⁵

A specific type of jewellery from Grave 18 at Kopilo is a triple-loop bow fibula with a triangular foot, which can be described as a local interpretation of the widely spread double-loop bow fibulae with a triangular foot; one of the most representative types of the Early Iron Age, or the period between the early 7th and the end of the 6th century BCE, throughout the entire Balkans.⁸⁶ Triple-looped bow fibulae are recorded in several burials at the Kopilo cemetery, and other finds of this type all originate from the broader area of the Zenica basin of the Bosna river, including a fibula published in 2007.⁸⁷ Due to the characteristic, explicitly local, distribution of this very indicative jewellery type, which appears in various sizes (between 5–12 cm) but always with three loops and a decorated triangular foot, the name ‘fibula of the Zenica type’ seems appropriate and justified.⁸⁸ Considering

oštećene usljed plitkog položaja grobova, na kopčama iz Kopila se može prepoznati standardni ornamentalni motiv sa šest polukružnih motiva i dodatnim crticama (sl. 3: 13–14) kakve su poznate i sa kopče u Gornjoj Tuzli.⁷⁸ Pored kopči, u ovom grobu, u kojem je sahranjena osoba starosti između 25 i 35 godina, nalazilo se više tzv. naušnica ili ukosnica tzv. delmatskog tipa (sl. 3: 6–10) kakve su pronađene i na Podu u slojevima Pod C i Pod D⁷⁹ te u više grobnih nalaza u Hercegovini i Dalmatinskom zaleđu, a koje datiraju u vrijeme između kasnog 7. i ranog 5. stoljeća p.n.e.⁸⁰ U nekropoli Kopilo ovaj tip naušnica zabilježen je u više grobova, uvijek u predjelu lubanje, te se također može datirati u razdoblje između 7. i 6. stoljeća p.n.e.⁸¹ U grobu 18 nekropole Kopilo pronađena su i četiri privjeska u obliku praporca, odnosno tzv. *bird-cage* privjesci (sl. 3: 2–5) sa ovalnom ušicom. Primjerci sa ovalnom tipom ušice smatraju se nešto mlađim nego privjesci sa trokutastom ušicom kakvi su primjerice poznati iz jednog groba nekropole Jablanica u sjeveroistočnoj Bosni, koji se može datirati u prvu polovicu 7. stoljeća p.n.e.⁸² Praporasti privjesci sa ovalnom ušicom sličnog oblika kao i u grobu 18 u Kopilu pojavljuju se i u više grobova u Donjoj Dolini⁸³ i na Glasincu⁸⁴ koji datiraju u raspon između kasnog 7. i konca 6. stoljeća p.n.e., što se podudara sa generalnim datiranjem ove široko rasprostranjene varijante.⁸⁵ Specifičan tip nakita iz groba 18 predstavlja tropetljasta lučna fibula sa trokutastom nogom koja se može opisati kao lokalna interpretacija široko rasprostranjenih dvopetljastih lučnih fibula sa trokutastom nogom kao jednog od prepoznatljivih tipova nakita ranog željeznog doba, odnosno vremena između ranog 7. i konca 6. stoljeća p.n.e. na cijelom balkanskom području.⁸⁶ Tropetljaste lučne fibule su u više primjeraka zabilježene na nekropoli Kopilo, a i svi drugi nalazi ovog tipa potječu sa šireg područja zeničkog bazena rijeke Bosne, uključujući i jednu 2007. godine objavljenu fibulu.⁸⁷ Usljed karakterističnog, izričito lokalnog rasprostiranja ovog vrlo indikativnog tipa nakita, koji se javlja u raznim veličinama (između 12–5 cm), ali uvijek sa tri petlje i trokutastom ukrašenom nogom, naziv fibule tipa Zenica čini se svakako primjerenim i opravdanim.⁸⁸ Uzimajući u obzir iznesene paralele, datiranje groba 18 nekropole Kopilo u period između sredine 7. i početka 6. stoljeća p.n.e. vrlo je vjerovatno, a i niz od staklenih perli raznih boja te ostaci spiralno savijene bronzane žice (saltaleone) uklapaju se u takav vremenski okvir. Dvije stožaste pojasne kopče morale su dakle pripadati grobnoj nošnji osobe sahranjene u ovom periodu. Znatno duži opticaj stožastih ukrašenih pojasnih kopči nego što je to dosada bilo pretpostavljeno (9./8. sto-

77 Gavranović et al. 2023; 2023a.

78 Jašarević 2022, Fig. 3:6.

79 Čović 1987, Pl. 52:13.

80 Čović 1969, 32; Čović 1987c, 456.

81 Gavranović et al. 2023, 54–56, Fig. 11.

82 Gavranović 2011, Pl. 20:4–5.

83 Truhelka 1904, Pl. 58: 29; 76: 6; Čović 1961, Y21.

84 Benac, Čović 1956, Pl. 23; 1957, Pl. 23:10; 10:14–15. Cwialiński, Pravidur 2023, Pl. 5:166.

85 Kilian-Dirlmeier 1979, 216; Metzner-Nebelsick 2002, 446.

86 Gabrovec 1970, 32; Vasić 1999, 48.

87 Gavranović 2007b.

88 Gavranović, Cogo 2025.

78 Jašarević 2022, sl. 3: 6.

79 Čović 1987a, T. 52: 13.

80 Čović 1969, 32; 1987c, 456.

81 Gavranović et al. 2023a, 54–56, sl. 11.

82 Gavranović 2011, T. 20: 4–5,

83 Truhelka 1904, T. 58: 29; 76: 6; Čović 1961, Y21.

84 Benac, Čović 1957, T. 23: 10; 10: 14–15; Cwialiński, Pravidur 2023, T. 5: 166.

85 Kilian-Dirlmeier 1979, 216; Metzner-Nebelsick 2002, 446.

86 Gabrovec 1970, 32; Vasić 1999, 48.

87 Gavranović 2007b.

88 Gavranović, Cogo 2025.

the presented parallels, the dating of Grave 18 at Kopilo to the period between the mid-7th and early 6th centuries BCE is very likely, and a series of glass beads of various colours and remains of rolled bronze wire fit into this timeframe. The two conical belt buckles must have, therefore, belonged to the grave attire of a person buried in this period. The significantly longer circulation of conical decorated belt buckles than previously assumed (9th/8th centuries BCE) is also strongly supported by finds from a newly discovered hoard near Turbe in central Bosnia, where several buckles of this type were found together with smaller buttons with conical heads and several characteristic belt elements (buckles with petal-like edges and parts of so-called astragalus belts), dating this find also considerably later, i.e. to the early 6th century BCE.⁸⁹ Therefore, new findings of conical buckles from central Bosnia (Pavlovica, Kopilo, Turbe) indicate that the previous interpretation of buckles from younger contexts (Sanski Most, Donja Dolina) as inherited items may not be accurate. In central Bosnia, these representative buckles were apparently used throughout the Early Iron Age, as confirmed by the combination with jewellery types specific to this period (double- and triple-loop bow fibulae, bell-shaped pendants, and fibulae with three buttons on the bow). Although the previous understanding of distribution suggested that this type was characteristic of northern Bosnia,⁹⁰ the newer findings confirm that central Bosnia can also be included in the area of distribution, and possibly also production: The casting of these objects was probably accomplished in several different workshops in both regions.

Apart from the high level of skill required for casting and decorating the buckles, metal analyses of several finds from Lipac and Kopilo showed an above-average tin content in the bronze alloy, with values ranging from 12% to as much as 14%.⁹¹ Bronze with such a high tin content, although suitable for casting, does not have good elasticity and resistance characteristics, which can lead to cracking or breaking on thinner surfaces. The only reason for adding such a high amount of tin could be the specific, almost golden, colouration.⁹² Together with the incised geometric motifs, this unique colour enhanced the visual communication of the item itself, undoubtedly highlighting its prestigious character and, therefore, the person wearing it. Based on the situation in Grave 18 at Kopilo, and comparing the combinations of items from Pavlovica and Turbe, conical belt buckles can be characterized as parts of the attire or burial costume of prominent women within the Early Iron Age communities of central Bosnia.

The cast buttons with a massive prong and conical head (Fig. 1: 7–12) were known, until recently, only from Grave 1 at Tešanj-Paklanica, where a flange-hilted sword, a decorated socketed axe, a spearhead, a crescent-shaped razor, and a cross-shaped button were also found, leading to the

ljeće p.n.e.) snažno podupiru i nalazi iz novootkrivene ostave u blizini Turbeta u centralnoj Bosni u kojoj je nekoliko kopči ovog tipa pronađeno zajedno sa kupastim livenim tokama i nekoliko karakterističnih pojasnih elemenata (kalotaste kopče sa laticama na obodu, dijelovi tzv. astragalnih pojasa), koji ovaj nalaz datiraju također dosta kasnije, odnosno na početak 6. stoljeća p.n.e.⁸⁹ Prema tome, novi nalazi stožastih kopči iz centralne Bosne (Pavlovica, Kopilo, Turbe) ukazuju na to da prijašnja interpretacija pojedinih kopči iz mlađih konteksta (Sanski Most, Donja Dolina) kao nasljednih predmeta i ne mora biti tačna. Na području centralne Bosne ove reprezentativne kopče su se prema svemu sudeći koristile i kroz rano željezno doba, što potvrđuje kombinacija sa tipovima nakita specifičnim za ovo vrijeme (dvopetljaste i tropetljaste fibule, privjesci u obliku praporca, fibule sa tri dugmeta na luku). Iako je dosadašnja slika rasprostiranja upućivala na to da je riječ o tipu karakterističnom za sjevernu Bosnu,⁹⁰ novi nalazi potvrđuju da se i centralna Bosna može uvrstiti u prostor rasprostiranja, a samim tim vjerovatno i izrade, pri čemu svakako treba uzeti u obzir da su ovi predmeti vjerovatno lijevani u raznim metalurškim radionicama u obje regije.

Osim visokog stupnja umijeća koji je zahtijevalo lijevanje i ukrašavanje kopči, analize metala nekoliko primjeraka iz Lipca i Kopila pokazale su natprosječno visok udio kositra u leguri bronce sa vrijednostima od 12% do čak 14%.⁹¹ Bronca sa tolikim udjelom kositra, iako pogodna za lijevanje, nema dobre karakteristike elasticiteta i otpornosti, što može dovesti i do pucanja, odnosno lomova na tanjim površinama. Jedini razlog dodavanju tolike količine kositra mogla bi biti specifična, gotovo zlatna boja predmeta koju takva legura posjeduje.⁹² Zajedno sa urezanim geometrijskim motivima, ova jedinstvena boja pojačavala je vizualnu komunikaciju samog predmeta te u svakom slučaju isticala njegov prestižni karakter, a samim tim i osobe koja ih je nosila. Na osnovu situacije na Kopilu u grobu 18, ali i upoređujući kombinacije predmeta sa Pavlovice i iz Turbeta, stožaste pojasne kopče mogu se okarakterizirati kao dijelovi nošnje, odnosno dijelovi grobnog kostima istaknutih ženskih osoba unutar željeznodobnih zajednica centralne Bosne.

Kupaste livene toke sa masivnim klinom i koničnom glavicom (sl. 1: 7–12) doskora su bile poznate jedino iz groba 1 nekropole Tešanj – Paklanica u kojem su pronađeni i mač tipa Tešanj, ukrašena sjekira kelt, vrh koplja, polumjesečasti brijač i jedno krstoliko ukrašeno dugme, što je dovelo do toga da se ovaj ukop često opisuje kao grob ratnika.⁹³ Mačevi tipa Tešanj ili tipa Kostel karakteristični su za prostor zapadnog Balkana u vrijeme kasnog 9. i 8. stoljeća p.n.e.,⁹⁴ a izraženu lokalnu komponentu nalaza iz Tešnja predstavlja i ukrašavanje metalnih predmeta urezanim geometrijskim

⁸⁹ Sejfuli, Gavranović, in preparation.

⁹⁰ Gavranović 2017, Fig. 6; Jašarević 2022, Fig. 9.

⁹¹ Gavranović *et al.* 2023.

⁹² Radivojević *et al.* 2018, Fig. 8.

⁸⁹ Sejfuli, Gavranović, u pripremi.

⁹⁰ Gavranović 2017, sl. 6; Jašarević 2022, sl. 9.

⁹¹ Gavranović *et al.* 2023a.

⁹² Radivojević *et al.* 2018, sl. 8.

⁹³ Truhelka 1907; Čović 1983a, 454; Harding 1995, 65; Weber 1996, 250.

⁹⁴ Gavranović, Sejfuli 2015, 69.

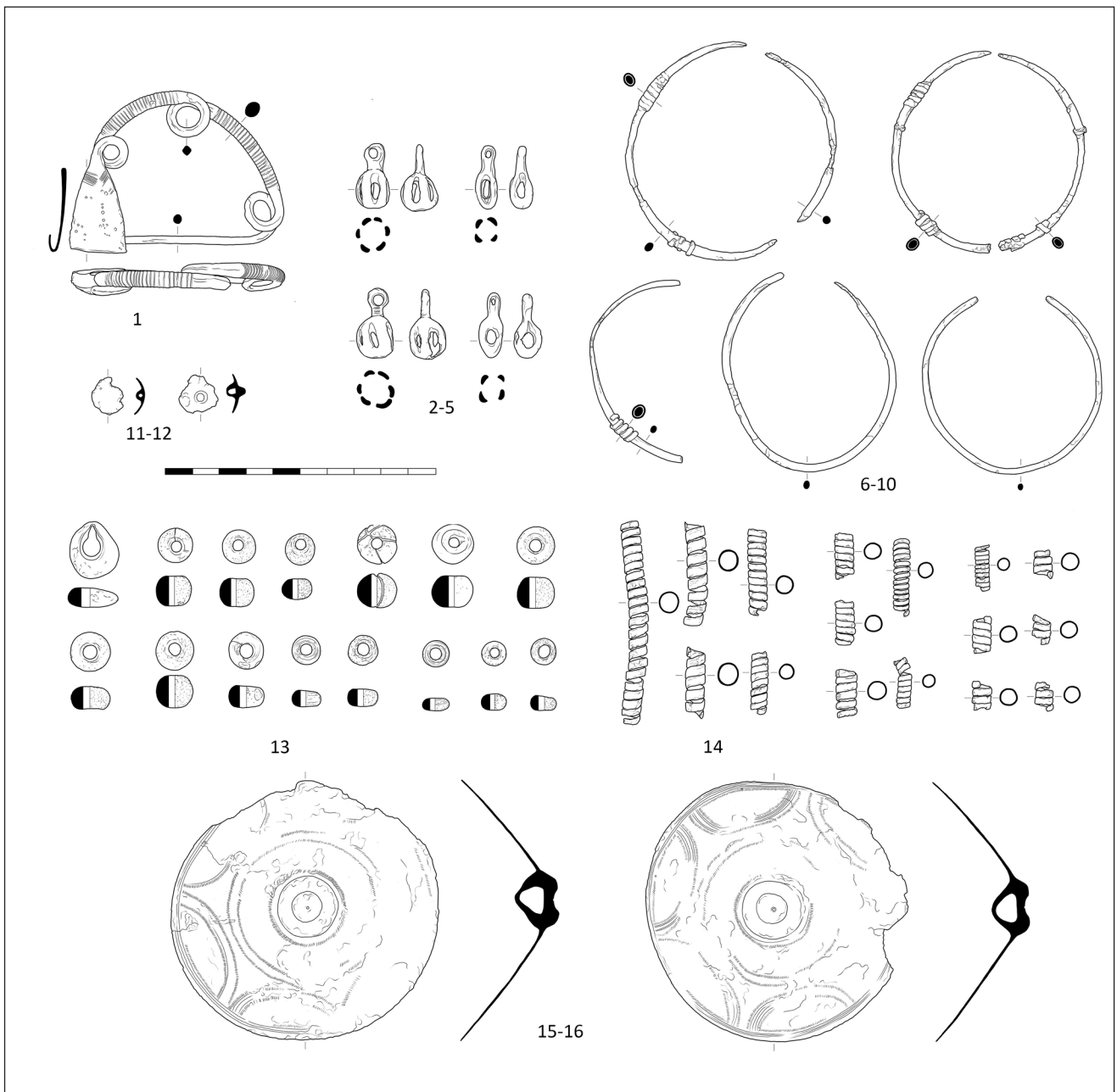


Fig. 3. *Kopilo, necropolis, grave 18: 1-12, 14-16 metal, 13 glass (drawing: M. Bešliagić).*

Sl. 3. *Kopilo, nekropola, grob 18: 1–12 i 14–16 metal, 13 staklo (crtež: M. Bešliagić).*

assumption that the burial represents a warrior's grave.⁹³ Swords of similar form and dimensions (i.e. Tešanj or Kostel type) are characteristic of the western Balkans during the late 9th and 8th centuries BCE,⁹⁴ while a distinct local component of the finds from Tešanj is the decoration of metal objects with incised geometric patterns, as well as similarly decorated pottery found in the grave.⁹⁵ The same type of button with conical head, although somewhat more gracile, is also present in a recently published find from Lipac near Dobo,

motivima, kao i nalazi keramike sličnih ukrasa u grobu.⁹⁵ Isti tip koničnih toka, nešto gracilnijeg oblika, zastupljen je i u nedavno objavljenom nalazu iz Lipca kod Doboja, u kojem je, pored 27 toka, od indikativnih nalaza pronađeno i pet stožastih ukrasnih pojasnih kopči, veći broj manjih spiralnih privjesaka te luk jedne bimetalne fibule, čime je nalaz datiran u 8. stoljeće p.n.e.⁹⁶ Iako se i kod Lipca, kao i slučaju Pavlovice, radi o skupu nalaza čiji kontekst nije dovoljno

93 Truhelka 1907; Čović 1983, 454; Harding 1995, 65; Weber 1996, 250.

94 Gavranović, Sejfuli 2017.

95 Čović 1983, 452; Gavranović 2020.

95 Čović 1983a, 452; Gavranović 2020.

96 Jašarević 2022, 69, T. 3: 11.

where, in addition to 27 buttons, indicative finds included 5 conical decorated belt buckles, a large number of smaller spiral pendants, and the bow of a bimetallic fibula, dating the find to the 8th century BCE.⁹⁶ Although the contexts of the finds from Lipac and Pavlovica are not well known,⁹⁷ it is interesting that, at both sites, buttons with conical heads were found together with conical decorated belt buckles, with one difference being that the collection from Pavlovica, would be somewhat younger. Besides Lipac and Pavlovica, buttons of the same type (with a massive prong and conical head) occur in large numbers in the recently discovered hoard near Turbe, again in combination with decorated conical belt buckles. Although in Tešanj-Paklenica the buttons were part of a warrior grave, in all other cases (Lipac, Pavlovica, Turbe), the finds do not include weapons, but consist solely of jewellery or costume. Additionally, judging by the finds from Pavlovica, and especially Turbe, this type of button was certainly present in the Early Iron Age, i.e. throughout the 7th and early 6th centuries BCE. The finds to date are limited to northern and central Bosnia, indicating that it is probably a local attire element.

Spherical cut-out buttons or buckles (Fig. 1: 5) are a widely spread type of jewellery in the Balkans, including East Bosnia (Glasinac), Serbia, Albania, North Macedonia, Bulgaria, and northern Greece.⁹⁸ The specimens from Donja Dolina currently mark the northwestern border of this type's distribution. They appear individually or as a set of two or three buckles connected by a metal part, as seen in the princely grave of the Ilijak necropolis in Glasinac (Tumulus II, Gr. 2)⁹⁹ or in Grave 9, Greda Mate Petrović Jr. in Donja Dolina.¹⁰⁰ It was assumed that the buckles were parts of composite belts, but some findings from Glasinac suggest they were worn on the chest area, and may well have been ceremonial ornaments on burial attire.¹⁰¹ Although they have not been found in central Bosnia thus far, findings from Glasinac and Donja Dolina provide a good chronological framework. Particularly significant is Grave 2, Greda Miće Petrović (a cremation burial in an urn) at Donja Dolina, where one spherical button was found together with a double-loop bow fibula with a Boeotian shield plate of the same variant as in Pavlovica (Variant 2 acc. Heilmann). This burial dates to the second half of the 7th century BCE.¹⁰² Findings from Grave 16, Greda Ive Stipančević, with two crested fibulae with rectangular footplates and one fibula with a rectangular footplate with two holes, indicate that cut-out buttons remained until the end of the second half of the 6th century BCE.¹⁰³ A similar timespan can be assumed for the Glasinac area, where, buttons with cut-out edges appear in the Glasinac IVb phase,

poznat,⁹⁷ interesantno je da su u oba nalazišta toke sa koničnom glavicom pronađene zajedno sa stožastim ukrašenim pojasnim kopčama, s tim da bi nalaz iz centralne Bosne, pod pretpostavkom da su predmeti zajedno dospjeli u zemlju, ipak bio mlađi. Osim Lipca i Pavlovice, konične livene toke istog tipa prisutne su u većem broju i u već spomenutoj nedavno otkrivenoj ostavi u blizini Turbeta, opet u kombinaciji sa ukrašenim stožastim pojasnim kopčama. Premda su u Tešnju – Paklenici konične livene toke pronađene u grobu ratničkog karaktera, u svim ostalim slučajevima (Lipac, Pavlovica, Turbe) riječ je o nalazima u kojima se oružje ne pojavljuje, već se sastoje isključivo od nakita, odnosno dijelova nošnje. Osim toga, sudeći prema nalazima iz Pavlovice, a pogotovo Turbeta, riječ je o tipu koji je svakako prisutan i u ranom željeznom dobu, odnosno kroz 7. i početak 6. stoljeća p.n.e. Dosadašnji nalazi ograničeni su na prostor sjeverne i centralne Bosne, što upućuje na to da se vjerovatno radi o specifičnom elementu lokalne nošnje.

Kalotasta, prorezana dugmad, odnosno toke (sl. 1: 5), široko su rasprostranjeni tip nakita na području Balkana, uključujući istočnu Bosnu (Glasinac), Srbiju, Albaniju, Sjevernu Makedoniju, Bugarsku i sjevernu Grčku.⁹⁸ Primjerci iz Donje Doline trenutno označavaju sjeverozapadnu granicu rasprostiranja ovog tipa. Pojavljuju se pojedinačno ili kao skup od dvije do tri toke spojene metalnim dijelom, kao što je slučaj u kneževskom grobu nekropole Ilijak na Glasincu (Tumulus II, Gr. 2)⁹⁹ ili u grobu 9, Greda Mate Petrovića mlađeg, u Donjoj Dolini.¹⁰⁰ Pretpostavlja se da su toke bile dio kompozitnih pojasa, ali neki nalazi sa Glasinca sugeriraju da su se nosile na predjelu prsa te su mogle biti svečani ukras na grobnoj nošnji.¹⁰¹ Iako do sada nisu zabilježene u centralnoj Bosni, nalazi sa Glasinca i Donje Doline pružaju okvir za njihovo datiranje. Posebno je značajan grob 2, Greda Miće Petrovića (paljevinski ukop u urni), u Donjoj Dolini, gdje je jedna prorezana toka pronađena zajedno sa fibulom u obliku beotskog štita iste varijante kao i na Pavlovici (varijanta 2 prema Heilmann). Taj ukop datira se u drugu polovicu 7. stoljeća p.n.e.¹⁰² Nalazi iz groba 16, Greda Ive Stipančevića, sa dvije krestaste fibule s pravokutnom nogom i jednom fibulom s pravokutnom nogom s dvije rupice, pokazuju da se ovaj tip dugmadi u Donjoj Dolini zadržao do kraja druge polovice 6. stoljeća p.n.e.¹⁰³ Sličan vremenski raspon može se pretpostaviti i za područje Glasinca, gdje se toke pojavljuju u fazi Glasinac IVb, uključujući i kneževski grob nekropole Ilijak, dok najmlađi primjerci potječu iz faze IVC2, odnosno kraja 6. stoljeća p.n.e. Nalazi iz Pilatovića i Uzića u zapadnoj Srbiji također se datiraju u drugu polovicu 6. stoljeća p.n.e., gdje su toke pronađene u velikom broju i interpretirane kao

96 Jašarević 2022, 69, Pl. 3:11.

97 Finds from Lipac were discovered during the construction of a private house, below stone plates and together with bones (human?), according to the finder, see Jašarević 2022, 65.

98 Kilian 1975, 51; Čović 1987b, 596; Dizdar, Potrebica 2021, 13.

99 Benac, Čović 1957, Pl. 7:4–5.

100 Čović 1961, Y21.

101 Čović 1987b, 596.

102 Gavranović 2011, 232.

103 Dizdar, Potrebica 2022, 5–13.

97 Nalazi iz Lipca pronađeni su prilikom gradnje privatne kuće ispod kamenih ploča, a prema svjedočenju pronalazača bile su prisutne i kosti (ljudske?), vidi Jašarević 2022, 65.

98 Kilian 1975, 51; Čović 1987b, 596; Dizdar, Potrebica 2020, 13.

99 Benac, Čović 1957, T. 7: 4–5.

100 Čović 1961, Y21.

101 Čović 1987b, 596.

102 Gavranović 2011, 232.

103 Dizdar, Potrebica 2020, 5–13.

including the princely grave of the Ilijak necropolis, while the youngest specimens originate from phase IVC2, or the end of the 6th century BCE. Findings from Pilatovići and Uzići in western Serbia also date to the second half of the 6th century BCE, where buttons were found in large numbers and interpreted as components of clothing.¹⁰⁴ In the case of Pavlovica, where only one piece was found, it is difficult to precisely determine the function of the cut-out spherical buttons or buckles. Among the findings from Pavlovica are also parts of a belt set (two conical decorated buckles) and buttons with conical heads, which are also attributable to clothing applications. The button from Pavlovica marks the first find of this type in the region, thus positioning the site at the fringe of current distribution.

A fragment of sheet metal decorated by embossing technique (Fig. 1: 3) can be attributed to similarly decorated bracelets with widening ends, such as those found at Debelo Brdo near Sarajevo.¹⁰⁵ B. Čović, based on a similar bracelet from the representative grave at Arareva Gromila, refers to them as "Glasinac bracelets made of bronze sheet".¹⁰⁶ This type is also known from graves in Donja Dolina, including the particularly interesting double skeleton burial of Grave 18/19, Greda Stipe Jakarića,¹⁰⁷ where two bracelets were found. These bracelets, characteristic primarily of the Balkan area, were discovered here alongside two serpentine fibulae and two so-called Alpine fibulae with buttons on the bow, typical of northern Italy and the southeastern Alps.¹⁰⁸ A fragment of decorated sheet metal from Gračanica near Visoko, found with fibulae, needles, bracelets and belt buckles dating to between the 7th and 5th centuries BCE, might also belong to this type.¹⁰⁹ Based on finds from Glasinac and Donja Dolina, sheet-decorated bracelets appear as components of attire around the mid-6th century BCE;¹¹⁰ It is likely that these bracelets represent the beginning of the development of similar forms, culminating in the Mramorac-type belts made of silver or gold, recognized as one of the iconic markers of the Iron Age elite in the central Balkans.¹¹¹

A bracelet, temple ring or earring with a round cross-section (Fig. 1: 4) is not chronologically significant, but its similarity to the aforementioned Delmatian type of earrings (Fig. 3: 6–10) is undeniable, especially due to the pointed end, which is presumed to have been fitted into an ear hole. In this case, the coiled and movable wire, which have served both decorative and fastening purposes, is not preserved. However, several thinner examples lacking coils were found in the graves of the Kopilo necropolis, and pieces of bronze wire were only discovered during the subsequent seiving of grave contents. If, in addition to the finds from the Pod settlement and the Kopilo necropolis (with several examples),

prišiveni dio na odjeći.¹⁰⁴ U slučaju Pavlovice, gdje je pronađen samo jedan komad, teško je precizno odrediti funkciju prorezanih toka. Među nalazima sa Pavlovice nalaze se i dijelovi pojasne garniture (dvije stožaste ukrašene kopče) te livena konična dugmad, koja se pripisuju aplikacijama na odjeći. Ovi nalazi iz centralne Bosne označavaju prvi takav pronalazak u regiji, čime se ona može smatrati rubnim područjem rasprostiranja ovog tipa nakita.

Fragment metalnog lima ukrašen tehnikom iskucavanja (sl. 1: 3) se može pripisati slično ukrašenim narukvicama sa proširenim krajem kakve su primjerice u pronađene na Debelom Brdu kod Sarajeva,¹⁰⁵ dok ih B. Čović, polazeći od jedne slične narukvice u reprezentativnom grobu Arareva gromila, naziva "glasinačke narukvice od bronzanog lima".¹⁰⁶ Isti tip poznat je i iz grobova u Donjoj Dolini, od kojih je posebno zanimljiv dupli skeletni ukop grob 18/19, Greda Stipe Jakarića,¹⁰⁷ u kojem su dvije narukvice, kao tip karakterističan prije svega za balkansko područje, pronađene zajedno sa dvije zmijolike fibule te dvije tzv. alpske fibule sa dugmetom na luku, koje pripadaju spektru tipičnom za sjevernu Italiju i jugoistočne Alpe.¹⁰⁸ U ovaj tip narukvice vjerovatno se može ubrojiti i fragment ukrašenog lima iz Gračanice kod Visokog, koji je pronađen zajedno (uništeni grobovi) sa fibulama, iglama narukvicama i pojasnim kopčama koje se mogu datirati između 7. i 5. stoljeća p.n.e.¹⁰⁹ Prema nalazima sa Glasinca i iz Donje Doline, ovaj tip narukvica pojavljuje se kao dio nošnje sredinom 6. stoljeća p.n.e.,¹¹⁰ a vrlo je izgledno da ove narukvice predstavljaju početak razvitka sličnih oblika koji će kulminirati pojasima tipa Mramorac izrađenim od srebra ili zlata kao jednim od najprepoznatljivijih znakova željeznodobne elite na centralnom Balkanu.¹¹¹

Narukvica, sljepoočničarka ili naušnica okruglog presjeka (sl. 1: 4) sama po sebi ne predstavlja kronološki osjetljiv tip nakita, no ne može se poreći njena sličnost sa već spomenutim delmatskim tipom naušnica (sl. 3: 6–10), pogotovo zbog špicastog završetka jednog kraja za koji se pretpostavlja da je išao u rupicu na uhu. U ovom slučaju nije sačuvana namotana i pokretna žica koja je, osim dekorativne svrhe, služila i za fiksiranje, no i u grobovima nekropole Kopilo pronađeno je nekoliko tanjih primjeraka sa kojih su tanki namotaji žice spali pa su pronađeni tek naknadnim prosijavanjem sadržine grobova. Ukoliko bi pored nalaza iz naselja Pod i nekropole Kopilo sa više primjeraka i naušnicu sa Pavlovice ubrojili u ovaj tip nakita, njena zastupljenost u centralnoj Bosni ne bi se više mogla opisati kao sporadična u odnosu na pretpostavljeno matično područje Jadranskog zaleđa i Hercegovine.¹¹² Polazeći od novih nalaza, vjerovatnije je da se i prostor centralne Bosne može uključiti u glavnu zonu

104 Zotović 1985, 84.

105 Fiala 1894, 64, Fig. 199–192.

106 Benac, Čović 1957, Pl. 41:2; Čović 1987b, 621.

107 Čović 1961, Y26.

108 Parzinger 1988, 92; Teržan 1990, map 19.

109 Čović 1984, 31, Fig. 2–4.

110 Čović 1987b, 621; Teržan 1987, 19.

111 Mano-Zisi, Popović 1972; Vasić 1986; Stojić 2007; Teržan 2023.

104 Zotović 1985, 84.

105 Fiala 1896, 64, sl. 199–192.

106 Benac, Čović 1957, T. 41: 2; Čović 1987b, 621.

107 Čović 1961, Y26.

108 Parzinger 1988, 92; Teržan 1990, karta 19.

109 Čović 1984, 31, sl. 2–4.

110 Čović 1987b, 621; Teržan 1987, 19.

111 Mano-Zisi, Popović 1969; Vasić 1986; Stojić 2007; Teržan 2023.

112 Čović 1969, 45.

we also assign the piece from Pavlovica to this type, its presence in central Bosnia could no longer be described as sporadic as compared to the presumed main distribution area in Adriatic hinterland and Herzegovina.¹¹² Based on new findings, it is more likely that the central Bosnia region can be included in the main distribution zone. Regarding chronology, this earring would also be supportive of assessments dating the collection from Pavlovica to the period between the mid-7th and early 6th centuries BCE.

The same observation applies to the chain made of solidly cast rings (Fig. 1: 6). Although such chains have been recorded at only a few sites in central Bosnia, including a smaller twisted ring with links from Klaonica near Travnik¹¹³ and several finds from the Kopilo necropolis (situated at the clavicle),¹¹⁴ jewellery additions (fibulae and earrings) in the form of chains are typical of the Dalmatian hinterland throughout the Iron Age.¹¹⁵ Thus, like the earring, the chain fits into the general chronological scope of the Pavlovica finds.

CONCLUSION: FINDS FROM PAVLOVICA IN THE LIGHT OF CULTURAL AND REGIONAL INTERACTIONS

As shown by most of the analogies, the metal findings from Pavlovica form a relatively compact group from the second half of the 7th century and the beginning of the 6th century BCE in chronological terms. However, some forms, such as conical belt buckles or conical buttons, certainly belong to older traditions from the end of the Bronze Age that evidently persisted through into the Iron Age. The maintenance of older traditions in terms of typo-technology, utility and, probably, symbolic aspects can be seen as a reflection of a continuity of production and decoration of certain items in (local) workshops obviously spanning several centuries, as well as the existence of individuals and groups who wore and used such items in a similar manner, simultaneously emphasizing their social connotations.

Richly decorated, oversized, and made from special alloys, the conical belt buckles must have been visually impressive, and a recognizable identifier of prominent women or members of certain social elites. According to the composition, the set of finds from Pavlovica could represent the remains of the grave attire of one – or possibly even two – individual(s). Still, without anthropological parameters, this assumption cannot be confirmed. What is interesting in the composition is the combination of jewellery with different regional distribution preferences, all of which were ultimately deposited on the central Bosnian plateau, away from main river flows and communication routes. For some items, such as the spherical cut-out buttons and Brezje-type fibulae, the presence in central Bosnia has been documented for the first time. The entire set vividly illustrates the geographical positioning of this region between

rasprostiranja. U pogledu kronologije, i ova naušnica bi potvrdila ranije iznesene ocjene o datiranju nalaza sa Pavlovice u vrijeme između sredine 7. i početka 6. stoljeća p.n.e.

Ista konstatacija kao i u slučaju naušnice vrijedi i za lančić napravljen od solidno livenih alkica (sl. 1: 6). Iako su takvi lančići do sada zabilježeni samo na par lokaliteta u centralnoj Bosni, uključujući jedan manji tordirani prsten sa alkicama iz Klaonice kod Travnika,¹¹³ kao i jedan gracilniji lančić pronađen u grobu 6 nekropole Kopilo u predjelu ključne kosti, zajedno sa dvije masivno livane alke,¹¹⁴ dodaci nakitu (fibulama i naušnicama) u obliku lančića tipični su za prostor Dalmatinskog zaleđa kroz cijelo željezno doba.¹¹⁵ Kao i kod naušnice i lančić bi se dakle uklapao u opću kronološku sliku skupa nalaza sa Pavlovice.

ZAKLJUČAK – NALAZI SA PAVLOVICE U SVJETLU KULTURNIH I REGIONALNIH INTERAKCIJA

Kako je pokazala većina navedenih analogija, metalni nalazi sa Pavlovice u kronološkom smislu čine dosta kompaktnu grupu druge polovice 7. i početka 6. stoljeća p.n.e., iako neki oblici kao što su stožaste pojasne kopče ili livena kupasta dugmad zasigurno pripadaju starijim tradicijama sa konca brončanog doba koje su se očigledno održale i kroz željezno doba. Održavanje starijih tradicija u tipotehnološkom, utilitarnom i vjerovatno simboličkom pogledu može se promatrati kao odraz, očigledno višestoljetnog, kontinuiteta proizvodnje i ukrašavanja određenih predmeta u (lokalnim) radionicama, ali i postojanja pojedinaca i grupa koje su takve predmete nosili i koristili na sličan način, naglašavajući istovremeno i njihovu socijalnu konotaciju.

Bogato ukrašene, predimenzionirane i od posebne legure izrađene stožaste pojasne kopče morale su se vizualno isticati i biti prepoznatljiv marker istaknutih ženskih osoba, odnosno pripadnica određenih viših slojeva ondašnjeg društva. Prema kompoziciji, skup nalaza sa Pavlovice mogao bi predstavljati ostatke grobne nošnje jedne ili možda čak dvije individue, no bez antropoloških parametara ova se pretpostavka ne može potvrditi. Ono što je međutim zanimljivo u kompoziciji nalaza jest spoj tipova nakita sa različitim regionalnim preferencama rasprostiranja, koji su svi zajedno dospjeli u zemlju na centralnobosanskoj visoravni van glavnih riječnih tokova i komunikacija. Za neke od njih, poput prorezanih toka i fibula tipa Brezje, prvi put je dokumentirano prisustvo u centralnoj Bosni, a cijeli skup nalaza vrlo slikovito ilustrira i geografsku poziciju ove regije između Glasinca, sjeverne Bosne i Dalmatinskog zaleđa, odnosno Jadranske obale sa tipovima nakita karakterističnim za svako od ovih susjednih područja. Sličan eklektizam može se vidjeti na repertoaru metalnih predmeta iz naselja Pod,¹¹⁶ a vrlo upečatljivu kombinaciju na široj regionalnoj razini pokazuju i grobovi iz Donje Doline sa jedinstvenim spojem tipova

¹¹² Čović 1969, 45.

¹¹³ Gavranović, Sejfuli 2015, Fig. 3:5.

¹¹⁴ Gavranović *et al.* 2023.

¹¹⁵ Čović 1969, Fig. 3: 6:1; Čović 1987c, Pl. 48:1; 49:5–6.

¹¹³ Gavranović, Sejfuli 2015, sl. 3: 5.

¹¹⁴ Gavranović *et al.* 2023a.

¹¹⁵ Čović 1969, sl. 3: 6: 1; 1987c, T. 48: 1; 49: 5–6.

¹¹⁶ Čović 1987a, T. 52–53.

Glasinac, northern Bosnia, and the Dalmatian hinterland or the Adriatic coast, with types of jewellery characteristic of each of these neighbouring areas. A similar eclecticism can be seen in the repertoire of metal items from the Pod settlement,¹¹⁶ and in Donja Dolina with a unique mixture of Alpine and Balkan jewellery types.¹¹⁷ Besides the advantages that such combinations of findings provide for aligning different regional chronologies¹¹⁸ and creating a broader picture of the trends in wearing certain types of jewellery, they also clearly contradict static concepts of the identity of prehistoric communities and individuals. Unlike the ceramic repertoire from settlement contexts, which, in the case of Late Bronze and Early Iron Age central Bosnia, is very specific, with clearly recognizable decorative combinations of incised geometric motifs, metal items show a much more fluid distribution that does not coincide with the imagined territories of certain cultural groups.¹¹⁹ Consequently, metal items or combinations of items, assuming they were indeed worn occasionally or regularly, are less indicative of regional or local affiliation, and more so of the status of individuals or their ability to acquire various types of jewellery.

At present, we lack sufficient information to reconstruct the mode of acquisition (agency, as part of an economic exchange, gift, kinship relationships), especially in the case of Pavlovica, being as it is a set of finds from a seemingly isolated mountainous area of Vranica. Although this mountain massif has long been considered, based on geological predispositions and ancient written sources, a potential source of metal raw materials for local Bronze and Iron Age communities,¹²⁰ at least in terms of copper as the main component of bronze, there is currently no evidence for such an assumption. Chemical and isotopic analyses of several hundred bronze finds from central and northern Bosnia, dating from the 13th to the 8th centuries BCE, have shown that none of the items contains copper raw material that would correspond to the deposits in the wider area of the Vranica massif and the neighbouring mid-Bosnian schist mountains, indicating that this ore was not exploited at that time.¹²¹ There is a possibility that the use of local copper and iron deposits began after the 8th century BCE, i.e., in the period to which the Pavlovica find dates, but so far there is no tangible data to confirm this. Mining and processing iron ore is certainly one of the options that potentially makes Vranica and the Rostovo plateau attractive. However, it should be noted that, throughout the Iron Age, most items, especially jewellery, were still made of bronze. In any case, resources (ores, wood, livestock) and/or control of communication routes must have been the reason for the seasonal or permanent human occupation of the Rostovo plateau, which ultimately led to the deposition of the discussed finds. The finds from Pavlovica certainly indicate a somewhat different spatial

nakita alpske i balkanske provenijencije.¹¹⁷ Pored prednosti koje ovakve kombinacije nalaza donose za usklađivanje različitih regionalnih kronologija¹¹⁸ te sklapanje jedne šire slike o trendovima nošenja određenih tipova nakita, one ujedno i jasno proturječe statičnim konceptima identiteta prahistorijskih zajednica i individua. Nasuprot keramičkom repertoaru iz naseobinskih konteksta, koji je i u slučaju centralne Bosne kasnog brončanog i ranog željeznog doba vrlo specifičan sa jasno prepoznatljivim dekorativnim kombinacijama urezanih geometrijskih motiva, metalni predmeti pokazuju kudikamo fluidniju distribuciju koja se ne poklapa sa zamišljenim prostorom pojedinih kulturnih skupina.¹¹⁹ Shodno tome, metalni predmeti, odnosno kombinacije predmeta, pod pretpostavkom da su zaista povremeno ili stalno nošeni, ne ukazuju toliko na regionalnu ili lokalnu koliko na statusnu pripadnost pojedinih individua, odnosno na njihovu mogućnost da akviriraju razne tipove nakita.

Za sada ne posjedujemo dovoljno informacija da bismo mogli rekonstruirati način akvizicije (posredništvo, dio ekonomske razmjene, poklon, rodbinske veze), pogotovo u slučaju Pavlovice, kao skupa nalaza iz naizgled izoliranog planinskog prostora Vranice. Iako je ovaj planinski masiv na osnovu geoloških predispozicija i pisanih antičkih izvora dugo bio smatran potencijalnim izvorom metalnih sirovina za zajednice brončanog i željeznog doba,¹²⁰ bar kada je riječ o bakru kao glavnoj komponenti bronce, za takvu pretpostavku trenutno ne postoje nikakvi dokazi. Kemijske i izotopske analize nekoliko stotina brončanih nalaza sa prostora centralne i sjeverne Bosne vremenskog raspona između 13. i 8. stoljeća p.n.e. pokazale su da niti jedan predmet ne sadrži sirovinu bakra koja bi odgovarala ležištima u širem rejonu masiva Vranice i susjednih planina srednjobosanskog gorja (*Mid-Bosnian Schist Mountainins*), što znači da ta ruda po svemu sudeći nije ni eksploatirana u to vrijeme.¹²¹ Postoji mogućnost kako je do korištenja lokalnih ležišta bakra i željeza došlo u periodu nakon 8. stoljeća p.n.e., odnosno u vrijeme kada datira i nalaz sa Pavlovice, no zasad ne postoje konkretni podaci koji bi to potvrdili. Vađenje i prerada željezne rude svakako je jedna od opcija koja Vranicu i visoravan Rostovo čini potencijalno atraktivnom, s tim da treba istaknuti da je i kroz cijelo željezno doba većina predmeta, a pogotovo nakit, i dalje izrađivana od bronce. U svakom slučaju, resursi (rude, drvo, stoka) i/ili kontrola komunikacija morali su biti razlog sezonskog ili stalnog naseljavanja visoravni Rostovo, što je na koncu i dovelo do deponiranja ovdje opisanih nalaza. Nalazi sa Pavlovice svakako ukazuju i na nešto drugačiju prostornu percepciju kad je riječ o centralnoj Bosni i naseljavanju i ukapanju u vrijeme kasnog brončanog i ranog željeznog doba. Dosadašnji fokus arheoloških istraživanja na doline rijeka i neposredne rubne terase samo je dio cjelokupne

116 Čović 1987, Pl. 52–53.

117 Teržan 1974; Čović 1987d, 244; Gavranović 2011, 24.

118 Teržan 1987.

119 Gavranović 2018; 2020.

120 Ramović 1999; Gavranović 2012.

121 Gavranović et al. 2022.

117 Teržan 1974; Čović 1987d, 244; Gavranović 2011, 24.

118 Teržan 1987.

119 Gavranović 2018.

120 Ramović 1999; Gavranović 2012.

121 Gavranović et al. 2022.

perception regarding settlement and burial distribution in the Late Bronze and Early Iron Ages. The previous focus of archaeological research on river valleys and immediate terraces appears to provide only a part of the picture, which will definitely need to include the evidence of activities in high and remote locations away from the valleys.

slike, u koju će se u budućnosti morati uključiti i tragovi aktivnosti na visokim i od dolina udaljenim položajima.

LITERATURA / BIBLIOGRAPHY

- Bader, T.** 1983, *Die Fibeln in Rumänien, Prähistorische Bronzefunde*, XIV/6, F. Steiner, Stuttgart.
- Benac, A., Čović, B.** 1957, *Glasinac II – Željezno doba / Glasinac 2 – Eisenzeit*, Katalog prehistoriske zbirke Zemaljskog muzeja u Sarajevu, sveska 2, Zemaljski muzej u Sarajevu, Sarajevo.
- Bujak, E.** 2012, *Historija Gradišća od prahistorije do kraja srednjeg vijeka, Gradina, 1*, Gradišće; Zenica, 9–32.
- Cwaliński, M., Pravidur, A.** 2023, Brončanodobni nalazi jantara s nekropola glasinackog područja / Bronze Age Amber Finds from Cemeteries at the Glasinac Area, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, Arheologija, n. s.*, 55, Sarajevo, 129–168.
- Čović, B.** 1957, Nekoliko manjih preistorijskih nalaza iz Bosne i Hercegovine, *Glasnik Zemaljskog muzeja u Sarajevu*, 12, Sarajevo, 241–255.
- Čović, B.** 1961, *Donja Dolina. Nécropole de l'âge du fer*, Inventaria Archaeologica Iugoslavica, 3, Bonn.
- Čović, B.** 1964, Die Inschrift von Bugojno und ihre Chronologie, *Archaeologia Iugoslavica*, 5, Beograd, 25–32.
- Čović, B.** 1965, Uvod u stratigrafiju i hronologiju praistorijskih gradina u Bosni, *Glasnik Zemaljskog muzeja u Sarajevu*, 20, Sarajevo, 27–145.
- Čović, B.** 1966, Praistorijska nekropola 'Petkovo Brdo' u Radosavskoj, *Glasnik Zemaljskog muzeja u Sarajevu*, 21, Sarajevo, 161–167.
- Čović, B.** 1969, Grobnice željeznog doba iz Crvenice kod Duvna / Eisenzeitgräber aus Crvenica bei Duvno, *Vjesnik za arheologiju i historiju dalmatinsku*, 63–64, Arheološki muzej u Splitu, Split (1961–1962), 25–48.
- Čović, B.** 1975, Zwei spezifische Typen der westbalkanischen Bogenfibel, *Wissenschaftliche Mitteilungen des Bosnisch-Herzegowinischen Landesmuseums*, 5, Sarajevo, 19–33.
- Čović, B.** 1983a, Srednjobosanska kulturna grupa, in: A. Benac (ed.), *Praistorija jugoslovenskih zemalja IV – Bronzano doba*, Akademija nauka i umjetnosti Bosne i Hercegovine, Centar za balkanološka ispitivanja, Sarajevo, 433–461.
- Čović, B.** 1983b, Glasinačka kulturna grupa, in: A. Benac (ed.), *Praistorija jugoslovenskih zemalja IV – Bronzano doba*, Akademija nauka i umjetnosti Bosne i Hercegovine, Centar za balkanološka ispitivanja, Sarajevo, 413–433.
- Čović, B.** 1984, Najstarija prošlost visočkog kraja – bakarno, bronzano i željezno doba, *Visoko i okolina kroz istoriju I*, Skupština opštine Visoko, Visoko, 31–37.
- Čović, B.** 1987a, Srednjobosanska grupa, in: A. Benac (ed.), *Praistorija jugoslovenskih zemalja V – Željezno doba*, Akademija nauka i umjetnosti Bosne i Hercegovine, Centar za balkanološka ispitivanja, Sarajevo, 481–531.
- Čović, B.** 1987b, Glasinačka kultura, in: A. Benac (ed.), *Praistorija jugoslovenskih zemalja V – Željezno doba*, Akademija nauka i umjetnosti Bosne i Hercegovine, Centar za balkanološka ispitivanja, Sarajevo, 575–644.
- Čović, B.** 1987c, Srednjodalmatinska grupa, in: A. Benac (ed.), *Praistorija jugoslovenskih zemalja V – Željezno doba*, Akademija nauka i umjetnosti Bosne i Hercegovine, Centar za balkanološka ispitivanja, Sarajevo, 442–481.
- Čović, B.** 1987d, Grupa Donja Dolina – Sanski Most, in: A. Benac (ed.), *Praistorija jugoslovenskih zemalja V – Željezno doba*, Akademija nauka i umjetnosti Bosne i Hercegovine, Centar za balkanološka ispitivanja, Sarajevo, 232–289.
- Čremošnik, I.** 1951, Nalazi staroslavenskih mamuza iz Sultanovića, *Glasnik Zemaljskog muzeja u Sarajevu*, 6, Sarajevo, 311–321.
- Dizdar, M., Potrebica, H.** 2020, Grob iz Donje Doline s krestastim fibulama – odakle, kako i kada su došle do rijeke Save / Grave from Donja Dolina with crested fibulae – whence, how and when did they reach the River Sava, *Vjesnik za arheologiju i historiju dalmatinsku*, 113(1), Arheološki Muzej u Splitu, Split, 1–40.
- Egg, M.** 1996, *Das hallstattzeitliche Fürstengrab von Strettweg bei Judenburg in der Obersteiermark*, Monographien des Römisch Germanischen Zentralmuseums, Band 37, Mainz.
- Fiala, F.** 1896, Die prähistorische Ansiedlung auf dem Debelo Brdo bei Sarajevo, *Wissenschaftliche Mitteilungen aus Bosnien und Herzegowina*, 4, Wien, 38–72.
- Fiala, F.** 1899, Das Flachgräberfeld und die prähistorische Ansiedlung in Sanskimost, *Wissenschaftliche Mitteilungen aus Bosnien und Herzegovina*, 6, Wien, 62–128.
- Gabrovec, S.** 1970, Dvoankaste ločne fibule, *Godišnjak Centra za balkanološka ispitivanja*, knj. 6, Sarajevo, 5–44.
- Gabrovec, T.** 1987, Dolenjska Grupa, in: A. Benac (ed.), *Praistorija jugoslovenskih zemalja V – Željezno doba*, Akademija nauka i umjetnosti Bosne i Hercegovine, Centar za balkanološka ispitivanja, Sarajevo, 29–120.
- Gavranović, M.** 2007a, Kontakte zwischen Zentralbosnien und Zentralitalien in der Spätbronzezeit, in: M. Guštin, P. Ettel, M. Buora (eds), *Piceni ed Europa. Atti del convegno*, Archeologia di Frontiera, 6, Societa Friulana di Archaeologia, Udine, 175–184.
- Gavranović, M.** 2007b, Eine dreischleifige Bogenfibel mit dreieckiger Fußplatte aus Bosnien, *Arheološki vestnik*, 58, Ljubljana, 157–166.
- Gavranović, M.** 2011, *Die Spätbronze- und Früheisenzeit in Bosnien*, Universitätsforschungen zur prähistorischen Archäologie 195, Habelt, Bonn.
- Gavranović, M.** 2012, Ore Exploitation and Settlement Dynamic during the Late Bronze Age in Central Bosnia, in: J. Kneisel, W. Kirleis, M. dal Corso, N. Taylor, V. Tiedtke (eds), *Collapse or Continuity? Environment and Development of Bronze Age Human Landscapes*, Universitätsforschungen zur prähistorischen Archäologie 205, Habelt, Bonn, 103–111.
- Gavranović, M.** 2017, Überregionale Netzwerke und lokale Distribution. Verteilungsmuster einiger Bronzeobjekte im westlichen Balkan während der jüngeren und späten Urn-

- enfelderzeit, in: D. Ložnjak Dizdar, M. Dizdar (eds), *Late Urnfield Culture between the Eastern Alps and the Danube*, Zbornik Instituta za arheologiju 9, Zagreb, 109–125.
- Gavranović, M.** 2018, No group, no people? Archeological record and creation of the groups in the western Balkan, in: S. Gimatzidis, M. Pieniżek, S. Votruba (eds), *Archaeology Across Frontiers and Borderlands Fragmentation and Connectivity in the North Aegean and the Central Balkans from the Bronze Age to the Iron Age*, Oriental and European Archaeology, Österreichische Akademie der Wissenschaften, Wien, 427–447.
- Gavranović, M.** 2020, Late Bronze Age Geometric decoration in the Western Balkans – Style and Status, in: J. Maran, R. Băjenaru, S. Ailinăcai, A. D. Popescu, S. Hansen (eds), *Objects, Ideas and Travelers. Contacts between the Balkans, the Aegean, and western Anatolia during the Bronze and Early Iron Age. Proceeding of the Conference in Tulcea 10th – 13th November 2017*, Universitätsforschungen zur prähistorischen Archäologie 350, Habelt, Bonn, 431–447.
- Gavranović, M., Sejfuli, A.** 2015, Unpublizierte Bronzefunde aus dem Lašvatal in Zentralbosnien, *Godišnjak Centra za balkanološka ispitivanja*, 44, Sarajevo, 67–93.
- Gavranović, M., Sejfuli, A.** 2018, The Early Iron Age in Central Bosnia – overview and research perspectives, *Godišnjak Centra za balkanološka ispitivanja*, 47, Sarajevo, 27–45.
- Gavranović, M., Petschko, I. M.** 2020, Bronze Age communities in central Bosnia, in: M. Gavranović, B. Horejs (eds), *Visualizing the Unknown Balkans / Vizualizacija nepoznatog Balkana*, Österreichische Akademie der Wissenschaften, Wien, 73–85.
- Gavranović, M., Cogo, I., Bujak, E., Petschko, I. M.** 2021, Nova istraživanja lokaliteta brončanog i željeznog doba na području Zenice, *Godišnjak Centra za balkanološka ispitivanja*, 50, Sarajevo, 7–41.
- Gavranović, M., Mehoffer, M., Kapuran, A., Koledin, J., Mitrović, J., Papazovska, A., Pravidur, A., Djordjević, A., Jacanović, D.** 2022, Emergence of monopoly – Copper exchange networks during the Late Bronze Age in the western and central Balkans, *PLOS ONE*, 17(3), San Francisco, 0263823.
- Gavranović, M., Waltenberger, L., Petschko, I. M., Bujak, E., Cogo, I.** 2023a, Kopilo: a newly discovered Late Bronze and Iron Age burial ground in Bosnia, *Antiquity*, 97(392), Cambridge University Press, e10.
- Gavranović, M., Petschko, I. M., Cogo, I., Dević, M., Waltenberger, L., Bujak, E., Mittermair, N.** 2023b, Gräberfeld Kopilo bei Zenica – Neue Erkenntnisse zur Bestattungsweise während der Spätbronze- und Früheisenzeit in Zentralbosnien, *Godišnjak Centra za balkanološka ispitivanja*, 52, Sarajevo, 39–73.
- Gavranović, M., Cogo, I.** 2025, Dreischlefige Fibel vom Typ Zenice/Tropetljaste fibule tipa Zenica, *Arheoloski Vestnik* 76, in print.
- Gergova, D.** 1987, *Früh- und ältereisenzeitliche Fibeln in Bulgarien*, Prähistorische Bronzefunde XIV/7, Beck, München.
- Glogović, D.** 2003, *Fibeln im kroatischen Küstengebiet (Istrien, Dalmatien)*, Prähistorische Bronzefunde, XIV/13, F. Steiner, Stuttgart.
- Guštin, M.** 1976, *Libna*, Posavski muzej Brežice.
- Harding, A.** 1995, *Die Schwerter im ehemaligen Jugoslawien*, Prähistorische Bronzefunde, IV/14, F. Steiner, Stuttgart.
- Hänsel, B.** 1976, *Beiträge zur regionalen und chronologischen Gliederung der älteren Hallstattzeit an der unteren Donau*, Beiträge zur ur- und frühgeschichtlichen Archäologie des Mittelmeer-Kulturräume 16–17, Habelt, Bonn.
- Heilmann, D.** 2016, Contextualising bow fibulae with Boeotian shield plates: Cultural transfer processes during early iron age in the Central Balkan area, *Starinar*, 66, Beograd, 9–26.
- Jašarević, A.** 2022, Lipac – nalazi iz grobova finalnog bronzanog doba sjeverne Bosne, *Godišnjak Centra za balkanološka ispitivanja*, 51, Sarajevo, 65–84.
- Kilian, K.** 1975, Trachtzubehör der Eisenzeit zwischen Ägäis und Adria, *Prähistorische Zeitschrift*, 50, Berlin, 9–140.
- Kilian-Dirlmeier, I.** 1979, *Anhänger in Griechenland von der mykenischen bis zur spätgeometrischen Zeit*, Prähistorische Bronzefunde, XI/2, C. H. Beck, München.
- König, P.** 2004, *Spätbronzezeitliche Hortfunde aus Bosnien und der Herzegowina*, Prähistorische Bronzefunde, XX/11, F. Steiner, Stuttgart.
- Kreševljaković, M.** 1989, *Evidencija nepokretnih spomenika kulture na području opštine Travnik (studija)*, Zavod za zaštitu spomenika kulture BiH, Travnik.
- Korošec, J.** 1950, Travnik i okolina u predhistorijsko doba, *Glasnik Zemaljskog muzeja u Sarajevu*, 4/5, Sarajevo, 243–268.
- Kromer, K.** 1959, *Brezje. Halšatske gomile z Brezji pri Trebelnem*, Arheološki katalogi Slovenije 2, Narodni muzej, Ljubljana.
- Lollini, D.** 1976, Sintesi della civiltà Picena, in: M. Suić (ed.), *Jadranska obala u protohistoriji: kulturni i etički problemi. Simpozij održan u Dubrovniku od 19. do 23. X 1972.*, Sveučilište u Zagrebu; Institut za arheologiju, Jugoslavenska akademija znanosti i umjetnosti, Zagreb, 117–155.
- Lo Schiavo, F.** 1970, *Il gruppo liburnico-japodico per una definizione nell'ambito della protostoria balcanica*, Academia Nazionale dei Lincei, Roma.
- Mandić, M.** 1926, Prehistorijske i sredovječne utvrde oko Travnika, *Glasnik Zemaljskog muzeja u Bosni i Hercegovini*, 38, Sarajevo, 35–43.
- Mano-Zisi, Đ., Popović, Lj.** 1969, *Novi Pazar, grčko-ilirski nalaz / Novi Pazar The Illyrian-Greek Find*, Narodni Muzej Beograd, Beograd.
- Marijan, B.** 1988, Gradina, Krupa, in: Čović (ed.), *Arheološki leksikon Bosne i Hercegovine*, Tom 2, Zemaljski muzej Bosne i Hercegovine, Sarajevo, 178.
- Marjanović, B.** 1988, Gradina, Boljkovac, in: B. Čović (ed.), *Arheološki leksikon Bosne i Hercegovine*, Tom 2, Zemaljski muzej Bosne i Hercegovine, Sarajevo, 177.
- Marjanović, B.** 2001, Prusac (Biograd) – pravopijesno višeslojno nalazište – eneolitički slojevi, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, Arheologija*, n. s., 48, Sarajevo, 90–114.
- Marijanović, I., Anđelić, P.** 1988, Sutina (Gradina), Jagnjid, in: Čović (ed.), *Arheološki leksikon Bosne i Hercegovine*, Tom 2, Zemaljski muzej Bosne i Hercegovine, Sarajevo, 186.
- Metzner-Nebelsick, C.** 2002, *Der 'Thrako-Kimmerische' Formenkreis aus der Sicht der Urnenfelder- und Hallstattzeit im südöstlichen Pannonien*, Vorgeschichtliche Forschungen 23, Rahden/Westfalen.
- Miletić, N.** 1988, Glavica-Kamen (Paloč), in: B. Čović (ed.), *Arheološki leksikon Bosne i Hercegovine*, Tom 2, Zemaljski muzej Bosne i Hercegovine, Sarajevo, 177.
- Nikolić, V.** 1962, Nekoliko predmeta bakarnog i bronzanog doba iz sjeverozapadne Bosne, *Zbornik krajiških muzeja*, 1, Banja Luka, 62–79.
- Odavić, Đ.** 1984, Vesela Straža, Bugojno, *Arheološki Pregled*, 26, Beograd, 79–81.
- Pare, C.** 1998, Beiträge zum Übergang von der Bronze- zur Eisenzeit in Mitteleuropa. Teil I. Grundzüge der Chronologie im östlichen Mitteleuropa (11.-8. Jahrhundert v. Chr.), *Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz*, 45, Mainz, 293–433.
- Ogrin, M.** 1998, Trortasta fibula v Sloveniji, *Arheološki vestnik*, 49, Ljubljana, 101–132.
- Parzinger, H.** 1988, *Chronologie der Späthallstatt- und Frühlatène-Zeit. Studien zu Fundgruppen zwischen Mosel und Save*, Quellen und Forschungen zur prähistorischen und provincial-römischen Archäologie, Band 4, Weinheim.
- Perić, S.** 2004, Топографија и културно-хронолошке карактеристике насеља бронзаног и гвозденог доба у горњем току реке Босне, *Zbornik za istoriju Bosne i Hercegovine*, 4, Beograd, 1–45.
- Pravidur, A.** 2012, Hillfort Čolaci above Donji Vakuf in central Bosnia – new research and new findings in the central Bosnian

- cultural group through the typology of ceramic pottery, in: C. Gutjahr, G. Tiefengraber (eds), *Beiträge zur Hallstattzeit am Rande des Südostalpen: Akten des 2. internationalen Symposiums am 10. und 11. Juni 2010 in Wildon (Steiermark/Österreich)*, VML Verlag Marie Leidorf GmbH, Rahden-Westfalen, 9–29.
- Preložnik, A.** 2007, Fibule picene e lucane nel Caput Adriae orientale, in: M. Guštin, P. Ettel, M. Buora (eds), *Piceni ed Europa. Atti del convegno*, Archeologia di Frontiera, 6, Società Friulana di Archeologia, Udine, 123–135.
- Radimský, W.** 1897, Der prähistorische Pfahlbau von Ripač bei Bihać, *Wissenschaftliche Mitteilungen aus Bosnien und der Herzegovina*, 5, Wien 20–123.
- Radivojević, M., Pendić, J., Srejić, A., Korać, M., Davey, C., Benzonieli, A., Martínón-Torres, M., Jovanović, N., Kamberović, Ž.** 2018, Experimental design of the Cu-As-Sn ternary colour diagram, *Journal of Archaeological Science*, Vol. 90, Cambridge, 106–119.
- Ramović, M.** 1999, Nalazišta ruda zlata, bakra, kalaja, željeza, srebra, olova, žive, antimona i arsena u SR BiH, u: *Radovi sa Simpozijuma Rudarstvo i metalurgija Bosne i Hercegovine od prahistorije do početka XX vijeka*, Zenica, 8.–11. XI 1973., Muzej grada Zenice, Zenica, 9–20.
- Šalabalić, R.** 1967, Eine umbrisch-etruskische Inschrift aus Bosnien (Pod bei Bugojno), *Archaeologia Iugoslavica*, 8, Beograd, 35–47.
- Sielski, S.** 1931, Arheološki nalazi u okolici Travnika i Žepča, *Glasnik Zemaljskog muzeja u Bosni i Hercegovini*, 43, Sarajevo, 7–12.
- Sejfuli, A., Gavranović, M.** (u pripremi) Novi nalaz željeznog doba iz okoline Turbeta.
- Stojić, M.** 2007, Zwei neue Gürtle aus Edelmetall von Typ Mramorac aus Batinac in Serbien, *Prähistorische Zeitschrift*, 82, Berlin, 51–65.
- Teržan, B.** 1974, *Halštatske gomile iz Brusnic na Dolenjskem*, Varia Archeologica, Posavski muzej, Brežice.
- Teržan, B.** 1987, The Early Iron Age Chronology of the Central Balkans: A Review from the Viewpoint of the Southeastern Alpine Hallstatt, *Archaeologia Iugoslavica*, 24, Beograd, 7–27.
- Teržan, B.** 1990, *Starejša železna doba na Slovenskem Štajerskem / The Early Iron Age in Slovenian Styria*, Katalogi in monografije, 25, Narodni muzej Slovenije, Ljubljana.
- Teržan, B.** 2023, The Masters of Silver in Central Balkans, in: B. Govedarica, I. Vranić, A. Kapuran (eds), *A Step into the Past. Approaches to Identity, Communications and Material Culture in South-Eastern European Archaeology. Papers dedicated to Petar Popović for his 78th birthday*, Monografije, 87, Institute of Archaeology Belgrade, Beograd, 169–191.
- Teržan, B., Lo Schiavo, F., Trampuž, N.** 1985, *Most na Soči (Sv. Lucija)*, Katalogi in Monografije, 23, Narodni muzej v Ljubljani, Ljubljana.
- Teßmann, B.** 2004, Grabhügel 30 aus Rusanovići. Untersuchungen zu Kontakten zwischen der Glasinac-Hochebene und dem westlichen japodischen Raum, *Godišnjak / Jahrbuch*, knj. 33, Centar za balkanološka ispitivanja, knj. 31, Sarajevo, 139–185.
- Trajković, Č.** 1971, Kopilo, Zenica – praistorijska gradina, *Arheološki preglad*, 13, Beograd, 26–27.
- Triantafillos, D.** 1983, Αρχαϊκο νεκροταφείο στη δυτική Θράκη, *Annuario della Scuola archeologica di Atene e delle missioni italiane in Oriente*, 61, Athena, 179–207.
- Truhelka, Č.** 1904, *Der vorgeschichtliche Pfahlbau im Savabette bei Donja Dolina (Bezirk Bosnisch-Gradiška)*, Wissenschaftliche Mitteilungen aus Bosnien und der Herzegowina, 9, Wien.
- Truhelka, Č.** 1907, Prehistorijski nalazi u Bosni i Hercegovini (Nalazi bronzane dobi iz Tešnja i okolice), *Glasnik Zemaljskog muzeja Bosne i Hercegovine*, 19, Sarajevo, 62–75.
- Truhelka, Č.** 1913, Jedan odličan nalaz bronzane dobi iz Velikog Mošunja, *Glasnik Zemaljskog muzeja u Bosni i Hercegovini*, 25, Sarajevo, 325–335.
- Vasić, R.** 1973, *Kulturne grupe starijeg gvozdenog doba na tlu Jugoslavije*, Posebna izdanja, 12, Arheološki institut, Beograd.
- Vasić, R.** 1986, Srebreni pojas tipa Mramorac u Narodnom muzeju u Požarevcu, *Viminacium*, 1, Požarevac, 15–30.
- Vasić, R.** 1999, *Die Fibeln im Zentralbalkan*, Prähistorische Bronzefunde, XIV/12, F. Steiner, Stuttgart.
- Weber, C.** 1996, *Die Rasiermesser in Südosteuropa*, Prähistorische Bronzefunde, VIII/5, F. Steiner, Stuttgart.
- Wells, P. S.** 1981, *The Emergence of an Iron Age Economy: The Mecklenburg Grave Groups from Hallstatt and Stična*, American School of Prehistoric Research Bulletins, 33, Harvard University.
- Žeravica, Z.** 1993, *Äxte und Beile aus Dalmatien und anderen Teilen Kroatiens, Montenegro, Bosnien und Herzegowina*, Prähistorische Bronzefunde, IX/18, F. Steiner, Stuttgart.
- Zotović, M.** 1985, *Arheološki i etnički problemi bronzanog i gvozdenog doba zapadne Srbije*, Dissertationes et Monographiae, 26, Zavičajni muzej, Titovo Užice; Savez arheoloških društava Jugoslavije, Beograd.
- Zukanović, A., Vodačević, M., Mulaomerović, J.** 2012, Palaeodontology analysis of an Iron Age dental sample from a cave burial site near Gornji Vakuf, Bosnia and Herzegovina, *Acta medico-historica adriatica*, 10(1), Zagreb, 9–22.

Dvorovi u starijem željeznom dobu

Dvorovi in the Early Iron Age

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Arheološki nalazi iz Dvorova u arheološkoj literaturi označeni su kao artefakti iz devastiranih grobova, sa različitih lokacija. No, uprkos tome zabilježeni su neki ključni podaci koji pomažu u opštoj rekonstrukciji grobnog inventara. U nedostatku adekvatnog arheološkog konteksta, primarna analiza materijalne kulture fokusira se na morfološke, tipološke i stilske analize u odnosu na druge poznate slične predmete, kako bi se ponudilo moguće rješenje hronološkog pozicioniranja i potencijalnog mjesta proizvodnje, te određeni kulturni kontekst u kome su artefakti cirkulisali. Najbrojniji dio kolekcije predstavlja bronzani nakit i ornamenti, mahom dijelovi od ženskih kostima, zatim čilibarske i staklene perle. Brojnost sakupljenog keramičkog materijala je posebno mala, što je svakako rezultat selektivnog prikupljanja najreprezentativnijih metalnih predmeta. U ovoj studiji objedinjeni su nalazi deponovani u različitim muzejskim ustanovama, i dat je cjelovit pregled materijalne kulture starijeg željeznog doba iz Dvorova i bliže okoline.

Ključne riječi: Dvorovi, sjeverna Bosna, starije željezno doba, tipologija, hronologija, status i mobilnost žena

Archaeological finds from Dvorovi are primarily noted in the archaeological literature as artefacts from devastated graves, found across a number of locations. However, in spite of this, some key data has been recorded that helps in providing a general reconstruction of the burial inventories. In the absence of an adequate archaeological context, the primary analysis of material culture focuses on morphological, typological and stylistic analyses in relation to other known similar objects, in order to offer a possible solution to the chronological positioning and potential place of production, as well as the specific cultural context in which the artefacts circulated. Bronze jewellery and ornaments, mainly parts of female garments, as well as amber and glass beads, constitute the most numerous finds in the collection. The very small quantity of collected ceramic material is certainly the result of a selective curation in favour of the most representative metal objects. This study addresses a series of finds located in different museums, and also attempts to provide a complete overview of the material culture of the Early Iron Age in the Dvorovi area and its vicinity.

Key words: Dvorovi, northern Bosnia, Early Iron Age, typology, chronology, status and mobility of women

UVOD

Po brojnosti i kvalitetu arheoloških nalaza starijeg željeznog doba sjeveroistočne Bosne izdvaja se lokalitet Dvorovi kod Bijeljine.¹ Iako arheološka istraživanja nikad nisu preduzeta, izbor pronađenog i sakupljanog gradiva ukazuje na to da se radi o jednom od najznačajnijih lokaliteta u ovom dijelu zapadnog Balkana. Današnja kolekcija nalaza iz Dvorova deponovana je u tri različite muzejske ustanove: Muzeju Semberije u Bijeljini, Muzeju istočne Bosne u Tuzli i Zemaljskom muzeju Bosne i Hercegovine u Sarajevu. Za potrebe studije izvršen je uvid i analizirana cjelokupna građa, a što se ovom prilikom i prezentuje. Veći dio nalaza evidentiran je na prostoru oko stare željezničke stanice u Dvorovima i prema ataru sela Triješnica. Tokom eksploatacije šljunka 50-ih godina prošlog stoljeća prikupljena je znatna kolekcija metalnih nalaza, a sasvim rijetko su sakupljeni i keramički predmeti. Prvi dio kolekcije objavio je Zdravko Marić 1958. godine u *Glasniku Zemaljskog muzeja u Sarajevu*,² dok je svojevrsnu studiju o hronološki i kulturno različitoj grupi slučajnih nalaza s prostora Dvorova i Triješnice prezentovao par godina poslije u časopisu *Članci i građa za kulturnu istoriju istočne Bosne u Tuzli*.³ Izbor i kvalitet predmeta iz najvjerovatnije uništenih grobova postao je značajna kategorija nalaza za istraživanje kasne praistorije u ovom dijelu Bosne. Interesovanje za arheološku građu iz Dvorova uglavnom je sporadično i usputno pominjano u studijama materijalne kulture starijeg željeznog doba. Rastko Vasić analizirao je pojasne kopče u sintetičkom radu o ažuriranim pojasnim kopčama na Balkanu.⁴ U posthumno objavljenom radu Milice Kosorić u časopisu *Srpska vila* iz 2001. godine dat je pregledni rad o Bijeljini i okolini u praistorijskom periodu.⁵ Ovom sklopu pridružuje se i posljednja grupa nalaza prikupljena 2013. godine sa lokacije Dvorovi – Kućerine. Inventar je označen kao dio bogate grobne cjeline i upotpunjuje naše spoznaje o dinamičnom razdoblju starijeg željeznog doba predmetnog prostora.

OD RELJEFA DO PREDMETA

Krajnji sjeveroistočni dio Bosne, odnosno dio međuriječja Drine i Save, označava prostor Semberije. U periodu kasne praistorije to je mahom močvarno zemljište, ispresijecano manjim vodotocima, bogatim hrastovim šumama, pašnjacima prema obroncima Majevica i plodnom zemljom. Područje Semberije u novije vrijeme ograničava se na prostor grada Bijeljine, iako je u prošlosti obuhvatalo i dio podmajevičkih opština Ugljevika i Lopara. Omeđeno je rijekom Savom na sjeveru, na istoku rijekom Drinom, na jugu granica ide sve do rijeke Janje. Na jugozapad i zapad prostire se do planinskih obronaka Majevica, odnosno do predjela gdje

INTRODUCTION

The Dvorovi area, near Bijeljina, stands out in terms of the number and quality of archaeological finds from the Early Iron Age in northeast Bosnia.¹ Although systematic archaeological research has not been conducted, the range of discovered and collected material indicates that it should be considered among the most important locations in this part of the Western Balkans. The collection of finds from Dvorovi is today preserved in three museums: the Museum of Semberija in Bijeljina, the Museum of East Bosnia in Tuzla, and the National Museum of Bosnia and Herzegovina in Sarajevo. An examination and analysis of the material in its entirety has been conducted for the purpose of this study. The majority of finds were discovered in the area of the old railway station in Dvorovi, and near the village of Triješnica. A significant collection of metal objects was discovered during gravel exploitation in the 1950s, while ceramic objects were rarely found or collected. Zdravko Marić published the first part of the collection in 1958 in the *Herald of the National Museum of Bosnia and Herzegovina in Sarajevo*,² going on to present a study on the chronologically and culturally different groups of chance finds from the Dvorovi and Triješnica area a couple of years later, in the journal *Članci i građa za kulturnu istoriju istočne Bosne* [Articles and Materials for the Cultural History of Eastern Bosnia].³ The variety and quality of the objects from what are (most probably) destroyed graves has proven them to be a significant category of finds from the late prehistoric period in this part of Bosnia. However, interest for archaeological materials from Dvorovi has largely been sporadic, with such items primarily being mentioned in passing in studies of material culture of the Early Iron Age: Rastko Vasić analyses the belt buckles in a synthesis of open-work belt buckles in the Balkans,⁴ while Milica Kosorić's paper, published posthumously in the *Srpska vila* journal in 2001, presents an overview of Bijeljina and its surroundings during the prehistoric period.⁵ This constellation is joined by another group of finds collected in 2013 from the Dvorovi – Kućerine location; this inventory has been identified as belonging to a richly furnished female grave, which contributes significantly to our knowledge about the dynamic period of the Early Iron Age in that area.

FROM THE TERRAIN TO THE OBJECT

Semberija is located in the northeasternmost part of Bosnia, i.e. spreading southwest from the confluence of the Drina and Sava rivers. In the late prehistoric period, this area was mostly marshy land intersected by small watercourses with rich oak forests, with pastures upon the slopes of the Majevica mountain, and fertile land. In more recent times, the Semberija region has become (near-)synonymous with the territory of the City of Bijeljina, although in the past it also included the parts of Ugljevik and Lopare municipalities that are situated on Majevica's foothills and plains. Semberija is bordered by the Sava to the north, the Drina to the east, and the Janja to the south. To the southwest and west, it extends to the mountain slopes

1 Marić 1960; Bojanovski 1964, 196.

2 Marić 1958, 252.

3 Marić 1960, 43–65.

4 Vasić 1971, 5.

5 Косорић 2001, 12–15.

1 Marić 1960; Bojanovski 1964, 196.

2 Marić 1958, 252.

3 Marić 1960, 43–65.

4 Vasić 1971, 5.

5 Косорић 2001, 12–15.



Sl.1. Topografska karta Semberije (obrada S. Antić).

Fig. 1. Topographical map of Semberija (adapted by S. Antić).

prestaje ravnica i počinju brdoviti predjeli (sl. 1).⁶ Zahvaljujući geografskom položaju, prostor je jako dobro povezan sa svim susjednim regijama jugoistočne i centralne Evrope. Prema zapadu rijeka Sava omogućuje neometanu i direktnu komunikaciju prema Alpama, dok se prema istoku od ušća Save u Dunav kod Beograda pruža mogućnost komunikacije prema jugu i makedonsko-egejskom prostoru dolinama Morave i Vardara. Prema sjeveru prostor je otvoren ka širokom peripanonskom prostoru Slavonije i Srijema. Prostranom dolinom Dunava komunikacija ide do Transdanubije, a duž rijeke Tise prema centralnom dijelu karpatske kotline, kao i dalje na istok, tj. prema Crnom moru. Regionalna kulturna dinamika posebno je okrenuta ka Mačvi i Podrinju pa sve do istorijskih metalurških zona istočne Bosne i naposljetku glasinackog kulturnog kompleksa.⁷

Arheološka nalazišta oko Dvorova formirana su na pleistocenskim aluvijalnim nanosima pijeska i šljunka, dok je područje sela Triješnice okruženo sedimentima mrtvaja. U

of Majeveca, i.e. to the area where the plain ends and the hilly areas begin (Figure 1).⁶ Owing to its geographical position, the area is well-connected with all the neighbouring regions of Southeastern and Central Europe. To the west, the Sava river provides unobstructed and direct communication with the Alps, while to the east, from the mouth of the Sava flowing into the Danube river near Belgrade, the area is open to the south and the Macedonian-Aegean area through the Morava and Vardar river valleys. Towards the north, the area is open to the wide peripanonic area of Slavonia and Syrmia. Through the wide Danube valley, communication with Transdanubia is achieved, and along the Tisa river to the central part of the Carpathian basin, as well as further to the east, i.e. towards the Black Sea. The regional cultural dynamic is particularly focused on the Mačva and Podrinje areas, all the way to the historical metallurgical zones of eastern Bosnia, and finally to the Glasinac cultural complex.⁷

The archaeological sites around Dvorovi were formed on Pleistocene alluvial deposits of sand and gravel, while the

6 Cvijić 1922, 70; Filipović 1969, 7; Kajmaković 1974, 8.

7 Gavranović, Jašarević 2016, 91.

6 Cvijić 1922, 70; Filipović 1969, 7; Kajmaković 1974, 8.

7 Gavranović, Jašarević 2016, 91.

novije vrijeme mrežom irigacionih sistema smanjena je površina pod močvarnim i plavnim područjima u korist onih poljoprivrednih. Moderni antropogeni faktori razlog su što je izrazito teško izvršiti rekonstrukciju naseljenosti područja Dvorova u praistoriji, kao i čitave regije.⁸ Svi sakupljeni nalazi potiču iz devastiranih grobnih cjelina, dok manji broj potiče iz nesigurnih, moguće naseobinskih objekata. Arheološka nalazišta oko stare željezničke stanice Z. Marić naziva Brodić, prema istoimenim njivama.⁹ Pojedinačni grobni nalazi iz različitih perioda evidentirani su prilikom eksploatacije šljunka na njivama oko stare željezničke stanice.¹⁰ Najpotpuniji podaci koje je uspio da sakupi 50-ih godina Z. Marić odnose se na otkriće skeletnog groba na kompleksu njiva Brodić. Skelet je prema navodima pronalazača ležao na dubini od 80 do 90 cm ispod tla, nad samim slojem šljunka. Grobni inventar bio je raspoređen na skeletu prema funkcionalnoj upotrebi u nošnji.¹¹ Isto tako skeletni grob na njivi Mike Smajlovića, takođe nedaleko od željezničke stanice, imao je neki oblik kamene konstrukcije koja je otkrivena na dubini od 20 cm, dok je jedan metar dublje ispod toga otkriven skeletni grob u opruženom položaju orijentisan sjever–jug s glavom na jugu.¹² Nešto dalje od ove lokacije na granici sa selom Triješnica 1960. godine, prilikom kopanja šljunka, otkrivena je usamljena grobna jama s četiri pokojnika. Prema nalazima kopalja i kratkog mača, radi se najvjerovatnije o ratničkim ukopima.¹³ Posljednji grob iz starijeg željeznog doba otkriven je 2013. godine na lokaciji Kućerine oko 250 metara zapadno od pravoslavne crkve u Dvorovima i oko kilometar i po južno od stare željezničke stanice. Jama s grobnim inventarom otkrivena je sasvim plitko na dubini već od 40 cm u sloju čvrste i kompaktne zemlje. Arheološki materijal bio je razvučen na površini za koju se pretpostavljalo da se radi o mjestu ukopa. No, čitav prostor je već ranije bio devastiran i poremećen gradnjom lokalnog vodovoda i postavljanjem zaštitne ograde na privatnom posjedu, stoga je teško izvršiti preciznu rekonstrukciju samog groba i okruženja. Ukop na nalazištu Dvorovi – Kućerine formiran je na izduženoj fluvijalnoj šljunčanoj gredi koja se blago uzdiže u odnosu na ostali teren i okrenuta je prema starom koritu Drinice u pravcu sjever–jug.¹⁴

Nedaleko od Kućerina u današnjem pravoslavnom groblju vidljivi su ostaci monumentalnog tumula, ali bez daljih arheoloških istraživanja nije moguće potvrditi relaciju između ove dvije grupe nalaza. Slična nekropola pod tumulima istraživana je u novije vrijeme na obližnjoj lokaciji Novo Selo kod Bijeljine i pokazuje kontinuitet sahranjivanja od bakarnog doba do kasnog srednjeg vijeka.¹⁵ Prema dostupnim informacijama koje je sakupio i objavio Z. Marić i novijim otkrićem groba s lokacije Kućerine, može

area of Triješnica village is surrounded by oxbow lakes. In recent times, the network of irrigation systems has reduced the marshland and floodplain composition in favour of agricultural land. Modern anthropogenic factors have led to it being extremely difficult to reconstruct the prehistoric environment of not just the Dvorovi area, but also the wider region.⁸ All the collected finds come from destroyed graves, while a smaller number originate as chance finds, possibly from settlements. Z. Marić calls the cluster of archaeological sites around the old railway station Brodić, after the fields of the same name;⁹ individual grave finds from different periods were recorded during the exploitation of gravel in this area.¹⁰ The most complete data that Z. Marić managed to collect in the 1950s is that of the discovery of a grave with skeletal remains within the Brodić field complex. According to the finder, the inhumation grave was detected at a depth of 80 to 90 cm below the ground, directly above the gravel layer. The grave inventory was arranged on the remains according to its functional use as part of the costume.¹¹ Similarly, another inhumation burial was found on the plot of Mika Smajlović, also not far from the railway station, included some form of stone structure discovered at a depth of 20 cm, while a metre below that, a grave was discovered with skeletal remains in a supine position and with a north-south orientation, with the head facing south.¹² A little further from this location, on the border with Triješnica village itself, an isolated burial pit with the remains of four individuals was discovered during gravel extraction in 1960. According to the finds of spears and short swords, these were most likely warrior burials.¹³ The most recent discovery of a grave dating to the Early Iron Age occurred in 2013 at the Kućerina location, about 250 metres west of the Orthodox church in Dvorovi, and about one and a half kilometres south of the old railway station. The pit and associated grave inventory were discovered at a very shallow depth of 40 cm, in a layer of firm and compact soil. Archaeological material was spread out over a surface, which is believed to have been an inhumation grave. However, the entire area had previously been devastated and disturbed by the construction of the local water supply and the installation of a protective fence on private property, and it is therefore difficult to carry out a precise reconstruction of the grave itself or its surroundings. The Dvorovi – Kućerine grave was constructed on an elongated fluvial gravel bed that is slightly raised in comparison to the rest of the terrain, and faces the old bed of the Drinica river in the north-south direction.¹⁴ Not far from Kućerine, on an area where today stands an Orthodox cemetery, the remains of a monumental tumulus are visible, but without further archaeological exploration it is not possible to confirm the relationship between these two groups of finds. A similar necropolis was recently explored at the nearby Novo Selo (near Bijeljina) location; this was situated directly beneath tumuli, which

8 Поповић, Вулетих 2019, 136–137.

9 Marić 1960, 45.

10 Marić, *op. cit.*, 49.

11 Marić, *op. cit.*, 51.

12 Marić, *op. cit.*, 54.

13 Marić, *op. cit.*, 55.

14 Dokumentacija arheološke zbirke Muzeja Semberija.

15 Gavranović *et al.* 2021, 35.

8 Поповић, Вулетих 2019, 136–137.

9 Marić 1960, 45.

10 Marić, *op. cit.*, 49.

11 Marić, *op. cit.*, 51.

12 Marić, *op. cit.*, 54.

13 Marić, *op. cit.*, 55.

14 The Museum of Semberija archaeological documents.

se pretpostaviti postojanje najmanje dvije lokacije pokopavanja u Dvorovima. Veća nekropola iz željeznog doba najvjerojatnije je bila organizovana oko stare željezničke stanice i prema ataru sela Triješnice, dok je potencijalni drugi dio nekropole formiran na Kućerinama. Tačne pozicije naselja starijeg željeznog doba u Dvorovima i okolini nisu utvrđene.

TIPOLOŠKA, STILSKA I HRONOLOŠKA INTERPRETACIJA MATERIJALNE KULTURE

Arheološki nalazi iz Dvorova u arheološkoj literaturi označeni su kao artefakti iz devastiranih grobova, sa različitim lokacijama. No, uprkos tome zabilježeni su neki ključni podaci koji pomažu u opštoj rekonstrukciji grobnog inventara. U nedostatku adekvatnog arheološkog konteksta, primarna analiza materijalne kulture usredotočuje se na morfološke, tipološke i stilске analize u odnosu na druge poznate slične predmete, kako bi se ponudilo moguće rješenje hronološkog pozicioniranja i potencijalnog mjesta proizvodnje, te određeni kulturni kontekst u kome su artefakti cirkulisali.

Narukvice sa pečatnim krajevima

U kategoriju najreprezentativnijeg obručastog nakita svakako se mogu pribrojati narukvice, tipološki različite i različitog stepena očuvanosti. Bronzane, punolivene narukvice predstavljaju skupinu nakita veoma dugog trajanja i neznatne kulturne osjetljivosti. Među narukvicama s prekrštenim krajevima i punog presjeka zastupljeno je nekoliko tipova. Sve imaju dosta zajedničkih osobina, prvenstveno isto rješenje završetka, kvadratno ili bačvasto profilisane krajeve. Iz raspoloživog uzorka stratificiranih nalaza s područja središnjeg i zapadnog Balkana stiže se utisak da se većom dekorativnošću i masivnošću odlikuju narukvice starije forme. S obzirom na ukrasne motive, predmeti o kojima je riječ mogu se podijeliti u više skupina, kao i hronološki vrednovati. Uklapanjem nalaza s područja sjeverne Bosne u tu hronološku shemu, primjetno je da se svi oni mogu svrstati u dvije vremenski djelomično podudarne skupine. U prvu spadaju predmeti s ukrasima karakterističnim za drugu polovinu 7. do sredine 6. stoljeća, dok je druga skupina karakteristična za čitavo 6. stoljeće.

Iz uništene grobne cjeline iz Triješnice u Dvorovima potiče nalaz masivne bronzane narukvice s prekrštenim krajevima i profilisanim kvadratnim završetkom (sl. 2: 3; T. VI: 33). Prošireni tzv. pečatni krajevi ukrašeni su žigosanim krugovima. Prelaz između krajeva u tijelo narukvice izveden je profilisanim kružnim zadebljanjem koji je ukrašen kosim linijama. Nastavak tijela ukrašen je vertikalnim urezima i cik-cak motivima, koji dalje prelaze u motiv punktiranih tačaka oko većih žigosanih krugova. Na osnovu oblika i ukrasa sličnost sa narukvicom iz Dvorova nalazimo i u novootkrivenoj narukvici iz okoline Šida (sl. 2: 2). Nažalost, i tu je riječ o slučajnom nalazu bez preciznog konteksta nalaženja. No, najznačajnije paralele primjerku iz Dvorova pronalazimo

evidences a continuity of burials from the Copper Age to the late medieval period.¹⁵

According to the available information collected and published by Z. Marić and the recent discovery of the grave from Dvorovi – Kućerine, the existence of at least two burial locations in Dvorovi can be assumed. The larger Iron Age necropolis was most likely distributed around the old railway station and towards the area of Triješnica village, while a potential second part of the necropolis was formed at Dvorovi – Kućerine. The exact locations of the Early Iron Age settlements in Dvorovi and its surroundings have not been determined.

TYPOLICAL, STYLISTIC AND CHRONOLOGICAL INTERPRETATION OF MATERIAL CULTURE

Archaeological finds from Dvorovi are noted in the archaeological literature as artefacts from devastated graves found in different locations. However, in spite of this, some key data has been recorded that helps in forming a general reconstruction of burial inventories. In the absence of an adequate archaeological context, the primary analysis of material culture focuses on morphological, typological and stylistic analyses in relation to other known similar objects, in order to offer a possible solution to the chronological positioning and potential place of production, as well as the specific cultural context in which the artefacts circulated.

Bracelets with Stamp-shaped Ends

Bracelets, with their typological variations and different extents of preservation, can certainly be considered one of the most representative forms of jewellery. Bronze full-cast bracelets are considered a group of jewellery of great longevity within the archaeological record that is subject to minimal cultural sensitivity. There are several types of bracelets with crossed ends and solid sections; they all share many common features, primarily the same square or barrel-profiled ends. From the available sample of stratified finds from the Central and Western Balkans, one gets the impression that older forms of bracelets are characterised by greater levels of decorativeness and massiveness. Considering the decorative motifs, the objects in question can be divided into several groups, and also evaluated chronologically. By fitting the finds from the area of northern Bosnia into this chronological scheme, it is evident that they can all be classified into two partially overlapping groups in the temporal framework. The first includes objects with decorations characteristic of the second half of the 7th to the middle of the 6th century BCE, while the second group is characteristic of the entire 6th century.

A massive bronze bracelet with crossed ends and square-profiled terminals (Fig. 2: 3; T. VI: 33) was found in a destroyed grave in Triješnica near Dvorovi. The so-called elongated stamp-shaped (*stempelförmig*) ends are decorated with engraved circles. The transition from the ends into the body of the bracelet is via a profiled circular thickening decorated with gradient lines. The continuation of the body is decorated with vertical notches and zigzag motifs, which are transposed into punched dots around larger engraved circles. Based on the shape and decoration, a resemblance to the bracelet from

15 Gavranović et al. 2021, 35.



Sl. 2. Narukvice s prekrštenim krajevima: 1. Dvorovi, Brodić, Muzej Semberije, inv. br. A-146 (snimio: A. Jašarević), 2. Šid, Muzejska zbirka Šir, inv. br. bb (snimio: R. Sremac), 3. Dvorovi, Triješnica, Muzej Semberije, inv. br. A-407 (snimio: A. Jašarević).

Fig. 2. Bracelets with stamp-shaped Ends: 1. Dvorovi, Brodić, the Museum of Semberija, inv. no. A-146 (photo: A. Jašarević), 2. Šid, the Šid Museum Collection, not inventorised (photo: R. Sremac), 3. Dvorovi, Triješnica, the Museum of Semberija, inv. no. A-407 (photo: A. Jašarević).

u timočko-pomoravskom kulturnom krugu, i to u jednom od rekonstruisanih grobnih cjelina iz Vrtišta kod Niša. Ni o grobovima u Vrtištu nema preciznih podataka. Najvjerojatnije je riječ o paljevinskim grobovima budući da većina grobova u Pomoravlju i u severozapadnoj Bugarskoj u to vrijeme ima paljevinski ritual sahranjivanja – u Sofronijevu, Miziji, Kuninu, Belom Izvoru, Kamenom Polju.¹⁶ Predloženo datovanje u drugu polovinu 7. stoljeća svakako podupire i cjelokupni inventar groba.¹⁷ Posljednji poznati primjerak pripada narukvici iz Demir Kapije u Makedoniji, na šta je već davno upozorio Klaus Kilian.¹⁸

Slijedi skupina međusobno sličnih narukvica s tzv. pečatnim krajevima, ali bez žigosanih kružića na bačvastim krajevima. Posebnost ove forme jesu punktirane tačke na tijelu narukvice koje mogu biti spiralno modelovane ili jednostavnija linijska isprekidana forma koja prati tijelo. Tu najprije treba navesti dvije masivne narukvice iz ženskog, skeletnog groba 3a s grede S. Čagrlje s Donje Doline, datovane u donjodolinsku fazu 2a.¹⁹ Tipološki su identične primjerku s Gradine u Donjoj Dolini.²⁰ Ovim narukvicama dekoracijom odgovara nalaz iz razorenih grobova u okolini željezničke stanice u Dvorovima (sl. 2: 1; T. VI: 32), koji je Z. Marić isuviše visoko datovao u kraj 8. stoljeća.²¹ Najbliže prostorne i vremenske paralele primjerku iz Dvorova nalaze se u inventaru skeletnog ženskog groba iz Hrtkovaca u kombinaciji s ažuriranim pojasnim pločicama, datovanim

Dvorovi is noticeable in the newly-discovered bracelet from the Šid area (Fig. 2: 2). Unfortunately, this is also a chance find lacking a precise context. However, the most significant parallels to the Dvorovi example can be drawn from the Timok-Pomoravlje cultural circle, namely from one of the reconstructed graves from the Vrtište area, near Niš. No precise data about the graves in Vrtište exists; they are, most probably, graves with cremated remains, since cremation was an element of the funeral rites in Pomoravlje and north-western Bulgaria at the time: examples of this funerary ritual can be seen in Sofronievo, Mizia, Kunino, Beli Izvor and Kamen Polje.¹⁶ The proposed dating of the graves is the second half of the 7th century, which corresponds to the overall date range of the grave inventory.¹⁷ The final comparable specimen worthy of note is the bracelet from Demir Kapija in North Macedonia, which Klaus Kilian first drew attention to many years ago.¹⁸

The following is a group of similar bracelets with the so-called stamp-shaped ends, but without engraved circles and the terminals being more barrel-like in shape. The distinctive feature of this form is the dotted points on the body of the bracelet, either in a spiral or simpler linear dotted form that is aligned with the body. Two solid bracelets from the female skeletal Grave 3a from the plot of S. Čagrlja in Donja Dolina, dated to Donja Dolina phase 2a, should be mentioned here;¹⁹ typologically, these are identical to the example from Gradina, Donja Dolina.²⁰ The decoration of these bracelets corresponds to a find from destroyed graves in the vicinity of the railway station in Dvorovi (fig. 2: 1; P. VI: 32), which Z. Marić dated to the late 8th century.²¹ The closest spatial and tem-

16 Vasić 1977, 19, T. 21: 18; 1987b, 662.

17 Vasić 1987b, 662.

18 Kilian 1975, T. 42: 12.

19 Truhelka 1904, T. XL: 7; Marić 1964, 33; Čović 1987a, 241; Dizdar, Kapuran 2021, 194.

20 Marić 1964, T. VI: 17.

21 Marić 1960, 49, T. I: 1–2.

16 Vasić 1977, 19, T. 21: 18; 1987b, 662.

17 Vasić 1987b, 662.

18 Kilian 1975, T. 42: 12.

19 Truhelka 1904, T. XL: 7; Marić 1964, 33; Čović 1987a, 241; Dizdar, Kapuran 2021, 194.

20 Marić 1964, T. VI: 17.

21 Marić 1960, 49, T. I: 1–2.

u drugu polovinu 7. stoljeća.²² Karakteristika ovog tipa je ukras na profilu narukvice u obliku tačke, kružnice ili X motiva. Potom slijede dvije narukvice iz paljevinskog groba u Grivcu kod Kragujevca, koji je na osnovu fibula i narukvica hronološki jasno svrstan u kasniju fazu gvozdenog doba II, prema Milutinu Garašaninu, odnosno 2. horizont starijeg željeznog doba Srbije prema R. Vasiću.²³ Skupini valja pribrojati i narukvice iz bogato opremljenog, paljevinskog, groba 1, humka O (XV), sa lokaliteta Brezjak, Paulje kod Loznice s kraja 6. stoljeća.²⁴ Značajne paralele svim navedenim narukvicama ovog tipa nalazimo u inventaru ženskih grobova u Gradecu, Sadivuku i Paliluli u Bugarskoj.²⁵ Datovane su u period od sredine 7. do sredine 6. stoljeća ili fazu IIb prema hronologiji Diane Gergove.²⁶

Uz posljednju skupinu veže se i najbrojnija grupa narukvica s profilisanim pečatnim krajevima ukrašenim kosim i cik-cak linijama na tijelu. Na Donjoj Dolini javljaju se u najbogatijim ženskim grobovima iz faze 2b.²⁷ Raniju varijantu odlikuje masivnost i izraženija, kvadratna, ali i bačvasta profilacija. Da se radi o istovremenim nalazima iz prethodne grupe potvrđuju primjerci iz Vrtišta kod Niša, Ravanje kod Aleksinca i narukvice iz Novog Sela kod Niša, datovane u 2. horizont starijeg željeznog doba Srbije ili sinhrono kraj 7. i prvu polovinu 6. stoljeća.²⁸ Usporedive analogije primjetne su i s narukvicom iz udaljenog Slovačkog krša,²⁹ ali i s primjerkom iz Alsótelekesa u sjevernoj Mađarskoj.³⁰ Posebno su zanimljivi nalazi iz Makedonije koji idu u prilog južnoj distribuciji nalaza s prostora istočne Srbije i zapadne Bugarske, gdje su i najbrojnije.³¹ Pasko Kuzman je objavio par nalaza s lokaliteta Tri Čeljusti kod Ohrida koje datuje u 6. stoljeće,³² što se hronološki poklapa s ranije otkrivenim narukvicama s Vučjeg Dola i Poteidaiaie.³³ Interesantno je da se na teritoriji Makedonije i Grčke javljaju lokalne forme inspirisane stranim uzorima poput neukrašenih narukvica s pečatnim krajevima iz Arnissa,³⁴ ili i onih mlađih s profilisanim krajevima u obliku najvjerovatnije stilizovanih zmijskih glava i s blagim zadebljanjem pri preklopu.³⁵ Ovaj posljednji tip karakterističan je za prostor Ohrida i datuje se oko sredine 6. stoljeća,³⁶ ali i kasnije, svakako ne u 7. stoljeće, kako je to predložila Maria Gracia Amore za narukvicu istog tipa iz Apolonije u Albaniji.³⁷ Tokom 6. stoljeća na središnjem i zapadnom Balkanu zapaža se smanjenje

poral parallels to the finds from Dvorovi can be found in the inventory of the female grave from Hrtkovci, in combination with open-work belt plates, dated to the second half of the 7th century.²² This type is characterised by the decoration on the profile of the bracelet in the form of a point, circle or 'X'. Following this are two bracelets from the cremation grave in Grivac near Kragujevac, which, based on the fibula and bracelets, is chronologically clearly classified into the later phase of Iron Age II according to Milutin Garašaniin, i.e. the 2nd horizon of the Early Iron Age in Serbia according to R. Vasić.²³ The group should also include bracelets from the richly furnished cremation Grave 1, mound O (XV), from the Brezjak site, Paulje, near Loznica, from the late 6th century.²⁴ Significant parallels to all the mentioned bracelets of this type can be drawn with the inventory of female graves in Gradec, Sadivuk and Palilula in Bulgaria,²⁵ which are dated to the period from the mid-7th to mid-6th century, or phase IIb according to Diana Gergova's chronology.²⁶

The last group is also associated with the most common form of bracelets with profiled stamp-shaped ends decorated with oblique and zigzag lines on the body. In Donja Dolina, these appear in the richest female graves from phase 2b.²⁷ The earlier variant is characterised by its solidity, and both pronounced square- and also barrel-shaped ends. Examples from Vrtište near Niš, Ravanje near Aleksinac, and from Novo Selo near Niš confirm that these finds are contemporaneous to the previous group; they are all dated to the 2nd horizon of the Early Iron Age of Serbia or, synchronously, the end of the 7th century and the first half of the 6th century.²⁸ Comparable analogies are also noticeable with a bracelet from the distant Slovak karst,²⁹ but also with a specimen from Alsótelekes in northern Hungary.³⁰ A number of finds from Macedonia are particularly interesting, as they support the southern distribution of such artefacts to the area of eastern Serbia and western Bulgaria, where they are most numerous.³¹ Pasko Kuzman also published two such bracelets from the Tri Čeljusti site near Ohrid, dating back to the 6th century,³² which chronologically coincides with previously discovered examples from Vučji Dol and Poteidaiaie.³³

It is interesting to note that, upon the territory of Macedonia and Greece, local forms inspired by foreign models have also been found, such as undecorated bracelets with stamp-shaped ends from Arnissa,³⁴ or newer ones with profiled ends in the shape of, most likely, stylised snake heads and with a slight thickening at the fold.³⁵ The latter type is characteristic of the Ohrid area, and is dated to around the middle of the 6th century BCE³⁶ and later, but certainly not as early as the

22 Вински 1955, 35; Vinski, Vinski-Gasparini 1962, 271, T. VI: 73–74; Vasić 1977, 21, T. 22: 3–4; Dizdar, Kapuran 2021, 194.

23 Vasić 1977, 21, T. 23: 5–6; 1987b, 655.

24 Булатовић *et al.* 2017, 73, sl. 54, T. XX, 52–53.

25 Атанасова, Кичашки 1965, 52; Gergova 1987, 72–73, T. 35: 151–154.

26 Gergova 1987, 15; *usp.* Dizdar, Kapuran 2021, 195.

27 Truhelka 1904, T. XLII: 17–18; T. LX, 25; Čović 1987a, 246.

28 Vasić 1977, 19, T. 22: 2; Милојевић, Трајковић-Филиповић 2017, 101.

29 Mirošayová 2017, 10, fig. 3: 5.

30 Kemenczei 2009, T. 136: 21.

31 Gergova 1987, T. 35: 131, 133–134, 137–142, 145–147, 149.

32 Кузман 1985, 38, T. X: 5.

33 Kilian 1975, T. 55: 1; T. 32: 16.

34 Χρησοστόμου 2016, 28.

35 Кузман 1983/84, 104, T. I: 1–3; 1985, 38, T. III: 1–2.

36 Кузман 1983/84, 109.

37 Gracia Amore 2003, 276, fig. 6.

22 Вински 1955, 35; Vinski, Vinski-Gasparini 1962, 271, T. VI: 73–74; Vasić 1977, 21, T. 22: 3–4; Dizdar, Kapuran 2021, 194.

23 Vasić 1977, 21, T. 23: 5–6; 1987b, 655.

24 Булатовић *et al.* 2017, 73, fig. 54, T. XX, 52–53.

25 Атанасова, Кичашки 1965, 52; Gergova 1987, 72–73, T. 35: 151–154.

26 Gergova 1987, 15; *cf.* Dizdar, Kapuran 2021, 195.

27 Truhelka 1904, T. XLII: 17–18; T. LX, 25; Čović 1987a, 246.

28 Vasić 1977, 19, T. 22: 2; Милојевић, Трајковић-Филиповић 2017, 101.

29 Mirošayová 2017, 10, fig. 3: 5.

30 Kemenczei 2009, T. 136: 21.

31 Gergova 1987, T. 35: 131, 133–134, 137–142, 145–147, 149.

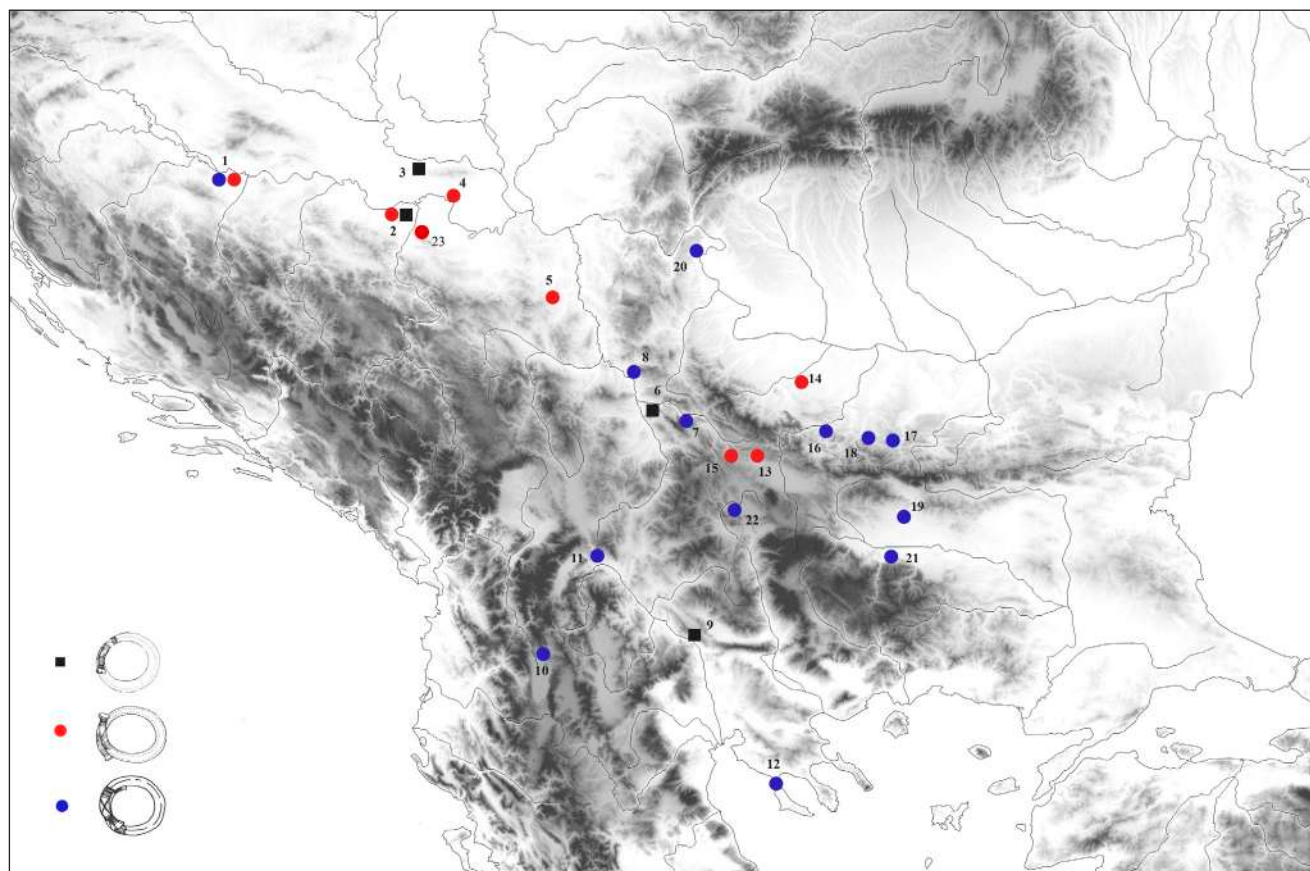
32 Кузман 1985, 38, T. X: 5.

33 Kilian 1975, T. 55: 1; T. 32: 16.

34 Χρησοστόμου 2016, 28.

35 Кузман 1983/84, 104, T. I: 1–3; 1985, 38, T. III: 1–2.

36 Кузман 1983/84, 109.



Sl. 3. Karta distribucije bronzanih narukvica s prekrštenim krajevima (dopunjeno prema Kilian 1975; Vasić 1977; Gergova 1987).

Fig. 3. Distribution map of bronze bracelets with crossed ends (appended according to Kilian 1975; Vasić 1977; Gergova 1987).

obima narukvica. Završeci postaju manje kvadratno, a više zaobljeno profilisani. Navedene narukvice su precizno datovane u bogatim grobovima 3 s grede M. Petrovića ml. i grobu 4 s grede Nikole Šokića II u sredinu 6. stoljeća ili donjodolinsku fazu 2b.³⁸ Istoj skupini treba pribrojiti i primjerak iz paljevinskog groba 28 s nekropole Eger-Nagy Eged u istočnoj Mađarskoj iz perioda Ha D1.³⁹

Tipološki razvoj narukvica s prekrštenim krajevima izgleda da je imao zaseban razvojni put na Glasincu, s naglašenim lokalnim elementima u modelovanju. K. Kilian je ovaj tip definisao kao zapadnobalkansku varijantu.⁴⁰ Po svom obliku i dekorativnosti bliske su narukvicama s tzv. pečatnim krajevima, posebno varijantama iz 6. stoljeća. Na Glasincu se javljaju od 7. stoljeća ili tokom glasinačke faze IVb/c-1. Tipičan primjerak je narukvica iz Rusanovića, grob 4/XXXVIII, u kombinaciji s glasinačkim pločastim fibulama.⁴¹ Slična narukvica s prekrštenim krajevima, ali ne tako kvadratno profilisanim završecima, pronađena je u Gotovuši kod Pljevalja, ukrašena tačkama i urezima,⁴² tipološki bliska primjerku s Ilijaka, grob 1/II.⁴³ Njena mlađa varijanta

7th century BCE, as suggested by Maria Gracia Amore for a bracelet of the same type from Apollonia in Albania.³⁷

During the 6th century, a decrease in the size of bracelets is observed across the Central and Western Balkans. The ends become less square and more rounded in profile. The mentioned bracelets are precisely dated in the rich Grave 3 from the plot of M. Petrović jr. and Grave 4 from the plot of Nikola Šokić II to the middle of the 6th century, or Donja Dolina phase 2b.³⁸ The find from cremation Grave 28 from the Eger-Nagy Eged necropolis in eastern Hungary from the Ha D1 period should also be included in the same group.³⁹

The typological development of bracelets with crossed ends seems to have taken a distinct path in Glasinac, with local elements being emphasised in the form. K. Kilian defined this type as a Western Balkan variant.⁴⁰ In their shape and decoration they are close to bracelets with so-called stamp-shaped ends, especially the 6th century variants. They appear in Glasinac from the 7th century, or during Glasinac phase IVb/c-1. A typical example is the bracelet from Rusanovići, Grave 4/XXXVIII, in combination with Glasinac plate fibulae.⁴¹ A similar bracelet with crossed ends, but not with such square-profiled ends, was found in Gotovuša near

38 Čović 1987a, 244.

39 Kozubová, Horváth 2019, 145, fig. 1: 1.

40 Kilian 1975, 60.

41 Gavranović 2011, 211.

42 Čović 1967, T. III: 2.

43 Benac, Čović 1957, T. XX: 1–2.

37 Gracia Amore 2003, 276, fig. 6.

38 Čović 1987a, 244.

39 Kozubová, Horváth 2019, 145, fig. 1: 1.

40 Kilian 1975, 60.

41 Gavranović 2011, 211.

predstavljena je masivnom narukvicom s prekrštenim krajevima iz Lisijeva polja iz glasićke IVC-2 ili rane faze Va.⁴⁴ Ovaj ekskluzivni predmet, simboličko-statusnog karaktera, dio je glasićke zanatske tradicije i modnog izraza poznatog još po primjercima iz aristokratskih grobova u Čitlucima i Ararevoj gromili na samom Glasincu.⁴⁵

NARUKVICE TIP A BREZJE

Šuplje limene narukvice jedan su od pouzdanih oblika materijalne kulture koji ukazuje na neposredne kontakte s alpskim područjem tokom starijeg željeznog doba. Ishodištem u ideji i oblikovanju smatra se upravo to područje,⁴⁶ posebno njegov istočni i sjeverni dio, gdje ove narukvice predstavljaju karakterističan inventar grobova starijeg željeznog doba i neizostavan dio ženske nošnje te su uopšte u atribuciji ženskog principa kroz više od dva stoljeća.⁴⁷ Šuplje limene narukvice u sjevernoj Bosni javljaju se već u nošnji kasnog bronzanog doba,⁴⁸ ali prema svom obliku, dimenzijama i načinu nošnje sasvim se razlikuju od kasnijih poznatih primjeraka. Nalaz narebrene, šuplje livene narukvice s Donje Doline smješta se u grupu predmeta sakupljenih s Gradine koji nemaju precizan stratigrafski kontekst.⁴⁹ Stoga je dalja analiza zasnovana na komparaciji sa srodnim nalazima iz pouzdanih, prvenstveno grobnih cjelina. Okolnosti nalaza narukvice iz Dvorova – Kućerine pružaju nam više osnova za datovanje, ali i za njenu kulturnu interpretaciju u kontekstu cjelokupnog grobnog inventara. No, zbog njene izrazite fragmentiranosti ne mogu se detaljnije iščitati sve tehnološke i stilske karakteristike (T. III: 16).

Analizirajući pokretni inventar s nalazišta Býčí skála u Moravskoj, Hermann Parzinger je dosta pažnje posvetio analizi šupljih livenih narukvica/nanogvica koje se javljaju u velikom broju i u različitim tipovima.⁵⁰ Budući da su razlike u veličini i oblikovanju jako velike, u zavisnosti od funkcije na nošnji, H. Parzinger je napravio tipološku shemu upotrebe i distribucije šupljih limenih narukvica/nanogvica.⁵¹ Prema njegovoj shemi, narukvice iz Dvorova – Kućerine, ali i ona s Donje Doline, mogu se klasificirati u tip Brezje, čija je glavna karakteristika široko i gusto narebreno tijelo s najčešće kružnim presjekom. Krajevi se uvlače jedan u drugi i zatvaraju krug fiksiran manjim klinčićem.⁵² U nekim slučajevima krajevi su glatki i stanjeni ili pak ukrašeni urezanim mrežastim motivima. Rađene su isključivo od tankog bronzanog lima, zbog čega su često fragmentovane. Narukvice tipa Brezje ili varijante V4, prema tipologiji Snežane Tecco Hvala,⁵³ javljaju se u hronološki različitim

Pljevlja, decorated with dots and incisions,⁴² which is typologically close to the example from Ilijak, Grave 1/II.⁴³ Its younger variant is represented by a massive bracelet with crossed ends from Lisijeva polje, dated to Glasinac IVC-2 or early phase Va.⁴⁴ This exclusive object, of a symbolic and high-status nature, is a component of Glasinac's craft tradition and expression of identity known from examples from aristocratic graves in Čitluci and at Arareva gromila in Glasinac itself.⁴⁵

THE BREZJE-TYPE BRACELETS

Hollow bronze bracelets are a reliable form of material culture indicative of direct contact with the Alpine region during the Early Iron Age. This area in particular⁴⁶ is considered to be the point of origin for the idea and design, especially its eastern and northern variants, where these bracelets represent a characteristic inventory of Early Iron Age graves and an indispensable part of women's costume and female attributes in general for a period spanning more than two centuries.⁴⁷ Hollow bronze bracelets in northern Bosnia appear in costumes as early as the Late Bronze Age,⁴⁸ but according to their shape, dimensions and manner of wearing, they are completely different from the later known examples. A ribbed, hollow-cast bracelet found in Donja Dolina belongs to the group of objects collected from Gradina that lack a precise stratigraphic context.⁴⁹ Therefore, further analysis is based on comparison with related findings from reliable contexts, primarily graves. The circumstances of the find of the Dvorovi – Kućerine bracelet provide us with a stronger basis for its dating, and also for its cultural interpretation in the context of the entire grave inventory. However, due to its marked fragmentation, not all technological and stylistic characteristics are evident (T. III: 16).

Analysing the inventory from the Býčí skála cave site in Moravia, Hermann Parzinger devoted a great deal of attention to the analysis of hollow-cast bracelets/anklets, which occur in large numbers and in various types.⁵⁰ Since the differences in size and shape are significant to these items' function within the costume, Parzinger created a typological scheme of the use and distribution of hollow bronze bracelets/anklets.⁵¹ According to his scheme, the bracelets from Dvorovi – Kućerine, but also those from Donja Dolina, can be classified as the Brezje type, whose main characteristic is a wide and densely ribbed body, most often with a circular cross-section. The ends are drawn into each other and close a circle fixed with a small wedge.⁵² In some cases, the ends are smooth and thinned or decorated with incised net motifs. They are made exclusively of thin bronze sheet, which is why they are often discovered in a fragmented state. Bracelets of the Brezje type, or variant V4 according to Snežana Tecco Hvala's typology,⁵³

44 Srećević, Marković 1981, 72, T. I: 3–4.

45 Benac, Čović 1957, T. XXXI: 1–2; XXXXI: 1.

46 Parzinger 1995, 30; Siepen 2005, 93.

47 Tecco Hvala 2012, 320.

48 König 2004, 85; Gavranović 2011, 203.

49 Truhelka 1904, 73, T. XXXVII: 3.

50 Parzinger 1995, 29.

51 Parzinger, *op. cit.*, 29–30.

52 Parzinger, *op. cit.*, 29–30.

53 Tecco Hvala 2012, 316.

42 Čović 1967, T. III: 2.

43 Benac, Čović 1957, T. XX: 1–2.

44 Srećević, Marković 1981, 72, T. I: 3–4.

45 Benac, Čović 1957, T. XXXI: 1–2; XXXXI: 1.

46 Parzinger 1995, 30; Siepen 2005, 93.

47 Tecco Hvala 2012, 320.

48 König 2004, 85; Gavranović 2011, 203.

49 Truhelka 1904, 73, T. XXXVII: 3.

50 Parzinger 1995, 29.

51 Parzinger, *op. cit.*, 29–30.

52 Parzinger, *op. cit.*, 29–30.

53 Tecco Hvala 2012, 316.

periodima. U Brezju, grob 22/XIII, narukvica dolazi u kombinaciji sa zmijolikom fibulom tipa Va,⁵⁴ koje počinju da se javljaju krajem faze Stična 2, ali su češće zastupljene u horizontu zmijolikih fibula.⁵⁵ H. Parzinger zmijolike fibule tipa Va datuje u horizont 6 (610/600–570/560) ili period Ha D1.⁵⁶ Nasuprot tome, ostali nalazi se uglavnom datuju s fibulama tipa Certosa, varijante I, II, V, VII, XII i XIII, i s fibulama s tri dugmeta na luku.⁵⁷ Grob 8/II iz Novog Mesta⁵⁸ datovan je s fibulom s tri dugmeta na luku, tip VII⁵⁹ u prelazni period iz faze Certosa 1 u Certosa 2⁶⁰ ili horizont 8 (510/500–480/470).⁶¹ Isto datovanje podržavaju nalazi iz groba 19/II iz Novog Mesta s karakterističnim keramičkim ciborijima.⁶² Vrlo kasno se može datovati inventar iz groba 2/II iz Novog Mesta s fibulom Certosa tip XII⁶³ u Parzingerov horizont 10 (450/440–400/390).⁶⁴ Narukvice tipa Brezje s Magdalenske gore evidentirane su u bogatom ženskom, paljevinskom grobu 13/163 s Preloga s punolivenom bronzanom narukvicom, nanogvicama i fibulama s oplatama od čilibara i stakla.⁶⁵ Grob je datovan u fazu Stična 2.⁶⁶ Primjerak iz groba 10/72 s Preloga bio je u funkciji nanogvice, a nađen je u kombinaciji s dvije punolivene narukvice, čunjastom i zmijolikom fibulom.⁶⁷ Iz groba 2/15 potiče nalaz istog tipa narukvice zajedno s dvije narebrene nanogvice i fibulom tipa Certosa, varijante V, iz certoške faze.⁶⁸

Nalazi narukvica tipa Brezje iz Stične, ali i čitavog prostora Dolenjske, specifičnost su ženskih grobova. Analogije za ovaj tip iz Dvorova – Kučerine vidimo i među inventarom “rekonstruisanih” grobnih cjelina s lokaliteta Hočevanjevinogradi,⁶⁹ Roje pri Trebelnem 1/1899⁷⁰ i nalazima iz tumula 2 s lokaliteta Okrog pri Krajnih Brdih.⁷¹ Zajedno s narukvicama tipa Brezje u inventarima grobnih cjelina s lokaliteta Roja pri Trebelnem 1/1899 i Okroga kod Krajnih Brdih javljaju se fibule tipa Certosa, varijante IIb,⁷² i predstavljaju jedan od najranijih tipova fibula Certosa na prostoru Dolenjske, a hronološki se smještaju u 6. stoljeće.⁷³ Rano datovanje potvrđuje i nalaz zmijolike fibule tipa VIIc u grobu Roja pri Trebelnem 1/1899, datovane u ranu certošku fazu.⁷⁴ Ovoj grupi “rekonstruisanih” grobnih cjelina može se priključiti i nalaz iz Rovišča.⁷⁵ Nalazi iz ove grobne

appear in chronologically different periods. In Brezje, in Grave 22/XIII, the bracelet was found in combination with a type Va⁵⁴ serpentine fibula, which began to appear at the end of Stična phase 2, but are more often represented in the horizon of serpentine fibulae.⁵⁵ Parzinger dates the serpentine fibulae of type Va to horizon 6 (610/600–570/560), or the Ha D1 period.⁵⁶ In contrast, the remainder of the finds are mainly dated to a period corresponding with Certosa-type fibulae, variants I, II, V, VII, XII and XIII, and fibulae with three knobs on the bow.⁵⁷ Grave 8/II from Novo Mesto⁵⁸ is dated on the basis of a fibula with three knobs on the bow, type VII⁵⁹ to the transition period from Certosa phase 1 to Certosa phase 2⁶⁰ or horizon 8 (510/500–480/470).⁶¹ The same dating is supported by finds from Grave 19/II from Novo Mesto, which include a characteristic ceramic ciborium.⁶² The inventory from Grave 2/II from Novo Mesto with the Certosa type XII⁶³ fibula can be dated very late, i.e. to Parzinger's horizon 10 (450/440–400/390).⁶⁴ Bracelets of the Brezje type from Magdalenska Gora were recorded in the rich female cremation Grave 13/163 from Prelog with a solid-cast bronze bracelet, anklets and fibulae with amber and glass plating.⁶⁵ The grave is dated to Stična phase 2.⁶⁶ The specimen from Grave 10/72 from Prelog was used as an anklet, and was found in combination with two full-cast bracelets, as well as one conical and one serpentine fibula.⁶⁷ From Grave 2/15 comes a find of the same type of bracelet together with two ribbed anklets and a fibula of the Certosa type, variant V, from the Certosa phase.⁶⁸

Finds of bracelets of the Brezje type from Stična, and also from the entire area of Dolenjska, are specific to female graves. Analogies for this type from Dvorovi – Kučerine can also be seen in the inventory of a ‘reconstructed’ grave from Hočevanjevinogradi,⁶⁹ Roje pri Trebelnem 1/1899,⁷⁰ and finds from tumulus 2 from Okrog pri Krajnih Brdih.⁷¹ Together with bracelets of the Brezje type, Certosa type, variant IIb fibulae⁷² appear in the inventories of graves from Roje pri Trebelnem 1/1899 and Okrog pri Krajnih Brdih; these represent one of the earliest types of Certosa fibulae in the area of Dolenjska, and are chronologically placed in the 6th century.⁷³ This early dating is also confirmed by the find of a serpentine fibula of type VIIc from Roje pri Trebelnem 1/1899, dated to the early Certosa phase.⁷⁴ The find from Rovišče can also be added to this group of ‘reconstructed’ graves.⁷⁵ The finds from this

54 Kromer 1959, 71, T. 50: 6; Tecco Hvala 2014, 133.

55 Tecco Hvala 2014, 152.

56 Parzinger 1995, 29–30.

57 Ogrin 1998, 127.

58 Knez 1986, T. 18.

59 Ogrin 1998, 113.

60 Ogrin, *op. cit.*, 125.

61 Parzinger 1995, 32.

62 Knez 1986, T. 21: 8; Parzinger 1995, 32.

63 Teržan 1976, 371.

64 Parzinger 1995, 32; Tecco Hvala 2012, 258.

65 Tecco Hvala *et al.* 2004, 78–79, T. 123: 18; T. 124: 21; Tecco Hvala 2012, 316.

66 Tecco Hvala *et al.*, *op. cit.*, 102.

67 Tecco Hvala 2012, 316.

68 Tecco Hvala *et al.* 2004, 85–86, T. 28: 2; Tecco Hvala 2012, 316.

69 Dular 2003, 182–183, T. 17: 2.

70 Dular, *op. cit.*, T. 29: 8–9.

71 Dular, *op. cit.*, T. 55: 2–3.

72 Teržan 1976, 351.

73 Tecco Hvala 2012, 256.

74 Tecco Hvala, *op. cit.*, 138, 156.

75 Stare 1962/63, 449, T. I: 1–3.

54 Kromer 1959, 71, T. 50: 6; Tecco Hvala 2014, 133.

55 Tecco Hvala 2014, 152.

56 Parzinger 1995, 29–30.

57 Ogrin 1998, 127.

58 Knez 1986, T. 18.

59 Ogrin 1998, 113.

60 Ogrin, *op. cit.*, 125.

61 Parzinger 1995, 32.

62 Knez 1986, T. 21: 8; Parzinger 1995, 32.

63 Teržan 1976, 371.

64 Parzinger 1995, 32; Tecco Hvala 2012, 258.

65 Tecco Hvala *et al.* 2004, 78–79, T. 123: 18; T. 124: 21; Tecco Hvala 2012, 316.

66 Tecco Hvala *et al.*, *op. cit.*, 102.

67 Tecco Hvala 2012, 316.

68 Tecco Hvala *et al.* 2004, 85–86, T. 28: 2; Tecco Hvala 2012, 316.

69 Dular 2003, 182–183, T. 17: 2.

70 Dular, *op. cit.*, T. 29: 8–9.

71 Dular, *op. cit.*, T. 55: 2–3.

72 Teržan 1976, 351.

73 Tecco Hvala 2012, 256.

74 Tecco Hvala, *op. cit.*, 138, 156.

75 Stare 1962/63, 449, T. I: 1–3.



Sl. 4. Jela, Šabac (obrada: A. Jašarević prema: Васиљевић 1976, sl. 2).

Fig. 4. Jela, Šabac (adapted by: A. Jašarević cf.: Vasiljević 1976, fig. 2).

cjeline su većim dijelom uništeni/izgubljeni i sa sigurnošću su jedino mogli biti analizirani ostaci narukvica/nanogvica od šupljeg bronzanog lima, fibula s lukom u obliku patke i bronzana palica, skiptar, datovani u certošku fazu.⁷⁶ Nalaz van konteksta s praistorijske nekropole u Ljubljani predstavlja za sada najzapadniji nalaz narukvice tipa Brezje.⁷⁷ Teritorijalno, hronološki, ali i kulturno, najbliže karakteristike nalazu iz Dvorova – Kučerine vidimo s primjercima iz ženskog groba s nalazišta Jela u Šapcu (sl. 4: 1-2).⁷⁸ Ovdje je pronađen par dobro očuvanih narukvica od narebrenog bronzanog lima s uvučenim krajevima. Na osnovu inventara grob je datovan u 3. horizont željeznog doba Srbije.⁷⁹ Za primjerak s Donje Doline Z. Marić je ponudio isto datovanje, tj. u donjodolinsku fazu 2c.⁸⁰ Dugovječnost ovoga nakita na matičnom prostoru kroz više od dva stoljeća može se objasniti njegovom funkcionalnošću u iskazivanju prestiža i ženskih principa u nošnji. Na prostoru Posavine javljaju se tokom druge polovine 6. stoljeća ili najkasnije do početka 5. stoljeća i ukazuju na direktnu vezu s

grave have been mostly destroyed/lost, with the remains of bracelets/anklets made of hollow bronze sheet, a fibula with a bow in the shape of a duck, and a bronze sceptre – dated to the Certosa phase⁷⁶ – being the only artefacts that could be analysed with any certainty relating to their find site. An uncontextualised find from the prehistoric necropolis in Ljubljana is the westernmost Brezje-type bracelet to have been found to date.⁷⁷ Territorially, chronologically, and also culturally, the closest characteristics to the find from Dvorovi – Kučerine can be seen in bracelets from the female grave from the Jela, Šabac, site (fig. 4: 1-2);⁷⁸ here, a pair of well-preserved bracelets made of ribbed bronze sheet with indented ends were found. Based on the inventory, the grave was dated to the 3rd horizon of the Serbian Iron Age.⁷⁹ For the bracelet from Donja Dolina, Z. Marić proposed the same dating, i.e. Donja Dolina phase 2c.⁸⁰ The more-than-two-centuries longevity of this jewellery in its area of origin can be explained by its functionality in expressing prestige and female attributes in costume. In the area of Posavina, such bracelets appear during the second half of the 6th century, or by the beginning of the 5th century at the latest, and indicate a direct connection

76 Stare, *op. cit.*, 439; Tecco Hvala 2012, 337–338.

77 Puš 1982, 152, T. 50: 1.

78 Васиљевић 1976, 167.

79 Vasić 1977, 26.

80 Marić 1964, 41, T. XIV: 14.

76 Stare, *op. cit.*, 439; Tecco Hvala 2012, 337–338.

77 Puš 1982, 152, T. 50: 1.

78 Васиљевић 1976, 167.

79 Vasić 1977, 26.

80 Marić 1964, 41, T. XIV: 14.

istočnoalpskim kulturnim krugom, ali i na tradiciju kao isključivo ženskih ukrasnih predmeta.

Narukvice od spiralno namotane žice

Tipološka varijabilnost i estetski kriterijum razlog su korištenja specifičnih oblika ukrasa za ruke. Između ostalog, javljaju se i spiralne narukvice od navijene bronzane žice kvadratnog, lećastog ili oblog presjeka. Iako nisu brojne, njihova pojava i trajanje ukazuju na specifičan kulturni uticaj i modu ondašnjih žena. Nadalje, njihova tradicija ukazuje na raniji period, gdje bi već s kraja kulture polja s urnama postale dio ženske nošnje panonskog i peripanonskog prostora. U ostavama s kraja bronzanog doba sjeverne Bosne spiralne narukvice ukazuju na ekskluzivne zavjetne darove koji predstavljaju žene visokog statusa lokalnih zajednica.⁸¹ Sa prostora Triješnice u Dvorovima, najvjerojatnije iz uništene grobne cjeline, potiče par narukvica od navijene bronzane žice oblog presjeka. Krajevi su odlomljeni, dok je površina zadržala poroznu patinu (T. IV: 22). Slijedom tipoloških obilježja poređenje je moguće sa nalazima iz Donje Doline, gdje su evidentirane s početkom faze 2b, što je posvjedočeno inventarom ženskog groba 9 s grede M. Petrovića st.⁸² Duge spiralne narukvice od bronzane žice, obično sa 17–25 navoja, karakteristika su tokom čitave faze 2b, što je vidljivo iz inventara groba 6 s grede M. Petrovića ml.⁸³ Iako nisu toliko brojne na samom Glasincu, nalazi u bližem okruženju ipak pružaju siguran i jasan kontekst interpretacije. Njihova pojava u užičkom kraju obilježila je trajanje glasinačke faze IVc-2.⁸⁴ Nalazi spiralnih narukvica iz Pilatovića, grob 6/VII, praćeni su s regionalnim tipovima glasinačkih fibula tipa Borajna, što je posvjedočeno i inventarom ženskog groba iz Kremne.⁸⁵ Hronološki i kulturno, usklađena su pojava i s nalazom spiralne narukvice iz Gotovuše kod Pljevalja.⁸⁶ Prema dosadašnjim objavama materijala s nalazišta kulture Mati i skadarskog areala, vidimo da su takođe karakteristika bogatijih ženskih grobova glasinačke faze IVc-2 i Va, često u kombinaciji s prestižnim elementima ženske nošnje poput astragalnog pojasa i fibula u obliku rozeta ili pak fibula s okačenim privjescima.⁸⁷ Nadalje, njihova upotreba na području Makedonije, osobito u njenom južnom dijelu, karakteristična je za 7. stoljeće, ali su nešto manjih dimenzija i često s manjim brojem navoja.⁸⁸

Posljednjoj grupi narukvica sa prostora Dvorova priključuju se dva manja primjerka sa prekrštenim krajevima, od kojih jedna ima raskucane krajeve i svinute u kratku otvorenu petlju (T. V: 30–31). Neznatne tipološke karakteristike daju naznake okvirnog datiranja u starije željezno doba.

with the eastern Alpine cultural circle, but also with tradition as exclusively feminine decorative objects.

Bracelets made of Spirally Wound Wire

Typological variability and aesthetic criteria were the primary reasons underlying the use of specific forms of wrist/arm ornaments. Among other things, spiral bracelets were made of coiled bronze wire with a square, lenticular or rounded cross-section. Although they are not numerous, their appearance and duration indicate the specific cultural influence and fashion of the women of that time. Furthermore, their tradition points to an earlier period, with them already having become part of women's costumes across the Pannonian and Peripanionian areas by the end of the Urnfield culture. In hoards in northern Bosnia dating to the end of the Bronze Age, spiral bracelets are likely high-status votive gifts representing high-status women of local communities.⁸¹ From the area of Triješnica in Dvorovi, most likely from a grave, comes a pair of bracelets made of coiled bronze wire with a circular cross-section. The ends have been broken off, while the surface retained a porous patina (T. IV: 22). Given their typological characteristics, a comparison with finds from Donja Dolina is possible; there, such artefacts have been recorded at the beginning of phase 2b, which is evidenced by the inventory of the female Grave 9 from the plot of M. Petrović sr.⁸² Long spiral bracelets made of bronze wire, usually containing 17–25 threads, are characteristic of the entire phase 2b, which is evident from the inventory of Grave 6 from the plot of M. Petrović jr.⁸³ Although they are not so numerous in Glasinac itself, the finds in the immediate vicinity still provide a safe and clear context for interpretation. Their presence in the Užice region coincides with the duration of Glasinac phase IVc-2.⁸⁴ The finds of spiral bracelets from Pilatovići, Grave 6/VII, are accompanied by a regional variant of Glasinac fibulae, the Borajna type, which is also evidenced by the inventory of the female grave from Kremna.⁸⁵ Chronologically and culturally, the occurrence is aligned with the finding of a spiral bracelet from Gotovuša, near Pljevalja.⁸⁶ According to the previous publications of material from this site of the Mati culture and the Skadar area, we see that they are also characteristic of the richer female graves of Glasinac phases IVc-2 and Va, often in combination with prestigious elements of women's costume, such as astragal belts and fibulae in the form of rosettes or fibulae with hanging pendants.⁸⁷ Furthermore, their use upon the territory of present-day North Macedonia, especially in its southern part, is characteristic of the 7th century, although commonly slightly smaller in size and often with fewer threads.⁸⁸ The final group of bracelets from the Dvorovi area consists of two smaller specimens with crossed ends, one of which has flattened terminals rolled into a short open loop (T. V: 30–31). Certain minor typological characteristics can be a tentative indicator that they belong to the Early Iron

81 Gavranović 2011, 207.

82 Čović 1987a, 244.

83 Truhelka 1902, 259, sl. 3.

84 Vasić 1977, 24.

85 Zotović 1985, 80, T. XXV: 10–11; T. XXIII: 7.

86 Čović 1967, 39, T. III: 15.

87 Islami 1983, T. III–IV.

88 Videski, 2005, kat. br. 1–8.

81 Gavranović 2011, 207.

82 Čović 1987a, 244.

83 Truhelka 1902, 259, fig. 3.

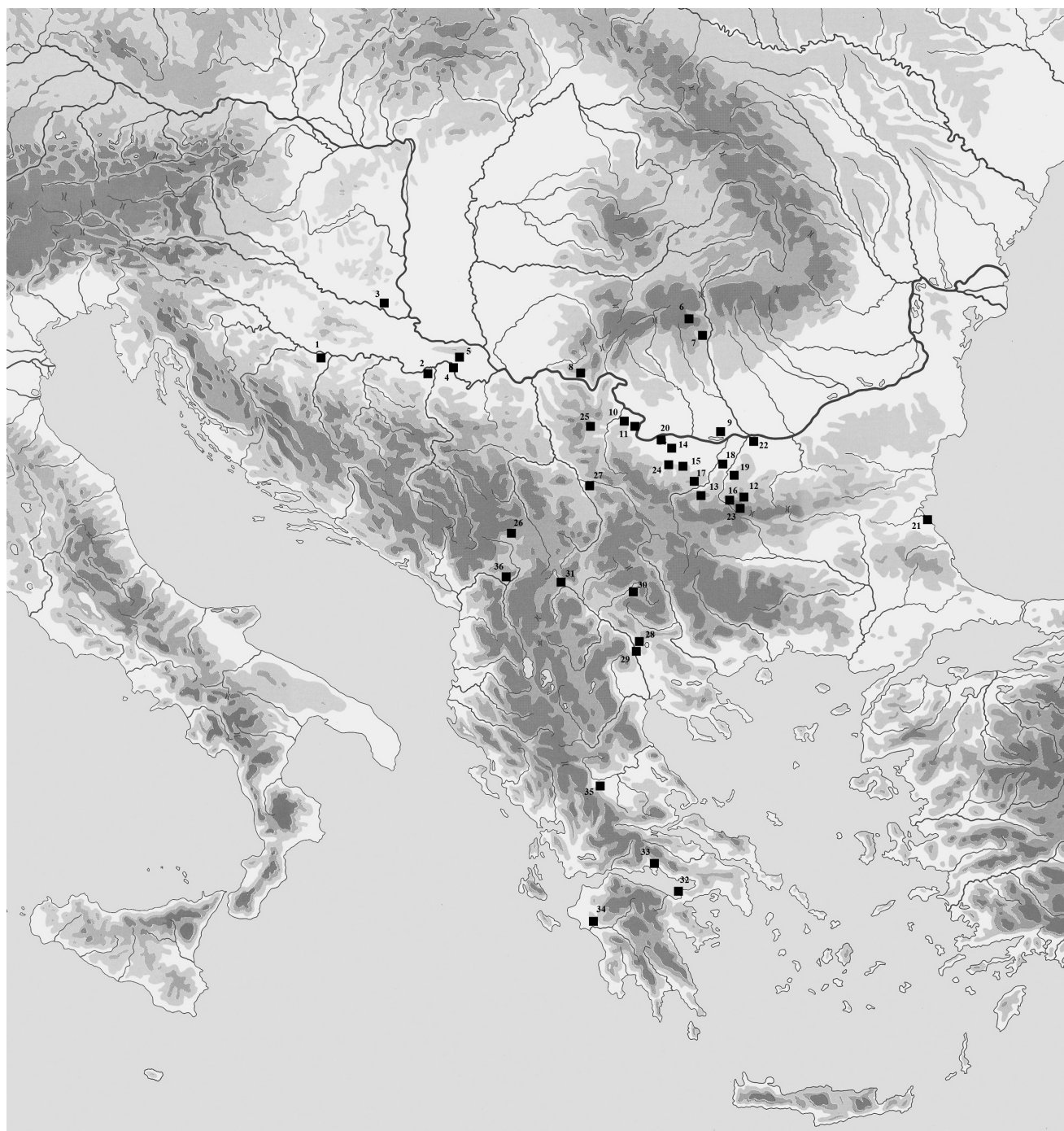
84 Vasić 1977, 24.

85 Zotović 1985, 80, T. XXV: 10–11; T. XXIII: 7.

86 Čović 1967, 39, T. III: 15.

87 Islami 1983, T. III–IV.

88 Videski, 2005, cat. no. 1–8.



Sl. 5. Karta distribucije ažuriranih pojaseva (dopunjeno prema Vasić 1971, Христов 2004).

Fig. 5. Map of the open-work belts distribution (amended according to Vasić 1971, Христов 2004).

Isto se može reći i za jednostavnu, neukrašenu, narukvicu lećastog presjeka sa lokacije Brodić u Dvorovima (T. IV: 23).

AŽURIRANI POJASEVI

Pojasne bronzane garniture rađene u tehnici ažuriranja i graviranja spadaju u najistaknutije funkcionalno-dekoraativne predmete ženske nošnje nastale na tlu Balkana tokom starijeg željeznog doba. Sastoje se od pravougaonih pojasnih pločica i pojasne kopče s modelovanim perforiranim

Age period. The same can be said for a simple, undecorated, lenticular cross-section bracelet from the Brodić in Dvorovi site (T. IV: 23).

OPEN-WORK BELTS

Bronze belt sets made using the open-work (or *ajouré*) technique and engraving are some of the most prominent functional and decorative items of women's costume created in the Balkans during the Early Iron Age. They consist of rectangular belt plates and a belt buckle with a modelled perforated

kružnim krajem. Uvezivane su preko bronzanih spiralnih cjevčica, saltaleona, tekstila i/ili kože.⁸⁹ Karakteristika su, u najvećem broju, ženskih, i to onih bogato opremljenih grobova, često pripadnica najvišeg društvenog statusa. Ažurirani kompozitni pojasevi najčešće se javljaju na prostoru između Velike Morave, Iskera i Dunava.⁹⁰ Takvu distribuciju potvrđuje i velik broj primjeraka s nepoznatih nalazišta iz sjeverozapadne Bugarske, prikupljenih u skorije vrijeme.⁹¹ Svakako, riječ je o obliku nakita supraregionalne distribucije na prostoru od istočne Srbije i zapadne Bugarske, preko Posavine i Srijema, te južnije preko Kosova i Makedonije do Peloponeza.⁹² Hronološki se smještaju u period 7–6. stoljeća ili 2–3. horizonta starijeg željeznog doba R. Vasića.⁹³

Najraniji primjerci otkriveni na nekropolama Donje Doline s početka 20. stoljeća posebno su važni za poznavanje jasne funkcije predmeta i svih njegovih tehničkih izvedbi.⁹⁴ No, već kasnija otkrića pojedinačnih ažuriranih pojasnih pločica, bez preciznih stratigrafskih okolnosti, donijela su i nove interpretacije. Tako je za ažuriranu pojasnu kopču iz Jarčina Zdenko Vinski navodio da se radi o koricama mača iz perioda 8–7. stoljeća, te je svrstao u grupu tzv. *tračko-kimmerskih* nalaza iz Podunavlja.⁹⁵ Isto tako, ažurirani pojas iz Hrtkovaca interpretiran je kao kanije, iako se radi o bogato opremljenom ženskom grobu, što je potvrđeno narukvicama s prekrštenim krajevima iz istog groba.⁹⁶ Ovu interpretaciju prihvatio je V. Lahtov u tumačenju funkcije pojasa s Vučjeg Dola u Makedoniji.⁹⁷

Distribucija pojaseva jasno ukazuje na važnost posavskog pravca u distribuciji materijala i ideja, te regionalnog povezivanja.⁹⁸ Kompozitni pojasevi sastavljeni od bronzanih spiralnih cjevčica i ažuriranih pločica na Donjoj Dolini pojavljuju se tokom donjodolinske faze 2a.⁹⁹ Najraniji primjerak potiče iz bogato opremljenog ženskog groba 3a s grede S. Čagrlje,¹⁰⁰ dok su ostali primjerci uglavnom datovani u sljedeću fazu 2b. Kompozitni pojasevi formiraju se od različitih dijelova, kombinovanjem ažuriranih pločica, spiralnih cjevčica namotavanih, vjerovatno, oko tekstilnih i kožnih uzica i livenih dugmadi za pojas s laticama na obodu i prečkom na donjoj strani, poput pojasa iz groba 4 s grede N. Šokića II.¹⁰¹ Geografski i kulturno najbliže nalazima s Donje Doline jesu ažurirane pojasne garniture iz Dvorova. Pojasne pločice potiču iz razorenih grobova s nekoliko pozicija oko Dvorova. Na lokaciji Brodić ažurirana pojasna garnitura sastavljena od kopče s perforiranim

circular end. They are bound over bronze spiral tubes (*saltaleoni*), textiles and/or leather.⁸⁹ They are mainly characteristic of richly furnished graves of women who were of the highest social status. Such open-work composite belts are most frequently found in the area between the Velika Morava, Iskar and Danube rivers.⁹⁰ This distribution has been further confirmed by a large number of recently-collected specimens from unknown sites in north-western Bulgaria.⁹¹ It can be said to be a form of jewellery of supra-regional distribution, spanning the area from eastern Serbia and western Bulgaria, through Posavina and Syrmia, and further south through Kosovo and Macedonia to the Peloponnese.⁹² Chronologically, they are situated in the period from the 7th to 6th century, or the 2nd to 3rd horizon of the Early Iron Age according to R. Vasić.⁹³

The earliest specimens discovered in the necropolises of Donja Dolina in the early 20th century are especially important for understanding the function of the object and its application within costume.⁹⁴ However, later discoveries of components of open-work belt plates, without precise stratigraphic circumstances, have resulted in new interpretations. Thus, Zdenko Vinski assumed the belt buckle from Jarčin to be a sword scabbard from the 8th to 7th century BCE, classifying it among the group of so-called Thracian-Cimmerian finds from the Podunavlje area.⁹⁵ Likewise, the open-work belt from Hrtkovci has also been interpreted as a scabbard, although it was found in a richly furnished female grave, as confirmed by bracelets with crossed and stamp-shaped ends found in the same grave.⁹⁶ This interpretation was accepted by V. Lahtov in his analysis of the function of a belt from Vučji Dol, in present-day North Macedonia.⁹⁷

The distribution of belts clearly indicates the importance of the Posavina route in the distribution of materials and ideas, as well as regional connectivity.⁹⁸ Open-work belts appear in Donja Dolina during Donja Dolina phase 2a:⁹⁹ the earliest find comes from the richly furnished female Grave 3a from the plot of S. Čagrlja,¹⁰⁰ while other example are predominantly dated to the subsequent phase (i.e. 2b). Composite belts are formed from different parts, by combining open-work plates, spiral tubes wound, most likely, around textile and leather cords, and cast belt buttons with petals on the rim and a bar on the underside, like the belt from Grave 4 from the plot of N. Šokić II.¹⁰¹ Geographically and culturally closest to the finds from Donja Dolina are the open-work belt sets from Dvorovi. Belt plates originate from destroyed graves from several locations around Dvorovi. At the Brodić location, a belt set consisting of a buckle with a perforated sphere, two belt plates (T.

89 Vasić 1971, 1; Чаусидис 2017, 781.

90 Vasić, *op. cit.*, 1; Kilian 1975, 108, T. 84; 1983, 63, T. XII; Gergova 1987, 63; Чаусидис 2017, 781.

91 Христов 2002, 6; 2004, 44, 51; Dizdar 2020, 194.

92 Verger 2011, 35; usp. Dizdar, Kapuran 2021, 179.

93 Васић 1975, 82; Vasić 1977, 18–20; Јевтић 2004, 155; Gavranović 2011, 219; Филиповић 2013, 213; Dizdar 2020, 197.

94 Marić 1964, 37.

95 Вински 1955, 35; Kossack 1954, 129.

96 Vinski, Vinski-Gasparini 1962, 271.

97 Лахтов 1965, 82.

98 Gavranović 2011, 219.

99 Marić 1964, T. VI: 18; Čović 1987a, 241.

100 Truhelka 1904, T. XL: 13–14.

101 Truhelka, *op. cit.*, T. LXXVII: 13–14; Marić 1964, T. X: 6; Čović 1987a, 246.

89 Vasić 1971, 1; Чаусидис 2017, 781.

90 Vasić, *op. cit.*, 1; Kilian 1975, 108, T. 84; 1983, 63, T. XII; Gergova 1987, 63; Чаусидис 2017, 781.

91 Христов 2002, 6; 2004, 44, 51; Dizdar 2020, 194.

92 Verger 2011, 35; Cf. Dizdar, Kapuran 2021, 179.

93 Васић 1975, 82; Vasić 1977, 18–20; Јевтић 2004, 155; Gavranović 2011, 219; Филиповић 2013, 213; Dizdar 2020, 197.

94 Marić 1964, 37.

95 Вински 1955, 35; Kossack 1954, 129.

96 Vinski, Vinski-Gasparini 1962, 271.

97 Лахтов 1965, 82.

98 Gavranović 2011, 219.

99 Marić 1964, T. VI: 18; Čović 1987a, 241.

100 Truhelka 1904, T. XL: 13–14.

101 Truhelka, *op. cit.*, T. LXXVII: 13–14; Marić 1964, T. X: 6; Čović 1987a, 246.

krugom, dvije pločice od pojasa (T. IV: 25) i većim brojem saltaleona (T. IV: 26) evidentirana je u skeletnom grobu, u kombinaciji sa staklenim perlama (T. IV: 24) i fibulama tipa Arareva gromila (T. IV: 17–20).¹⁰² Ovoj grupi pridružuju se i slučajni nalazi bronzanih saltaleona iz arheološke zbirke Muzeja istočne Bosne u Tuzli (T. IV: 27), takođe prikupljeni kao slučajni nalazi sa lokacije Brodić. Ažurirana kopča ima bliske paralele s bogato dekorisanim pojasom iz Karagača na Kosovu datovanim u glasilačku fazu IVC-2.¹⁰³ Za razliku od ostalih pojasnih pločica s većim brojem ažuriranih trouglova, ovaj primjerak s Dvorova odlikuje se uskom pločicom s po četiri probijena trougla u dva reda. Takav raspored ažuriranja vidimo još na pločici iz Kēneta, grob 5/I, u Albaniji, datovanoj u 6–5. stoljeće,¹⁰⁴ i na pločici s nepoznatog nalazišta iz istočne Makedonije.¹⁰⁵ Na mlađu upotrebu svakako ukazuje i to da je pojasna kopča naknadno prepravljena, lemljena i zakrpana s četiri željezne zakovice (sl. 7).¹⁰⁶ Zatim slijede dvije bronzane pločice s prostora stare željezničke stanice u Dvorovima (T. V: 28–29). Ažurirane pločice pronađene su zajedno sa spiralnim bronzanim cjevčicama. Oblik i raspored dekoracija razlikuje se od ranije opisanog pojasa. Pločice su šire, dok su trouglovi sitni i jednakostanični te formirani u nekoliko frizova. Za ovaj oblik pločice pretpostavljeno je starije datovanje od onoga s užim pojasnim pločicama.¹⁰⁷ Oblik i raspored ažuriranih ornamenta pokazuje izravne analogije s pojasnim pločicama iz groba 3a s grede S. Čagrlje iz donjodolinske faze 2a,¹⁰⁸ ali prije svega s ažuriranim pločicama iz groba 71 s nalazišta Dedeli u Makedoniji iz 6. stoljeća.¹⁰⁹ Određene paralele vidimo i s ažuriranim pločicom iz Beremenda, no riječ je o naknadno rekonstruisanom grobu.¹¹⁰ Grobna cjelina datovana je od kraja 6. do prve polovine 5. stoljeća.¹¹¹ Posljednja ažurirana pojasna garnitura otkrivena je na lokaciji Dvorovi – Kućerine. Tri pojasne pločice rađene su u sličnom maniru kao i prethodno opisane, s tim da su nešto uže, pravougaonog oblika (sl. 6: 2; T. II: 12). Prema sačuvanim analogijama s Donje Doline, pojas je bio povezan bronzanim spiralnim cjevčicama, gusto raspoređenim između pločica (T. II: 13).

Ažurirani pojasevi su u najvećem broju evidentirani na teritoriji između rijeka Timoka u Srbiji i Iskera u Bugarskoj, mada je prema nedavno objavljenim nalazima iz regije Trojan u Bugarskoj tu oblast rasprostiranja moguće pomjeriti još istočnije, do rijeke Rosice.¹¹² Upravo je to regija gdje treba tražiti i njihovo zanatsko porijeklo. Ažurirana pojasna garnitura iz Kalnice kod Svrlijiga dosta je rijetka i interesantna morfološka varijanta jer se razlikuje od standardne

IV: 25) and a significant number of saltaleoni (T. IV: 26) was recorded in a skeletal grave, in combination with glass beads (T. IV: 24) and an Arareva gromila-type fibula (T. IV: 17–20).¹⁰² This group also consists of chance finds of bronze saltaleoni held in the archaeological collection of the Museum of East Bosnia in Tuzla (T. IV: 27), also retrieved from the Brodić location. The belt buckle has close similarities with the richly decorated belt from Karagač, Kosovo, dated to Glasinac phase IVC-2.¹⁰³ Unlike the other belt plates with a larger number of open-work triangles, this example from Dvorovi is characterised by a narrow plate with four pierced triangles in two rows. This pattern can also be seen on the Kēnet belt plate, Grave 5/I, from Albania, dated to the 6th–5th century,¹⁰⁴ and on a plate from an unknown site in eastern Macedonia.¹⁰⁵ The fact that the belt buckle was subsequently modified, soldered and patched with four iron rivets (Fig. 7) indicates its use in a later period.¹⁰⁶ Following this are two bronze plates from the site of the old railway station in Dvorovi (T. V: 28–29); these belt plates were found together with spiral bronze tubes. The shape and arrangement of the decorations differ from the previously-described belt: the plate is wider, while the triangles are small and equilateral, and arranged in several columns. This form of plate is assumed to be older than the narrower type.¹⁰⁷ The shape and arrangement of the open-work ornaments shows direct analogies with the belt plates from Grave 3a from the plot of S. Čagrlja from Donja Dolina phase 2a,¹⁰⁸ but primarily with the plate from Grave 71 at the Dedeli site in Macedonia from the 6th century.¹⁰⁹ Certain parallels can also be drawn with the open-work belt plate from Beremend, from a subsequently reconstructed grave.¹¹⁰ The burial complex is dated to the end of the 6th to the first half of the 5th century.¹¹¹ The last part of a belt plate set was discovered at Dvorovi – Kućerine. The three belt plates were made in a similar manner to the ones previously described, with the exception that they are somewhat narrower, and rectangular in shape (Fig. 6: 2; T. II: 12). According to the preserved analogies from Donja Dolina, the belt would have been connected by bronze spiral tubes, which were densely distributed between the plates (T. II: 13).

Most of the open-work belts have been recorded in the territory between the Timok river (in Serbia) and the Iskar (in Bulgaria), although, according to recently published findings from the Troyan region in Bulgaria, it is possible to expand this area of distribution even further to the east, to the Rositsa river.¹¹² This is precisely the region where the artisanal origins of such belts should be sought. The open-work belt set from Kalnica near Svrlijig is a rather rare and interesting morphological variant, because it differs from the standard typologies of Triballi open-work belts, positioning it closer to the belt set from Sofronievo, which dates to the 7th century,¹¹³ or type α, a variant of Sofronievo, according to the typology of D. Ger-

102 Marić 1960, 50.

103 Srećević 1973, 59.

104 Jubani 1983, 109.

105 Videski 2015, kat. br. 224.

106 Marić 1960, 51.

107 Marić 1964, 54.

108 Truhelka 1904, T. XL: 13–14.

109 Videski 2015, kat. br. 226.

110 Jerem 1973, 68.

111 Metzner-Nebelsick 2002, 417; Dizdar 2020, 197.

112 Христов 2002, 6; Филиповић 2013, 215.

102 Marić 1960, 50.

103 Srećević 1973, 59.

104 Jubani 1983, 109.

105 Videski 2015, cat. no. 224.

106 Marić 1960, 51.

107 Marić 1964, 54.

108 Truhelka 1904, T. XL: 13–14.

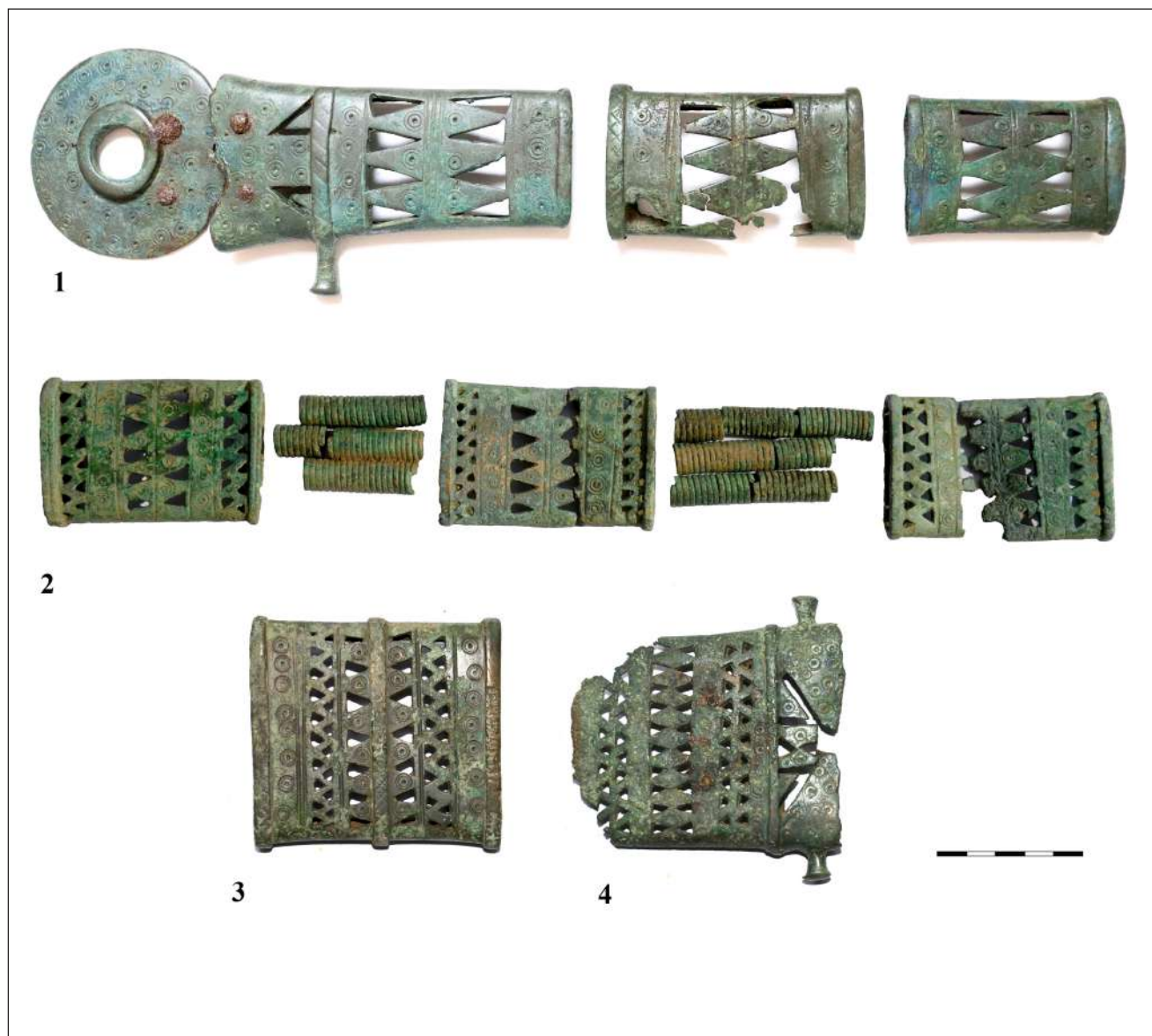
109 Videski 2015, cat. no. 226.

110 Jerem 1973, 68.

111 Metzner-Nebelsick 2002, 417; Dizdar 2020, 197.

112 Христов 2002, 6; Филиповић 2013, 215.

113 Филиповић 2013, 211.



Sl. 6. Ažurirani pojasevi: 1. Dvorovi – Brodić, Zemaljski muzej Bosne i Hercegovine, inv. br. 42059-42061 (snimio: A. Jašarević), 2. Dvorovi – Kučerine, Muzej Semberije, inv. br. bb (snimio: A. Jašarević), 3. Dvorovi – Željeznička stanica, Muzej Semberije, inv. br. A-147 (snimio: A. Jašarević), 4. Dvorovi – Željeznička stanica, Muzej Semberije, inv. br. A-148 (snimio: A. Jašarević).

Fig. 6. Open-work belts: 1. Dvorovi – Brodić, National Museum of Bosnia and Herzegovina, inv. no. 42059-42061 (photo: A. Jašarević), 2. Dvorovi – Kučerine, Semberije Museum, inv. no. bb (photo: A. Jašarević), 3. Dvorovi – Railway station, Semberije Museum, inv. no. A-147 (photo: A. Jašarević), 4. Dvorovi – Railway station, Semberije Museum, inv. no. A-148 (photo: A. Jašarević).

grupe tribalskih ažuriranih pojaseva i čini je bližom poja-
snoj garnituri iz Sofronijeva iz 7. stoljeća,¹¹³ ili tipu α, va-
rijanti Sofronijevo, prema tipologiji D. Gergove, za koju se
pretpostavlja da je preteča klasičnih ažuriranih pojaseva.¹¹⁴
Skoro svi ažurirani pojasevi s teritorije Bugarske dolaze iz
nesigurnog i neutvrđenog arheološkog konteksta. Tako su
i rekonstrukcije često neutemeljene, poput skupnog nala-
za iz Belisha, koji je sadržavao između ostalog i ažurirani
pojas.¹¹⁵ Hipoteza da se radi o simboličkom grobu tračkog
sveštenika je pretenciozno i neutemeljeno postavljena, jer

gova, assumed to be the predecessor of classic open-work
belts.¹¹⁴ Almost all open-work belts from the territory of Bul-
garia come from an uncertain or undetermined archaeolog-
ical context. Thus, the reconstructions are often unfounded,
as with the hoard find from Belish, which contained, among
other things, an *ajouré* open-work belt.¹¹⁵ The hypothesis that
this was a symbolic grave of a Thracian priest is pretentious
and unfounded, because the material was primarily collected
from a devastated tumulus and subsequently reconstruct-
ed.¹¹⁶ Furthermore, the classic open-work belts from Thrace
are exclusively a female-gendered status symbol, with the

¹¹³ Филиповић 2013, 211.

¹¹⁴ Gergova 1987, 62.

¹¹⁵ Христов 2002, 25; 2004, 46.

¹¹⁴ Gergova 1987, 62.

¹¹⁵ Христов 2002, 25; 2004, 46.

¹¹⁶ Ivanova, Kuleff 2009, 28.



Sl. 7. Ažurirani pojas Dvorovi – Brodić, Zemaljski muzej Bosne i Hercegovine, inv. br. 42061 (snimio: A. Jašarević).

Fig. 7. Open-work belt plates Dvorovi – Brodić, National Museum of Bosnia and Herzegovina, inv. no. 42061 (photo: A. Jašarević).

se prvenstveno radi o materijalu koji je sakupljen iz devastiranog tumula koji je naknadno rekonstruisan.¹¹⁶ Nadalje, klasični ažurirani pojasevi iz Trakije isključivo su rodno statusni simbol žena, a u tu kategoriju spada i malobrojni čilibar.¹¹⁷

Prvi morfološki opis ažuriranih pojaseva ponudio je R. Vasić svrstavajući ih u grupu predmeta lokalnog geometrijskog, dekorativnog stila svojstvenog arhaiskom periodu i centralnobalkanskim zajednicama.¹¹⁸ Ažurirani trouglovi organizovani su najčešće u dva naspramna reda, dok su između njih formirani rombovi ukrašeni kružnicama. Urethane kružnice su uglavnom između trouglova, ali se javljaju i na ostalim slobodnim površinama pojasa. Svakako u duhu lokalnih radionica postoji tendencija za što raskošnijim ukrašavanjem pojasa, ali u ograničenim formama i motivima.¹¹⁹ Njihova originalnost odraz je lokalnog stvaralaštva i mjesnih radionica zasnovanih na ranijim modelima oblikovanja bronce, s tim da sada prikazuju raskoš i ukazuju na društvenu hijerarhizaciju žena i ženske nošnje ne samo u lokalnoj zajednici nego i u regionalnom kontekstu. Pojasevi ovoga tipa pokazuju specijalnu formu nakita i specifično

small number of examples of amber belts also falling into this category.¹¹⁷

The first morphological description of such open-work belts was offered by R. Vasić, classifying them in among the group of objects of local geometric, decorative style characteristic of the archaic period and the Central Balkan communities.¹¹⁸ Open-work triangles are usually organised in two opposite rows, with rhombuses decorated with circles between them. Incised circles are mostly seen between the triangles, but they also appear on other free surfaces of the belt. Certainly, in the spirit of local workshops, there was a tendency to decorate belts as lavishly as possible, albeit with a limited range of forms and motifs.¹¹⁹ Their originality is a reflection of local creativity and local workshops based on earlier models of bronze moulding, but in this period they also demonstrate opulence, and point to the social hierarchisation of women and women's costume, not only in the local community but also in the regional context. Belts of this type present a special form of jewellery and a specific understanding of decoration that is also found on other metal objects from the period of a similar shape but with a different purpose, such as equestrian equipment from Sofronievo and Zlotska Cave.¹²⁰ This is also the most widely distributed type of open-work belt in

116 Ivanova, Kuleff 2009, 28.

117 Gergova 2009, 179.

118 Васић 1986, 6.

119 Vasić 1971, 1.

117 Gergova 2009, 179.

118 Васић 1986, 6.

119 Vasić 1971, 1.

120 Vasić, *op. cit.*, 2; Tasić 1980, 48–50; Јеврић 2004, 155.

razumijevanje dekoracije koja se nalazi i na drugim metalnim predmetima iz toga perioda, sličnog oblika, ali druge namjene, poput konjske opreme iz Sofronijeve i Zlotske pećine.¹²⁰ Ovo je ujedno i najrašireniji tip ažuriranog pojasa na teritoriji Bugarske,¹²¹ odakle se proširio na teritoriju kulture Fergile,¹²² ali i dalje na prostor sremske grupe starijeg željeznog doba ili južnije na prostor Makedonije i Grčke.¹²³ U istočnoj Srbiji proizvodnja ovih pojaseva povezana je s grupom Zlot (Zlot – Sofronijevo).¹²⁴ Iznenadjuća je uniformnost koja se malo ili neznatno mijenjala tokom više od 150 godina koliko su bili u upotrebi. Iako je R. Vasić ukazivao na određene estetske elemente preuzete iz grčke umjetnosti,¹²⁵ ovdje je riječ o lokalnom modnom izrazu i ideji kako treba da izgleda raskošna nošnja. Ostali elementi nošnje svakako mogu da se modifikuju s pojansom u zavisnosti od kulturne regije i elemenata lokalne nošnje, tradicije mjesne produkcije, želje i mogućnosti pojedinaca.

FIBULE TIP ARAREVA GROMILA

Na prostoru zapadnog i središnjeg Balkana značajna je uloga pripala fibulama tipa Arareva gromila koje postaju glavno hronološko, kulturno i teritorijalno obilježje, prvenstveno glasinačkog kulturnog kruga, ali i susjednih regija. Fibula tipa Arareva gromila sastoji se od narebrenog luka, s asimetričnom trapezastom nogom i kuglicom na kraju.¹²⁶ Karakteristika starijih varijanti je snažno, čak perlasto narebren i deltoidno profiliran luk. U stručnoj literaturi navedeni tip fibule dobro je razrađen te dosljedno definisan, a karta distribucije konstantno se nadopunjuje podacima iz novijih istraživanja i objava.¹²⁷ Kulturno i hronološki karakteristika su glasinačkog područja (sl. 8), gdje počinju da se javljaju tokom faze IVc-2, budući da su razvijeniji oblici, masivnije i veće fibule, bili značajniji i vodeći za sljedeću, fazu Va.¹²⁸ Najvjerovatnije se razvijaju iz već postojećih glasinačkih tipova poput fibula tipa Borajna ili Potpećina.¹²⁹ Teritorijalna rasprostranjenost i kulturno obilježje priskrbilo im je naziv *glasinačka fibula*, koja se manifestirala u različitim varijantama.¹³⁰

Njihova sjeverna distribucija može se označiti i prema nalazima koji prate tzv. Posavski koridor. U Dvorovima iz uništenog skeletnog groba s lokacije Brodić potiču četiri fibule tipa Arareva gromila u kombinaciji s karakterističnim bronzanim kolutovima (sl. 9: 1; T. IV: 17–21).¹³¹ Pripadaju

Bulgaria,¹²¹ from where it spread to the territory of the Fergile culture,¹²² and further still to the area of the Srem cultural group of the Early Iron Age, and also further south to the area of Macedonia and Greece.¹²³ In eastern Serbia, the production of these belts is connected with the Zlot group (Zlot – Sofronievo).¹²⁴ The uniformity, which changed very little in over a century and a half of these belts' use, is surprising. Although R. Vasić pointed to certain aesthetic elements taken from Greek art,¹²⁵ this is a local expression of fashion and the idea of how a lavish costume would look. Other elements of the costume could certainly be modified along with the belt, depending on the cultural region and elements of the local costume, the tradition of local production, and the wishes and possibilities of individuals.

THE ARAREVA GROMILA-TYPE FIBULAE

In the area of the Western and Central Balkans, the Arareva gromila-type fibulae are highly significant for being the main chronological, cultural and territorial feature, primarily of the Glasinac cultural circle, but also of the neighbouring regions. Arareva gromila-type fibulae consist of a ribbed bow, with an asymmetrical trapezoidal leg and a globular thickening at their end.¹²⁶ A strongly ribbed, even pearl-shaped, bow with a triangular cross-section is a characteristic of the older variants. This type of fibula is comprehensively analysed and consistently defined in the literature, while the distribution map is constantly being updated with data obtained from more recent research and publications.¹²⁷ They are culturally and chronologically characteristic of the Glasinac area (Fig. 8), where they begin to appear during phase IVc-2, although the more developed forms, i.e. more massive and larger fibulae, were more significant and prominent in the subsequent phase, Va.¹²⁸ They most likely developed from the already-existing Glasinac types, such as the Borajna- or Potpećina-type fibulae.¹²⁹ The name *Glasinac fibula* stems from their territorial distribution and cultural aspect, which manifested itself in different variants.¹³⁰

The northern distribution of such fibulae can also be delineated according to the finds running along the so-called Posavina corridor. In Dvorovi, four Arareva gromila-type fibulae combined with characteristic bronze rings came from a destroyed skeletal grave from the Brodić location (Fig. 9: 1; T. IV: 17–21).¹³¹ These all belong to the same variant, with a ribbed bow and a foot decorated with transverse lines, with an elongated (even arrowhead-shaped) terminus. The closest spatial analogies can be found in Trnovice near Zvornik, in the richly furnished cremation Grave 2/II, whose inventory

120 Vasić, *op. cit.*, 2; Tasić 1980, 48–50; Јевтић 2004, 155.

121 Атанасова, Кичашки 1965, 52; Gergova 1987, 62.

122 Vulpe 1967, 71.

123 Verger 2011, 35.

124 Vasić 1987b, 671; Филиповић 2013, 215; Капуран *et al.* 2014, 59; Filipović 2014, 50.

125 Vasić 1971, 8.

126 Benac, Čović 1957, 49; Lucentini 1981, 75; Teržan 1987, 19; Parzinger 1991, 217; Vasić 1999, 95; Lippert 2004, 18; Blečić Kavur, Miličević-Capek 2011, 43; Gavranović 2011, 202.

127 Dizdar 2019, 327.

128 Blečić Kavur, Miličević-Capek 2011, 43.

129 Teržan 1987, 19; Gavranović 2011, 202.

130 Blečić Kavur, Miličević-Capek 2011, 43.

131 Marić 1960, 54–55, T. V: 1–3.

121 Атанасова, Кичашки 1965, 52; Gergova 1987, 62.

122 Vulpe 1967, 71.

123 Verger 2011, 35.

124 Vasić 1987b, 671; Филиповић 2013, 215; Капуран *et al.* 2014, 59; Filipović 2014, 50.

125 Vasić 1971, 8.

126 Benac, Čović 1957, 49; Lucentini 1981, 75; Teržan 1987, 19; Parzinger 1991, 217; Vasić 1999, 95; Lippert 2004, 18; Blečić Kavur, Miličević-Capek 2011, 43; Gavranović 2011, 202.

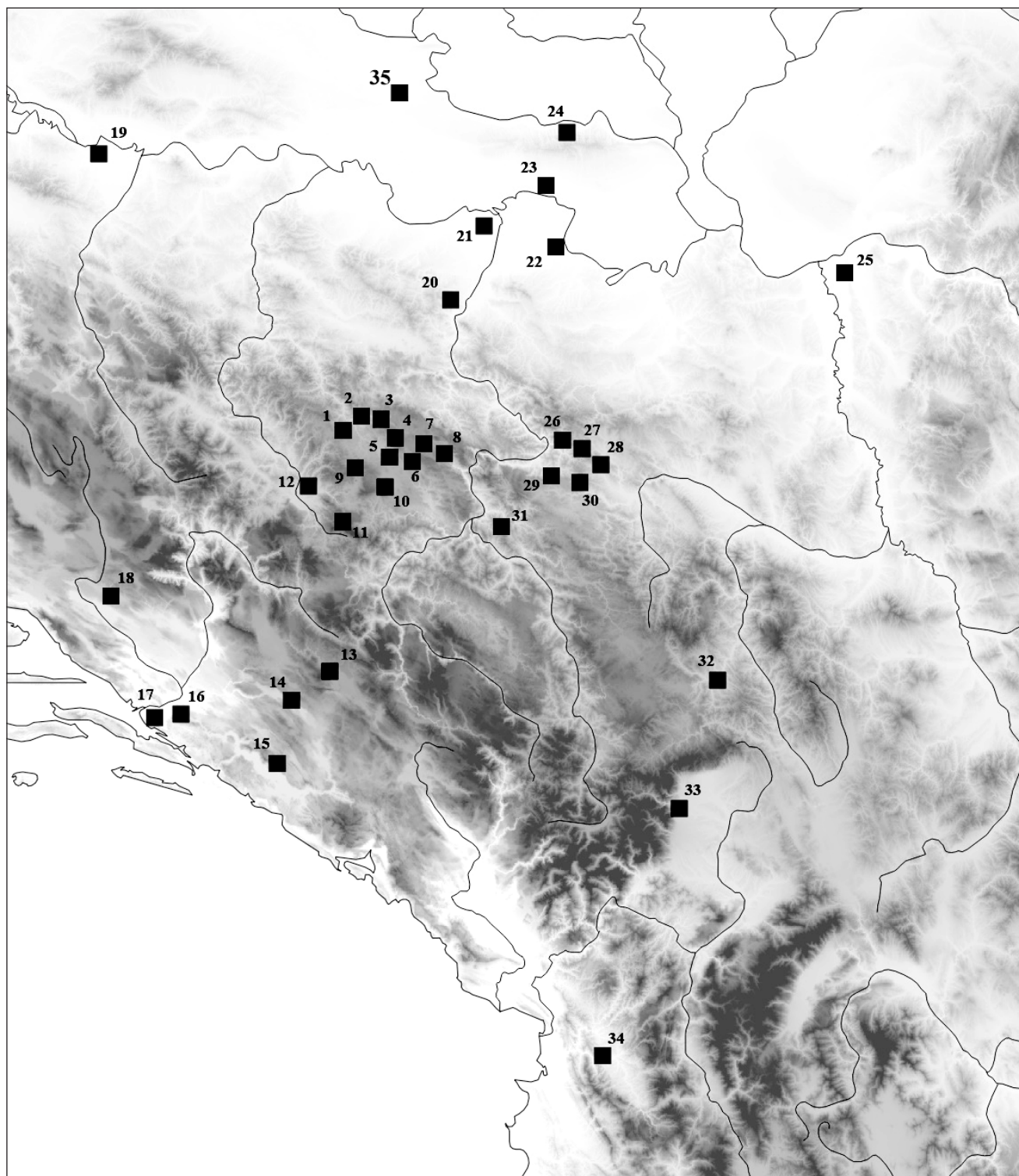
127 Dizdar 2019, 327.

128 Blečić Kavur, Miličević-Capek 2011, 43.

129 Teržan 1987, 19; Gavranović 2011, 202.

130 Blečić Kavur, Miličević-Capek 2011, 43.

131 Marić 1960, 54–55, T. V: 1–3.



Sl. 8. Karta distribucije fibula tipa Arareva gromila (dopunjeno prema Blečić Kavur i Miličević-Capek 2011).

Fig. 8. Arareva gromila-type fibula distribution map (amended according to Blečić Kavur and Miličević-Capek 2011).

istima varijantama sa narebrenim lukom i stopom ukrašenom poprečnim linijama, dok je kuglica izdužena čak streličasto modelovana. Prostorno najbliže analogije pronalazimo u Trnovicama kod Zvornika, u bogato opremljenom paljevinskom grobu 2/II, koji svojim inventarom u potpunosti odgovara istovremenim grobovima s Glasinca

fully corresponds to the Glasinac graves from the same period (i.e. phase Va). The burial inventory contained five Arareva gromila-type fibulae (Fig. 9: 2), two Mramorac-type bracelets made of hammered bronze sheet, four Scythian bronze arrows, and a string of amber and glass beads.¹³² The same

¹³² Косорић 1983, 31.

iz faze Va. Pogrebni inventar sadržao je pet fibula tipa Arareva gromila (sl. 9: 2), dvije narukvice od iskucanog bronzanog lima tipa Mramorac, četiri skitske bronzane streljice i nisku od čilbarskih i staklenih perli.¹³² Isto datovanje potvrđeno je i za fibule iz Jele kod Šapca.¹³³ U susjednim regijama, vremenski je usklađena pojava. Na Donjoj Dolini pronađena je u dva groba. Ranija varijanta s perlato narebrenim lukom potiče iz groba 35 s grede M. Petrovića ml. (sl. 11).¹³⁴ Na hronološki okvir grobne cjeline osvrnula se Biba Teržan i nalazima iz groba odredila moguću gornju granicu upotrebe oko sredine 6. stoljeća.¹³⁵ Za nešto mlađe datovanje opredijelio se Borivoje Čović koji grobnu cjelinu smješta u donjodolinsku fazu 2c, posljednju četvrtinu 6. stoljeća.¹³⁶ Nora Lucentini je grob datovala prvenstveno preko importovane zmijolike fibule u period između 575. i 525/500. godine.¹³⁷ Zmijolika fibula pripada tipu Va.¹³⁸ No ipak, pojava ovoga tipa fibule ne znači nužno i precizan hronološki okvir s obzirom na to da je pojava zmijolikih fibula tipa Va karakteristika dužeg vremenskog perioda Dolenjske, od kraja faze Stična 2 do rane certoške.¹³⁹ Kako su istaknule Martina Blečić Kavur i Ivanka Miličević-Capek, svakako mogu poslužiti za hronološko ujednačavanje na širem području središnjeg i zapadnog Balkana.¹⁴⁰ Mlađa varijanta fibule tipa Arareva gromila poznata je iz groba 29 sa Šokićeve grede,¹⁴¹ takođe u kombinaciji sa zmijolikom fibulom, ovog puta tipa IVb, sa sedlasto modelovanim lukom i diskom.¹⁴² Fibule ovoga tipa datuju se na prostoru Dolenjske od polovine 6. do početka 5. stoljeća.¹⁴³ Distribucija fibula u središnjoj Bosni dobro je dokumentovana s nalazima iz uništenih grobova u Gračanici kod Visokog, koji su datovani u 5. fazu razvoja srednjobosanske kulturne skupine.¹⁴⁴ Fibule tipa Arareva gromila s narebrenim lukom u kontekstu narukvice od bronzanog lima iz Gračanice ukazuju na njihovo korištenje tokom glasinacke faze Va, ali svakako prije sredine 5. stoljeća.¹⁴⁵ Na prostoru istočne Hercegovine fibule tipa Arareva gromila postaju karakteristika 5. faze razvoja željeznog doba južnojadranskog područja ili perioda glasinacke faze Va, kada se javljaju u kombinacijama s vodećim tipovima fibula 5. stoljeća.¹⁴⁶ Po nalazu iz Gruda saznajemo da se fibula tipa Arareva gromila mogla nositi i s fibulom tipa protocertosa, što je kasnije potvrđeno i primjerkom iz Vranjeva Sela kod Neuma.¹⁴⁷ Iz grobne jame u Kačnju primjerci fibula tipa Arareva gromila nađeni

dating was confirmed for the fibulae from Jela near Šabac.¹³³ In the neighbouring regions, i.e. those from a geographically close cultural circle, such fibulae also occur, dated to the same period, including two fibulae found in graves at Donja Dolina, with an earlier variant with a beaded arch also coming from Grave 35 from the plot of M. Petrović jr. (Fig. 11);¹³⁴ Biba Teržan provided a chronological limit to the use of this fibula, dating the grave to around the middle of the 6th century through artefacts accompanying the burial.¹³⁵ According to B. Čović, these fibulae were used during Donja Dolina phase 2c, i.e. the final quarter of the 6th century.¹³⁶ Nora Lucentini dated the grave to the period between the years 575 and 525/500, primarily on the basis of an imported serpentine fibula¹³⁷ belonging to type Va.¹³⁸ However, the appearance of this type of fibula does not necessarily imply a precise chronological framework, considering that the appearance of serpentine fibulae of type Va is a characteristic of a longer period at Dolenjska, from the end of Stična phase 2 to the early Certosa phase.¹³⁹ As pointed out by Martina Blečić Kavur and Ivanka Miličević-Capek, they can certainly serve, however, for the purpose of chronological standardisation across the wider area of the Central and Western Balkans.¹⁴⁰ A younger variant of the Arareva gromila-type fibula is known from Grave 29 at the plot of N. Šokić in Donja Dolina,¹⁴¹ also in combination with a serpentine fibula, this time of type IVb, which incorporates a saddle-shaped bow and disc.¹⁴² Fibulae of this type from the Dolenjska area date from the middle of the 6th to the beginning of the 5th century.¹⁴³ The distribution of fibulae in central Bosnia is well-documented, with finds from destroyed graves in Gračanica near Visoko dated to the 5th phase of development of the Central Bosnian cultural group.¹⁴⁴ The presence of Arareva gromila-type fibulae with a ribbed bow in the context of a bronze sheet bracelet from Gračanica indicates their use during Glasinac phase Va, but certainly before the middle of the 5th century.¹⁴⁵ On the territory of eastern Herzegovina, the Arareva gromila-type fibulae become a characteristic of the 5th phase of the development of the the Southern Adriatic Iron Age, synchronous to Glasinac phase Va, when they appear in combinations with the most dominant types of 5th-century fibulae.¹⁴⁶ A find from Grude indicates that the Arareva gromila-type fibula could also have been worn with the proto-Certosa-type fibula, which was later confirmed by the find from Vranjevo Selo, near Neum.¹⁴⁷ From the collective inhumation in Kačanj, the Arareva gromila-type fibulae were found in combination with the Novi Pazar-type fibulae, which confirms their dating to the first half of the 5th century.¹⁴⁸ A reliable analogy for the dating of this grave is seen in similar

132 Косорић 1983, 31.

133 Vasić 1977, 26; cf. Васиљевић 1976, 169.

134 Truhelka 1902, 269, T. XV: 11–12.

135 Teržan 1987, 19.

136 Marić 1964, 40, T. XIII: 11–12; Čović 1987a, 252.

137 Lucentini 1981, 110.

138 Tecco Hvala 2014, 133–134.

139 Tecco Hvala, *op. cit.*, 152.

140 Blečić Kavur, Miličević-Capek 2011, 45.

141 Truhelka 1902, 525, T. XXVII: 14.

142 Tecco Hvala 2014, 131.

143 Tecco Hvala, *op. cit.*, 150.

144 Čović 1984, 37; 1987b, 502–503.

145 Čović 1987b, 504.

146 Marijan 2001, 86–87.

147 Финал 1897, 658; Blečić Kavur, Miličević-Capek 2011, 43.

133 Vasić 1977, 26; cf. Васиљевић 1976, 169.

134 Truhelka 1902, 269, T. XV: 11–12.

135 Teržan 1987, 19.

136 Marić 1964, 40, T. XIII: 11–12; Čović 1987a, 252.

137 Lucentini 1981, 110.

138 Tecco Hvala 2014, 133–134.

139 Tecco Hvala, *op. cit.*, 152.

140 Blečić Kavur, Miličević-Capek 2011, 45.

141 Truhelka 1902, 525, T. XXVII: 14.

142 Tecco Hvala 2014, 131.

143 Tecco Hvala, *op. cit.*, 150.

144 Čović 1984, 37; 1987b, 502–503.

145 Čović 1987b, 504.

146 Marijan 2001, 86–87.

147 Финал 1897, 658; Blečić Kavur, Miličević-Capek 2011, 43.

148 Marić 1959, 92, T. II: 5; 1976, 109, T. II, 1–29.



Sl. 9. Fibule tipa Arareva gromila: 1. Dvorovi – Brodić, Zemaljski Muzej Bosne i Hercegovine, inv. br. 42066 (snimio: A. Jašarević), 2. Trnovice, grob 2/II, Muzej istočne Bosne, inv. br. bb (snimio: A. Jašarević).

Fig. 9. The Arareva gromila-type fibulae: 1. Dvorovi – Brodić, National Museum of Bosnia and Herzegovina, inv. no. 42066 (photo: A. Jašarević), 2. Trnovice, Grave 2/II, Museum of East Bosnia, inv. no. bb (photo: A. Jašarević).

su u kombinaciji s fibulama tipa Novi Pazar, što potvrđuje njihovo datovanje u prvu polovinu 5. stoljeća.¹⁴⁸ Pouzdanu analogiju za datovanje ovoga groba vidimo u sličnim inventarima, prvenstveno iz grobova 2/IX, 1/XI i 1/XXI u Potpećinama,¹⁴⁹ datovanih u ranu glasinacku fazu Va.¹⁵⁰ Najsjeverniji primjerci potiču iz skupine slučajnih nalaza s lokaliteta Banoštor u Sremu¹⁵¹ i, noviji, s lokaliteta Vinkovci-Dren u Srijemu.¹⁵² U Banoštoru se javlja fibula s izrazito narebrenim lukom kakve nalazimo kod ranijih primjeraka, a što je potvrđeno i nalazom višeglave igle tipa Donja Dolina datovane u donjodolinsku fazu 2b,¹⁵³ dok je isti tip iz okoline Vinkovaca prema urezanim cik-cak ornamentima na stopi moguće povezati s fibulom iz Jele.¹⁵⁴ Za sada je njihova južna granica distribucije ograničena poznatim nalazom s lokaliteta Mat-Bazje u Albaniji.¹⁵⁵

Opisana fibula značajna je karakteristika ženskih grobova, gdje ih nalazimo u kontekstu ekskluzivne nošnje poput nalaza iz aristokratskog groba u Novom Pazaru.¹⁵⁶ Nešto rjeđe nalazimo ih i među muškim ratničkim grobovima, što pak potvrđuju grobovi s Glasinca.¹⁵⁷ Iz paljevinskog,

inventories, primarily from Graves 2/IX, 1/XI and 1/XXI in Potpećine,¹⁴⁹ which have been dated to the early stage of Glasinac phase Va.¹⁵⁰ The northernmost examples come from a group of chance finds from the Banoštor site in Syrmia¹⁵¹ and, more recently, from the Vinkovci-Dren site in Syrmia.¹⁵² In Banoštor, an example of a fibula with a distinctly ribbed arch, similar to that found in earlier specimens, has also been found, which is further confirmed by the finding of a multi-headed pin of the Donja Dolina type dated to Donja Dolina phase 2b,¹⁵³ while the same type from the Vinkovci area can be linked to the fibula from Jela, based on the engraved zigzag ornaments on the foot.¹⁵⁴ At present, the Mat-Bazje site in Albania is the limit of their southern distribution.¹⁵⁵

The described fibula is a significant characteristic of female graves, where we find them in the context of exclusive costumes, an example of which is an aristocratic grave in Novi Pazar.¹⁵⁶ They are rather less frequently found in male warrior graves, as established by the graves from Glasinac.¹⁵⁷ In addition to the fragmented Illyrian type IIIA2 helmet, twelve Arareva gromila-type fibulae with accompanying bronze rings were found in a male warrior cremation Grave 3/VIII

148 Marić 1959, 92, T. II: 5; 1976, 109, T. II, 1–29.

149 Benac, Čović 1957, T. XXXIII: 1–12; T. XXXIV: 1–15.

150 Čović 1987c, 627; Kocopiћ 1983, 34.

151 Vasić 1989, 104–105; 1999, 96.

152 Dizdar 2019, 327, fig. 1: 2.

153 Čović 1987a, 241, 246.

154 Dizdar 2019, 328.

155 Vasić 1999, 96; Gavranović 2011, 202.

156 Čović 1987c, 630.

157 Blečić Kavur, Miličević-Capek 2011, 44.

149 Benac, Čović 1957, T. XXXIII: 1–12; T. XXXIV: 1–15.

150 Čović 1987c, 627; Kocopiћ 1983, 34.

151 Vasić 1989, 104–105; 1999, 96.

152 Dizdar 2019, 327, fig. 1: 2.

153 Čović 1987a, 241, 246.

154 Dizdar 2019, 328.

155 Vasić 1999, 96; Gavranović 2011, 202.

156 Čović 1987c, 630.

157 Blečić Kavur, Miličević-Capek 2011, 44.

muškog ratničkog groba 3/VIII u Rusanovićima, pored fragmentovane ilirske kacige tipa IIIA2, potiče i dvanaest fibula tipa Arareva gromila s pripadajućim bronzanim kolotovima.¹⁵⁸ Mogle su da se nose pojedinačno, u paru ili u kombinaciji s drugim tipovima fibula ili s pridodanim ukrasima ili drugim nakitom.¹⁵⁹ Primjerak iz Arareve gromile, grob 1/I, pruža nam oslonac za hronološko pozicioniranje početka njihovog korištenja od treće četvrtine 6. stoljeća,¹⁶⁰ dok nam primjerak iz Vražića, grob 5/III, u kombinaciji s fibulom tipa Certosa, varijante V daje donju granicu njihove upotrebe oko sredine 5. stoljeća.¹⁶¹

PLOČASTA FIBULA TIP DONJA DOLINA

Kružne metalne pločice rađene od presovanog, bronzanog lima te ukrašene u tehnici iskucavanja, urezivanja i ažuriranja poznate su pod nazivom pločaste fibule tipa Donja Dolina. Po brojnosti i tipološkim varijantama ističu se upravo nalazi s Donje Doline, gdje se javljaju kroz nekoliko generacija u rasponu od više od jednog stoljeća, ponajviše na nekropoli i znatno manje na Gradini ili kao slučajni nalazi iz uništenih grobnih inventara s greda.¹⁶² Iako su slične varijante zastupljene od Hallstatta do Male Azije, nigdje kao na Donjoj Dolini njihova upotreba nije postala tako masovno prihvaćena kao normativni funkcionalno-dekorativni element istaknutog ženskog kostima.¹⁶³ Ovoj grupi pridružuje se i nalaz pločaste fibule istog tipa s lokacije Dvorovi – Kućerine. Izrađena od jednog komada kružnog bronzanog lima sa centralnim ispupčenjem i sa po dva koncentrična reda manjih ispupčenja koja su nadalje omeđena sitnim tačkastim ubodima u tri jednaka koncentrična kruga (sl. 10, T. III: 14). Kartu njihove distribucije predložila je B. Teržan. Tu se jasno može zaključiti da su ovom tipu pribrojane sve varijante kružnih pločastih fibula, pa čak i one koje ne odgovaraju tipološki ili pak hronološki tipu donjodolinskih pločastih fibula.¹⁶⁴ To se prije svega odnosi na fibulu iz groba 2 s grede M. Petrovića iz donjodolinske faze 2a,¹⁶⁵ čije približne inačice vidimo u fibulama sa nalazišta Ferigile i Krivodol.¹⁶⁶

Distribuciju fibula tipa Donja Dolina iz faze 2a treba posmatrati u neposrednoj povezanosti s panonskim prostorom ili bar bližom okolicom Szentes-Vekerzuga.¹⁶⁷ Za najstariji oblik fibule iz groba 3a s grede Stipe Čagrlje karakterističan je ažurirani trouglasti rub i veće dimenzije. Gotovo identičnu izradu ažuriranog ukrasa poznajemo kod fibula iz groba 3 s grede M. Petrovića, ali i dječijeg groba 5 s grede N. Šokića.¹⁶⁸ Geografski udaljenije, ali izravne pa-

in Rusanovićima.¹⁵⁸ They could have been worn individually, in pairs, in combination with other fibula types, or with added ornaments or other jewellery.¹⁵⁹ The Arareva gromila-type fibula from Grave 1/I provides us with support for the chronological positioning of the beginning of their use to the third quarter of the 6th century,¹⁶⁰ while the specimen from Vražići, Grave 5/III, in combination with a fibula of the Certosa type, variant V, provides us with the lower limit of their use, at around the middle of the 5th century.¹⁶¹

THE DONJA DOLINA-TYPE PLATE FIBULA

Circular metal plates made of pressed bronze sheet and decorated with technique of embossing, engraving and open-work techniques are known as Donja Dolina-type plate fibulae. The finds from Donja Dolina stand out in terms of number and typological variants, where they appear over several generations across a period spanning more than a century, mostly in the necropolis, and to a much lesser extent in settlement at Gradina or as chance finds from destroyed grave inventories from plots.¹⁶² Although similar variants are present from Hallstatt to Asia Minor, nowhere was their use so widely accepted as a normative functional-decorative element of prominent female costume as in Donja Dolina.¹⁶³ A plate fibula of the same type from the Dvorovi – Kućerine location is also part of this group. It was made of a single piece of circular bronze sheet with a central bulge and two concentric rows of smaller bulges, and decorated at the edge with small dotted punctures in three equal concentric circles (Fig. 10, T. III: 14). A map of their distribution was proposed by B. Teržan. It can be clearly concluded that this type includes all variants of circular plate fibulae, and even those that do not correspond typologically or chronologically to the Donja Dolina-type plate fibula.¹⁶⁴ This primarily refers to the fibula from Grave 2 at the plot of M. Petrović from Donja Dolina phase 2a,¹⁶⁵ whose approximate equivalents can be seen in the fibulae from the Ferigile and Krivodol sites.¹⁶⁶

The distribution of the Donja Dolina-type fibulae from phase 2a should be interpreted in direct connection with the Pannonian area, or at least with the closer surroundings of Szentes-Vekerzug.¹⁶⁷ The oldest form of fibula from Grave 3a from the plot of Stipe Čagrlja is characterised by an open-work triangular edge and larger dimensions. Almost identical production of the open-work decoration is known from the fibula from Grave 3 from the plot of M. Petrović, but also from the child's Grave 5 from the plot of N. Šokić.¹⁶⁸ Although geographically more distant, direct parallels can be drawn with finds in Hungary, namely from the Szentes-Vekerzug necropolis.¹⁶⁹ Currently, there are no known analogies that could

158 Blečić Kavur, Pravidur 2012, 71, sl. 13: 1–13.

159 Vasić 1999, 96; Blečić Kavur, Miličević-Capek 2011, 44.

160 Vasić 2009, 110.

161 Teržan 1976, sl. 46; 1987, 19; Blečić Kavur, Miličević-Capek 2011, 44.

162 Truhelka 1901, 279, sl. 44; Truhelka 1902, T. VIII: 2.

163 Čović 1987a, 246; Gavranović 2011, 192.

164 Teržan 1990, karta 6.

165 Čović 1987a, 240.

166 Vulpe 1967, T. XXIII: 1–2; Bader 1983, 105.

167 Marić 1964, 42.

168 Truhelka 1902, 536; 1903, 538–539, T. L: 22; Marić 1964, T. IX: 19; Potrebica

158 Blečić Kavur, Pravidur 2012, 71, fig. 13: 1–13.

159 Vasić 1999, 96; Blečić Kavur, Miličević-Capek 2011, 44.

160 Vasić 2009, 110.

161 Teržan 1976, fig. 46; 1987, 19; Blečić Kavur, Miličević-Capek 2011, 44.

162 Truhelka 1901, 279, fig. 44; Truhelka 1902, T. VIII: 2.

163 Čović 1987a, 246; Gavranović 2011, 192.

164 Teržan 1990, map 6.

165 Čović 1987a, 240.

166 Vulpe 1967, T. XXIII: 1–2; Bader 1983, 105.

167 Marić 1964, 42.

168 Truhelka 1902, 536; 1903, 538–539, T. L: 22; Marić 1964, T. IX: 19; Potrebica 2003, 221.

169 Párducz 1954, 70; Marić 1964, 42; Kemenczei 2009, 75; Kozubová 2018, 39;



Sl. 10. Pločasta fibula tipa Donja Dolina, Dvorovi – Kućerine, Muzej Semberije, inv. br. bb (snimio: A. Jašarević).

Fig. 10. The Donja Dolina-type plate fibula, Dvorovi – Kućerine, Museum of Semberija, inv. no. bb (photo: A. Jašarević).

ralele nalaze se na prostoru Mađarske, i to na nekropoli Szentes-Vekerzug.¹⁶⁹ Za sada nema poznatih analogija na osnovu kojih bi se moglo govoriti o mogućem porijeklu fibula sa Szentes-Vekerzuga.¹⁷⁰ No, s obzirom na netipičan oblik, vrlo je vjerovatno da je riječ o originalnom lokalnom proizvodu, koji se moguće razvio pod uticajem pontsko-skitskih radionica.¹⁷¹ Na poseban status žena sa ove nekropole osvrnula se B. Teržan sa saradnicama u kontekstu pojave pločastih fibula.¹⁷² Fibule su dio nakita nekoliko bogato opremljenih grobova žena, a vjerovatno i muškaraca. Ženska nošnja grupe Vekerzug razlikuje se od drugih skitskih ili nomadskih skupina u kojima fibule nisu bile normativni dio nošnje, iako se ponekad pojavljuju, obično kao importovani nakit (Mârişelu). Njihovo tumačenje kao solar-nog motiva i simbola ženskog principa svakako je moguće, ali kontekst i poređenje s figuralnom pločicom tipa *Venus Pudica* iz Atine osim formalne sličnosti u oblikovanju diska nije uvjerljivo.¹⁷³ Kulturno, hronološki i ideološki, pa na kraju i umjetnički, ona je dio istočnomediterranskog kulturnog kruga s kraja geometrijskog perioda.¹⁷⁴

Uprkos određenim sličnostima, fibule s Donje Doline većinom su nošene u parovima, te su većih dimenzija i raskošnije ornamentisane. Kao i prethodno opisani oblici, karakteristika su bogato opremljenih ženskih i dječijih

provide elements to discuss the possible origin of fibulae from Szentes-Vekerzug.¹⁷⁰ However, considering the atypical shape, it is highly likely that it is an original local product, which may have developed under the influence of the Pontic-Scythian workshops.¹⁷¹ B. Teržan and her colleagues discussed the special status of women from this necropolis in the context of the findings of plate fibulae.¹⁷² Fibulae are part of the jewellery of several richly furnished graves of women, and probably also of men. The female costume of the Vekerzug group differs from other Scythian or nomadic groups in which fibulae were not a normative part of the costume (although they do, however, sometimes appear, usually as imported jewellery, as at Mârişelu). Their interpretation as a solar motif and symbol of feminine attributes is certainly possible, but the context and comparison with the *Venus Pudica*-type figural plate from Athens, apart from the formal similarity in the design of the disk, is not convincing.¹⁷³ Culturally, chronologically and ideologically, as well as artistically, this can be seen to be part of the Eastern Mediterranean cultural circle from the late geometric period.¹⁷⁴

Despite certain similarities, the Donja Dolina fibulae were mostly worn in pairs, and are larger in size and more lavishly ornamented. Like the previously described forms, they are characteristic of richly furnished women's and children's graves, with their use being more prominent during phase 2b.¹⁷⁵ Although simple in terms of technology, their decorativeness and gender- and status-related symbolism ensured

2003, 221.

169 Párducz 1954, 70; Marić 1964, 42; Kemenczei 2009, 75; Kozubová 2018, 39; Dizdar, Kapuran 2021, 186.

170 Kemenczei 2009, 75; Kozubová 2019, 121.

171 Pare 1998, 373; Kozubová 2019, 122.

172 Teržan *et al.* 2011, 268.

173 Teržan *et al.*, *op. cit.*, 269, fig. 13.

174 Tanner 2013, 25–26.

Dizdar, Kapuran 2021, 186.

170 Kemenczei 2009, 75; Kozubová 2019, 121.

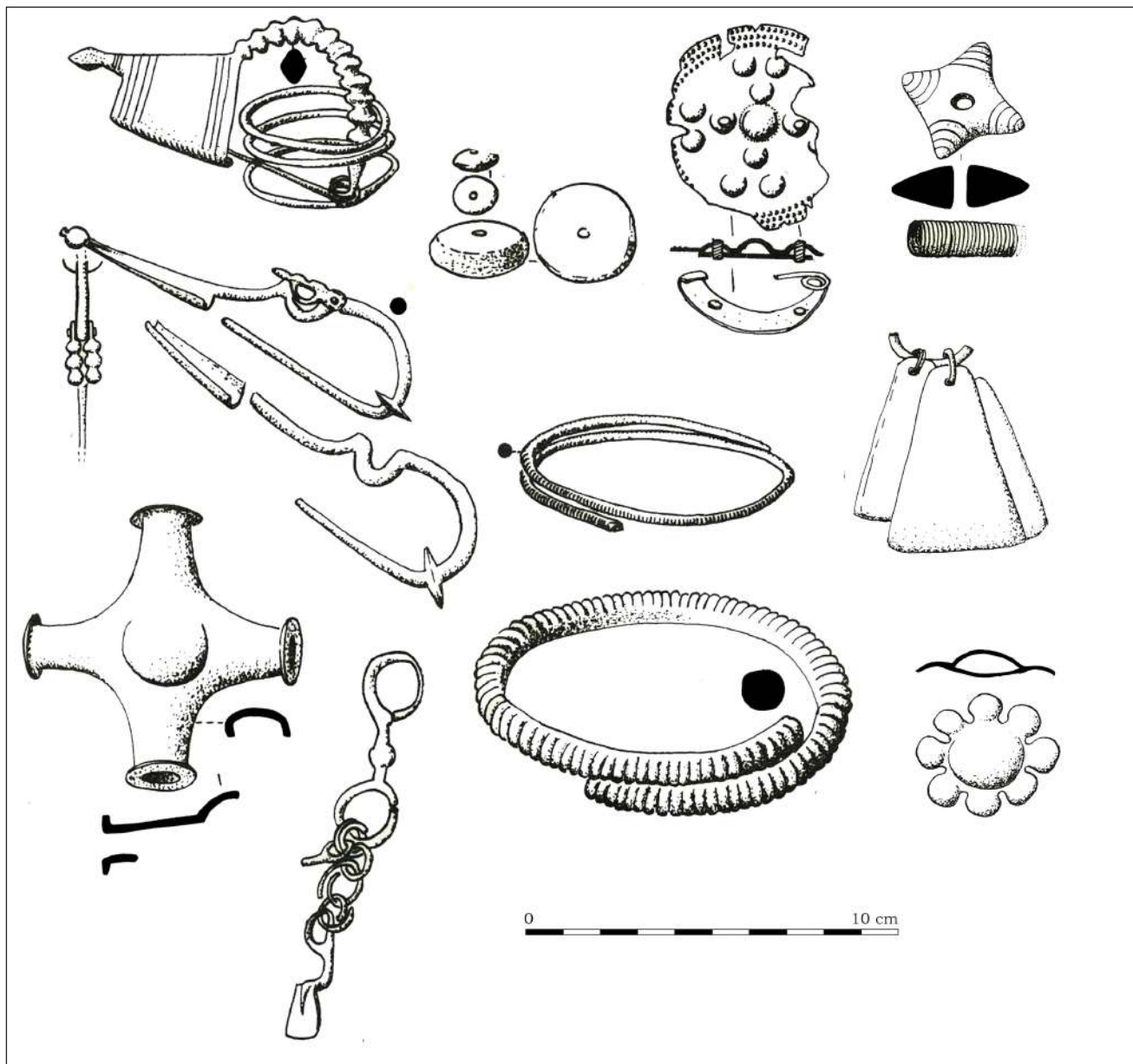
171 Pare 1998, 373; Kozubová 2019, 122.

172 Teržan *et al.* 2011, 268.

173 Teržan *et al.*, *op. cit.*, 269, fig. 13.

174 Tanner 2013, 25–26.

175 Čović 1987a, 252.



Sl. 11. Donja Dolina, grob 35 s grede M. Petrovića ml. (prema: Čović 1961, Y27).

Fig 11. *Donja Dolina, Grave 35 from the plot of M. Petrović jr. (from: Čović 1961, Y27).*

grobova sa značajnijom upotrebom tokom faze 2b.¹⁷⁵ Iako jednostavne u tehnološkom pogledu, njihova dekorativnost te rodni i statusni simbol osigurali su im dug opstanak u lokalnoj nošnji. U donjodolinskoj fazi 2b dominiraju pločaste fibule s ukrašenim iskucanim elementima, s rubom ukrašenim sitnim punktiranim koncentričnim krugovima.¹⁷⁶ Urezani dekorativni elementi, svastike ili pak spirale u formi svastike, naslijeđeni su iz prethodne faze. Motiv svastike najčešće se interpretira kroz solarnu ili astralnu simboliku apotropejske zaštite.¹⁷⁷ Sličan motiv vidimo na kružnoj pločastoj fibuli iz Jakowa u Bugarskoj, datovanoj u

their longevity in the local costume. During Donja Dolina phase 2b, plate-shaped fibulae with hammered decorative elements and an edge decorated with tiny dotted concentric circles dominate.¹⁷⁶ Incised decorative elements, often in the form of swastikas or spirals, were inherited from the previous phase. The swastika motif is most often interpreted through the solar or astral symbolism of apotropaic protection.¹⁷⁷ A similar motif can be seen on a circular plate fibula from Jakow, Bulgaria, dated to the 8th century.¹⁷⁸ The clasp pin of the Donja Dolina fibula was formed from a hammered bronze plate, which has been determined to be an imported innovation, as the same fastening system can be seen on somewhat earlier

175 Čović 1987a, 252.

176 Gavranović 2011, 192.

177 Stipčević 1981, 20; Čović 1987a, 275, 277; Blečić Kavur 2010, 138.

176 Gavranović 2011, 192.

177 Stipčević 1981, 20; Čović 1987a, 275, 277; Blečić Kavur 2010, 138.

178 Pare 1998, 373, fig. 35: 8.

8. stoljeće.¹⁷⁸ Osovina donjodolinske fibule formirana je od iskucane bronzane pločice, što u osnovi i nije lokalna inovacija jer isti sistem kopčanja vidimo na nešto ranijim kružnim fibulama iz Hallstatta.¹⁷⁹ U narednoj, fazi 2c i dalje je prisutna tradicija i nasljeđivanje oblika iz prethodnih faza, poput pločastih donjodolinskih fibula. Njihova upotreba registrovana je samo još u grobovima iz starijeg dijela faze 3a-1 u kontekstu s najranijim fibulama tipa Certosa.¹⁸⁰

Za mlađi horizont, fazu 2c, značajno je da analogije za ovaj tip fibula nalazimo na susjednim područjima. Grob iz Dvorova – Kućerine predstavlja jedan od rijetkih nalaza s prostora međuriječja Save i Drine. Izbor materijala upućuje na snažan, ako ne i isključiv, uticaj mode i zanatskog stvaralaštva Donje Doline. Pločasta fibula po svojim karakteristikama spada u jedinstven nalaz importovanog gotovog proizvoda iz zasigurno donjodolinskih radionica iz posljednje četvrtine 6. stoljeća. Na to nas upućuje forma, stil, ali i elementi poput karakteristične osovine za kopčanje sastavljene od raskucane bronzane pločice. Izravne analogije vidimo u fibulama iz donjodolinskih grobova. U grobu 26 s grede N. Šokića pronađena je pločasta fibula, znatnih oštećenja zbog nagorenosti, iako se radi o skeletnom grobu.¹⁸¹ Pojavljuje se u kombinaciji sa zmijolikom fibulom prema Ć. Truhelki, ali se zapravo radi o tipu trakaste lučne fibule s diskom i dugom nogom koja se završava kuglicom, prema tipologiji S. Tecco Hvala.¹⁸² Fibule ovoga tipa datuju se u drugu polovinu 6. stoljeća s najvećom koncentracijom u Posočju, gdje dolaze u kombinaciji sa zmijolikim fibulama i fibulama tipa Certosa, varijante I, IIc i V.¹⁸³ Daljnje analogije potiču iz groba 35 s grede M. Petrovića ml. u kombinaciji s fibulom tipa Arareva gromila¹⁸⁴ (sl. 11) i groba 13 s grede N. Šokića u kombinaciji sa sljepoočničarkama od sitno nabrebene žice s raskucanom ušicom i čilibarskom niskom.¹⁸⁵ Na osnovu analogija i za primjerak iz Dvorova može se pretpostaviti datiranje u donjodolinsku fazu 2c.

Sljepoočničarke

Sljepoočničarke predstavljaju iznimno važan nakit u okviru bogatih ženskih nošnji starijeg željeznog doba, prije svega u pogledu standardizacije kostima. Rasprostranjenost je ograničena tek na nekoliko nalazišta u sjevernoj Bosni – pored Donje Doline, veći broj komada registrovan je među inventarom groba sa lokacije Dvorovi – Kućerine (T. III: 15), te nešto mlađim primjerkom sljepoočničarke iz Ritešića kod Doboja.¹⁸⁶ Uzimajući u obzir okolnosti pronalaska groba iz Dvorova, možemo sa sigurnošću definisati najmanje šest primjeraka od dvostruko ili pak trostruko sitno nare-

circular fibulae from Hallstatt.¹⁷⁹ In the subsequent phase, i.e. 2c, the tradition and application of shapes from previous phases is observable, as seen on the Donja Dolina plate fibulae. The final phase of their use, on the basis of their presence in grave inventories, is the older part of the phase 3a-1 period, concordant with the earliest Certosa-type fibulae.¹⁸⁰

For the younger horizon, phase 2c, it is significant that analogies for this type of fibula are found in neighbouring areas. The Dvorovi – Kućerine grave is one of the rare finds from the area spanning between the Sava and Drina rivers. The choice of materials indicates a strong, if not exclusive, influence of fashion and artisanal creativity from Donja Dolina. The plate fibula, by its characteristics, is a unique find of an imported finished product, undeniably originating in the workshops of Donja Dolina, and dating to the final quarter of the 6th century. This is indicated by the form and style, but also by elements such as the characteristic fastening clasp made of hammered bronze plate. We see direct analogies in the fibulae from the Donja Dolina graves. In Grave 26 from the plot of N. Šokić, a plate fibula was found, significantly damaged by burning, despite this being an inhumation grave.¹⁸¹ It appears in combination with a serpentine fibula according to Ć. Truhelka, but is here (re-)classified as a type of banded arched fibula with a disc and a long foot ending with a small knob, according to the typology of S. Tecco Hvala.¹⁸² Fibulae of this type date to the second half of the 6th century, with the highest concentration being found in Posočje, where they are found in combination with serpentine fibulae and Certosa-type fibulae, variants I, IIc and V.¹⁸³ Further analogies come from Grave 35 from the plot of M. Petrović jr. in combination with an Arareva gromila-type fibula¹⁸⁴ (Fig. 11) and Grave 13 from the plot of N. Šokić in combination with temple rings made of ribbed bronze wire with endings that have been flattened and rolled into a spiral and a string of amber beads.¹⁸⁵ Analogies can aid in placing the Dvorovi find to the period of Donja Dolina phase 2c.

Temple Rings

Temple rings are an extremely important piece of jewellery within the rich female costumes of the Early Iron Age, primarily in terms of costume standardisation. Their distribution is limited to just a few sites in northern Bosnia: in addition to Donja Dolina, a significant number of pieces was registered within the inventory of the grave from Dvorovi – Kućerine (T. III: 15), as well as an example from Ritešić near Doboja, from a slightly later period.¹⁸⁶ Taking into account the find circumstances of the grave from Dvorovi – Kućerine, we can define with certainty at least six examples of double- or triple-ribbed wire with endings that have been flattened and rolled into a spiral (Fig. 12). These are typologically classified as type D1c according to the latest classification by Marko Dizdar and

178 Pare 1998, 373, fig. 35: 8.

179 Glunz-Hüsken 2017, 41, fig. 20.

180 Čović 1987a, 256; Dizdar, Kapuran 2021, 186.

181 Truhelka 1902, 524, T. XXVII: 6.

182 Tecco Hvala 2012, 244.

183 Teržan 1976, 372; Tecco Hvala 2012, 244, 256.

184 Truhelka 1902, 269.

185 Truhelka, *op. cit.*, 523, T. XXIV: 7.

186 Blečić Kavur, Jašarević 2016, 226, fig. 2: 1.

179 Glunz-Hüsken 2017, 41, fig. 20.

180 Čović 1987a, 256; Dizdar, Kapuran 2021, 186.

181 Truhelka 1902, 524, T. XXVII: 6.

182 Tecco Hvala 2012, 244.

183 Teržan 1976, 372; Tecco Hvala 2012, 244, 256.

184 Truhelka 1902, 269.

185 Truhelka, *op. cit.*, 523, T. XXIV: 7.

186 Blečić Kavur, Jašarević 2016, 226, fig. 2: 1.



Sl. 12. Sljepoočničarke, Dvorovi – Kućerine, Muzej Semberije (snimio: A. Jašarević).

Fig. 12. Temple rings, Dvorovi – Kućerine, Museum of Semberija (photo: A. Jašarević).

brene žice sa svinutom i raskucanom ušicom na kraju (sl. 12). Tipološki su klasifikovane kao tip D1c prema najnovijoj klasifikaciji Marka Dizdara i Aleksandra Kapurana.¹⁸⁷ Te sljepoočničarke hronološki se vezuju za pojavu najranijih fibula tipa Certosa.¹⁸⁸ U grobu 9 s grede M. Petrovića ml. pronalazimo ih u kombinaciji s fibulama tipa Certosa, i to varijante II i V.¹⁸⁹ Korištenje fibule tipa Certosa, varijante II, smješta se u period prije kraja 6. stoljeća.¹⁹⁰ Takođe, sličan grobnom inventaru iz Dvorova je i grob 13 s grede N. Šokića koji, pored sljepoočničarki od sitno narebrene žice i s ušicom, sadrži i sličnu kružnu pločastu fibulu tipa Donja Dolina.¹⁹¹ Uzimajući u obzir navedene primjere, moglo bi se sljepoočničarke od narebrene žice s ušicom iz Dvorova – Kućerine okvirno datovati u donjodolinsku fazu 2c ili posljednju četvrtinu 6. stoljeća, uz napomenu da ovi lijevani primjerci svakako pripadaju mlađem vremenu, a ne fazi 2b. Nadalje, i tokom faze 3a-1 javljaju se sljepoočničarke od tanke bronzane žice, sada i tordirane, sa stanjenim

Aleksandar Kapuran.¹⁸⁷ These examples of temple rings are chronologically related to the appearance of the earliest Certosa-type fibulae.¹⁸⁸ In Grave 9 from the plot of M. Petrović jr., we find them in combination with Certosa-type fibulae, variants II and V.¹⁸⁹ The use of the Certosa-type fibula, variant II, is placed in the period before the end of the 6th century.¹⁹⁰ Also, Grave 13 from the plot of N. Šokić is similar to the grave inventory from Dvorovi – Kućerine, as, in addition to the temple rings made of bronze ribbed wire, it also contains a similar circular plate fibula of the Donja Dolina type.¹⁹¹ Taking into account the above examples, the temple rings made of ribbed wire with endings that have been flattened and rolled into a spiral from Dvorovi – Kućerine could be roughly dated to Donja Dolina phase 2c or the final quarter of the 6th century, noting that these cast examples certainly belong to a later period, and not to phase 2b. Furthermore, during phase 3a-1, temple rings made of thin bronze, twisted, and with tapered ends or one end rolled into a spiral appeared, while in phase 3a-2 these were replaced by the Sanski Most-type temple rings.¹⁹²

187 Dizdar, Kapuran 2021, 153, fig. 1.

188 Gavranović 2011, 217.

189 Truhelka 1902, 264, T. XI: 6–7; Teržan 1976, 375.

190 Tecco Hvala 2012, 256.

191 Truhelka 1902, 523, T. XXIV: 3–4.

187 Dizdar, Kapuran 2021, 153, fig. 1.

188 Gavranović 2011, 217.

189 Gavranović 2011, 217.

190 Tecco Hvala 2012, 256.

191 Truhelka 1902, 523, T. XXIV: 3–4.

192 Čović 1987a, 256–258.

krajevima ili jednim krajem savijenim u ušicu, dok u fazi 3a-2 njih zamjenjuju sljepoočničarke tipa Sanski Most.¹⁹²

Tipološku i hronološku klasifikaciju sjevernobosanskih sljepoočničarki najbolje je analizirati u okviru nekropole na Donjoj Dolini jer se javljaju u velikom broju i kroz duži vremenski period. U pravilu se nose u parovima na svakoj strani lobanje, često po nekoliko komada.¹⁹³ Njihova upotreba zabilježena je počev od faze 2a.¹⁹⁴ Riječ je o jednostavnim bronzanim sljepoočničarkama od glatke žice s otvorenim kupastim krajevima, koje se prilično sigurno datuju od sredine 7. do prvih decenija 6. stoljeća. Tipološki su klasifikovane kao tip A ili tip Ciumbud.¹⁹⁵ U grobu 2 s grede M. Petrovića, ali i grobu 3a s grede S. Čagrlje, javljaju se u kombinaciji s fibulama sa stopom u obliku beotskog štita, varijante 2, i s masivnim torkvesima od tordirane žice.¹⁹⁶ Iako je rasprostranjenost sljepoočničarki s kupastim ili konusnim (tip B)¹⁹⁷ završecima naizgled kulturno heterogena karakteristika, moguće je naći neke zajedničke poveznice. To se prije svega odnosi na slične nalaze sljepoočničarki s lokaliteta Dédestapolcsány i Alsótelekes-Dolinka u istočnomadžarskom okrugu Borsod-Abaúj-Zemplén, koje su datovane od polovine 7. do prve polovine 6. stoljeća, te pripisane lokalnim radionicama kulture Vekerzug, najvjerovatnije pod uticajem skitsko-pontskog područja.¹⁹⁸ Vremensku bliskost oba tipa dodatno potvrđuje činjenica da je u grobu 3a s grede S. Čagrlje pronađena kružna bronzana pločica izrađena u tehnici ažuriranja koja je karakteristična za skupinu Vekerzug u Mađarskoj.¹⁹⁹ Dodatna panonska poveznica podržana je nalazima sljepoočničarki iz Ártánda, takođe datovanih u prvu polovinu 6. stoljeća.²⁰⁰ Ostalim primjercima s kupastim završecima, kao i onima sa zadebljanim krajevima, paralele vidimo u primjercima iz svetišta Býčí skála u Moravskoj, datovanim u period Ha D1.²⁰¹ Pored Panonskih primjeraka, drugu veliku skupinu sljepoočničarki sa zadebljanim krajevima čine nalazi u okviru Transilvanijske Ciumbud skupine, takođe datirani od sredine 7. do polovine 6. stoljeća.²⁰² Slijedi najzastupljenija skupina jednostavnih sljepoočničarki sa zadebljanim ili stanjenim krajevima, često ukrašenih urezanim linijama iz faze 2b (tip C1-3).²⁰³ Takođe, pojedini oblici su naslijeđeni iz prethodne faze, kao što su nalazi s kupastim završecima.²⁰⁴ Prvi put se tokom ove faze javljaju i sljepoočničarke s prekrštenim krajevima od sitno narebrne žice s ušicom na jednom kraju. Njihovo trajanje ide sve do sredine 6. stoljeća ili glasinacke

The typological and chronological classification of temple rings from northern Bosnia is best analysed within the framework of the necropolis at Donja Dolina, because here they occur in large numbers and over an extended period of time. As a rule, they were worn in pairs, and often in multiples, on each side of the skull.¹⁹³ Their use is recorded from phase 2a onwards.¹⁹⁴ These are simple bronze temple rings made of smooth wire with open conical ends, which can be dated with considerable certainty from the mid-7th to the first decades of the 6th century. They are typologically classified as type A, or Ciumbud-type.¹⁹⁵ In Grave 2 from the plot of M. Petrović, but also in Grave 3a from the plot of S. Čagrlja, they appear in combination with fibulae with a foot in the shape of a Boeotian shield, variant 2, and with massive torques made of twisted wire.¹⁹⁶ Although the prevalence of temple rings with conical (type B)¹⁹⁷ endings appears to be a culturally heterogeneous characteristic, it is possible to find some common links, primarily similar finds of temple rings from the sites of Dédestapolcsány and Alsótelekes-Dolinka in the eastern Hungarian Borsod-Abaúj-Zemplén county, which are dated from the mid-7th to the first half of the 6th century, and attributed to local workshops of the Vekerzug culture, most likely under the influence of the Scythian-Pontic area.¹⁹⁸ The temporal proximity of both types is further confirmed by the fact that in Grave 3a from the plot of S. Čagrlja a circular bronze plate was found, made in the open-work technique characteristic of the Vekerzug group in Hungary.¹⁹⁹ An additional Pannonian link is supported by the finds of temple rings from Ártánd, also dated to the first half of the 6th century.²⁰⁰ Other examples with conical ends, as well as those with thickened ends, are observed in the finds from the Býčí skála sanctuary in Moravia, dated to the period Ha D1.²⁰¹ In addition to the Pannonian examples, a second large group of temple rings with thickened ends is observed in finds within the Transylvanian Ciumbud group, also dated from the mid-7th to the mid-6th century.²⁰² This is followed by the most common group of simple temple rings worn by women with thickened or thinned ends, frequently decorated with incised lines from phase 2b (type C1-3).²⁰³ Also, some shapes are inherited from the previous phase, such as those with conical ends.²⁰⁴ Temple rings with crossed ends made of ribbed wire with endings that have been flattened and rolled into a spiral at one end also appear for the first time during this phase. Their duration spans all the way back to the mid-6th century, or Glasinac phase IVC-2, on the basis of the Arareva gromila-type fibula from Grave 35 at the plot of M. Petrović jr.²⁰⁵ Around the same time, temple rings made of smooth wire with endings that have been flattened

192 Čović 1987a, 256–258.

193 Gavranović 2011, 216.

194 Marić 1964, 33; Čović 1987a, 241.

195 Dizdar, Kapuran 2021, 153–154.

196 Truhelka 1902, 536; Čović 1961, Y22.

197 Dizdar, Kapuran 2021, 154.

198 Tóth 2012, 71; 2017, Fig. 3: 5; Kozubová 2018, 32–33, fig. 19: c; 2019, 108.

199 Kemenczei 2009, T. 70: 2; T. 75: 1–2.

200 Párducz 1965, 204, T. XXII: 1–3.

201 Parzinger 1995, 45–46, T. 15: 16. S tim da se kod moravskih nalaza javljaju sljepoočničarke s više namotaja, za razliku od pojedinačnih kolutova kod donjodolinskih primjeraka.

202 Dizdar, Kapuran 2021, 165–166, 175.

203 Čović 1987a, 241; Dizdar, Kapuran 2021, 154.

204 Čović 1987a, 246.

193 Gavranović 2011, 216.

194 Marić 1964, 33; Čović 1987a, 241.

195 Dizdar, Kapuran 2021, 153–154.

196 Truhelka 1902, 536; Čović 1961, Y22.

197 Dizdar, Kapuran 2021, 154.

198 Tóth 2012, 71; 2017, Fig. 3: 5; Kozubová 2018, 32–33, fig. 19: c; 2019, 108.

199 Kemenczei 2009, T. 70: 2; T. 75: 1–2.

200 Párducz 1965, 204, T. XXII: 1–3.

201 Parzinger 1995, 45–46, T. 15: 16. However, with Moravian finds, the temple jewellery appears with multiple coils, unlike the Donja Dolina single-coiled examples.

202 Dizdar, Kapuran 2021, 165–166, 175.

203 Čović 1987a, 241; Dizdar, Kapuran 2021, 154.

204 Čović 1987a, 246.

205 Čović, *op. cit.*, 246; Gavranović 2011, 217.

faze IVc-2, ako je suditi prema fibuli tipa Arareva gromila iz groba 35 s grede M. Petrovića ml.²⁰⁵ Otprilike u isto vrijeme javljaju se i one od glatke žice s raskucanom ušicom.²⁰⁶ Od sredine 6. stoljeća javljaju se sljepoočničarke manjih dimenzija od sitno narebrenе žice i s ušicom na jednom kraju (tip D1-3 sa varijantama).²⁰⁷ Svakako, one postaju jedna od glavnih karakteristika donjodolinske faze 2c.²⁰⁸ S obzirom na relativno skroman broj pronađenih primjeraka na zapadnom Balkanu, posebno u usporedbi s količinom nalaza sljepoočničarki s Donje Doline, može se pretpostaviti da nisu bile dio standardne nošnje ostalih željeznodobnih zajednica, posebno ne onih u okviru glasinackog kulturnog kruga s kojim je Donja Dolina održavala intenzivne kulturne kontakte tokom 6. stoljeća.

ČILIBARSKЕ PERLE

Čilibarske perle s područja sjeverne Bosne prisutne su u značajnim količinama i mogu se podijeliti u više skupina. Većina njih hronološki je vrednovana u horizont starijeg željeznog doba. Zbog svog porijekla čilibar se ubraja u luksuzni dio nakita koji se tradicionalno posmatrao kao pokazatelj kontakata između udaljenih regija.²⁰⁹ Dostojna, čilibarske perle, izuzev Donje Doline, nisu bile poznate na ostalim nalazištima u sjevernoj Bosni. Distribucijska slika znatno je izmijenjena nalazima čilibarskih perli iz Dvorova, te nešto mlađih perli iz Ritešića kod Doboja.²¹⁰ Tipološki su sve one reprezentovane skromnim varijantama, no njihova pozicija ukazuje na poseban aspekt koji se može interpretirati u okviru komunikacijskih i kulturnih veza tokom starijeg željeznog doba.

U tom kontekstu valja interpretirati i nove nalaze čilibarskih perli s Dvorova. Sve oni dolaze s lokacije Dvorovi – Kućerine (T. I: 1). Tipološki najveći dio pripada perlama tipa 8a–b, dok manji broj otpada na tipove 9 i 4, prema tipologiji Aleksandra Palavestre.²¹¹ Posebnu grupu čine amorfnе čilibarske perle, koje ukazuju na moguće porijeklo sa središnjeg Balkana s kraja 6. stoljeća. Interesantno je da neobrađenih ili amorfnih perli skoro da nema na Donjoj Dolini ili pak Dolenjskoj.²¹² No, njihova koncentracija na središnjem i zapadnom Balkanu s kraja 6. i početka 5. stoljeća više je nego primjetna. Između ostalog, javljaju se u Atenici, Pilatovićima, Kruševici, ali i u grupnoj jami u Kačnju te Romaji i na Glasincu.²¹³ Hronološki, ovo je istovremena pojava i na prostoru skadarskog areala i kulture Mati. Počev od 7. stoljeća, a posebno tokom 6. i 5. stoljeća, dolazi do povećane količine čilibara u sjevernoj Albaniji. Najbrojnije su amorfnе, jednostavno polirane i bušene perle.²¹⁴ Ovakve perle

and rolled into a spiral appear.²⁰⁶ From the mid-6th century, smaller temple rings, made of finely-ribbed wire with endings that have been flattened and rolled into a spiral (type D1-3 with variants),²⁰⁷ enter the archaeological record, with these becoming one of the key characteristics of Donja Dolina phase 2c.²⁰⁸ Given the relatively modest number of specimens found in the Western Balkans, especially in comparison with the number of temple rings from Donja Dolina, it can be assumed that they were not part of the standard costume of other Iron Age communities, especially not those within the Glasinac cultural circle, with which Donja Dolina maintained intensive cultural contact during the 6th century.

AMBER BEADS

Amber beads from the area of northern Bosnia are present in significant quantities, and can be divided into several groups. Most of them are chronologically evaluated as belonging to the horizon of the Early Iron Age. Because of its origin, amber is considered a luxury material that was traditionally seen as an indicator of contact between distant regions.²⁰⁹ Until recently, amber beads were not known from sites in northern Bosnia, with the exception of Donja Dolina. The distribution picture was significantly changed by the findings of amber beads from Dvorovi, and slightly younger beads from Ritešić near Doboj.²¹⁰ Typologically, they are exclusively represented by modest examples, but their presence brings forth another facet for interpretation within the framework of communication and cultural connections during the Early Iron Age.

The recent discovery of amber beads from Dvorovi should be interpreted in this context. All of them are derived from Dvorovi – Kućerine (T. I: 1). Typologically, the greatest proportion can be considered beads of type 8a–b, while a smaller number should be classified as types 9 and 4, according to Aleksandar Palavestra's typology.²¹¹ A special group consists of amorphous amber beads, which are indicative of a possible Central Balkans origin from the end of the 6th century. It is interesting to note that there are almost zero raw material (i.e. unworked) or amorphous beads in Donja Dolina or Dolenjska.²¹² However, their concentration in the Central and Western Balkans from the end of the 6th and the beginning of the 5th century is more than noticeable. They occur also at Atenica, Pilatovići and Kruševica, but also in a burial pit in Kačnje, as well as at Romaja and Glasinac.²¹³ Chronologically, this is simultaneous to their occurrence in the Skadar area and the Mati culture. Starting from the 7th century, and heightened during the 6th and 5th centuries, the amount of amber in northern Albania also increases. The most numerous in type are amorphous, simply polished and pierced beads.²¹⁴ These types of beads have already mentioned analogies with sites in the Western and Central Balkans. In south-eastern Albania, all amber beads

205 Čović, *op. cit.*, 246; Gavranović 2011, 217.

206 Gavranović 2011, 217.

207 Dizdar, Kapuran 2021, 154.

208 Čović 1987a, 252.

209 Palavestra 1993, 39; 1997, 39; Tecco Hvala 2012, 283; Blečić Kavur 2014, 56.

210 Blečić Kavur, Jašarević 2016, 226.

211 Palavestra 1993, 33–34.

212 Križ 2006, 130.

213 Palavestra 1993, 288.

214 Kurti 2013, 81, 86.

206 Gavranović 2011, 217.

207 Dizdar, Kapuran 2021, 154.

208 Čović 1987a, 252.

209 Palavestra 1993, 39; 1997, 39; Tecco Hvala 2012, 283; Blečić Kavur 2014, 56.

210 Blečić Kavur, Jašarević 2016, 226.

211 Palavestra 1993, 33–34.

212 Križ 2006, 130.

213 Palavestra 1993, 288.

214 Kurti 2013, 81, 86.

imaju već pomenute analogije s nalazištima na zapadnom i središnjem Balkanu. U jugoistočnoj Albaniji sve čilibarske perle popraćene su grčkim uvozom s kraja arhajskog perioda, što upućuje na to da je vjerovatno grčki uticaj potaknuo cirkulaciju materijala na tim područjima, dok je sjeverni dio više bio okrenut balkanskim komunikacijskim vezama.²¹⁵ Sličan kulturni model bogato opremljenih grobova ponavlja se među grobovima sremske kulturne grupe, što je potvrđeno nalazima iz Sremske Mitrovice i Noćaja, ali svakako i južnije s nalazišta Jela u Šapcu²¹⁶ i groba 1 iz humke (O) XV sa Paulja kod Loznice,²¹⁷ koji su geografski i kulturno najbliži nalazima iz Dvorova. Pored tzv. Posavskog koridora, distribucija čilibara mogla je ići i dolinom Drine, što je posvjedočeno nalazima čilibarske niske iz groba 2/II iz Trnovica kod Zvornika, datiranog s kraja 6. i početka 5. stoljeća.²¹⁸ Najveća koncentracija čilibara nalazi se na Donjoj Dolini, gdje se koristi u formi niski. Čilibarske perle javljaju se već od faze 2a, dok su daleko brojnije i raznovrsnije u donjodolinskoj fazi 2b–c.²¹⁹ Čilibar s Donje Doline nije bio rodno ili polno ograničen; javlja se podjednako u muškim, ženskim i dječijim grobovima. Najveći dio pripada tipovima 8a–b i 9.²²⁰ Ovo je najučestaliji tip čilibarskih perli u Donjoj Dolini, posebno tokom faze 2b. Međutim, kulturno su značajniji za regiju istočnih Alpi, gdje se često nalaze kao dio uobičajenog grobnog inventara, kako onih bogatih grobova, tako i onih srazmjerno siromašnih.²²¹ Interpretacija porijekla čilibara sama se nameće s obzirom na poziciju nalazišta i kontekst ostale importovane robe s Donje Doline. Tokom 7–6. stoljeća na zapadnom Balkanu izdvaja se nekoliko regija po koncentraciji čilibara. Prije svega to su Dolenjska, Kvarner, te područje rasprostiranja liburnske i japodske kulture.²²² Velika količina čilibara u japodskoj kulturi daje naznake o uvozu sirovog čilibara i njegovom daljem lokalnom oblikovanju, dok je mali broj gotovih proizvoda importovan, što posebno vrijedi za prostor Kvarnera.²²³ Najvjerovatnije kao gotovi proizvodi s ovih regija stižu na Donju Dolinu, koja postaje mogući redistributivni centar dalje prema istoku, uključujući i Dvorove. Dalje na istoku u Trakiji, čilibar je iznimno rijetka pojava. Uglavnom je koncentrisan u zapadnim dijelovima, gdje se pojavljuje u ženskim grobovima u kombinaciji s ažuriranim pojasevima, dvopetljastim fibulama i masivnim narukvicama s prekrštenim krajevima.²²⁴ Čilibar iz Gradeca, Belisha i Debneve dolazi najčešće u obliku amorfnih perli, bikoničnih i cilindričnih perli tipa 5, 6, 9 i 11. Odabir ovakvih čilibarskih

are accompanied by Greek imports from the end of the Archaic period, which is likely indicative of Greek influence having stimulated the circulation of materials in those areas, while, in contrast, the northern part was more oriented towards Balkan communication links.²¹⁵ A similar cultural model of richly furnished graves is repeated among the graves of the Srem cultural group, which is confirmed by finds from Sremska Mitrovica and Noćaj, but certainly also further south from the site of Jela in Šabac²¹⁶ and Grave 1 from mound (O) XV from Paulje near Loznica,²¹⁷ which are, both geographically and culturally, closest to the finds from Dvorovi. In addition to the so-called Posavina corridor, the distribution of amber could have also passed along the Drina valley, as evidenced by the discovery of a string of amber beads from Grave 2/II from Trnovice near Zvornik, dated to the period from the end of the 6th to the beginning of the 5th century.²¹⁸ The highest concentration of amber is found in Donja Dolina, in the form of stringed necklace beads. Amber beads appear as early as phase 2a, while they are far more numerous and varied in Donja Dolina phase 2b–c.²¹⁹ Amber from Donja Dolina was not limited by gender or sex; it occurs in the graves of men, women and children, with most such beads belonging to types 8a–b and 9.²²⁰ This is the most common type of amber bead in Donja Dolina, especially during phase 2b. However, they are culturally more significant for the eastern Alpine region, where they are often found as part of the usual grave inventory, both of rich graves and those with comparatively poor grave inventories.²²¹ The interpretation of the origin of the amber is obvious considering the position of the site and the context of other imported goods from Donja Dolina. During the 7th to 6th century, several regions in the Western Balkans are distinguished by the concentration of amber, with the most prominent being Dolenjska, Kvarner, and the area where the Liburnian and Iapodian cultures spread.²²² The large amount of amber present in Iapodian cultural assemblages indicates the import of raw amber and its subsequent local shaping, with comparatively few finished products having been imported; a phenomenon especially significant for the Kvarner area.²²³ Most likely, amber artefacts arrived as finished products from these regions to Donja Dolina, which possibly became a redistribution centre for their spread further east, including to Dvorovi. Farther east, in Thrace, amber is extremely rare. It is mainly concentrated in the western parts, where it appears in female graves, in combination with open-work belts, double-looped fibulae and massive bracelets with crossed ends.²²⁴ Amber from Gradec, Belish and Debnevo most frequently appears in the form of amorphous beads, and biconical and cylindrical beads, of types 5, 6, 9 and 11. The selection of such amber beads

215 Kurti, *op. cit.*, 89.

216 Васиљевић 1976, 169; Palavestra, Krstić 2006, 61.

217 Булатовић *et al.* 2017, 132, T. XX

218 Косорић 1983, 31.

219 Čović 1987a, 241, 246, 252.

220 Palavestra 1993, 136; Jašarević 2017, 9.

221 Križ 2006, 108.

222 Palavestra, Krstić 2006, 48; Blečić 2009, 144–145; Blečić Kavur 2015, 83.

223 Palavestra 1993, 33–34; Blečić 2009, 148.

224 Gergova 2009, 179.

215 Kurti, *op. cit.*, 89.

216 Васиљевић 1976, 169; Palavestra, Krstić 2006, 61.

217 Булатовић *et al.* 2017, 132, T. XX

218 Косорић 1983, 31.

219 Čović 1987a, 241, 246, 252.

220 Palavestra 1993, 136; Jašarević 2017, 9.

221 Križ 2006, 108.

222 Palavestra, Krstić 2006, 48; Blečić 2009, 144–145; Blečić Kavur 2015, 83.

223 Palavestra 1993, 33–34; Blečić 2009, 148.

224 Gergova 2009, 179.

perli ukazuje na specifičan kostim i dijelove nakita koji ga povezuju s podunavsko-karpatkim prostorom.²²⁵

S promjenom načina sahranjivanja u željeznom dobu dolazi do drastičnog povećanja upotrebe čilibara u nošnj. Čilibar je nesumnjivo bio sredstvo i način iskazivanja statusa i prestiža, važan dio u pogrebnom ritualu i obrednim nošnjama.²²⁶ Kroz čilibar je također moguće iščitavati određene pogrebne ideologije, ali je imao i određena magijska i apotropejska svojstva.²²⁷ Sahranjivanje s čilibarom osigurava pokojniku status u onostranom životu, stečeno pravo i položaj za života prenesen u zagrobni svijet. Prije svega, čilibar je svjedočanstvo o živoj, bogatoj i kontinuiranoj komunikaciji s alpskim i mediteranskim svijetom, pa još i dalje sa sjevernom Evropom. Trgovina se oslanjala na kontinuitet iz kasnog bronzanog doba s već utvrđenim trgovačkim rutama,²²⁸ ali i jakim kulturnim i ekonomskim vezama između samih lokalnih zajednica na Balkanu.²²⁹ U starijem željeznom dobu distribucija čilibara prati tokove ostale robe i ima svoju klijentelu među istaknutim pojedincima i vladajućim grupama na središnjem i zapadnom Balkanu, što je svakako posvjedočeno reprezentativnim nalazima u grobovima s kraja 6. i prve polovine 5. stoljeća.²³⁰

STAKLENE PERLE

Staklene perle predstavljaju tipološki varijabilnu skupinu nalaza. Na temelju kolorita, prisutnosti ili odsutnosti ukrasa na njihovoj površini, možemo ih podijeliti u tipove i hronološki vrednovati, a u pojedinim slučajevima i kulturno identifikovati. Zbog jednostavnosti oblika i izrade pripadaju široko rasprostranjenoj vrsti nakita, koji se pojavljuje još od kasnog bronzanog doba. Uklapanje nalaza s područja sjeverne Bosne dopušta nam da ukažemo na određene predloške u istočnoalpskom, odnosno predalpskom nakitu željeznog doba.²³¹ Staklene perle s Dvorova dolaze s nekoliko lokacija. Stoga je te predmete teško hronološki vrednovati izvan zatvorenih grobnih cjelina. Prva takva grupa jesu perle s lokacije Brodić (sl. 13: 1; T. IV: 24), koje je sakupio Z. Marić i objavio zajedno s ažuriranim pojasom.²³² Ukupno devet perli od žutog i tirkiznog stakla s plavim okcima evidentirano je u skeletnom grobu u predjelu vrata.²³³ Zatim slijedi manja, ali raznovrsna, grupa staklenih perli s lokacije Dvorovi – Kućerine (sl. 13: 2-11; T. II: 2-11). Premda nisu hronološki relevantni, može se ustvrditi da su ovi predmeti karakteristični upravo za horizont od sredine 6. i kroz čitavo 5. stoljeće.

indicates a specific costume and jewellery items, which connect it to the Danube-Carpathian area.²²⁵

With changes in burial rituals in the Iron Age came a drastic increase in the use of amber in costume. Amber was undoubtedly a means of expressing status and prestige, and an important part of funeral rituals and ceremonial costumes.²²⁶ Amber also aids in interpreting certain funeral ideologies, and it was also imbued with certain magical and apotropaic properties.²²⁷ Burial with amber ensured the deceased a status in the afterlife, a vested right, and a position transferred from life to the afterlife. Amber is, primarily, a testimony to the lively, rich and continuous communication with the Alpine and Mediterranean world, and even further with Northern Europe. Trade relied on continuity from the Late Bronze Age through already-established trade routes,²²⁸ as well as on strong cultural and economic ties between the local communities in the Balkans.²²⁹ In the Early Iron Age, the distribution of amber followed the flows of other goods, with the material finding its clientele among prominent individuals and ruling groups in the Central and Western Balkans, as irrefutably evidenced by representative finds in graves from the end of the 6th and the first half of the 5th century.²³⁰

GLASS BEADS

Glass beads are a typologically diverse group of artefacts. Based on the colour and the presence (or absence) of decorations on their surface, we can divide them into types and evaluate them chronologically, and in some cases also identify them culturally. Due to the simplicity of their form and workmanship, they belong to a widespread type of jewellery, present in the archaeological record from the Late Bronze Age. The 'matching-up' of finds from throughout the area of northern Bosnia allows us to identify certain artisanal patterns in eastern Alpine Iron Age jewellery.²³¹ The glass beads from Dvorovi come from several locations, and it is difficult to evaluate them chronologically outside of well-documented burials. The first such group are the beads from the Brodić (fig. 13: 1; T. IV: 24), which were collected by Z. Marić and published together with the open-work belt.²³² A total of nine beads of yellow and turquoise glass with blue eyes were recorded in a skeletal grave, arranged in the area of the neck.²³³ A smaller-but-diverse group of glass beads were also found at Dvorovi – Kućerine (fig. 13: 2-11; T. II: 2-11). Although they are not chronologically relevant, it can be argued that these objects are characteristic of the horizon spanning from the mid-6th century across the entire 5th century.

Yellow beads with blue eyes are among the most widespread groups of beads. They sustain throughout the

225 Gergova 2009, 184; Ivanova, Kuleff 2009, 27.

226 Palavestra 1993, 288; Palavestra, Krstić 2006, 66; Križ 2006, 108; Negroni Catacchio 2011, 63.

227 Palavestra, *op. cit.*, 17; Negroni Catacchio 2007, 73; Bakarić 2006, 68; Blečić 2009, 148; Blečić Kavur 2015, 86.

228 Cwaliński 2020.

229 Palavestra 1993, 281.

230 Palavestra, *op. cit.*, 288.

231 Križ, Guštin 2015, 50–53.

232 Marić 1960, T. III: 4.

233 Marić 1960, 50.

225 Gergova 2009, 184; Ivanova, Kuleff 2009, 27.

226 Palavestra 1993, 288; Palavestra, Krstić 2006, 66; Križ 2006, 108; Negroni Catacchio 2011, 63.

227 Palavestra, *op. cit.*, 17; Negroni Catacchio 2007, 73; Bakarić 2006, 68; Blečić 2009, 148; Blečić Kavur 2015, 86.

228 Cwaliński 2020.

229 Palavestra 1993, 281.

230 Palavestra, *op. cit.*, 288.

231 Križ, Guštin 2015, 50–53.

232 Marić 1960, T. III: 4.

233 Marić 1960, 50.



Sl. 13. Staklene perle: 1. Dvorovi – Brodić, Zemaljski muzej Bosne i Hercegovine, inv. br. 42058, 42065 (snimio: A. Jašarević), 2–11. Dvorovi – Kućerine (snimio: A. Jašarević).

Fig. 13. Glass beads: 1. Dvorovi – Brodić, National Museum of Bosnia and Herzegovina, inv. no. 42058, 42065 (photo: A. Jašarević), 2–11. Dvorovi – Kućerine (photo: A. Jašarević).

Žute perle s plavim okcima ubrajaju se u jednu od najraširenijih grupa perli. Dugotrajna su i prema tome vremenski manje osjetljivija pojava. Često dolaze u kombinaciji s perlama tirkizne boje i plavim okcima ili plavim perlama s bijelim valovnicama. Prostorno najbliže analogije našim primjercima nalazimo na lokalitetu Jela u Šapcu, gdje su datovane upravo na kraj 6. i početak 5. stoljeća.²³⁴ Niska s perlama iz Paulja kod Loznice u kombinaciji s astragalnim pojasom datovana je u 5. stoljeće.²³⁵ Žute perle s plavim i bijelim okcima u najvećem broju karakteristika su ženskih grobova razvijenog 5. stoljeća. Njihova pojava obilježila je prostor južne Panonije, gdje, u pravilu, dolaze u kombinaciji s fibulama tipa Certosa, i to ponajprije varijante V.²³⁶ Grobovi iz Vinkovaca, Novih Jankovaca i Vučedola datovani su tim tipom u razvijeno 5. stoljeće.²³⁷ Slučajni nalazi perli od žutog stakla koje imaju ukras s motivom oka bijele i plave boje evidentirani su na Rajterovu brdu u Oroliku.²³⁸ Dalje analogije poznate su iz grobova u Stubarliji kod Mošorina datovane temeljem fibula tipa Certosa, također varijante V, u 5. stoljeće.²³⁹ Istom periodu pripada i ogrlica iz Sremske Mitrovice u kombinaciji s bronzanom situlom.²⁴⁰ Jednostavne okrugle žute perle iz Ritešića kod Doboja također dolaze u kombinaciji s fibulom tipa Certosa, varijante V, i datovane su u 5. stoljeće.²⁴¹ Žute perle s plavim okcima imaju značajno mjesto u okviru kulture Vekerzug, s najvećim brojem nalaza na nekropolama Szentes-Vekerzug i

archaeological record for an extended period of time, with very limited stylistic variation. They often come in combination with turquoise beads with blue eyes, or blue beads with white wavelets. The closest spatial analogies to our finds are from Jela in Šabac, where they are dated to the end of the 6th and beginning of the 5th century.²³⁴ A string of beads from Paulje near Loznica – found together with an astragal belt – has been dated to the 5th century.²³⁵ Yellow beads with blue and white eyes are mostly characteristic of female graves of the 5th century. Their appearance is common throughout the area of southern Pannonia, where, as a rule, they are found in combination with Certosa-type fibulae, primarily variant V.²³⁶ Graves from Vinkovci, Novi Jankovci and Vučedol have been dated by this type to the 5th century.²³⁷ Chance finds of yellow glass beads decorated with a white and blue eye motif were recorded at Rajterovo brdo in Orolik,²³⁸ while further analogies are known from graves in Stubarlija near Mošorin, dated to the 5th century on the basis of Certosa-type fibulae, also variant V.²³⁹ A necklace from Sremska Mitrovica, found in combination with a bronze situla, also belongs to the same period.²⁴⁰ Simple round yellow beads from Ritešić near Doboj have also been found in combination with a Certosa-type fibula, variant V, and are dated to the 5th century.²⁴¹ Yellow beads with blue eyes held an important place within the Vekerzug culture, with the largest quantities having been discovered in the Szentes-Vekerzug and Chotin necropolises. They

234 Васиљевић 1976, 169.

235 Булатовић *et al.* 2017, 72–73.

236 Teržan 1976, 376.

237 Potrebica, Dizdar 2002, 83.

238 Potrebica, Dizdar, *op. cit.*, 83.

239 P. Medović je datovao željeznodobne grobove iz Stubarlije u 4. odnosno početak 3. stoljeća (Medović 2007, 71), isuviše kasno s obzirom na hronološku poziciju fibula tipa Certosa, varijante V, ali i varijante tipa I i tipa V u grobu 1, koji sigurno ukazuju na razvijeno 5. stoljeće.

240 Медовић 1991, 161.

241 Blečić Kavur, Jašarević 2016, 226, fig. 2: 10.

234 Васиљевић 1976, 169.

235 Булатовић *et al.* 2017, 72–73.

236 Teržan 1976, 376.

237 Potrebica, Dizdar 2002, 83.

238 Potrebica, Dizdar, *op. cit.*, 83.

239 P. Medović dated the Iron Age graves from Stubarlija to the 4th or early 3rd century (Medović 2007, 71), which is too late considering the chronological position of the Certosa-type fibula, variant V, but also the variants of type I and type V in Grave 1, which certainly indicate the 5th century.

240 Медовић 1991, 161.

241 Blečić Kavur, Jašarević 2016, 226, fig. 2: 10.

Chotin. Datovane su od sredine 6. do sredine 5. stoljeća.²⁴² Varijabilna grupa su svakako i plave staklene perle s bijelim valovnicama. Njihova distribucija ukazuje na koncentraciju na području današnje Slovenije, a srećemo ih takođe u bazenu Marne, u Italiji, Švajcarskoj, Njemačkoj, Češkoj, Mađarskoj i Poljskoj. Poznati su i pojedini primjerci iz npr. Slovačke, Španije, Engleske, Norveške, sjeverne Afrike, Turske i priobalja Crnog mora. Perle ukrašene bijelim valovnicama smatraju se oblikom karakterističnim za 6–5. stoljeće. Isto tako, poznate su čak i s početka mlađeg željeznog doba.²⁴³

Nadalje, svi tipovi perli imaju svoje analogije na nekropolama u Dolenjskoj, prvenstveno Novom Mestu, gdje je evidentiran impozantan broj staklenih perli i privjesaka, kako u bogatim tako i u srazmjerno siromašnim grobovima. Dolaze u različitim oblicima, veličini i koloritu, ali prije svega različitim kombinacijama ornamenata.²⁴⁴ Karakteristika su i za bogate grobove iz Stične, i to onih iz faze Certosa.²⁴⁵ U grobu 121/48 sa Stične žute perle s plavim okcima, tirkizne perle s plavim i bijelim okcima, perle s plavim okcima i žutim bradavičastim izbočinama dolaze u kombinaciji s fibulama tipa Certosa, varijante V, i fibulom s tri dugmeta na luku.²⁴⁶ Za vremensko opredjeljivanje višebojne perle sa žutim bradavičastim izdancima iz Dvorova važna je analogija s perlama iz aristokratskog groba u Atenici, datovanog s kraja 6. i početka 5. stoljeća.²⁴⁷ Staklene perle iz ženskih grobova s Donje Doline malobrojne su. Poznati su i primjerci iz naselja, gdje su datovane u donjodolinsku fazu 2b–c.²⁴⁸ U najvećem broju, staklene perle se spominju samo sporadično, kao i one s nekropole u Sanskom Mostu, bez crteža ili detaljnijeg opisa.

KERAMIČKE POSUDE

Kada na temelju materijalne kulture pokušavamo procijeniti značaj kulturne komunikacije, treba imati na umu kako pojedini predmeti imaju različite potencijale kao nositelji takvih kontakata. U poređenju s metalnim nalazima, keramički predmeti imaju manju vrijednost, najčešće su većih dimenzija i osjetljiviji za transport, što ograničava prostornu distribuciju tih predmeta i, posljedično, njihov kulturni uticaj. Međutim, sličnosti u keramičkoj produkciji, oblicima te motivima ukrašavanja ukazuju na daleko neposredniju prirodu kontakata između pojedinih kultura ili zajednica unutar određenih geografskih granica.²⁴⁹ Sakupljeni keramički inventar sa prostora Dvorova iznimno je mali, što je svakako rezultat selektivnog prikupljanja najreprezentativnijih metalnih predmeta. U kolekciji Muzeja Semberije sačuvane su svega dvije keramičke posude, tipološki svrstane u kategoriju kantarosa i šolje. Pehar ili kantaros očuvan

are dated from the mid-6th to the mid-5th century.²⁴² Blue glass beads with white wavelets are also a highly widespread group. Their distribution indicates a concentration in the area of today's Slovenia, while they are also found in the Marna basin in Italy, Switzerland, Germany, the Czech Republic, Hungary and Poland. Individual finds have also been discovered in, for example, Slovakia, Spain, England, Norway, North Africa, Turkey and along the Black Sea coast. Beads decorated with white wavelets are considered a shape form characteristic of the 6th to 5th century, although examples are also known to date to the beginning of the Early Iron Age.²⁴³

Furthermore, all types of beads have their analogies in the necropolises in Dolenjska, primarily those at Novo Mesto, where an impressive number of glass beads and pendants have been recorded, in graves with both rich and relatively modest inventories. They come in different shapes, sizes and colours, but above all in different combinations of decoration.²⁴⁴ They are also characteristic of the rich graves from Stična, namely those from the Certosa phase.²⁴⁵ In Grave 121/48 from Stična, yellow beads with blue eyes, turquoise beads with blue and white eyes, beads with blue eyes and yellow warty protrusions are found in combination with Certosa-type fibulae, variant V, as well as a fibula with three buttons on the bow.²⁴⁶ For the dating of the multi-coloured bead with yellow warty protrusions from Dvorovi, an analogy with the beads from the aristocratic grave in Atenica, dated to the late 6th and early 5th century, is important.²⁴⁷ Glass beads are few in number among female graves at Donja Dolina, although there are some known examples from settlements dated to Donja Dolina phase 2b–c.²⁴⁸ For the most part, glass beads are mentioned only sporadically in the literature, as is the case with those from the necropolis in Sanski Most, where no drawings or detailed descriptions have been provided.

CERAMICS

When attempting to assess the importance of cultural communication on the basis of material culture, we should keep in mind that individual objects have different potentials to evidence such contact. Compared to metal finds, ceramic objects have a lower value, are usually larger in size, and are more sensitive to transport, which limits the spatial distribution of such objects and, consequently, their cultural impact. However, similarities in ceramic production, forms and decorative motifs point to a much more immediate nature of contact between certain cultures or communities within particular geographical boundaries.²⁴⁹ The collected ceramic inventory from the Dvorovi area is extremely small, which is certainly the result of the selective collection of the most representative metal objects. Only two ceramic vessels have been preserved in the collection of the Museum of Semberija,

242 Kemenczei 2009, 88; Kozubová 2013, 40; Durković 2015, 52, kat. br. 121.

243 Purowski 2010, 53; Kozubová 2013, 41.

244 Križ 2006, 118; Križ, Guštin 2015, 50.

245 Božič 2016, 156.

246 Gabrovec, Teržan 2010, T. 72: 43–53.

247 Ђукнић, Јовановић, 1966, 17, T. XVII: 1; Васић 2009, 111.

248 Marić 1964, T. XXIII: 6–21; Čović 1987a, 246, 252.

249 Potrebica 2003, 224.

242 Kemenczei 2009, 88; Kozubová 2013, 40; Durković 2015, 52, cat. no. 121.

243 Purowski 2010, 53; Kozubová 2013, 41.

244 Križ 2006, 118; Križ, Guštin 2015, 50.

245 Božič 2016, 156.

246 Gabrovec, Teržan 2010, T. 72: 43–53.

247 Ђукнић, Јовановић, 1966, 17, T. XVII: 1; Васић 2009, 111.

248 Marić 1964, T. XXIII: 6–21; Čović 1987a, 246, 252.

249 Potrebica 2003, 224.

u cijelosti pripada tipu 6b prema tipologiji keramike M. Gavranovića, s drškama koje nadvisuju obod i s vertikalnim kanelurama metopno raspoređenim po trbuhu (T. VII: 34). Njihova pojava karakteristična je za donjodolinsku fazu 2b.²⁵⁰ Analogije pronalazimo i u primjercima otkrivenim na nekropoli u Doroslavu, gdje je nešto učestalije ukrašavanje žigosanjem. Prema hronologiji Carole Metzner-Nebelsick, kantarosi iz ove skupine datuju se u horizont IIIb–IV, odnosno period Ha C2–D1/2.²⁵¹ Drugi primjerak pripada šolji sa jednom masivnom drškom koja nadvisuje obod i dubokim kanelurama po trbuhu (T. VII: 35), kanonskom tipu koji se pojavljuje na donjodolinskoj nekropoli od kraja 7. do 5. stoljeća.²⁵²

UMJESTO ZAKLJUČKA – DVOROVİ U KULTURNOM KONTEKSTU STARIJEG ŽELJEZNOG DOBA

Starije željezno doba izrazito je dinamično razdoblje, s najrazličitijim interakcijama i intenzivnim komunikacijama među zajednicama čitave Evrope. Ova povezanost pružila je osnovu za materijalnu i kulturnu raznolikost. Transformacija društva i nove ekonomske strategije bile su ključne za preoblikovanje novih odnosa među pojedincima i zajednicama. Svojevrsnu kulturnu kulminaciju i transformaciju lokalne zajednice doživljavaju upravo u ovom razdoblju, što je za posljedicu imalo pojavu bogatih, aristokratskih grobova s raznovrsnim pogrebnim inventarom, koji između ostalog uključuje i importovane predmete iz različitih teritorija i s različitim kulturnom pozadinom. Tokom ovog perioda regionalna i lokalna razmjena postaju jasnije detektovane u arheološkom kontekstu. Pojedine regije, čak i mikro-centri postaju proizvođači robe koja nosi lokalne stilske karakteristike, koje se kao takve u nekim drugim regijama izdvajaju od domaćih proizvoda.²⁵³

U poređenju s relativno brojnim informacijama o ekonomskim i društvenim strategijama eponimne donjodolinske zajednice ili pak onih sa glasičkog područja, stoji vrlo mali, gotovo nepostojeći broj podataka o sličnim i/ili istim procesima u regiji Semberije i međuriječju Save i Drine, čime je mogućnost komparativne analize materijala s različitih lokaliteta znatno umanjena. No, i uprkos tome, predmetna građa pružila je određenu mogućnost ponovnog vrednovanja i reinterpretacije predmeta kako u lokalnom tako i širem regionalnom kontekstu. To se posebno odnosi na otkriće bogato opremljenog groba s lokacije Dvorovi – Kućerine, koji potvrđuje ranije pretpostavke o regionalnim kontaktima i korištenje iste materijalne kulture u promovisanju statusnih simbola elitnih žena.²⁵⁴ Informacije o sahranjivanju na Dvorovima su jako fragmentovane i nepotpune. Prema dosadašnjem stanju istražnosti,

typologically classified into the category of kantharoi and cups. The goblet or kantharos preserved in its entirety is classified as type 6b according to M. Gavranović's pottery typology, with handles that overhang the rim and with vertical fluting distributed in a metope manner on the belly (T. VII: 34). Their presence is characteristic of Donja Dolina phase 2b.²⁵⁰ Analogies can also be found in the specimens discovered at the necropolis in Doroslov, where stamped decoration is somewhat more common. According to the chronology of Carola Metzner-Nebelsick, the kantharoi from this group are dated to the IIIb–IV horizon, i.e. the Ha C2–D1/2 period.²⁵¹ The second example is a cup with a single massive handle that overhangs the rim and deep grooves on the belly (T. VII: 35); a canonical type that appears in the Donja Dolina necropolis from the end of the 7th to the 5th century.²⁵²

IN PLACE OF A CONCLUSION – DVOROVİ IN THE CULTURAL CONTEXT OF THE EARLY IRON AGE

The Early Iron Age is a highly dynamic period, exhibiting a wide array of interactions and intensive communications between communities throughout Europe. Such connections provided the basis for material and cultural diversity. Societal transformation and new economic strategies were key to (re-)shaping relationships between both individuals and communities. Local communities experienced a cultural culmination and transformation during this period, which resulted in the appearance of rich, aristocratic graves with diverse funerary inventories, including, among other things, imported objects from different territories and with different cultural backgrounds. Regional and local exchange also becomes more evident in the archaeological record, with individual regions, even micro-centres, becoming producers of goods that bear local stylistic characteristics, and, as a result, stand out from domestic products when found in other regions.²⁵³

Compared to the relatively large amount of information on the economic and social strategies of the eponymous Donja Dolina community or those from the Glasinac area, there is a very small, almost non-existent, amount of data on similar and/or identical processes in the Semberija region and the confluence of the Sava and Drina rivers, which significantly reduces the possibility of comparative analysis of materials from different locations. However, in spite of this, the analysed material provided an opportunity to re-evaluate and reinterpret finds both in the local and the wider regional context. This was especially the case for a richly furnished grave from Dvorovi – Kućerine, which confirms earlier assumptions about regional contacts and the presence of a degree of uniformity in material culture when promoting the status symbols of elite women.²⁵⁴ Information about the burials at Dvorovi is highly fragmented and incomplete. According to the current state of research, we can talk about

250 Čović 1987a, 245; Gavranović 2011, 80.

251 Metzner-Nebelsick 2002, 174–175.

252 Čović 1987a, 252.

253 Wells 1998, 245; 2008, 361.

254 Marić 1960, 52.

250 Čović 1987a, 245; Gavranović 2011, 80.

251 Metzner-Nebelsick 2002, 174–175.

252 Čović 1987a, 252.

253 Wells 1998, 245; 2008, 361.

254 Marić 1960, 52.



Sl. 14. Grobni inventar Dvorovi – Kučerine (snimio: A. Jašarević).

Fig. 14. Dvorovi – Kučerine grave inventory (photo: A. Jašarević).

možemo govoriti o isključivo skeletnom sahranjivanju u ravnim nekropolama.²⁵⁵ Od ukupnog broja evidentiranog arheološkog materijala s prostora Dvorova, primjetno je da se većina grupiše oko ženske nošnje, i to one luksuznije: ažurirani pojasevi, staklene i čilibarske perle, sljepoočnice, narukvice s prekrštenim krajevima i fibulama.²⁵⁶ S jedne strane, to je rezultat selektivnog prikupljanja najreprezentativnijih metalnih predmeta, što je potvrđeno malim brojem sakupljenog keramičkog gradiva, ali isto tako riječ je o postojanju bogatih ženskih grobova i njihovoj vidljivoj socijalnoj diferencijaciji u pogrebnom ritualu. Prostor Semberije i donjeg toka rijeke Drine sa savskim međuriječjem kulturno je doveden u kontekst sa sremskom skupinom razvijenog željeznog doba, i to njenom najranijom fazom s kraja 6. stoljeća, koja prethodi pojavi fibula tipa Certosa, varijante V.²⁵⁷ Iako za sada raspoložemo izrazito malim korpusom građe, uglavnom iz grobova, možemo pretpostaviti da su željeznodobne zajednice na ovom prostoru odražavale intenzivne kulturne i trgovačke kontakte, vidljivo u optičaju predmeta koji se tradicionalno dovode u kontekst s drugim teritorijem poput Glasinca, predloženo fibulama tipa Arareva gromila, ali sada posvjedočeno i materijalnom

exclusively skeletal burials in flat necropolises.²⁵⁵ When discussing the entirety of the recorded archaeological material from the area of Dvorovi, it is noticeable that the majority is grouped around more luxurious women's costumes: open-work belts, glass and amber beads, anklets, bracelets with crossed ends, and fibulae.²⁵⁶ On the one hand, this is the result of the selective collection of the most representative metal objects, which is confirmed by the comparatively small quantity of collected ceramic material, but it is also a matter of the existence of rich female graves and their visible social differentiation in terms of funerary rites. The area of Semberija and the lower course of the Drina river with the Sava interfluvium is culturally associated with the Srem cultural group of the Iron Age, namely, its earliest phase from the end of the 6th century, which precedes the appearance of fibulae of Certosa type, variant V.²⁵⁷ Although we still have an extremely small corpus of material, mostly from graves, we can assume that the Iron Age communities in this area exhibited intensive cultural and trade contacts, evident in the circulation of objects that are traditionally associated with other territories, such as the Arareva gromila-type fibulae that are representative of Glasinac, and also material culture

255 Marić, *op. cit.*, 54–55.

256 Marić, *op. cit.*, T. I: 1–2; T. II: 3, 6; T. III: 1–5.

257 Vasić 1987a, 57; Dizdar 2019, 319–322.

255 Marić, *op. cit.*, 54–55.

256 Marić, *op. cit.*, T. I: 1–2; T. II: 3, 6; T. III: 1–5.

257 Vasić 1987a, 57; Dizdar 2019, 319–322.

kulturom s Donje Doline.²⁵⁸ Pojedini članovi zajednice, zapravo članice koje su i jedino arheološki vidljive, profitirale su od ove kulturne interakcije, o čemu svjedoče importovani predmeti visokog kvaliteta u grobovima. Svi bronzani i prilično različiti ornamenti iz Dvorova pokazuju obrasce trošenja i dugotrajne upotrebe, što ukazuje na to da su korišteni prije polaganja u grobove i da stoga nisu bili proizvedeni samo i posebno za pogrebnu upotrebu. Nameće se stoga argumentovana pretpostavka da se većina dokaza o nošnjama istraženim u grobovima odnosi na reprezentaciju živih, iako su se kulturološki i konceptualno pretvorili u nošnju mrtvih. Drugim riječima, eksplicitni pogrebni kostim imao je određene semantičke sličnosti s kostimima živih.²⁵⁹

Ukrašavanje specifičnim i efektnim ornamentima uvijek je bila reprezentacija društvenih, ideoloških i transcendentno/kosmoloških koncepata koji ne predstavljaju samo vrijednosti lokalnih zajednica već su dio šireg kulturnog miljea.²⁶⁰ Donja Dolina, koja stoji na istoj osi komunikacije sa Dvorovima, predstavljala je svakako centar koji je pokretao i stvarao nove modne i estetske kriterijume, nametao običaje i norme, a sve to zahvaljujući geostrateškom položaju, razgranatoj trgovačkoj i posredničkoj mreži koju je održavala. Kao dio supraregionalne komunikacijske mreže, donjodolinske žene bile su prepoznate na osnovu bogato opremljenog kostima i u drugim dijelovima središnjeg te zapadnog Balkana. Isti bogato opremljeni grobovi s dijelovima nošnji koji uključuju narukvice s prekrštenim krajevima, narukvice, fibule, ažurirane pojaseve, niske od ćilibarskih i staklenih perli poznate su npr. iz Trnovica,²⁶¹ Hrtkovaca,²⁶² Jele,²⁶³ Vrtišta,²⁶⁴ Grivca,²⁶⁵ Novog Sela kod Niša.²⁶⁶ Oni nam svjedoče da je svaka osoba sada prepoznata u smislu složenijih društvenih varijabli, koje su uključivale pol, dob, rod, regionalne identitete, kao i društveni status.²⁶⁷

Pored trgovine i/ili razmjene vrijednih dobara, i drugi su oblici mobilnosti dovodili do povezanosti na različite načine, koji su bili posredovani materijalnom kulturom. Jedan od često potenciranih oblika transfera upravo je miraz. Prvenstveno se koristio da bi se interpretacije udaljile od tradicionalnih difuzionističkih modela širenja kultura i kulturnih navika. Mobilnost žena se najčešće objašnjava egzogamijom i realizacijom pojedinih partnerskih odnosa koji su bili važan kohezivni element između različitih zajednica, posebno kao oblik društvene komunikacije između ustoličenih elita, a radi legalizacije politika i ekonomskih

from Donja Dolina.²⁵⁸ Individual members of the community profited from this cultural interaction, as evidenced by the high-quality imported objects present in the graves. All of the bronze ornaments from Dvorovi bear evidence of patterns of prolonged use, indicating their usage prior to burial and the fact that they were not produced solely and specifically for funerary use. Therefore, it is reasonable to assume that much of the costume-related itinerary of the graves is representative of the living, although culturally and conceptually it has been transformed into the costume of the dead. In other words, the explicit funeral costumes bore certain semantic similarities with those of the living.²⁵⁹

Decoration with specific and effective ornaments has always been a form of representation of social, ideological and transcendental/cosmological concepts that not only represent the values of local communities, but are also part of a wider cultural milieu.²⁶⁰ Donja Dolina, which is situated along the same communication axis as Dvorovi, was undeniably a centre of initiation and creation of new fashions and aesthetic criteria, as well as imposition of customs and norms, and all this owing to its geostrategic position and the extensive trade and intermediary network it maintained. As part of the supraregional communication network, the women of Donja Dolina could also be recognised in other parts of the Central and Western Balkans on the basis of richly-adorned costumes. Equally richly furnished graves with costume components that include bracelets with crossed ends, bracelets, fibulae, open-work belts, and amber and glass beads are also known from, for example, Trnovica,²⁶¹ Hrtkovci,²⁶² Jela,²⁶³ Vrtišta,²⁶⁴ Grivac,²⁶⁵ and Novi Selo near Niš.²⁶⁶ They testify to each person at that time having been recognised in terms of more complex social variables, which included sex, age, gender, regional identity and social status.²⁶⁷

In addition to trade and/or exchange of valuable goods, other forms of mobility led to connections in different ways, mediated by material culture. One often-emphasised form of transfer was via dowry. This explanation was primarily used to move interpretations away from traditional diffusionist models of the spread of cultures and cultural habits. Women's mobility is most often explained by exogamy and the realisation of certain partner relationships that were an important cohesive element between different communities, especially as a form of social connection between enthroned elites, and for the legitimisation of policies and economic goals.²⁶⁸ The presence of women from the Donja Dolina community in Dvorovi is indicated by items from the Dvorovi – Kućerine grave, which, among other things, includes im-

258 Cf. Dizdar 2020, 203.

259 Cf. Sørensen 2013, 226.

260 Blečić Kavur 2019, 40, 50.

261 Косорић 1983, 31.

262 Dizdar 2020, 193.

263 Васиљевић 1976, 167.

264 Vasić 1977, T. 21; Vasić 1987b, 662.

265 Vasić 1977, T. 23.

266 Vasić, *op. cit.*, T. 22: B.

267 Dizdar 2020, 208–209.

258 Cf. Dizdar 2020, 203.

259 Cf. Sørensen 2013, 226.

260 Blečić Kavur 2019, 40, 50.

261 Косорић 1983, 31.

262 Dizdar 2020, 193.

263 Васиљевић 1976, 167.

264 Vasić 1977, T. 21; Vasić 1987b, 662.

265 Vasić 1977, T. 23.

266 Vasić, *op. cit.*, T. 22: B.

267 Dizdar 2020, 208–209.

268 Kristiansen 1999, 184; Dizdar 2018, 17.

ciljeva.²⁶⁸ Na prisustvo žene iz donjodolinske zajednice u Dvorovima ukazuju predmeti iz groba Dvorovi – Kućerine koji, između ostalog, uključuje importovane forme nakita iz mjesnih radionica Donje Doline, poput pločastih fibula tipa Donja Dolina i sljepoočničarke. Nadalje, ostali inventar ukazuje na posredničku ulogu Donje Doline poput limenih narukvica tipa Brezje ili niske od čilibarskih i staklenih perli. Ti su predmeti svakako obilježili postojeće komunikacijske pravce, ali su nam pružili i dobru pretpostavku za definisanje fizičkog prisustva donjodolinskih žena u Dvorovima, najvjerojatnije putem egzogamije. Jer, u odabiru nošnje ne odražavaju se samo određeni preuzeti elementi već, kako je obrazloženo, način njihove kombinacije potvrđuje mnogo složenije koncepte od puke imitacije. Standardizovan ženski kostim modelovan u donjodolinskoj zajednici bio je, dakle, prenesen i u kulture susjednih skupina. Kao važan medij socijalne komunikacije i interakcije, može se reći da je odražavao samoidentifikaciju svojih nositeljica. On je omogućavao ženama da izraze svoju kulturnu, društvenu i stalešku pripadnost, čime je posredno, ali znatno uticao na formiranje njihovog identiteta. Pojava karakterističnih dijelova donjodolinske nošnje u grobu žene s Dvorova – Kućerina dokaz je da su se ljudi, predmeti i/ili ideje kretali kroz različita polja društvenog diskursa, ostavljajući svoj trag. Zato se naročito u praistorijskoj arheologiji širenje pojedinih tipova nakita i nošnje shvatalo kao argument mobilnosti ljudi.

Do sada nije evidentiran sličan grob na lokalnom/regionalnom nivou koji daje takav odabir importovanih predmeta s mogućim naznakama o porijeklu. Prostorni položaj Donje Doline i Dvorova svjedoči o zajednici čije je djelovanje bilo u najvećoj mjeri određeno i okrenuto prema Savi i komunikacijskom koridoru koji je ta rijeka predstavljala u kontekstu mobilnosti.²⁶⁹ Pojava elemenata donjodolinske kulture starijeg željeznog doba u regiji već je ranije sporadično evidentirana preko višeglavih igli tipa Donja Dolina,²⁷⁰ ali u Dvorovima – Kućerinama prvi put vidimo jasno definisanu matricu u formiranju kostima koja je preuzeta iz matičnog središta – Donje Doline. To nisu samo pojedinačni modni elementi nego normativ u formiranju nošnje koji kazuje o ličnoj povezanosti pokojnice s kulturnim prostorom iz kojeg dolazi. Sklapanje braka je i arena za pregovaranja o pravima i obavezama: ljudi koji dolaze iz različitih zajednica i drugačijeg kulturnog miljea mogu imati različita gledišta o braku, tradiciji, kulturnim normama i vrijednostima.²⁷¹ No, u ovom slučaju te razlike najvjerojatnije nisu postojale ili nisu bile toliko izdiferencirane jer se radi o jako sličnom i bliskom kulturnom krugu, s najvjerojatnije istom društvenom organizacijom i društvenim normama, pa su shodno tome i očekivanja od braka bila slična, a asimilacija žena jednostavnija i uspješnija.

ported forms of jewellery from the local workshops of Donja Dolina, such as the Donja Dolina-type plate fibulae and temple rings. Furthermore, the rest of the inventory, such as the Brezje-type bronze bracelets or necklaces made of amber and glass beads, points to an intermediary role played by Donja Dolina. These items certainly trace the existing lines of communication, but they also provide us with a good basis for defining the physical presence of women from Donja Dolina in Dvorovi, most likely through exogamy. Namely, not only does the selection of costumes reflect certain adopted elements, but, as explained, the manner of their combination is also highly suggestive of the presence of far more complex concepts than mere imitation. The standardised female costume modelled in the Donja Dolina community was, therefore, transferred to the cultures of neighbouring groups. It can be said that, as an important medium of social communication and interaction, it reflected the (self-)identification of its female wearers. It enabled women to express their cultural, social and class affiliation, which indirectly (but significantly) influenced the formation of their identity. The appearance of characteristic components of the Donja Dolina costume in the female grave from Dvorovi – Kućerine is proof that people, objects and/or ideas moved through different fields of social discourse, leaving their mark. That is why, especially in prehistoric archaeology, the spread of certain types of jewellery and costumes has in the past been put forward as an argument for people's mobility.

To date, no similar grave has been recorded at the local/regional level that provides such a range of imported objects with possible indications of origin. The spatial positioning of Donja Dolina and Dvorovi bears witness to a community whose activities were largely determined by and oriented towards the Sava river and the communication corridor that it represented in the context of mobility.²⁶⁹ The appearance of elements of the Donja Dolina culture of the Early Iron Age in the region has already been recorded sporadically in the form of multi-headed pins of the Donja Dolina type,²⁷⁰ but in Dvorovi – Kućerine we see for the first time a clearly defined matrix in the formation of costumes that were adopted from the core centre: Donja Dolina. These are not just individual fashion elements, but a norm in the formation of costumes that speaks of the deceased woman's personal connection with the cultural space from which she originated. Marriage was also an arena for negotiating rights and obligations: people coming from different communities and cultural backgrounds could have had different views on marriage, traditions, cultural norms and values.²⁷¹ However, in this case, these differences most likely did not exist or were not so differentiated, as it is a very similar and narrow cultural circle, with most likely the same social organisation and social norms, and so, accordingly, the expectations of marriage were similar, and the assimilation of women was simpler and more successful.

268 Kristiansen 1999, 184; Dizdar 2018, 17.

269 Cf. Potrebica 2008; 2003, 218.

270 Vasić 1989, 104; Majnarić-Pandžić 2002, 283.

271 Saltini Semerari 2016, 83.

269 Cf. Potrebica 2008; 2003, 218.

270 Vasić 1989, 104; Majnarić-Pandžić 2002, 283.

271 Saltini Semerari 2016, 83.

Najvidljiviji arheološki element ženskog ličnog identiteta je kostim i svi njegovi dijelovi, koji predstavlja različite vizuelne poruke o porijeklu, polu i starosnoj grupi, društvenom statusu i profesionalnoj orijentaciji. Kada se oblačimo, to činimo unutar poznatih i definisanih kulturnih granica i prema određenim pravilima; sticanje propisanog kostima je proces u kojem je tijelo pripremljeno za javnu prezentaciju u svom društvenom miljeu. Stoga kostim ima važnu simboličku ulogu u društvenoj komunikaciji kao oblik neverbalne reprezentacije i vizuelnog koda, ali i kao izvor identifikacije različitih komunikacijskih mreža.²⁷² Interakcije između donjodolinske i zajednice iz Dvorova mogle bi rezultirati bliskim kulturnim i političkim vezama u koje će biti uključena i bračna razmjena. Slična društvena struktura, geografska blizina i, što je posebno bitno, zajednički oblik izražavanja u ekonomskim odnosima, tj. bar približno slična vrijednosna ljestvica, temelj su za postojanje bračne mobilnosti. Za zajednicu poput Donje Doline, koja je svoju društvenu kompleksnost i ekonomsku strategiju formirala oko jakog trgovačkog centra i riječne luke, iznimno je važna kontrola prostora i strateških pozicija u distributivnom lancu i komunikacijskoj mreži. Pozicija Dvorova u međurječju Save i Drine, na razmeđu između različitih kulturnih uticaja, ključna je tačka u dinamici tih kontakata i zato je važno povezati i učvrstiti odnose s tom zajednicom i preko međukulturnih brakova, što je oblik prisnijeg i neposrednijeg savezništva. Ova hipoteza čini se opravdanom i mogućom ako pogledamo izbor pogrebnog inventara iz groba Dvorovi – Kućerine.

Brak izvan bliže zajednice zasigurno pripada krugu društveno motivisane mobilnosti. On za elite postaje jedan oblik simboličkog i ideološkog kapitala. Na isti način na koji su bračne alijanse stvorile vezu između društvenih skupina, lični ukrasi (s ciljem razlikovanja od drugih slojeva) mogu biti jak faktor povezivanja različitih društvenih ili hijerarhijskih klasa na regionalnom nivou.²⁷³ Ako se tijela u postmodernim društvima iskazuju i kao forma fizičkog kapitala, koja se mogu konvertovati u ekonomski kapital, nema razloga da pretpostavimo kako je drugačije bilo i u praistoriji, gdje poželjan tjelesni izgled i statusna pozicija postaje povezana uz namjeru pojedinca da uveća svoju socijalnu mobilnost i pretvori je u društveni kapital.²⁷⁴ Takođe, može se očekivati veća varijabilnost u ženskoj pogrebnoj praksi nego kod muškaraca u patrilokalnim društvima, gdje je rodna podjela bila zasnovana kako u životu tako i u smrti, i gdje su regionalne razlike bile reflektovane kroz nakit, nošnju i ornamente uz pretpostavku da je ženi bilo dozvoljeno da zadrži dijelove svoje nošnje iz zajednice iz koje je pridošla. Zadržavanje i praktikovanje stečenih običaja, navika i materijalne kulture reflektovalo bi se u novoj zajednici. Mobilnost putem braka može biti vidljiva ako u ženskoj nošnji postoji određena regionalna i kulturna

The most visible archaeological element of women's personal identity is the costume and its components, conveying different visual messages about origin, gender, and age group, social status and professional orientation. When we dress, we do so within the known and defined cultural boundaries and according to certain rules; acquiring a prescribed costume is a process in which the body is prepared for public presentation in its social milieu. Therefore, the costume has an important symbolic role in social communication as a form of non-verbal representation and visual code, but also as a source of identification of different communication networks.²⁷² Interactions between Donja Dolina and the community from Dvorovi may have resulted in close cultural and political ties, including marriage exchanges. A similar social structure, geographical proximity and – of particular importance – a common form of expression in economic relations, i.e. at least an approximately similar value scale, are the basis for the existence of marital mobility. For a community like Donja Dolina, which formed its social complexity and economic strategy around a strong trading centre and river port, control of space and strategic positions in the distribution chain and communication network was extremely important. The position of Dvorovi at the confluence of the Sava and Drina rivers, at the boundary between different cultural influences, was key in the dynamics of these contacts, and that is why it was important to connect and strengthen relations with that community through cross-cultural marriages, which brought about a closer and more immediate alliance. This hypothesis seems justified and plausible if we look at the grave inventory from Dvorovi – Kućerine.

Marriage outside the immediate community undeniably belonged to the realm of socially-motivated mobility, also essentially having been a form of symbolic and ideological capital for the elites. In the same way that marriage alliances created a link between social groups, personal adornment (with the aim of distinguishing oneself from other social strata) could be a strong factor in connecting different social or hierarchical classes at a regional level.²⁷³ If bodies in post-modern societies are also expressed as a form of physical capital that can be converted into economic capital, there is no reason to assume that it was any different in prehistoric times, where desirable physical appearance and status became interlinked with the individual's intention to increase their social mobility and convert it into social capital.²⁷⁴ Also, greater variability can be expected in women's burial practices than men's in patrilocal societies, where gender division existed both in life and in death, and where regional differences were reflected in jewellery, costume, and ornaments, assuming that women were allowed to retain components of their costume from their native community. Keeping and practicing acquired customs, habits and material culture would be reflected in the new community. Mobility through marriage may well be visible if there is certain regional and cultural variation present in women's costumes, or if, for

272 Dizdar 2018, 15; Blečić Kavur 2019, 40; Dizdar 2020, 209.

273 Blečić Kavur 2019, 50.

274 Adamović, Maskalan 2011, 54–55.

272 Dizdar 2018, 15; Blečić Kavur 2019, 40; Dizdar 2020, 209.

273 Blečić Kavur 2019, 50.

274 Adamović, Maskalan 2011, 54–55.

varijabilnost, ako je žena uključena u specifične forme proizvodnje poput obrade tekstila ili proizvodnju keramike, gdje bi prenijela svoje stečeno znanje, navike i dekorativnost stila koji je stekla u svojoj prvobitnoj zajednici. Rezultat bi bila veća varijabilnost u materijalnoj kulturi, posebno u pojedinačnim tipovima nalaza. Međuregionalni brakovi bi stoga bili element sistema savezništva između predstavnika lokalnih elita koji se bore za dominaciju u svojim skupinama.²⁷⁵ No, razmjena putem brakova mogla bi u isto vrijeme biti povezana s drugim oblicima međuljudskih odnosa, kao što je promet prestižnih dobara. Napraviti oštru granicu između ritualne razmjene i one ekonomskog karaktera nije uvijek moguće.²⁷⁶ U svojoj kritici koncepta miraza i bračne mobilnosti, Sebastian Brather je primijetio da se često ne uzimaju i druge mogućnosti u obzir, npr. kako se šire ukrasi i elementi ženske nošnje. Jer nisu svi opisani slučajevi mobilnosti putem braka rezultat isključivo bioloških, već je prije svega riječ o političkim i društvenim faktorima.²⁷⁷

Konačno, ponovno vrednovani arheološki materijal iz Dvorova još jednom je potvrdio značaj lokaliteta, ali i čitave regije u složenim društvenim i ekonomskim odnosima koji su zabilježeni tokom starijeg željeznog doba. U čitavom spektru materijalne kulture posebno se izdvajaju dijelovi nakita i ornamenata iz ženskih nošnji koji još jednom naglašavaju ulogu i status žene/žena u zajednici.

Zahvale: Pri pisanju rada neizostavna je bila podrška brojnih kolega i prijatelja, kojima se ovim putem iskreno zahvaljujem: Martina Blečić Kavur (Fakultet humanističkih studija, Kopar), Boris Kavur (Fakultet humanističkih studija, Kopar), Snježana Antić (Muzej Semberije, Bijeljina), Mirko Babić (Muzej Semberije, Bijeljina), Ana Marić (Zemaljski muzej Bosne i Hercegovine, Sarajevo), Radovan Sremac (Muzej naivne umetnosti Ilijanum, Šid), Momir Cerović (Narodni muzej Šabac, Šabac), Vanja Žigić (Muzej Brčko distrikta, Brčko), Dženan Brigić (Muzej istočne Bosne, Tuzla), Muhamed Bešliagić (Zemaljski muzej Bosne i Hercegovine, Sarajevo) i Lejla Bajramović (Zemaljski muzej Bosne i Hercegovine, Sarajevo).

instance, the woman was involved in specific forms of production, such as textile processing or pottery production, where she would transfer the knowledge, habits and decorative style acquired in her native community. The result would be greater variability in material culture, especially in individual types of finds. Interregional marriages would therefore be manifested as an element of a system of alliances between representatives of local elites fighting for dominance within their groups.²⁷⁵ Exchange through marriage could also – and at the same time – be associated with other forms of interpersonal relations, such as the trade in prestige goods. However, it is not always possible to draw a sharp line between ritual exchange and economic exchange.²⁷⁶ In his critique of the concept of dowry and marital mobility, Sebastian Brather noted that other possibilities are often not taken into account when considering, for example, the manner in which decorations and elements of women's costume spread. Indeed, not all of the described cases of mobility through marriage are the result of exclusively biological factors, but rather primarily of political and social factors.²⁷⁷

Finally, the re-evaluated archaeological material from Dvorovi once again confirmed the importance of the locality, but also of the entire region in the complex social and economic relations that were recorded during the Early Iron Age. In the entire spectrum of material culture, parts of jewellery and ornaments from women's costumes stand out, once again emphasising the role and status of the woman/women in the community.

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²⁷⁵ Arnold 2005, 19; Arnold 2007, 120; Jašarević 2014, 79.

²⁷⁶ Palavestra 1993, 287; Бабић 2004, 72; Jašarević 2014, 80.

²⁷⁷ Brather 2004, 588–590; cf. Hofmann 2009, 148.

²⁷⁵ Arnold 2005, 19; Arnold 2007, 120; Jašarević 2014, 79.

²⁷⁶ Palavestra 1993, 287; Бабић 2004, 72; Jašarević 2014, 80.

²⁷⁷ Brather 2004, 588–590; cf. Hofmann 2009, 148.

KARTOGRAFIJA

Lista 1.

Sl. 3. Karta distribucije bronzanih narukvica s prekrštenim krajevima (dopunjeno prema Kilian 1975; Vasić 1977; Gergova 1987).

1. Donja Dolina
2. Dvorovi (nepublikovano, Muzej Semberije, Bijeljina)
3. Šid (nepublikovano, muzejska zbirka Šid)
4. Hrtkovci
5. Grivac
6. Vrtište
7. Novo Selo – Dub
8. Ravanja, Aleksinac (Милојевић, Трајковић-Филиповић 2017, 101)
9. Demir Kapija
10. Tri Čeljusti
11. Vučidol
12. Poteidaia
13. Gradec
14. Palilula
15. Sadovik
16. Ruska Bela-Moravic
17. Debnevo
18. Belenci
19. Borec
20. Vidin
21. Markovo
22. Nevestino
23. Brezjak, Paulje (Булатовић *et al.* 2017, 73)

Lista 2.

Sl. 5. Karta distribucije ažuriranih pojaseva (dopunjeno prema Vasić 1971, Христов 2004).

1. Donja Dolina
2. Dvorovi
3. Beremend
4. Hrtkovci
5. Jarčin
6. Ferigile
7. Babeni
8. Drencova
9. Orlea
10. Gradec
11. Vidin
12. Debnevo
13. Karaš, Lukuvusko
14. Mihajlovo
15. Ruska Bela-Moravica
16. Beliš
17. Lik, Mezdra
18. Gorni Dabnik, Pleven
19. Bežanovo, Loveč
20. Trajkovo
21. Sozopol
22. Mizija
23. Gumoštnik

CARTOGRAPHY

List 1.

Fig.3. Bronze bracelets with crossed ends distribution map (amended by Kilian 1975; Vasić 1977; Gergova 1987).

1. Donja Dolina
2. Dvorovi (unpublished, Museum of Semberija, Bijeljina)
3. Šid (unpublished, Šid, museum collection)
4. Hrtkovci
5. Grivac
6. Vrtište
7. Novo Selo – Dub
8. Ravanja, Aleksinac (Милојевић, Трајковић-Филиповић 2017, 101)
9. Demir Kapija
10. Tri Čeljusti
11. Vučidol
12. Poteidaia
13. Gradec
14. Palilula
15. Sadovik
16. Ruska Bela-Moravic
17. Debnevo
18. Belenci
19. Borec
20. Vidin
21. Markovo
22. Nevestino
23. Brezjak, Paulje (Булатовић *et al.* 2017, 73)

List 2.

Fig.5. Open-work belts distribution map (amended by Vasić 1971, Христов 2004).

1. Donja Dolina
2. Dvorovi
3. Beremend
4. Hrtkovci
5. Jarčin
6. Ferigile
7. Babeni
8. Drencova
9. Orlea
10. Gradec
11. Vidin
12. Debnevo
13. Karaš, Lukuvusko
14. Mihajlovo
15. Ruska Bela-Moravica
16. Beliš
17. Lik, Mezdra
18. Gorni Dabnik, Pleven
19. Bežanovo, Loveč
20. Trajkovo
21. Sozopol
22. Mizija
23. Gumoštnik
24. Vraca
25. Zlotska pećina
26. Karagač
27. Vrtište

24. Vraca
25. Zlotska pećina
26. Karagač
27. Vrtište
28. Dedeli
29. Bolovan-Bogdanci
30. Vinica
31. Vučidol
32. Perachora
33. Delphi
34. Olympia
35. Philia
36. Kënet

Lista 3.

Sl. 6. Karta distribucije fibula tipa Arareva gromila (dopunjeno prema Blečić Kavur, Miličević-Capek 2011).

1. Podlaze
2. Vražići
3. Taline
4. Arareva gromila
5. Bandin Ožak
6. Hreljina gradina, Glasinac (nepublikovano, Muzej u Doboju)
7. Šarančeve vrtače
8. Potpećine
9. Ilijak
10. Rusanovići
11. Debelo Brdo
12. Gračanica
13. Pržine kod Gacka
14. Kačanj kod Bileće
15. Grebnice, Ljubomir
16. Gradac kod Neuma
17. Vranjevo Selo
18. Grude
19. Donja Dolina
20. Trnovice kod Zvornika
21. Dvorovi
22. Jela, Šabac
23. Sremska Mitrovica
24. Banoštor
25. Požarevac
26. Kriva Reka
27. Godljevo
28. Ražana
29. Pilatovići
30. Srednja Dobrinja, Rogušica
31. Zabrnjica, Oborište
32. Novi Pazar
33. Pećka Banja
34. Mat, Bazje
35. Vinkovci-Dren (Dizdar 2019, fig. 1: 2)

28. Dedeli
29. Bolovan-Bogdanci
30. Vinica
31. Vučidol
32. Perachora
33. Delphi
34. Olympia
35. Philia
36. Kënet

List 3.

Fig. 8. The Arareva gromila-type fibulae distribution map (amended by Blečić Kavur, Miličević-Capek 2011).

1. Podlaze
2. Vražići
3. Taline
4. Arareva gromila
5. Bandin Ožak
6. Hreljina gradina, Glasinac (unpublished, Museum in Doboju)
7. Šarančeve vrtače
8. Potpećine
9. Ilijak
10. Rusanovići
11. Debelo Brdo
12. Gračanica
13. Pržine kod Gacka
14. Kačanj kod Bileće
15. Grebnice, Ljubomir
16. Gradac kod Neuma
17. Vranjevo Selo
18. Grude
19. Donja Dolina
20. Trnovice kod Zvornika
21. Dvorovi
22. Jela, Šabac
23. Sremska Mitrovica
24. Banoštor
25. Požarevac
26. Kriva Reka
27. Godljevo
28. Ražana
29. Pilatovići
30. Srednja Dobrinja, Rogušica
31. Zabrnjica, Oborište
32. Novi Pazar
33. Pećka Banja
34. Mat, Bazje
35. Vinkovci-Dren (Dizdar 2019, fig. 1: 2)

LITERATURA/LIST OF REFERENCES

- Adamović, M., Maskalan, A.** 2011, Tijelo, identitet i tjelesne modifikacije, *Sociologija i prostor*, 49, Zagreb, 49–70. DOI 10.5673/sip.49.1.3
- Arnold, B.** 2005, Mobile Men, Sedentary Women? Material Culture as a Marker of Regional and Supra-Regional Interaction in Early Iron Age Southwest Germany, in: H. Dobrzanska, V. Megaw, P. Poleska (eds), *Celts on the Margin: Studies in European Cultural Interaction 7th c. BC – 1st c. AD. Essays in Honor of Zenon Wozniak*, Polish Academy of Sciences, Institute of Archaeology and Ethnology, Krakow, 17–26.
- Arnold, B.** 2007, Gender and Archaeological Mortuary Analysis, in: S. Milledge Nelson (ed.), *Women in Antiquity: Theoretical approaches to gender and archaeology*, AltaMira Press, Walnut Creek, 107–141.
- Атанасова, Й., Кичашки, П.** 1965, Гробни находки от с. Градец, Видинско, Археология, 7, София, 52–55.
- Бабић, С.** 2004, Поглаварство и полис – Старије гвоздено доба централног Балкана и грчки свет, Балканолошки институт САНУ, Београд.
- Bader, T.** 1983, *Die Fibeln in Rumänien*, Prähistorische Bronzefunde, XIV/6, C. H. Beck, München.
- Bakarić, L.** 2006, Pretpovijesni Prozor / Prehistoric Prozor, in: *Pretpovijesni jantar i staklo iz Prozora u Lici i Novog Mesta u Dolenjskoj / Prehistoric amber and glass from Prozor in Lika and Novo Mesto in Dolenjska*, in: L. Bakarić, B. Križ, M. Šoufek (eds), Arheološki muzej u Zagrebu, Zagreb, 48–81.
- Benac, A., Čović, B.** 1957, *Glasinac. Dio 2, Željezno doba*, Zemaljski muzej u Sarajevu, Sarajevo.
- Blečić, M.** 2009, The significance of Amber in Kvarner region, in: A. Palavestra, C. W. Beck, J. M. Todd (eds.), *Amber in Archaeology: proceedings of the Fifth international conference on amber in archaeology, Belgrade 2006*, National Museum, Belgrade, 142–155.
- Blečić Kavur, M.** 2010, Željezno doba na Kvarneru, Doktorska disertacija, Univerza v Ljubljani, Filozofska fakulteta, Ljubljana.
- Blečić Kavur, M.** 2014, *Na razmeđu svjetova za prijelaza milenija: Kasno brončano doba na Kvarneru / At the crossroads of worlds at the turn of the millennium: The Late Bronze Age in the Kvarner region*, Musei Archaeologici Zagrabienis Catalogi et Monographiae XI, Arheološki muzej u Zagrebu, Zagreb.
- Blečić Kavur, M.** 2015, *Povezanost perspektive: Osor u kulturnim kontaktima mlađeg željeznog doba / A coherence of perspective: Osor in cultural contacts during the Late Iron Age*, University of Primorska Press, Mali Lošinj, Lošinski muzej, Koper.
- Blečić Kavur, M.** 2019, Grobnički pektoralni privjesci u kontekstu željeznodobne estetike simbola / Pectoral pendants from Grobnik in the context of the Iron Age symbol aesthetics, *Histria archaeologica*, 49, Pula, 39–58.
- Blečić Kavur, M., Miličević-Capek, I.** 2011, O horizontu ratničkih grobova 5. stoljeća pr. Kr. na prostoru istočne obale Jadrana i njezina zaleđa: primjer novog nalaza iz Vranjeva Sela kod Neuma / On the horizon of warrior graves from 5th century BC on the territory of the eastern Adriatic coast and its hinterland: the case of a new discovery in Vranjevo Selo near Neum, *Prilozi instituta za arheologiju u Zagrebu*, 28, Zagreb, 31–94.
- Blečić Kavur, M., Pravidur, A.** 2012, Ilirske kacige s područja Bosne i Hercegovine / Illyrian helmets from Bosnia and Herzegovina, *Glasnik Zemaljskog muzeja u Sarajevu, Arheologija*, n. s., 53, Sarajevo, 35–122.
- Blečić Kavur, M., Jašarević, A.** 2016, The Unknown Known: The new archaeological “clothes” of Ritešić – work in progress, in: V. Širbu, M. Jevtić, K. Dmitrović, M. Ljuština (eds.), *Funerary practices during the Bronze and Iron Ages in Central and Southeast Europe: proceedings of the 14th International Colloquium of Funerary Archaeology in Čačak, 24th–27th September 2015*, Faculty of Philosophy, National Museum in Čačak, Belgrad, Čačak, 225–236.
- Blečić Kavur, M., Kavur, B.** 2019, Privjesak kao tijelo – tijelo kao poruka: Reprezentacija tijela u simboličkoj interakciji predmeta, in: V. Filipović, A. Bulatović, A. Kapuran (eds.), *Papers in Honour of Rastko Vasić 80th Birthday / Зборник радова у част 80-г. Живоме Растку Васића*, Institute of Archaeology, Belgrade, 155–164.
- Bojanovski, I.** 1964, Bilješke iz arheologije I, *Naše starine*, IX, Sarajevo, 193–198.
- Božić, D.** 2016, Grobovi certoškoga stupnja u stariježeljeznodobnom tumulu 48 u Stični / Graves from the Certosa Phase in Early Iron Age Barrow 48 at Stična, *Prilozi instituta za arheologiju u Zagrebu*, 33, Zagreb, 155–170.
- Brather, S.** 2004, *Ethnische Interpretationen in der frühgeschichtlichen Archäologie: Geschichte, Grundlagen und Alternativen: Reallexikon der Germanischen Altertumskunde – Ergänzungsbände*, De Gruyter, Berlin, New York.
- Булатовић, А., Филиповић, В., Глигорић, Р.** 2017, Лозница: културна стратиграфија праисторијских локалитета у Јадру, Рађевини и Азбуковици, Археолошки институт, Београд.
- Cwaliński, M.** 2020, Bronze Age amber in Western and Central Balkans, *Arheološki vestnik*, 71, Ljubljana, 133–172. DOI:10.3986/AV.71.03
- Cvijić, J.** 1922, *Balkansko poluostrvo i južnoslovenske zemlje: osnove antropogeografije*, Državna štamparija Kraljevine Srba, Hrvata i Slovenaca, Beograd.
- Чаясидис, Н.** 2017, Македонските бронзи: религијата и митологијата на железнодобните заедници од Средниот Балкан, Центар за истражување на предисторијата, Скопје.
- Čović, B.** 1961, *Donja Dolina, nécropole de l'âge du fer*, Dr. Rudolf Habelt, Bonn.
- Čović, B.** 1967, Nalazi iz tumula u Gotovuši (Pljevlja) – 1906, Članci i građa za kulturnu istoriju istočne Bosne, 7, Tuzla, 35–40.
- Čović, B.** 1984, Bakreno, bronzano i željezno doba, u: P. Anđelić, I. Bojanovski, B. Čović, B. Marijanović (ur.), *Visoko i okolina kroz historiju 1*, Skupština opštine Visoko, Visoko, 29–48.
- Čović, B.** 1987a, Grupa Donja Dolina – Sanski Most, u: A. Benac (ur.), *Praistorija jugoslavenskih zemalja V – Željezno doba*, Svjetlost, Akademija nauka i umjetnosti Bosne i Hercegovine, Sarajevo, 232–286.
- Čović, B.** 1987b, Srednjobosanska grupa, u: A. Benac (ur.), *Praistorija jugoslavenskih zemalja V – Željezno doba*, Svjetlost, Akademija nauka i umjetnosti Bosne i Hercegovine, Sarajevo, 481–530.
- Čović, B.** 1987c, Glasinačka kultura, u: A. Benac (ur.), *Praistorija jugoslavenskih zemalja V – Željezno doba*, Svjetlost, Akademija nauka i umjetnosti Bosne i Hercegovine, Sarajevo, 575–643.
- Dizdar, M.** 2018, Reflections about Some Specific Finds of Female Costume in the Southern Carpathian Basin – Can We Recognize Female Mobility in the Middle La Tène?, in: S. Berecki, A. Rustoiu, M. Egri (eds), *Iron Age Connectivity in the Carpathian Basin, Proceedings of the International Colloquium from Târgu Mureș, 13–15 October 2017*, Mega, Târgu Mureș, 15–38.
- Dizdar, M.** 2019, New Late Hallstatt Finds from the Vinkovci Region (Eastern Croatia): A Contribution to the Study of Impacts from the Balkans to the southeastern Carpathian Basin, in: V. Filipović, A. Bulatović, A. Kapuran (eds.), *Papers in Honour of Rastko Vasić 80th Birthday / Зборник радова у част 80-г. Живоме Растку Васића*, Institute of Archaeology, Belgrade, 319–344.
- Dizdar, M.** 2020, The Late Hallstatt Connections between the South-eastern Carpathian Basin and the Western and Central Balkans: The Beautiful Ladies from the South, in: M. Gavranović, D. Heilmann, A. Kapuran, M. Verčik (eds), *Perspectives on Balkan Archaeology 1. Spheres of Interaction Contacts and Relationships between the Balkans and Adjacent Regions in the Late Bronze / Iron Age (13th–5th Centuries BCE)*, Marie Leidorf GmbH, Rahden, 189–216.

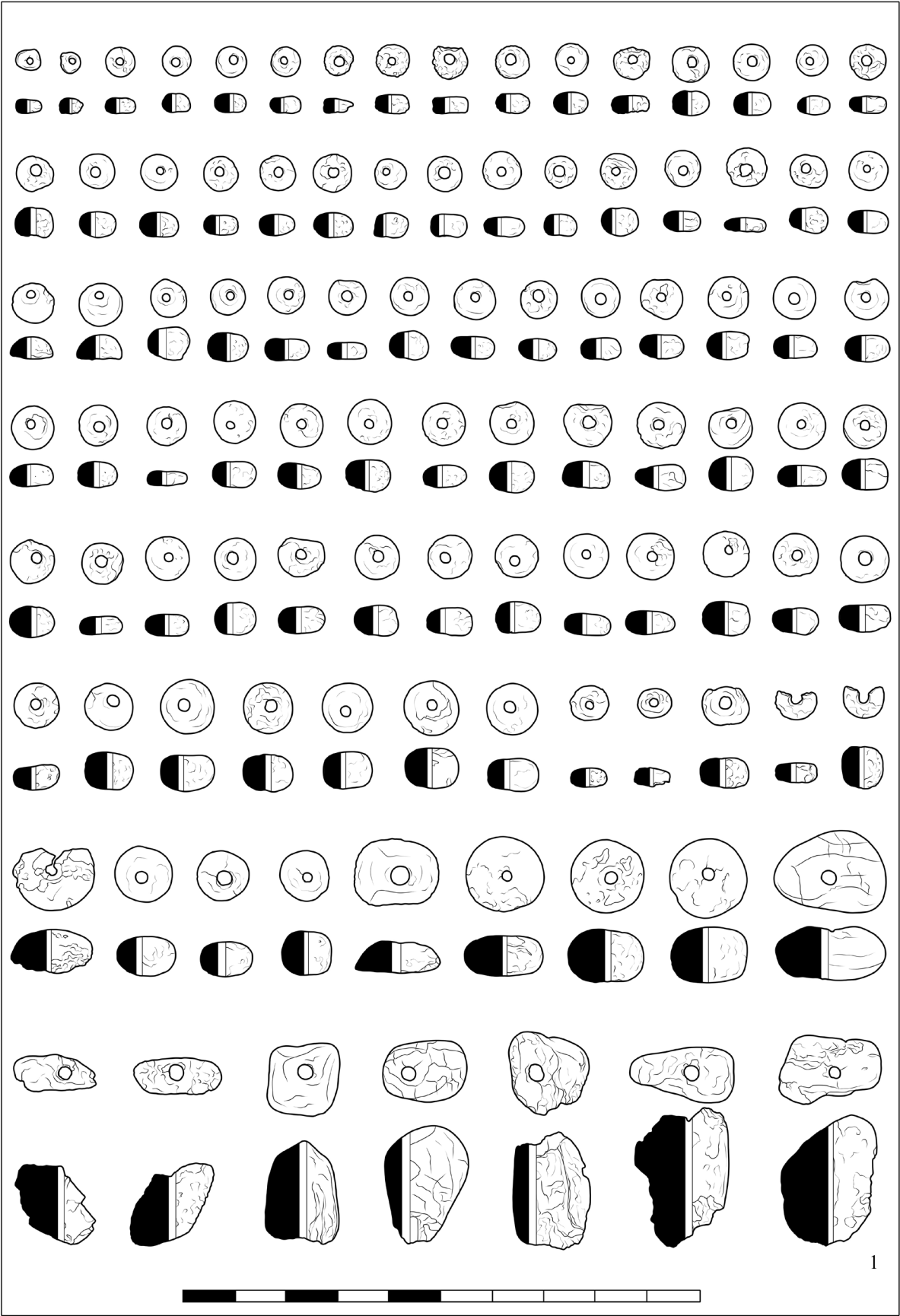
- Dizdar, M., Kapuran, A.** 2021, Late Hallstatt Female Head/Hair Decoration in the Southern Carpathian Basin. Temple Rings of the Ciurbrud and Donja Dolina Types, *Archaeologia Austriaca*, 105, Vienna, 149–204. DOI: 10.1553/archaeologia105s149
- Dular, J.** 2003, *Halštatske nekropole Dolenjske*, Institut za arheologijo, Opera Instituti Archaeologici Sloveniae 6, Založba ZRC, Ljubljana.
- Durković, E.** 2015, Vaskor, in: Á. Vágó (ed.), *A Kárpát-medence ősi kincsei*, Magyar Nemzeti Múzeum Budapest, 3–58.
- Ђукнић, М., Јовановић, Б.** 1966, Илирска кнежевска некропола у Атиници, Народни музеј, Чачак.
- Фиала, Ф.** 1897, Неколико грчких шлемова, нађених у Босни и Херцеговини, Гласник Земалског музеја у Сарајеву, с. с., IX, Сарајево, 657–663.
- Filipović, M.** 1969, *Prilozi etnološkom poznavanju severoistočne Bosne*, Akademija nauka i umjetnosti Bosne i Hercegovine, Sarajevo.
- Филиповић, В.** 2013, Гробна целина из старијег гвозденог доба из околине Сврљига, Старијар, LXIII, Београд, 209–218.
- Filipović, V.** 2014, Triballi as conservative Palaeobalkan tribe in the 6th and 5th century BC, in: M. Guštin, D. Wolfgang (eds.), *The Clash of Cultures? The Celts and the Macedonian World*, Keltien-Römer-Museum, Manching, 47–52.
- Gabrovec, S., Teržan, B.** 2010, *Stična. II/2, Gomile starejše železne dobe: Razprave / Stična II/2, Grabhügel aus der älteren Eisenzeit: Studien*, Narodni muzej Slovenije, Katalogi in monografije 38, Ljubljana.
- Gavranović, M.** 2011, *Die Spätbronze- und Früheisenzeit in Bosnien*, Universitätsforschungen zur Prähistorischen Archäologie 195, Dr. Rudolf Habelt, Bonn.
- Gavranović, M., Jašarević, A.** 2016, Neue Funde der Spätbronzezeit aus Nordbosnien / Novi nalazi kasnoga brončanog doba iz sjeverne Bosne, *Prilozi Instituta za arheologiju u Zagrebu*, 33, Zagreb, 89–132.
- Gavranović, M., Antić, S., Meyer, C., Petschko, I., Bulatović, J., Waltenberger, L.** 2021, A multi-phased burial mound in Novo Selo near Bijeljina / Višeslojni tumul u Novom Selu kod Bijeljine, *Prilozi Instituta za arheologiju u Zagrebu*, 38, Zagreb, 33–74. DOI:10.33254/piaz.38.1.2
- Gergova, D.** 1987, *Früh- und ältereisenzeitliche Fibeln in Bulgarien*, Prähistorische Bronzefunde XIV/7, C. H. Beck, München.
- Gergova, D.** 2009, Amber in Ancient Thrace, in: A. Palavestra, C. W. Beck, J. M. Todd (eds), *Amber in Archaeology: proceedings of the Fifth international conference on amber in archaeology, Belgrade 2006*, National Museum, Belgrade, 178–189.
- Glunz-Hüsken, B.** 2017, *Religiöse Symbolik in reichen Gräbern der Nekropole von Hallstatt, Oberösterreich*, Marie Leidorf GmbH, Rahden/Westf.
- Gracia Amore, M.** 2003, Necropolis of Apollonia: new results from Tumulus 9, *Iliria*, 31, Tirana, 267–291.
- Hofmann, K.** 2009, Grabbefunde zwischen sex und gender, in: U. Rambuscheck (ed.), *Zwischen Diskursanalyse und Isotopenforschung: Methoden der archäologischen Geschlechterforschung*, Waxmann, Münster, New York, München, Berlin, 133–161.
- Христов, И.** 2002, Тракийска накитни съкровища VII–VI в. пр. Хр., Национален исторически музей, София.
- Христов, И.** 2004, Тракийски накитни съкровища (IX–VI в. пр. Хр.) от фонда на Национални исторически музей, Известия, XIV, София, 43–67.
- Χρυσοστόμου, Α.** 2016, Η Ανασκαφή και τα Ευρήματα από το Νεκροταφείο Εποχής Σιδήρου στη Θέση «Ναυτικός Όμιλος» Άρνισσας, in: Φίλιππος: τριμηνιαία έκδοση της Ιστορικής και Λαογραφικής Εταιρείας, Γιαννιτσών, 7–37.
- Islami, S.** 1983, Aspects de la civilisation tumulaire de Mat dans la protohistoire, *Studia Albanica*, I, Tirana, 99–126.
- Ivanova, S., Kuleff, I.** 2009, Archaeological amber from the Late Bronze and Iron Ages from the territory of present Bulgaria, *Archaeologica Bulgarica*, XIII/3, София, 23–46.
- Jašarević, A.** 2014, Socio-ekonomska i simbolična uloga importovanih metalnih posuda s Glasinca, *Godišnjak CBI*, 43, Sarajevo, 51–99.
- Jašarević, A.** 2017, Zaboravljeni grobovi iz Donje Doline, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, Arheologija*, n. s. 54, Sarajevo, 7–30.
- Jerem, E.** 1973, Zur Geschichte der späten Eisenzeit in Transdanubien, Späteisenzeitliche Grabfunde von Beremend, *Acta Archaeologica Academiae Scientiarum Hungaricae*, 25, Budapest, 65–86.
- Јевтић, М.** 2004, Гвоздено доба у околини Бора, у: М. Лазић (ур.), Бор и околина у праисторији, антици и средњем веку, Музеј рударства и металургије, Центар за археолошка истраживања Филозофског факултета у Београду, Бор, Београд, 127–163.
- Jubani, B.** 1983, Tumat ilire të Kënetës, *Iliria*, XIII (2), Tirana, 77–133.
- Kajmaković, R.** 1974, Semberija – etnološka monografija, *Glasnik Zemaljskog muzeja u Sarajevu, Etnologija*, n. s., XXIX, Sarajevo, 5–122.
- Капуран, А., Булатовић, А., Јовановић, И.** 2014, Бор и Мајданпек: културна стратиграфија праисторијских локалитета између Ђердапа и Црног Тимока, Археолошки институт, Београд.
- Kemenczei, T.** 2009, *Studien zu den Denkmälern skytisch geprägter Alföld Gruppe*, Magyar Nemzeti Múzeum, Budapest.
- Kilian, K.** 1975, Trachtzubehör der Eisenzeit zwischen Ägäis und Adria, *Prähistorische Zeitschrift*, 50, 11–140.
- Kilian, K.** 1983, Oggetti dell'ornamento personale caratteristici in Bosnia e Macedonia, loro divulgazione in Grecia ed in Italia durante l'età del ferro, in: G. Pugliese Carratelli (ed.), *L'Adriatico tra Mediterraneo e penisola balcanica nell'antichità: Lecce – Matera, 21 – 27 ottobre 1973*, Istituto per la storia e l'archeologia della Magna Grecia, Taranto, 61–66.
- Knez, T.** 1986, *Novo mesto. 1, Halštatski grobovi*, Dolenjski muzej, Novo mesto.
- König, P.** 2004, *Spätbronzezeitliche Hortfunde aus Bosnien und der Herzegowina*, Prähistorische Bronzefunde XX/11, Franz Steiner Verlag, Stuttgart.
- Косорић, М.** 1983, Резултати истраживања праисторијске хумке на некрополи Крчевине 1979, Зборник Народног музеја, 11, Београд, 31–40.
- Косорић, М.** 2001, Бијељина и околина у праисторијском периоду, Српска вила, 14, Бијељина, 5–16.
- Kossack, G.** 1954, Pferdegeschirr aus Gräbern der älteren Hallstattzeit Bayerns, *Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz*, 1, Mainz, 111–178.
- Kozubová, A.** 2013, *Pohrebiská vekerzugskej kultúry v Chotine na juhozápadnom Slovensku*, Univerzita Komenského, Bratislava.
- Kozubová, A.** 2018, Kopfschmuck der Vekerzug-Kultur am Beispiel der Gräberfelder in Chotin, *Musaica Archaeologica*, 1, Bratislava, 13–63.
- Kozubová, A.** 2019, "Something happened in the East but more in the West and South". Einige kritische Bemerkungen zu östlichen Einflüssen in der Vekerzug-Kultur, *Musaica archaeologica*, 4, Bratislava, 55–185.
- Kozubová, A., Horváth, V.** 2019, Nur eine Faszination vom Westen oder etwas anderes? Zu hallstattischen Einflüssen in der Vekerzug-Kultur am Beispiel des Gräberfeldes von Eger-Nagy Eged (Ostungarn), *Annales Musei Nationalis Slovaci Archaeologia*, 29, Bratislava, 139–156.
- Kristiansen, K.** 1999, The Emergence of Warrior Aristocracies in later European Prehistory and their long-term history, in: J. Carman, A. Harding (eds), *Ancient Warfare: Archaeological Perspectives*, Stroud, Sutton, 175–190.
- Križ, B.** 2006, Jantarni i stakleni nakit Novog Mesta / The Amber and Glass Jewellery of Novo Mesto, in: L. Bakarić, B. Križ, M. Šoufek (eds), *Pretpovijesni jantar i staklo iz Prozora u Lici i Novog mesta u Dolenjskoj / Prehistoric amber and glass from Prozor in Lika and Novo mesto in Dolenjska*, Arheološki muzej, Zagreb, 94–140.
- Križ, B., Guštin, M.** 2015, Prehistoric glass from Novo Mesto, Slovenia, in: I. Lazar (ed.), *Annales du 19e Congrès de l'Association internationale pour l'histoire du verre: Piran, (17th – 21st September) 2012*, Association internationale pour l'histoire du verre, Koper, 48–54.

- Kromer, K.** 1959, *Brezje: halštatske gomile z Brezj pri Trebelnem*, Arheološki katalogi Slovenije 2, Narodni muzej, Ljubljana.
- Kurti, R.** 2013, Qelibari gjatë periudhës së Bronzit të Vonë dhe të Hekurit në Shqipëri, *Iliria*, XXXVI, Tirana, 73–104. DOI:10.3406/iliri.2012.2384
- Кузман, П.** 1983/84, Прилог кон проучувањето на некрополата од железно време кај Радолишта близу Струга, *Macedoniae acta archaeologica*, 9, Скопје, 103–113.
- Кузман, П.** 1985, Три Челусти и Вртулка: Требеништа 1972, Завод на заштита на спомениците на културата, Народен музеј, Охрид.
- Лактов, В.** 1965, Проблем требенишке културе, Народен музеј, Охрид.
- Lippert, A.** 2004, Das archäologische Bild der frühen Illyrer, in: U. Giampaolo (ed.), *Dall'Adriatico al Danubio. L'Illyrico nell'età greca e romana. Atti del convegno internazionale Cividale del Friuli, 25–27 settembre 2003*, ETS, Pisa, 11–21.
- Lucentini, N.** 1981, *Sulla cronologia delle necropoli di Glasinac nell'età del ferro*, Bretschneider, Roma.
- Lutovac, P.** 2017, Nalazi iz tumula u selu Kujava kod Danilovgrada, *Godišnjak CBI*, 46, Sarajevo, 55–75.
- Majnarić-Pandžić, N.** 2002, Multi-headed 'Pins' of the Donja Dolina type revisited, *Godišnjak CBI*, XXXII/30, Sarajevo, 283–291.
- Marić, Z.** 1958, Neki novi manji preistorijski nalazi iz Bosne i Hercegovine, *Glasnik Zemaljskog muzeja u Sarajevu, Arheologija*, n. s., XIII, Sarajevo, 243–253.
- Marić, Z.** 1959, Grobovi ilirskih ratnika iz Kačnja, *Glasnik Zemaljskog muzeja u Sarajevu, Arheologija*, n. s., XIV, Sarajevo, 87–102.
- Marić, Z.** 1960, Praistorijski nalazi i lokaliteti iz Triješnice i Dvorova kod Bijeljine, Članci i građa za kulturnu istoriju istočne Bosne, IV, Tuzla, 43–68.
- Marić, Z.** 1964, Donja Dolina, *Glasnik Zemaljskog muzeja u Sarajevu, Arheologija*, n. s., 19, Sarajevo, 5–83.
- Marić, Z.** 1976, Reviziono iskopavanje ilirske grobnice u Kačnju kod Bileće, *Glasnik Zemaljskog muzeja u Sarajevu, Arheologija*, n. s., 31, Sarajevo, 101–110.
- Marijan, B.** 2001, Željezno doba na južnojadranskom području (istočna Hercegovina, južna Dalmacija), *Vjesnik za arheologiju i historiju dalmatinsku*, 93, Split, 7–221.
- Медовић, П.** 1991, Прилог проучавању гвозденог доба у Срему, Старинар, XL–XLI, Београд, 159–163.
- Medović, P.** 2007, *Stubarlija: nekropola naselja Feudvar kod Mošorina (Bačka)*, Posebna izdanja, knj. 20., Muzej Vojvodine, Novi Sad.
- Metzner-Nebelsick, C.** 2002, *Der "Trako-Kimmerische" Formenkreis aus der Sicht der Urnenfelder- und Hallstattzeit im südöstlichen Pannonien*, Marie Leidorf GmbH., Rahden/Westf.
- Милојевић, П., Трајковић-Филиповић, Т.** 2017, Праисторијска налазишта у Алексиначкој котлини – евиденција и ревизија старих података, Завичајни музеј "Алексинач", Народни музеј у Нишу, Алексинач, Ниш.
- Mirošayová, E.** 2017, Bronzový predmet so zoomorfnými protómami zo Slovenského krasu, *Studia Archaeologica Brunensia*, 22, Brno, 5–13. DOI:10.5817/SAB2017-2-1
- Negroni Catacchio, N.** 2011, Amber and the Warrior Princes of the Orientalising Period in Italy, in: A. Vianello (ed.), *Exotica in the Prehistoric Mediterranean*, Oxbow Books, Oxford, 63–95.
- Negroni Catacchio, N.** 2007, Le vesti sontuose e gli ornamenti. Monili d'ambra e di materie preziose nelle tombe femminili di età orientalizzante e arcaica in Italia, in: M. Blečić, M. Črešnar, A. Hellmuth, E. Kaiser, C. Metzner-Nebelsick (eds.), *Scripta praeistorica in honorem Biba Teržan*, Situla 44, Narodni muzej Slovenije, Ljubljana, 533–556.
- Ogrin, M.** 1998, Trortasta fibula v Sloveniji, *Arheološki vestnik*, 49, Ljubljana, 101–132.
- Palavestra, A.** 1993, *Praistorijski čilibar na centralnom i zapadnom Balkanu*, Posebna izdanja, knj. 52, Balkanološki institut SANU, Beograd.
- Palavestra, A.** 1997, Prehistoric Amber and Glass Beads from Kosovo, *Balkanica*, XXVIII, Beograd, 15–43.
- Palavestra, A., Krstić, V.** 2006, *The Magic of Amber*, National Museum, Belgrade.
- Párducz, M.** 1954, Le cimetière Hallstattien de Szentes-Vekerzug II, *Acta Archaeologica Academiae Scientiarum Hungaricae*, 4, Budapest, 25–114.
- Párducz, M.** 1965, Graves from the Schytian Age at Ártánd (County Hajdu-Bihar), *Archaeologica Academiae Scientiarum Hungaricae*, 17, Budapest, 137–231.
- Pare, C.** 1998, Beiträge zum Übergang von der Bronze- zur Eisenzeit in Mitteleuropa, Teil I: Grundzüge der Chronologie im östlichen Mitteleuropa (11.–8. Jahrhundert v. Chr.), *Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz*, 45, Mainz, 293–433.
- Parzinger, H.** 1991, Archäologisches zur Frage der Illyrier, *Bericht der Römisch-Germanischen Kommission*, 72, Mainz, 206–261.
- Parzinger, H.** 1995, Archäologische Beiträge – Die funde, in: H. Parzinger, J. Nekvasil, F. Eckart Barth (eds.), *Die Býčí skála-Höhle: ein hallstattzeitlicher Höhlenopferplatz in Mähren*, P. von Zabern., Mainz am Rhein, 16–92.
- Поповић, Р., Вулетих, А.** 2019, Регулација савске и дринске обале и заштита Мачве од поплава у 19. и почетком 20. века, у: Љ. Ристић (ур.), Живот на рекама југоисточне Европе – историјски аспекти просторног планирања насеља и комуникација, Балканолошки институт САНУ, Београд, 135–156.
- Potrebica, H., Dizdar, M.** 2002, Prilog poznavanju naseljenosti Vinkovaca i okolice u starijem željeznom dobu, *Prilozi Instituta za arheologiju u Zagrebu*, 9, Zagreb, 79–99.
- Potrebica, H.** 2003, Požeška kotlina i Donja Dolina u komunikacijskoj mreži starijeg željeznog doba, *Opuscula archaeologica*, 27, Zagreb, 217–242.
- Potrebica, H.** 2008, Contacts between Greece and Pannonia in the Early Iron Age with special concern to the area of Thessalonica, in: P. Biehl, Y. Rassamakin (eds), *Import and Imitation in Archaeology*, Beier & Beran, Langenweißbach, 187–212.
- Purowski, T.** 2010, Paciorki szklane zdobione linią zygzakowatą odkryte w miedzyrzeczcu Odry i Wisły na stanowiskach z wczesnej epoki żelaza, *Archeologia Polski*, LV, Warsaw, 23–88.
- Puš, I.** 1982, *Prazgodovinsko žarno grobišče v Ljubljani*, Razprave, Klasis 1, Historia et sociologia, Kn. 13/2, Slovenska akademija znanosti in umetnosti, Ljubljana.
- Saltini Semerari, G.** 2016, Greek-Indigenous intermarriage: a gendered perspective, in: L. Donnellan, V. Nizzo, G.-J. Burgers (eds), *Conceptualising early colonisation*, Belgisch Historisch Instituut te Rome, Bruxelles, 77–87.
- Siepen, M.** 2005, *Der hallstattzeitliche Arm- und Beinschmuck in Österreich*, Prähistorische Bronzefunde X/6, Franz Steiner Verlag, Stuttgart.
- Sørensen, M. L. S.** 2013, Identity, gender and dress in the European Bronze Age, in: A. Harding, H. Fokkens (eds), *The Oxford Handbook of the European Bronze Age*, Oxford University Press, Oxford, 216–233.
- Srejskić, D.** 1973, Karagač and the problem of the Ethnogenesis of the Dardanians, *Balkanica*, IV, Beograd, 39–89.
- Srejskić, D., Marković, Č.** 1980/81, A find from Lisjevo Polje near Ivangrad (Montenegro), *Archaeologia Iugoslavica*, 21, Belgrade, 70–79.
- Stare, V.** 1962/63, Prazgodovinske gomile iz Rovišča, *Arheološki vestnik*, 13–14, Ljubljana, 435–467.
- Stipčević, A.** 1981, *Kulni simboli kod Ilira: građa i prilozi sistematizaciji*, Akademija nauka i umjetnosti Bosne i Hercegovine, Sarajevo.
- Šmit, Ž., Laharnar, B., Turk, P.** 2020, Analysis of prehistoric glass from Slovenia, *Journal of Archaeological Science: Reports*, 29, 102114. DOI:10.1016/j.jasrep.2019.102114
- Tanner, K.** 2013, The Greeks, the Near East, and art during the Orientalizing period, *Nebraska Anthropologist*, 28, Lincoln, 23–34.
- Tasić, N.** 1980, Metalni nalazi iz Zlotske pećine, etnička, kulturna i hronološka determinacija, *Zbornik radova Muzeja rudarstva i metalurgije u Boru*, 1, Bor, 43–59.

- Tecco Hvala, S.** 2012, *Magdalenska gora: družbena struktura in grobni rituali železnodobne skupnosti / Magdalenska gora: social structure and burial rites of the Iron Age community*, Opera Instituti Archaeologici Sloveniae 26, Institut za arheologijo ZRC SAZU, Založba ZRC, Ljubljana.
- Tecco Hvala, S.** 2014, Kačaste fibule z območja Slovenije, *Arheološki vestnik*, 65, Ljubljana, 123–186.
- Tecco Hvala, S., Dular, J., Kocuvan, E.** 2004, *Železnodobne gomile na Magdalenski gori / Eisenzeitliche Grabhügel auf der Magdalenska gora*, Katalogi in monografije 36, Narodni muzej Slovenije, Ljubljana.
- Teržan, B.** 1976, Čertoška fibula, *Arheološki vestnik*, 27, Ljubljana, 317–443.
- Teržan, B.** 1987, The Early Iron Age chronology of the Central Balkans, *Archaeologia Iugoslavica*, XXIV, Belgrade, 7–27.
- Teržan, B.** 1990, *Starejša železna doba na Slovenskem Štajerskem / The Early Iron Age in Slovenian Styria*, Katalogi in monografije 25, Narodni muzej, Ljubljana.
- Teržan, B., Hellmuth, A., Heimann, F.** 2011, Amazonenmythos im Spiegel der eisenzeitlichen Grabfunde zwischen Pontus und Karpatenbecken, in: E. Sava, B. Govedarica, B. Hänsel (eds), *Der Schwarze Meer Raum vom Äneolithikum bis in die Früheisenzeit (5000–500 v. Chr.). Bd. 2, Globale Entwicklung versus Lokalgeschehen / Internationale Fachtagung von Humboldtianern für Humboldtianer im Humboldt-Kolleg in Chişinău / Moldavien (4. – 8. Oktober 2010)*, Prähistorische Archäologie in Südosteuropa, Band 27, Marie Leidorf GmbH, Rahden/Westf., 253–272.
- Tóth, M. F.** 2012, Korai székítakori sírok Dédestapolcsány – Verebce-tető lelőhelyen, *Herman Ottó Múzeum Évkönyve*, LI, Miskolc, 63–91.
- Tóth, M. F.** 2017, A Cemetery of the Early Scythian Age in Dédestapolcsány – Verebce-tető, The research of a new site complex in Northern Hungary and its cultural connections, in: E. Mirošayová, C. Pare, S. Stegmann-Rajtár (eds), *Das nördliche Karpatenbecken in der Hallstattzeit: Wirtschaft, Handel und Kommunikation in früheisenzeitlichen Gesellschaften zwischen Ostalpen und Westpannonien*, Archaeolingua, Budapest, 421–432.
- Truhelka, Č.** 1901, Prehistorička sojenica u koritu Save kod Donje Doline (Sa 61 slikom u tekstu i 27 tabli), *Glasnik Zemaljskog muzeja u Sarajevu, Arheologija*, s. s., XIII, Sarajevo, 227–288.
- Truhelka, Č.** 1902, Sojenica u Donjoj dolini (Drugo iskapanje god. 1901.), *Glasnik Zemaljskog muzeja u Sarajevu, Arheologija*, s. s., XIV, Sarajevo, 257–274; 520–539.
- Truhelka, Č.** 1903, Sojenica u Donjoj Dolini (Treće otkopavanje god. 1902. nastavak), *Glasnik Zemaljskog muzeja u Sarajevu, Arheologija*, s. s., XV, Sarajevo, 529–554.
- Truhelka, Č.** 1904, Der vorgeschichtliche Pfahlbau im Savebette bei Donja Dolina (Bezirk Bosnisch-Gradiška). Bericht über die Ausgrabungen bis 1904, *Wissenschaftliche Mittheilungen aus Bosnien und der Herzegovina*, IX, Wien, 3–170.
- Vasić, R.** 1971, The openwork Belts and the Early Iron Age Chronology in the Northern Balkans, *Archaeologia Iugoslavica*, XII, Belgrade, 1–14.
- Васић, Р.** 1975, Пробијени појас из Музеја Бенаки, Зборник Народног музеја, VIII, Београд, 81–84.
- Vasić, R.** 1977, *The Chronology of the Early Iron Age in the Socialist Republic of Serbia*, British Archaeological Reports, Supplementary Series 31, Oxford.
- Васић, Р.** 1986, Уметничке тежње на тлу Југославије у гвоздено доба, Старијар, XXVII, Београд, 1–21.
- Vasić, R.** 1987a, Prilog proučavanju lučnih fibula sa pravougaonom nogom na Balkanu, *Arheološki vestnik*, 38, Ljubljana, 41–68.
- Vasić, R.** 1987b, Moravsko-Timočka oblast, u: A. Benac (ur.), *Praistorija jugoslavenskih zemalja V – Željezo doba*, Svjetlost, Akademija nauka i umjetnosti Bosne i Hercegovine, Sarajevo, 651–672.
- Vasić, R.** 1989, Jedan prilog proučavanju sremske grupe, *Godišnjak CBI*, 25, Sarajevo, 103–113.
- Vasić, R.** 1999, *Die Fibeln im Zentralbalkan*, Prähistorische Bronzefunde XIV/12, Franz Steiner Verlag, Stuttgart.
- Васић, Р.** 2009, Белешке о Гласинцу: хронологија кнежевских гробова, Старијар, 59, Београд, 109–117.
- Васиљевић, М.** 1976, Налази старијег гвозденог доба у Шапцу, Старијар, XXVII, Београд, 167–174.
- Verger, S.** 2011, Les objets métalliques du sanctuaire de Pérachora et la dynamique des échanges entre mers ionienne, adriatique et tyrrhénienne à l'époque archaïque, in: G. De Sensi Sestito, M. Intrieri (eds), *Sulla rotta per la Sicilia: l'Epiro, Corcira e l'Occidente*, Edizioni ETS, Pisa, 19–59.
- Videski, Z.** 2015, *Makedonske bronce: železnodobni nalazi na području Makedonije*, Arheološki muzej, Zagreb.
- Вински, З.** 1955, 'Трачко-Кимеријски' налаз Адешевци у Сријему, Рад војвођанских музеја, 4, Нови Сад, 27–39.
- Vinski, Z., Vinski-Gasparini, K.** 1962, О утјецима истоčno-alpske halštatske kulture i balkanske ilirske kulture na slavonsko-srijemsko Podunavlje, *Arheološki radovi i rasprave*, II, Zagreb, 263–287.
- Vulpe, A.** 1967, *Necropola hallstattiană de la Ferigile*, Editura Academiei Republicii Socialiste România, Bucureşti.
- Zotović, M.** 1985, *Arheološki i etnički problemi bronzanog i gvozdenog doba zapadne Srbije*, Zavičajni muzej, Savez arheoloških društava Jugoslavije, Užice, Beograd.
- Wells, P.** 1998, Identity and Material Culture in the Later Prehistory of Central Europe, *Journal of Archaeological Research*, 6 (3), 239–298.
- Wells, P.** 2008, Trade and Exchange in Later Prehistory, in: A. Jones (ed.), *Prehistoric Europe: Theory and Practice*, Wiley-Blackwell, Chichester, 356–372.

T. 1

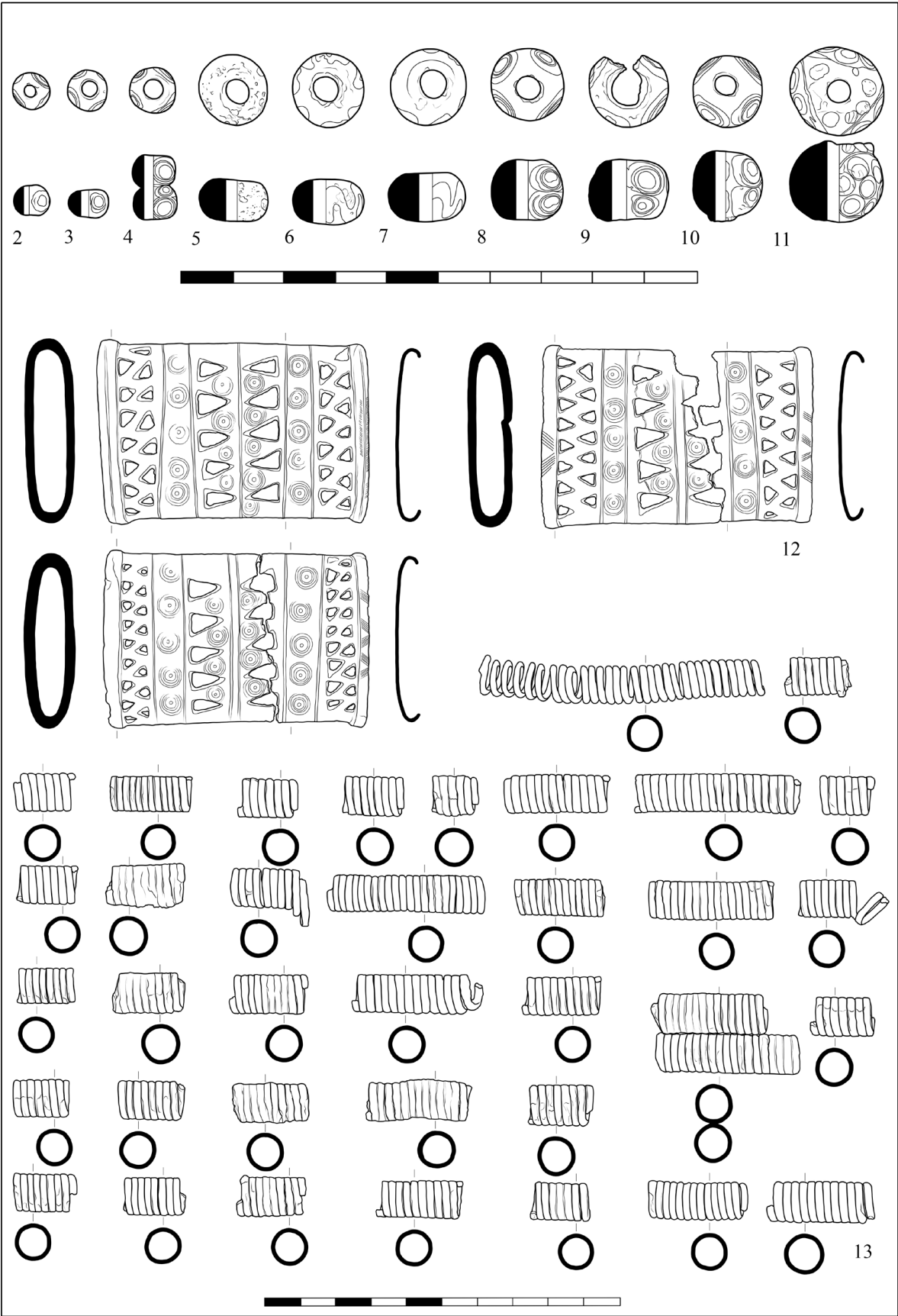
Pl. 1



Crtež/drawing: M. Bešlagić

T. 2

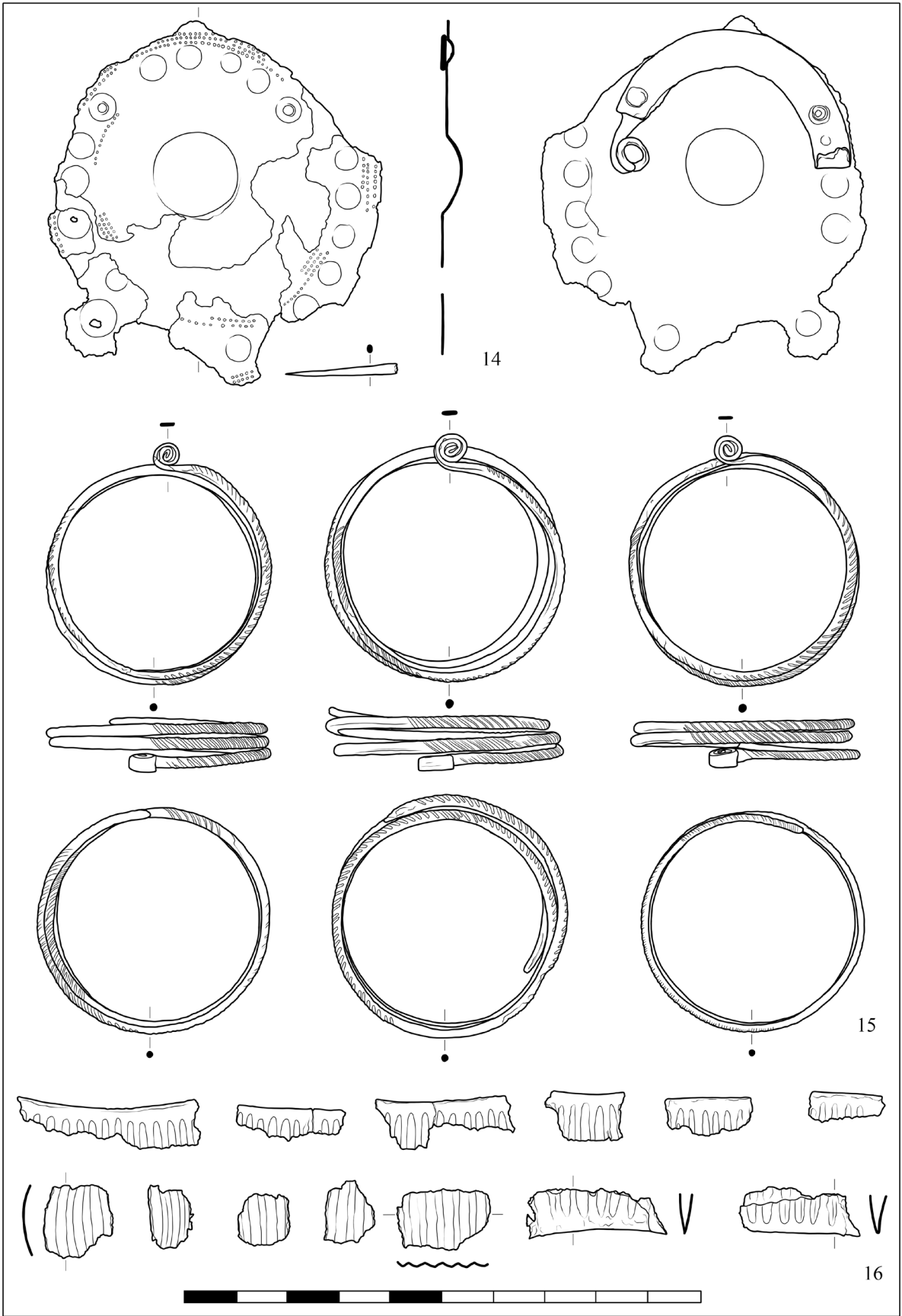
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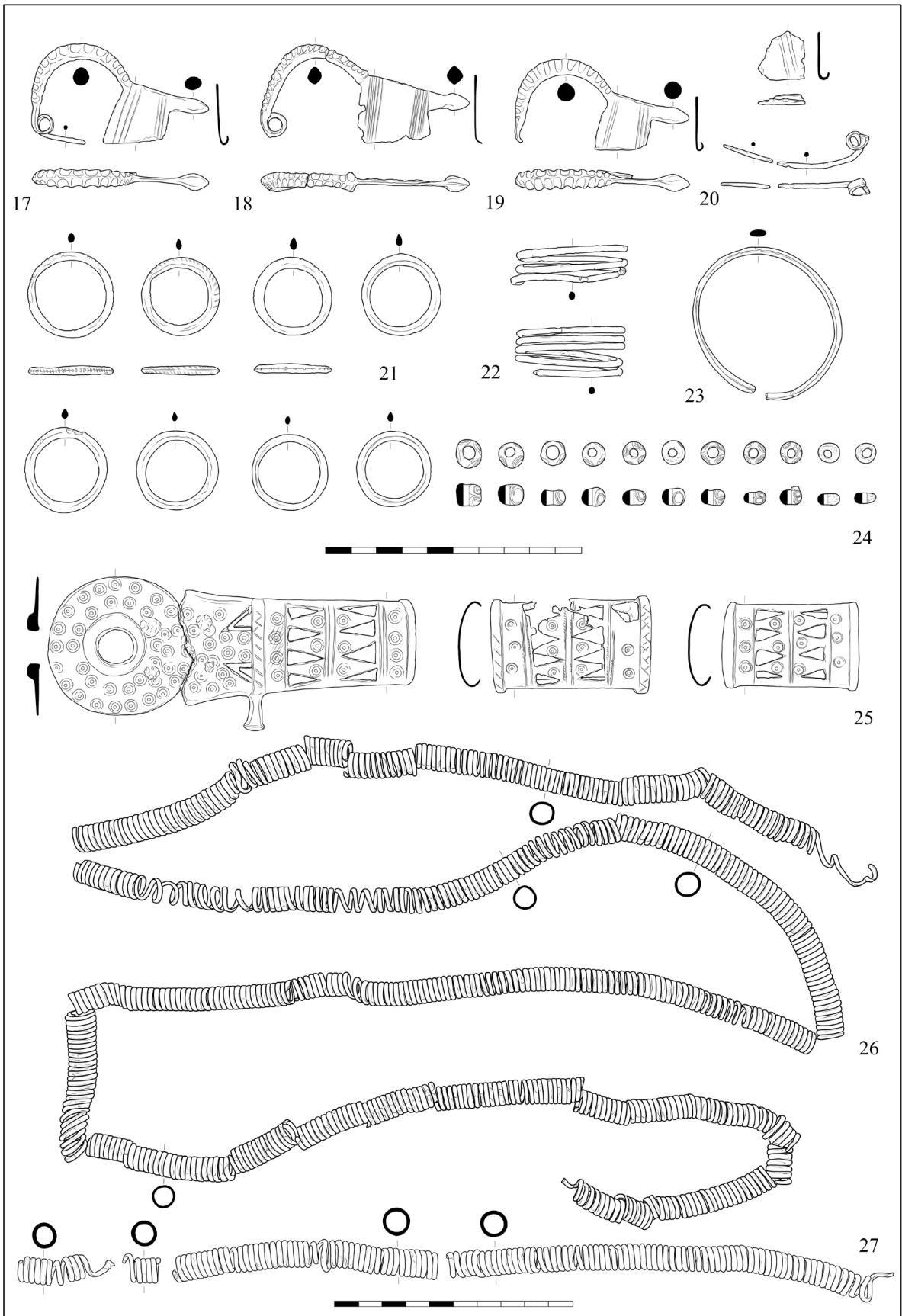
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Crtež/drawing: M. Bešlić

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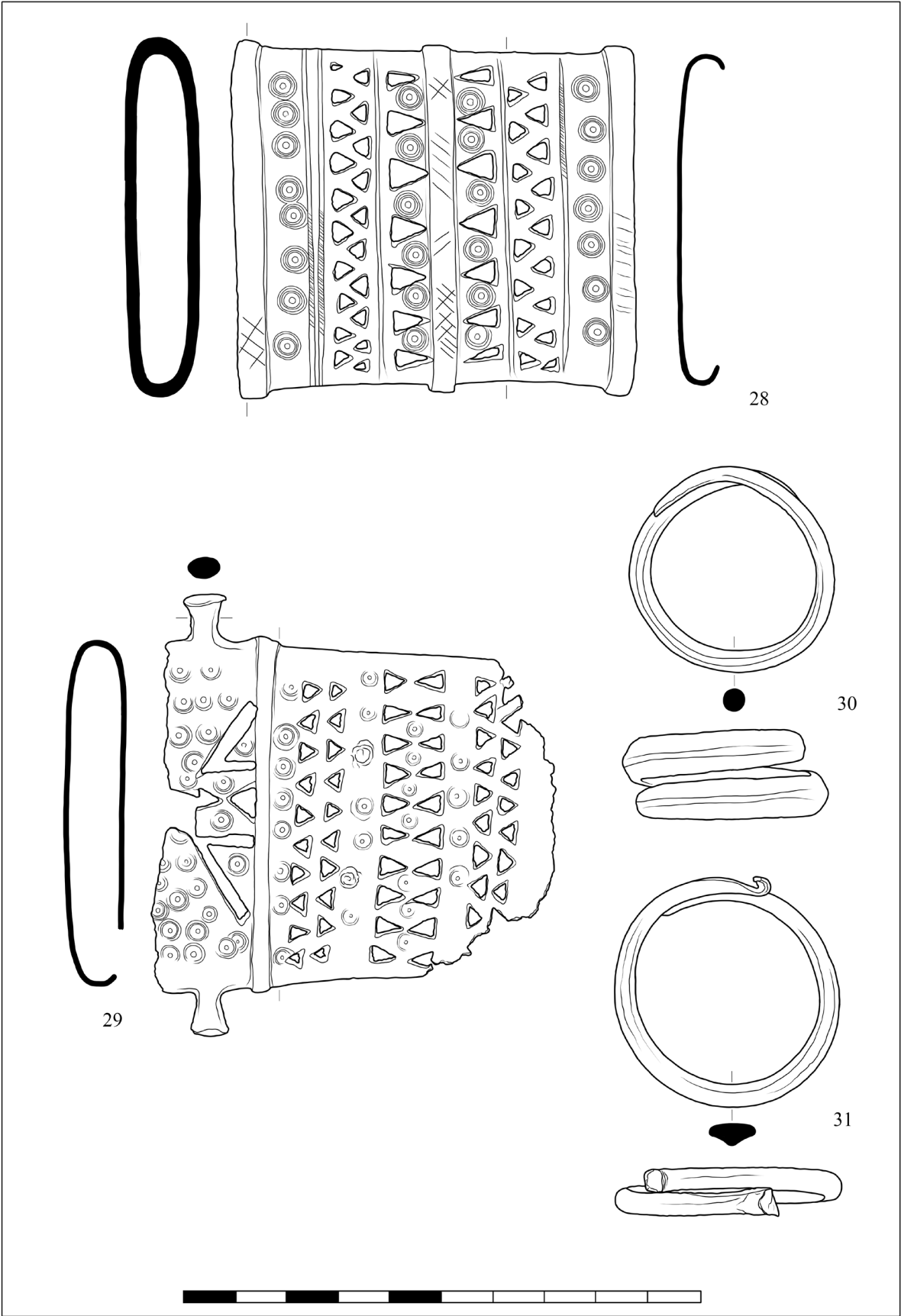
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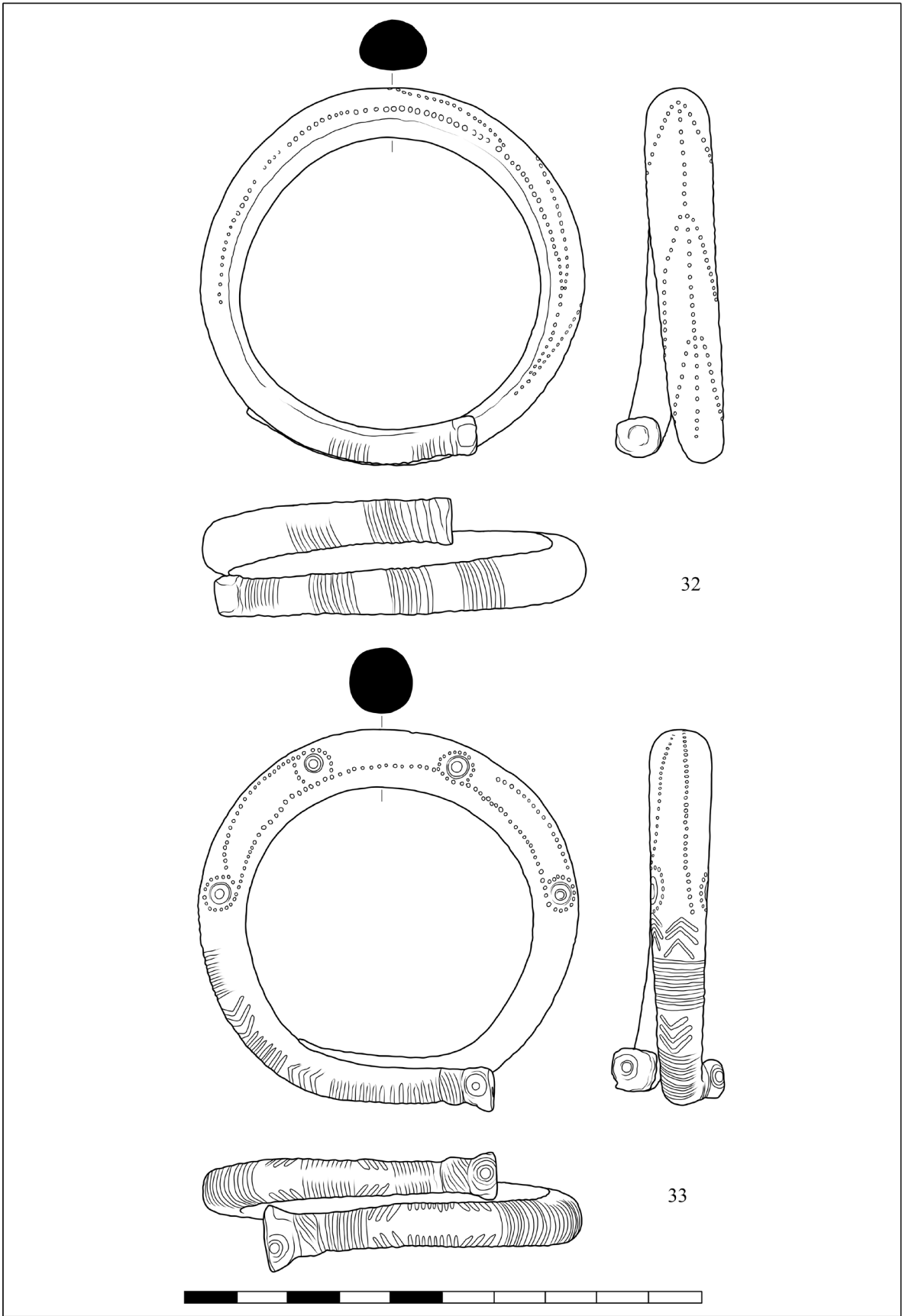
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Crtež/drawing: M. Bešlagić

T. 6

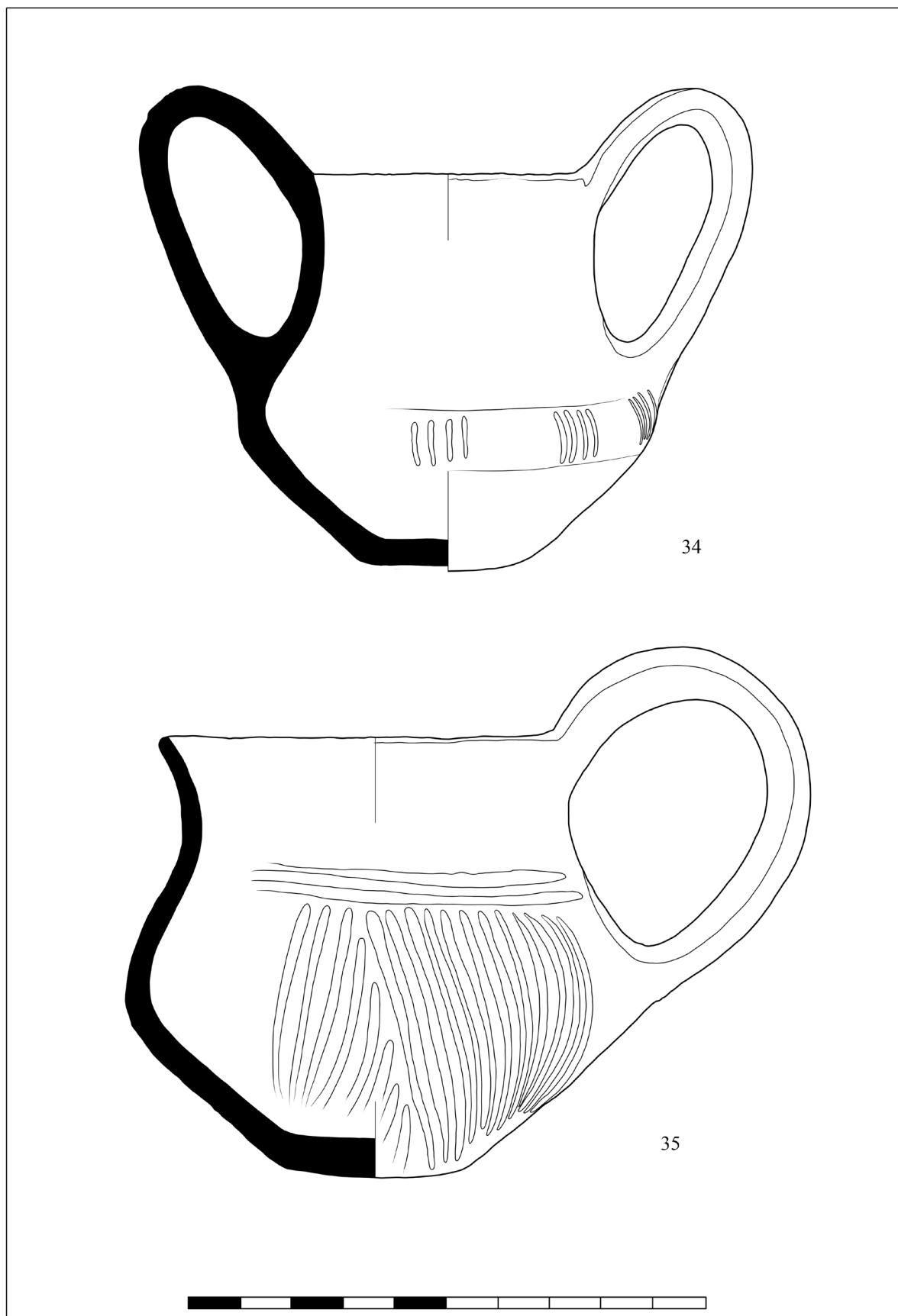
Pl. 6



Crtež/drawing: M. Bešlagić

T. 7

Pl. 7



Crtež/drawing: M. Bešlić

Pribor za društvene igre u rimskoj Istri

Supplies for Board Games in Roman Istria

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Antička zbirka Arheološkog muzeja Istre sadrži kuglice, kocke i žetone za igru izrađene od kosti, keramike, kamena ili staklene paste. Najvećim dijelom pribor za igru potječe iz nepoznatih nalazišta, bez konteksta i bez elemenata za dataciju. Okolnosti nalaza poznate su samo za dvije igraće kocke, od kojih jedna potječe iz rimske vile na položaju Sv. Jelena kod Kršeta u sjevernoj Istri, i za dva žetona iz četvrti Sv. Teodora u Puli. Ovi su nalazi velikim dijelom neobjavljeni, povod za podsjećanje na društvene igre popularne u rimsko doba i razmatranje u kojim su se igrama mogli koristiti. Kuglice su korištene u igri klikera. Kocke numerički označene kružićima na svih šest strana bacale su se pomoću posudice. S kockama se moglo igrati samostalno ili uz igraću ploču i žetone. Žetoni su korišteni za igre na ploči. U utrkivačkim igrama pomicali su se prema broju koji su odredile kocke, a u strateškim igrama pomicali su se slobodnom kombinatorikom.

Ključne riječi: igra, Istra, kocka, kuglica, žeton

The Roman Period Collection at the Archaeological Museum of Istria contains marbles, dice and tokens for playing games, made of bone, ceramics, stone and glass paste. For the most part, the game supplies are recorded as chance finds, devoid of context or elements necessary for dating. The find circumstances are known only for two dice, of which one comes from the Roman villa at the Sv. Jelena kod Kršeta locality in northern Istria, and for two tokens from St. Theodore's Quarter, Pula. These finds, mostly unpublished, provide us with a chance to look back at board games that were popular in the Roman period, and investigate in which games such items may have been used. Marbles were used for playing a variety of games, while dice – numerically marked with dots on all six sides – were cast using a small cup, and could be used on their own or in combination with a gameboard and tokens. Tokens were used for playing on a gameboard; in racing games, they were moved according to the number determined by the dice, while in strategic games they were moved by free combinations.

Key words: game, Istria, dice, marbles, tokens

UVOD

Društvene igre predstavljale su u rimskom društvu jedan od načina ispunjavanja slobodnog vremena (*otium*). Važna značajka društvenih igri je vježbanje i poticanje društvenih kontakata, vještina i interakcije. Pojedine društvene igre koncentrirane na tjelesnu spretnost, vještine opažanja, pamćenja i govorenja nisu zahtijevale nikakva posebna materijalna pomagala. Druge igre zahtijevale su pomagala poput lopti, kocki, žetona, ploča s ucrtanom mrežom ili stazom za igru. Osim prenosnih igraćih ploča za osobnu upotrebu, postojale su nepokretne ploče kojima se mogao poslužiti svaki prolaznik. Ploče za igranje javne namjene urezane u kamene blokove ili u podno opločenje nalaze se u trijemovima duž ulica, u tetrapilonima na trgovima, u bazilikama i termama gdje se kretao i zadržavao velik broj ljudi. Igre na ploči poznate u doba rimske vladavine dijele se prema koncepciji na utrkivačke igre u kojima pobjeđuje igrač koji prvi stigne na cilj (*Ludus Duodecim scriptorum*, *Tabula* ili *Alea*) i ratne, odnosno strateške igre, u kojima je cilj osvojiti prostor (*Ludus latruncularum*, *Mlin*). Predmeti potrebni za društvene igre ponekad su prilagani u grob kao posebno drag osobni pribor. Društvene igre ostale su popularne unatoč zabranama dugo nakon službenog uvođenja kršćanstva i nakon pada Zapadnog Rimskog Carstva. Materijalna svjedočanstva o društvenim igrama rimskog razdoblja iz Arheološkog muzeja Istre obuhvaćaju kocke, kuglice i žetone izrađene od kosti, keramike, kamena ili staklene paste.

KUGLICE

Kuglice od kamena (kat. br. 1) i od keramike (kat. br. 2), obje pomalo nepravilnog oblika, mogle su se koristiti u igri klikera. Igra klikera u svojoj najskromnijoj varijanti igra se na zemlji i može uključiti neograničen broj igrača koji imaju zadatak pokazati vještinu u gađanju kuglicom u drugu kuglicu ili u iskopanu rupu. Umjesto tvrdih plodova poput lješnjaka i oraha korištenih u skromnoj varijanti, mogle su se koristiti naročite kuglice izrađene od keramike, staklene paste ili kamena. Postojale su igre klikerom na ploči koja je imala naročita udubljenja. Ovidije je opisao različite vrste igri klikerom, odnosno orahom, u kojima se klikeri na tlu gađaju udarcem prsta, kotrljaju naginjanjem ploče s udubinama u pokušaju da dotaknu igračev kliker, pogađa se par ili nepar, gađa se klikerom u udaljenu keramičku posudu, a postojala je također igra u kojoj se na kamenu kredom nacrtava oblik zvjezdane konstelacije ili trokut podijeljen paralelnim crtama iznutra pa se bacaju klikeri.¹ Kliker koji se zaustavi unutar označenog polja skuplja sve ostale koji dodiruju crtu.² Najčešći tip ploče za igru kuglicama, dokumentiran uglavnom na opločenju javnih građevina, trgova i ulica širom Rimskog Carstva, imao je kružna udubljenja, nepravilno grupirana ili složena u nejednake redove.³ (sl. 1) Pored prevladavajućeg

INTRODUCTION

In Ancient Roman society, board games were a way to fill free time (*otium*). An important feature of social games was the exercise and stimulation of social contact, skills and interactions. Some games were focused on physical agility, observation skills, memory and speech, and did not require any special materials. Others required items such as balls, dice, tokens, and/or gameboards with a grid or lane drawn onto them. In addition to portable gameboards for personal use, there were also fixed playing surfaces that could be used by any passer-by. Public playing surfaces carved into stone blocks or floor tiles can be found in porticos along streets, in tetrapyla on squares, and in basilicas and baths where large numbers of people congregated. Board games known from the time of Roman rule are divided – according to their fundamental concept – into race games, where the player who reaches the final destination wins (*Ludus Duodecim scriptorum*, *Tabula* or *Alea*), and war or strategic games, where the object is to conquer the space (*Ludus latruncularum*, nine men's morris). Implements required to play such games were sometimes deposited in graves as particularly treasured personal belongings. Such games remained popular (despite bans) long after the official introduction of Christianity and even after the fall of the Western Roman Empire. Material evidence of board games from the Roman period from the Archaeological Museum of Istria includes dice, marbles and tokens made of bone, ceramics, stone and glass paste.

MARBLES

Stone marbles (cat. no. 1) and ceramic marbles (cat. no. 2), both of slightly irregular shape, could be used to play marbles. In its most basic variant, a game of marbles is played on the ground by an unlimited number of players, with each player having the task of skilfully propelling their marble to hit another one or to lodge it in a hole dug into the earth. In place of nuts, such as hazelnuts or walnuts, which were used in a more humble variant, custom-made ceramic, glass paste or stone marbles could be used. There were also games with marbles on a gameboard that had a series of depressions. Ovid described various games that used marbles or walnuts, where the marble/nut on the ground was propelled by being hit with a flick of the finger, or rolled by tilting the gameboard with depressions in an attempt to reach the opponent's marble, and where the objective was to score an odd or even, or to shoot the marble into a ceramic cup set at some distance. He also described a game in which the shape of a constellation or a triangle internally divided by parallel lines was drawn in chalk on stone to serve as a gameboard for marbles.¹ A marble that stopped within a demarcated field would collect all the other marbles touching the line.² The most common type of playing surface for marble games – documented mostly on paving in public buildings, squares and streets throughout the Roman Empire – had circular depressions, irregularly

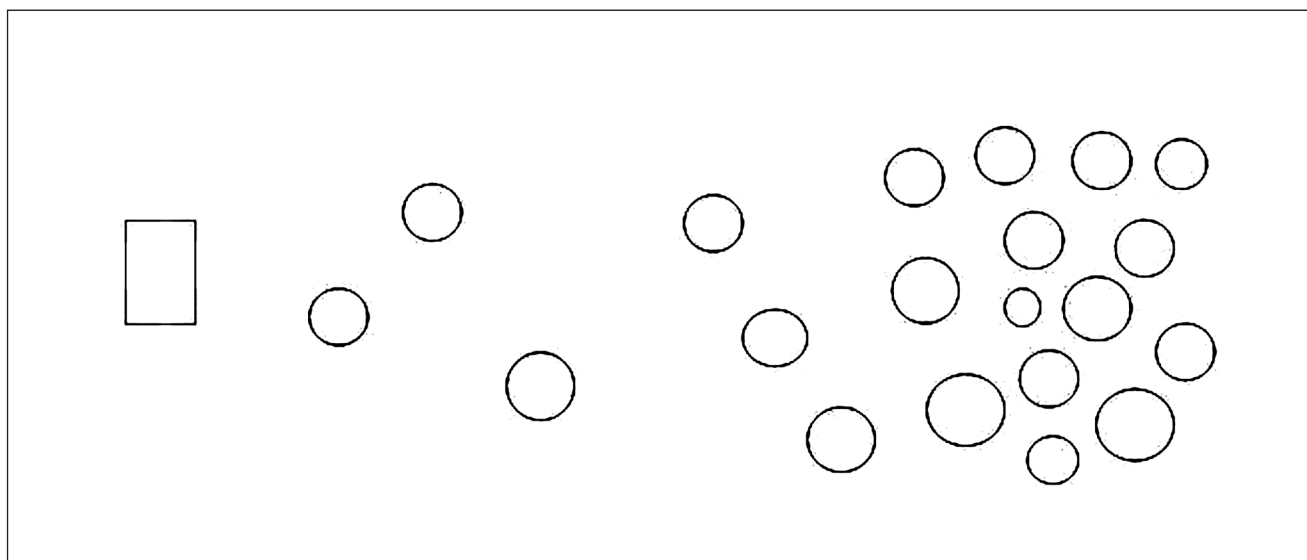
1 Ovid. *Nux*, 71–86; Busuladžić 2017, 187; Sabio González 2017, 24–25.

2 Ovid. *Nux*, 83–84.

3 Penn *et al.* 2023, 122, tip 2.

1 Ovid. *Nux*, 71–86; Busuladžić 2017, 187; Sabio González 2017, 24–25.

2 Ovid. *Nux*, 83–84.



Sl. 1. Ploča za igru klikera. Roma, stepenice hrama Venere i Rome (crtež: A. Starac, prema Penn et al. 2023, kat. br. 29)

Fig. 1. Board for playing marbles. Rome, stairs at the Temple of Venus and Roma (drawing: A. Starac, after Penn et al. 2023, cat. no. 29)

broja kružnih udubina, ploča je mogla imati i nekoliko pravokutnih. Udubine su gušće raspoređene blizu startne crte i postaju rjeđe što je udaljenost veća. Broj udubljenja obično je iznosio 7–21.⁴ Veće “ploče za igru” imale su 23 do 26 udubina.⁵ Promjer tih udubljenja kreće se od 4 do 10 cm. U kamenim pločama različitih javnih i privatnih mjesta u Douggi nalazi se lokalno karakteristični tip “ploče za igru” kuglicama s 8–10 kružnih udubljenja raspoređenih u trokut i dvostrukom startnom crtom na bazi trokuta.⁶

KOCKE

Kocka pripada skupini igara na sreću (*alea*), koje su se igrale u obiteljskim kućama, a pogotovo u gostionicama, svratištima i drugim mjestima javnog okupljanja širom Rimskog Carstva.⁷ Igre kockom bile su uobičajene u rimskoj kući tijekom večernjih druženja u pauzama između nizova jela. Bile su pristupačne kako muškarcima tako i ženama, o čemu svjedoči nalaz dvije koštane kockice za igru u ženskom žarnom grobu s vretenom u Zadru (*Iader*).⁸ Ovidije izričito navodi kako je za djevojku sramotno i jedno da ne poznaje igre kockom i na ploči, budući da je društvena igra prilika za razvijati

clustered or arranged in staggered rows.³ (Fig. 1) As well as the more common circular depressions, the playing surface could have included a number of rectangular depressions. The depressions would be clustered around the starting line, with lower frequencies further away from it. The number of depressions usually ranged from 7 to 21,⁴ with larger ‘boards’ having 23 to 26 depressions or pockets,⁵ measuring between 4 and 10 cm in diameter. The stone pavings of various public and private areas in Dougga (present-day Tunisia) feature a locally characteristic type of ‘board’ for marbles, with 8–10 circular pockets arranged in a triangle and a double starting line at its base.⁶

DICE

Dice games are a subset of so-called games of chance (*alea*). Such games were played in family homes, and especially at inns, lodgings and other places across the Roman Empire where people came together.⁷ Dice games were common in Roman homes during evening social events, in the intervals between dinner courses. They were accessible to both men and women, as shown by the find of a pair of bone dice in the

4 Penn et al. 2023, 131–132, kat. br. 4–6, Atena; 133, kat. br. 8, Dougga; 134, kat. br. 9, Chercell; kat. br. 10–12, Timgad; 135, kat. br. 13–14, *Leptis Magna*; 136–139, kat. br. 15–18, *Ephesus*; 139–140, kat. br. 19–22, *Italica*; 140–142, kat. br. 23–26, Ostia; 143, kat. br. 27, *Philippi*; 144–150, kat. br. 29–36, Roma; 151–154, kat. br. 38–42, Roma.

5 Penn et al. 2023, 150, kat. br. 37, Fogliano, 23 udubine; 132–133, kat. br. 7, Chercell, 26 udubljenja.

6 Penn et al. 2023, 129–131, kat. br. 1–3, Dougga.

7 Općenito o kockama i kockanju: Adam 1814, 397–398; Smith 1875, 74–75, *Alea*; Béal 1983; Bíró 1994, 61; Petković 1995, 53; Schädler 1995; 2013; Deschler-Erb 1998, 1, 146–147, T. 24: 872–878, I. – IV. stoljeće; Carbone 2005; Jung 2013, 107, 234–238, kat. br. 1709–1784; T. 85: 1709–1715; T. 86: 1716–1727; T. 87: 1728–1740; T. 88: 1741–1753; T. 89: 1754–1768; T. 90: 1769–1784, Xanten; Swift 2017, 123–149; Štefanac, Eterović Borzić 2023, 58–59. Primjeri nalaza kocki iz ilirskih provincija Panonije i Dalmacije: Vomer Gojković 2008, 74–75, sl. 1–4; Alihodžić 2015, 41, kat. br. 24–25, Zadar; Busuladžić 2017, 188.

8 Alihodžić 2015, 41, kat. br. 24–25, grob datiran priložima u kraj I. ili početak II. stoljeća.

3 Penn et al. 2023, 122, tip 2.

4 Penn et al. 2023, 131–132, kat. no. 4–6, Atena; 133, kat. no. 8, Dougga; 134, kat. no. 9, Chercell; kat. no. 10–12, Timgad; 135, kat. no. 13–14, *Leptis Magna*; 136–139, kat. no. 15–18, *Ephesus*; 139–140, kat. no. 19–22, *Italica*; 140–142, kat. no. 23–26, Ostia; 143, kat. no. 27, *Philippi*; 144–150, kat. no. 29–36, Roma; 151–154, kat. no. 38–42, Roma.

5 Penn et al. 2023, 150, kat. no. 37, Fogliano, 23 pockets; 132–133, kat. no. 7, Chercell, 26 pockets.

6 Penn et al. 2023, 129–131, kat. no. 1–3, Dougga.

7 Generally on dice and dicing, see: Adam 1814, 397–398; Smith 1875, 74–75, *Alea*; Béal 1983; Bíró 1994, 61; Petković 1995, 53; Schädler 1995; 2013; Deschler-Erb 1998, 1, 146–147, T. 24: 872–878, 1st–4th century; Carbone 2005; Jung 2013, 107, 234–238, kat. no. 1709–1784; T. 85: 1709–1715; T. 86: 1716–1727; T. 87: 1728–1740; T. 88: 1741–1753; T. 89: 1754–1768; T. 90: 1769–1784, Xanten; Swift 2017, 123–149; Štefanac, Eterović Borzić 2023, 58–59. Examples of finds of dice from the Illyrian provinces of Pannonia and Dalmatia: Vomer Gojković 2008, 74–75, fig. 1–4; Alihodžić 2015, 41, kat. no. 24–25, Zadar; Busuladžić 2017, 188.

nje prisnosti i ljubavi.⁹ Igru kockom pratili su novčani ulozi, što ju je činilo osobito privlačnom za igrače. Osim za igre, različiti tipovi kocki su korišteni su za proricanje budućnosti u proročištima, pri čemu je svećenik tumačio značenje dobivenih kombinacija znakova.¹⁰ Kako bi se izbjegla profanacija sakralne proročanske moći kocke, kockanje za novac bilo je u doba Republike i Carstva zabranjeno nizom zakona.¹¹ Jedini izuzetak predstavljalo je vrijeme praznika Saturnalija u prosincu, kada je bilo dopušteno kockanje za novac.¹² Augustova sklonost prema kocki,¹³ kao i Kaligule,¹⁴ Klaudija,¹⁵ Vitelija¹⁶ i Domicijana¹⁷ doprinijela je slabljenju ovih odredbi te se u carsko doba uobičajeno kockalo za novac neovisno o Saturnalijama. Postojale su različite igre pomoću kocke, od jednostavnog bacanja kocki do složenih igri kod kojih su se žetoni pomicali ovisno o broju koji je odredila kocka.

Rimljani su u igri koristili dvije vrste kocki – kocke označene na svih šest strana kružićima od 1 do 6 (*tesserae*)¹⁸ i kocke na kojima su bile označene četiri strane uzdužno (*tali*) kružićima u vrijednosti 1 (*canis*), 3, 4 i 6 (*senio*).¹⁹ Brojevi 2 i 5 izostali su iz takve kombinacije. Pored dvije glavne vrste kocki, postojale su i druge koje izlaze izvan standardnih okvira. Posebna vrsta kocke s jednakim brojevima na nasuprotnim stranama svrstava se ponekad u grupu tala²⁰ (kat. br. 4, T. 2: 4). Tali su dobili ime i dizajn prema životinjskim zglobnim kostima, astragalima, koji su u ranijem razdoblju i u nedostatku pravih kocki služili za proricanje i za rasonodu.²¹ Koristili su se zajedno s tesserama. Kocke označene brojevima od jedan do šest (*tesserae*) imaju u pravilu uvijek isti raspored brojeva na stranicama, složen tako da zbroj brojeva na suprotnim stranicama uvijek daje sedam (kat. br. 3, T. 1: 3). Smatralo se da takav raspored brojeva daje magičnu snagu kocki. Postojale su također kocke s drugačijim izborom šest različitih brojeva, regionalno vezane uz specifičnu egipatsku tradiciju.²² Veličina kocki i tala nije bila ujednačena i mogla je varirati, što je vidljivo na primjeru (kat. br. 3–4). Kocke i tali izrađivali su se obično od kosti.²³ Pojedini primjerci koštanih kocki nose sačuvanu crvenu boju u urezanim kružnicama brojčanih oznaka, što znači da su oznake bile obojane.²⁴ U igri kockama koristile su se tri tesere i četiri tala. Za miješanje i bacanje koštanih kocki koristila se koštana ili keramička posuda (*fritillus*, *turris*, *turricula*, *pyrgus*, *phirius*). Koštane posudice za kockanje bile su cilindrične, oblikom veoma nalik

female urn grave with spindle in Zadar (*lader*).⁸ Ovid explicitly stated that it was shameful and pitiable for a girl to not be familiar with dice and board games, given that social games are an opportunity to develop closeness and love.⁹ Dice games were often accompanied by monetary wagers, which made them particularly attractive to players. Apart from games, various types of dice were also used to tell the future by having a priest at an oracle interpret the meanings of combinations of signs.¹⁰ So as not to profane the sacred prophetic power of dice, dicing for money was prohibited during the Republic and the Empire by a host of laws.¹¹ The only exception was the Saturnalia festival in December, when dicing for money was permitted.¹² Augustus's penchant for dicing,¹³ as well as that of Caligula,¹⁴ Claudius,¹⁵ Vitellius¹⁶ and Domitian,¹⁷ contributed to the slackening of these regulations, so that dicing for money became commonplace throughout the Empire irrespective of the Saturnalia. A wide range of games with dice existed, from the simple to the complex, with the latter often involving tokens being moved based on the numbers determined by the cast dice.

The Romans used two types of dice for games – dice marked on all six sides with one to six round dots (*tesserae*)¹⁸ and dice with four adjacent sides (*tali*) marked with round dots of 1 (*canis*), 3, 4 and 6 (*senio*),¹⁹ with the numbers 2 and 5 being absent. In addition to the two main varieties of dice, there were also others that go beyond the standard framework. A special type of dice with the same numbers on opposite sides is sometimes also included in the *tali* group²⁰ (cat. no. 4, T. II: 4). Tali were named and designed after animal knucklebones, astragali, that had been used in previous ages in lieu of real dice to tell the future and play games.²¹ Alongside these, tesserae were also used. As a rule, dice marked with the numbers one through six (*tesserae*) usually have the same arrangement of faces so that the sum of the numbers on opposite faces is always seven (cat. no. 3, T. I: 3). It was believed that this arrangement of numbers gave the dice their magical power. There were also dice with a different choice of six numbers, with one such regional variant being related to a specific Egyptian tradition.²² The size of dice and tali was not uniform and could vary, as can be seen from the example of cat. nos. 3–4. Dice and tali were usually made of bone.²³ Some specimens of bone dice have traces of a red pigment preserved in the round dots carved into their faces, indicating

9 Ovid. *Ars Am.* III, 367–368.

10 Cic. *Div.* I, 13, 23; Suet. *Tib.* 14, 3.

11 Dig. 11, 5, 1–3, kockanje za novac zabranjivao je niz zakona: *Leges Titia, Publicia, Cornelia*, zatim odluka senata (*senatus consultum*) i pretorski edikt; Smith 1875, 74–75, *Alea*.

12 Mart. IV, 14; V, 84; Gell. XVIII, 13; Suet. *Aug.* 71; Smith 1875, 74–75, *Alea*.

13 Suet. *Aug.* 71.

14 Suet. *Cal.* 41.

15 Suet. *Claud.* 33.

16 Dio C. LXIV, 2.

17 Suet. *Dom.* 21.

18 Adam 1814, 397; Smith 1875, 1112–1113, *Tessera*.

19 Adam 1814, 397; Smith 1875, 1095–1096, *Talus*.

20 Petković 1995, 54, 104, kat. br. 648.

21 Cic. *Sen.* 16, 58.

22 Swift 2017, 143–145, T. 3.2: 5, Petrie Museum, kocka s brojevima 2, 3, 4, 5, 6, 9.

23 Swift 2017, 133, sl. 3.12.

24 Jung 2013, 107, 234, kat. br. 1719.

8 Alihodžić 2015, 41, cat. no. 24–25, grave dated to the late 1st or early 2nd century.

9 Ovid. *Ars Am.* III, 367–368.

10 Cic. *Div.* I, 13, 23; Suet. *Tib.* 14, 3.

11 Dig. 11, 5, 1–3, dicing for money was prohibited by a series of laws: *Leges Titia, Publicia, Cornelia*, as well as the Senate decision (*senatus consultum*) and Praetor's Edict; Smith 1875, 74–75, *Alea*.

12 Mart. IV, 14; V, 84; Gell. XVIII, 13; Suet. *Aug.* 71; Smith 1875, 74–75, *Alea*.

13 Suet. *Aug.* 71.

14 Suet. *Cal.* 41.

15 Suet. *Claud.* 33.

16 Dio C. LXIV, 2.

17 Suet. *Dom.* 21.

18 Adam 1814, 397; Smith 1875, 1112–1113, *Tessera*.

19 Adam 1814, 397; Smith 1875, 1095–1096, *Talus*.

20 Petković 1995, 54, 104, cat. no. 648.

21 Cic. *Sen.* 16, 58.

22 Swift 2017, 143–145, T. 3.2: 5, Petrie Museum, numbered die 2, 3, 4, 5, 6, 9.

23 Swift 2017, 133, fig. 3.12.

kozmetičkim piksidama, ali razmjerno veće visine. Poput kozmetičkih piksida, imale su ravno dno i poklopac ukrašene koncentričnim krugovima, ali na poklopcu nije bilo istaknute ručke koja bi smetala u igri.²⁵ Najsretnija kombinacija zvala se Venera (*iactus Venereus, basilicus*), a sastojala se od tri šestice na tesarama i četiri različita broja na talima.²⁶ Najgora kombinacija (*canes*) sadržavala je tri jedinice na tesarama i sva četiri ista broja na talima.²⁷ Ako bi neki od tala ispao posljednji, bacanje se ponavljalo. S kockama se bez ploče mogla također igrati igra par-nepar (*par-impar*).²⁸

Sitna, ali precizno izrađena kocka (*tessera*) (kat. br. 3) pronađena je prilikom istraživanja foruma u Puli u sloju koji je sadržavao nalaze iz histarskog i kasnorepublikanskog razdoblja.²⁹ Kocka pripada završnom razdoblju rimske Republike ili ranom i srednjem razdoblju Augustove vladavine, periodu od nekoliko desetljeća od osnutka rimske kolonije Pole (46. – 45. pr. n. e.) do kasnoaugustovske monumentalizacije foruma. Kocka (kat. br. 4), većih dimenzija, ali znatno grublje urezanih brojčanih oznaka, predstavlja atipičnu vrstu označenu parovima brojeva 4, 5 i 6 na dvije nasuprotne strane. Kocke s istim rasporedom brojeva zabilježene su u Gornjoj Meziji,³⁰ u Doveru u Britaniji³¹ i u egipatskom Oksirinhju (*Oxyrhynchus*).³² Postojale su također kocke s drugačijim parovima brojeva na nasuprotnim stranicama.³³ Zajednička im je osobina da ograničavaju broj mogućih kombinacija u korist većih brojeva, zbog čega se pretpostavlja da su korištene u specifičnim varijantama igre s regionalnom tradicijom u Egiptu, pri varanju, a možda i u proricanju.³⁴ Kocka (kat. br. 4) potječe iz rimske vile kod Kršeta na području Buja u sjevernoj Istri, sagrađene u Cezarovom razdoblju sredinom I. stoljeća pr. n. e. i intenzivno korištene do sredine IV. stoljeća n. e.³⁵ Vila pravokutnog tlocrta imala je središnje dvorište, stambeni prostor u jugozapadnom krilu, vodospremu i gospodarske prostorije u ostala tri krila. Kocka potječe iz prostorije neutvrđene namjene u jednom od tri gospodarska krila.³⁶ Postrojenja za proizvodnju maslinovog ulja ili vina, uobičajena za rimske vile u Istri, nisu zabilježena u sastavu vile. Specifična obilježja vile, kao i njen položaj u relativnoj blizini ceste *Via Flavia* koja je prolazila kroz Istru spajajući kolonije *Pola*, *Parentium* i *Tergeste*, argumenti su za pretpostavku o cestovnoj postaji s odmorom (*mansio, mutatio*)

that these markings would have been painted.²⁴ Dice games used three tesseræ and four tali. A bone or ceramic cup (*fritillus, turris, turricula, pyrgus, phirius*) was used to shake and cast dice. Bone cups for dicing were cylindrical, shaped much like cosmetic pyxides, albeit larger in size. However, like cosmetic pyxides, they had a flat bottom and a lid decorated with concentric circles, although the lid lacked a handle that would have potentially disrupted the game.²⁵ The luckiest combination was called the Venus (*iactus Venereus, basilicus*) and was made up of three sixes on the tesseræ and four different numbers on the tali.²⁶ The worst combination (*canes*) contained three ones on the tesseræ and four of the same number on the tali.²⁷ If one of the tali fell out last, the dice would be recast. Dice could also be used without a board, to play odds and evens (*par-impar*).²⁸

A small but precisely fashioned die (*tessera*) – cat. no. 3 – was found during the dig at the Pula Forum, in the layer containing finds from the Histrian and Late Republican period.²⁹ The die was found to be from the final period of the Roman Republic or the early to middle period of Augustus's rule, covering several decades from the founding of the Roman colony of Pola (46 – 45 BCE) to the late Augustan monumentalisation of the Forum. The die presented as cat. no. 4 is larger in size, but with notably rougher carvings of the numeral markings, and is atypical in that it is marked with pairs of numbers 4, 5 and 6 on two opposite faces. Dice with the same arrangement of numbers have been recorded in Moesia Superior,³⁰ Dover (Britain),³¹ and Oxyrhynchus (Egypt).³² There were also dice with different pairs of numbers on opposite faces.³³ Their common feature is that they limit the number of possible combinations to larger numbers, which is why it is assumed that they were used for specific variants of a game with origins in Egypt, for cheating, or perhaps to tell fortunes.³⁴ The die presented as cat. no. 4 comes from the Roman villa near Kršete. in the Buja area of northern Istria, which dates originally to the period of Caesar (i.e. the mid-1st century BCE) and was intensively occupied up to the mid-4th century CE.³⁵ The rectangular villa had a central courtyard, living quarters in the southwest wing, water storage, and commercial rooms in the remaining three wings. The die was found in a room of undetermined function, in one of the three commercial wings.³⁶ Facilities for the production of olive oil or wine, common to Roman villas in Istria, were not found in this villa. The specific characteristics of the

25 Bíró 1994, 62, 108, 215, T. LXXVII: 637–638.

26 Cic. *Div.* I, 13, 23; II, 21, 48; II, 59, 121.

27 Ovid. *Tr.* II, 474; Isid. XVIII, 65–66.

28 Suet. *Aug.* 71, 4; Adam 1814, 398; Schädler 2013, 2842.

29 Paič, Koncani Uhač 2007, 28–30, kat. br. 51–58; 37, kat. br. 86; 45, kat. br. 116; 47, kat. br. 124; 50, kat. br. 135–138, SJ 137.

30 Petković 1995, 54, 104, kat. br. 648, T. XL: 10, *Diana*, treća četvrtina IV. stoljeća.

31 Swift 2017, 143, T. 3.2: 1.

32 Swift 2017, 143, T. 3.2: 2.

33 Jung 2013, 107, 234, kat. br. 1718, T. 86: 1718, Xanten, kocka s parovima brojeva 2, 3 i 6; Swift 2017, 143, T. 3.2: 3, Petrie Museum, parovi 4 i 5, pojedinačni brojevi 6 i 12; T. 3.2: 4, Oxyrhynchus, parovi 4 i 5, pojedinačni brojevi 6 i 9.

34 Swift 2017, 143–146.

35 Ujčić 2005, 155–156; 2010, 351–354.

36 Zahvaljujem voditelju istraživanja Željku Ujčiću koji mi je ljubazno pružio informacije o nalazu kocke.

24 Jung 2013, 107, 234, cat. no. 1719.

25 Bíró 1994, 62, 108, 215, T. LXXVII: 637–638.

26 Cic. *Div.* I, 13, 23; II, 21, 48; II, 59, 121.

27 Ovid. *Tr.* II, 474; Isid. XVIII, 65–66.

28 Suet. *Aug.* 71, 4; Adam 1814, 398; Schädler 2013, 2842.

29 Paič, Koncani Uhač 2007, 28–30, cat. no. 51–58; 37, cat. no. 86; 45, cat. no. 116; 47, cat. no. 124; 50, cat. no. 135–138, SJ 137.

30 Petković 1995, 54, 104, cat. no. 648, T. XL: 10, *Diana*, third quarter of the 4th century.

31 Swift 2017, 143, T. 3.2: 1.

32 Swift 2017, 143, T. 3.2: 2.

33 Jung 2013, 107, 234, cat. no. 1718, T. 86: 1718, Xanten, die with 2, 3 and 6 number pairs; Swift 2017, 143, T. 3.2: 3, Petrie Museum, 4 and 5 number pairs, individual numbers 6 and 12; T. 3.2: 4, Oxyrhynchus, 4 and 5 number pairs, individual numbers 6 and 9.

34 Swift 2017, 143–146.

35 Ujčić 2005, 155–156; 2010, 351–354.

36 I would like to thank the archaeological research coordinator Željko Ujčić for kindly providing information on the find of the die.

na raskršću glavne rimske ceste s hipotetskom lokalnom cestom koja je vodila prema obali sjeverozapadne Istre.³⁷

ŽETONI

Žetoni (*latrunculi*, *latrones*, *milites*, *calculi*) su se koristili u igrama na ploči s ucrtanom mrežom ili stazom, uz bacanje kocki ili bez njih.³⁸ Ploča za igru (*tabula lusoria*) mogla je biti izrađena od drveta, mramora ili kosti, u skupocjenoj varijanti ukrašena skupljim materijalima poput dragog kamena, a mogla je biti jednostavno urezana u tegulu, ciglu ili na kamenu podnu ploču.³⁹ Arheološkim nalazima dokumentirane su različite vrste ploča za igru koje se prema obliku i dizajnu mogu podijeliti u osam glavnih skupina: epigrafske pravokutne ploče dimenzija oko 100 x 50 cm s 36 polja u tri reda i okomitom razdjelnicom po sredini ploče, okrugle ploče promjera 40–80 cm s osam radijalnih crta i udubljenjima u sredini i na kraju svake crte ili bez radijalnih crta i bez udubljenja, kvadratne ploče s tri upisana kvadrata ili jednim kvadratom prekrštenim dijagonalama za igru Mlin, kvadratne ploče sa šahovnicom od 64, 36 ili 16 polja, pravokutne ploče za igru *Duodecim scriptorum* s oznakom u sredini i dvanaest paralelnih, neravnomjerno udaljenih crta ili s 24 strelice poredane u dva reda po 12, ploče s različitim brojem paralelnih crta (10–20 crta), ploče sa 7–25 udubljenja, od kojih najveća udubina označava cilj, te konačno epigrafske ploče za igru *Reges* s natpisima u poljima raspoređenima u četiri reda.⁴⁰ Žetoni su se izrađivali od kosti, stakla, crnog gagata ili kamena, a najskupocjeniji od dragog kamena i gorskog kristala. Najjednostavniji koštani žetoni za igru bili su okrugli i plosnati, neukrašeni. Neki su koštani plosnati žetoni bili na jednoj strani neukrašeni ili ukrašeni koncentričnim urezima, a na drugoj su strani mogli nositi rimske brojeve i oznake u latinskim ili grčkim slovima, zbog čega se teško ili nikako razlikuju od koštanih ulaznica za javne priredbe u teatrima i amfiteatrima.⁴¹ Iz Zadra potječe posebno lijepa grupa ranocarskih numeriranih koštanih žetona za igru s reljefnim prikazima erota u raznim položajima, koji su bili različito tumačeni kao žetoni za igru⁴² ili kao ulazni žetoni za priredbe u teatru, odnosno amfiteatru.⁴³

Igra *Duodecim scriptorum* (*XII Scripta*) ili *Scriptula* pripada skupini utrivačkih igara u kojima pobjeđuje igrač koji prije stigne do cilja, a igrala se na posebnoj ploči (*tabula lusoria*) podijeljenoj s ukupno trideset šest polja različitih boja u tri

villa, as well as its location in relative proximity to the *Via Flavia* road that passed through Istria, connecting the colonies of Pola, Parentium and Tergeste, might indicate that it was a road station with a rest area (*mansio*, *mutatio*) on the intersection of the main Roman road with the hypothetical local road leading to the coast of northwestern Istria.³⁷

TOKENS

Tokens (*latrunculi*, *latrones*, *milites*, *calculi*) were used for board games with a grid or lane, both with and without throwing dice.³⁸ Gameboards (*tabula lusoria*) could be made of wood, marble or bone, with luxurious variants being decorated with more expensive materials, such as precious stones. Such boards could also be simply carved into tegulae, bricks, or stone floor tiles.³⁹ Various types of gameboards have been documented, which can be categorised according to their shape and design into eight main groups: (i) epigraphic rectangular boards measuring roughly 100 x 50 cm, with 36 fields in three rows and a perpendicular divider along the middle of the board; (ii) round boards with a diameter of 40–80 cm with eight radial lines and depressions in the middle and at the end of each line, or without radial lines and without depressions; (iii) square boards with three drawn squares or one square criss-crossed by diagonals for the game of nine men's morris; (iv) square boards with a check pattern consisting of 64, 36 or 16 fields; (v) rectangular gameboards for playing *duodecim scriptorum* with a mark in the middle and twelve parallel unequally spaced lines or with 24 arrows arranged in two rows of 12; (vi) boards with a varying number of parallel lines (10–20 lines); (vii) boards with 7–25 depressions, of which the deepest marks the goal, and finally (viii) epigraphic boards for playing *Reges* with writing in fields arranged in four rows.⁴⁰ Tokens were generally made of bone, glass, black jet or stone, with more expensive versions being made of precious stones and quartz. The simplest bone tokens were round, flat and undecorated. Some flat bone tokens were undecorated on one side or decorated with concentric carvings, while the other side often bore Roman numerals and signs in Latin or Greek letters, a fact that makes them difficult or impossible to distinguish from (near-)identical bone tokens used for admission to public performances in theatres and amphitheatres.⁴¹ A particularly beautiful group of early Imperial numbered bone tokens was found in Zadar. They feature reliefs of Eros in various poses, and have been variously interpreted as game

37 Ujčić 2010, 353–354.

38 Adam 1814, 398; Smith 1875, 670–671, *Latrunculi*; Schädler 1994; Štefanac, Eterović Borzić 2023, 36–55.

39 Montesano 1961, 2229–2240; Talloen 2018, 101, sl. 1.a–b; Shehi 2017, 150–155, sl. 3–7.

40 Montesano 1961, 2232–2240.

41 Šaranović 1979, 292, kat. br. 617, *Sirmium*, okrugle koštane pločice na jednoj strani glatke, a na drugoj ukrašene koncentričnim prstenovima, interpretirane kao ulaznice za javne priredbe; Damevski 1979, 292, kat. br. 618, *Siscia*, okrugle koštane pločice koje na jednoj strani imaju urezane rimske brojeve od I do X, a na drugoj su ukrašene koncentričnim prstenovima, interpretirane kao ulaznice za javne priredbe; Béal 1983; Schädler 1994, 61; Petković 1995, 53, T. XL: 1–7; Janković 2008, 8–9, kat. br. 1–9; Vomer Gojković 2008, 75, sl. 4.

42 Suić 1954, br. 53, sl. 75.

43 Dimitrijević 1979, 291–292, kat. br. 615; Ilakovac 1979, 291, kat. br. 614.

37 Ujčić 2010, 353–354.

38 Adam 1814, 398; Smith 1875, 670–671, *Latrunculi*; Schädler 1994; Štefanac, Eterović Borzić 2023, 36–55.

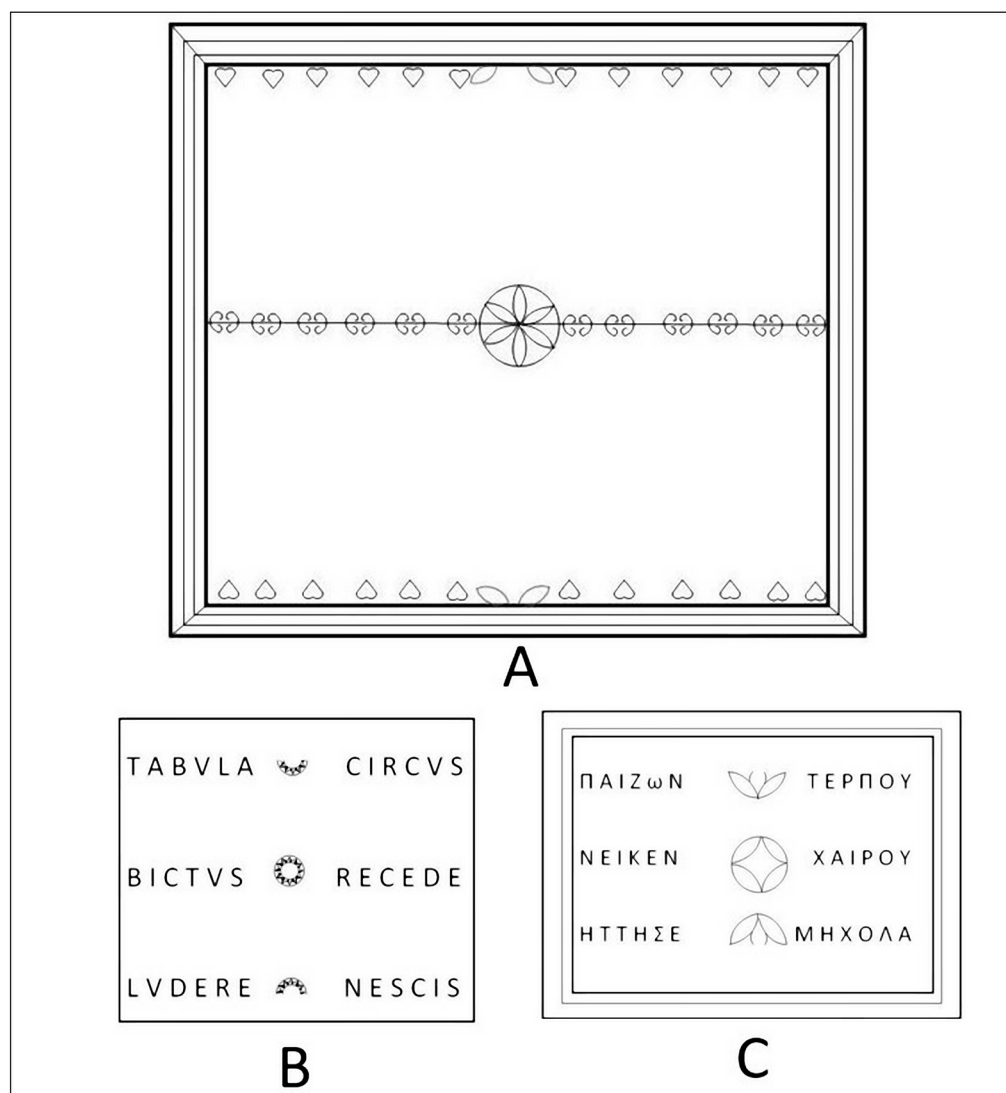
39 Montesano 1961, 2229–2240; Talloen 2018, 101, fig. 1.a–b; Shehi 2017, 150–155, fig. 3–7.

40 Montesano 1961, 2232–2240.

41 Šaranović 1979, 292, cat. no. 617, *Sirmium*, round bone tiles smooth on one side and decorated on the other with concentric rings, interpreted as admission passes for public performances; Damevski 1979, 292, cat. no. 618, *Siscia*, round bone tiles with Roman numerals I through X carved on one side and decorated with concentric rings on the other, interpreted as admission passes for public performances; Béal 1983; Schädler 1994, 61; Petković 1995, 53, T. XL: 1–7; Janković 2008, 8–9, cat. no. 1–9; Vomer Gojković 2008, 75, fig. 4.

Sl. 2. Ploča za Ludus Duodecim scriptorum. A – Holt, Denbighshire (crtež: A. Starac, prema Bell 1960.); B – Roma (crtež: A. Starac, prema EDCS-15100086); C – Sagalassos (crtež: A. Starac, prema Talloen 2018.)

Fig. 2. Board for Ludus Duodecim scriptorum. A – Holt, Denbighshire (drawing: A. Starac, after Bell 1960); B – Rome (drawing: A. Starac, after EDCS-15100086); C – Sagalassos (drawing: A. Starac, after Talloen 2018)



reda, u svakom redu po dvanaest polja. Kao i kod drugih igara na ploči, postojale su različite varijante ploča⁴⁴ (sl. 2). Polja su po sredini bila presječena jednom poprečnom crtom (*linea sacra*), koju igrač nije prelazio ako nije bio prisiljen. Polja su bila označena slovima, svako polje jednim slovom, a njihov je raspored mogao sadržavati poruke ohrabrenja igračima. Igralo se s 30 žetona, svaki igrač imao je 15 žetona raznih boja. Žetoni su se pomicali prema broju koji je određivalo bacanje kocke. Bacale su se tri kocke označene brojevima od 1 do 6. Kada bi žetoni stigli do posljednjeg polja, postajali su nepokretni ostvarivši svoj cilj. Ova se igra mogla igrati i bez bacanja kocke, nalik šahu. Sastavni dio igre sa žetonima na ploči podijeljenoj u polja bilo je izbacivanje protivničkih žetona, koji su postajali nepokretni (*inciti, immoti*) kada bi se našli opkoljeni s dva protivnička žetona,⁴⁵ no nije sigurno da li je ovo pravilo bilo ograničeno na srodnu igru zvanu

tokens⁴² or admission tokens for theatre or amphitheatre performances.⁴³

The game *duodecim scriptorum* (*XII Scripta*) or *Scriptula* belongs to the group of race games where the first player to reach the goal wins. This game was played on a special board (*tabula lusoria*) divided into a total of thirty-six fields of different colours, and arranged in three rows of twelve fields each. As with other board games, different variations of gameboards existed.⁴⁴ (Fig. 2) The fields were divided along the middle by a transversal line (*linea sacra*) that the player would not pass unless forced to do so, and were also marked by letters, one letter per field, with their arrangement sometimes revealing messages of encouragement for the players. The game was played with 30 tokens, each player having 15 tokens of various colours. The number of places that the tokens were moved was determined by the casting of dice. Three dice with numbers 1 through 6 were cast. Once the tokens

44 Bell 1960, 31, sl. 26, Holt; Fagan 2015, 505; Talloen 2018, 103–110, sl. 2, *Sagalassos*; sl. 3, *Ephesus*; Štefanac, Eterović Borzić 2023, 52–57.

45 Mart. XIV, 17.

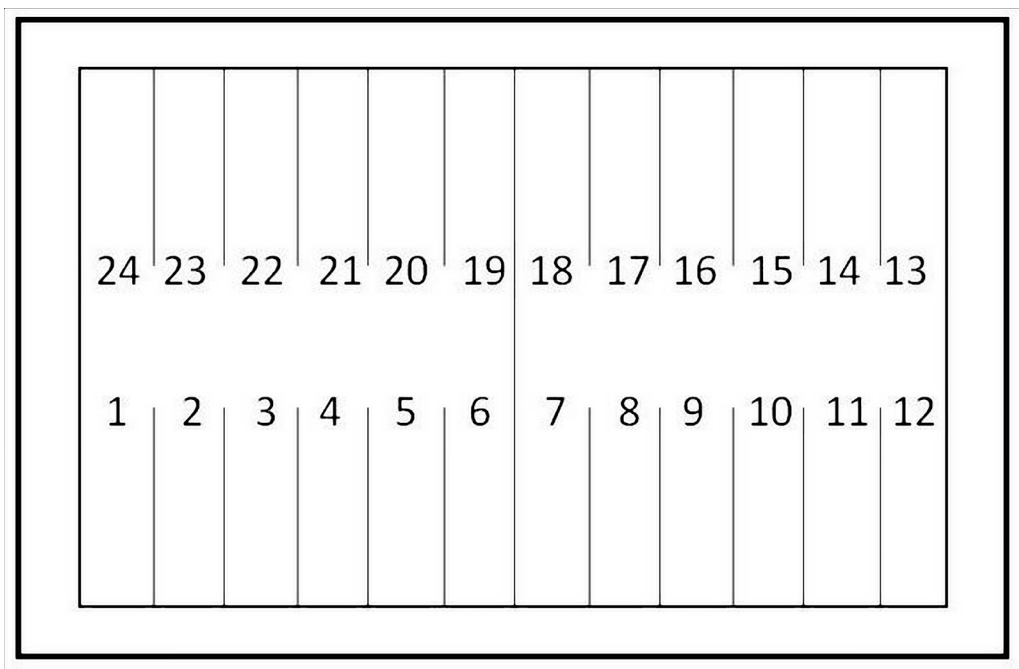
42 Suić 1954, no. 53, fig. 75.

43 Dimitrijević 1979, 291–292, cat. no. 615; Ilakovac 1979, 291, cat. no. 614.

44 Bell 1960, 31, fig. 26, Holt; Fagan 2015, 505; Talloen 2018, 103–110, fig. 2, *Sagalassos*; fig. 3, *Ephesus*; Štefanac, Eterović Borzić 2023, 52–57.

Sl. 3. Ploča za igru Tabula
(crtež: A. Starac, prema
Bell 1960.)

Fig. 3. Board for the game
of Tabula (drawing: A.
Starac, after Bell 1960)



jednostavno *Tabula* ili je vrijedilo u *Ludus Duodecim scriptorum*.⁴⁶ Igrač čiji bi svi žetoni ostali zarobljeni prije dolaska na cilj gubio je igru.

Igra *Tabula*, poznata i kao *Alea*, stekla je osobitu popularnost u I. stoljeću n. e. potisnuvši igru *Duodecim scriptorum*. Shema mreže za igranje Tabule na ploči replicirala je utrke u cirku, što sugerira da se radilo o igri u kojoj su se igrači utrkiivali tko će prije žetonima do cilja, a ne o igri zauzimanja protivničkog polja. Žetoni su se u igri Tabula pomicali prema broju koji su pokazale tri bačene kocke na tabli podijeljenoj u dva reda po dvanaest polja, odijeljenih okomito i vodoravno po sredini (sl. 3). Svaki igrač imao je 15 žetona.⁴⁷ U kasno-carskom i kasnoantičkom razdoblju od kraja III. stoljeća do VII. stoljeća, broj polja i redova na ploči za Tabulu odgovarao je onima na ploči za *Ludus Duodecim scriptorum*. Sastojao se od ukupno trideset šest polja raspoređenih po dvanaest u tri reda i odvojenih po jednom povećom rozetom u sredini svakog reda.⁴⁸ Ploča za igranje Tabule nije imala polja označena slovima. Ploča s 36 polja označenih raznim simbolima ili geometrijskim oblicima umjesto slova i podijeljena po sredini prema nekim autorima pripadala je igri *Duodecim scriptorum*,⁴⁹ prema drugima kasnocarskoj i kasnoantičkoj varijanti igre Tabula.⁵⁰

Za razliku od utrkiivačkih igara, u kojima je pomicanje žetona određivala kocka, ratno-strateške igre osvajanja prostora igrane su se bez kocke, slobodnom kombinatorikom u okvirima zadanih pravila. U skupinu strateških igara pripada

reached the last field, they would become immovable, having reached the goal. The game could also be played without casting dice, like chess. An integral part of games with tokens on a board divided into fields was to capture the opponent's tokens, which would become immobile (*inciti, immoti*) once surrounded by two opposing tokens,⁴⁵ but it is not certain as to whether this rule was limited to a similar game called simply *tabula* or was also applied in *duodecim scriptorum*.⁴⁶ A player whose tokens were all captured before reaching the goal would lose the game.

The game *tabula*, also known as *alea*, became particularly popular in the 1st century CE, displacing the game *duodecim scriptorum*. The grid scheme for playing *tabula* replicated the circus race on the gameboard, which suggests that the players raced their tokens to the goal rather than focusing on capturing the opponent's tokens or field. The tokens in *tabula* were moved according to the numbers shown on three cast dice, on a board divided into two rows of twelve fields each, divided perpendicularly and horizontally down the middle. (Fig. 3) Each player had 15 tokens.⁴⁷ In the later Roman period and Late Antiquity, from the end of the 3rd century to the 7th century CE, the number of fields and rows on a *tabula* board corresponded to that on the board for *duodecim scriptorum*; i.e. 36 fields arranged in three rows of twelve, each separated by a fairly large rosette in the middle of each row.⁴⁸ However, the board for playing *tabula* did not have any fields marked by letters. According to some authors, boards with 36 fields marked with different symbols or geometric shapes instead

46 Ovid. *Ars Am.* III, 363–364; *Tr.* II, 475–476; Adam 1814, 397; Austin 1935, 76; Montesano 1961, 2240–2241; Bell 1960, 30–34, sl. 26–27; Schädler 1995, 83–84; 2013, 2843.

47 Austin 1935, 78; Bell 1960, 34–35, sl. 30; Schädler 1995, 82–89.

48 Talloen 2018, 111–115, sl. 4–7, *Sagalassos*, III. – VI. stoljeće; 117, sl. 8, *Aphrodisias*, V. – VI. stoljeće; 118, sl. 9, *Ephesus*.

49 Bell 1960, 30–34, sl. 26.

50 Talloen 2018, 115.

45 Mart. XIV, 17.

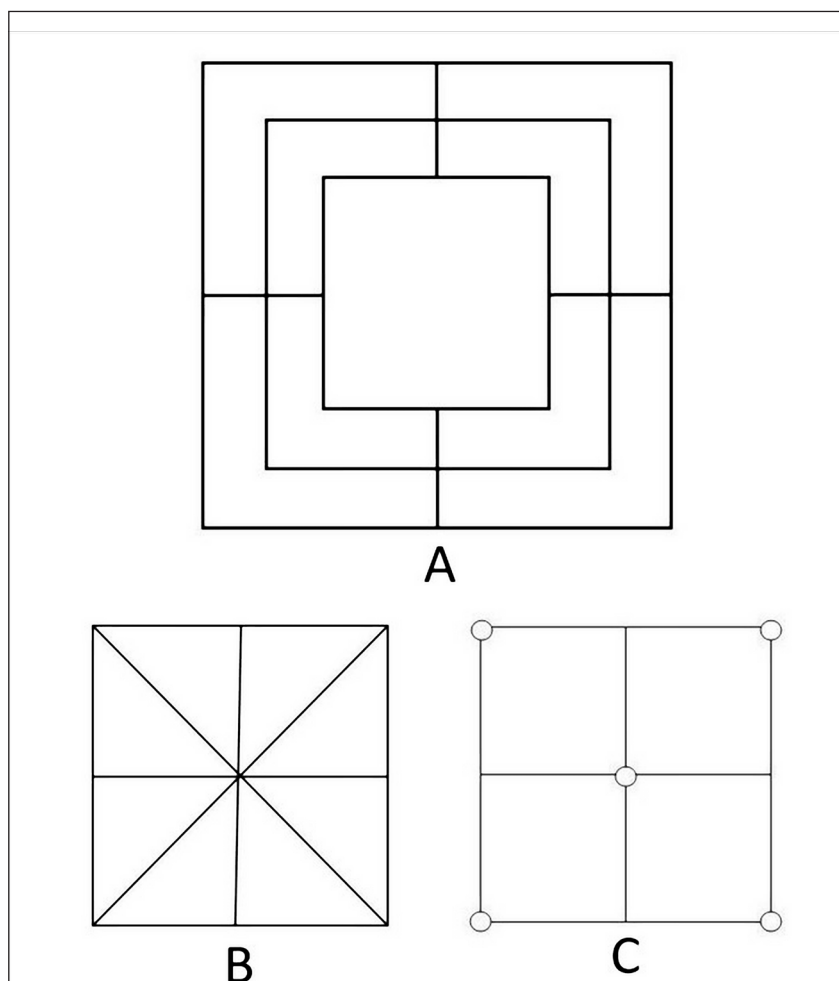
46 Ovid. *Ars Am.* III, 363–364; *Tr.* II, 475–476; Adam 1814, 397; Austin 1935, 76; Montesano 1961, 2240–2241; Bell 1960, 30–34, fig. 26–27; Schädler 1995, 83–84; 2013, 2843.

47 Austin 1935, 78; Bell 1960, 34–35, fig. 30; Schädler 1995, 82–89.

48 Talloen 2018, 111–115, fig. 4–7, *Sagalassos*, 3rd–6th century; 117, fig. 8, *Aphrodisias*, 5th–6th century; 118, fig. 9, *Ephesus*.

Sl. 4. Sheme za igru Mlin.
A – Cirencester (crtež: A. Starac, prema Courts, Penn 2021); B – Corbridge (crtež: A. Starac, prema Courts, Penn 2021); C – Zadar (crtež: A. Starac, prema Alihodžić 2015.)

Fig. 4. Schemes for the game of 'ninen me's morris'
A – Cirencester (drawing: A. Starac, after Courts, Penn 2021); B – Corbridge (drawing: A. Starac, after Courts, Penn 2021); C – Zadar (drawing: A. Starac, after Alihodžić 2015)



igra Mlin, koja se igrala slobodnim pomicanjem žetona na ploči s tri ili dva upisana kvadrata. Unutrašnji i vanjski kvadrat bili su spojeni s četiri poprečne crte na sredini svake stranice. Umjesto unutrašnjih kvadrata, ploča je mogla biti podijeljena na osam trokutastih polja pomoću četiri linije koje se sijeku u sredini. Postojala je i jednostavnija varijanta igre Mlin, u kojoj su bila dovoljna tri žetona za svakog igrača, a igrala se na ploči s kvadratom jednostavno podijeljenim s dvije prekržižene crte na četiri jednaka dijela⁵¹ (sl. 4). Nije poznato izvorno rimsko ime ove igre, ali poznata su pravila koja se nisu promijenila do danas. Svaki igrač koristio je po devet žetona, a cilj je bio nanizati tri žetona u redu i izbaciti protivnikov žeton.⁵² Pobjeđivao je igrač koji je blokirao protivnikove daljnje poteze ili mu izbacio iz igre sedam žetona. Slična igra strateškog karaktera, bez bacanja kocke, igrala se na kružnim poljima s unutrašnjom radialnom podjelom.⁵³

Točna pravila igre *Ludus latrunculorum* su izgubljena i trenutno nisu poznata. Iz oskudnih izvora može se zaključiti tek da se radilo o igri strategije i kombinatorike u kojoj se osvajao protivnički prostor, a protivnikov žeton

of letters and divided along the middle were for the game of *duodecim scriptorum*,⁴⁹ while other authors ascribe it to the Late Imperial or Late Antiquity variant of *tabula*.⁵⁰

In contrast to race games where dice were cast to determine how the tokens would be moved, war and strategy games of capturing space were played without dice, with free movement combinations within set rules. Strategy games include the game of nine men's morris, which was played by moving tokens on a board with two or three concentric squares. The inner and outer squares were connected by four transverse lines at the middle of each side. Instead of inner squares, the board could also be divided into eight triangular fields with four lines intersecting in the middle. There was also a simpler variant of nine men's morris that required only three tokens per player and was played on a board with a square divided into four equal parts by two intersecting lines.⁵¹ (Fig. 4) The original Roman name of this game is unknown, but its rules are known and have not changed to this day. Each player used nine tokens, with the aim being to line up three tokens in a row, which displaces the opponent's token.⁵² The

51 Montesano 1961, 2241; Bell 1960, 92–95, sl. 77–80; Shehi 2017, 151–153, sl. 3–6; Courts, Penn 2021, 4, sl. 7, 9; Štefanac, Eterović Borzić 2023, 48–50.

52 Ovid. *Ars Am.* III, 365–366; *Tr.* II, 482–483.

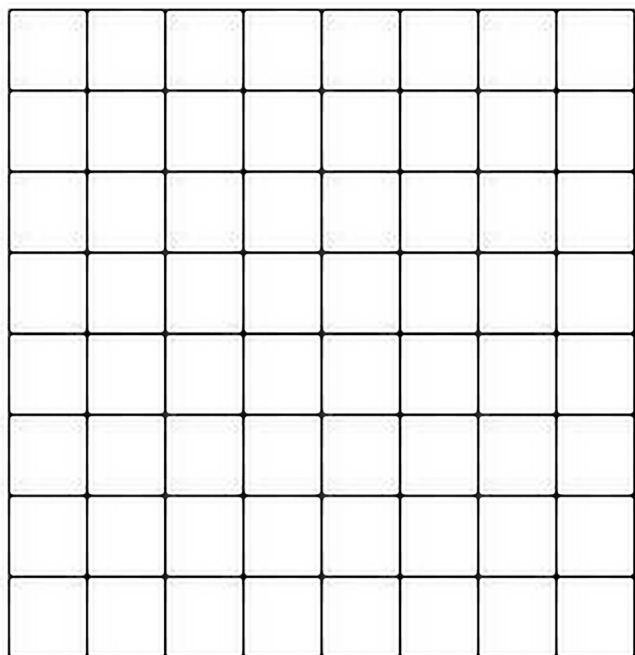
53 Montesano 1961, 2241; Shehi 2017, 152–154, sl. 6–7; Courts, Penn 2021, 4, sl. 8; Štefanac, Eterović Borzić 2023, 44.

49 Bell 1960, 30–34, fig. 26.

50 Talloen 2018, 115.

51 Montesano 1961, 2241; Bell 1960, 92–95, fig. 77–80; Shehi 2017, 151–153, fig. 3–6; Courts, Penn 2021, 4, fig. 7, 9; Štefanac, Eterović Borzić 2023, 48–50.

52 Ovid. *Ars Am.* III, 365–366; *Tr.* II, 482–483.



Sl. 5. Ploča za Ludus Istrunculorum, Corbridge (crtež: A. Starac, prema Courts, Penn 2021.)

Fig. 5. Board for Ludus latrunculorum, Corbridge (drawing: A. Starac, after Courts, Penn 2021)

onesposobljavao “zarobljavanjem” između dva žetona drugog igrača.⁵⁴ Smatra se da se igralo crnim i bijelim žetonima bez kocke, na ploči podijeljenoj u mrežu jednakih polja, koja odgovara šahovnici s 64, 36 ili 16 polja⁵⁵ (sl. 5). Prema pojedinim autorima, u igri na ploči zvanj *Ludus latrunculorum* koristile su se koštane tesere izduženog pravokutnog oblika s polukružno završenom drškom i urezanim numeričkim vrijednostima (*tesserae lusoriae*).⁵⁶ Koštane tesere možda korištene u igri numerirane su od I do XXV, s time što se pridružuju još brojevi XXX i XL. Uz brojčane oznake, na tesserama se javljaju riječi, kratice i pojedina slova. Označene drvene ili koštane pločice (*sortes*) koristile su se za proricanje, a mogle su poslužiti prilikom izvlačenja lutrije s različitim dobicima.⁵⁷

Tesere s erotskim prizorima na jednoj strani i numeričkim oznakama od I do XVI unutar vijenca na drugoj strani izrađivale su se u obliku novca od bronce ili keramike. Interpretiraju se kao tesere za igru prikladne za terme, konačišta i gostionice, ili kao carski dar, žeton za korištenje usluga prostitutki u javnim kućama. Pronađene su u Saloni, Naroni i kod otoka Majsana.⁵⁸

Neukrašeni i neoznačeni žetoni bilo kojeg oblika bili su prikladni za strateške igre Mlina i *Ludus latrunculorum*, u

player that successfully blocked all further moves by their opponent or captured seven of their tokens would win. A similar strategic game without dice features circular fields with internal radial divisions.⁵³

The precise rules for *ludus latrunculorum* have been lost to time, and are currently unknown. The meagre available sources indicate that it was a strategy and spatial combinatorics game, where the opponent's token was disabled by being 'captured' or trapped between two tokens.⁵⁴ It is believed to have been played with black and white tokens, without dice, on a board divided into a grid of equal fields in a check pattern with 64, 36 or 16 fields.⁵⁵ (Fig. 5) According to some authors, the board game *ludus latrunculorum* used bone tesserae of elongated rectangular shape with semi-circular mouldings for handles and numerical values carved into them (*tesserae lusoriae*).⁵⁶ Bone tesserae that were possibly used in the game were numbered from I to XXV, but the numbers XXX and XL were also added. Apart from numeral markings, the tesserae could also feature words, abbreviations and individual letters. Wood or bone tablets with markings (*sortes*) were used for divination, but could also be used to draw lots in a lottery with various prizes.⁵⁷

Tesserae with erotic scenes on one side and numeric markings from I to XVI enclosed within a wreath on the other were made in the shape of bronze or ceramic currency. They are interpreted as tesserae for games played at thermal baths, lodgings and inns, or as imperial gifts of tokens for the use of services of prostitutes in brothels. They were found in Salona, Naronia and near Majsan island.⁵⁸

Unadorned and unmarked tokens of various shapes were suitable for playing the strategy games of nine men's morris and *ludus latrunculorum*, where the object was to capture space on the board, or for the *duodecim scriptorum* and *tabula* race games.⁵⁹

Tokens from the Roman collection at the Archaeological Museum of Istria can be divided according to their basic shape into flat-topped (cat. nos. 5–10, 21–22) and semi-calotte (cat. nos. 11–20). They were made of a variety of materials: bone (cat. nos. 6–10, 21), stone (cat. nos. 5, 11–15, 22) and glass paste (cat. nos. 16–20). Flat-topped tokens (cat. nos. 5–10, 21–22) belong to the group of the simplest tokens that could be used for playing board games, but also for divination or as counting tokens (*calculi*) for calculations. They maintained the same form throughout the Roman period, so dating is only possible on the basis of stratigraphic data. The token presented as cat. no. 21 was found in a drainage channel of a luxurious *domus* in St. Theodore's Quarter and is part of the house's inventory. The stratigraphic context allows for dating

54 Varr. *Ling.* X, 22; Ovid. *Ars Am.* III, 358; *Tr.* II, 477–480.

55 *Laus Pisonis* 173–196; Montesano 1961, 2240; Bell 1960, 85–87; Schädler 1994, 49–53; Janković 2007, 31; Hall 2019, 204–206, sl. 4a; Štefanac, Eterović Borzić 2023, 36–43.

56 Baratta 2014, 69, sl. 1–5; 2015, 196. Ista riječ *tessera* koristila se za vrstu kocke i za vrstu žetona.

57 Suet. *Aug.* 75.

58 Buljević 2009, 201–204, sl. 1–6.

53 Montesano 1961, 2241; Shehi 2017, 152–154, fig. 6–7; Courts, Penn 2021, 4, fig. 8; Štefanac, Eterović Borzić 2023, 44.

54 Varr. *Ling.* X, 22; Ovid. *Ars Am.* III, 358; *Tr.* II, 477–480.

55 *Laus Pisonis* 173–196; Montesano 1961, 2240; Bell 1960, 85–87; Schädler 1994, 49–53; Janković 2007, 31; Hall 2019, 204–206, sl. 4a; Štefanac, Eterović Borzić 2023, 36–43.

56 Baratta 2014, 69, fig. 1–5; 2015, 196. The same word *tessera* was used for both a type of die and a type of token.

57 Suet. *Aug.* 75.

58 Buljević 2009, 201–204, fig. 1–6.

59 Bíró 1994, 62; Petković 1995, 53.

kojima je cilj osvajanje prostora na ploči, ili za utrivačke igre *Duodecim scriptorum* i *Tabula*.⁵⁹

Žetoni iz antičke zbirke Arheološkog muzeja Istre po osnovnom obliku dijele se na pločaste (kat. br. 5–10: 21–22) i polukulatoste (kat. br. 11–20). Izrađeni su od različitih dostupnih materijala – kosti (kat. br. 6–10, 21), kamena (kat. br. 5, 11–15, 22) i staklene paste (kat. br. 16–20). Pločasti žetoni (kat. br. 5–10, 21–22) pripadaju skupini najjednostavnijih žetona koji su mogli služiti za igru na ploči, ali i za proricanje, ili za računanje kao računski žetoni (*calculi*). Koristili su se u podjednakim oblicima tijekom cijelog rimskog carskog razdoblja te je datacija moguća samo na temelju stratigrafskih podataka. Žeton (kat. br. 21) pronađen je u odvodnom kanalu raskošnog domusa u četvrti sv. Teodora i predstavlja dio kućnog inventara. Stratigrafski kontekst dopušta dataciju u dugo razdoblje nastanjenosti domusa od treće četvrtine I. stoljeća pr. n. e. do V. stoljeća n. e. Istom vremenskom rasponu pripada kameni plosnati žeton kat. br. 22, pronađen na području javnih termi, neposredno uz zid kanala koji dijeli javne terme od domusa. Mogao je pripadati inventaru istog domusa ili prislonjenih javnih termi. Koštani pločasti žetoni (kat. br. 6–10) imaju specifični bikonični profil, poput koštanog žetona iz mađarskog lokaliteta Koronć.⁶⁰ Bikonični žetoni javljaju se u razdoblju I. – III. stoljeća, osobito u I. i II. stoljeću. Po nekoliko bikoničnih koštanih žetona zabilježeno je u lokalitetima na rajnskom limesu, u Augstu u kontekstu prve polovice I. stoljeća⁶¹ te u Xantenu u širem vremenskom rasponu koji obuhvaća I. – II. stoljeće i seže do početka III. stoljeća.⁶² Bikonični koštani žetoni prisutni su sporadično u galskim provincijama.⁶³ Bikonični koštani žeton iz Mangina u Narbonskoj Galiji (*Gallia Narbonensis*) pripada razdoblju od sredine II. do sredine III. stoljeća.⁶⁴

Polukulatosti žetoni (kat. br. 11–20) oblikom su jednaki žetonima iz zbirke Zemaljskog muzeja u Sarajevu koji su većinom pronađeni u Vidu kod Metkovića (*Narona*),⁶⁵ žetonima iz kasnoantičkog groba IV. stoljeća iz Niša (*Naissus*),⁶⁶ žetonima iz Arheološkog muzeja u Zadru,⁶⁷ žetonima iz Durrës (*Dyrrachium*).⁶⁸ Polukulatosti žetoni od stakla razmjerno su čest nalaz u grobovima južne Galije, u kojima se broj žetona u kompletu kreće od 5 do 26.⁶⁹ Kasnoantički grob iz Niša sadržavao je komplet za igru kocke, koji se sastojao od dvije kocke, staklene čaše za bacanje kocki i 22 polukulota-

to the second period of occupation of the domus, lasting from the third quarter of the 1st century BCE to the 5th century CE. The flat stone token presented as cat. no. 22 belongs to the same time period, and was found in the area of the public baths, directly adjacent to the wall of the channel separating the public baths from the domus. It may have belonged to the inventory of the same domus, or alternatively to the adjacent public baths. Flat tablet tokens (cat. nos. 6–10) have a specific biconical profile, as is the case of the bone token from the Koronć locality (Hungary).⁶⁰ Biconical tokens appear in the period from the 1st to 3rd centuries CE, and most commonly in the 1st and 2nd centuries. Several biconical bone tokens were recorded in localities in Augst along the Rhine Limes in contexts dated to the first half of the 1st century CE,⁶¹ and in Xanten in the broader time period encompassing the 1st and 2nd centuries and extending into the early 3rd century.⁶² Biconical bone tokens are also occasionally found in the Gallic provinces.⁶³ The biconical bone token from Mangin in Gallia Narbonensis belongs to the period from the mid-2nd to the mid-3rd century.⁶⁴

Semi-calotte tokens (cat. nos. 11–20) shaped like those from the collections of the National Museum in Sarajevo were mainly found in Vid near Metković (*Narona*),⁶⁵ as well as in a Late Antiquity (4th century) grave in Niš (*Naissus*),⁶⁶ those held in the collections of the Archaeological Museum in Zadar,⁶⁷ and tokens from Durrës (*Dyrrachium*).⁶⁸ Semi-calotte glass tokens are also a relatively frequent find in graves of southern Gaul, where the number of tokens in a set ranges from 5 to 26.⁶⁹ The Late Antiquity grave in Niš contained a set for a dicing game that consisted of two dice, a glass cup for casting dice, and 22 semi-calotte tokens. Among them, eleven tokens are unmarked and eleven are marked with small circles representing the numbers 3, 4, 5 and 7. The set would have been used for playing both dice and board games. The cremation burial in Zadar excavated in 2004 belonged to a woman, based on the beaded jewellery found within it, and contained – among numerous other items – eleven glass paste tokens; one blue, one yellow and nine white. A square bone tablet was found in the urn from the same grave, measuring 3.2 x 3.1 x 0.2 cm, with a carved grid of four squares and with five circular notches measuring 0.2 cm in diameter; four in the corners and one in the centre (Fig. 4: C), which may have been kept in a box from which small bronze nails and a

59 Biró 1994, 62; Petković 1995, 53.

60 Biró 1994, 119, kat. br. 844, T. LXXXIII: 844.

61 Deschler-Erb 1998, 1, 151, T. 24: 892–894, 913, 916, 920, Augst; 2, 79–80, kat. br. 892–894, prva polovica I. stoljeća; 81, kat. br. 913, 916, 920.

62 Jung 2013, 102, 203, kat. br. 1280–1284, T. 70: 1280–1284, Xanten, I. stoljeće – početak III. stoljeća.

63 Béal, Rodet-Belarbi 2003, 55, sl. 3: 88444-1, 88422-1, Vertault; Feugère, Prévot 2008, 247, kat. br. 52, Clermont-l'Hérault, tip žetona A XXXIII.3.

64 Lemoine, Rodet-Belarbi 2005, 350, sl. 5: 232.

65 Busuladžić 2017, 197–199, kat. br. 17–58, T. 4–6. Polukulatosti žetoni od kamena ili staklene paste kat. br. 17–27, 29–33, 36, 38–51 i 58 potječu iz rimske kolonije Narone kod Metkovića.

66 Jovanović 1977, 139–140; Petković 1995, 53.

67 Suić 1954, br. 52, sl. 74, crni i bijeli polukulatosti žetoni s keramičkom čašom i dvije kocke iz groba u Zadru; Alihodžić 2015, 17–18, sl. 7, Zadar, Grob 11 Hypo banka 2004, žarni ženski grob iz I. stoljeća.

68 Shehi 2017, 147–148, sl. 1.

69 Manniez 2019, 190, sl. 4.

60 Biró 1994, 119, cat. no. 844, T. LXXXIII: 844.

61 Deschler-Erb 1998, 1, 151, T. 24: 892–894, 913, 916, 920, Augst; 2, 79–80, cat. no. 892–894, first half of the 1st century; 81, cat. no. 913, 916, 920.

62 Jung 2013, 102, 203, cat. no. 1280–1284, T. 70: 1280–1284, Xanten, 1st century – beginning of 3rd century.

63 Béal, Rodet-Belarbi 2003, 55, fig. 3: 88444-1, 88422-1, Vertault; Feugère, Prévot 2008, 247, cat. no. 52, Clermont-l'Hérault, tip žetona A XXXIII.3.

64 Lemoine, Rodet-Belarbi 2005, 350, fig. 5: 232.

65 Busuladžić 2017, 197–199, cat. no. 17–58, T. 4–6. Semi-calotte stone and glass paste tokens cat. nos. 17–27, 29–33, 36, 38–51 and 58 come from the Roman colony of Narona near Metković.

66 Jovanović 1977, 139–140; Petković 1995, 53.

67 Suić 1954, br. 52, sl. 74, black and white semi-calotte tokens with ceramic cup and two dice from the grave in Zadar; Alihodžić 2015, 17–18, fig. 7, Zadar, Grob 11 Hypo banka 2004, urn grave of woman from the 1st century.

68 Shehi 2017, 147–148, sl. 1.

69 Manniez 2019, 190, fig. 4.

šta žetona. Od toga je jedanaest žetona neobilježeno, a jedanaest označeno kružićima koje predstavljaju brojeve 3, 4, 5 i 7. Komplet je služio za igre kockom i za igre na ploči. Žarni grob iz Zadra iskopan 2004. godine pripadao je ženi sudeći po nakitu od perlica, a između brojnih priloga sadržavao je jedanaest žetona od staklene paste, jedan plavi, jedan žuti i devet bijelih. Iz urne istog groba potječe kvadratna koštana pločica dimenzija 3,2 x 3,1 x 0,2 cm s urezanom mrežom od četiri kvadrata i s pet kružnih udubina promjera 0,2 cm, četiri u uglovima i jednom u sredini (sl. 4: C), koja je mogla pripadati kutiji od koje su sačuvani brončani čavlići i brava.⁷⁰ Na suprotnoj strani pločice urezano je pet udubina u istom rasporedu, ali bez mreže. Mreža urezana na pločici, iako veoma malena, odgovara shemi ploče za igru (*tabula lusoria*) za varijantu igre Mlin, u kojoj su igrači pomicali svaki po tri žetona s ciljem da formiraju niz od tri uzastopna žetona.⁷¹ Dva polukalotasta žetona od zelene, odnosno plave staklene paste i jedan žeton od gagata pronađeni su u Resniku kod Splita (*Siculi*).⁷² Koštani polukalotasti žetoni zastupljeni su i u drugim zapadnim provincijama od I. do IV. stoljeća.⁷³

ZAKLJUČAK

Pribor za igru iz Antičke zbirke Arheološkog muzeja Istre predstavljen je kuglicama, kockama i žetonima od kosti, keramike, kamena ili staklene paste. Okolnosti nalaza poznate su tek za nekoliko predmeta. Jedna kocka pronađena je na forumu u Puli, u sloju koji je prethodio kasnoaugustovskoj obnovi foruma. Druga kocka potječe iz rimske vile kod Kršeta, za koju se pretpostavlja da je služila kao odmorište uz sporednu cestu koja je povezivala sjeverozapadnu obalu Istre s glavnom rimskom cestom. Dva žetona od različitih materijala potječu iz četvrti Sv. Teodora u Puli, koštani iz raskošnog peristilnog domusa, a kameni iz ruševine istog domusa ili iz prislonjenih javnih termi. Mjesta nalaza pokazuju gdje su se ljudi zabavljali društvenim igrama: na javnoj površini glavnog gradskog trga, u mješovitom društvu u javnim termama, gostionicama i odmorištima, u krugu obitelji u privatnim kućama. Korištene su kuglice za igru kliker, kocke različitih veličina i oznaka bacale su se pomoću posudice s ciljem osvajanja dobitne kombinacije, igralo se utrivačke i strateške igre žetonima na igraćim pločama koje su mogle biti prenosne, ili jednostavno ucrtane na podno opločenje ili na zemlju.

lock were preserved.⁷⁰ On the other side, the tablet has five notches carved in the same arrangement, but without the grid. The grid carved on the tablet, although very small, corresponds to the gameboard scheme for a variant of nine men's morris where players would each move three tokens and attempt to line them up.⁷¹ Two semi-calotte tokens (one each made of green and blue glass paste) and one jet token were found in Resnik (*Siculi*), near Split.⁷² Bone semi-calotte tokens dating to the period from the 1st to the 4th century have also been found in other western provinces.⁷³

CONCLUSION

Materials used for playing games held in the Roman Period Collection of the Archaeological Museum of Istria have been presented here in the form of marbles, dice and tokens made of bone, ceramic, stone and glass paste. The find circumstances are known for only a few of the items. One die was found at the Pula Forum, in the layer that preceded the reconstruction of the Forum in the late Augustan period. Another die comes from the Roman villa near Kršete that is thought to have served as a resting area beside the secondary road that connected Istria's northwest coast with the main Roman road. Two tokens made of different materials come from St. Theodore's Quarter in Pula; a bone token from the grand peristyle domus and a stone token from either the ruins of the same domus or the adjacent public baths. The find locations are indicative of where people would have engaged in playing board games; i.e. in the public space of the main square, among mixed company in public baths, inns and resting areas, and within private family homes. Marbles were used to play a variety of games, dice with various dimensions and markings were cast using a small cup in the hope of scoring the winning combination, while tokens were used for race and strategy games played on gameboards, which themselves were either portable or simply etched into flooring materials or carved into the ground.

70 Alihodžić 2015, 17–18, sl. 6. Zahvaljujem Timki Alihodžić koja mi je ljubazno dostavila podatke o dimenzijama ploče i kontekstu nalaza.

71 Ovid. *Ars Am.* III, 365–366; Bell 1960, 92, sl. 77; Schädler 2013, 2843.

72 Kamenjarin 2011, 147, inv. br. 3820, staklena pasta, I. – III. stoljeće; 148, inv. br. 3824, gagat, I. – IV. stoljeće; inv. br. 3825, staklena pasta, I. – IV. stoljeće.

73 Deschler-Erb 1998, 1, 151, T. 27: 1905, 1909–1914, Augst; 2, 162, kat. br. 1905, 1909–1914, kasno II. stoljeće; Béal, Rodet-Belarbi 2003, 54, sl. 2: 88349-1, 884956-1, Vertault.

70 Alihodžić 2015, 17–18, fig. 6. I would like to thank Timka Alihodžić for kindly providing me with data on the dimensions of the tablet and the context of its find.

71 Ovid. *Ars Am.* III, 365–366; Bell 1960, 92, fig. 77; Schädler 2013, 2843.

72 Kamenjarin 2011, 147, inv. br. 3820, glass paste, 1st–3rd century; 148, inv. no. 3824, jet, 1st–4th century; inv. no. 3825, glass paste, 1st–4th century.

73 Deschler-Erb 1998, 1, 151, T. 27: 1905, 1909–1914, Augst; 2, 162, cat. no. 1905, 1909–1914, late 2nd century; Béal, Rodet-Belarbi 2003, 54, fig. 2: 88349-1, 884956-1, Vertault.

KATALOG

Kuglice

1. Inv. br. AMI-A-6344 (T. 1: 1)

Opis: Kuglica od crnog kamena, nepravilnog oblika.

Dimenzije: Visina 1,6 cm (potpuno), promjer 1,6 cm, masa 5,07 g.

Nalazište: Nepoznato.

Objava: Neobjavljeno.

2. Inv. br. AMI-A-6344/a (T. 1: 2)

Opis: Keramička kuglica, nepravilnog oblika.

Dimenzije: Visina 1,8 cm (potpuno), promjer 1,8 cm, masa 5,99 g.

Nalazište: Nepoznato.

Objava: Neobjavljeno.

Kocke

3. Inv. br. AMI-A-30696 (T. 1: 3)

Opis: Koštana kocka za igru (*tessera*) označena brojevima od 1 do 6. Zbroj brojeva na nasuprotnim stranicama iznosi 7. Brojevi su označeni urezanim koncentričnim kružićima.

Dimenzije: Visina 0,8 cm (potpuno), širina 0,8 cm (potpuno), dužina 0,8 cm (potpuno), masa 0,99 g.

Nalazište: Pula, Forum, 2007., S. J. 137.

Objava: Paić, Koncani Uhač 2007, 47, kat. br. 124.

4. Inv. br. AMI-A-50083 (T. 2: 4)

Opis: Koštana kocka za igru označena na dvije nasuprotne strane brojevima 4, 5 i 6. Zbroj brojeva na nasuprotnim stranicama iznosi 8, 10 i 12. Brojevi su označeni urezanim kružićima s točkom u sredini.

Dimenzije: Visina 1,53 cm (potpuno), širina 1,45 cm, dužina 1,34 cm, masa 4,20 g.

Nalazište: Sv. Jelena, Kršete, rimska vila, 18. VIII. 2004., br. 5., S. J. P3, apsolutna visina 96,80–97,00 m.

Objava: Ujčić 2005, 156.

Žetoni

5. Inv. br. AMI-A-6345/c (T. 2: 5)

Opis: Plosnati okrugli žeton od sivog kamena.

Dimenzije: Visina 0,33 cm (potpuno), širina 1,37 cm, dužina 1,1 cm, masa 0,81 g.

Nalazište: Nepoznato.

Objava: Neobjavljeno.

6. Inv. br. AMI-A-6353 (T. 2: 6)

Opis: Plosnati okrugli koštani žeton za igru bikoničnog profila, pocrnio od vatre. U sredini jedne strane nalazi se rupica.

Dimenzije: Visina 0,6 cm (potpuno), promjer 1,76 cm, masa 2,38 g.

Nalazište: Nepoznato.

Objava: Neobjavljeno.

7. Inv. br. AMI-A-6353/a (T. 3: 7)

Opis: Plosnati okrugli koštani žeton za igru bikoničnog profila, pocrnio od vatre. U sredini jedne strane nalazi se rupica.

Dimenzije: Visina 0,59 cm (potpuno), promjer 1,68 cm, masa 1,84 g.

Nalazište: Nepoznato.

Objava: Neobjavljeno.

8. Inv. br. AMI-A-6353/b (T. 3: 8)

Opis: Plosnati okrugli koštani žeton za igru bikoničnog profila, pocrnio od vatre. U sredini jedne strane nalazi se rupica.

Dimenzije: Visina 0,53 cm (potpuno), promjer 1,67 cm, masa 1,96 g.

Nalazište: Nepoznato.

Objava: Neobjavljeno.

CATALOGUE

Marbles

1. Inv. no. AMI-A-6344 (T. I: 1)

Description: Black stone marble, irregular shape.

Dimensions: Height 1.6 cm (complete), diameter 1.6 cm, mass 5.07 g.

Find-site: Unknown.

Literature: Unpublished.

2. Inv. no. AMI-A-6344/a (T. I: 2)

Description: Ceramic marble, irregular shape.

Dimensions: Height 1.8 cm (complete), diameter 1.8 cm, mass 5.99 g.

Find-site: Unknown.

Literature: Unpublished.

Dice

3. Inv. no. AMI-A-30696 (T. I: 3)

Description: Bone die (*tessera*) marked with numbers 1 through 6. The sum of the numbers on opposing sides is 7. The numbers are marked by carved concentric circles.

Dimensions: Height 0.8 cm (complete), width 0.8 cm (complete), length 0.8 cm (complete), mass 0.99 g.

Find-site: Pula, Forum, 2007., S. J. 137.

Literature: Paić, Koncani Uhač 2007, 47, cat. no. 124.

4. Inv. no. AMI-A-50083 (T. II: 4)

Description: Bone die marked with numbers 4, 5 and 6 on pairs of opposing sides. The sum of the numbers on opposing sides is 8, 10 and 12. The numbers are marked by carved circles with a dot in the middle.

Dimensions: Height 1.53 cm (complete), width 1.45 cm, length 1.34 cm, mass 4.20 g.

Find-site: Sv. Jelena, Kršete, Roman villa, 18. VIII. 2004., no. 5., S. J. P3, absolute height 96.80–97.00 m.

Literature: Ujčić 2005, 156.

Tokens

5. Inv. no. AMI-A-6345/c (T. II: 5)

Description: Flat round token made of grey stone.

Dimensions: Height 0.33 cm (complete), width 1.37 cm, length 1.1 cm, mass 0.81 g.

Find-site: Unknown.

Literature: Unpublished.

6. Inv. no. AMI-A-6353 (T. II: 6)

Description: Flat round bone game token of biconical profile, blackened by fire. A small hole in the middle of one side.

Dimensions: Height 0.6 cm (total), diameter 1.76 cm, mass 2.38 g.

Find-site: Unknown.

Literature: Unpublished.

7. Inv. no. AMI-A-6353/a (T. III: 7)

Description: Flat round bone game token of biconical profile, blackened by fire. A small hole in the middle of one side.

Dimensions: Height 0.59 cm (total), diameter 1.68 cm, mass 1.84 g.

Find-site: Unknown.

Literature: Unpublished.

8. Inv. no. AMI-A-6353/b (T. III: 8)

Description: Flat round bone game token of biconical profile, blackened by fire. A small hole in the middle of one side.

Dimensions: Height 0.53 cm (total), diameter 1.67 cm, mass 1.96 g.

Find-site: Unknown.

Literature: Unpublished.

9. Inv. br. AMI-A-6353/c (T. 3: 9)

Opis: Plosnati okrugli koštani žeton za igru bikoničnog profila, pocrnio od vatre. U sredini jedne strane nalazi se rupica.

Dimenzije: Visina 0,4 cm (potpuno), promjer 1,54 cm, masa 1,27 g.

Nalazište: Nepoznato.

Objava: Neobjavljeno.

10. Inv. br. AMI-A-6353/d (T. 3: 10)

Opis: Plosnati okrugli koštani žeton za igru, pocrnio od vatre. U sredini jedne strane nalazi se rupica. Profil je u donjem dijelu cilindričan, u gornjem zaobljen.

Dimenzije: Visina 0,48 cm (potpuno), promjer 1,45 cm, masa 1,44 g.

Nalazište: Nepoznato.

Objava: Neobjavljeno.

11. Inv. br. AMI-A-6345 (T. 4: 11)

Opis: Polukalotasti žeton od crnog kamena. Dno je udubljeno.

Dimenzije: Visina 0,64 cm (potpuno), promjer 1,5 cm, masa 2,23 g.

Nalazište: Nepoznato.

Objava: Neobjavljeno.

12. Inv. br. AMI-A-6345/a (T. 4: 12)

Opis: Polukalotasti žeton od sivoplavog kamena. Dno je ravno.

Dimenzije: Visina 0,6 cm (potpuno), promjer 1,45 cm, masa 1,79 g.

Nalazište: Nepoznato.

Objava: Neobjavljeno.

13. Inv. br. AMI-A-6345/b (T. 4: 13)

Opis: Polukalotasti žeton od sivog kamena. Dno je ravno.

Dimenzije: Visina 0,57 cm (potpuno), promjer 1,33 cm, masa 1,51 g.

Nalazište: Nepoznato.

Objava: Neobjavljeno.

14. Inv. br. AMI-A-5158 (T. 4: 14)

Opis: Polukalotasti žeton od bijelog kamena. Dno je ravno.

Dimenzije: Visina 0,6 cm (potpuno), promjer 1,64 cm, masa 2,77 g.

Nalazište: Nepoznato, nalaz prije 1949.

Objava: Neobjavljeno.

15. Inv. br. AMI-A-5165 (T. 5: 15)

Opis: Polukalotasti žeton od crnog kamena. Dno je ravno.

Dimenzije: Visina 0,66 cm (potpuno), promjer 1,3 cm, masa 1,48 g.

Nalazište: Nepoznato, nalaz prije 1949.

Objava: Neobjavljeno.

16. Inv. br. AMI-A-5159 (T. 5: 16)

Opis: Polukalotasti žeton od tamnoplave neprozirne staklene paste. Dno je ravno.

Dimenzije: Visina 0,6 cm (potpuno), promjer 1,7 cm, masa 2,83 g.

Nalazište: Nepoznato, nalaz prije 1949.

Objava: Neobjavljeno.

17. Inv. br. AMI-A-5164 (T. 5: 17)

Opis: Polukalotasti žeton od crne neprozirne staklene paste. Dno je blago udubljeno.

Dimenzije: Visina 0,7 cm (potpuno), promjer 1,6 cm, masa 2,24 g.

Nalazište: Nepoznato, nalaz prije 1949.

Objava: Neobjavljeno.

18. Inv. br. AMI-A-5164/a (T. 5: 18)

Opis: Polukalotasti žeton od tamnoplave neprozirne staklene paste. Dno je ravno.

Dimenzije: Visina 0,6 cm (potpuno), promjer 1,5 cm, masa 1,59 g.

Nalazište: Nepoznato, nalaz prije 1949.

Objava: Neobjavljeno.

9. Inv. no. AMI-A-6353/c (T. III: 9)

Description: Flat round bone game token of biconical profile, blackened by fire. A small hole in the middle of one side.

Dimensions: Height 0.4 cm (total), diameter 1.54 cm, mass 1.27 g.

Find-site: Unknown.

Literature: Unpublished.

10. Inv. no. AMI-A-6353/d (T. III: 10)

Description: Flat round bone game token, blackened by fire. A small hole in the middle of one side. The profile is cylindrical on the bottom and rounded on the top.

Dimensions: Height 0.48 cm (total), diameter 1.45 cm, mass 1.44 g.

Find-site: Unknown.

Literature: Unpublished.

11. Inv. no. AMI-A-6345 (T. IV: 11)

Description: Semi-calotte token of black stone. The bottom is concave.

Dimensions: Height 0.64 cm (total), diameter 1.5 cm, mass 2.23 g.

Find-site: Unknown.

Literature: Unpublished.

12. Inv. no. AMI-A-6345/a (T. IV: 12)

Description: Semi-calotte token of grey-blue stone. The bottom is flat.

Dimensions: Height 0.6 cm (total), diameter 1.45 cm, mass 1.79 g.

Find-site: Unknown.

Literature: Unpublished.

13. Inv. no. AMI-A-6345/b (T. IV: 13)

Description: Semi-calotte token of grey stone. The bottom is flat.

Dimensions: Height 0.57 cm (total), diameter 1.33 cm, mass 1.51 g.

Find-site: Unknown.

Literature: Unpublished.

14. Inv. no. AMI-A-5158 (T. IV: 14)

Description: Semi-calotte token of white stone. The bottom is flat.

Dimensions: Height 0.6 cm (total), diameter 1.64 cm, mass 2.77 g.

Find-site: Unknown, found before 1949.

Literature: Unpublished.

15. Inv. no. AMI-A-5165 (T. V: 15)

Description: Semi-calotte token of black stone. The bottom is flat.

Dimensions: Height 0.66 cm (total), diameter 1.3 cm, mass 1.48 g.

Find-site: Unknown, found before 1949.

Literature: Unpublished.

16. Inv. no. AMI-A-5159 (T. V: 16)

Description: Semi-calotte token of dark blue non-transparent glass paste. The bottom is flat.

Dimensions: Height 0.6 cm (total), diameter 1.7 cm, mass 2.83 g.

Find-site: Unknown, found before 1949.

Literature: Unpublished.

17. Inv. no. AMI-A-5164 (T. V: 17)

Description: Semi-calotte token of black non-transparent glass paste. The bottom is slightly concave.

Dimensions: Height 0.7 cm (total), diameter 1.6 cm, mass 2.24 g.

Find-site: Unknown, found before 1949.

Literature: Unpublished.

18. Inv. no. AMI-A-5164/a (T. V: 18)

Description: Semi-calotte token of dark blue non-transparent glass paste. The bottom is flat.

Dimensions: Height 0.6 cm (total), diameter 1.5 cm, mass 1.59 g.

Find-site: Unknown, found before 1949.

Literature: Unpublished.

19. Inv. br. AMI-A-5164/b (T. 6: 19)

Opis: Polukalotasti žeton od crne neprozirne staklene paste. Dno je ravno.

Dimenzije: Visina 0,6 cm (potpuno), promjer 1,2 cm, masa 1,16 g.

Nalazište: Nepoznato, nalaz prije 1949.

Objava: Neobjavljeno.

20. Inv. br. AMI-A-3262 (T. 6: 20)

Opis: Polukalotasti žeton od bezbojne poluprozirne staklene paste. Dno je ravno.

Dimenzije: Visina 0,65 cm (potpuno), širina 1,9 cm (potpuno), dužina 2 cm (potpuno), masa 3,58 g.

Nalazište: Nepoznato, nalaz prije 1949.

Objava: Neobjavljeno.

21. Inv. br. AMI-A-42304 (T. 6: 21)

Opis: Koštani žeton, kružnog oblika, plosnat i okomitog profila. Na jednoj strani u sredini nalazi se malo točkasto udubljenje.

Dimenzije: Visina 0,2 cm (potpuno), promjer 2,5 cm, masa 1,59 g.

Nalazište: Pula, Kandlerova, Blok XVI, Lokacija XI, 2. VI. 2005., S. J. Kanal 1-P21-O4.

Objava: Neobjavljeno.

22. Inv. br. AMI-A-42312 (T. 6: 22)

Opis: Žeton za igru od glačanog vapnenca, ovalnog oblika, plosnat i stanjen prema rubu, okomitog profila.

Dimenzije: Visina 0,3 cm (potpuno), širina 1,7 cm, dužina 1,5 cm, masa 1,64 g.

Nalazište: Pula, Kandlerova, Blok XVI, Lokacija XI, 6. VI. 2005., S. J. 25-P7-O7, uz Zid 13-O7.

Objava: Neobjavljeno.

19. Inv. no. AMI-A-5164/b (T. VI: 19)

Description: Semi-calotte token of black non-transparent glass paste. The bottom is flat.

Dimensions: Height 0.6 cm (total), diameter 1.2 cm, mass 1.16 g.

Find-site: Unknown, found before 1949.

Literature: Unpublished.

20. Inv. no. AMI-A-3262 (T. VI: 20)

Description: Semi-calotte token of colourless semi-transparent glass paste. The bottom is flat.

Dimensions: Height 0.65 cm (total), width 1.9 cm (total), length 2 cm (total), mass 3.58 g.

Find-site: Unknown, found before 1949.

Literature: Unpublished.

21. Inv. no. AMI-A-42304 (T. VI: 21)

Description: Bone token, circular, flat and of perpendicular profile. On one side, there is a small dot-shaped depression in the middle.

Dimensions: Height 0.2 cm (total), diameter 2.5 cm, mass 1.59 g.

Find-site: Pula, Kandlerova, Block XVI, Location XI, 2. VI. 2005., S. J. Kanal 1-P21-O4.

Literature: Unpublished.

22. Inv. no. AMI-A-42312 (T. VI: 22)

Description: Game token of polished limestone, oval in shape, flat and thinner at the edges, perpendicular in profile.

Dimensions: Height 0.3 cm (total), width 1.7 cm, length 1.5 cm, mass 1.64 g.

Find-site: Pula, Kandlerova, Block XVI, Location XI, 6. VI. 2005., S. J. 25-P7-O7, adjacent to Wall 13-O7.

Literature: Unpublished.

LITERATURA/LIST OF REFERENCES

Adam, A. 1814, *Roman antiquities: or an Account of the Manners and Customs of the Romans*, George Long, New York.

Alihodžić, T. 2015, *Ispričat ću ti priču / Let me tell you a story*, Katalozi i monografije 15, Arheološki muzej Zadar, Zadar.

Austin, R. G. 1935, *Roman Board Games II, Greece and Rome 4/11*, Cambridge, 76–82.

Baratta, G. 2014, *Le tesserae lusoriae delle isole Baleari*, in: C. Ferrando, B. Costa (eds.), *In amicitia. Miscellanea d'estudis en homenatge a Jordi H. Fernández*, Govern de les Illes Balears, Eivissa, 69–74.

Baratta, G. 2015, *Una tessera lusoria iscritta rinvenuta a Ruscino (Château-Roussillon, Perpignan, France)*, *Sylloge Epigraphica Barcinonensis XIII*, Barcelona, 195–200.

Béal, J.-C. 1983, *Catalogue des objets de tabletterie du Musée de la Civilisation gallo-romaine de Lyon*, Centre d'études romaines et gallo-romaines de l'Université Jean Moulin Lyon III vol. 1, Musée de la Civilisation gallo-romaine, Lyon.

Béal, J.-C., Rodet-Belarbi, I. 2003, *Le travail de l'os, du bois de cerf et de l'ivoire à Vertillum-Vertault (Côte d'Or)*, *Bulletin archéologique et historique du Châtillonnais sixième série 6*, Châtillon-sur-Seine, 51–104.

Bell, R. C. 1960, *Board and Table Games from Many Civilizations*, Oxford University Press, London – New York – Toronto.

Bíró, M. T. 1994, *The Bone Objects of the Roman Collection*, Catalogi Musei Nationalis Hungarici, Series Archaeologica II, Budapest.

Buljević, Z. 2009, *Uz spintriju iz Salone u splitskom Arheološkom muzeju*, *Archaeologia Adriatica 2*, Zadar, 201–211.

Busuladžić, A. 2017, *Predmeti rimske zabave i dokolice: nepublicirani astragali, talus i calculi iz antičke zbirke Zemaljskog muzeja Bosne i Hercegovine / Roman Gaming Boards and Pieces:*

unpublished astragals, *talus* and *calculi* from the antiquities collection of the National Museum of Bosnia and Herzegovina, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, Arheologija, n.s. 54*, Sarajevo (2012), 185–208.

Carbone, G. 2005, *Tablione. Ricerche su gioco e letteratura nel mondo greco-romano*, Pubblicazioni del Dipartimento di Filologia Classica dell'Università degli Studi di Napoli, Napoli.

Courts, S., Penn, T. 2021, *Roman Finds Group. Roman gaming boards from Britain*, Roman Finds Group Datasheet 13, 1–7. https://www.academia.edu/49280532/Roman_gaming_boards_from_Britain [13.3.2024.]

Damevski, V. 1979, *Koštane tesere – ulaznice*, kat. br. 618, in: D. Rnjak (ed.), *Antički teatar na tlu Jugoslavije / Antique Theater in the Territory of Yugoslavia (Katalog)*, Matica srpska – Savez arheoloških društava Jugoslavije, Novi Sad, 292–293.

Deschler-Erb, S. 1998, *Römische Beinartefakte aus Augusta Raurica. Rohmaterial, Technologie, Typologie und Chronologie. Katalog, Forschungen in Augst 27/1-2*, Römermuseum Augst, Augst.

Dimitrijević, D. 1979, *Koštane tesere – ulaznice*, kat. br. 615, in: D. Rnjak (ed.), *Antički teatar na tlu Jugoslavije / Antique Theater in the Territory of Yugoslavia (Katalog)*, Matica srpska – Savez arheoloških društava Jugoslavije, Novi Sad, 291–292.

EDCS Epigraphik-Datenbank Clauss/Slaby. Dostupno na: <https://db.edcs.eu/epigr/hinweis-en.html> [14.3.2024.]

Fagan, G. G. 2015, *Social Life in Town and Country*, in: C. Bruun, J. Edmondson (eds.), *The Oxford Handbook of Roman Epigraphy*, Oxford University Press, Oxford, 495–514.

Feugère, M., Prévot, P. 2008, *Les matières dures animales (os, bois de cerf et ivoire) dans la vallée de l'Hérault: production et con-*

- sommation, in: I. Bertrand (ed.), *Le travail de l'os, du bois de cerf et de la corne à l'époque romaine: un artisanat en marge?* Monographies Instrumentum 34, Montagnac, 231–268.
- Hall, M. A.** 2019, Whose game is it anyway? Board and dice games as an example of cultural transfer and hybridity, *Archimède. Archéologie et histoire ancienne* 6, Strasbourg, 199–212.
- Ilakovac, B.** 1979, Koštana tesera – ulaznica, kat. br. 614, in: D. Rnjak (ed.), *Antički teatar na tlu Jugoslavije / Antique Theater in the Territory of Yugoslavia (Katalog)*, Matica srpska – Savez arheoloških društava Jugoslavije, Novi Sad, 291.
- Janković, M. A.** 2007, Rimske igre na teritoriji Srbije, *Antropologija. Petničke sveske* 62, Valjevo, 28–33.
- Janković, M. A.** 2008, Rimske igre na tabli u Singidunumu i okolini, *Godišnjak grada Beograda LV*, Beograd, 1–14.
- Jovanović, A.** 1977, Komplet za igru iz groba sa gradskog polja u Nišu (IV vek), *Niški Zbornik* 3, Niš, 131–142.
- Jung, P.** 2013, *Die römischen Beinartefakte aus dem Gebiet der Colonia Ulpia Traiana (Xanten)*, Xantener Berichte 26, Mainz.
- Kamenjarin, I.** 2011, Perle, žetoni i game / Pearls, Game Pieces and Gems, in: *Antički Sikuli. Katalog izložbe*, Muzej grada Kaštela, Kaštela, 145–150.
- Lemoine, Y., Rodet-Belarbi, I.** 2005, Le travail de l'os et du bois de cerf d'après les fouilles de l'Espace Mangin à Fréjus (Var), *Revue archéologique de Narbonnaise* 38/39, Paris, 343–352.
- Manniez, Y.** 2019, Jouer dans l'au-delà? Le mobilier ludique des sépultures de Gaule méridionale et de Corse (V^e siècle av. J.-C. – V^e siècle apr. J.-C.), *Archimède. Archéologie et histoire ancienne* 6, Strasbourg, 186–198.
- Montesano, G.** 1961, Lusoria (tabula), in: E. De Ruggiero (ed.), *Dizionario epigrafico di antichità romane II/2* (2. ed.), L'Erma di Bretschneider, Roma, 2229–2243.
- Paić, A., Koncani Uhač, I.** 2007, Koštani predmeti, in: K. Džin (ed.), *Pula-Forum, Arheološka građa 2006.-2007. / Archaeological evidence 2006-2007*, Katalog izložbe 72, Arheološki muzej Istre, Pula, 45–47.
- Penn, T., Courts, S., Schädler, U.** 2023, Reassessing Roman and Late Antique „Marbles Lanes”: one game or many?, *Board Game Studies Journal* 17, De Gruyter, 105–165. DOI: 10.2478/bgs-2023-0004 Dostupno na: <https://creativecommons.org/licenses/by-nc-nd/4.0/> [13.3.2024.]
- Petković, S.** 1995, *Rimski predmeti od kosti i roga sa teritorije Gornje Mezije*, Posebna izdanja 28, Arheološki Institut Beograd, Beograd.
- Sabio González, R.** 2017, *Juegos y juguetes en Augusta Emerita*, Museo Nacional de Arte Romano, Mérida.
- Schädler, U.** 1994, Latrunculi – ein verlorenes strategisches Brettspiel der Römer, in: G. G. Bauer (ed.), *Homo ludens. Der spielende Mensch IV*, Internationale Beiträge des Institutes für Spielforschung und Spielpädagogik an der Hochschule „Mozarteum“ Salzburg, Verlag Emil Katzbichler, Oberndorf, 47–67.
- Schädler, U.** 1995, XII Scripta, Alea, Tabula – New Evidence for the Roman History of „Backgammon”, in: A. J. De Voogt (ed.), *New Approaches to Board Games Research. Asian Origin and Future Perspectives*, Working Paper Series 3, International Institute for Asian Studies, Leiden, 73–98.
- Schädler, U.** 2013, Games, Greek and Roman, in: *The Encyclopedia of Ancient History*, Blackwell Publishing, Malden (MA), 2841–2844.
- Shehi, E.** 2017, *Tesserae dhe tabulae lussorie të zbuluara në Dyrachium, Iliria XL*, Tirane (2016), 145–164.
- Smith, W.** 1875, *A Dictionary of Greek and Roman Antiquities*, John Murray, London.
- Suić, M.** 1954, *Muzeji i zbirke Zadra, Zora*, Zagreb.
- Swift, E.** 2017, *Roman Artefacts and Society. Design, Behaviour, and Experience*, Oxford University Press, Oxford.
- Šaranović, V.** 1979, Koštane tesere – ulaznice, kat. br. 617, in: D. Rnjak (ed.), *Antički teatar na tlu Jugoslavije / Antique Theater in the Territory of Yugoslavia (Katalog)*, Matica srpska – Savez arheoloških društava Jugoslavije, Novi Sad, 292.
- Štefanac, B., Eterović Borzić, A.** 2023, *Kocka je bačena. Drevne društvene igre na ploči / The Die is Cast. Ancient Board Games*, Muzej antičkog stakla u Zadru, Zadar.
- Talloon, P.** 2018, Rolling the dice: Public game boards from Sagalassos, *Herom. Journal on Hellenistic and Roman Material Culture* 7/1-2, Leuven, 97–132.
- Ujčić, Ž.** 2005, Sv. Jelena, br. 75, *Hrvatski Arheološki Godišnjak 1/2004*, Ministarstvo kulture, Zagreb, 155–156.
- Ujčić, Ž.** 2010, Kršete – sv. Jelena, br. 171, *Hrvatski Arheološki Godišnjak 6/2009*, Ministarstvo kulture, Zagreb, 351–354.
- Vomer Gojković, M.** 2008, *Alea iacta est*. Subject of Amusement from Poetovio, *Histria Antiqua* 16, Pula, 73–80.

POPIS IZVORA/ANCIENT SOURCE

- Cic. *Cicero in twenty-eight volumes XX. De Senectute, De Amicitia, De Divinatione*, with an English translation by Falconer, W. A., The Loeb Classical Library 154 (9. ed.), William Heinemann Ltd, Harvard University Press, London – Cambridge, Massachusetts 1971.
- Dig. *Digesta, Corpus iuris civilis I*, Krueger, P., Mommsen, T. (eds.), Weidmann, Berlin 1908.
- Dio C. *Dio's Roman History VIII, Books LXI-LXX*, with an English translation by Cary, E., The Loeb Classical Library 176, William Heinemann, G. P. Putnam's Sons, London – New York 1925.
- Gell. *The Attic nights of Aulus Gellius, volume III, Books XIV-XX*, with an English translation by Rolfe, J. C., The Loeb Classical Library 212, William Heinemann, G. P. Putnam's Sons, London – New York 1927.
- Isid. *The Etymologies of Isidore of Seville*, translated by Barney, S. A., Lewis, W. J., Beach, J. A., Berghof, O., Hall, M., Cambridge University Press, New York 2006.
- Laus Pisonis*, in: Minor Latin Poets I. *Publius Syrus. Elegies on Maecenas. Grattius. Calpurnius Siculus. Laus Pisonis. Einsiedeln Eclogues. Aetna*, with an English translation by J. Wight Duff, Arnold M. Duff, Loeb Classical Library 284, William Heinemann Ltd, Harvard University Press, London – Cambridge, MA 1934, 289–315.
- Mart. *Martial, Epigrams I, Books I-V*, with an English translation by Kerr, W. C. A., The Loeb Classical Library 94, William Heinemann, G. P. Putnam's Sons, London – New York 1919.
- Mart. *Martial, Epigrams II, Books VI-X*, with an English translation by Kerr, W. C. A., The Loeb Classical Library 95, William Heinemann, G. P. Putnam's Sons, London – New York 1920.
- Ovid. *Ars Am.; Nux Ovid, The Art of Love, and Other Poems*, with an English translation by Mozley, J. H., The Loeb Classical Library 232 (4. ed.), William Heinemann Ltd, Harvard University Press, London – Cambridge, Massachusetts 1957.
- Ovid. *Tr. Ovid, Tristia. Ex Ponto*, with an English translation by Wheeler, A. L., The Loeb Classical Library 151 (2. ed.), Harvard University Press, William Heinemann Ltd, Cambridge, Massachusetts – London 1939.
- Suet. *Suetonius, De vita Caesarum / The Lives of the Caesars I. The Deified Julius, The Deified Augustus, Tiberius, Gaius Caligula*, with an English translation by Rolfe, J. C., The Loeb Classical Library 31 (10. ed.), Harvard University Press, William Heinemann Ltd., Cambridge, Massachusetts – London 1979.
- Suet. *Suetonius, De vita Caesarum / The Lives of the Caesars II. The Deified Claudius, Nero, Galba, Otho, Vitellius, The Deified Vespasian, The Deified Titus, Domitian*, with an English translation by Rolfe, J. C., The Loeb Classical Library 38 (7. ed.), Harvard University Press, William Heinemann Ltd., Cambridge, Massachusetts – London 1959.
- Varr. *Varro, On the Latin Language II, Books VIII-X*, with an English translation by Kent, R. G., The Loeb Classical Library 334, Harvard University Press, William Heinemann Ltd., Cambridge, Massachusetts – London 1938.

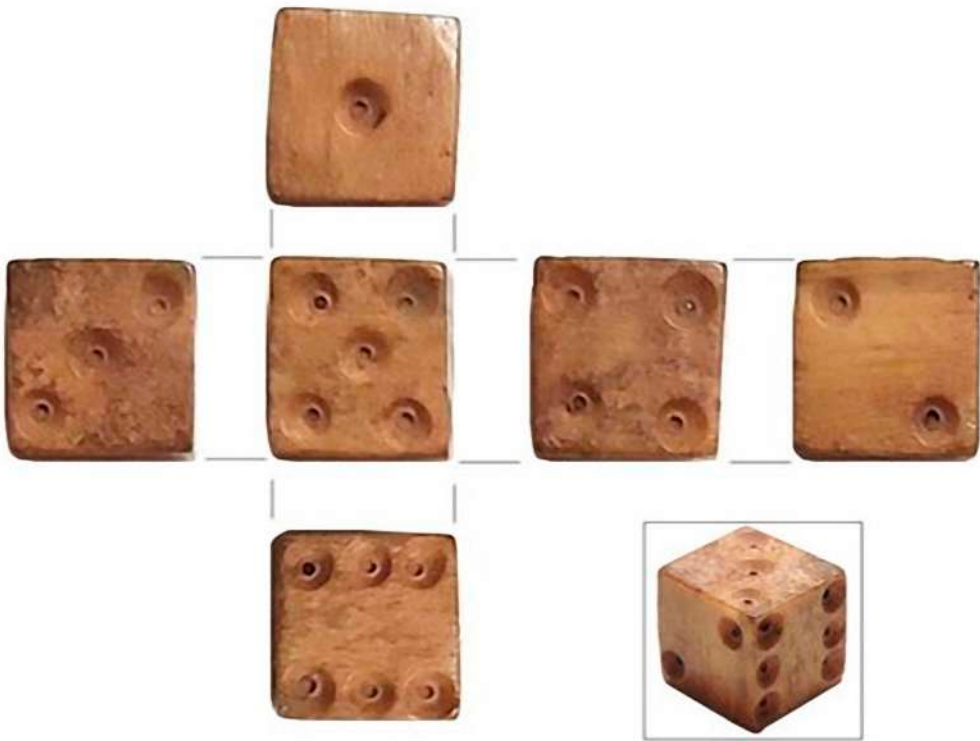
T. 1

Pl. 1



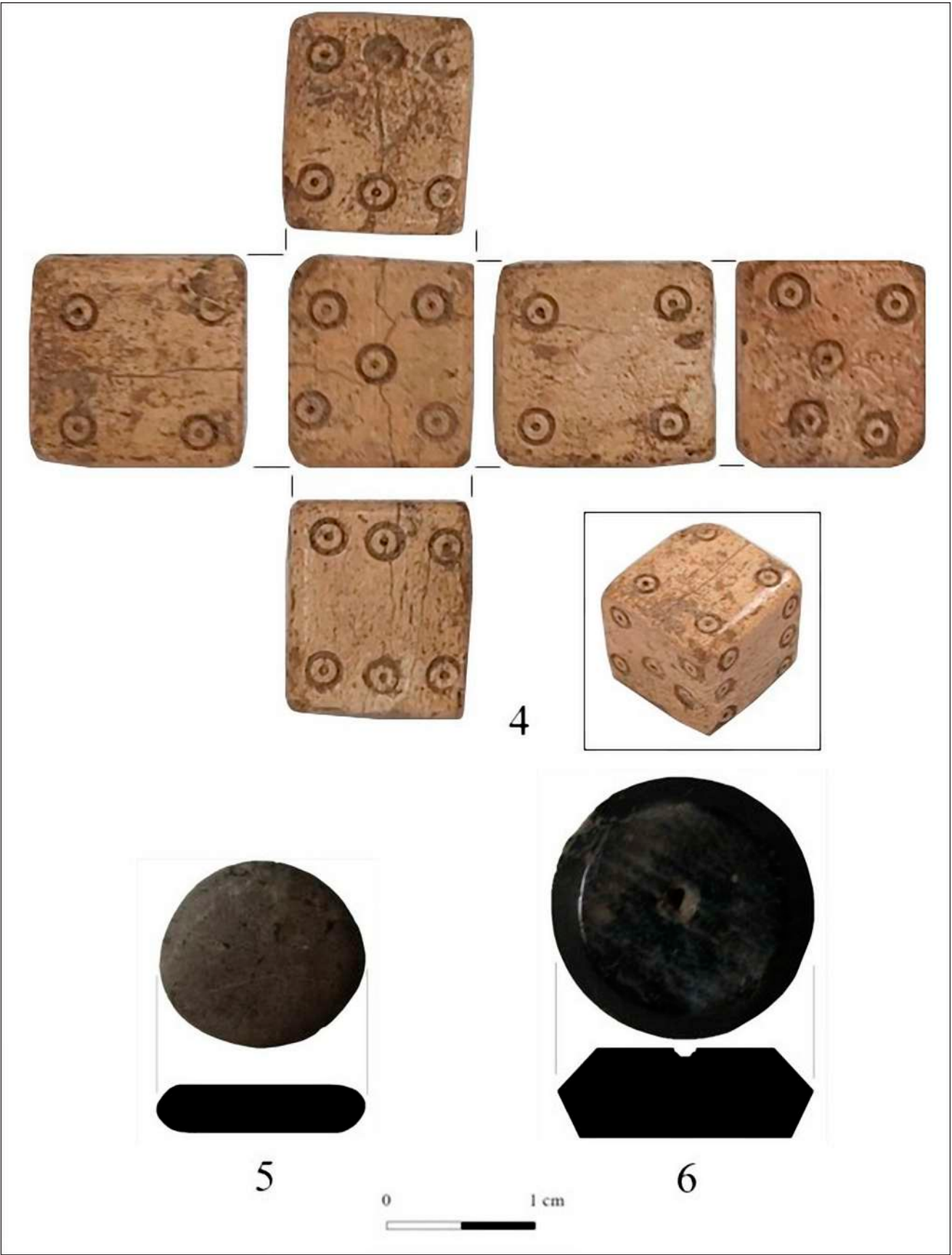
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T. 3

Pl. 3



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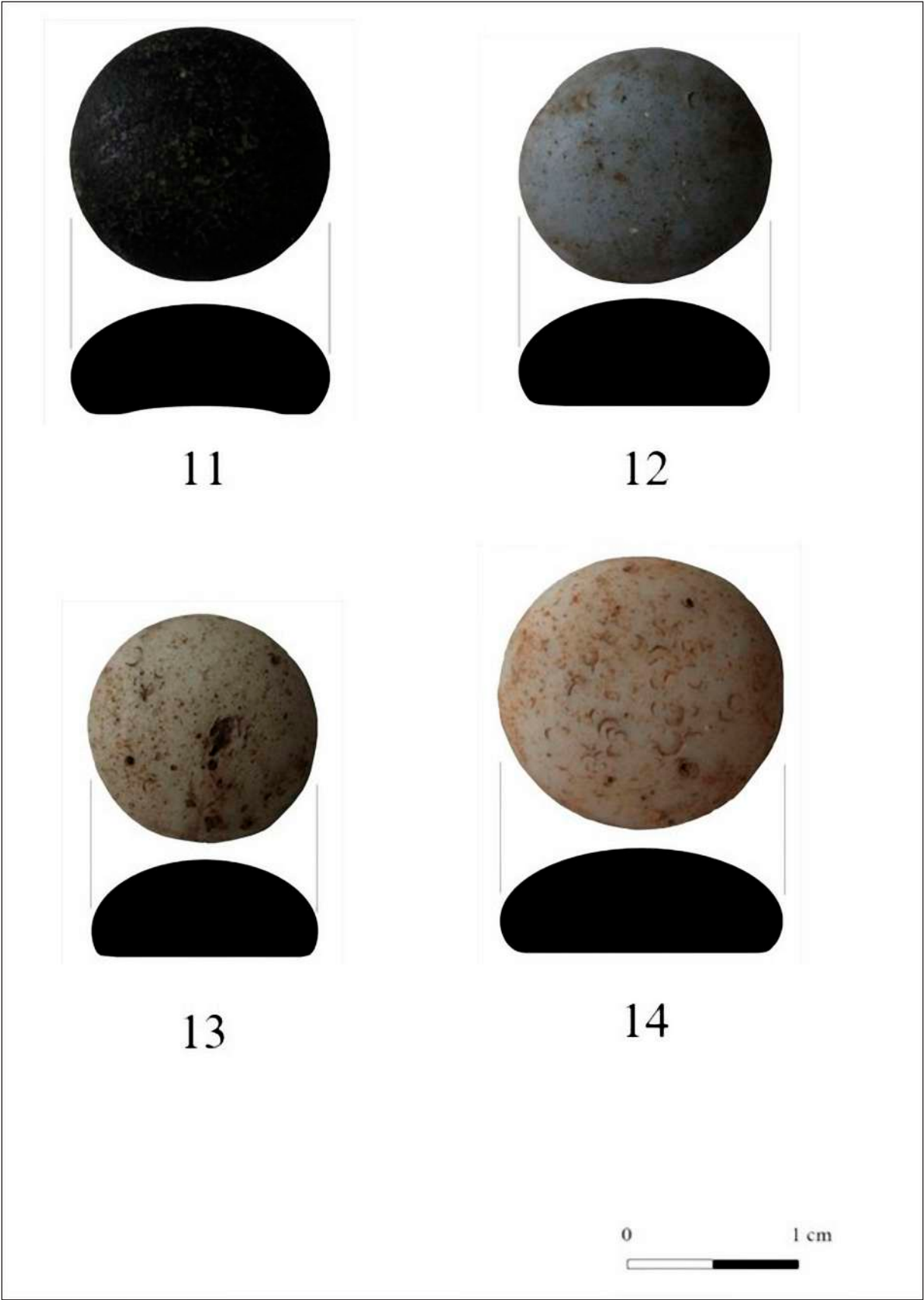


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T. 4

Pl. 4



T. 5

Pl. 5



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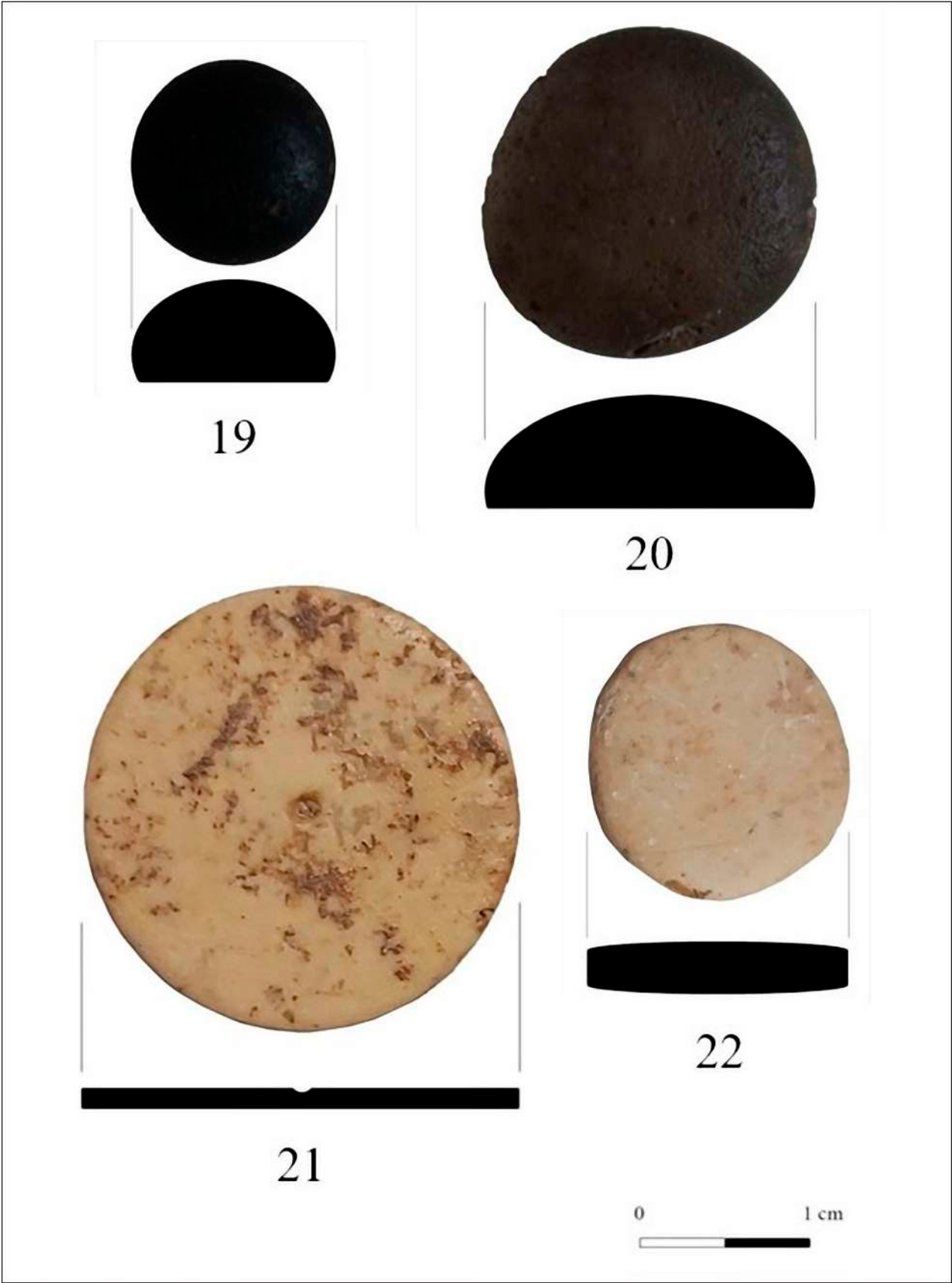


18



T. 6

Pl. 6



Grob 88 s lokaliteta Biskupija – Crkvina

Grave 88 from the Biskupija – Crkvina site

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U grobu 88 na lokalitetu Biskupija – Crkvina bio je ukopan pokojnik opremljen parom brončanih karolinških ostruga. Nedavnim revizijskim iskopavanjima pronađen je kostur iz tog groba, koji je sredinom 20. stoljeća istražio Stjepan Gunjača. Pronalazak kostura iz jednog od grobova najstarije faze groblja na Crkvini omogućio je antropološku i radiokarbonsku analizu kosturnih ostataka. Antropološka analiza pokazala je da je riječ o muškarcu starom između 30 i 40 godina s vidljivim degenerativnim promjenama karakterističnim za konjanike. Komparacijom ¹⁴C datuma, tipološke kronologije ostruga i generalnog arheološkog konteksta, vrijeme smrti pokojnika iz groba 88 datira se između 790. i 823. godine. S obzirom na to da su se dosadašnja datiranja i interpretacije temeljili isključivo na tipološkoj kronologiji i komparaciji s drugim lokalitetima, revizijskim je iskopavanjima lokaliteta ostvaren bitan pomak u daljnjem istraživanju i razumijevanju kako samog lokaliteta, tako i čitavog horizonta Biskupija – Crkvina.

Ključne riječi: rani srednji vijek, ranosrednjovjekovno groblje, karolinški nalazi, Biskupija – Crkvina, Kneževina Hrvatska

In grave 88 at the Biskupija-Crkvina site, the deceased was buried with a pair of bronze Carolingian spurs. Recent revision excavations uncovered the skeleton from this grave, which had been initially investigated by Stjepan Gunjača in the mid 20th century. The discovery of this skeleton from one of the oldest graves at Crkvina enabled anthropological and radiocarbon analysis of the skeletal remains. The anthropological analysis revealed that the individual was a male aged between 30 and 40 years, with visible degenerative changes typical of cavalymen. By comparing the ¹⁴C date, the typological chronology of the spurs, and the general archaeological context, the time of death of the individual from grave 88 is dated between 790 and 823 CE. Since previous datings and interpretations have been based solely on typological chronology and comparisons with other sites, the excavation revisions of the site represent a significant advancement in the further research and understanding of both the site itself and the entire Biskupija-Crkvina horizon.

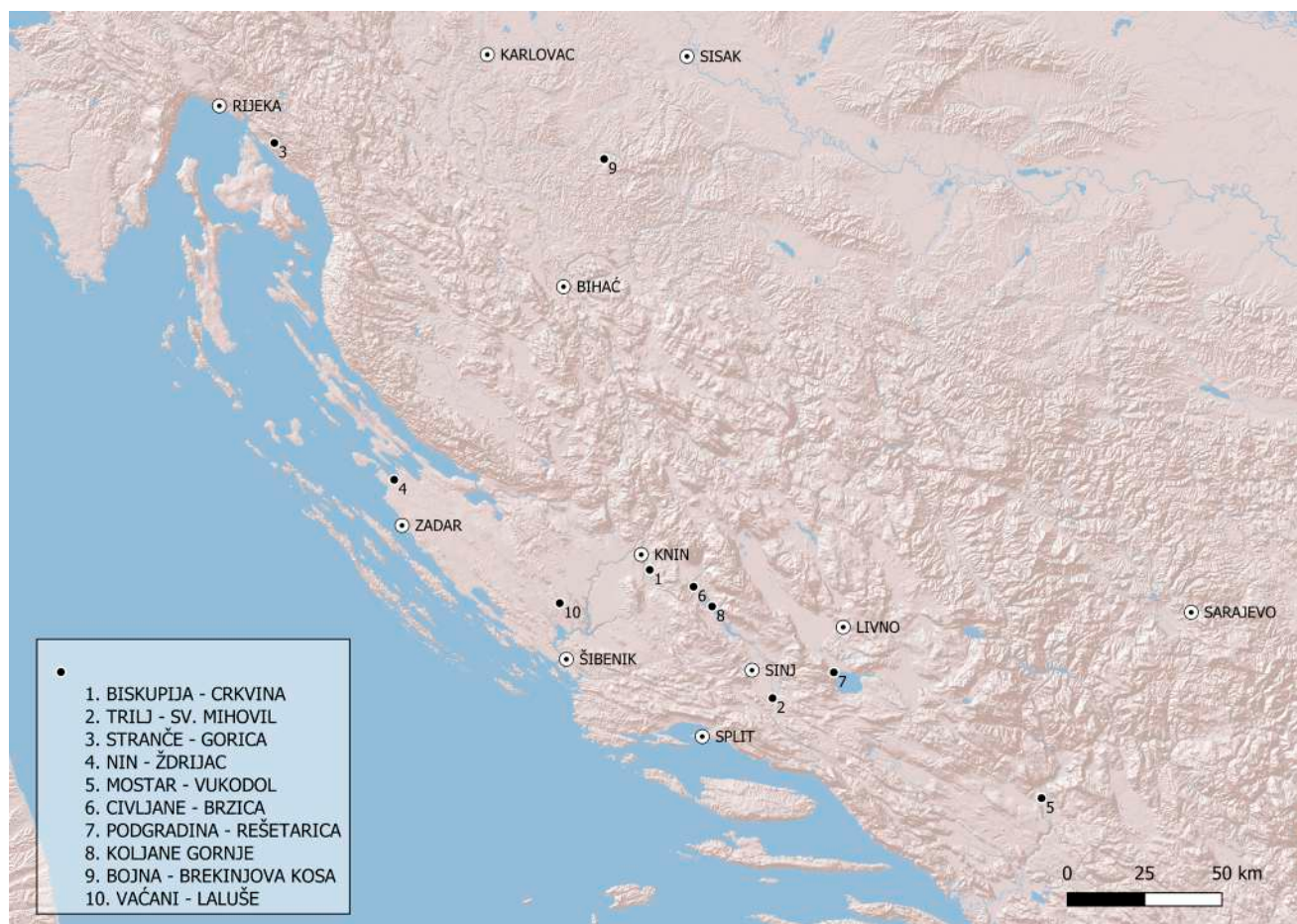
Keywords: Early Middle Ages, early medieval cemetery, Carolingian finds, Biskupija-Crkvina, Duchy of Croatia

UVOD

Selo Biskupija nalazi se u sjevernoj Dalmaciji, na istočnoj strani Kosova polja, a udaljeno je oko 7 kilometara od grada Knina. Kosovo polje jedno je od triju krških polja u gornjem toku rijeke Krke, a smješteno je između Kninskog i Petrova polja. Teritorij Kosova polja u ranom je srednjem vijeku pripadao županiji *Tnena* (ή *Tvr̥va*), koju u svom popisu hrvatskih županija u 10. stoljeću navodi bizantski car Konstantin VII. Porfirogenet, a dobila je ime po gradu Kninu. Knin se razvio uz jednu od strateški najvažnijih utvrda s kontinuitetom od antike do današnjeg vremena. Smješten je uz prirodni prolaz koji dolinom gornje Zrmanje povezuje unutrašnjost Hrvatske s jadranskom obalom.¹

INTRODUCTION

The village of Biskupija is located in northern Dalmatia, on the eastern side of Kosovo polje (field), about 7 kilometres from the town of Knin. Kosovo polje is one of the three karst fields in the upper course of the Krka River, situated between Knin and Petrovo poljes. During the Early Middle Ages, the territory of Kosovo polje belonged to the Županija of *Tnena* (ή *Tvr̥va*), which was mentioned in the 10th century by the Byzantine Emperor Constantine VII Porphyrogenitus in his list of Croatian županijas. The county was named after the town of Knin, which developed in the proximity of one of the most strategically important fortifications continuously in use from antiquity to modern times.



Karta 1. Karta s lokalitetima spomenutim u tekstu (A. Alajbeg)
Map 1. Map with sites mentioned in the text (A. Alajbeg)

Na sjevernoj strani polja, upravo u selu Biskupija je lokalitet Crkvina, koji je ujedno najveći i najvažniji na tom području, a na kojem su već krajem 19. stoljeća provedena prva arheološka amaterska iskopavanja (sl.1).² Otkriveni ostaci sakralne arhi-

Knin is located near a natural passage that connects the interior of Croatia with the Adriatic coast through the upper Zrmanja valley.¹

On the northern side of the polje, in the village of Biskupija, lies the site of Crkvina, which is the largest and most important Early Medieval site in

1 Cf. Petrinec, Jurčević 2015, 328–334; Jurčević, Petrinec 2022, 145–147.

2 Petrinec, Jurčević 2015, 335–340.

1 Cf. Petrinec, Jurčević 2015, 328–334; Jurčević, Petrinec 2022, 145–147.

tekture i više od 1000 grobova nisu bili adekvatno dokumentirani, pa je nakon Drugog svjetskog rata S. Gunjača proveo revizijska iskopavanja. U razdoblju od 1950. do 1957. godine otkrio je temeljne ostatke trobrodne bazilike s nartekсом i zvonikom i dogradnjom sa sjeverne strane.³ Tom prigodom istražena su i 124 srednjovjekovna groba, a među njima i grob 88, koji je tema ovog rada.⁴ Najnovijim revizijskim arheološkim iskopavanjima, provedenim u razdoblju od 2012. do 2023., došlo se do značajnih novih podataka o spomenutom grobu, a u istom sloju otkriven je još jedan djelomično uništen grob (grob 125). Ti novi nalazi veoma su bitni za razumijevanje kompleksne problematike vezane uz vremensko opredjeljivanje nalaza tzv. horizonta Biskupija – Crkvina.⁵

UKRATKO O PROBLEMATICI VEZANOJ UZ HORIZONT BISKUPIJA – CRKVINA

Grob 88 pripada istom ukopnom sloju kao i značajni grobovi s nalazima franačkog oružja i konjaničke opreme s bizantskim zlatnim novcem, koji su otkriveni još krajem 19. stoljeća uz južni zid bazilike, te u sjevernoj prostoriji nartekса i u južnom brodu. Iako ne postoji dokumentacija o njihovom stvarnom položaju (s izuzetkom triju zidanih grobnica), njihov približni smještaj određen je prema opisima iz dnevnika prvog istraživača fra Luje Maruna i pojedinih izvještaja objavljenih u staroj arheološkoj periodici.⁶ U razdoblju koje je uslijedilo nakon Marunovih amaterskih istraživanja prvu znanstvenu interpretaciju biskupijskih grobova ponudio je u okviru svojih dviju sinteza Lj. Karaman.⁷ Smatrao je kako zbog priloženog oružja i posuđa grobovi u drvenim ljesovima južno od crkve pripadaju poganskom razdoblju, dok su grobovi unutar crkve i nartekса bez takvih priloga nedvojbeno iz mlađeg vremena. Dodatnu potvrdu Karaman je pronašao u činjenici da su grobovi u ljesovima datirani starijim bizantskim novcem nego onaj u sarkofagu. Pa premda je naglasio kako novac u grobovima predstavlja samo *terminus ante quem non*, vjerovao je da činjenica da je riječ o bizantskim zlatnicima, koje iznova kuje i u promet stavlja svaki car, ipak dopušta da se oni uzmu kao argument za približno datiranje grobova. U vezi s tim ukazao je i na identičan nalaz novca Konstantina V i Lava IV u ženskom grobu s luksuznim zlatnim nakitom u Trilju kraj Sinja, te zaključio da potonji predstavlja ženski pandan ratničkim muškim grobovima u Biskupiji, a svi pripadaju vremenu prije pokršćavanja Hrvata, odnosno kasnom 8. stoljeću.⁸

Na istom tragu su i prvi radovi Z. Vinskog posvećeni biskupijskim grobovima.⁹ Ovaj autor ujedno je i prvi koji biskupijske nalaze pokušava sagledati u širem europskom

the area. The first amateur archaeological excavations took place there at the end of the 19th century (fig. 1).² However, the remains of sacral architecture and more than 1,000 graves discovered were not adequately documented, so after World War II, S. Gunjača conducted revision excavations. Between 1950 and 1957, he uncovered the foundational remains of a three-nave basilica with a narthex, bell tower, and a northern complex.³ During this period, 124 medieval graves were also excavated, including grave 88, the subject of this paper.⁴ The most recent revision excavations, conducted between 2012 and 2023, have yielded significant new information about this grave, as well as another partially destroyed grave (grave 125), discovered in the same layer. These new findings are crucial for understanding the complex issues related to dating the so-called Biskupija-Crkvina horizon.⁵

A BRIEF OVERVIEW OF THE BISKUPIJA-CRKVINA HORIZON PROBLEMATIC

Grave 88 belongs to the same burial layer as other significant graves containing Frankish weapons, cavalryman equipment, and Byzantine gold coins, discovered near the southern wall of the basilica, as well as in the northern room of the narthex and in the southern nave, in the late 19th century. Although no documentation about their exact positions (except for three vaulted tombs; one within the church itself and two adjacent to its western façade) exists, their approximate locations were determined based on descriptions in the diary of the first excavator, Friar Lujo Marun, and reports published in old archaeological periodicals.⁶ Following Marun's amateur investigations, Lj. Karaman provided the first scientific interpretation of the Biskupija graves in his two syntheses.⁷ He suggested that the graves in wooden coffins to the south of the church, which contained weapons and pottery, belonged to the Pagan period, while the graves inside the church and narthex without such items were undoubtedly later. Karaman also found additional confirmation in the fact that the graves in the coffins were dated with older Byzantine coins than those found in the sarcophagus. Despite noting that coins in graves only offer a *terminus ante quem non*, he believed that since they were Byzantine solidi, which were reissued by each emperor, they could serve as a rough dating tool for the graves. He also pointed to an identical find of Constantine V and Leo IV coins in a female grave with luxurious gold jewellery in Trilj near Sinj, concluding that the latter represented a female counterpart to the male warrior graves in Biskupija, all dating to the time before the Christianization of the Croats, i.e. the late 8th century.⁸

Z. Vinski's early works on the Biskupija graves followed a similar path.⁹ He was the first to attempt to place the

3 Gunjača 1953.

4 Petrinc 2009a.

5 Petrinc 2022, 375, 387, Fig. 10–11.

6 Marun 1898; Radić 1896a; 1896b; 1896c; 1897.

7 Karaman 1930, 122; 1940, 24–25.

8 Karaman 1921, 3–20.

9 Cf. Vinski 1957; 1970.

2 Petrinc, Jurčević 2015, 335–340.

3 Gunjača 1953, 9–49.

4 Petrinc 2009a, 163–197.

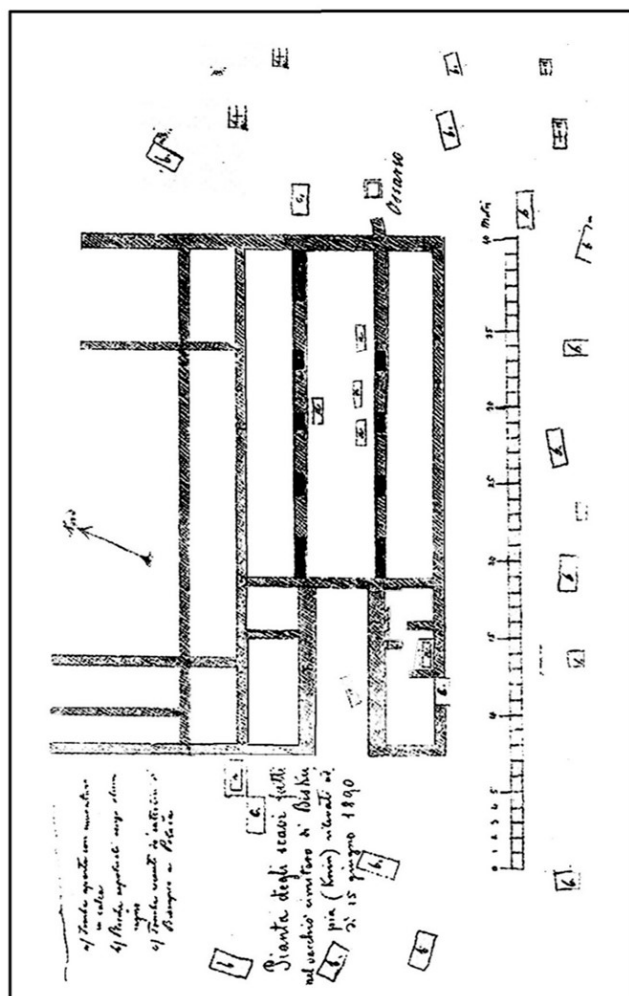
5 Petrinc 2022, 375, 387, fig. 10–11.

6 Marun 1898; Radić 1896a; 1896b; 1896c; 1897.

7 Karaman 1930, 122; 1940, 24–25.

8 Karaman 1921, 3–20.

9 Cf. Vinski 1957; 1970.



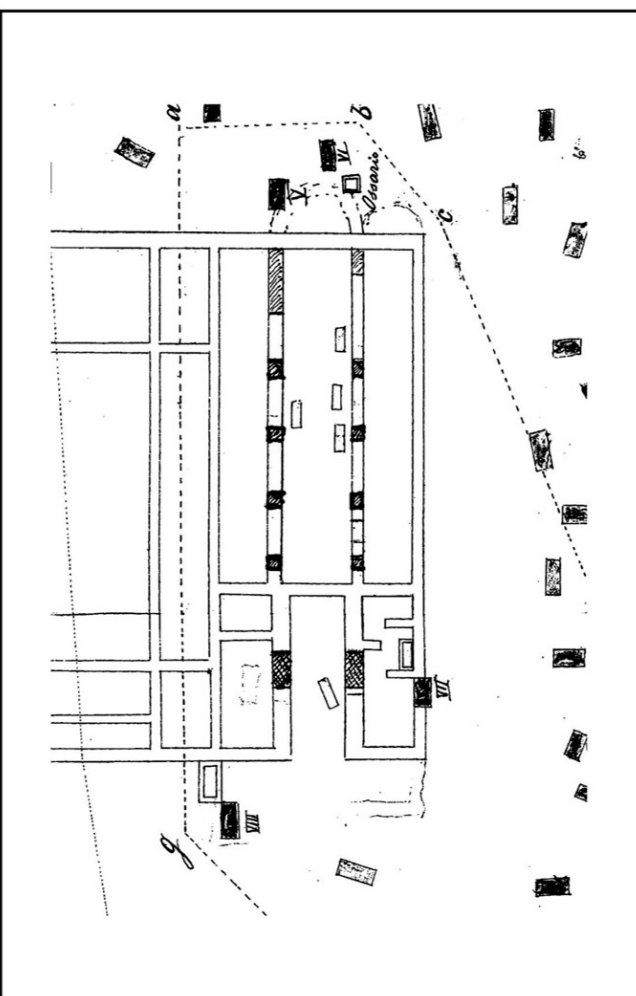
Sl. 1. Tlocrti iz istraživanja krajem 19. stoljeća (Arhiv MHAS)

Fig. 1. Floor plans from the late 19th-century excavations (MHAS archives)

kontekstu, ukazujući na njihovo karolinško podrijetlo, kao i na srodne pojave u srednjoj Europi.

God. 1974. pojavljuje se značajan rad U. Giesler, koja na osnovi novcem datiranih biskupijskih grobova izlučuje cijeli horizont sa srodnim arheološkim inventarom označivši ga kao **horizont Biskupija – Crkvina**.¹⁰ Naglašava kako je u slučaju novca Konstantina V Kopronima riječ o primjercima iz pretpostavljene sirakuške kovnice s prikazom cara i njegova sina Lava IV, koji u potpunosti odgovaraju tipu 2B konstantinopolskog kova (po Cecile Morisson), a emitiraju se u razdoblju od 760. do 775. godine, pa je to vremenski okvir u kojem treba računati s njihovim dospeljem na područje naseljeno Hrvatima (sl. 2). Taj novac ima okvirnu datacijsku vrijednost, a u grobove se počinje prilagati nakon 780. godine.

Međutim, već nekoliko godina kasnije dolazi do potpunog preokreta. Razmatrajući funkciju obola u grobovima, E. Kolníková došla je do zaključka da se oboli kod Slavena prvi put javljaju na područjima gdje se može utvrditi politički, gospodarski i kulturni utjecaj Franaka – u Moravskoj u 9.



Biskupija finds in a broader European context, pointing to their Carolingian origins and related phenomena in Central Europe. In 1974, U. Giesler published an important paper where she, based on the coin-dated Biskupija graves, delineated an entire horizon with a similar archaeological inventory, labelling it as **the Biskupija-Crkvina horizon**.¹⁰ She emphasized that the coins of Constantine V Kopronymos were minted in a presumed Syracusan mint, depicting the emperor and his son Leo IV, which perfectly matched the type 2B of the Constantinople mint (according to Cecile Morisson) and were issued between 760 and 775 CE. Thus, this timeframe is when they could have reached the area settled by the Croats (fig. 2). These coins have approximate dating value, and would have begun to be placed in graves after 780 CE.

However, just a few years later, a complete shift occurred. Analysing the function of *oboli* in graves, E. Kolníková concluded that *oboli* first appeared among the Slavs in regions under political, economic, and cultural Frankish influence; in Moravia in the 9th century, and in Croatia only after 800 CE.¹¹ Kolníková's work was complemented by J. Werner, who

10 Giesler 1974.

10 Giesler 1974.

11 Kolníková 1967.



Sl. 2. Solid Konstantina V. Kopronima i Lava IV. (760. – 775.) pronađen u sarkofagu s hipokampima na Crkvini u Biskupiji (Z. Alajbeg)

Fig. 2. Solidus of Constantine V Kopronymos and Leo IV (760–775), found in the sarcophagus with hippocampi at Crkvina in Biskupija (Z. Alajbeg)

stoljeću te u Hrvatskoj, ali tek nakon 800. godine.¹¹ Kolnikovu nadopunjuje J. Werner, koji pri datiranju biskupijskih grobova prednost daje arheološkom inventaru, te pretpostavlja da su bizantski zlatnici (biskupijski i triljski) tek dio blaga u posjedu neke hrvatske plemićke obitelji.¹² Oni stoga nemaju datacijsku vrijednost jer se sukcesivno stavljaju u grobove tijekom cijele prve polovine 9. stoljeća, ali ne prije 800. godine. Dodatnoj relativizaciji datacijske vrijednosti novca doprinijela je i činjenica da se pronašao novac iz sarkofaga koji se dotad smatrao izgubljenim te se utvrdilo da nije riječ o novcu Bazilija I, kako ga je prvotno odredio Š. Ljubić, već o sirakuškom zlatniku Konstantina V identičnom onima iz drugih biskupijskih grobova. Novac objavljuje V. Delonga priklanjajući se također mišljenju da on može poslužiti isključivo kao pomoćno sredstvo pri datiranju, odnosno kao grubi *terminus post quem*.¹³ No ova autorica ipak upozorava na brojnost spomenutog novca u Dalmaciji, čime dovodi u pitanje Wernerovu pretpostavku o "obiteljskom blagu".¹⁴

Situaciju dodatno zamagľuje Z. Vinski koji, slijedeći Wernera, potpuno zanemaruje nalaze novca, pa biskupijske grobove, kao i ostale grobove sa srodnim inventarom s područja Hrvatske i Bosne i Hercegovine, datira u širokom rasponu od početka 9. pa sve do početka 10. stoljeća.¹⁵ Čak i pojedine grobove unutar male skupine južno od bazilike na Crkvini datira raznoliko, u razdoblje od 800. godine do poodmaklog 9. stoljeća. Premda o tom uopće ne raspravlja, Vinski zapravo odbacuje mogućnost postojanja jednog oblikovno, kulturno i vremenski definiranog horizonta prema kriterijima koje

prioritized archaeological inventory in dating the Biskupija graves, suggesting that the Byzantine gold coins (from both Biskupija and Trilj) were part of the treasures of a Croatian noble family.¹² Therefore, they did not have chronological value, as they were successively placed in graves throughout the first half of the 9th century but not before 800 CE. Further undermining the dating value of the coins, it was discovered that the coin found in the sarcophagus – previously thought to have been lost – was not a solidus of Basil I as initially identified by Š. Ljubić, but rather a Syracusan gold coin of Constantine V, identical to those from the other Biskupija graves. V. Delonga published the coin, also agreeing that it could serve only as an auxiliary tool for dating, i.e., as a rough *terminus post quem*.¹³ However, Delonga pointed to the abundance of these coins in Dalmatia, calling into question Werner's 'family treasure' hypothesis.¹⁴

The situation became even more complicated when Vinski, following Werner, completely disregarded the coin finds and dated the Biskupija graves, as well as other graves with similar inventories from Croatia and Bosnia & Herzegovina, to a broad period from the early 9th century to the beginning of the 10th century.¹⁵ He even dated individual graves within the small group south of the basilica diversely, from 800 CE to the late 9th century. Although he did not discuss it explicitly, Vinski essentially rejected the idea of a single, stylistically, culturally, and chronologically defined horizon based on the criteria proposed by Giesler. Since Vinski's conclusions were followed by other Croatian authors in the 1970s and 1980s, the concept of the Biskupija-Crkvina horizon never gained traction or acceptance among earlier

¹¹ Kolniková 1967.

¹² Werner 1978–1979.

¹³ Delonga 1981.

¹⁴ Danas je broj nalaza ovog novca u arheološkom kontekstu znatno veći. Posebno su značajna dva grobna nalaza u kojima je taj novac udružen s oružjem i konjaničkom opremom zapadnog tipa. Cf. Madiraca et al. 2017; Jović, Krnčević 2019; Petrinec 2022, 375, 384, Sl. 6–8.

¹⁵ Cf. Vinski 1977–1978; 1981; 1984; 1986.

¹² Werner 1978–1979.

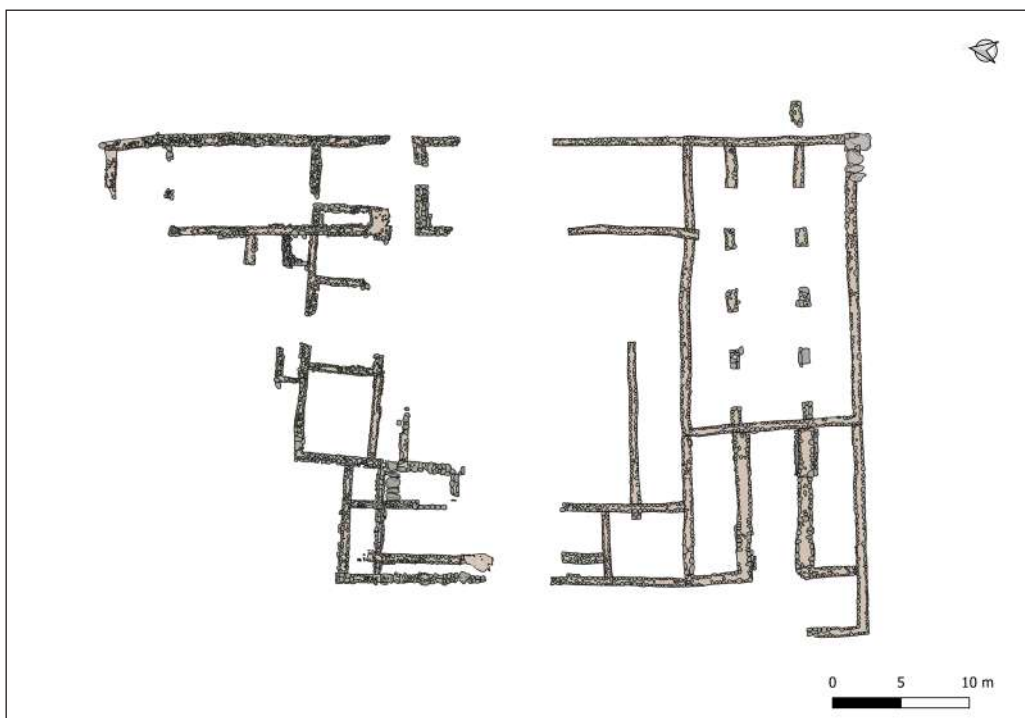
¹³ Delonga 1981.

¹⁴ Today, the number of finds of this coin in an archaeological context is significantly larger. Particularly notable are two burial finds in which this coin is associated with weapons and Western-type equestrian equipment (Cf. Madiraca et al. 2017; Jović, Krnčević 2019, 175–176; Petrinec 2022, 375, 384, Fig. 6–8).

¹⁵ Cf. Vinski 1977–1978; 1981; 1984; 1986.

Sl. 3. Tlocrt lokaliteta
Biskupija – Crkvina
(A. Alajbeg)

Fig. 3. Site plan of
Biskupija – Crkvina
(A. Alajbeg)



je predložila U. Giesler. S obzirom na to da 70-ih i 80-ih godina prošlog stoljeća Vinskog slijede i ostali hrvatski autori, pojam horizont Biskupija – Crkvina među starijim hrvatskim stručnjacima nije nikada zaživio niti bio prihvaćen. Istodobno, za razliku od situacije u Hrvatskoj, problematiku vezanu uz vremensko opredjeljivanje i trajanje horizonta Biskupija – Crkvina razmatraju brojni strani autori srednje i zapadne Europe. U tim raspravama prisutna je dilema treba li se početak horizonta tražiti već u zadnjim desetljećima 8. stoljeća ili tek nakon 800. godine.¹⁶ U vezi s ranijom datacijom horizonta Biskupija – Crkvina, M. Schulze-Dörlam 1995. godine ukazuje na nalaz ostruga iz groba 217 u Schortensu u Friziji s više srebrnih denara Karla Velikog kovanih između 768. i 790. držeći neopravdanim Wernerovo paušalno datiranje u prvu polovinu 9. stoljeća.¹⁷

Te rasprave, međutim, ne nalaze nikakvog odjeka u okviru hrvatske arheološke znanosti, koja se i dalje uglavnom razvija na tragu zaključaka Z. Vinskog.¹⁸ Saznanje da je sarkofag u južnoj prostoriji narteksa sadržavao zlatnik potpuno istovjetan ostalima pronađenim u grobovima južno od bazilike nije nimalo utjecalo na općeprihvaćeno mišljenje da je ukop u sarkofagu znatno mlađi od ukopa u spomenutim grobovima.¹⁹ Kako se uz to smatralo i da su ukopi u sarkofage i grobnicu u južnom brodu izvršeni u već postojećoj crkvi, oni se sve češće počinju interpretirati kao mauzolej vladara iz hrvatske dinastije Trpimirovića, a pridodan im je i jedan nepostojeći grob kojem su pripisane luksuzne pozlaćene

Croatian scholars. Meanwhile, unlike the situation in Croatia, numerous foreign authors from Central and Western Europe *did* explore issues related to the dating and duration of the Biskupija-Crkvina horizon; such discussions have also focused on the question of whether the horizon began in the last decades of the 8th century or only after 800 CE.¹⁶ Supporting the earlier dating of the Biskupija-Crkvina horizon, M. Schulze-Dörlam in 1995 pointed to the discovery of spurs from grave 217 in Schortens in Frisia with multiple silver denarii of Charlemagne, minted between 768 and 790, considering Werner's general dating to the first half of the 9th century as unjustified.¹⁷

However, these debates found little resonance within Croatian archaeology, which continued to develop along the lines of Vinski's conclusions.¹⁸ Neither the discovery that the sarcophagus in the southern room of the narthex contained a gold coin identical to those found in the graves to the south of the basilica, nor the fact that this sarcophagus burial is widely considered to be much later than the mentioned graves, changed the prevailing opinion.¹⁹ It was also believed that the burials in the sarcophagi and the tomb in the southern nave occurred in a pre-existing church, leading to their increasingly frequent interpretation as a mausoleum of rulers from the Croatian Trpimirović dynasty. Furthermore, a non-existent grave was added to this narrative, to which luxurious gilded spurs were attributed, even though these spurs did not originate from Biskupija-Crkvina, but rather from another site.²⁰

16 Bialeková 1979; Giesler 1980; Wachowski 1983; Koch 1984. U novije vrijeme: Novotny 2005; Kind 2007; Kleeman 2010; Ungerman 2011; Bilogrivić 2019.

17 Schulze-Dörlam 1995; 2012.

18 Tomićić 1985; Jelovina 1986; Zekan 1992; 1994.

19 Cf. Šeparović 2019, 28–29.

16 Bialeková 1979; Giesler 1980; Wachowski 1983; Koch 1984. More recently: Novotny 2005; Kind 2007; Kleeman 2010; Ungerman 2011; Bilogrivić 2019.

17 Schulze-Dörlam 1995; 2012.

18 Tomićić 1985; Jelovina 1986; Zekan 1992; 1994.

19 Cf. Šeparović 2019, 28–29.

20 The spurs come from the site of Mopolača; Cf. Petrinc 2009b, 24–25.



Sl. 4. Pogled na zidani svod iz unutrašnjosti grobnice ispod pregradnog zida južne prostorije nartekse (A. Alajbeg)

Fig. 4. View of the masonry from the interior of the tomb beneath the partition wall of the southern room of the narthex (A. Alajbeg)

ostruge koje uopće ne potječu s Crkvine u Biskupiji, već s drugog lokaliteta.²⁰

Krajem prošlog stoljeća pojavljuju se neki novi momenti te se postupno počinje mijenjati pristup u proučavanju problematike vezane uz biskupijske grobove. Tijekom revizijskih iskopavanja S. Gunjača ponovno je iskopao grobnicu u južnom brodu ustvrdivši da je ona znatno dublja od temelja bazilike, a iz priloženog tlocrta vidljivo je i to da je orijentirana u smjeru jugozapad-sjeveroistok i da se ne ravna prema arhitekturi.²¹ Potom je 1983. godine prilikom konzervacije zidova bazilike slučajno otkriven još jedan grob, odnosno zidana presvođena grobnica poput one u južnom brodu (sl. 4).²² Riječ je o dječjem grobu s nalazom luksuznih konjaničkih ostruga, koji se nalazio u bazi temelja pregradnog zida južne prostorije nartekse. Ta okolnost jasno je ukazala na to da je grob stariji od arhitekture. Na temelju svih raspoloživih

Towards the end of the last century, new developments began to emerge, gradually shifting the approach to the study of the cemetery problematic at Biskupija. During revision excavations, Gunjača re-excavated the tomb in the southern nave, discovering that it was much deeper than the foundations of the basilica. The accompanying floor plan also showed that it was oriented southwest-northeast, and did not align with the basilica's architecture.²¹ Then, in 1983, during conservation work on the basilica's walls, another tomb was accidentally discovered; a vaulted masonry tomb similar to the one in the southern nave (fig 4).²² This tomb contained a child's burial, along with luxurious riding spurs, located at the base of the foundation of the partition wall in the southern room of the narthex. This circumstance clearly indicated that the tomb predated the architecture.

Based on all available data from Marun's diaries and reports, as well as other documents from the archives of the Museum of Croatian Archaeological Monuments, M. Petrinec in 1998 attempted to establish the approximate position of the graves south of the basilica and reconstruct the situation from the time of Marun's initial excavations.²³ This data revealed that one of the wooden coffin burials (the so-called fourth grave) was not buried south of the church, but was rather located within the southern room of the narthex. Thus, it could be fairly confidently assumed that this grave and both vaulted masonry tombs were older than the architecture. Supporting this assumption was Marun's note that the sarcophagus in the northern room of the narthex was "aligned lengthwise with the chapel, slightly turned towards the centre of the basilica."²⁴ Finally, in 2000, smaller-scale revision excavations were conducted in the narthex area of the basilica.²⁵ During these excavations, the tomb discovered in 1983 was documented, and the remains of the so-called fourth grave were also uncovered. In the central part of the narthex, the remains of yet another vaulted masonry tomb were found, which was not mentioned in the reports of either Marun or Radić, but had been drawn on a floor plan from 1890. This tomb was oriented in exactly the same way as the one in the southern nave, and also did not align with the architecture. The position of the sarcophagus in the northern room of the narthex, oriented northwest-southeast and situated in a crack between two rocks, was also discovered.

In 2000, A. Milošević published M. Petrinec's sketch, supplemented by the floor plan from the aforementioned revision excavations (fig. 5).²⁶ On this occasion, he proposed a new interpretation, suggesting that the architecture at Crkvina was preceded by a small early Christian necropolis, over which a row-grave medieval cemetery developed in the 8th century. In the central part of this cemetery, above

20 Ostruge potječu s lokaliteta Morpolača. Cf. Petrinec 2009b, 24–25.

21 Gunjača 1953, 35. Revizijskim iskopavanjima provedenim 2022. godine utvrđeno je da je grobnicu Gunjača vjerojatno razgradio te ona danas više ne postoji.

22 Budimir 1992, 29, sl. 6. Grob je ponovo otvoren i temeljito dokumentiran 2023. godine.

21 Gunjača 1953, 35. Excavations in 2022 revealed that the tomb was likely dismantled by Gunjača, and it no longer exists today.

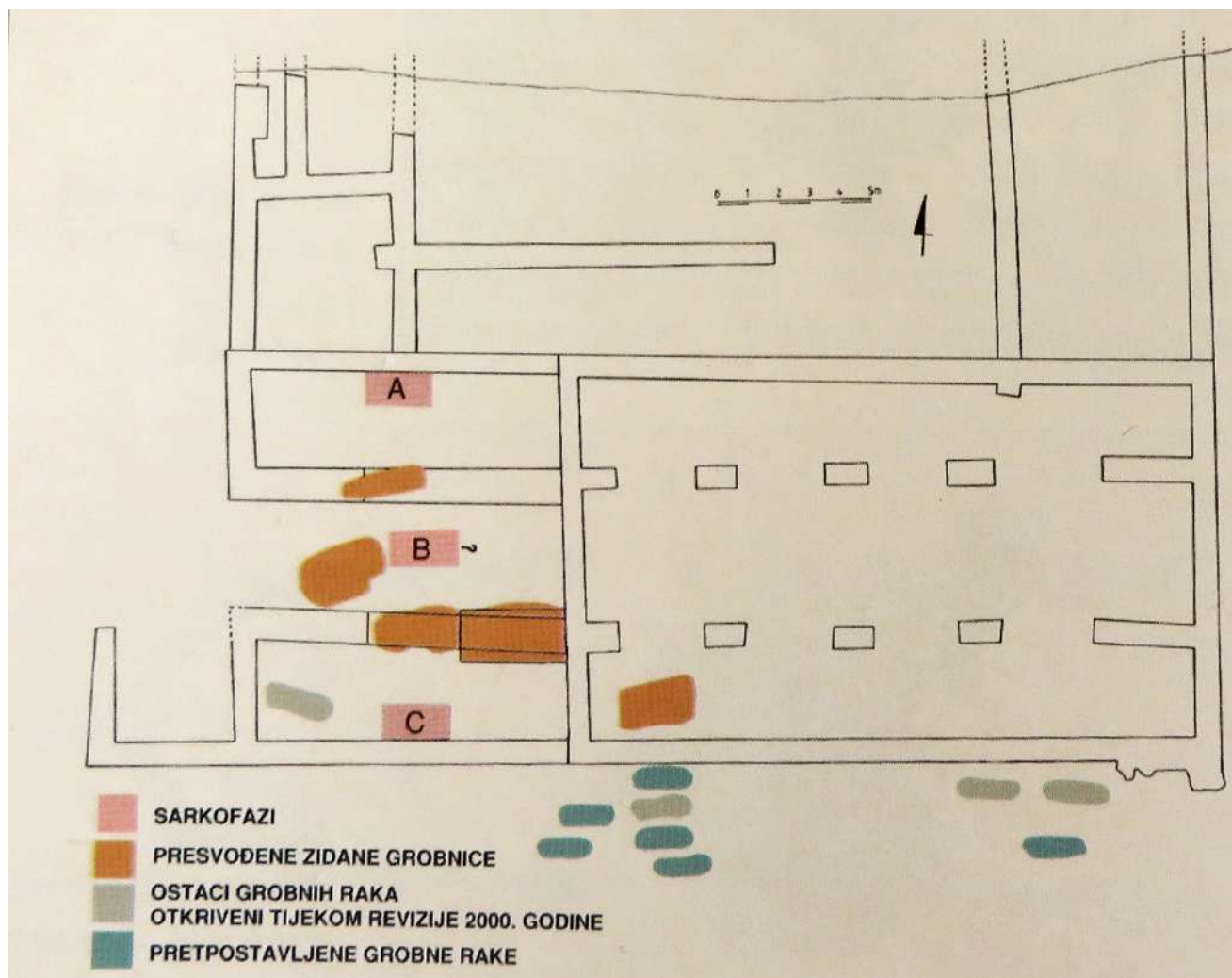
22 Budimir 1992, 29, fig. 6. The grave was reopened and thoroughly documented in 2023.

23 Petrinec 1998, T. V.

24 Marun 1891, 61.

25 The narthex was re-excavated by Lj. Gudelj. The results have not been published.

26 Milošević 2000, 124, fig. 25.



Sl. 5. Rekonstrukcija položaja grobova iz Marunovih istraživanja prema M. Petrinec (Milošević 2000, 124, sl. 25)

Fig. 5. Reconstruction of the grave positions from Marun's excavations according to M. Petrinec (Milošević 2000, 124, sl. 25)

podataka iz Marunovih dnevnika i izvještaja te drugih dokumenata iz *Arhiva Muzeja hrvatskih arheoloških spomenika*, M. Petrinec 1998. godine pokušala je utvrditi približan položaj grobova južno od bazilike te rekonstruirati situaciju iz doba prvih Marunovih istraživanja.²³ Iz navedenih podataka postalo je jasno da jedan od grobova u drvenim ljesovima (tzv. četvrti grob) nije bio ukopan južno od crkve, već se nalazio unutar južne prostorije nartekse. Stoga se s dosta sigurnosti moglo pretpostaviti da su taj grob te obje zidane presvođene grobnice starije od arhitekture. U prilog toj pretpostavci govorio je i Marunov zapis prema kojem je i sarkofag u sjevernoj prostoriji nartekse bio "okrenut uzduž kapele, nešto malo navinut prema sredini bazilike".²⁴ Naposljetku, 2000. godine provedena su revizijska iskopavanja manjeg opsega na prostoru nartekse bazilike.²⁵ Tom prigodom dokumentirana je grobnica otkrivena 1983., a otkriveni su i ostaci rake tzv. četvrtog groba. U središnjem dijelu nartekse pronađeni su ostaci još jedne zidane presvođene grobnice, koja se ne

graves with burials in wooden coffins and reused Early Christian masonry tombs, a mausoleum or funerary chapel was built in the 9th century.²⁷ Later, a three-nave church was constructed next to the eastern wall of the mausoleum. However, soon after, the same author proposed a different interpretation, claiming that the oldest building at Crkvina was the three-nave basilica, built at the turn of the 8th to the 9th century, to which the mausoleum was added in the first decades of the 9th century, with this mausoleum encompassing several graves that had been present earlier. Graves south of the church contained weaponry as grave goods, while such items were absent from the graves in the mausoleum. As some of these mausoleum graves included child burials, Milošević suggested that this was a family mausoleum of rulers from the noble Trpimirović lineage. More recently, he proposed a third interpretation, suggesting that the Croatian Duke Branimir was buried in the mausoleum's sarcophagus at the end of the 9th century.²⁸

23 Petrinec 1998, T.V.

24 Marun 1891, 61.

25 Istraživanja je vodio Lj. Gudelj. Rezultati nisu publicirani.

27 Milošević 2002.

28 Milošević 2009.

spominje u Marunovim i Radićevim izvještajima, ali je bila ucrтана na tlocrtu iz 1890. Ta grobnica orijentirana je potpuno jednako kao i ona u južnom brodu i također se ne ravna prema arhitekturi. Otkriven je i položaj na kojem se nalazio sarkofag u sjevernoj prostoriji narteksa, smješten u pravcu sjeverozapad-jugoistok, u pukotini između dviju stijena.

Skicu M. Petrincec, nadopunjenu tlocrtom spomenutih revizijskih istraživanja, objavljuje 2000. godine A. Milošević (sl. 5).²⁶ Tom prigodom on donosi i novu interpretaciju prema kojoj arhitekturi na Crkvini prethodi mala ranokršćanska nekropola nad kojom se u 8. stoljeću razvilo ranosrednjovjekovno groblje na redove. U središnjem dijelu toga groblja nad grobovima s ukopima u drvenim ljesovima i ukopima u ponovo uporabljenim zidanim ranokršćanskim grobnicama sagrađen je u 9. stoljeću mauzolej, odnosno grobna kape-la. Zatim je uz istočni zid mauzoleja sagrađena i trobrodna crkva. No ubrzo nakon toga isti autor predlaže drugačije tumačenje, pa najstarijom građevinom na Crkvini proglašava trobrodnu baziliku nastalu na prijelazu iz 8. u 9. stoljeće, na koju je kasnije, u prvim desetljećima 9. stoljeća, nadozidan mauzolej.²⁷ Taj mauzolej obuhvatio je i neke grobove koji su se tu ranije nalazili. Grobovi južno od crkve kao priloge imaju oružje, dok ono nedostaje u grobovima u mauzoleju. Kako među potonjima ima i dječjih ukopa, Milošević pretpostavlja da je riječ o onodobnom porodičnom mauzoleju vladara iz kneževskog roda Trpimirovića. U novije vrijeme pojavila se i njegova treća interpretacija prema kojoj je u sarkofagu u mauzoleju krajem 9. stoljeća pokopan hrvatski knez Branimir.²⁸

Analizirajući način ukrašavanja na liturgijskim i sakralnim metalnim predmetima franačke provenijencije, koji se pojavljuju na području Hrvatske Kneževine početkom 9. stoljeća, A. Jurčević primjećuje da su na isti način ukrašene i skupocjene pozlaćene i srebrne ostruge s lokaliteta na Crkvini u Biskupiji, ali i ostruge s nekih drugih lokaliteta diljem Kneževine.²⁹ Također, željezne ostruge tzv. hrvatskog tipa imaju uniformni način ukrašavanja, koji se može povezati sa spomenutim luksuznim ostrugama i liturgijskim predmetima. Jurčević ukazuje i na činjenicu da su predmeti karolinške provenijencije na svim nalazištima pronađeni u istom sloju, neovisno o tome jesu li pokojnici sahranjeni u sarkofazima, zidanim grobnicama, ili drvenim sanducima. Stoga zaključuje da su svi analizirani predmeti proizvod franačkih radionica te se njihova pojava u Hrvatskoj može datirati u uži vremenski period posljednjih desetljeća 8. i prvih desetljeća 9. stoljeća.

Dodatni problem pri vremenskom opredjeljivanju biskupijskih grobova predstavlja činjenica da nije bio utvrđen njihov odnos prema arhitekturi, a i sama crkva i njezina sjeverna dogradnja (sl. 3) u literaturi su raznoliko datirane i interpretirane.

Analysing the decorative style of liturgical and sacred metal objects of Frankish provenance that appeared in the Duchy of Croatia at the beginning of the 9th century, A. Jurčević noted that the same style of decoration was used on the luxurious gilded and silver spurs from the Crkvina site in Biskupija as on other spurs from sites across the duchy.²⁹ Similarly, iron spurs of the so-called Croatian type share a uniform decorative style that can likewise be associated with the aforementioned luxury spurs and liturgical items. Jurčević also pointed out that items of Frankish provenance were found in the same layer at all sites, regardless of whether the deceased were buried in sarcophagi, masonry tombs, or wooden coffins. Therefore, he concluded that all analysed finds were products of Frankish workshops, and their appearance in Croatia can be dated to the narrower time frame of the late 8th and early 9th centuries.

A further issue in determining the dating of the burials at Biskupija lies in the fact that their relationship to the architecture was not clearly established, and that the church itself, along with its northern extension (fig. 3), has been variously dated and interpreted in the literature.

GRAVE 88

Although it is chronologically linked to the group of graves near the Basilica of St. Mary and the Biskupija-Crkvinu horizon, grave 88 was not discovered in the immediate vicinity of the basilica, but rather in the annex to its northern side. The deceased was buried in a wooden coffin (as indicated by the presence of iron nails) in a simple earth pit, and next to the body were found Carolingian bronze spurs with fastening sets (fig. 6).³⁰ In the latest revision excavations conducted in the northern annex in 2015, the bottom of the grave pit of grave 88 was uncovered, along with almost the entire skeleton of the deceased, which Gunjača had left in place (fig. 7).³¹ It is very likely that the bones were not placed in the ossuary due to the fact that it had already been sealed, as such a find was not expected in the northern annex area. The skeletal remains from grave 88 are also the only preserved remains from the cemetery, where between 1,000 and 2,000 burials were registered, ranging from the late 8th century to the Ottoman period.

Gunjača correctly assumed that grave 88 predates the architecture, and dated it to the late 8th century.³² Even Vinski attributed the discovered bronze spurs to the 8th century, but believed that they were imported into Croatia as finished products only in the 9th century, when the burial in grave 88 took place.³³ More recently, G. Bilogrivić also considered grave 88 to be younger than the graves south of the Basilica of St. Mary, dating it to the first third of the 9th century.³⁴ Based on the documented situation during the re-discovery of the remains of grave 88, it is clear that it was

²⁶ Milošević 2000, 124, sl. 25.

²⁷ Milošević 2002.

²⁸ Milošević 2009.

²⁹ Jurčević 2011.

²⁹ Jurčević 2011.

³⁰ Gunjača 1953, 32.

³¹ Petrincec 2022, 375, 385, 386, fig. 9a-9b.

³² Gunjača 1953, 32.

³³ Vinski 1977-1978, 160, note 109.

³⁴ Bilogrivić 2019, 123.



Sl. 6. Nalazi iz groba 88 (Z. Alajbeg)

Fig. 6. Finds from Grave 88 (Z. Alajbeg)

GROB 88

Iako se vremenski dovodi u vezu sa spomenutom skupinom uz baziliku sv. Marije i horizontom Biskupija – Crkvina, grob 88 nije otkriven u neposrednoj blizini same bazilike, već na prostoru dogradnje s njezine sjeverne strane. Pokojnik je bio ukopan u drvenom lijesu (o čemu svjedoče željezni čavli) u običnoj zemljanoj raci, a uz njega su bile pronađene brončane karolinške ostruge s garniturama za pričvršćivanje (sl. 6).³⁰ Najnovijim revizijskim iskopavanjima provedenim na prostoru sjeverne dogradnje 2015. godine, otkriveno je dno rake groba 88 te gotovo čitav skelet pokojnika, koji je Gunjača ostavio na tom mjestu (sl. 7).³¹ Vrlo je vjerojatno da kosti nisu s pohranjene u kosturnicu zbog toga što je ona već bila zatvorena, jer se na prostoru sjeverne dogradnje nije očekivao ovakav nalaz. Kosturni ostaci iz groba 88 ujedno su i jedini sačuvani koji potječu s groblja na kojem je registrirano između 1000 i 2000 ukopa u rasponu od kraja 8. stoljeća do razdoblja osmanske vlasti.

S. Gunjača ispravno je pretpostavio da je grob 88 stariji od arhitekture i datirao ga u kraj 8. stoljeća.³² Čak i Z. Vinski pripisuje pronađene brončane ostruge 8. stoljeću, ali smatra da su na teritorij Hrvatske dopremljene kao gotov proizvod tek u 9. stoljeću, kad je bio izvršen i ukop pokojnika u grobu 88.³³ I u najnovije vrijeme G. Bilogrivić smatra grob 88 mlađim od grobova južno od bazilike sv. Marije smještajući ga u



Sl. 7. Kostur iz groba 88 u revizijskim iskopavanjima 2015. godine (A. Jurčević)

Fig. 7. Skeleton from grave 88 in the 2015 revision excavations (A. Jurčević)

located beneath the wall, and thus predates the construction of the annex adjacent to the basilica.

This is further confirmed by the discovery of grave 125 near grave 88, in the same cultural layer, which was missed by previous researchers despite numerous excavations by Marun and later revisions (fig. 8).³⁵ The grave was largely destroyed by the construction of two furnaces. The grave pit was lined with irregular stone slabs, and only part of the humerus of the deceased was preserved. In the undisturbed part of the grave, a fragment of a ceramic vessel and an animal bone were found, while the grave inventory included a three-part antler container (not fully preserved), which was discovered near the northern lining (fig. 9).³⁶

It is important to emphasize that all three-part antler containers in present-day Dalmatia – the area where the Duchy of Croatia would later form – whose find circumstances are known appear in the same burial layer as Carolingian finds.³⁷ An undecorated container of this type at the Gorica site in Stranče was found in grave 128 in the original, oldest part of the cemetery, where grave 154 with Carolingian spurs is also located.³⁸

30 Gunjača 1953, 32.

31 Petrinec 2022, 375, 385, 386, sl. 9a–9b.

32 Gunjača 1953, 32.

33 Vinski 1977–1978, 160, bilj. 109.

35 Petrinec 2022, 375, 387, fig. 10–11.

36 Petrinec 2022, 387, fig. 11.

37 Petrinec 2022, 375.

38 Cetinić 2011, 91, 104, 163, 170, pl. 44, 51. Cf Petrinec 2019, 68, pl. 3.



Sl. 8. Ostaci uništenog groba 125 (A. Jurčević)

Fig. 8. Remains of the destroyed Grave 125 (A. Jurčević)

prvu trećinu 9. stoljeća.³⁴ Na osnovu dokumentirane situacije pri ponovnom otkriću ostataka groba 88 potpuno je jasno da se nalazio ispod zida te da je stariji od vremena izgradnje dijela objekta uz baziliku.

To dodatno potvrđuje nalaz groba 125 u blizini groba 88 i u istom kulturnom sloju koji je, unatoč brojnim Marunovim i kasnijim revizijskim iskapanjima, promakao prethodnim istraživačima (sl. 8).³⁵ Grob je većim dijelom devastiran izgradnjom dviju peći. Grobna raka bila je obložena nepravilnim kamenim pločama, a od pokojnika je sačuvan samo dio nadlaktične kosti. U neoštećenom dijelu groba pronađeni su ulomak keramičke posude i životinjska kost, a inventaru groba pripadao je i tročlani koštani recipijent koji nije u potpunosti sačuvan, a otkriven je uz njegovu sjevernu obložnicu (sl. 9).³⁶

Ovdje je bitno naglasiti i to da se svi tročlani koštani recipijenti poznatih okolnosti otkrića na području današnje Dalmacije, odnosno na području na kojem će se formirati Hrvatska Kneževina, pojavljuju u istom sloju grobova kao i karolinški nalazi.³⁷ Neukrašeni recipijent ovog tipa na lokalitetu Gorica u Strančama otkriven je u grobu 128 u



Sl. 9. Ulomak tročlanog koštanog recipijenta pronađen uz uništeni grob 125 (A. Jurčević)

Fig. 9. Fragment of a three-part bone container near the destroyed grave 125 (A. Jurčević)

Two more such containers come from the largest excavated early medieval cemetery to date, located on the sandy beach of Ždrijac in Nin, near Zadar. The three-part container from Ždrijac was found in grave 161, together with Carolingian spurs. It is important to note that two partially contemporary medieval cemeteries were discovered and excavated in Ždrijac in the 1970s. The mentioned grave belonged to the larger western cemetery, where burials likely began in the early 8th century. A significant group of graves with Carolingian finds stands out here:³⁹ All of these graves are aligned in the same row, side by side, further confirming the association of antler containers and finds of arms and equestrian equipment with the same burial layer.

INTERPRETIVE APPROACH TO THE ARCHAEOLOGICAL LAYER OF GRAVE 88

The oldest layer at Crkvina in Biskupija can be recognized as two distinct groups of graves: the ones to the south of the basilica and those beneath it, along with graves 88 and 125 beneath the northern annex (fig.10). Both groups date to the same period, the Biskupija-Crkvina horizon, spanning from the last decade of the 8th century to the 820s of the 9th century. All precede the construction of the architectural complex at Crkvina, and thus the possibility of a mausoleum must be rejected. None of the graves are located within any existing structure, whether in the narthex or the interior of the basilica. Therefore, these burials cannot be associated with the ruling Trpimirović dynasty, which is first mentioned in written sources around the mid-9th century. However, it is clear that the location chosen for the construction of the basilica was selected due to the presence of these graves. The approximate time of the basilica's construction is indicated

34 Bilogrivić 2019, 123.

35 Petrinec 2022, 375, 387, fig. 10–11.

36 Ibid., 387, fig. 11.

37 Ibid., 375.

39 Petrinec 2019, 70; 2022, 375.

izvorišnom, najstarijem dijelu groblja, u kojem se nalazi i grob 154 s karolinškim ostrugama.³⁸

Još dva recipijenta potječu s dosad najvećeg istraženog ranosrednjovjekovnog groblja smještenog na pješčanoj plaži Ždrijac u Ninu kod Zadra. Tročlani recipijent sa Ždrijca pronađen je u grobu 161 zajedno s karolinškim ostrugama. Važno je istaknuti da su na Ždrijcu 70-ih godina prošlog stoljeća otkrivena i istražena dva djelomično istovremena srednjovjekovna groblja. Spomenuti grob pripadao je većem zapadnom groblju na kojem počeci ukapanja vjerojatno padaju još u rano 8. stoljeće. Tu se ističe veća skupina grobova s karolinškim nalazima.³⁹ Svi ti grobovi smješteni su u istom redu, jedan uz drugog, što dodatno potvrđuje pripadnost koštanih recipijenata i nalaza oružja i konjaničke opreme istom ukopnom sloju.

POKUŠAJ INTERPRETACIJE ARHEOLOŠKOG SLOJA KOJEM PRIPADA GROB 88

Najstarijim slojem na Crkvi u Biskupiji mogu se smatrati dvije međusobno odvojene skupine grobova – grobovi južno od bazilike i oni ispod nje, te grobovi 88 i 125 ispod sjeverne dogradnje (sl. 10). Obje skupine pripadaju istom razdoblju, odnosno horizontu Biskupija – Crkvina. Mogu se smjestiti u rasponu od posljednjeg desetljeća 8. stoljeća do 20-ih godina 9. stoljeća. Svi prethode nastanku arhitektonskog kompleksa na Crkvi, te stoga treba odbaciti mogućnost da je riječ o mauzoleju u doslovnom smislu. Niti jedan od grobova nije ukopan unutar postojeće građevine neovisno o tome je li riječ o narteksu ili unutrašnjosti bazilike. Ti se ukopi stoga ne mogu povezati s vladarskom dinastijom Trpimirovića, koja se u pisanim vrelima prvi put spominje tek oko sredine 9. stoljeća. Međutim, ipak je posve izvjesno da je lokacija na kojoj će biti podignuta bazilika izabrana upravo zbog navedenih grobova. Približno vrijeme izgradnje bazilike određuje ukop u sarkofagu ispod sjeverne prostorije narteksa. Ukop u tom sarkofagu izvršen je prije izgradnje narteksa, ali se može pretpostaviti u vrijeme izgradnje crkve, odnosno u vrijeme njezina prvog opremanja namještajem. Glavna poveznica između ukopa i izgradnje bazilike jest upravo taj kameni sarkofag. Načinjen je od antičkih spolija, a u literaturi se za njega uvriježio naziv *sarkofag s hipokampima*.⁴⁰ Povezuje se s djelovanjem tzv. *Radionice majstora koljanskog pluteja*, kojoj se pripisuje izgradnja i prvo opremanje bazilike. S obzirom na to da se to zbilo u razdoblju između 820. i 830. godine, u isto se vrijeme morao dogoditi i ukop pokojnika u sarkofagu (sl. 11). Početak 9. stoljeća ujedno je i vrijeme kad dolazi do pokrštavanja, a o kršćanskoj pripadnosti ukopanog u sarkofagu svjedoči križ urezan na njegovu poklopcu. Imajući u vidu vremensko opredjeljivanje grobova horizonta Biskupija – Crkvina, a napose ukopa u sarkofagu, treba u potpunosti odbaciti mogućnost da je

by the burial in a sarcophagus beneath the northern room of the narthex. This burial occurred before the construction of the narthex, but likely coincided with the church's construction and its initial furnishing. The primary link between the burial and the basilica's construction is this stone sarcophagus. Made from ancient spolia, the sarcophagus has become known in the literature as the "sarcophagus with hippocamps".⁴⁰ It is associated with the so-called "Workshop of the Master of the Koljane Pluteus", which is credited with both the construction and initial furnishing of the basilica. Since this took place between 820 and 830, the burial in the sarcophagus must have occurred at the same time (fig. 11). The early 9th century is also the period in which Christianization was occurring, as indicated by the cross engraved on the lid of the sarcophagus, confirming the Christian identity of the buried individual. Given the dating of the Biskupija-Crkvina graves and the burial in the sarcophagus, it is clear that these are not the remains of Duke Branimir. Additionally, the most intense contacts with the Carolingian Empire occurred during the early 9th century, which is when most Carolingian arms and equestrian equipment reached the regions of Liburnia and Dalmatia. Therefore, given the abundance and value of these finds in Biskupija and the wider Knin area, it can be assumed that this was the centre of political power during the earliest days of the formation of the Croatian Duchy.

TYOLOGICAL CHRONOLOGY OF THE SPURS AND THE RESULT OF THE ¹⁴C ANALYSIS

No direct analogies can be drawn to the bronze spurs from grave 88. Their arms, which are triangular in cross-section, end in heart-shaped plates with two rivets, while the fastening set includes a U-shaped strap that ends with three rivets, shield-shaped loops, and oval buckles (fig. 12).⁴¹ In the literature, a connection is made with a spur from Vukodol in Mostar, which also has arms ending in heart-shaped plates.⁴² The arms of the spurs from grave 88 most closely resemble the lighter spurs from the Biskupija-Crkvina horizon, such as those from grave 1 and especially grave 4 from Crkvina. Closer analogies for the strap ends can be found in others from grave 46 at the Civiljane-Brzica cemetery, near the pre-Romanesque Church of St. Saviour.⁴³ It is worth noting that they also generally resemble the strap ends of so-called Croatian-type spurs from the sites of Podgradina-Rešetarića near Livno,⁴⁴ Koljane Gornje-Vukovića Most, and even their more massive variants from the nearby Koljane Gornje-Crkvina cemetery,⁴⁵ as well as a strap end from Crkvina in Biskupija registered as a stray find.⁴⁶ The loops from grave 88 also resemble the loops of both lighter and more massive spurs from Koljane Gornje, but are typologically close

38 Cetinić 2011, 91, 104, 163; 170, pl. 44, 51. Cf. i Petrinec 2019, 68, pl. 3.

39 Petrinec 2019, 70; 2022, 375.

40 Cf. Jurčević 2011.

40 Cf. Jurčević 2011.

41 The spurs have been catalogued on several occasions: Gunjača 1953; Vinski 1977–1978, 160; Jelovina 1986, 24–25; Petrinec 2000a, 220; Petrinec 2009b, 68.

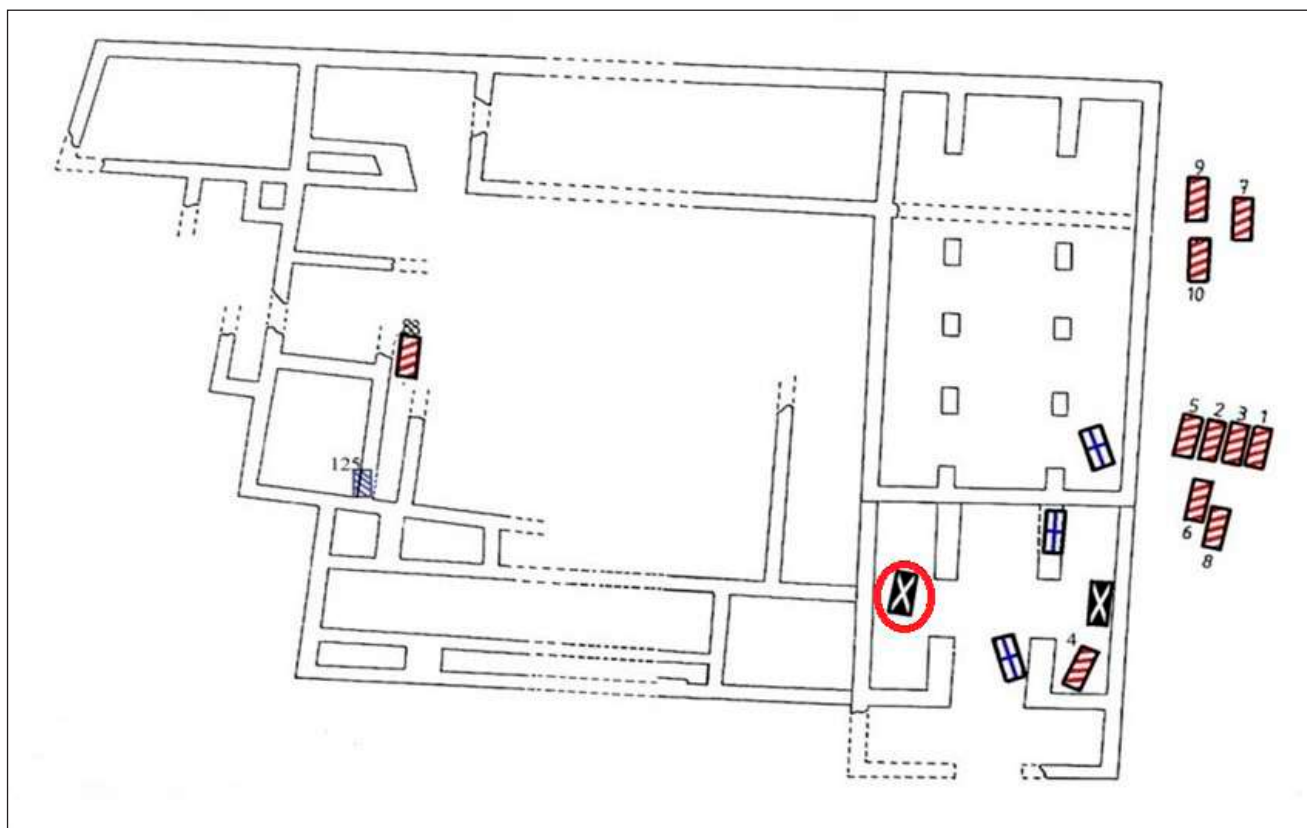
42 Petrinec 2009b, 169. For the spur from Vukodol: Cf. Petrinec 2000b, 285–286.

43 Petrinec 2009b, 283, Pl. 5.

44 Petrinec 2000c, 320–321.

45 Petrinec 2000d, 271–275.

46 Petrinec 2000e, 231–232, Fig. IV. 70.



Sl. 10. Rekonstruirani položaj grobova na Crkvini prema M. Petrinec i A. Jurčeviću

Fig. 10. Reconstruction of the cemetery plan by M. Petrinec and A. Jurčević (Jurčević 2016, 106, fig. 36)

riječ o posmrtnim ostacima kneza Branimira. U prilog tome govori i činjenica da najintenzivniji kontakti s Franačkim Carstvom padaju u doba početka 9. stoljeća, pa je i najveći broj karolinškog naoružanja i konjaničke opreme došao na područje Liburnije i Dalmacije upravo u tom razdoblju. Stoga se, s obzirom na brojnost i skupocjenost takvih nalaza u Biskupiji, ali i u širem arealu Knina, može pretpostaviti da je u to najranije doba, odnosno u doba formiranja Hrvatske Kneževine, upravo ovdje bilo središte upravopolitičke moći.

TIPOLOŠKA KRONOLOGIJA OSTRUGA I REZULTAT ¹⁴C ANALIZE

Brončanim ostrugama iz groba 88 nema direktnih analogija. Njihovi krakovi trokutastog presjeka završavaju srololikim pločicama s dvjema zakovicama, a garnituru za pričvršćivanje tvore jezičci U-oblika s trima zakovicama, štitaste petlje te ovalne pređice (sl. 12).⁴¹ U literaturi im se kao poveznica navodi ostruga iz Vukodola u Mostaru, čiji krakovi također završavaju srololikim pločicama.⁴² Krakovi ostruga iz groba 88 morfološki najviše nalikuju laganijim ostrugama horizonta Biskupija – Crkvina, poput onih iz groba 1 i pogotovo groba 4 s Crkvine. Jezičcima pak znatno izravnije analogije

to the decorated loops of spurs from the sarcophagus with hippocamps, as well as children's spurs from the vaulted tomb under the southern nave of the basilica in Biskupija. The oval buckles from grave 88 match those from graves 167 and 312 at the Nin-Ždrijac cemetery,⁴⁷ but again, they bear a resemblance to the decorated buckles from the set of children's spurs from the tomb under the southern nave of the Basilica of St. Mary. All these closer or broader analogies confirm that grave 88 undoubtedly belongs to the same sepulchral horizon as the burials south of the basilica at Crkvina and near its western façade, dating to the late 8th and early 9th centuries. However, the previous typological datings of grave inventories at Crkvina left too much room to adjust the dates to various interpretations of both the entire Biskupija-Crkvina horizon and the cemetery with the complex of buildings at Crkvina.

The dating of the femur fragment from grave 88 using ¹⁴C accelerator mass spectrometry (sample code Z-8470) showed a conventional sample age of 1261 ± 21 BP.⁴⁸ The calibrated period within the 1σ probability distribution (68.3%) yields a range of cal CE 684–744, while the 2σ distribution (95.4%) shows two ranges: the probability for cal CE

⁴⁷ Belošević 2007, Pl. LXXVI, T. C.

⁴⁸ The test was carried out at the Laboratory for Low-Level Radioactivities of the Ruđer Bošković Institute in Zagreb (Dr. Andreja Sironić and Dr. Ines Krajcar Bronić) and at the Center for Applied Isotope Studies, University of Georgia, Athens, USA.

⁴¹ Ostruge su kataloški obrađene u nekoliko navrata: Gunjača 1953; Vinski 1977–1978, 160; Jelovina 1986, 24–25; Petrinec 2000a; 2009b, 68.

⁴² Petrinec 2009b, 169. Za ostrugu iz Vukodola: Cf. Petrinec 2000b.

možemo pronaći među primjercima iz groba 46 na groblju Civiljane – Brzica, nedaleko predromaničke crkve sv. Spasa.⁴³ Treba svakako naglasiti kako generalno nalikuju i jezičcima koji su pripadali ostrugama tzv. hrvatskog tipa s položaja Podgradina – Rešetarica kod Livna,⁴⁴ Koljane Gornje – Vukovića most pa čak i njihovim masivnijim inačicama s obližnjeg groblja Koljane Gornje – Crkvina,⁴⁵ ali i jednom jezičcu s Crkvine u Biskupiji pronađenom izvan konteksta.⁴⁶ Petlje iz groba 88 također nalikuju petljama laganijih i masivnih ostruga iz Koljana Gornjih, ali su tipološki bliske i ukrašenim petljama ostruga iz sarkofaga s hipokampima, kao i dječjih ostruga iz presvođene grobnice pod južnim brodom bazilike u Biskupiji. Ovalne pređice iz groba 88 oblikom odgovaraju onima iz grobova 167 i 312 na groblju Nin – Ždrijac,⁴⁷ ali ponovno i ukrašenim pređicama garniture dječjih ostruga iz grobnice pod južnim brodom crkve sv. Marije. Sve ove uže ili šire analogije potvrđuju kako grob 88 nedvojbeno pripada istom sepulkralnom horizontu kao i ukopi južno od bazilike na Crkvini te uz njeno zapadno pročelje, koji datira u završetak 8. i rano 9. stoljeće. Međutim, dosadašnja tipološka datiranja grobnih inventara na Crkvini ostavljala su previše prostora za prilagođavanje datuma šarolikim interpretacijama kako čitavog horizonta Biskupija – Crkvina, tako i samog groblja s kompleksom građevina na Crkvini.

Datiranje ulomka bedrene kosti pokojnika iz groba 88 metodom ^{14}C akceleratorne masene spektrometrije (oznaka uzorka Z-8470) pokazalo je konvencijsku starost uzorka od 1261 ± 21 BP.⁴⁸ Kalibrirano razdoblje u raspodjeli vjerojatnosti 1σ (68,3 %) donosi raspon cal AD 684. – 744., dok raspodjela 2σ (95,4%) pokazuje dva raspona. Vjerojatnost razdoblja cal AD 674. – 778. iznosi 85,3 %, dok je vjerojatnost razdoblja cal AD 790. – 823. znatno niža i iznosi 10,1 %. S obzirom na to da se dvije raspodjele međusobno ne isključuju, jer se radi o statističkim parametrima proizašlim iz istog mjerenja (odnosno o standardnim devijacijama, pri čemu su duljina razdoblja i njegova vjerojatnost uvijek proporcionalne), u obzir se mogu uzeti dva razdoblja iz raspodjele 2σ .

Mjerenja relativne specifične aktivnosti ^{14}C ($a^{14}\text{C} = 85,47 \pm 0,23$) i omjera stabilnih izotopa ^{12}C i ^{13}C ($\delta^{13}\text{C} = -18,8 \text{ ‰}$) ne ukazuju na bilo kakvu značajniju kontaminaciju, jer se u oba slučaja radi o očekivanim vrijednostima za to razdoblje. Poznajući zatvoreni kontekst iz kojeg datirani uzorak potječe, odnosno grob 88 u kojem je ukopan muškarac s ostrugama karolinških obilježja, može se zaključiti da je stariji raspon daleko manje vjerojatan, premda mjerenje sugerira suprotno. Čak i njegova gornja granica, to jest 778. godina, i dalje djeluje prerano za pojavu ovakvih ostruga. Ostavljajući na trenutak tipološku kronologiju po strani, treba istaknuti



Sl. 11. Pozlaćene ostruge iz sarkofaga s hipokampima (Z. Alajbeg)

Fig. 11. Gilded spurs from the sarcophagus with hippocampi (Z. Alajbeg)

674–778 is 85.3%, while the probability for cal CE 790–823 is significantly lower, at 10.1%. Since the two distributions are not mutually exclusive (as they are statistical parameters resulting from the same measurement, meaning the duration of the period and its probability are always proportional), both periods from the 2σ distribution can be considered.

Measurements of relative specific activity of ^{14}C ($a^{14}\text{C} = 85,47 \pm 0,23$) and the ratio of stable isotopes ^{12}C and ^{13}C ($\delta^{13}\text{C} = -18,8 \text{ ‰}$) do not point to any significant contamination, as both values are within the expected range for that period. Given the closed context from which the dated sample originated – i.e. grave 88, where a male with Carolingian-style spurs was buried – it can be concluded that the earlier range is much less likely, despite the measurement results suggesting otherwise. Even its upper limit of 778 CE still seems too early for the appearance of such spurs. Setting aside typological chronology for a moment, it is worth noting that the later range aligns with two other radiocarbon-dated graves from the Biskupija-Crkvina horizon. The wooden linings of grave 4 from the Bojna-Brekinjova Kosa site, otherwise strikingly similar to the burial in the sarcophagus with hippocamps at Crkvina, were dated to cal CE 829 ± 42 (1190 ± 30 BP) and cal CE 791 ± 60 (1220 ± 30 BP).⁴⁹ The skeleton from grave 3 at the Vačani-Laluše cemetery,

43 Petrinc, 2009b, 283, T. 5.

44 Petrinc 2000c.

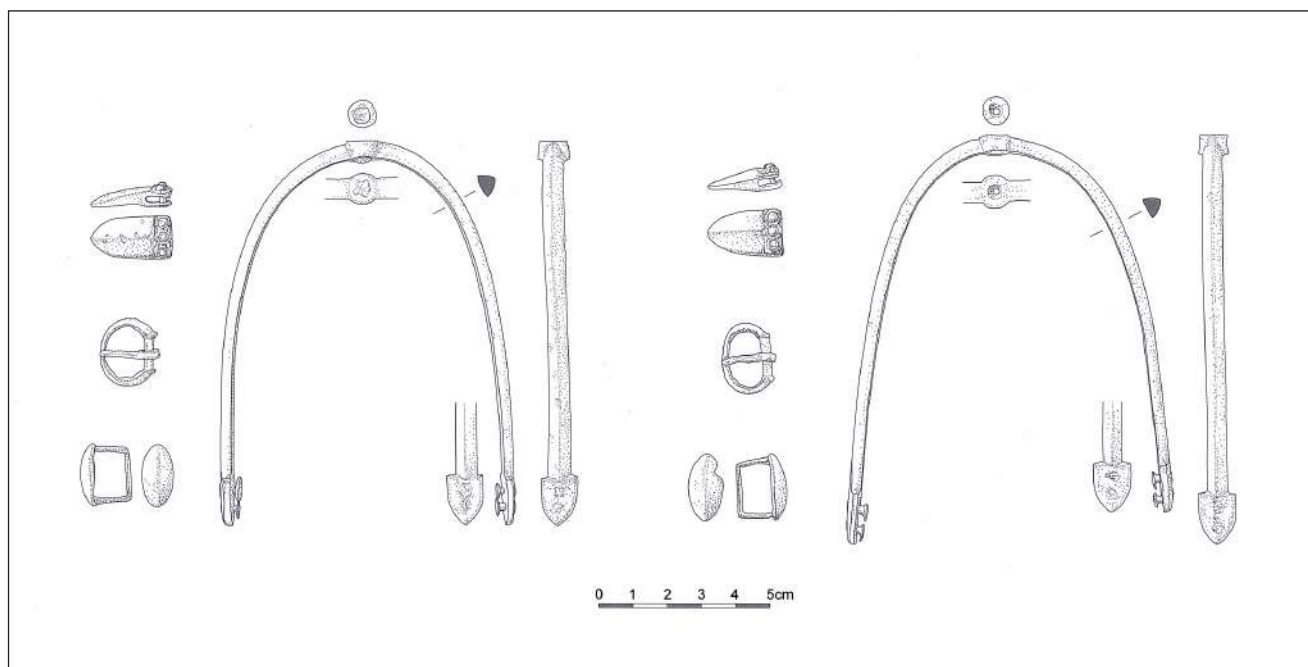
45 Petrinc 2000d.

46 Petrinc 2000e, Sl. IV. 70.

47 Belošević 2007, T. LXXVI, T. C.

48 Ispitivanje je provedeno u Laboratoriju za mjerenje niskih radioaktivnosti Instituta Ruđer Bošković u Zagrebu dr. sc. Andreja Sironić i dr. sc. Ines Krajcar Bronić te u Center for Applied Isotope Studies, University of Georgia, Athens, SAD.

49 Madiraca et al. 2017, 189, fig. 15.



Sl. 12. Crtež ostruga iz groba 88 (N. Šimundić Bendić)

Fig. 12. Drawing of spurs from Grave 88 (N. Šimundić Bendić)

kako je kasniji raspon u skladu s drugim dvama radiokarbonski datiranim grobovima horizonta Biskupija – Crkvina. Drvene oplata groba 4 s lokaliteta Bojna – Brekinjova kosa, inače po nalazima izrazito sličnog ukopu u sarkofagu s hipokampima na Crkvini, datirane su u cal AD 829 ± 42 (1190 ± 30 BP) i cal AD 791 ± 60 (1220 ± 30 BP).⁴⁹ Kostur iz groba 3 na groblju Vačani – Laluše, uz kojeg su pronađene ostruge tzv. hrvatskog tipa analogne biskupijskim grobovima 3 i 6, datiran je u cal AD 803. – 843. ili 1195 ± 20 BP.⁵⁰ Dakle, kasniji raspon, to jest razdoblje cal AD 790. – 823. s vjerojatnošću od 10,1 %, u ovom se pak slučaju čini kao jedini prihvatljivi vremenski okvir groba 88. Ovaj je grob, kao jedini ¹⁴C datirani ukop s groblja Biskupija – Crkvina, utoliko značajniji što predstavlja dosad najniži izmjereni kronološki raspon ukopa s karolinškim nalazima u Hrvatskoj.

ANTROPOLOŠKA ANALIZA

Kostur pronađen u grobu 88 dobro je očuvan (cjelovita je desna ključna kost, desna nadlaktična, palčane kosti, lijeva goljenična i križna kost), dok su određeni koštani ostaci postmortalno oštećeni i slabije očuvani.⁵¹ Analizom morfoloških karakteristika lubanje i zdjelice,⁵² može se pretpostaviti da kostur pripada muškarcu čija se dob procjenjuje na 30 – 40 godina starosti, prema stupnju promjena morfologije aurikularne ploštine zdjelice,⁵³ zubnom statusu⁵⁴ i degenerativnim

alongside which Croatian-type spurs were found, analogous to those in graves 3 and 6 at Biskupija, was dated to cal CE 803–843 or 1195 ± 20 BP.⁵⁰ Therefore, the later range, i.e. the period cal CE 790–823 with a probability of 10.1%, seems the only acceptable timeframe for grave 88. This grave, as the only ¹⁴C-dated burial from the Biskupija-Crkvina cemetery, is particularly significant as it represents the earliest measured chronological range for a burial with Carolingian finds in Croatia.

ANTHROPOLOGICAL ANALYSIS

The skeleton found in grave 88 is well-preserved, comprising a complete right clavicle, right humerus, radius bones, left tibia and sacrum. However, some bone fragments have been damaged post-mortem, and are less well preserved.⁵¹ Based on the morphological characteristics of the skull and pelvis,⁵² it can be inferred that the skeleton belongs to a male, with an estimated age of 30–40 years. This assessment is based on the degree of changes in the auricular surface of the pelvis,⁵³ dental condition,⁵⁴ and degenerative changes evident in the joints.⁵⁵ The individual's estimated height was calculated using the length of the best-preserved long bone, in this case the right humerus,⁵⁶ and is determined to be 173.5 ± 4.05 cm. The preserved skull includes the calvaria with fragments of the orbital roof, displaying signs of healed

49 Madiraca *et al.* 2017, 189, sl. 15.

50 Fabijanić, Jović, Krnčević, u tisku. Zahvaljujemo kolegama Tomislavu Fabijaniću, Jeleni Jović i Željku Krnčeviću što su s nama podijelili još neobjavljeni tekst.

51 Procjena stanja izvedena je prema ljestvici očuvanosti: cf. Buikstra, Ubelaker 1994, 5–10.

52 Krogman, Iscan 1986, 200–259.

53 Lovejoy *et al.* 1985.

54 Lysell *et al.* 1969.

50 Fabijanić, Jović, Krnčević, *in press*. We thank our colleagues Tomislav Fabijanić, Jelena Jović, and Željko Krnčević for sharing their unpublished text with us.

51 The condition assessment was conducted based on the preservation scale: cf. Buikstra, Ubelaker 1994, 5–10.

52 Krogman, Iscan 1986, 200–259.

53 Lovejoy *et al.* 1985, 15–28.

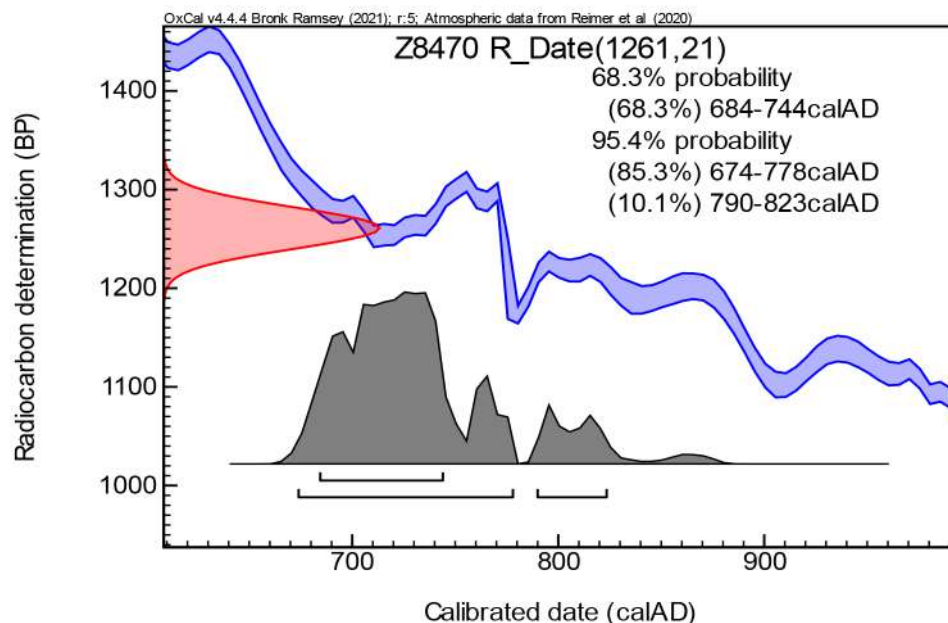
54 Lysell *et al.* 1969, 227–238.

55 Bass, 2005, 12–25.

56 Trotter, Glesser 1958, 79–123.

Sl. 13. Kalibracijska krivulja datiranog uzorka iz groba 88 (A. Sironić, I. Krajcar Bronić)

Fig. 13. Calibration curve of the dated sample from grave 88 (A. Sironić, I. Krajcar Bronić)



promjenama zglobnih ploha.⁵⁵ Prosječna visina osobe izračunata je po mjeri duljine najbolje očuvane duge kosti, u ovom slučaju desne nadlaktične kosti,⁵⁶ te iznosi $173,5 \pm 4,05$ cm. Očuvana je kalota lubanje s fragmentima svoda orbita, na kojima su vidljivi znakovi zaliječene *cribra orbitalia*, koja upućuje na subadultni stres. Iako se najčešće povezuje s anemijom i nedostatkom željeza,⁵⁷ može biti rezultat i kroničnih bolesti.⁵⁸ Aktivna *cribra orbitalia* obično se javlja kod djece i adolescenata,⁵⁹ dok je kod odraslih prisutna u zaliječenom obliku, što ukazuje na nutritivne nedostatke ili parazitske infekcije tijekom ranog života.⁶⁰ Na ulomcima gornje i donje čeljusti vidljiva je alveolarna resorpcija te okuzalni karijes na kutnjacima. Nalaz alveolarne resorpcije upućuje na bolesti desni, odnosno povlačenje zubnog mesa i resorpciju kosti oko korijena zuba.⁶¹ Karijes, s druge strane, predstavlja oštećenje tvrdog zubnog tkiva uzrokovano bakterijama poput *Streptococcus mutans* i *Lactobacillus acidophilus*.⁶² Iako se saharoza često smatra glavnim uzročnikom karijesa zbog učestalije konzumacije, ostali šećeri poput fruktoze, glukoze i laktoze imaju sličnu sposobnost izazivanja karijesa. Karijes se može razviti i konzumacijom škroba, iako on ima niži potencijal u odnosu na šećere.⁶³ Učestalost karijesa raste s dobi, dok društveni status igra značajnu ulogu – viši slojevi, koji su konzumirali više proteina i održavali bolju higijenu, imali su manji rizik, dok su niži slojevi, s većim unosom ugljikohidrata i slabijom higijenom, bili skloniji karijesu.⁶⁴ Iako bakte-

cribra orbitalia, indicative of subadult stress. Although commonly associated with anaemia and iron deficiency,⁵⁷ it may also result from chronic illnesses.⁵⁸ Active *cribra orbitalia* is typically observed in children and adolescents,⁵⁹ while in adults it appears in a healed state, pointing to nutritional deficiencies or parasitic infections during early life.⁶⁰ Fragments of the upper and lower jaws exhibit alveolar resorption and occlusal caries on the molars. The presence of alveolar resorption suggests periodontal disease, characterized by gum recession and bone loss around the tooth roots.⁶¹ Caries, on the other hand, represents damage to the hard dental tissues caused by bacteria such as *Streptococcus mutans* and *Lactobacillus acidophilus*.⁶² Although sucrose is often considered the primary cause of caries due to its frequent consumption, other sugars such as fructose, glucose, and lactose also have a similar ability to induce caries. Caries can also develop from the consumption of starch, although it has a lower potential compared to sugars.⁶³ The frequency of caries increases with age, while social status also played a significant role; higher social classes, who consumed more protein and maintained better hygiene, had a lower risk, while lower social classes, with higher carbohydrate intake and poorer hygiene, were more prone to caries.⁶⁴ While bacteria, diet, and hygiene habits all make a significant contribution to the development of caries, genetics – particularly the internal structure of the teeth, such as enamel quality – also play a crucial role.⁶⁵ In addition to enamel quality, wear

⁵⁵ Bass 2005, 12–25.

⁵⁶ Trotter, Glesser 1958.

⁵⁷ Carlson *et al.* 1974, 409.

⁵⁸ Wapler *et al.* 2004, 336–338.

⁵⁹ Walker 1986, 352.

⁶⁰ Stuart-Macadam 1985, 391; Wapler *et al.* 2004, 333–339.

⁶¹ Ortner 2003, 590–593.

⁶² Roberts, Manchester 2010, 171.

⁶³ Grauer 2011, 207.

⁶⁴ Roberts, Manchester 2010, 173–175.

⁵⁷ Carlson *et al.* 1974, 409.

⁵⁸ Wapler *et al.* 2004, 336–338.

⁵⁹ Walker 1986, 352.

⁶⁰ Stuart-Macadam 1985, 391; Wapler *et al.* 2004, 333–339.

⁶¹ Ortner 2003, 590–593.

⁶² Roberts Manchester 2010, 171.

⁶³ Grauer 2012, 207.

⁶⁴ Roberts Manchester 2010, 173–175.

⁶⁵ Ortner 2003, 509.

rije, prehrana i higijenske navike značajno utječu na razvoj karijesa, genetika, odnosno unutarnja struktura zuba, poput kvalitete cakline, također ima ključnu ulogu.⁶⁵ Osim kvalitete cakline, istrošenost zubne površine, poput one kod muškarca iz groba 88, može dodatno oslabiti zub i omogućiti bakterijama da prodru u njegovu unutrašnjost.⁶⁶

Na četiri od ukupno sedam sačuvanih prsnih kralježaka, kao i na tri od ukupno četiri očuvana slabinska kralješka, vidljiv je Schmorlov defekt (sl. 14). Ova patološka promjena uzrokovana je hernijom diska, te izaziva bolove duž udova ili leđima, smanjuje pokretljivost, uzrokuje trnce ili gubitak osjeta u ekstremitetima.⁶⁷ Budući da nisu očuvani svi kralješci, nije moguće utvrditi koliko su te promjene utjecale na život i zdravlje muškarca. Na dijafizama bedrenih i goljeničnih kostiju vidljivi su znakovi saniranog periostitisa. Periostitis je reakcija pokosnice na patološke promjene u temeljnoj kosti. Unutarnji sloj pokosnice ima sposobnost stvaranja nove kosti tijekom cijelog života, čak i nakon završetka rasta, zbog toga pokosnica reagira na razne podražaje stvaranjem nepravilne nove kosti.⁶⁸ Periostitis može nastati zbog unutarnjih čimbenika, poput genetskih ili imunoloških poremećaja, ili vanjskih uzroka, kao što su ozljede, infekcije, otrovanja ili nedostatak kisika. Iako se periostitis često povezuje s infekcijama, upalu mogu izazvati i drugi čimbenici, poput trauma ili kemijskih oštećenja.⁶⁹ Pošto je goljenična kost površinska i slabije zaštićena, sklonija je ozljedama koje ostavljaju trag na pokosnici kosti, a usto je u njoj najduža stagnacija krvi, što omogućava razvoj bakterija.⁷⁰ Periostitis je saniran, odnosno u fazi zalječenja, te zbog toga nije utjecao na uzrok smrti pojedinca. Potrebno je naglasiti i remodeliranje glave bedrene kosti, koje već imaju blago gljivasti oblik. Točnije, na posteriornoj strani glave lijeve i desne bedrene kosti vidljive su Poirierove fasete (engl. *Poirier's facets*), odnosno prednji dio zglobne površine glave bedrene kosti širi se prema prednjoj strani vrata bedrene kosti, stvarajući glatku površinu koja je u ravnini sa zglobnom površinom glave (sl. 15).⁷¹ Ona se razvija uslijed napetosti ilio-femoralnog ligamenta, osobito tijekom ekstenzije kuka, primjerice pri hodanju, stajanju ili drugim aktivnostima koje zahtijevaju ispužanje zglobova. Ova promjena odražava reakciju kosti na ponavljajući mehanički stres u tom području.⁷²

Na očuvanim zglobnim površinama dugih kostiju gornjih i donjih udova uočeni su znakovi degenerativnih promjena (osteoartritisa), najčešće uzrokovanog fizičkim i mehaničkim stresom.⁷³ Osteoartritis je kronična bolest zglobova koja uzrokuje razgradnju hrskavice i promjene na kostima, a glavni uzroci su dob, opterećenje zglobova i mehanički stres.⁷⁴ Promjene na kostima kod osteoartritisa

on the tooth surface, such as that seen in the male from grave 88, can further weaken the tooth and allow bacteria to penetrate its interior.⁶⁶

Schmorl's nodes are visible on four of the seven preserved thoracic vertebrae, as well as on three of the four preserved lumbar vertebrae (fig. 14). This pathological change is caused by a disc herniation, and can lead to pain along the limbs or in the back, reduce mobility, and cause tingling or loss of sensation in the extremities.⁶⁷ Since not all the vertebrae are preserved, it is impossible to determine how these changes affected the man's life and health. Signs of healed periostitis are visible on the diaphyses of the femur and tibia. Periostitis is a reaction of the periosteum to pathological changes in the underlying bone. The inner layer of the periosteum has the ability to produce new bone throughout life, even after growth has ended, which is why the periosteum responds to various stimuli by forming irregular new bone.⁶⁸ Periostitis can result from internal factors, such as genetic or immune disorders, or external causes, such as injuries, infections, poisoning, or lack of oxygen. While periostitis is often associated with infections, inflammation can also be triggered by other factors, such as trauma or chemical damage.⁶⁹ The tibia, being a subcutaneous bone and less protected, is more susceptible to injuries that leave marks on the periosteum; furthermore, it experiences prolonged blood stagnation, creating conditions that can promote bacterial growth.⁷⁰ The periostitis had resolved, being in the healing phase, and therefore did not contribute to the individual's cause of death.

It is important to note the remodelling of the femoral head, which shows a slightly flattened shape. Specifically, Poirier's facets are visible on the posterior side of both the left and right femoral heads. The anterior part of the femoral head's articular surface extends toward the front of the femoral neck, creating a smooth surface that aligns with the joint surface of the head (fig. 15).⁷¹ This change occurs as a result of tension in the iliofemoral ligament, particularly during hip extension, such as when walking, standing, or performing activities that require joint extension. It reflects the bone's response to repeated mechanical stress in this area.⁷²

Signs of degenerative changes (osteoarthritis) were observed on the preserved articular surfaces of the long bones in the upper and lower limbs.⁷³ Osteoarthritis is a chronic joint disease characterized by the breakdown of cartilage and changes in the bones, with age, joint overuse, and mechanical stress being the main contributing factors.⁷⁴ Bone changes in osteoarthritis include the formation of bone spurs (osteophytes) at the joint margins, porosity, and smoothing of the subchondral bone due to direct contact between the

65 Ortner 2003, 509.

66 Roberts, Manchester 2010, 173.

67 Roberts, Manchester 2010, 343.

68 Ortner 2003, 206.

69 Grauer 2011, 492–493.

70 Roberts, Manchester 2010, 147.

71 Radi *et al.* 2023, 262.

72 Kostick 1963, 400.

73 Ortner 2003, 545.

74 Lieverse *et al.* 2016, 160.

66 Roberts, Manchester 2010, 173.

67 Roberts, Manchester 2010, 343.

68 Ortner 2003, 206.

69 Grauer 2011, 492–493.

70 Roberts, Manchester 2010, 147.

71 Radi *et al.* 2023, 262.

72 Kostick 1963, 400.

73 Ortner 2003, 545.

74 Lieverse *et al.* 2016, 160.



Sl. 14. Schmorlovi defekti i osteofiti (osteoarthritis) (A. Curic)

Fig. 14. Schmorl's nodes and osteophytes (osteoarthritis) present on four thoracic vertebrae (A. Curic)

uključuju stvaranje koštanih izraslina na rubovima zglobova (osteofiti), poroznost te zaglađivanje subhondralne kosti uslijed direktnog kontakta kostiju.⁷⁵ Unatoč raspravama o uzrocima osteoartritisa, općenito se smatra da je opterećenje zglobova važan čimbenik u razvoju ove bolesti. Istraživanja su pokazala pozitivnu povezanost između dobi i osteoartritisa te da su kralježnica, lakat i koljeno među najčešće zahvaćenim područjima.⁷⁶ Umjereni osteoarthritis prisutan je na vratnim i slabinskim kralješcima, dok je početni vidljiv na distalnoj zglobnoj plohi lijeve bedrene kosti, te proksimalnoj i distalnoj zglobnoj plohi lijeve goljenične kosti muškarca iz groba 88.

Zanimljiv je nalaz jake eburnizacije, odnosno osteoartritisa, na zglobu desnog ramena i proksimalnoj zglobnoj plohi desne nadlaktične kosti, kao i glenoidnoj fosi desne lopatice (glenohumeralni zglob) (sl. 16). Eburnizacija se manifestira kao polirana kost, do koje dođe uništenjem hrskavice, zbog čega se zglobne površine izravno trljaju, te je dokaz pretjerane uporabe zgloba.⁷⁷ Iako je osteoarthritis učestala patološka promjena kod odraslih osoba, ipak je mehanički stres taj koji uzrokuje promjene izravno na zglobnu površinu, dok je biološko starenje više povezano s promjenama na rubnim po-

bones (eburnation).⁷⁵ Despite ongoing debates about the causes of osteoarthritis, it is generally believed that joint overload is a key factor in the development of the disease. Research has shown a positive correlation between age and osteoarthritis, with the spine, elbow, and knee being among the most commonly affected areas.⁷⁶ Moderate osteoarthritis is present on the cervical and lumbar vertebrae of the male from grave 88, while early stages are visible on the distal articular surface of the left femur and the proximal and distal articular surfaces of the left tibia.

An interesting finding is the pronounced eburnation, or osteoarthritis, in the right shoulder joint, including the proximal articular surface of the right humerus and the glenoid fossa of the right scapula (glenohumeral joint) (fig. 16). Eburnation appears as polished bone, caused by the destruction of cartilage, leading to direct friction between the joint surfaces. This is indicative of excessive joint use.⁷⁷ Although osteoarthritis is a common pathological change in adults, it is mechanical stress that directly causes changes to the articular surface, while biological aging is more associated with changes at the peripheral areas of the joint surfaces. The pronounced degeneration, characterized by the smoothing of the glenohumeral joint, is a sign of severe mechanical

75 Eng 2016, 173.

76 Ibid., 177.

77 Šlaus 2006, 203.

75 Eng 2016, 173.

76 Eng 2016, 177.

77 Šlaus 2006, 203.



Sl. 15. Posteriorno proksimalna zglobna ploha bedrene kosti s vidljivim Poirierovim fasetama (A. Curić)

Fig. 15. Posterior proximal articular surface of the femur with visible Poirier's facets (A. Curić)

dručjima zglobnih ploha. Izražena degeneracija povezana s izgladivanjem glenohumeralnog zgloba znak je ozbiljnog mehaničkog stresa, odnosno često korištenog pokreta gore-dolje glave nadlaktične kosti u lateralnoj rotaciji (sl. 13).⁷⁸ Osteoartritis lakta i ramena danas je rijedak, osim kod ljudi s fizički zahtjevnim zanimanjima ili ozljedama. U prošlosti je, međutim, bio češći u gornjim ekstremitetima, što ukazuje na način života s većim opterećenjem tih zglobova. Razlike u veličini kostiju između lijeve i desne ruke također upućuju na intenzivnu upotrebu dominantne ruke. Osteoartritis ramena zanimljiv je nalaz jer su degenerativne promjene na tom mjestu izuzetno rijetke, te su najčešće uzrokovane pojačanim trošenjem mišića ramena.⁷⁹

Uz patološke promjene uzrokovane bolestima ili traumama, određene svakodnevne aktivnosti također utječu na morfologiju kostiju.⁸⁰ Jahanje, kao uobičajena radnja u srednjem vijeku, najviše utječe na oblik kostiju zdjelice i bedara. Ovakav nalaz povezan je i sa socijalnim statusom, s obzirom na to da je jahanje učestalije među elitom, te se uglavnom primjenjivalo u lovu, rekreaciji, transportu, ali i u vojne svrhe.⁸¹ Zbog loše očuvanosti kostiju zdjelice nije moguće s potpunom sigurnošću utvrditi je li muškarac iz groba 88

stress, typically caused by the frequent up-and-down movement of the humeral head in lateral rotation (fig.13).⁷⁸ Osteoarthritis of the elbow and shoulder is rare today, except in individuals with physically demanding occupations or injuries. However, in the past, it was more common in the upper limbs, indicating a lifestyle with greater strain on these joints. Differences in bone size between the left and right arms also suggest the intense use of the dominant hand. Osteoarthritis of the shoulder is a particularly interesting finding, as degenerative changes in this area are extremely rare, and are most often caused by excessive wear on the shoulder muscles.⁷⁹

In addition to pathological changes caused by diseases or trauma, certain daily activities also affect bone morphology.⁸⁰ Horseback riding, a common activity in the medieval period, has the greatest impact on the shape of the pelvic bones and femurs. Such a finding is also associated with social status, as horseback riding was more prevalent among the elite, and was primarily undertaken for hunting, recreation, transportation and military purposes.⁸¹ Due to the poor preservation of the pelvic bones, it is not possible to conclusively determine whether the man from grave 88

78 Belcastro, Mariotti 2000, 532.

79 Kerr *et al.* 1985, 971–972.

80 Buikstra 2023, 42.

81 Anđelinović *et al.* 2015, 709.

78 Belcastro, Mariotti 2000, 532.

79 Kerr *et al.* 1985, 971–972.

80 Buikstra 2023, 42.

81 Anđelinović *et al.* 2015, 709.



Sl. 16. Eburnizacija (osteoarthritis) glenohumeralnog zgloba (A. Curić)

Fig. 16. Eburnation (osteoarthritis) of the glenohumeral joint (A. Curić)

bio konjanik. Ipak, prikupljeni arheološki nalazi i određene morfološke karakteristike, poput gljivaste glave bedrene kosti s Poirierovim fasetama i naglašenim velikim obrtačem,⁸² skupa sa Schmorlovim defektima i osteofitima (osteoarthritis) na prsnim i slabinskim kralješcima,⁸³ idu u prilog remodeliranju kostiju uzrokovanom učestalim jahanjem. Osim toga, jahanje može uzrokovati degenerativne promjene na zglobnim ploham gornjih udova, osobito na kostima ramena, te uzrokovati asimetriju kostiju ruku.⁸⁴ Tako se nalazi eburnizacije proksimalne zglobne plohe desne nadlaktične kosti i desnog glenoidnog zgloba lopatice, kao i činjenica da je desna palčana kost 4 mm duža od lijeve, uklapaju u navedenu pretpostavku. Ipak, bitno je naglasiti da nam degenerativne promjene mogu ukazati na učestalost korištenja navedenog zgloba i mogućeg pokreta, ali ne mogu sa sigurnošću povezati patološke promjene s određenim zanimanjem ili aktivnostima.⁸⁵ Stoga je važno, uz antropološke analize, sagledati cjeloviti arheološki kontekst.

was a horse rider. However, the collected archaeological finds and certain morphological characteristics, such as the flattened femoral head with Poirier's facets and an emphasized greater trochanter,⁸² along with Schmorl's nodes and osteophytes (osteoarthritis) on the thoracic and lumbar vertebrae,⁸³ support the idea of bone remodelling caused by frequent horseback riding. Furthermore, horseback riding can lead to degenerative changes on the articular surfaces of the upper limbs, particularly in the shoulder bones, and cause asymmetry in the bones of the arms.⁸⁴ Therefore, the findings of eburnation on the proximal articular surface of the right humerus and the right glenoid joint of the scapula, as well as the fact that the right radius is 4 mm longer than the left, align with this assumption. However, it is important to emphasize that while degenerative changes may indicate the frequency of use of a particular joint and possible movement patterns, they cannot definitively link pathological changes to specific occupations or activities.⁸⁵ Therefore, it is essential to consider the complete archaeological context alongside anthropological analyses.

82 Molleson, Blondiaux 1994, 314.

83 Fornaciari *et al.* 2014, 4.84 Andelinović *et al.* 2015, 716.

85 Šlaus 2006, 204.

82 Molleson, Blondiaux 1994, 314.

83 Fornaciari *et al.* 2014, 4.84 Andelinović *et al.* 2015, 716.

85 Šlaus 2006, 204.



Sl. 17. Zračna fotografija lokaliteta Biskupija – Crkvina (A. Alajbeg)

Fig. 17. Aerial photograph of the Biskupija – Crkvina site (A. Alajbeg)

ZAKLJUČAK

Nedavnim revizijskim iskopavanjima lokaliteta Biskupija – Crkvina, točnije kompleksa prostorija sjeverno od crkve sv. Marije, postignuti su rezultati koji nadopunjuju podatke iz istraživanja prije sredine 20. stoljeća (sl. 17.). Naime, svi su kosturi iz starijih iskopavanja bili pohranjeni u zajedničku kosturnicu istočno od bazilike, uključujući i one iz najstarije faze groblja – horizonta Biskupija – Crkvina. Takav je nedostatak onemogućio antropološke, radiokarbonske i druge analize kosturnih ostataka, ostavljajući kao jedinu mogućnost daljnje raspredanje o tipološkoj kronologiji grobnih nalaza i crkvenog namještaja. Iskopavanjem prostorije P, unutar koje je Gunjača 1950. godine pronašao grob 88 s pokojnikom opremljenim karolinškim ostrugama s garniturama za pričvršćivanje, pronađen je dislocirani i postmortalno oštećeni kostur. Budući da se nalazio u neposrednoj blizini grobne rake, kao i da na širem prostoru nije bilo registriranih grobova ni u Marunovim ni u Gunjačinim iskopavanjima, s velikom se sigurnošću može zaključiti kako je uistinu riječ o pokojniku iz groba 88. Dodatnu potvrdu donijela je

CONCLUSION

Recent excavations at the site of Biskupija-Crkvina, specifically in the complex of rooms north of the Basilica of St. Mary, have yielded results that complement the data from research conducted before the mid-20th century (fig. 17). All skeletons from earlier excavations were stored in a communal ossuary east of the basilica, including those from the earliest phase of the cemetery; i.e. from the Biskupija-Crkvina horizon. The limited quantity of skeletal remains hindered anthropological, radiocarbon, and other related analyses, leaving the only option that of further elaborating on the typological chronology of grave finds and church furnishings. The excavation of Room P, where Gunjača found grave 88 in 1950, which contained a deceased individual equipped with Carolingian spurs and fastening fittings, uncovered a dislocated skeleton that had sustained *post-mortem* damage. Given its proximity to the grave pit and the absence of registered graves in the excavations undertaken by either Marun or Gunjača in the surrounding area, it can be concluded with a high degree of certainty that this is indeed the individual from grave 88. Additional confirmation came from the

antropološka analiza, ukazujući na degenerativne promjene na kosturu muškarca karakteristične za konjanike.

Do ovih se revizijskih iskopavanja kronologija najstarije faze groblja Biskupija – Crkvina temeljila isključivo na tipologiji grobnih nalaza, navodeći pojedine autore na datiranje grobova u drugu polovinu ili čak kasno 9. stoljeće. Radiokarbonska analiza ulomka femura pokojnika iz groba 88 pokazala je dosta široko razdoblje koje se usporedbom s drugim radiokarbonski datiranim grobovima sa srodnim materijalom, ali i tipološkom kronologijom, može znatno suziti. Stoga se raspon cal AD 674. – 778. (85,3 % vjerojatnosti iz raspodjele 2σ) može potpuno isključiti, jer je mogućnost da grob 88 s karolinškim ostrugama datira u zadnju četvrtinu 7. i prve tri četvrtine 8. stoljeća poprilično nevjerojatna. S druge strane, razdoblje cal AD 790. – 823., premda s mnogo nižom vjerojatnošću (10,1 % iz raspodjele 2σ), u skladu je s nedavno izmjerenim uzorcima iz grobova s karolinškim ostrugama s grobalja Bojna – Brekinjova kosa i Vaćani – Laluše te ujedno i potvrđuje tipološko datiranje najstarije faze groblja Biskupija – Crkvina u završetak 8. i rano 9. stoljeće. Konačno, datiranje groba 88 između 790. i 823. godine značajno je ne samo za kronologiju lokaliteta Biskupija – Crkvina već i za datiranje čitavog horizonta Biskupija – Crkvina, jer donosi dosad najniži izmjereni raspon ukopa s karolinškim nalazima u Hrvatskoj.

anthropological analysis, indicating degenerative changes in the male skeleton characteristic of cavalymen.

Until these recent excavations, the chronology of the earliest phase of the Biskupija-Crkvina cemetery was based solely on the typology of grave finds, leading certain authors to date the graves to the second half or even the late 9th century. The radiocarbon analysis of a fragment of the femur of the individual from grave 88 showed a fairly broad time-frame, which, when compared with other radiocarbon-dated graves with related materials as well as typological chronology, can be significantly narrowed down. Thus, the range cal CE 674–778 (85.3% probability from the 2σ distribution) can be completely excluded, as the possibility that grave 88 with Carolingian spurs dates to the last quarter of the 7th and the first three-quarters of the 8th century is quite improbable. On the other hand, the period cal CE 790–823, although with a much lower probability (10.1% from the 2σ distribution), aligns with recently measured samples from graves with Carolingian spurs from the Bojna-Brekinjova kosa and Vaćani-Laluše cemeteries, while also confirming the typological dating of the earliest phase of the Biskupija-Crkvina cemetery to the late 8th and early 9th century. Finally, dating grave 88 between 790 and 823 is significant not only for the chronology of the Biskupija-Crkvina site but also for dating the entire Biskupija-Crkvina horizon, as it provides the earliest measured range for a burial with Carolingian finds in Croatia to date.

LITERATURA/LIST OF REFERENCES

- Andelinović, Š., Anterić, I., Škorić, E., Bašić, Ž. 2015, Skeleton changes induced by horse riding on medieval skeletal remains from Croatia, *The International Journal of the History of Sport*, 32(5), London, 708–721.
- Bass, W. M. 2005, *Human Osteology*, 5th ed., Missouri Archaeological Society, Springfield.
- Belcastro, M. G., Mariotti, V. 2000, Morphological and biomechanical analysis of a skeleton from Roman imperial necropolis of Casalecchio di Reno (Bologna, Italy, II–III c. A. D.). A possible case of crutch use, *Collegium Antropologicum*, 24(2), Zagreb, 529–539.
- Belošević, J. 2007, *Starohrvatsko groblje na Ždrijacu u Ninu*, Zadar.
- Bialeková, D. 1979, Zur Datierungsfrage archäologischer Quellen aus der ersten Hälfte des 9. Jh. bei den Slawen nördlich der Donau, in: *Rapports du 11e Congrès international d'archéologie slave*, Bratislava, 93–103.
- Bilogrić, G. 2019, Formiranje identiteta elite u istočnojadranskom zaleđu na prijelazu sa 8. u 9. stoljeće – uloga karolinškog oružja / Formation of the identity of the elite in the eastern adriatic hinterland in late 8th and early 9th century – the role of Carolingian weaponry, *Vjesnik Arheološkog muzeja u Zagrebu*, LII(3), Zagreb, 113–147.
- Budimir, M. 1992, Arheološka topografija kninske općine, u: *Arheološka istraživanja u Kninu i Kninskoj krajini: znanstveni skup*, Knin, 13–15. X. 1987, Izdanja Hrvatskog arheološkog društva, 15 (1990), Zagreb, 23–32.
- Buikstra, J. E. 2023, Inferring ancient human activities through skeletal study: An example from Archaic Greece, in: F. A. Karakostis, G. Jäger (eds.), *Biocultural Evolution: An Agenda for Integrative Approaches*, Tübingen, 25–54.
- Buikstra, J. E., Ubelaker, D. H. 1994, *Standards for data collection from human skeletal remains*, Arkansas Archaeological Survey Research Series, 44(18), Fayetteville.
- Carlson, D. S., Armelagos, G. J., Gerven, D. P. 1974, Factors Influencing the Etiology of Cribra Orbitalia in Prehistoric Nubia, *Journal of Human Evolution*, 3, Amsterdam, 405–410.
- Cetinić, Ž. 2011, *Stranče – Vinodol*, Starohrvatsko groblje na Gorici, Rijeka.
- Delonga, V. 1981, Bizantski novac u zbirci Muzeja hrvatskih arheoloških spomenika u Splitu, *Starohrvatska prosvjeta*, III(11), Split, 201–208.
- Eng, J. T. 2016, A bioarchaeological study of osteoarthritis among populations of northern China and Mongolia during the Bronze Age to Iron Age transition to nomadic pastoralism, *Quaternary International*, 405, Amsterdam, 172–185.
- Fabijanić, T., Jović, J., Krnčević, Ž., Vaćani – Laluše, ranosrednjovjekovno groblje, u: *Izdanja Hrvatskog arheološkog društva*, 31, Šibenik (u tisku).
- Fornaciari, G., Bartolozzi, P., Bartolozzi, C., Rossi, B., Menchi, I., Piccoli, A. 2014, A great enigma of the Italian Renaissance: paleopathological study on the death of Giovanni dalle Bande Nere (1498–1526) and historical relevance of a leg amputation, *BMC Musculoskeletal Disorders*, 15, London, 1–7.
- Giesler, J. 1980, Zur Archäologie des Ostalpenraumes vom 8. bis 11. Jahrhundert, *Archäologisches Korrespondenzblatt*, 10, München, 85–98.
- Giesler, U. 1974, *Datierung und Herleitung der vogelförmigen Riemenzungen*, Studien zur vor- und frugesichlichten Archäologie, München, 521–543.
- Grauer, A. L. (ed.) 2011, *A companion to paleopathology*, vol. 23, New Jersey.
- Gunjača, S. 1953, Revizija iskopina u Biskupiji kod Knina 1950, *Ljetopis Jugoslavenske akademije znanosti i umjetnosti*, 57, Zagreb, 9–49.
- Jelovina, D. 1986, *Mačevi i ostruge karolinškog obilježja u Muzeju hrvatskih arheoloških spomenika*, Split.
- Jović, J., Krnčević, Ž. 2019, Vaćani, u: K. Gotić, N. Mađar, N. Uroda, *Varvaria / Berberium / Bribir*, Zagreb, 175–176.
- Jurčević, A. 2011, Nalazi ranokarolinškog oružja i konjaničke opreme u doba formiranja Hrvatske kneževine, *Starohrvatska prosvjeta*, III(38), Split, 111–147.
- Jurčević, A., Petrinc, M. 2022, Povijesno-arheološka skica naseljenosti prostora srednjovjekovne Kninske županije / Die historisch-archäologische Skizze der Besiedlung der mittelalterlichen Gespanschaft Knin, *Starohrvatska prosvjeta*, III(49), Split, 145–242.
- Karaman, Lj. 1921, Zlatni nalaz na Trilju nedaleko od Sinja, *Vjesnik za arheologiju i historiju dalmatinsku*, 44, 3–40.
- Karaman, Lj. 1930, *Iz kolijevke hrvatske prošlosti*, Zagreb.
- Karaman, Lj. 1940, Iskopine društva "Bihaća" u Mravincima i starohrvatska groblja, *Rad Jugoslavenske akademije znanosti i umjetnosti*, 268, Zagreb, 1–44.
- Kerr, R., Resnick, D., Pineda, C., Haghighi, P. 1985, Osteoarthritis of the glenohumeral joint: A radiologic-pathologic study, *American Journal of Roentgenology*, 144(5), Leesburg, 967–972.
- Kind, T. 2007, Westliche Einflüsse auf der östlichen Balkanhalbinsel im Spiegel der früh und hochmittelalterlichen Reitausrüstung, in: J. Henning (ed.), *Post-Roman Towns, Trade and Settlement*, vol. 1, Berlin – New York, 543–612.
- Kleeman, J. 2010, Karolingisches Fundgut im Südosten und das Verhältnis lokaler Eliten zum Karolingreich, *Anteus*, 31–32, Budapest, 81–91.
- Koch, U. 1984, *Der Runde Berg bei Urach V. Die Metallfunde der frühgeschichtlichen Perioden aus den Plangrabungen 1967–1981. Teil 1: Text*, Heidelberg.
- Kolniková, E. 1967, Obolus mrtvých vo včasnostredovekých hroboch na Slovensku, *Slovenska Archeologia*, 15(1), Bratislava, 189–245.
- Kostick, E. L. 1963, Facets and imprints on the upper and lower extremities of femora from a Western Nigerian population, *Journal of Anatomy*, 97(3), London, 393–402.
- Krogman, M., Iscan, M. Y. 1986, *The Human Skeleton in Forensic Medicine*, Springfield.
- Lieverse, A. R., Mack, B., Bazaliiskii, V. I., Weber, A. W. 2016, Revisiting osteoarthritis in the Cis-Baikal: Understanding behavioral variability and adaptation among middle Holocene foragers, *Quaternary International*, 405, Amsterdam, 160–171.
- Lovejoy, C. O., Meindl, R. S., Prybeck, T. R., Mensforth, R. P. 1985, Chronological metamorphosis of the auricular surface of the ilium: A new method for the determination of age at death, *American Journal of Physical Anthropology*, 68, New Jersey, 15–28.
- Lysell, L., Magnusson, B., Thilander, B. 1969, Relations between the times of eruption of primary and permanent teeth, *Acta Odontologica Scandinavica*, 3, London, 271–281.
- Madiraca, V., Koprivnjak, V., Miletić, M., Zubin Ferri, T., Bekić, L. 2017, Ranosrednjovjekovni nalazi s lokaliteta Brekinjova Kosa (rezultati istraživanja 2011. i 2015. godine), *Archaeologia Adriatica*, 11, Zadar, 145–215.
- Marun, L. 1891, Bilješke kroz starinske iskopine u Kninskoj okolici od god. 1885.–1890., *Glasnik starinarskog društva*, 13, Zagreb, 61–64.
- Marun, L. 1898, O najznamenitijim starohrvatskim grobovima na groblju otkrivene biskupske bazilike S. Marije u Biskupiji kod Knina, *Starohrvatska prosvjeta*, I/4(3–4), Knin, 113–118.
- Milošević, A. 2000, Karolinški utjecaji u kneževini Hrvatskoj u svjetlu arheoloških nalaza, u: A. Milošević (ur.), *Hrvati i Karolinzi (rasprave i vrela)*, Muzej hrvatskih arheoloških spomenika, Split, 106–139.
- Milošević, A. 2002, *Crkva sv. Marije mauzolej i dvori hrvatskih vladara u Biskupiji kraj Knina*, Kulturno-povijesni vodič 18, Muzej hrvatskih arheoloških spomenika, Split.
- Milošević, A. 2009, Sarkofag kneza Branimira, *Histria Antiqua*, 18(2), Pula, 355–370.
- Molleson, T., Blondiaux, J. 1994, Riders' bones from Kish, Iraq, *Cambridge Archaeological Journal*, 4(2), Cambridge, 312–316.
- Nowotny, E. 2005, Das frühmittelalterliche Gräberfeld von Hohenberg, Steiermark, *Archaeologia Austriaca*, 89, Wien, 177–250.
- Ortner, D. J. 2003, *Identification of pathological conditions in human skeletal remains*, Washington.
- Petrinc, M. 1998, *Starohrvatska groblja u Biskupiji kod Knina*, neobjav-

- ljeni magistarski rad, obranjen 5. ožujka 1998. na Filozofskom fakultetu u Zagrebu, mentor: dr. sc. Marin Zaninović.
- Petrinec, M.** 2000a, IV. 50. Grob 88, kraj 8. ili početak 9. stoljeća, u: A. Milošević (ur.), *Hrvati i Karolinzi (katalog)*, Muzej hrvatskih arheoloških spomenika, Split, 220.
- Petrinec, M.** 2000b, Mostar, Vukodol, u: A. Milošević (ur.), *Hrvati i Karolinzi (katalog)*, Muzej hrvatskih arheoloških spomenika, Split, 285–286.
- Petrinec, M.** 2000c, Podgradina kraj Livna, Rešetarica, u: A. Milošević (ur.), *Hrvati i Karolinzi (katalog)*, Muzej hrvatskih arheoloških spomenika, Split, 320–321.
- Petrinec, M.** 2000d, Koljane Gornje, Crkvina, grobni nalazi, u: A. Milošević (ur.), *Hrvati i Karolinzi (katalog)*, Muzej hrvatskih arheoloških spomenika, Split, 271–275.
- Petrinec, M.** 2000e, IV. 70 Jezičac, prva polovina 9. stoljeća, u: A. Milošević (ur.), *Hrvati i Karolinzi (katalog)*, Muzej hrvatskih arheoloških spomenika, Split, 231–232.
- Petrinec, M.** 2009a, Groblje na Crkvini u Biskupiji – rezultati revizijskih istraživanja Stjepana Gunjače, *Starohrvatska prosvjeta*, III(36), Split, 163–197.
- Petrinec, M.** 2009b, *Gräberfelder aus dem 8. bis 11. Jahrhundert im Gebiet des frühmittelalterlichen kroatischen Staates*, Split.
- Petrinec, M.** 2019, O nakitu iz Golubića i ženskoj nošnji iz razdoblja 8. i prve polovine 9. stoljeća / On jewellery from Golubić and female costumes from eight and the first half of the ninth century, *Starohrvatska prosvjeta*, III(46), Split, 45–166.
- Petrinec, M.** 2022, Avar Finds on the Eastern Coast of the Adriatic, u: A. Rapan Papeša, A. Dugonjić (ur.), *Avari i Slaveni – dvije strane pojasnog jezičca – Avari na sjeveru i jugu kaganata / Avars and Slavs – two Sides of a belst strap end – Avars on the north and the south of the khaganate*, Zbornik radova s međunarodnog znanstvenog skupa održanog u Vinkovcima 2020. godine / *Proceedings of the International scientific conference held in Vinkovci 2020*, Arheološki muzej u Zagrebu / Archaeological Museum in Zagreb, Zagreb, 374–408.
- Petrinec, M., Jurčević, A.** 2015, Crkvina – Biskupija, Insights into the Chronology of Site from 8th to 15th Century, in: M. Vicolja Matijašić (ed.), *Swords, Crowns, Censers and Books, Francia Media – Cradles of European Cultures*, Center for Iconographic Studies, Faculty of Humanities and Social Sciences – University of Rijeka, Rijeka, 328–372.
- Radi, N., Mariotti, V., Riga, A., Zampetti, S., Villa, C., Belcastro, M. G.** 2013, Variation of the Anterior Aspect of the Femoral Neck Junction in a Modern Human Identified Skeletal Collection, *American Journal of Anthropology*, 152, Hoboken, 261–273.
- Radić, F.** 1896a, Srebrne ostruge i saponi iz starohrvatskog groba u biskupskoj bazilici S. Marije u Biskupiji kod Knina, *Starohrvatska prosvjeta*, I/2(1), Zagreb – Knin, 5–9.
- Radić, F.** 1896b, Grobna raka iz starohrvatske biskupske bazilike S. Marije u Biskupiji kod Knina, i u njoj nadjeni mrtvački ostanci, *Starohrvatska prosvjeta*, I/2(2), Zagreb – Knin, 71–86.
- Radić, F.** 1896c, Mrtvački ostanci nadjeni u prostu grobu na staro-hrv. groblju uz biskupsku baziliku Sv. Marije u Biskupiji kod Knina, *Starohrvatska prosvjeta*, I/2(3), Zagreb – Knin, 143–147.
- Radić, F.** 1897, Mrtvački ostanci iz triju starohrvatskih grobova uz ruševine biskupske bazilike Sv. Marije u Biskupiji kod Knina, *Starohrvatska prosvjeta*, I/3(1), Zagreb – Knin, 31–38.
- Roberts, C., Manchester, K.** 2010, *The Archaeology of Disease*, 3rd ed., Ithaca – New York.
- Schulze-Dörrlam, M.** 1995, Bestattungen in den Kirchen Grossmährens und Böhmens während des 9. und 10. Jahrhunderts, *Jahrbuch des Romisch-Germanischen Zentralmuseums Mainz*, 40 (1993), Mainz, 557–619.
- Schulze-Dörrlam, M.** 2012, Gräber mit Münzbeigabe im Karolingerreich, *Jahrbuch des Romisch-Germanischen Zentralmuseums Mainz*, 57/1 (2010), Mainz, 339–386.
- Stuart-Macadam, P.** 1985, Porotic hyperostosis: representative of a childhood condition, *American journal of physical anthropology*, 66(4), Hoboken, 391–398.
- Šeparović, T.** 2019, Aachenski mir i ranosrednjovjekovna Hrvatska – numizmatički izvori, *Starohrvatska prosvjeta*, III(46), Split, 23–43.
- Šlaus, M.** 2006, *Bioarheologija*, Zagreb.
- Tomičić, Ž.** 1985, Prilog istraživanju karolinškog oružja u Međimurju i varaždinskoj regiji, *Starohrvatska prosvjeta*, III(14) (1984), Split, 209–230.
- Trotter, M., Gleser, G. C.** 1958, A re-evaluation of estimation of stature based on measurements of stature taken during life and of long bones after death, *American Journal of Physical Anthropology*, 16, Hoboken, 79–123.
- Ungerman, Š.** 2011, Tzv. blatnicko-mikulčický horizont a jeho vliv na chronologii raného středověku, *Zborník Slovenského národného múzea – Archeologia, Supplementum* 4, Bratislava, 135–151.
- Vinski, Z.** 1957, O nekim zajedničkim značajkama slavenskih nekropola s područja Dalmatinske Hrvatske, Blatnoga jezera i Moravske u 9. stoljeću, *Peristil*, 2, Zagreb, 71–79.
- Vinski, Z.** 1970, Oružje na području starohrvatske države do godine 1000., u: I międzynarodowy kongres archeologii słowiańskiej, Warszawa 14–18 IX 1965, Wrocław – Warszawa – Kraków, 135–158.
- Vinski, Z.** 1977–1978, Novi ranokarolinški nalazi u Jugoslaviji, *Vjesnik Arheološkog muzeja u Zagrebu*, X–XI(3), Zagreb, 143–208.
- Vinski, Z.** 1981, O nalazima karolinških mačeva u Jugoslaviji, *Starohrvatska prosvjeta*, III(11), Split, 9–53.
- Vinski, Z.** 1984, Ponovno o karolinškim mačevima u Jugoslaviji, *Vjesnik Arheološkog muzeja u Zagrebu*, XVI–XVII(3) (1983–1984), Zagreb, 183–210.
- Vinski, Z.** 1986, Marginalia uz izbor karolinškog oružja u jugoistočnoj Evropi, *Starohrvatska prosvjeta*, III(15) (1985), Split, 61–117.
- Wachowski, K.** 1983, Das Problem der Chronologie der karolingischen Einflüsse auf das Gebiet von Jugoslawien, *Zeitschrift für Archäologie des Mittelalters*, 11, Bonn, 163–167.
- Walker, P. L.** 1986, Porotic Hyperostosis in a Marine-Dependent California Indian Population, *American Journal of Physical Anthropology*, 69, Hoboken, 345–354.
- Wapler, U., Crubezy, E., Schultz, M.** 2014, Is Cribra Orbitalia Synonymous with Anemia? Analysis and Interpretation of Cranial Pathology in Sudan, *American Journal of Physical Anthropology*, 123, Hoboken, 333–339.
- Werner, J.** 1978–1979, Zur Zeitstellung der altkroatischer Grabfunden von Biskupija-Crkvina (Marienkirche), *Schild von Steier*, 15/16 (Festschrift Modrijan), 227–237.
- Zekan, M.** 1992, K novoj atribuciji nalazišta mačeva karolinškoga obilježja iz Muzeja hrvatskih arheoloških spomenika u Splitu, *Arheološka istraživanja u Ninu i Kninskoj krajini, Znanstveni skup 13–15. X 1987*, Izdanja Hrvatskog arheološkog društva, 15 (1990), Zagreb, 131–139.
- Zekan, M.** 1994, Karolinški i poslijekarolinški nalazi iz Bosne i Hercegovine, u: H. Gjurašin, M. Baković (ur.), *Livanjski kraj u povijesti*, Split – Livno, 55–73.

Two fragments of inscription from Breza: New evidence for Medieval Latin epigraphy in Bosnia

Dva fragmenta natpisa iz Breze: Novi dokazi za srednjovjekovnu latinsku epigrafiju u Bosni

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Abstract: This paper discusses two forgotten Latin epigraphic fragments discovered in Breza near Sarajevo, currently held in the collections of the National Museum of Bosnia and Herzegovina. Epigraphic and palaeographic analysis shows that these fragments are either part of the same inscription, or were made by the same hand. Comparative analysis with the corpus of Late Antique and Early Medieval inscriptions from the eastern Adriatic coast indicates that these fragments should be dated to the Medieval, rather than Late Antique, period. The dating and reconstruction of text fragments form the basis for a hypothesis that the Medieval phase of the so-called Breza 1 building may correspond to the Church of the Blessed Virgin in the *župa* of Vydogossa, as referenced in a charter of Hungarian King Bela IV in 1244.

Two interesting stone fragments containing traces of Latin inscriptions are held in the collections of the National Museum of Bosnia and Herzegovina in Sarajevo. One was discovered by Vladimir Ćorović in 1913 during excavations of the Breza 1 site, while the other seems to have been found at the same location. Both fragments post-date the period of Roman 'epigraphic habit' and the beginning of Late Antiquity, and should therefore be dated after 400, but before the abandonment of Breza 1, which occurred at a later time, most likely in the High Middle Ages. This paper provides an epigraphic and palaeographic analysis of the fragments, in order to give a more accurate date range, as well as to place the fragments in a wider historical context.

Key words: epigraphic inscriptions, Breza, latin epigraphy, Middle Ages

Sažetak: U ovom radu razmatramo dva zaboravljena latinska epigrafska fragmenta pronađena u Brezi blizu Sarajeva koja se danas čuvaju u zbirci Zemaljskog muzeja Bosne i Hercegovine. Epigrafska i paleografska analiza pokazuje da ovi fragmenti pripadaju ili istom natpisu ili da su klesani istom rukom. Komparativna analiza kojom su fragmenti upoređeni s korpusom kasnoantičkih i ranosrednjovjekovnih natpisa s istočne jadranske obale ukazuje na to da bi se trebali datirati u razdoblje srednjeg vijeka, prije nego kasne antike. Datiranje i rekonstrukcija teksta fragmenata čine osnovu za hipotezu da se srednjovjekovna faza građevine poznate kao Breza 1 podudarala sa Župnom crkvom Blažene Djevice u Vidogošći koja se spominje u povelji mađarskog kraja Bele IV iz 1244. godine.

Dva zanimljiva kamena fragmenta s tragovima latinskih natpisa čuvaju se u zbirci Zemaljskog muzeja Bosne i Hercegovine u Sarajevu. Jedan je otkrio Vladimir Ćorović 1913. godine pri iskopavanju lokaliteta Breza 1, a i drugi je po svemu sudeći, nađen na istom lokalitetu. Oba fragmenta datirana su nakon razdoblja rimske "epigrafske navike" i samih početaka kasnoantičkog perioda, pa ih stoga treba datirati nakon 400. godine, ali prije napuštanja Breze 1 u kasnijem periodu, vjerovatno u periodu visokog srednjeg vijeka. U ovom radu ponuđena je epigrafska i paleografska analiza fragmenata u svrhu njihovog preciznijeg datiranja i smještanja u širi historijski kontekst.

Ključne riječi: epigrafski natpisi, Breza, latinska epigrafija, srednji vijek

INTRODUCTION

The first epigraphic fragment, Inv. no. 530 (Fig. 1–2), was discovered and published by Vladimir Ćorović as an outcome of his excavations of Breza 1 in 1913. Ćorović, who was not an epigraphist (or archaeologist, *sensu stricto*), initially interpreted the fragment as a part of a Medieval inscription. The fragment was never – to the best of the authors' knowledge – mentioned in literature until recently.¹ Ćorović conducted partial excavations at Breza 1 (also known as Srđ) in 1913, but was unable to continue the planned work in 1914 due to the outbreak of World War I. The building had at least two phases of construction, and most likely also several sub-phases. Its plan and orientation, as well as finds of stone sculpture, suggest that this was most likely a church during its first construction phase, and certainly in its second. The earlier phase, well-built and employing Roman spolia, seems to have ended with fire and destruction, but it is not possible to date this phase to either the Late Antique or Early Medieval period with any degree of certainty. The use of mortar and the remains of bricks in the walls give a little bit more weight to the idea that the earlier phase was Late Antique. There were no finds of typical Late Antique burials or artefacts from this period, but their presence should not be excluded, due to the incomplete nature of the excavations. The space in and around the church was used as a cemetery in the Medieval period, with burials continuing at the site for some time into the Late Medieval period, after the building's collapse.²

Fig. 1. Photography of fragmentary inscription, National Museum of Bosnia and Herzegovina, inv. no. 530, (photograph: A. Šahbaz)

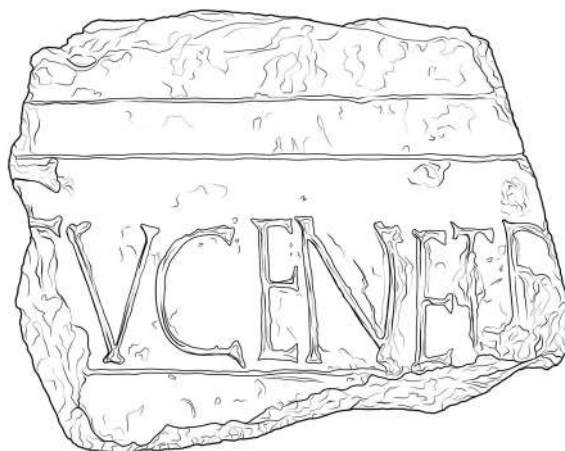
Sl. 1. Fotografija fragmentarnog natpisa, Zemaljski muzej Bosne i Hercegovine, inv. br. 530 (snimio: A. Šahbaz)

Fig. 2. Drawing of fragmentary inscription, National Museum of Bosnia and Herzegovina, inv. no. 530, (drawing: M. Bešliagić)

Sl. 2. Crtež fragmentarnog natpisa, Zemaljski muzej Bosne i Hercegovine, inv. br. 530 (crtež: M. Bešliagić)

UVOD

Prvi epigrafski fragment, inv. br. 530 (sl. 1–2), otkrio je i objavio Vladimir Ćorović kao ishod iskopavanja na lokalitetu Breza 1 godine 1913. Ćorović, koji nije bio stručnjak za epigrafiju (ni arheolog, *sensu stricto*), prvobitno je fragment tumačio kao dio srednjovjekovnog natpisa. Prema saznanjima autora ovog rada, fragment nikad nije spomenut u literaturi sve donedavno.¹ Ćorović je proveo djelomična iskopavanja na lokalitetu Breza 1 (poznatom i kao Srđ) 1913. godine, ali nije mogao nastaviti s planiranim radom 1914. godine usljed izbijanja Prvog svjetskog rata. Objekat je imao najmanje dvije faze izgradnje, a najvjerovatnije i nekoliko podfaza. Tlocrt i orijentacija, kao i nalazi kamenih skulptura, ukazuju na to da se u prvoj fazi izgradnje vjerovatno radi o crkvi, a to je sigurno u drugoj fazi. Ranija faza, kvalitetno izgrađena koristeći rimske spolije, po svemu sudeći skončala je u razornom požaru, ali nije moguće datirati ovu fazu sa sigurnošću ni u kasnoantičko ni u rano srednjovjekovno doba. Upotreba maltera i ostaci cigle u zidovima malo više idu u prilog pretpostavci da je ranija faza pripadala kasnoantičkom razdoblju. Nisu nađena tipična kasnoantička pokapanja ni artefakti iz ovog perioda, što ne znači da ih nije bilo, ako imamo na umu činjenicu da su iskopavanja bila nepotpuna. Prostor u crkvi i oko nje korišten je kao groblje u srednjovjekovnom periodu, a pokapanja su nastavljena na lokalitetu i neko vrijeme tokom kasnog srednjovjekovnog razdoblja, nakon što se zgrada urušila.²



1 Ćorović 1913, 415 fig. 9; Džino 2023, 150–151.
2 Ćorović 1913; Basler 1972, 70–71; 1993, 46; Chevalier 1995, 355–357; Basler, Miletić 1988, 26; Džino 2023, 150–151.

1 Ćorović 1913, 415, sl. 9; Džino 2023, 150–151.
2 Ćorović 1913; Basler 1972, 70–71; 1993, 46; Chevalier 1995, 355–357; Basler, Miletić 1988; Džino 2023, 150–151.

Fig. 3: Photographs of earrings discovered during excavations of Breza 1 by Čorović in 1913, National Museum of Bosnia and Herzegovina, inv.no. 90, 789, 791 i 2 bb, previously published in: Čorović, 1913, 418, fig. 16, (edited by: M. Bešlagić)

Sl. 3. Fotografije naušnica nađenih 1913. godine prilikom Čorovićevih iskopavanja na lokalitetu Breza 1, Zemaljski muzej Bosne i Hercegovine, inv.br. 790, 789, 791 i 2 bb, preuzeto iz: Čorović, 1913, 418, fig. 16, (uredio: M. Bešlagić)

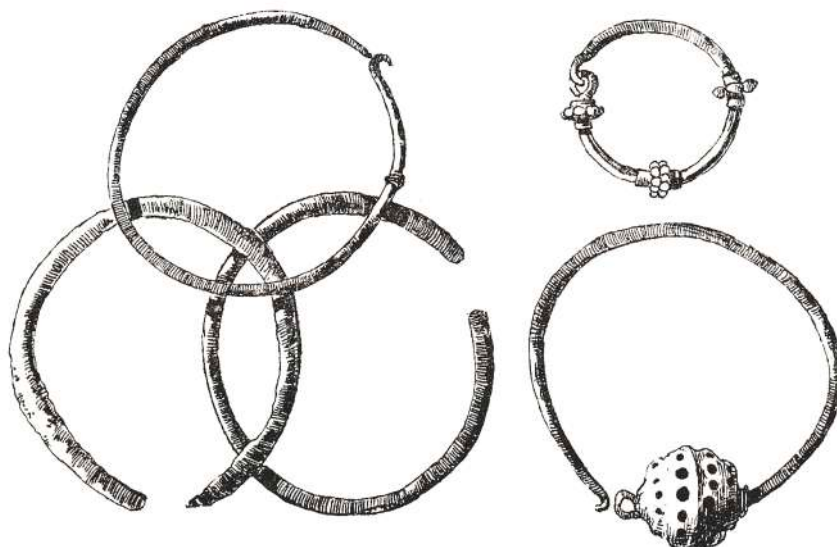


Fig. 3a. Silver earring with three filigree joints, National Museum of Bosnia and Herzegovina, inv. no. 789, (photograph: A. Šahbaz)

Sl. 3a. Srebrene karičice sa koljencima, Zemaljski muzej Bosne i Hercegovine, inv.br. 789, (snimio: A. Šahbaz)



Fig. 3b. Bronze loop earring with hollow openwork spherical bead, National Museum of Bosnia and Herzegovina, inv. no. 790, (photograph: A. Šahbaz)

Sl. 3b. Brončane naušnice sa šupljim kuglicama i nizovima dekorativnih rupica, Zemaljski muzej Bosne i Hercegovine, inv.br. 790, (snimio: A. Šahbaz)

The continued use of the site as a cemetery in the Medieval period is confirmed through finds of silver and bronze earrings in graves, which can be dated to the late 10th to 12th centuries (Fig. 3).³ Silver earrings with three filigree joints (Fig. 3a) have been found elsewhere in the eastern Adriatic region and southern Pannonia. Petrinec dates them more broadly to between the late 10th and the 12th centuries, while Sokol prefers an exclusively 12th century date. A bronze loop earring with hollow openwork spherical bead (Fig. 3b) has no close parallels, except more luxurious specimens from the site of Koljane near Vrlika and the cemetery around the church of St. Mary (Crkvina) in Biskupija, closer to the east Adriatic coast, which has been dated between the 10th and 12th centuries.⁴

To da je lokalitet i dalje korišten kao groblje u srednjovjekovnom periodu potvrđuju nalazi srebrnenih i brončanih naušnica u grobovima koji se datiraju u period od kasnog X do XII stoljeća (sl. 3).³ Srebrene karičice sa koljencima (sl. 3a) nađene su drugdje na području istočnog Jadrana i na jugu Panonije. Petrinec ih datira općenito od kasnog X do XII stoljeća, a Sokol preferira datiranje isključivo u XII stoljeću. Brončana sljepoočnica sa perforiranom jagodom i nizovima dekorativnih rupica (sl. 3b) nema bliskih paralela, izuzev raskošnijih primjeraka s lokaliteta Koljane kod Vrlike i groblja oko crkve Sv. Marije (Crkvina) u Biskupiji, bliže jadranskoj obali, koji su datirani između X i XII stoljeća.⁴

³ Čorović 1913, 418 fig. 16.

⁴ Petrinec 2009, 261–262; Sokol 2016, 213, 218–219, 231 (Type 28) (silver earrings with three filigree joints); Petrinec 2009, 240 with T.234,6 and 265,4.

³ Čorović 1913, 418, fig. 16.

⁴ Petrinec 2009, 261–262; Sokol 2016, 213, 218–219, 231 (tip 28) (srebrene karičice sa koljencima); Petrinec 2009, 240, T. 234,6; T. 265,4.

The fragment in question is made of local stone, with the preserved letters being situated in a single row, with a height of 3.6 cm. The length of the preserved inscription fragment is 12.6 cm, while the dimensions of the preserved part of the epigraphic field are 13.6 x 5.7 cm. The letters are well-formed rustic Latin capitals, decorated with serifs and neatly spaced. There are two limiting lines above the letters, and one below. The visible letters read VCENET, followed by a partially damaged letter with the upper part of a stem and upper bowl preserved, which can be read as either a P, B or R. Before the preserved letters, only a short upper stroke off the stem of damaged letter (arm) is visible, which, judging by the extent and shape of damage evident on that side of the fragment, should be read as a T, rather than an E or F. Above the letter was a horizontal line, also preserved as a stroke, slightly thicker than the other letters. There is evidence of a perpendicular upper and lower bar, suggesting this may have been a small cross. However, such an interpretation poses its own set of problems: This would be a very unusual position for the cross, as the upper bar would exceed the upper limiting line, while the lower bar would cut into the letter T below it. The shape of this hypothetical – presumably Latin – cross is different from that found on the other fragment (see below). Also, the appearance of a small cross above the lettering would be a highly unusual epigraphic feature. The other possibility is that this stroke belongs to a ligature, an epigraphic feature more commonly expected to be found above letters. The problem with this interpretation is the thickness of the stroke, as ligatures are usually as thin as the letters themselves, or even thinner. Unfortunately, damage to the fragment prevents us from reaching a definitive conclusion.

Čorović proposed a reading of the fragment as V(irgini) C[=G]ENETR[ici/-ix]. It is indeed possible that CENET where C is used for G and the final (damaged) letter reads as R stands for *genetrix/genetrici*. This was an epithet for the Virgin Mary as a Mother or Bearer of God: *Sancta Dei Genetrix* – or *Theotokos* in Greek – popularized after the Council of Ephesus in 431.⁵ The use of C in place of G and the term *genetrix* are both attested in Early Medieval epigraphy of the eastern Adriatic, as will be discussed below. It is much more difficult to make sense of the letter T followed by V (=U) before the group of letters that might be read as GENETR -ici/-ix, as this would exclude the possibility that V stood for V(irgini) as Čorović proposed. It might be an ending of the incomplete word [VO]TU(m), which would make sense if the upper stroke above T is a ligature, rather than a cross as discussed above. Another possible reading, TV C[=G]ENETR[ix], might be established using the inscription of Pope Sextus III from the Santa Maria Maggiore basilica in Rome as a parallel, as discussed below. There is, however, a possibility that CEN could be read as CEN(tum) ET R[...] or CEN(to) ET R[...], indicating instead a number or period.⁶

Fragment o kojem je riječ napravljen je od lokalnog kamena, a očuvani natpis je u jednom redu, visine 3,6 cm. Dužina očuvanog fragmenta natpisa je 12,6 cm, a dimenzije očuvanog dijela epigrafskog polja su 13,6 x 5,7 cm. Slova su lijepo oblikovana latinska rustična kapitala ukrašena serifima i s ravnomjernim razmacima. Dvije su granične linije iznad slova i jedna ispod. Vidljiva slova ispisuju VCENET, zatim slijedi dijelom oštećeno slovo s očuvanim gornjim dijelom stuba i gornjim trbuhom, koje se može čitati kao P, B ili R. Prije očuvanih slova vidljiv je samo mali gornji potez oštećenog slova koji prema razmjeri i obliku oštećenja te strane fragmenta treba čitati kao T, a ne kao E ili F. Iznad slova je bila horizontalna linija, također očuvana kao potez, malo deblja od ostalih slova. Postoje indicije okomito postavljenog gornjeg i donjeg kraka, što ukazuje na to da bi se moglo raditi o malom križu. Međutim, takvo tumačenje povlači za sobom niz problema: bio bi to vrlo neuobičajen položaj za križ jer bi gornji krak prelazio preko gornje granične linije, a donji bi presijecao slovo T ispod. Oblik ovog hipotetičkog – vjerovatno latinskog – križa razlikuje se od onog koji je nađen na drugom fragmentu (vidi ispod). Osim toga, pojava malog križa iznad slova natpisa predstavljala bi neobičnu epigrafsku karakteristiku. Druga mogućnost je da potez pripada ligaturi, epigrafskom obilježju koje se češće nalazi iznad slova. Problem s ovim tumačenjem je debljina poteza, budući da su ligature obično jednako tanke kao i sama slova, ili čak tanje. Oštećenost fragmenta nam, nažalost, ne dozvoljava da dođemo do konačnog zaključka.

Čorović je predlagao da se fragment čita kao V(irgini) C[=G]ENETR[ici/-ix]. Uistinu je moguće da CENET, gdje je C upotrijebljeno umjesto G i gdje posljednje (oštećeno) slovo čitamo kao R, predstavlja *genetrix/genetrici*. To je bio epitet Djevice Marije kao Bogorodice: *Sancta Dei Genetrix* – ili *Theotokos* na grčkom – koji se proširio nakon Efeškog sabora iz 431. godine.⁵ Upotreba C umjesto G i termin *genetrix* imaju utemeljenje u ranoj srednjovjekovnoj epigrafiji istočnog Jadrana, o čemu će biti više riječi ispod. Mnogo je teže rastumačiti slovo T iza kojeg slijedi V (=U) prije skupine slova koja bi se mogla čitati kao GENETR -ici/-ix, jer bi to isključilo mogućnost da V označava V(irgini) kako je Čorović predložio. Moguće je da se radi o kraju nepotpune riječi [VO]TU(m), što bi imalo smisla kad bi se gornji potez iznad T tumačio kao ligatura, a ne kao križ, kako smo gore razmatrali. Drugo moguće čitanje, TV C[=G]ENETR[ix] moglo bi se uspostaviti upotrebom natpisa pape Siksta III iz Bazilike sv. Marije Velike u Rimu kao paralele, a o tome više govorimo u nastavku. Međutim, postoji i mogućnost da se CEN čita kao CEN(tum) ET R[...] or CEN(to) ET R[...], što bi ukazivalo na broj ili razdoblje.⁶

5 Cf. Rubin 2009: 43–49.

6 Suggestion of Prof. Emer. Nikola Jakšić, personal communication.

5 Cf. Rubin 2009, 43–49.

6 Sugestija prof. emeritusa Nikole Jakšića, lična komunikacija.



Fig. 4. Photograph of fragmentary inscription; National Museum of Bosnia and Herzegovina, inv. no. 524, (photograph: A. Šahbaz)

Sl. 4. Fotografija fragmentarnog natpisa, Zemaljski muzej Bosne i Hercegovine, inv. br. 524, (snimio: A. Šahbaz)



Fig. 5. Drawing of fragmentary inscription; National Museum of Bosnia and Herzegovina, inv. no. 524, (drawing: M. Bešlagić)

Sl. 5. Crtež fragmentarnog natpisa, Zemaljski muzej Bosne i Hercegovine, inv. br. 524, (crtež: M. Bešlagić)

Therefore, three readings are proposed here, with preference given to the first two:

[...]TV C[=G]ENETR[ici/-ix]

TV C[=G]ENETR[ix]

[...]TV CEN(tum) ET R[...] or TV CEN(to) ET R[...]

The second fragment, Inv. no. 524 (Fig. 4–5), was never mentioned in literature until recently.⁷ The inventory book entry dated to 1941, in the handwriting of Dimitrije Sergejevski, indicates that a fragment was discovered during excavations of the Breza 2 structure by Gregor Čremošnik in 1930–1931. Breza 2 is a building located on the opposite bank of the Stavnja, a few hundred metres southwest of Breza 1. Its dating and purpose remain disputed, i.e. whether this was a Late Antique or Early Medieval building, and whether it was sacral or secular in nature.⁸ However, despite Sergejevski's attribution of the find location to Breza 2, a few serious doubts remain about the fragment's true provenance. First, Sergejevski was not present at the original excavations, as he explicitly states in the excavation diary for the 1959 revision excavations of Breza 2.⁹ In 1939, he sent a letter to Čremošnik, who was at the time a lecturer at the Faculty of Philosophy in Skopje (Northern Macedonia), requesting that he come to Sarajevo to help him identify finds from the 1930–1931 digs. Čremošnik responded that he was happy to help, and would try to visit Sarajevo during

Stoga se ovdje predlažu tri čitanja, od kojih su prva dva preferirana:

[...]TV C[=G]ENETR[ici/-ix]

TV C[=G]ENETR[ix]

[...]TV CEN(tum) ET R[...] or TV CEN(to) ET R[...]

Drugi fragment, inv. br. 524 (sl. 4–5), nije spominjan u literaturi sve donedavno.⁷ Inventarska evidencija iz 1941. godine unesena rukopisom Dimitrija Sergejevskog ukazuje na to da je fragment pronašao Gregor Čremošnik 1930–1931. pri iskopavanju objekta Breza 2. Radi se o objektu smještenom na suprotnoj obali Stavnje, nekoliko stotina metara jugozapadno od lokaliteta Breza 1. Još uvijek nije riješeno pitanje njegovog datiranja i namjene, tj. potječe li objekat iz kasnoantičkog ili ranosrednjovjekovnog razdoblja i je li po prirodi bio sakralni ili sekularni.⁸ Međutim, uprkos tome što Sergejevski nalaz pripisuje lokalitetu Breza 2, postoji nekoliko ozbiljnih sumnji o stvarnom porijeklu ovog fragmenta. Prvo, Sergejevski nije bio prisutan za vrijeme izvornih iskopavanja, kako izričito navodi u dnevniku iskopavanja iz 1959. za ponovljeni iskop na lokalitetu Breza 2.⁹ Godine 1939. poslao je pismo Čremošniku, koji je u to vrijeme predavao na Filozofskom fakultetu u Skopju (Sjeverna Makedonija), u kojem ga je zamolio da dođe u Sarajevo i pomogne pri identifikaciji nalaza iskopanih 1930–1931. Čremošnik je odgovorio da će rado pomoći i da će pokušati doći u Sarajevo za vrijeme

⁷ Džino 2023, 155–156.

⁸ Literature related to this issue is abundant; see, for example, Čremošnik, Sergejevski 1930; Bojanovski, Čelić 1969; Basler 1972, 71–73; 1975; 1993, 28–29; Chevalier 1995, 357–359; Looijenga 2003, 50–62, 231–234; Milošević 2011, 125–133; 2018, 72–74; Marasović 2013, 326–327; Džino 2023, 151–156.

⁹ 8/8/1959 - National Museum of Bosnia and Herzegovina, Section for Documentation, field diary by D. Sergejevski, inv. no. 20/60.

⁷ Džino 2023, 155–156.

⁸ Postoji obimna literatura vezana za ovo pitanje; vidi, na primjer, Čremošnik, Sergejevski 1930; Bojanovski, Čelić 1969; Basler 1972, 71–73; 1975; 1993, 28–29; Chevalier 1995, 357–359; Looijenga 2003, 50–62, 231–234; Milošević 2011, 125–133; 2018, 72–74; Marasović 2013, 326–327; Džino 2023, 151–156.

⁹ 8/8/1959 – arhiv Zemaljski muzej Bosne i Hercegovine: Odsjek za dokumentaciju, terenski dnevnik D. Sergejevskog, br. 20/60.

the academic break.¹⁰ We do not know whether Čremošnik ever travelled to Sarajevo, although it is highly possible, considering inventory numbers 501–510 (all from Breza 2) were entered in the museum inventory book on 13 July 1940; a date that coincides with the period of the academic break the next year during which Čremošnik would have been able to visit Sarajevo. However, inventory nos. 511–516 and 519–524 including our fragment no. 524 – were entered in the inventory book one year later in 1941, after the Kingdom of Yugoslavia had been invaded by the Axis powers. This implies that Sergejevski was merely guessing the provenance of fragments from Breza 1 and Breza 2, because they were not properly labelled, as was customary at the time. Another argument to support this view is the fact that only the pieces of stone sculpture published by Ćorović in 1913 are ascribed to Breza 1 in the museum's inventory book (nos. 525–530, 545, 655).

The second fragment is made of the same type of stone as the previous one, but is more damaged. The letters have a height of 4 cm, and the length of the preserved inscription on the fragment is 15 cm. The dimensions of the preserved epigraphic field are 17.3 x 5.8 cm. The letters on this fragment share similar dimensions and other characteristics with those from the first fragment, including serifs and neat use of space. The similarity of letters is best seen in the way the letter V, with a characteristic bottom triangular serif, appears on both fragments. We can say the same for the letter E, which has identical proportions between arms, bars, stems, and shape of serifs on both fragments. Thus, both fragments were crafted by the same hand and most likely belong to the same inscription. Taking into account that we know the provenance of the first fragment to be Breza 1, it is more than likely that both fragments were found at the same site by Ćorović.

In this fragment, the letters SALVS can be identified, followed by a Latin cross and then EC, all arranged in a single row. The cross has a somewhat different shape from the feature that may have been a cross on the first fragment (see above). A fragment of another letter, which appears to have been an A, on the basis of the preserved lower part of its leg, is evident before the legible letters. Below the letters are two guiding lines, while above is a single line that once held another row of letters, now no longer visible. The characteristic bottom serif on the V is recognizable in this row, preceded by a letter that may well have been an R, judging from the remains of a stem and a leg. In the inventory book, Sergejevski reads the line as SALVS † EC[clesiae]. In contrast to Ćorović, Sergejevski was an expert in epigraphy, but his expertise was limited to Roman epigraphy, as he had limited opportunity to work with Late Antique or Medieval Latin inscriptions.¹¹ While Sergejevski's reconstruction makes sense from a logical and grammatical standpoint, it is not support-

rasputa.¹⁰ Ne znamo je li Čremošnik ikad doputovao u Sarajevo, mada je to vrlo moguće, budući da su predmeti pod inventarnim brojevima 501–510 (svi s lokaliteta Breza 2) upisani u inventarnu knjigu muzeja 13. jula 1940. godine, a taj datum se poklapa s periodom raspusta iduće godine kada je Čremošnik rekao da bi mogao doći u Sarajevo. Međutim, inventarni br. 511–516 i 519–524 uključujući i naš fragment br. 524 – upisani su u inventarnu knjigu godinu dana kasnije, 1941. godine, nakon što su sile Osovine izvršile invaziju na Kraljevinu Jugoslaviju. To bi značilo da je Sergejevski samo na osnovu svojih pretpostavki određivao potječu li fragmenti iz Breze 1 ili Breze 2, jer nisu bili propisno označeni, kako je to tada bio običaj. Još jedan argument u prilog ovom stajalištu je činjenica da se u inventarnoj knjizi muzeja Brezi 1 pripisuju samo oni dijelovi kamene skulpture koje je objavio Ćorović 1913. godine (br. 525–530, 545, 655).

Drugi fragment načinjen je od iste vrste kamena kao i prethodni, ali je više oštećen. Slova su visine 4 cm, a dužina sačuvanog natpisa na fragmentu je 15 cm. Dimenzije sačuvanog epigrafskog polja su 17,3 x 5,8 cm. Slova na ovom fragmentu imaju slične dimenzije, a dijele i druge karakteristike sa slovima na prvom fragmentu, uključujući serife i urednu raspoređenost. Sličnost slova najbolje se vidi iz toga što se slovo V, s karakterističnim trokutastim serifom na dnu, pojavljuje na oba fragmenta. Isto možemo reći i za slovo E, koje ima identične proporcije krakova, prečki, stubića i oblika serifa na oba fragmenta. Prema tome, oba fragmenta oblikovala je ista ruka i najvjerovatnije pripadaju istom natpisu. Uzimajući u obzir da znamo da prvi fragment potiče s lokaliteta Breza 1, vrlo je vjerovatno da je Ćorović oba fragmenta našao na istom lokalitetu.

Na ovom fragmentu mogu se identificirati slova SALVS, iza kojih slijedi latinski križ, a zatim EC, sve u jednom redu. Križ je drugačijeg oblika od obilježja koje možda ukazuje na to da je predstavljalo križ na prvom fragmentu (vidi iznad). Fragment još jednog slova, koje je izgleda bilo A, sudeći po očuvanom donjem dijelu stope, vidljiv je ispred čitljivih slova natpisa. Ispod slova su dvije linije vodilje, a iznad je jedna linija na kojoj je bio još jedan red slova, koja više nisu vidljiva. U ovom redu je prepoznatljiv karakteristični serif na dnu slova V, a ispred njega je slovo koje bi vrlo lako moglo biti R, sudeći po ostatku stuba i stope. Sergejevski u inventarnoj knjizi čita ovaj red kao SALVS † EC[clesiae]. Sergejevski je za razliku od Ćorovića bio stručnjak za epigrafiju, ali je njegova ekspertiza bila ograničena na rimsku epigrafiju pošto nije imao dovoljno prilika da radi na kasnoantičkim i srednjovjekovnim latinskim natpisima.¹¹ Iako rekonstrukcija koju je izveo Sergejevski ima smisla s logičkog i gramatičkog aspekta, ovdje ćemo pokazati da je ne podržavaju drugi primjeri iz epigrafskog korpusa jadranske obale, niti oni iz kasnoantičkog i srednjovjekovnog razdoblja. Još jedan problem pred-

10 Letter of Čremošnik dated 31 March 1939, archive of National Museum of Bosnia and Herzegovina, Section for Documentation, personal fund of Dimitrije Sergejevski.

11 He himself admits a lack of expertise in Late Antique and Medieval epigraphy: Sergejevski 1947, 46.

10 Pismo Čremošnika od 31.3.1939, arhiv Zemaljskog muzeja Bosne i Hercegovine: Odsjek za dokumentaciju, lični fond Dimitrija Sergejevskog.

11 On sam priznaje svoj nedostatak stručnosti za kasnoantičku i srednjovjekovnu epigrafiju: Sergejevski 1947, 46.

ed in either the Late Antique or Medieval epigraphic corpus from the Adriatic coast, as we will see shortly. Another problem is the use of a C as a G on the other fragment, which necessitates offering alternative readings to Sergejevski's proposal, although it is certainly possible that in the same inscription, C could be used for both C and G. The Early Medieval epigraphic corpus from the eastern Adriatic coast and Early Medieval Croat state provides one example of the word combination SALUS and EG – *salusque egrotis* – where *egrotis* stands for the classical *aegrotis* (sick) in the inscription of *tepčija* Ljubomir from Kaštel Stari, dated to the final quarter of the 11th century.¹² Hypothetically, we could have another word starting with EG such as *ego*, or use the inscription of Pope Sextus III from the Santa Maria Maggiore basilica in Rome, discussed below, as a parallel for possible reading of [nostr]A SALVS + EC[ce].

Therefore, four readings are proposed for this fragment:

[...]A SALVS + EC[=G][rotis]

[...]A SALVS + EC[=G][o]

[nostr]A SALVS + EC[ce]

[...]A SALVS + EC[clesiae]

DATING OF THE FRAGMENTS AND THEIR CONTEXT

As said at the beginning, these two epigraphic fragments are securely dated only after ca. 400, as it is unlikely that an early Christian basilica would have been constructed in this area before that date.¹³ Here we will present our arguments for dating the fragments to the Medieval period, after approximately 800, rather than to Late Antiquity, which in Southeastern Europe ended in the early decades of the 7th century. A significant problem posed to dating is represented by a lack of comparative epigraphic material in the deep hinterland of the eastern Adriatic for either Late Antiquity or the Early Medieval period. To date – disregarding graffiti – the only known inscription dateable to Late Antiquity is another forgotten fragmentary inscription from Lepenica near Kiseljak, published by Skarić in 1932. The presence of a Chi-Rho monogram and the specific shape of a broken crossbar in the letter A both imply a date after 400, but before the Byzantine abandonment of Dalmatia in the early 7th century.¹⁴ We have a similar situation in the Medieval period, because Latin epigraphy in Medieval Bosnia currently provides a very modest corpus of inscriptions, with most dating to the 15th century, which is too late for these fragments from Breza.¹⁵ The only chronologically comparable inscription is a dedicatory inscription on a re-used Roman ara made in rustic capitals, which most likely served as an altar of St. Peter's cathedral in Vrhbosna. It was found in downtown Sarajevo, and dated to between 1238 and 1247 (Fig. 6). While some vague similarities might be observed with the fragments from Breza, the letters in the inscription from Sarajevo, as well as their arrangement, are not as clearly defined as in

stavlja upotreba slova C umjesto G na drugom fragmentu, a to zahtijeva da se ponude alternativna čitanja u odnosu na prijedlog Sergejevskog, mada je sasvim moguće da se na istom natpisu C koristi i kao C i kao G. Ranosrednjovjekovni epigrafski korpus istočne jadranske obale i ranosrednjovjekovne hrvatske države sadrži jedan primjer kombinacije riječi SALUS i EG – *salusque egrotis* – gdje *egrotis* predstavlja klasično *aegrotis* (bolestan) u natpisu tepčije Ljubomira iz Kaštela Starog koji je datiran u posljednju četvrtinu XI stoljeća.¹² Hipotetički je moguće da se radi o nekoj drugoj riječi koja počinje s EG, kao što je *ego*, ili bismo mogli koristiti natpis pape Siksta III iz Bazilike sv. Marije Velike u Rimu, koji razmatramo ispod, kao paralelu za moguće čitanje natpisa kao [nostr]A SALVS + EC[ce].

Stoga se za ovaj fragment predlažu četiri čitanja:

[...]A SALVS + EC[=G][rotis]

[...]A SALVS + EC[=G][o]

[nostr]A SALVS + EC[ce]

[...]A SALVS + EC[clesiae]

DATIRANJE FRAGMENTA I NJIHOV KONTEKST

Kako je napomenuto na početku, ova dva epigrafska fragmenta moguće je sa sigurnošću datirati samo u period nakon cca. 400. godine, imajući u vidu malu vjerovatnoću da je kršćanska bazilika na ovom području mogla biti izgrađena prije tog datuma.¹³ Ovdje ćemo predstaviti naše argumente za datiranje fragmenata u srednjovjekovno razdoblje, negdje nakon 800. godine, a ne u kasnoantičko, koje je u jugoistočnoj Evropi završilo u prvim desetljećima VII stoljeća. Značajan problem za datiranje predstavlja nedostatak komparativnog epigrafskog materijala u dubokom zaleđu istočnog Jadrana kako iz kasnoantičkog tako i iz ranosrednjovjekovnog razdoblja. Do danas – izuzimajući grafite – jedini poznati natpis koji se može datirati u kasnoantičko razdoblje jest također zaboravljeni fragmentarni natpis iz Lepenice kod Kiseljaka koji je objavio Skarić 1932. godine. Prisustvo monograma hi-ro i specifični oblik slomljene prečke u slovu A ukazuju na datum nakon 400. godine, ali prije povlačenja Bizanta iz Dalmacije početkom VII stoljeća.¹⁴ Slično je i sa srednjovjekovnim razdobljem, budući da latinska epigrafija u srednjovjekovnoj Bosni trenutno pruža vrlo skroman korpus natpisa, pri čemu ih većina potiče iz XV stoljeća, a to je prekasno za ove fragmente iz Breze.¹⁵ Jedini hronološki uporediv natpis je posveta na prenamijenjenoj rimskoj ari napisana rustičnom kapitalom, koja je najvjerovatnije služila kao oltar u katedrali sv. Petra u Vrhbosni. Nađena je u centru Sarajeva, a datirana je između 1238. i 1247. godine (sl. 6). Iako se mogu primijetiti neke slabe sličnosti s fragmentima iz Breze, slova u natpisu iz Sarajeva, a i njihov raspored, nisu tako jasno definirana kao na fragmentima iz Breze, pa je prema tome taj natpis sigurno proizvod neke druge ra-

12 Delonga 1996, 102 (no. 60).

13 Džino 2023, 68.

14 Skarić 1932, 18 with T. 12, cf. Džino 2023, 108 (no. 104).

15 Galović 2011, 191–196.

12 Delonga 1996, 102 (br. 60).

13 Džino 2023, 68.

14 Skarić 1932, 18 T. 12; cf. Džino 2023, 108 (br. 104).

15 Galović 2011, 191–196.

Fig. 6. Photograph of inscription from the cathedral of St. Peter in Vrhbosna (Sarajevo); Inv. no. 7620 – [apos]TOLI PETRI VERBOS[nensis] ... VITA, NON POTEST PONERE[...], National Museum of Bosnia and Herzegovina, inv. no. 7620, (photography: A. Šahbaz)

Sl. 6. Fotografija natpisa iz katedrale sv. Petra u Vrhbosni (Sarajevo) – [apos]TOLI PETRI VERBOS[nensis] ... VITA, NON POTEST PONERE[...], Zemaljski muzej Bosne i Hercegovine, inv. br. 7620, (snimio: A. Šahbaz)



the Breza fragments, and the inscription is most certainly a product of a different workshop.¹⁶ For this reason, we should look for comparative examples in the geographically closest epigraphic areas: Late Antique Latin inscriptions from Salona, and a corpus of Early Medieval Latin inscriptions from the eastern Adriatic coast and the Early Medieval Croat state.¹⁷

The epigraphic use of a C as a G, likely shown on the first fragment from Breza, is not recorded in the richly documented Late Antique Salonitan epigraphy.¹⁸ However, it exists in Early Medieval Dalmatian epigraphy in some cases, such as the inscriptions from Brnaze near Sinj and Bribirska Glavica near Skradin.¹⁹ The appearance of an A without a crossbar, as shown on the second fragment from Breza, is recorded in the Salonitan Late Antique epigraphy, but is exceptionally rare, especially in the 5th and 6th centuries.²⁰ However, in Early Medieval epigraphy, the appearance of an A without crossbar is recorded much more frequently.²¹

Similarly, the mention of the Virgin Genetrix does not appear in the Late Antique epigraphy of Salona, but it is present in three Early Medieval inscriptions. The first is from the pre-Romanesque church in Pađene near Knin, tentatively dated to the 9th or 10th century: [...munera(?) par]VA GENETRIC[i] M[ari(a)]E VIRGINIQUE † SAC[rum(?)] [...]. [I]ACOBI QV[e...], the second from Lepuri Donji near Benkovac, tentatively dated to the 9th century: [...] GENETRIX [...], and the third from Gradac in Petrovo Polje, dated to the 9th or 10th century: ET S(an)[C(t)i] MICHAELI [genet]RICI MARI[ae ...].²² The noun *salus*, appearing on the second fragment from Breza, is not recorded in the Salonitan corpus of Late Antique inscriptions in this grammatical case, with only one in-

dionice.¹⁶ Iz tog bi razloga trebalo potražiti komparativne primjere iz geografski najbližih epigrafskih područja: među kasnoantičkim latinskim natpisima iz Salone i u korpusu ranosrednjovjekovnih latinskih natpisa istočne jadranske obale i iz ranosrednjovjekovne hrvatske države.¹⁷

Epigrafska upotreba C kao G, koju vjerovatno vidimo na prvom fragmentu iz Breze, nije zabilježena u bogato dokumentiranoj kasnoantičkoj salonitanskoj epigrafici.¹⁸ Međutim, susrećemo je u ranosrednjovjekovnoj epigrafici Dalmacije, na primjer u natpisima iz Brzana kod Sinja i Bribirske Glavice kod Skradina.¹⁹ Pojava slova A bez prečke, kakvo vidimo na drugom fragmentu iz Breze, zabilježena je u salonitanskoj kasnoantičkoj epigrafici, ali je izuzetno rijetka – naročito u V i VI stoljeću.²⁰ Slovo A bez prečke je, međutim, mnogo češće zabilježeno u ranosrednjovjekovnoj epigrafici.²¹

Slično tome, Virgin Genetrix ne pojavljuje se u kasnoantičkoj epigrafici Salone, ali je susrećemo u tri ranosrednjovjekovna natpisa. Prvi je iz predromaničke crkve u Pađenama kod Knina, uvjetno datiran u IX ili X stoljeće: [...munera(?) par]VA GENETRIC[i] M[ari(a)]E VIRGINIQUE † SAC[rum(?)] [...]. [I]ACOBI QV[e...], drugi je iz Lepura Donjih kod Benkovca, uvjetno datiran u IX stoljeće: [...] GENETRIX [...], a treći je iz Gradca u Petrovom Polju, datiran u IX ili X stoljeće: ET S(an)[C(t)i] MICHAELI [genet]RICI MARI[ae ...].²² Imenica *salus*, koja se pojavljuje na drugom fragmentu iz Breze, nije zabilježena u salonitanskom korpusu kasnoantičkih natpisa u tom padežnom obliku, a samo se jednom pojavljuje kao *pro salute*. Pridjev *salvus* (pisan kao *saluus*) pojavljuje se samo tri

16 Sergejevski 1947, 45–46 with fig. 24; Vego 1970, 14–15 (no.208); Basler 1978.

17 Marin 2010; Delonga 1996; Milošević 2001.

18 Marin 2010, 126–131.

19 Delonga 1996, 91 no. 51; Ghica et al. 2017, 179 with fig. 11.

20 Marin 2010, 339 (no. 117, 5th–6th c.); 452–454 (no. 194, year 425); 556–557 (no. 254, 6th c.); 897 (no. 525, 5th c.).

21 Delonga 1996, no. 7, 23, 51, 52, 82, 97, 100, 130, 143, 158, 178, 180, 220.

22 Delonga 1996, 233 (no. 187); 209 (no. 170); 619 no. 235.

16 Sergejevski 1947, 45–46, sl. 24; Vego 1970, 14–15 (br. 208); Basler 1978.

17 Marin 2010; Delonga 1996; Milošević 2001.

18 Marin 2010, 126–131.

19 Delonga 1996, 91 (br. 51); Ghica et al. 2017, 779, sl. 11.

20 Marin 2010, 339 (br. 117, 5–6 st.); 452–454 (br. 194, godina 425); 556–557 (br. 254, 6 st.); 897 (br. 525, 5 st.).

21 Delonga 1996 (br. 7, 23, 51, 52, 82, 97, 100, 130, 143, 158, 178, 180, 220).

22 Delonga 1996, 233 (br. 187); 209 (br. 170); 619 (br. 235).

stance appearing as *pro salute*. The adjective *salvus* (written as *saluus*), makes only three appearances, but never in conjunction with the word *ecclesia* or any other word starting with EC or EG.²³ In the Early Medieval corpus from Dalmatia, however, there are two instances where the word is used; once as *salve Virgo* (Crkvina in Biskupija, near Knin) and the earlier-mentioned *salusque egrotis* from the inscription of *tepčija* Ljubomir from Kaštel Stari.²⁴

It would be also interesting to discuss some correlation of these fragments from Breza with a dedicatory inscription of Pope Sixtus III (432–440) from the Santa Maria Maggiore basilica in Rome. The inscription no longer exists, although its text was preserved in three Early Medieval collections of epigraphic *syllogae*: *Sylogae Turonensis*, *Syloga Laureshamesis* IV and *Sylogae Viridunensis*.²⁵ These epigraphic *syllogae* were manuscript compilations of verse epigrams with topographical locations of inscriptions, composed mostly in the 7th century, from the 630s onwards. However, they were copied in later periods and remained highly popular and reasonably well-known in the Early Medieval Frankish and Anglo-Saxon world.²⁶ The original inscription was probably visible in its primary location in the church (most likely the apse) until the destruction and replacement of the original apse by Pope Nicholas IV (1284–1294).²⁷ The last mention of the inscription was made by historian and antiquarian Onofrio Panvinio (d. 1568), who saw only fragments of the first line over the portals on the inner wall of the façade. Subsequent restoration of the church by Cardinal Domenico Pinelli in 1593 removed the last traces of the inscription.²⁸

The inscription was composed of four elegiac couplets, and, in the reconstruction of Diehl based on *Sylogae Turonensis*, *Syloga Laureshamesis* IV and *Sylogae Viridunensis*, the text read:

*uirgo Maria tibi Xystus noua tecta dicaui
digna salutifero munera uentre tuo
tu genetrix ignara uiri te denique feta
uisceribus saluis edita nostra salus
ecce tui testes uteri tibi praemia portant
sub pedibusque iacet passio cuique sua
ferrum flamma ferae fluuius saeuumque uenenum
tot tamen has mortes una corona manet.*²⁹

The similarities between the reconstructed parts of text from the Breza fragments and the inscription of Pope Sixtus III are indicated above in bold script, suggesting the readings: TV C[=G]ENETR[ix] and [nostr]A SALVS † EC[ce]. Minor variations exist between the transcriptions in these three *syllogae*, but the parts that interest us are identical,

puta, ali nikad zajedno s riječju *ecclesia* ili bilo kojom drugom riječju koja počinje s EC ili EG.²³ U ranosrednjovjekovnom korpusu iz Dalmacije, međutim, ova riječ se pojavljuje dva puta; jednom kao *salve Virgo* (Crkvina u Biskupiji kod Knina) i u ranije navedenoj sintagmi *salusque egrotis* iz natpisa *tepčija* Ljubomira iz Kaštel Starog.²⁴

Također bi bilo zanimljivo razmotriti neke korelacije ovih fragmenata iz Breze s posvetom pape Siksta III (432–440.) iz Bazilike sv. Marije Velike u Rimu. Taj natpis više ne postoji, mada je njegov tekst sačuvan u tri ranosrednjovjekovne kolekcije epigrafskih *syllogae*: *Sylogae Turonensis*, *Syloga Laureshamesis* IV i *Sylogae Viridunensis*.²⁵ Ove epigrafske *syllogae* su bile rukopisne zbirke epigrama u stihu s topografskim lokacijama natpisa, sačinjene uglavnom u VII stoljeću, od 630-ih nadalje. Međutim, prepisi su rađeni i u kasnijim razdobljima te su ostale vrlo popularne i relativno dobro poznate u ranosrednjovjekovnom franačkom i anglosaksonskom svijetu.²⁶ Izvorni natpis vjerovatno je bio vidljiv na svojoj prvobitnoj lokaciji u crkvi (najvjerovatnije u apsidi) prije nego što je apsida uništena i zamijenjena novom koju je izgradio papa Nikola IV (1284–1294).²⁷ Posljednje spominjanje natpisa nalazimo kod historičara i antikvara Onofrija Panvinija (u. 1568) koji je vidio tek fragmente prvog reda iznad portala na unutrašnjem zidu fasade. Kada je crkva obnavljana 1593. godine, za vrijeme kardinala Domenica Pinellija, uklonjeni su posljednji ostaci natpisa.²⁸

Natpis je bio sačinjen od četiri elegijska distiha, a prema Diehlovoj rekonstrukciji zasnovanoj na *Sylogae Turonensis*, *Syloga Laureshamesis* IV i *Sylogae Viridunensis*, tekst je glasio:

*uirgo Maria tibi Xystus noua tecta dicaui
digna salutifero munera uentre tuo
tu genetrix ignara uiri te denique feta
uisceribus saluis edita nostra salus
ecce tui testes uteri tibi praemia portant
sub pedibusque iacet passio cuique sua
ferrum flamma ferae fluuius saeuumque uenenum
tot tamen has mortes una corona manet.*²⁹

Sličnosti između rekonstruiranih dijelova teksta s fragmenata iz Breze i natpisa pape Siksta III naznačene su iznad podebljanim slovima i upućuju na sljedeća čitanja: TV C[=G]ENETR[ix] and [nostr]A SALVS † EC[ce]. U tri *syllogae* postoje manje varijacije u transkripciji, ali dijelovi koji nas zanimaju su identični, osim riječi *genetrix* koja je zapisana kao *genitrix* u *Sylogae Turonensis* i *Viridunensis*. Iako natpis pape Siksta III potiče iz kasnoantičkog razdoblja, to ne utiče na naš

23 Marin 2010, 158–160 (no. 12) PRO SALUTE; 142–143 (no. 2) SALVIS D(ominis) N(ostris); 164–165 (no. 15) SALUIS GYMNASIIS; 212–213 (no. 45) [Sal]UIS D(ominis) [n(ostris)]

24 Delonga 1996, 72–73 (no. 26) SALVE [...]G[...] S[alve] V[ir]GO; 102 (no. 60) SALVSQUE EGROTIS.

25 De Rossi 1888, 71 (no. 42), 98 (no. 6), 139 (no. 28).

26 Story 2023, 147–155.

27 Spain 1979, 532 no. 68.

28 Panvinio 1570, 300; Spain 1983, 327.

29 Diehl 1924, 182–183 (no. 976). The authors are most grateful to Assoc. Prof. Ivan Basić for making us aware of the existence of this inscription.

23 Marin 2010, 158–160 (br. 12 PRO SALUTE); 142–143 (br. 2 SALVIS D(ominis) N(ostris); 164–165 (br. 15 SALUIS GYMNASIIS); 212–213 (br. 45 [Sal]UIS D(ominis) [n(ostris)]).

24 Delonga 1996, 72–73 (br. 26 SALVE [...]G[...] S[alve] V[ir]GO); 102 (br. 60 SALVSQUE EGROTIS).

25 De Rossi 1888, 71 (br. 42); 98 (br. 6); 139 (br. 28).

26 Story 2023, 147–155.

27 Spain 1979, 532 (br. 68).

28 Panvinio 1570, 300; Spain 1983, 327.

29 Diehl 1924, 182–183 (br. 976). Autori se zahvaljuju van. prof. Ivanu Basiću koji nam je skrenuo pažnju na postojanje ovog natpisa.

except for the word *genetrix*, which is written as *genitrix* in *Syllogae Turonensis* and *Virdunensis*. While the inscription of Pope Sextus III dates to Late Antiquity, it does not really affect our proposed dating of the Breza fragments to a later period for two reasons. First, the text, or at least a good part of it, was visible up until the late 13th century, and second, the inscription from the Santa Maria Maggiore basilica was recorded in three *syllogae*, and was available to readers in the Middle Ages. However, the question of whether some parts of this inscription from Rome were used in Breza remains open, as the evidence we have at our disposal is fragmentary and cannot be considered to provide conclusive evidence for such a hypothesis.

Therefore, it looks reasonably clear that the two fragments from Breza do not belong to the period of Late Antiquity, but rather should be dated to the Medieval era, which in the wider eastern Adriatic area begins around 800, and includes the revival of epigraphic habit.³⁰ They cannot post-date the time at which Breza 1 fell into disuse, but it is nigh on impossible to determine a precise date for the abandonment of the church due to incomplete excavations. The only chronological peg is provided by finds of earrings in graves dateable to between the late 10th and 12th century, evidencing that the church was still in use at that time.³¹ The fragments were not part of a tombstone epitaph, but rather belonged to a single Medieval Christian dedicatory inscription (or possibly two inscriptions contemporary to one another). As shown earlier, it is difficult to reconstruct the text on these fragments, but it seems highly likely that the fragment inventorized as no. 530 mentioned the Virgin Mary as Mother of God (*genetrix*), which has unexpected support in Medieval written sources.

The Charter of Hungarian king Bela IV from 1244 mentions the recent donations of Bosnian *ban* Matthew (Matej) Ninoslav to the Bosnian bishop as compensation for certain injustices (*propter diversas iniurias et dampna data eidem ecclesie dedit*). Amongst these are mentioned the place/estate Liubinchi, located near the Church of Blessed Virgin in *župa* Vydogossa (*in supa Vydogossa Liubinchi apud ecclesiam Beatae Virginis*).³² Medieval Vydogossa is identified as modern Vogošća near Sarajevo, and the territory of *župa* Vydogossa most likely encompassed territory from Vogošća to Vareš, including Breza (map 1). Some 5 kilometres south-southwest of Breza lies the modern village of Ljubnići, which Anđelić identified as the Liubinchi from Bela's charter.³³ Ljubnići is attested to in the 1468–1469 Ottoman tax register as a Dolna Lubnić, part of the *nahiya* of Dubrovnik, confirming its pre-Ottoman existence and location close to Breza, which was part of the same *nahiya*.³⁴ This gives grounds for an

prijedlog datiranja fragmenata iz Breze u kasniji period iz dva razloga. Prvo, tekst natpisa, ili bar značajan dio teksta, bio je vidljiv sve do kasnog XIII stoljeća, a drugo, natpis iz Bazilike sv. Marije Velike zabilježen je u tri *syllogae* te je bio dostupan čitateljima u Srednjem vijeku. Međutim, ostaje otvoreno pitanje jesu li dijelovi natpisa iz Rima korišteni u Brezi, budući da su dokazi koje imamo na raspolaganju fragmentarni i da se iz njih ne može izvući konačan zaključak o toj hipotezi.

Stoga se čini relativno jasnim da dva fragmenta iz Breze ne pripadaju kasnoantičkom razdoblju i da ih stoga treba datirati u srednji vijek, koji se u širem području istočnog Jadrana računa od oko 800. godine kada se ponovo javlja epigrafska navika.³⁰ Ne mogu potjecati iz vremena nakon što se objekat Breza 1 prestao koristiti, a zbog nepotpunih iskopavanja gotovo je nemoguće precizno utvrditi datum kad je crkva napuštena. Jedini hronološki orijentir pruža nalaz naušnica u grobovima koje se mogu datirati u period između kasnog X i XII stoljeća, što dokazuje da je crkva još uvijek korištena u tom periodu.³¹ Fragmenti nisu bili dio nadgrobno epitafa, već su pripadali jedinstvenom srednjovjekovnom kršćanskom natpisu posvete (ili eventualno potječu od dva natpisa koja su bila međusobno savremena). Kako je ranije pokazano, teško je rekonstruirati tekst na ovim fragmentima, ali se čini vrlo vjerovatnim da fragment pod inventarnim brojem 530 spominje Djevicu Mariju kao Bogorodicu (*genetrix*), za što možemo naći pomalo neočekivanu podršku u srednjovjekovnim pisanim izvorima.

Povelja ugarskog kralja Bele IV iz 1244. spominje nedavne darove bosanskog bana Mateja Ninoslava bosanskom biskupu kao nadoknadu za određene nepravde (*propter diversas iniurias et dampna data eidem ecclesie dedit*). Između ostalog se spominje mjesto/posjed Liubinchi u blizini Crkve Blažene Djevice u župi Vydogossa (*in supa Vydogossa Liubinchi apud ecclesiam Beatae Virginis*).³² Srednjovjekovna Vydogossa identificirana je kao moderna Vogošća kod Sarajeva, a teritorija župe Vydogossa vjerovatno je obuhvatala prostor od Vogošće do Vareša, uključujući Brezu (mapa 1). Nekih 5 kilometara južno-jugozapadno od Breze nalazi se današnje selo Ljubnići, koje Anđelić identificira kao mjesto Liubinchi iz Beline povelje.³³ Ljubnići se navode u osmanskom defteru iz 1468–1469. kao Dolna Lubnić u sklopu nahije Dubrovnik, čime se potvrđuje njihovo predosmansko postojanje i lokacija u blizini Breze, koja je također bila u sastavu iste nahije.³⁴ Ovim se podupire pretpostavka da je druga faza izgradnje na lokalitetu Breza 1 bila Crkva Blažene Djevice, koja se spominje 1244. godine, i to u blizini mjesta Liubinchi.³⁵ U tom

30 Džino 2021.

31 Džino 2023, 214. A similar opinion is expressed by Basler (1993, 46) in the second edition of his book, arguing that the church was abandoned in the 13th or 14th century.

32 Preserved in a copy dated to 1375, *Registra Avinenionensia* Vol. 195 fol. 484r, reproduced in Mandić 1979, p.196 n.16. The text in CD, 4.208 (p.239) gives different spellings of the toponyms: *in supa Vidgossa Lubinchi apud ecclesiam beate Virginis*.

33 Anđelić 1971.

34 Aličić 2008, 48 (28b).

30 Džino 2021.

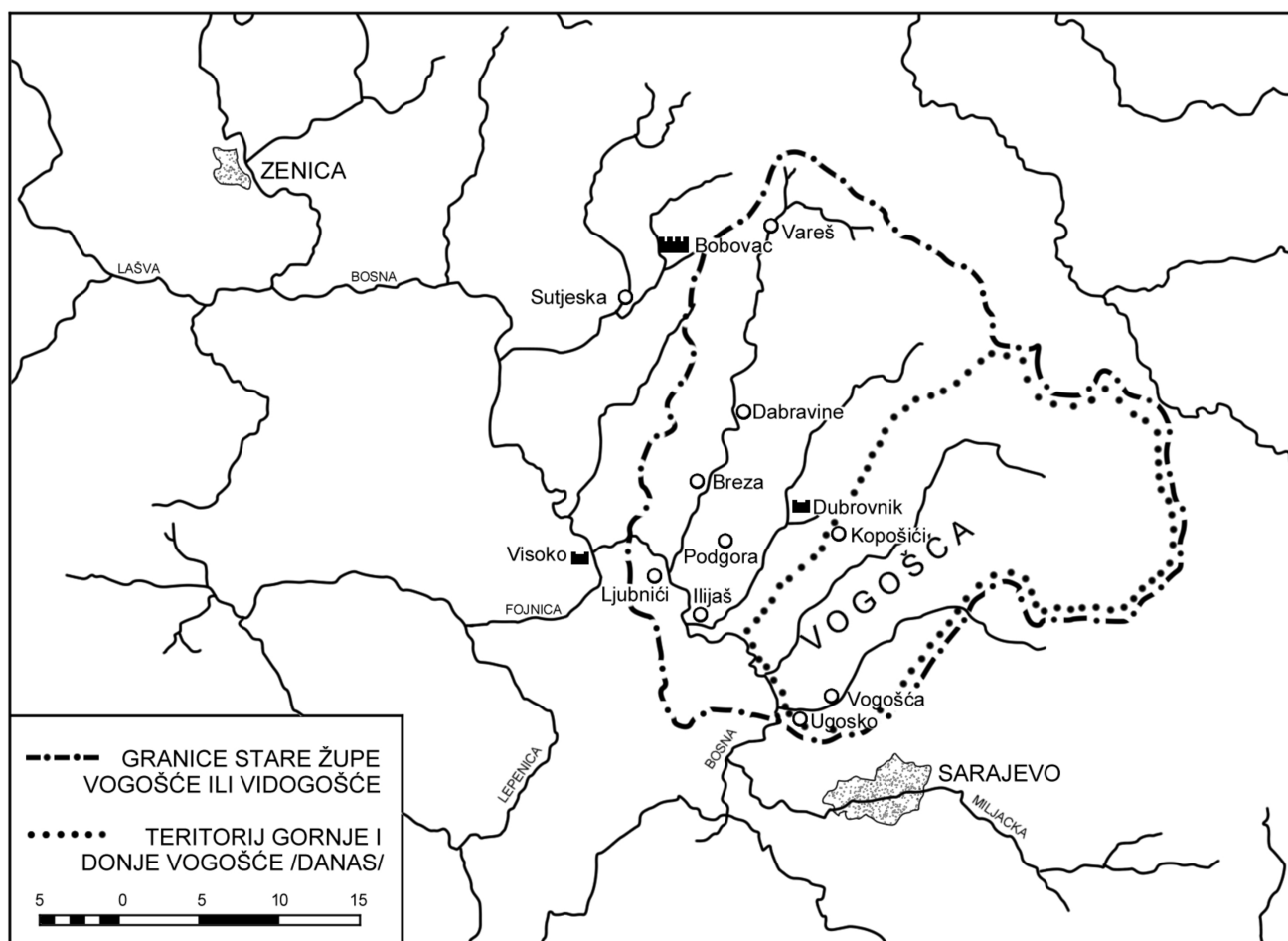
31 Džino 2023, 214. Sličnog stava je i Basler (1993, 46) u drugom izdanju svoje knjige, gdje tvrdi da je crkva napuštena u XIII ili XIV stoljeću.

32 Sačuvana u kopiji datiranoj u 1375. godinu, *Registra Avinenionensia* Vol. 195 fol. 484r, reproducirano u Mandić 1979, str. 196 (br. 16). Tekst u CD 1906, 239 (4.208) daje različita pisanja toponima: *in supa Vidgossa Lubinchi apud ecclesiam beate Virginis*.

33 Anđelić 1971.

34 Aličić 2008, 48 (28b).

35 Čorović (1913, 411) izvorno je povezao toponim Srđ sa sv. Sergejem, pretpo-



Map 1. Map of župa Vydogossa (Vogošća), (previously published in: Anđelić 1971, 338.; edited by: M. Bešlagić)

Karta 1. Karta župe Vydogossa (Vogošća), (preuzeto iz: Anđelić 1971, 338; uredio M. Bešlagić)

assumption that the second building phase of Breza 1 was the Church of the Blessed Virgin, located near Liubiniči and mentioned in 1244.³⁵ In that case, our epigraphic fragments would pre-date 1244, when the existence of the church is attested. Nada Klaić challenged the authenticity of this charter in her characteristically emotionally charged language, rather than with rational arguments. Klaić's opinion is generally rejected in later scholarship, which accepts the charter as authentic.³⁶ While it is not necessary to discuss the full authenticity of the document, it is important to point out that archaeology has confirmed the existence of other central Bosnian Early Medieval churches mentioned in the charter, such as that of St. Stephen Protomartyr in Vrutci, dated ca. 900, the somewhat younger Ss. Cosmas and Damian in Mili (modern Arnautovići), as well as the earlier-described

slučaju bi naši epigrafski fragmenti poticali iz perioda prije 1244. kada je potvrđeno postojanje crkve. Nada Klaić dovela je u pitanje autentičnost ove povelje koristeći se svojim karakteristično emotivno nabijenim jezikom umjesto racionalnih argumenata. Stajalište Klaićeve uglavnom je odbačeno u kasnijim naučnim radovima u kojima se povelja prihvata kao autentična.³⁶ Iako nema potrebe razmatrati autentičnost ovog dokumenta u cijelosti, važno je istaći da je u arheologiji potvrđeno postojanje drugih srednjobosanskih ranosrednjovjekovnih crkvi koje se spominju u povelji, kao što je crkva sv. Stjepana Prvomučenika u Vrutcima datirana cca. 900. godine, nešto mlađa crkva sv. Kuzme i Damjana u Milama (današnji Arnautovići), kao i ranije navedeni natpis iz Sarajeva u kojem se spominje katedrala sv. Petra u Vrhobnsi (karta 1).³⁷

35 Čorović (1913, 411) originally connected the toponym Srđ with St. Sergius, assuming that this was the title of the church at Breza 1. It is impossible to determine if the toponym has anything to do with the title of the church.

36 Klaić 1976, 470–472; 1994, 112–115, rarely supported in later scholarship, such as, for example, Dautović 2021, 114. The opinion is challenged in Gulin 1995, 301–302 with no. 10; Brković 2005, 165–166; Šuljak 2005, 445–447; Barabás 2017, 56–57, etc.

stavljajući da je po njemu nazvana crkva u Brezi 1. Nemoguće je utvrditi je li toponim imao ikakve veze s nazivom crkve.

36 Klaić 1976, 470–472; 1994, 112–115, rijetko podržano u kasnijim naučnim istraživanjima, kao što je, na primjer, Dautović 2021, 114. Stajalište je dovedeno u pitanje u Gulin 1995, 301–302 (br. 10); Brković 2005, 165–166; Šuljak 2005, 445–447; Barabás 2017, 56–57 itd.

37 Glavaš 1982; Anđelić 1979.

inscription from Sarajevo mentioning the cathedral of St. Peter in Vrhbosna (map 1).³⁷

Perhaps we can narrow the dating of these fragments yet further, due to the fact that their rustic capitals look too tidy when compared to most of the early inscriptions from the Dalmatian coast and immediate hinterland, meaning that a dating to the 9th century would be unlikely. Also, the date range for the earrings found at Breza 1 does not extend to the 13th century, so it is reasonable to conclude that this church (and the text to which these fragments belonged) existed before 1200. However, it is impossible to define a more precise dating within these dates for a number of reasons, including a lack of comparative evidence, the brevity of preserved textual fragments, and an absence of other sculptural details related to the inscription. Čorović also discovered fragments of a decorated stone panel, a relief of a human figure, and a ram's head at Breza 1.³⁸ The floral pattern evident on panel fragments from Breza 1 bears similarities to finds from neighbouring churches in Bilimišće (Zenica) and Dabrovina. Both churches have a Late Antique phase and a possible Early Medieval phase, with the latter being more clearly defined in Bilimišće but only hypothesized in Dabrovina.³⁹ Nevertheless, as we do not know whether these pieces of sculpture are contemporary to the epigraphic fragments, a discussion on their dating would not be helpful here, and will therefore be left for another time.

The corpus of Latin inscriptions from the Dalmatian coast and early medieval Croat state does not share similarities with the Breza inscription fragments, with the exception of those discussed above, which are insufficient for more precise dating. Whether the inscription could be connected to the establishment of the Bosnian bishoprics, mentioned for the first time in 1089, is also difficult to establish beyond speculation.⁴⁰ The dedication of the church to the Virgin Genetrix might also correspond with the rising significance of the Virgin in both the Byzantine Empire and the West in the 11th century, which was emulated in neighbouring areas such as the Croatian kingdom.⁴¹ Unfortunately, insufficient evidence exists to enable more substantial support of this argument. Therefore, based on the available evidence, we are unable to provide a more precise date for the creation of these epigraphic fragments than a timeframe of between 900 and 1200 CE.

Možda bismo mogli još suziti period za datiranje ovih fragmenata imajući u vidu činjenicu da njihova rustična kapitala izgleda suviše uredno u poređenju s većinom ranih natpisa s dalmatinske obale i primorja, što bi značilo da se najvjerovatnije ne bi mogli datirati u IX stoljeće. Osim toga, vremenski raspon za naušnice nađene na lokalitetu Breza 1 ne proteže se do XIII stoljeća, pa to navodi na zaključak da je ova crkva (i tekst kojem ovi fragmenti pripadaju) postojala prije 1200. godine. Međutim, nemoguće je utvrditi preciznije datiranje unutar ovog raspona iz nekoliko razloga, uključujući nedostatak komparativnih primjeraka, kratkoću sačuvanih tekstualnih fragmenata i odsustvo drugih skulptorskih detalja vezanih za natpis. Čorović je na lokalitetu Breza 1 također otkrio fragmente ukrašene kamene ploče, reljef ljudske figure i glavu ovna.³⁸ Cvjetni uzorak vidljiv na fragmentima ploče s lokaliteta Breza 1 ima izvjesne sličnosti s nalazima iz obližnjih crkava u Bilimišću (Zenica) i Dabrovina. Obje crkve imaju kasnoantičku fazu i moguću ranosrednjovjekovnu fazu, pri čemu je ova potonja jasnije utvrđena u slučaju Bilimišća, a za Dabrovine je tek pretpostavka.³⁹ Ipak, s obzirom na to da ne znamo jesu li ovi primjerci skulpture savremeni epigrafskim fragmentima, razmatranje njihovog datiranja u ovom slučaju ne bi bilo od pomoći, pa ćemo ga stoga ostaviti za neku drugu priliku.

Korpus latinskih natpisa s dalmatinske obale i iz ranosrednjovjekovne hrvatske države ne sadrži sličnosti s fragmentima natpisa iz Breze, izuzev onih koje su razmatrane iznad, a koje su nedovoljne za potrebe preciznijeg datiranja. To da li bi natpis mogao biti povezan s uspostavljanjem bosanskih biskupija, koje se prvi put spominju 1089. godine, također je teško utvrditi mimo špekulacije.⁴⁰ Posveta crkve Bogorodici (*Virgin Genetrix*) također bi se mogla poklapati s većim značajem Djevice Marije i u Bizantskom carstvu i na Zapadu u periodu XI stoljeća, što se odražavalo i u susjednim područjima kao što je Hrvatsko kraljevstvo.⁴¹ Nažalost, ne postoje dostatni dokazi koji bi značajnije podržali ovaj argument. Stoga moramo zaključiti da na osnovu dostupnih dokaza ne možemo datirati nastanak ovih epigrafskih fragmenata preciznije od vremenskog okvira između 900. i 1200. godine n. e.

37 Glavaš 1982; Anđelić 1979.

38 Čorović 1913, 416–418 figs. 10–11, 14, 15. The panel was hypothetically reconstructed in Basler 1993, T. 36.

39 Cf. Džino 2023, 147–149.

40 Kehr 1900, 149 (no. 7); cf. Džino 2023, 196–197.

41 Skoblar 2017, 88–107.

38 Čorović 1913, 416–418, sl. 10–11, 14, 15.; Hipotetička rekonstrukcija ploče data je u Basler 1993, T. 36.

39 Cf. Džino 2023, 147–149.

40 Kehr 1900, 149 (br. 7); cf. Džino 2023, 196–197.

41 Skoblar 2017, 88–107.

CONCLUSION

Earlier discussion enables us to reach several conclusions about epigraphic fragments with inventory nos. 524 and 530 from the National Museum of Bosnia and Herzegovina in Sarajevo. First, they were discovered during excavations of Breza 1 in 1913 and belong to the same period and the same inscription (or, less likely, two contemporary inscriptions). The fragments are part of (a) dedicatory inscription(s) that mention the Virgin Mary as Mother/Bearer of God (*genetrix*), and should be dated broadly to between 900 and 1200. They pre-date the oldest known Medieval Latin inscription from the altar of St. Peter's cathedral in Vrhbosna by at least half a century, if not more. The mentioning of the Virgin Mary and location of Breza 1 provides support to the hypothesis that this was the church of Blessed Virgin in *župa* Vydogossa mentioned in the charter of Bela IV from 1244. In summary, these findings highlight two previously overlooked epigraphic fragments from Breza as significant evidence confirming the existence of a Latin epigraphic tradition in Medieval Bosnia and the inland areas of the eastern Adriatic before the 13th century.

ZAKLJUČAK

Razmatranja nam omogućuju da donesemo nekoliko zaključaka o epigrafskim fragmentima koji se čuvaju u Zemaljskom muzeju Bosne i Hercegovine u Sarajevu pod inventarnim br. 524 i 530. Prvo, otkriveni su 1913. godine za vrijeme iskopavanja na lokalitetu Breza 1 i pripadaju istom periodu i istom natpisu (ili, manje vjerovatno, radi se o dva međusobno savremena natpisa). Fragmenti su dio posvete (ili posveta) u kojoj se spominje Djevica Marija kao Bogorodica (*genetrix*) i trebalo bi ih u širem smislu datirati između 900. i 1200. godine. Stariji su od najstarijeg poznatog srednjovjekovnog latinskog natpisa s oltara katedrale sv. Petra u Vrhbosni najmanje pola stoljeća, ako ne i više. To što spominju Djevicu Mariju i što su nađeni na lokalitetu Breza 1 podupire hipotezu da je na tom mjestu bila crkva Blažene Djevice u župi Vydogossa koja se spominje u povelji Bele IV iz 1244. godine. Ukratko, ovi nalazi ističu dva ranije zanemarena epigrafska fragmenta iz Breze kao značajne dokaze koji potvrđuju postojanje latinske epigrafske tradicije u srednjovjekovnoj Bosni i zaleđu istočnog Jadrana u periodu prije XIII stoljeća.

LITERATURA/LIST OF REFERENCES

- Aličić, A. S.** (ed. and transl), 2008. *Sumarni popis Sandžaka Bosna iz 1468–69. godine*, Islamski kulturni centar, Mostar.
- Anđelić, P.** 1971, Stara bosanska župa Vidogošća ili Vogošća. Problem ubikacije srednjovjekovnih župa uže ili srednje Bosne, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu*, Arheologija, n.s. 26, Sarajevo, 337–346.
- Anđelić, P.** 1979, Krunidbena i grobna crkva bosanskih vladara u Milima (Arnautovićima) kod Visokog, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu*, Arheologija, n.s. 34, Sarajevo, 183–247.
- Barabás, G.** 2017, Heretics, Pirates, and Legates. The Bosnian Heresy, the Hungarian Kingdom, and the Popes in the Early 13th Century, *Dissertationes historicae collectae per Cathedram Historiae Medii Aevi Modernorumque Temporum Universitatis Quinqueecclesiensis*. Specimina Nova, Pars Primis. Sectio Medievalis 9, Pécs, 35–58.
- Basler, Đ.** 1972, *Arhitektura kasnoantičkog doba u Bosni i Hercegovini*, Veselin Masleša, Sarajevo.
- Basler, Đ.** 1975, Die "Basilika II" in Breza bei Sarajevo, *Živa antika* 25, Skopje, 259–267.
- Basler, Đ.** (alias J. Kujundžić) 1978, Katedrala sv. Petra u Vrhbosni, *Nova et Vetera – revija za filološko-teološke i srodne discipline* 28 (1–2), Sarajevo, 295–303.
- Basler, Đ.** 1993, *Spätantike und frühchristliche Architektur in Bosnien und der Herzegovina*, Schriften der Balkan-Kommission. Antiquarische Abteilung 19, Vienna, Österreichische Akademie der Wissenschaften, Wien – second, updated edition of Basler 1972.
- Basler, Đ, Miletić, N.** 1988, s.v. Srđ, in: B. Čović (ed.) *Arheološki leksikon Bosne i Hercegovine* Vol. 3, no. 14.207, Sarajevo, Zemaljski Muzej Bosne i Hercegovine, 26.
- Brković, M.** 2005, Bosansko-Humski kršćani u križštu papinske i ugarske politike prema Bosni i Humu, in: *Fenomen "krstjani" u srednjovjekovnoj Bosni i Humu: zbornik radova*, Institut za istoriju, Hrvatski institut za povijest, Sarajevo, Zagreb, 129–178.
- Bojanovski, I., Čelić, Dž.** 1969, Kasnoantička bazilika u Brezi, *Naše starine* 12, Sarajevo, 7–25.
- CD** *Codex Diplomaticus regni Croatiae, Dalmatiae et Slavoniae* Vol. 4: *Diplomata annorum 1236–1255 / Diplomatički zbornik kraljevine Hrvatske, Dalmacije i Slavonije, Svezak 4: Listine godina 1236–1255*, ed. T. Smičiklas, Zagreb, Jugoslavenska akademija znanosti i umjetnosti, Zagreb, JAZU, 1906.
- Chevalier, P.** 1995, *Salona II: Ecclesiae Dalmatiae. Tome 1 – Catalogue*. Collection de l'École française de Rome 194/2, Arheološki muzej u Splitu, École française de Rome, Split, Roma.
- Čremošnik, G., Sergejevski, D.** 1930, *Gotisches und römisches aus Breza bei Sarajevo*, *Novitates Musei Saraievoensis* 9, Zemaljski Muzej u Sarajevu, Sarajevo.
- Ćorović, V.** 1913, Izvještaj o iskopavanjima u Brezi 1913. godine, *Glasnik Zemaljskog muzeja u Bosni i Hercegovini* 25(3), 409–420.
- Dautović, Dž.** 2021, *Nulla spes sit ... Bosnia and the Papacy in the Thirteenth Century, Dissertationes historicae collectae per Cathedram Historiae Medii Aevi Modernorumque Temporum Universitatis Quinqueecclesiensis*. Specimina Nova, Pars Primis. Sectio Medievalis 11, 97–125.
- De Rossi G. B.** (ed.) 1888, *Inscriptiones Christianae Urbis Romae septimo saeculo antiquiores*, Vol. 2/1, Ph. Cuggiani, Rome.
- Delonga, V.** 1996, *Latin Epigraphic Monuments in Early Medieval Croatia*. Monumenta medii aevi Croatiae 1, Muzej hrvatskih arheoloških spomenika, Split.
- Diehl, E.** (ed.) 1924, *Inscriptiones Latinae Christianae Veteres*, Weidmann, Berlin.
- Džino, D.** 2021, Rethinking Periodization in Post-Roman Southeastern Europe: The Case-Study of Dalmatia, *Archaeologia Bulgarica* 25(1), Sofia, 55–76.
- Džino, D.** 2023, *Early Medieval Hum and Bosnia, ca. 450–1200. Beyond Myths*, Routledge, London, New York.
- Galović, T.** 2013, Ego a puero baptizatus fui et litteras Latinas didici..., in: A. Birin (ed.) *Stjepan Tomašević (1461.–1463.) – slom srednjovjekovnoga Bosanskog Kraljevstva. Zbornik radova sa Znanstvenog skupa održanog 11. i 12. studenoga 2011. godine u Jajcu*, Hrvatski institut za povijest, Katolički bogoslovni fakultet u Sarajevu, Zagreb, Sarajevo, 2013, 179–219.
- Ghica, V., Milošević, A., Uroda, N., Džino, D.** 2017, 'Varvaria / Breberium / Bribir Archaeological Project. The 2015 excavation season', *Hortus artium medievalium* 23(2), Zagreb, Motovun, 776–796.
- Glavaš, T.** 1982, Iskopavanje preromaničke crkve u Vrucima kod Vrela Bosne, *Glasnik Zemaljskog muzeja Bosne Hercegovine u Sarajevu*, Arheologija, n.s. 37, Sarajevo, 93–122.
- Gulin, A.** 1995, Srednjovjekovni Bosanski ili đakovački kaptol i njegovi pečati, *Diacovensia* 3(1), 299–321.
- Kehr, P.** (ed.) 1900, *Papsturkunden in Rom*, Vol. 1. Gesellschaft der Wissenschaften zu Göttingen. Philologisch-historische Klasse 2, Akademie der Wissenschaften, Göttingen.
- Klaić, N.** 1976, *Povijest Hrvata u razvijenom srednjem vijeku*, Školska knjiga, Zagreb.
- Klaić, N.** 1994, *Srednjovjekovna Bosna. Politički položaj bosanskih vladara do Tvrtkove krunidbe (1377 g.)*, Eminex, Zagreb.
- Looijenga, T.** 2003, *Texts and Contexts of the Oldest Runic Inscriptions*, Brill, Leiden, Boston.
- Mandić, D.** 1979, *Bosna i Hercegovina. Povijesno-kritička istraživanja 2: Bogomilska crkva bosanskih krstjana*, 2nd ed. ZIRAL, Chicago, Rome, Zürich, Toronto.
- Marasović, T.** 2013, *Dalmatia praeromanica: Ranosrednjovjekovno graditeljstvo u Dalmaciji 4. Korpus arhitekture Južna Dalmacija, Bosna i Hercegovina, Crna Gora*. Knjiga Mediterana 73, Književni krug, Muzej hrvatskih arheoloških spomenika, Arhitektonski fakultet Sveučilišta u Zagrebu, Split, Zagreb.
- Marin, E.** (ed.) 2010, *Salona IV: Inscriptions de Salone chrétienne*, 2 Vols. Collection de l'École française de Rome 194/4, Arheološki muzej u Splitu, École française de Rome, Split, Roma.
- Milošević, A.** (ed.) 2001, *Hrvati i Karolinzi: Katalog*. Vol. 2, Muzej hrvatskih arheoloških spomenika, Split.
- Milošević, A.** 2011, *Predromanički zvonici u Dalmaciji i ranosrednjovjekovnoj Hrvatskoj / Campanili preromanici della Dalmazia e della Croazia altomedievale*. Studia Mediterranea Archaeologica 5 Omega Publishing, Split, Dubrovnik.
- Milošević, A.** 2018, The products of the "Tetgis Style" from the eastern Adriatic Hinterland, in: Džino, Danijel, Milošević, Ante, Vedriš, Trpimir (eds.), *Migration, Integration and Connectivity on the Southeastern Frontier of the Carolingian Empire*. East Central and Eastern Europe in the Middle Ages, 450–1450, Vol. 50, Brill, Leiden, Boston, 63–85.
- Panvinio, O.** 1570, *La sette chiese principali di Roma*, A. Blado, Rome.
- Petrinec, M.** 2009, *Gräberfelder aus dem 8. bis 11. Jahrhundert im Gebiet des frühmittelalterlichen kroatischen Staates*. Monumenta medii aevi Croatiae 3, Muzej hrvatskih arheoloških spomenika, Split.
- Rubin, M.** 2009, *Mother of God. A History of the Virgin Mary*, Yale University Press, New Haven, London.
- Sergejevski, D.** 1947, Arheološki nalazi u Sarajevu i okolici, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu*, Arheologija, n.s. 2, 13–50.
- Skarić, V.** 1932, *Altertümer von Gradac in der Lepenica (Bosnien)*, *Glasnik Zemaljskog muzeja u Bosni i Hercegovini*, 44(2), 1–22.
- Skoblar, M.**, 2017, *Figural Sculpture in Eleventh-Century Dalmatia and Croatia. Patronage, Architectural Context, History*, Routledge, London, New York.
- Sokol, V.** 2016, *Medieval Jewelry and Burial Assemblages in Croatia. A Study of Graves and Grave Goods ca. 800 to ca. 1450*. East Central and Eastern Europe in the Middle Ages, 450–1450, Vol. 36, Brill, Leiden, Boston.
- Spain, J.** 1979, "The Promised Blessing": The Iconography of the Mosaics of S. Maria Maggiore, *The Art Bulletin* 61(4), 518–540.
- Spain, J.** 1983, The Restorations of the Sta. Maria Maggiore Mosaics, *The Art Bulletin* 65(2), 325–328.
- Story, J.** 2023, *Charlemagne and Rome. Alcuin and the Epitaph of Pope Hadrian I*, Oxford University Press, Oxford.
- Šuljak, A.** 2005, Bosansko-Humski krstjani i prijenos rezidencije bosanskih biskupa u Đakovo, in: *Fenomen "krstjani" u srednjovjekovnoj Bosni i Humu: zbornik radova*, Institut za istoriju, Hrvatski institut za povijest, Sarajevo, Zagreb, 441–454.
- Vego, M.** (ed.) 1970, *Zbornik srednjovjekovnih natpisa Bosne i Hercegovine* Vol. 4, Sarajevo, Zemaljski Muzej Bosne i Hercegovine.

Proučavanje transhumantnog stočarstva u zapadnoj Hercegovini kroz integrativnu arheologiju

Examining Transhumant Pastoralism in Western Herzegovina through an Integrative Archaeology

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Iako se planinski krajolik zapadnog Balkana danas samo povremeno koristi za ispašu, on je sastavni dio pastoralnih krajolika još od prahistorije. Izazov je, međutim, kako pomoću arheologije prepoznati prisutnost transhumantnog stočarstva u takvim područjima. Ovaj članak je integrativno arheološko transdisciplinarno istraživanje historijske planinske pastirske stanice – katuna – na planinama Crvanj i Morine iznad Nevesinja u Hercegovini. Grupa stručnjaka za daljinsko istraživanje i prostor, arheologa prethistoričara i medijavista, geoarheologa i pedologa, od kojih svaki donosi jedinstvenu perspektivu, usredotočila se na dva ljetna pastoralna kampa, lokalno nazvana katuni Busovača i Tarasovača, kako bi razumjeli izuzetnu i dugotrajnu prisutnost ljudi na ovom gorju.

Ključne riječi: transhumanca, historijska arheologija, prahistorija, Dinarske Alpe, Hercegovina, daljinska detekcija, arheologija objekata, geoarheologija, nauka o tlu, stećci

Although the mountainous countryside of the Western Balkans is today only used occasionally for grazing, it has formed an integral part of pastoral landscapes since prehistoric times. The challenge, however, is how to recognise the presence of transhumance in such areas through archaeology. This article presents the integrative archaeological transdisciplinary research of a historical mountain pastoral station – a *katun* – on the Crvanj and Morine mountains above Nevesinje in Herzegovina. A group of remote sensing and spatial experts, prehistoric and medieval archaeologists, geoarchaeologists and soil scientists, each bringing their own unique perspective to the study, focused on two summer pastoral camps, locally named the Busovača and Tarasovača katuns, to understand the remarkable long-established occupation of these highlands.

Keywords: transhumance, historical archaeology, prehistory, Dinaric Alps, Herzegovina, remote sensing, standing archaeology, geoarchaeology, soil science, stećci

UVOD

Istraživanje prikazano u ovom radu proizlazi iz transdisciplinarnog istraživanja srednjovjekovnih spomenika stećaka. Ove grobne oznake podigle su između dvanaestog i šesnaestog vijeka naše ere zajednice koje su živjele na teritorijama današnje Hrvatske, Crne Gore, Srbije, a posebno Bosne i Hercegovine. Stećci ostaju razbacani *in situ* po krajolicima i služe svojoj izvornoj namjeni, podsjećajući nas na imanenost vremena. Oni su jedan od najbolje očuvanih, ali najmanje proučenih primjera evropske srednjovjekovne kulturne baštine. Više od 72.000 stećaka koji su još uvijek sačuvani *in situ*, preko 60.000 se nalazi u Bosni i Hercegovini. Njihova disperzirana distribucija i brojnost bili su prepreka njihovom proučavanju, posebno iz arheološke perspektive.¹

Prisustvo stećaka nije ograničeno na neko određeno mjesto. Nalaze se uz puteve ili dalje od njih, u nizinama, dolinama, na vrhovima brežuljaka, uz vodu, ali i u poljima, na livadama, u šumama, uz crkve, u selima, ali i daleko od naselja. Oni se, što je posebno zanimljivo, mogu pronaći i na visokim planinskim lancima, na 1300 metara nadmorske visine, pa i više. Postojanje stećaka na takvim mjestima može se pripisati ekonomiji kasnog Srednjeg vijeka, konkretno transhumanci. S obzirom na višestruka tumačenja pastoralizma i transhumance,² autori ovog članka žele naglasiti da selidbu vide kao sezonsko kretanje stoke, u ovom slučaju prvenstveno ovaca, između označenih ljetnih planinskih i zimskih nizinskih pašnjaka, bilo pod nadzorom pastira ili svojih vlasnika.

Ekonomija Mediterana, a posebno Balkana, historijski je bila usko povezana s transhumantnim stočarstvom, a dokazi o prahistorijskim i srednjovjekovnim stočarskim praksama često se preklapaju.³ Arheološki dokazi iz istočne i srednje Evrope upućuju na minimalno korištenje planinskih područja tokom neolita (6500–3300 p.n.e. n. e.) i intenziviranje tokom eneolita i bronzanog doba (3300–1000 p.n.e. n. e.).⁴ Širenje u planinska područja na kraju neolita uključivalo je široko usvajanje transhumantnog stočarstva kao dijela cjelokupne strategije uzgoja domaćih životinja.⁵ Kako su periodična vertikalna kretanja povezana s ekstremnim ekološkim uslovima, s velikom sezonskom varijabilnošću klime,⁶ transhumanca je vrlo vjerovatno bila zastupljena u prahistorijskoj, postneolitskoj Hercegovini. Naše arheološko istraživanje prahistorijskih tumulusa, ograđenih prostora i sličnih krajolika u ovoj mikroregiji moglo bi poslužiti kao primjer za provjeru općih ideja o transhumanci u prahistoriji.

Krško okruženje Hercegovine je u srednjem vijeku ponovo postalo blisko povezano sa transhumancom i duboko

INTRODUCTION

The investigation presented here stems from transdisciplinary research of medieval *stećak* (pl. *stećci*) monuments. These burial markers were erected between the 12th and 16th centuries CE by the communities that lived on the territories of modern Croatia, Montenegro, Serbia, and particularly Bosnia and Herzegovina. The *stećci* remain scattered *in situ* across landscapes, serving their original purpose and reminding us of the immanence of time. They are one of the best-preserved yet least-studied examples of European medieval cultural heritage. From more than 72,000 *stećci* still preserved *in situ*, over 60,000 can be found in Bosnia and Herzegovina. Their dispersed distribution and large numbers have in many ways acted as a hindrance to their scholarship, especially from an archaeological perspective.¹

The presence of *stećci* is not limited to any specific location or landscape. They can be found beside roads or away from them, in lowland plains, in valleys, and on hilltops, by water or in fields, meadows, or forests, adjacent to churches, in villages, or far away from settled areas. Intriguingly, they can also be found on high mountain ranges, at elevations of 1300 metres above sea level (ASL) and even higher. The existence of *stećci* in such places can be attributed to the economy of the Late Medieval period, specifically to transhumance. Given the multiple interpretations of pastoralism and transhumance,² the authors of this article wish to emphasise that they see transhumance as the seasonal movement of livestock, in this case primarily sheep, between designated summer mountain and winter lowland pastures, either under the care of herders or in the company of their owners.

The economy of the Mediterranean, and the Balkans in particular, has historically been closely connected to transhumant pastoralism, with evidence of prehistoric and medieval pastoral practices frequently overlapping.³ Archaeological evidence from Eastern and Central Europe suggests a minimal use of highland areas during the Neolithic period (6500–3300 BCE) and intensification during the Eneolithic and Bronze Age (3300–1000 BCE).⁴ The expansion into upland areas at the end of the Neolithic involved the widespread adoption of transhumant pastoralism as part of the overall strategy for managing domestic animals.⁵ As periodic vertical movements are related to extreme ecological conditions with high seasonal variability in climate,⁶ transhumance may be considered a highly probable phenomenon in prehistoric post-Neolithic Herzegovina. Our archaeological research of prehistoric burial mounds, enclosures and associated landscapes in this micro-region could serve as an example to test general ideas on transhumance in prehistory.

1 Bešliagić 1982; Lovrenović 2009; Bujak 2018.

2 Vojvodić 2021. i tu navedena literatura.

3 Bartosiewicz, Greenfield 1999; Mlekuž 2003; Barker 2005; Arnold, Greenfield 2006; Carrer 2015; Costello, Svensson 2018; Horvat 2019; Andrić *et al.* 2020; Caf *et al.* 2023; Mlekuž Vrhovnik, Fabec 2024.

4 Greenfield 2001.

5 Greenfield 1999.

6 Porčić 2008, 7–9, 22–23.

1 Bešliagić 1982; Lovrenović 2009; Bujak 2018.

2 Vojvodić 2021 and the literature presented there.

3 Bartosiewicz, Greenfield 1999; Mlekuž 2003; Barker 2005; Arnold, Greenfield 2006; Carrer 2015; Costello, Svensson 2018; Horvat 2019; Andrić *et al.* 2020; Caf *et al.* 2023; Mlekuž Vrhovnik, Fabec 2024.

4 Greenfield 2001.

5 Greenfield 1999.

6 Porčić 2008, 7–9, 22–23.

je vezano za katun.⁷ Iako se danas shvata kao historijska planinska pastirska stanica ili mjesto posebne arhitekture, vezano za životinjske (i ljudske) potrebe i zahtjeve, katun je u prošlosti bio složena društvena organizacija etničke/socijalne grupe Vlaha/vlaha. Vlasi su bili vezani za transhumancu, gdje su plemenski vezivali domaćinstva u katune. Vlast bi imenovala jednog katunara, obično muškarca, da djeluje kao njihov predstavnik. Iako se katunsko starješinstvo moglo dodijeliti ženi, to je bilo izuzetno rijetko. Značajno je da se u arhivskim zapisima spominje samo jedna: “katunarka Jelena”, postavljena 1443. godine za starješinu katuna Vragović. Taj je sistem pomogao da se osigura društvena autonomija Vlaha/vlaha⁸ u feudalizmu.⁹

Prema etnografskim i historijskim izvorima, čini se da je sistem transhumantnih katuna slijedio obrazac poželjnih brdskih lokacija. Čini se da su izvori pitke vode uticali na odabir ljetnih pašnjaka. Male visoravni u podnožju planinskih vrhova, s naslagama glacijalne morene¹⁰ i valovitim terenom, odabrane su kao područja sa dovoljno sunčeve svjetlosti i zavjetrine, što je omogućavalo udobno naseljavanje. Prema dostupnim izvorima, sagrađene su međe i kuće od kamene (pot)konstrukcije i lakših građevinskih materijala.¹¹

STUDIJA SLUČAJA

Busovača i Tarasovača, dva vitalno vezana katuna, smještene su na visokoj zaravni na oko 1400 metara nadmorske visine, gdje planina Crvanj prelazi u visoravan Morine (sl. 1). Područje je odabrano kao ključna tačka za naše istraživanje historijskih pastirskih zajednica zbog svoje geografske izoliranosti, prirodno zaštićenog pašnjaka s niskom vegetacijom i dva izvora vode, što ga sve čini idealnim za naseljavanje. Dolina je napuštena tokom prošlog vijeka i danas se do nje može doći samo pješice ili terenskim vozilom.

Tim stručnjaka za paleoekološke i prostorne studije, podatke i tehnologije, prahistoriju, srednjovjekovne studije i kulturnu baštinu do sada je proveo dvije etape sezonskog integrativnog istraživanja (septembar 2023. i 2024.). Na osnovu obima područja i detaljnog uvida u datu lokaciju ili ukup, usvojili smo višestruki pristup, efikasno prelazeći od makroposmatranja do mikroposmatranja arheološke karakteristike, tj. od krajolika lokacije do hemijskog sastava tla i mikrobiološke analize ljudskih i životinjskih kostiju. Ta nam višeslojnost dopušta da čitamo prošle krajolike ne kao

The karst environment of Herzegovina became again closely associated with transhumance during the medieval period, and was profoundly centred on the *katun*.⁷ Although today understood as a historical mountain pastoral station or location with distinct architecture tending to animal (and human) needs and requirements, the katun of the past was a complex social organisation attributed to the Vlach/vlach ethnic/social group. The Vlachs were associated with medieval transhumance, where kinship linked households into katuns. The ruling authority would appoint one *katunar*, typically a male, to act as their representative. Although the seniority of the katun could be assigned to a female, this was extremely rare. Notably, archival records mention only one: the “katunarka Jelena” was appointed as the head of the Vragović katun in 1443. This system helped secure the social autonomy of the Vlachs/vlachs⁸ within feudalism.⁹

Based on ethnographic and historical sources, the transhumant katun system seems to have followed a pattern of preferable upland locations. Sources of fresh drinking water appear to have influenced the choice of summer pastures. Small plateaus at the foot of mountain peaks, with glacial moraine deposits¹⁰ and undulating terrain, were chosen as areas where sufficient sunlight and slopes, protecting from the wind, allowed for comfortable settling. Based on the available resources, the erected enclosures and houses were made of a stone (sub)structure and lighter building materials.¹¹

THE CASE STUDY

Busovača and Tarasovača, two vitally concomitant katuns, are located in a high-altitude valley at approximately 1400 metres ASL, where Crvanj mountain merges into the Morine plateau (Fig. 1). The area was selected as the focal point for our study on historical pastoral communities due to its geographic isolation, naturally protected pastureland with low vegetation, and two water sources, all of which make it ideal for settlement. The valley has been abandoned during the past century, and can today only be reached on foot or by an off-road vehicle.

To date, the team of specialists in paleoenvironmental and spatial studies, data and technologies, prehistory, medieval studies and cultural heritage has conducted two seasons of systematic integrative research (September 2023 and 2024). Based on the extent of the area and detailed insights into a given location or burial, we adopted a multiscale approach, effectively zooming in from a macro- to

7 Kovačević 1963; Đurđev 1963, 144–145.

8 Od 14. vijeka nadalje, balkanski dokumentarni izvori sve više spominju vlaške zajednice, prvenstveno ih karakterizirajući kao stočare, koji se bave transhumancu – sezonskim kretanjem ljudi i životinja koje je bilo usko vezano uz uzgoj konja, goveda i ovaca. Iako su tipično nosili slavenska imena, naseljene zajednice u Hercegovini i lučkim gradovima, poput Raguse (Dubrovnik, moderna Hrvatska), često su ih doživljavale kao “druge”. Ostaje nejasno jesu li oni tokom srednjeg vijeka činili zasebnu etničku ili samo određenu društvenu grupu.

9 Hrabak 1981, 183–185; Petrović 1986, 12; Luković 2015, 31–38; Isailović 2017, 25–35.

10 Morene, odnosno akumulacija ostataka, koje se javljaju u ledenjačkim regijama koje je prethodno nosio glečer / glečerski pokrov, sastoje se od stjenovitih terena čija veličina varira od pijeska i gline do gromada.

11 Trifunovski 1963, 30–31; Filipović 1963; Vojvodić 2021, 74.

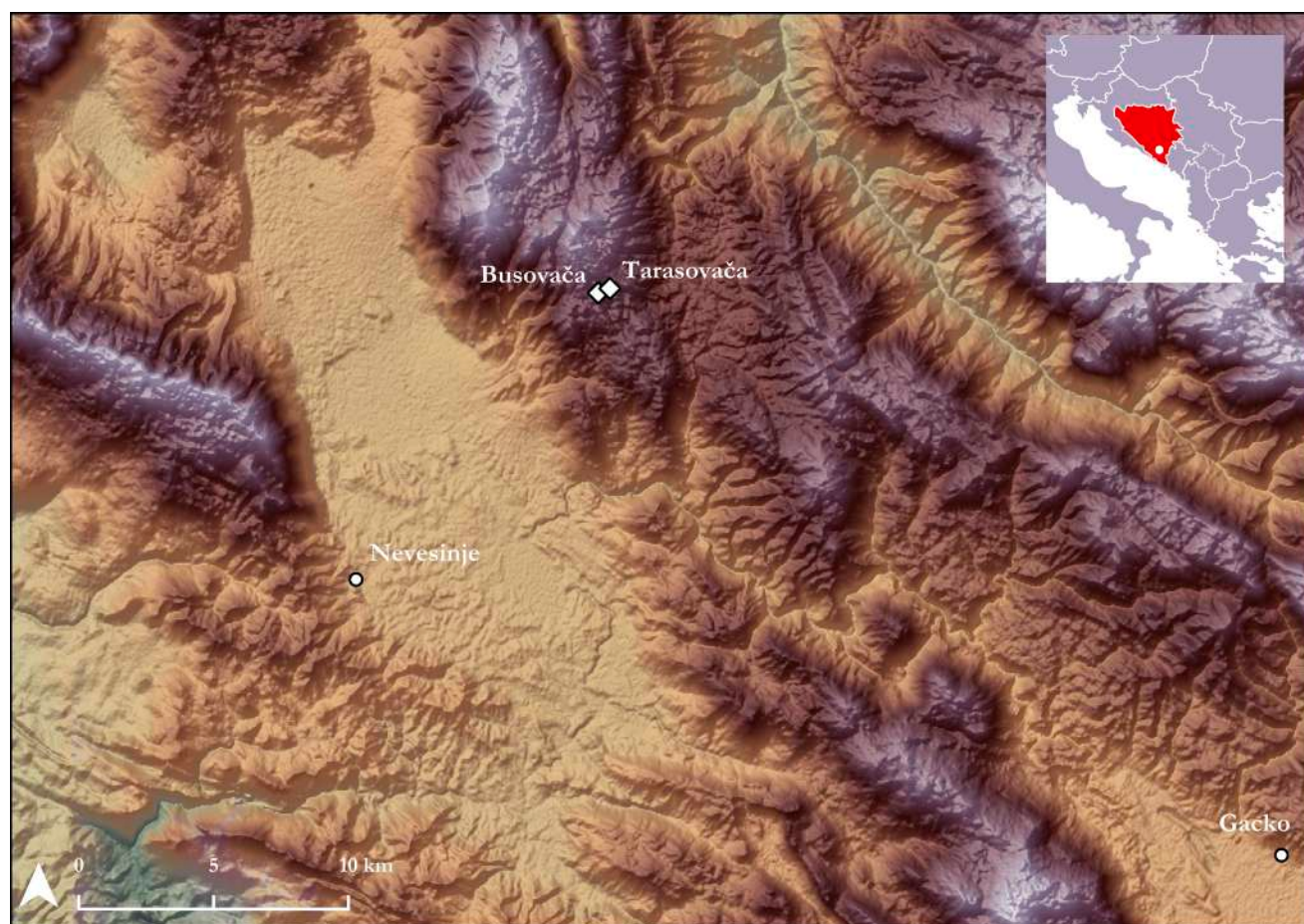
7 Kovačević 1963, 121–139; Đurđev 1963, 144–145.

8 From the 14th century onward, Balkan documentary sources increasingly mention Vlach communities, primarily characterising them as livestock breeders, engaged in transhumance – a seasonal movement of people and animals that was closely tied to the breeding of horses, cattle, and sheep. Although they typically bore Slavic names, they were frequently perceived as “other” by settled communities in Hercegovina and port cities, such as Ragusa (Dubrovnik, modern Croatia). It remains unclear whether they constituted a distinct ethnic group or only a specific social group during the Middle Ages.

9 Hrabak 1981, 183–185; Petrović 1986, 12; Luković 2015, 31–38; Isailović 2017, 25–35.

10 Debris accumulation, occurring in glaciated regions previously transported along by the glacier/ice sheet, moraines consist of rocky terrains that range in size from sand and clay to boulders.

11 Trifunovski 1963, 30–31; Filipović 1963, 45; Vojvodić 2021, 74.



Sl. 1. Topografska karta nalazišta i planine Crvanj i visoravni Morine unutar šire regije (autor: L. Škerjanec).

Fig. 1. Topographic map of the sites and the Crvanj mountain and Morine plateau within the wider region (author: L. Škerjanec).

fosilizirane zapise o tome kako su ljudi koristili zemlju u prošlosti, već kao fragmente fluidnih medija kroz koje su oboje, ekonomija i društveni životi organizirani i prakticirani.¹²

Naše prvo izviđanje planine Crvanj i visoravni Morine bilo je u junu 2023. godine, kada smo bili u kratkoj posjeti kako bismo stekli preliminarni uvid u to područje. Zbog gusto obraslog terena s visokom travom i šikarom, nismo mogli razaznati nikakve sisteme gradnje, jedva neke pojedinačne ili druge popratne stočarske, poljoprivredne ili pomoćne objekte. Stoga smo se vratili za radne stolove i oslonili na savremene tehnologije. Kako bismo stekli uvid u nivo antropogenog uticaja na okoliš, naše kolege stručnjaci za daljinsku detekciju dostavili su nam prostorni prikaz područja. Informacije su bile detaljne i iznad svega korisne za naše buduće istraživanje.

S ovim informacijama krenuli smo u drugo istraživanje u septembru 2023. Cilj nam je bio istražiti područje i povezati prostorni izvještaj sa situacijom na terenu, locirati katune Busovača i Tarasovača,¹³ identificirati namjerno izgrađene

micro-observation of an archaeological feature, i.e. from a landscape to a site to a chemical composition of the soil and microbiological analyses of human and animal bones. This multiscalarity permits us to read the past landscapes not as fossilised records of how people utilised the land in the past, but as fragments of fluid media through which both, economy and social life were organised and practised.¹²

Our first reconnaissance of the Crvanj mountain and Morine plateau was in June 2023, when we paid a short visit to gain a preliminary insight into the area. Due to the densely overgrown terrain with high grasses and shrubbery, it was not possible to distinguish any systematic constructions, with individual structures and associated pastoral, agricultural or auxiliary buildings barely visible. We therefore returned to desk-based research and modern technologies. To understand the level of anthropogenic impact on the environment, our remote sensing specialist colleagues provided us with a spatial overview of the area. This information was detailed and, above all, instrumental to our future research.

Equipped with this knowledge, we embarked on our second survey in September 2023. We aimed to explore the

¹² Mlekuž Vrhovnik, Fabec 2024; Barret 1988, 9.

¹³ Klastere farmi Busovača i Tarasovača proizvoljno smo nazvali prema dvjema lokvama, identificiranim i imenovanim na (starim) kartama. Međutim, ljudi

¹² Mlekuž Vrhovnik, Fabec 2024; Barret 1988, 9.

objekte, njihovu namjenu, moguće izvore vode te potencijalna popratna groblja. Tada nam je hronološki okvir nalazišta bio od sekundarne važnosti. Prvo, primijetili smo da je vegetacije puno manje nego ljeti. Trave su bile niže, a grmlje je već izgubilo sve lišće. Nije bilo iznenađenje što smo naišli na brojne kamene strukture različitih veličina i oblika koje je izgradio čovjek.

U nastavku članka predstavljamo uredsko istraživanje, terenski rad i laboratorijsko istraživanje protekle dvije sezone.

DALJINSKA DETEKCIJA

Najbolja arhiva zračnih ili satelitskih snimaka za područje zapadnog Balkana, a posebno za područje bivše Jugoslavije, nalazi se u Vojnogeografskom institutu "General Stevan Bošković" u Beogradu u Srbiji. Zbog količine materijala koji se tamo čuva i administrativnih postupaka za ostvarenje pristupa, još uvijek smo u procesu prikupljanja relevantnih podataka, te ovdje oni nisu prikazani. Umjesto toga, za detaljan pregled planine Crvanj i visoravni Morine koristili smo tri međunarodna izvora snimaka daljinskog istraživanja: historijske arhive zračnih fotografija, američke špijunske satelitske programe iz doba Hladnog rata i savremene komercijalne satelitske snimke vrlo visoke rezolucije. Brojne su prednosti korištenja vojnih izviđačkih slika s kojih je skinuta oznaka tajnosti za arheološka istraživanja.¹⁴ U kombinaciji s fotografijama iz zraka, one nude jedinstvene mogućnosti za posmatranje promjenjivog krajolika pašnjaka u tom području.

Nacionalna zbirka zračnih fotografija (engl. *National Collection of Aerial Photography*, NCAP) dio je nezavisnog tijela Historijski okoliš Škotske (engl. *Historic Environment Scotland*) i čuva nekoliko međunarodnih arhiva koje sadrže milione historijskih zračnih slika iz cijele Evrope. Najrelevantnije zbirke za naše područje istraživanja su one Njemačkih zračnih snaga (GX),¹⁵ Zajedničkog obavještajnog centra za zračno izviđanje (engl. *Joint Air Reconnaissance Intelligence Centre*, JARIC),¹⁶ Sredozemnog savezničkog fotoizviđačkog krila (engl. *Mediterranean Allied Photo Reconnaissance Wing*, MAPRW),¹⁷ a posebno Centralne savezničke jedinice za tumačenje fotografija (engl. *Allied Central Interpretation Unit*, ACIU).¹⁸ Trenutno je izuzetno mali broj tih fotografija digitaliziran. Iako NCAP najvjerovatnije posjeduje najranije, relativno lako dostupne fotografije iz zraka velike pokrivenosti zapadne Hercegovine, nije se moglo pristupiti svim originalnim okvirima jer ponekad postoje samo skenirane kopije niske rezolucije. Naša potraga za fotografijama iz Drugog

area and correlate the spatial report with the on-the-ground situation, locate the Busovača and Tarasovača¹³ katuns, and identify intentionally built structures, their purposes, possible water sources, and potential accompanying burial grounds. At the time, the chronological framework of the site held secondary significance. First, we noticed the vegetation was far less dense than in the summer period. The grasses were shorter, and the shrubbery had already lost its foliage. Not surprisingly, we encountered numerous human-made stone structures of different sizes and shapes.

The following presents the desk-based, fieldwork and laboratory research of the past two seasons.

REMOTE SENSING

The most suitable archive of aerial or satellite imagery for the Western Balkans region, and especially for the territory of the former Yugoslavia, is housed at Vojnogeografski Institut General Stevan Bošković, in Belgrade, Serbia. Due to the amount of material curated there and administrative procedures pertaining to its access, we are still in the process of acquiring the relevant data; thus, they are not presented here. Instead, in order to achieve a detailed overview of the Crvanj mountain and Morine plateau, we used three international sources of remote sensing imagery: historical archives of aerial photographs, the Cold War-era United States spy satellite programmes, and modern, high-resolution commercial satellite imagery. The benefits of using declassified military reconnaissance images for archaeological research are numerous.¹⁴ Combined with aerial photography, they offer unique opportunities for observation of the changing pasture landscape of the area.

The National Collection of Aerial Photography (NCAP) is part of the Historic Environment Scotland's holdings, and includes several international archives containing millions of historical aerial images from across Europe. The most relevant collections for our study area are the German Air Force (GX),¹⁵ Joint Air Reconnaissance Intelligence Centre (JARIC),¹⁶ Mediterranean Allied Photo Reconnaissance Wing (MAPRW),¹⁷ and especially the Allied Central Interpretation Unit (ACIU).¹⁸ Presently, only a very small portion of these images have been digitised. Although the NCAP potentially holds the earliest, relatively easily accessible, large-coverage aerial photographs of western Herzegovina, not all the original frames could be retrieved, as sometimes only low-resolution scanned copies exist. Our search for relevant photographs dating to World War II has also not been successful

danas tu dolinu nazivaju Busovača, a ime Tarasovača je zaboravljeno. Ova promjena u korištenju imena mogla bi se pripisati promjenama u lokalnoj demografiji i kulturnim uticajima tokom vremena. Pored toga, historijski događaji ili administrativne odluke mogli su odigrati ulogu u postepenom uklanjanju imena Tarasovača (vidi Puljić 2010, Naumović, Dražeta 2023).

14 Npr. Hanson, Oltean 2013.

15 NCAP 2024b.

16 NCAP 2024c.

17 NCAP 2024d.

18 NCAP 2024a.

13 We arbitrarily named the farm clusters Busovača and Tarasovača after the two water ponds, identified and named on the (old) maps. However, people today call the valley Busovača, and the name Tarasovača is forgotten. This shift in name usage could be attributed to changes in local demographics and cultural influences over time. Additionally, historical events or administrative decisions might have played a role in gradually phasing out the Tarasovača name (see Puljić 2010, Naumović, Dražeta 2023).

14 e.g. Hanson, Oltean 2013.

15 NCAP 2024b.

16 NCAP 2024c.

17 NCAP 2024d.

18 NCAP 2024a.

Sl. 2. Fotografija iz zraka katuna Tarasovača i Busovača i krajolika oko njih, s identificiranim antropogenim arhitektonskim i pastoralnim elementima (autor: L. Škerjanec).

Fig. 2. Orthophoto of the Tarasovača and Busovača katuns and the landscape around them, with marked anthropogenic architectural and pastoral elements (author: L. Škerjanec).



svjetskog rata također nije bila uspješna.¹⁹ Fotografije iz sredine 20. vijeka bile bi ključne za utvrđivanje obima aktivnih naselja jer su ratne, a posebno poratne aktivnosti (oduzimanje imovine, protjerivanje) promijenile društvenu dinamiku i intenzitet korištenja zemljišta. Veliku nadu polažemo u arhiv Vojnogeografskog instituta u Beogradu.

to date.¹⁹ Photographs from the mid-20th century would be crucial to identifying the extent of active settlement, as the wartime and especially post-war activities (confiscation of property, expulsion) have changed the social dynamics and intensity of land use. We put great hope in this regard into the archive of the Vojnogeografski Institut in Belgrade.

¹⁹ HES 2024.

¹⁹ HES 2024.

Američki program Corona, prvi program satelitskog snimanja, pokrenut je 1958. Između 1960. i 1972. generirano je više od 800.000 slika koje su postale javno dostupne 1995.²⁰ Ove optičke satelitske slike visoke rezolucije, jednostavne za korištenje, fundamentalno su promijenile tumačenje fotografije krajolika.²¹ Slike programa Corona posebno su vrijedne jer prethode modernom intenziviranju poljoprivrednih aktivnosti, porastu rudarstva otvorenog kopa, industrijskom razvoju i urbanoj ekspanziji širom svijeta. Ove su slike vrlo koristan izvor informacija za područja gdje nisu dostupne historijske zračne fotografije. U arheologiji su slike rezolucije 1,8 m prvi put korištene za identifikaciju dobro vidljivih lokacija u polusušnim aluvijalnim ravnicama Bliskog istoka.²² Razvijeni su sofisticirani postupci ortorektifikacije za podešavanje svjetlosnih snopova grupe fotografija.²³ Neki od tih pristupa u javnoj su upotrebi,²⁴ ali su nepotrebni za analizu relativno malih područja s ograničenim brojem slika, gdje su sasvim dovoljne i jednostavnije metode, kao što je i ovdje slučaj. Za katune Busovača i Tarasovača inicijalno smo identificirali i posmatrali devet fotografija visoke rezolucije pet datuma (9. maj 1968 – 26. maj 1972). Međutim, iako automatski izračunati otisci sugeriraju drugačije, neke od njih ne pokrivaju područje koje se proučava. Uzorak DS1111-1036AF001 snimljen je 25. jula 1970. i ima prostornu rezoluciju od 1,8 m (sl. 3a).²⁵

Drugi američki program, Hexagon (KH-9), upravljao je serijom fotografskih izviđačkih satelita između 1971. i 1984. Oznaka tajnosti je uklonjena, tj. slike su učinjene dostupnim javnosti 2011, kao nastavak iste vladine uredbe kao i za slike programa Corona. Šeststo sedamdeset hiljada slika postalo je dostupno 2020.²⁶ Rezolucija panchromatskih stereokamera dosegla je 0,6 m i uporediva je s modernim satelitima.²⁷ Fizičke dimenzije okvira su ogromne, 0,17 m x (obično) 2,4 m, a teritorija prikazana na jednom okviru je također izuzetno velika, do 24 km x 580 km. Dok su se prijašnji izviđački sateliti prvenstveno koncentrisali na Sovjetski Savez, istočnu Evropu i Kinu, Hexagonov kapacitet je bio takav da je omogućio dobivanje barem nekih slika za najveći dio planete.²⁸ To se ogleda u broju dostupnih slika za planinu Crvanj i visoravan Morine: postoji 60 slika visoke rezolucije (0,6–1,2 m) za 34 datuma, od 17. juna 1971. do 1. augusta 1984. Slike od 13 datuma su mutne, a od četiri datuma su kose. Uzorak D3C1203-300461F066 (sl. 3b) snimljen je 11. augusta 1972. i sa prostranom rezolucijom od 1,2 m.²⁹

WorldView-2 bio je prvi komercijalni multispektralni satelit visoke rezolucije, s osam spektralnih senzora.

The US Corona programme, the first imaging satellite programme, was launched in 1958. Between 1960 and 1972, it generated over 800,000 images, which were made publicly available in 1995.²⁰ This user-friendly, high-resolution optical satellite imagery has revolutionised landscape photo interpretation.²¹ The Corona imagery is particularly valuable as it predates modern agricultural intensification, as well as the growth of open-pit mining, industrial development and urban expansion across the globe. These images are a highly beneficial source of information for areas where historical aerial photographs are unavailable. In archaeology, these 1.8 m resolution images were first used to identify highly visible sites in the semi-arid alluvial plains of the Near East.²² Sophisticated orthorectification procedures have been developed for bundle block adjustment of a set of images;²³ although certain such approaches are applied globally,²⁴ they are unnecessary for the analysis of relatively small areas with a limited number of images, where more straightforward methods work just as well, as is our case. For the Busovača and Tarasovača katuns, we initially identified and accessed nine high-resolution images from five dates (ranging between 9 May 1968 and 26 May 1972). However, although the automatically calculated footprints suggest otherwise, some of these do not cover the area under study. An example image, DS1111-1036AF001, was acquired on 25 July 1970 and has a 1.8 m spatial resolution (Fig. 3a).²⁵

Another US programme, Hexagon (KH-9), involved the operation of a series of photographic reconnaissance satellites between 1971 and 1984. The imagery obtained was declassified, i.e. released for public use, in 2011, as a continuation of the same governmental decree as the Corona programme images. The 670,000 images became available in 2020.²⁶ The resolution of the stereo panchromatic cameras reached 0.6 m and is comparable to modern satellites.²⁷ The physical frame dimensions are massive – 0.17 m by (typically) 2.4 m – and the territory imaged on a single frame is vast, up to 24 x 580 km. While previous reconnaissance satellites had been primarily concentrated on the Soviet Union, Eastern Europe and China, Hexagon's capacities allowed it to acquire at least some imagery for most of the planet.²⁸ This is reflected in the number of images available for the Crvanj mountain and Morine plateau: there are 60 high-resolution (0.6–1.2 m) images from 34 dates, from 17 June 1971 to 1 August 1984. Images from 13 dates are cloudy, and from four dates are oblique. An example image, D3C1203-300461F066 (Fig. 3b), was acquired on 11 August 1972 and had a spatial resolution of 1.2 m.²⁹

20 USGS 2008.

21 Day *et al.* 1998, 38–39.

22 Ur 2013, 22; Casana, Cothren 2013, 33–35.

23 Ghuffar *et al.* 2022.

24 Casana 2020.

25 EROS Center 2017a.

26 EROS Center 2017b.

27 Burnett 1982; Oder *et al.* 1992.

28 Berkowitz 2012.

29 Snimcima programa Corona i Hexagon može se pristupiti besplatno na stranici Geološkog topografskog instituta Sjedinjenih Država (USGS), na odjelu EarthExplorer: <https://earthexplorer.usgs.gov>.

20 USGS 2008.

21 Day *et al.* 1998, 38–39.

22 Ur 2013, 22; Casana, Cothren 2013, 33–35.

23 Ghuffar *et al.* 2022.

24 Casana 2020.

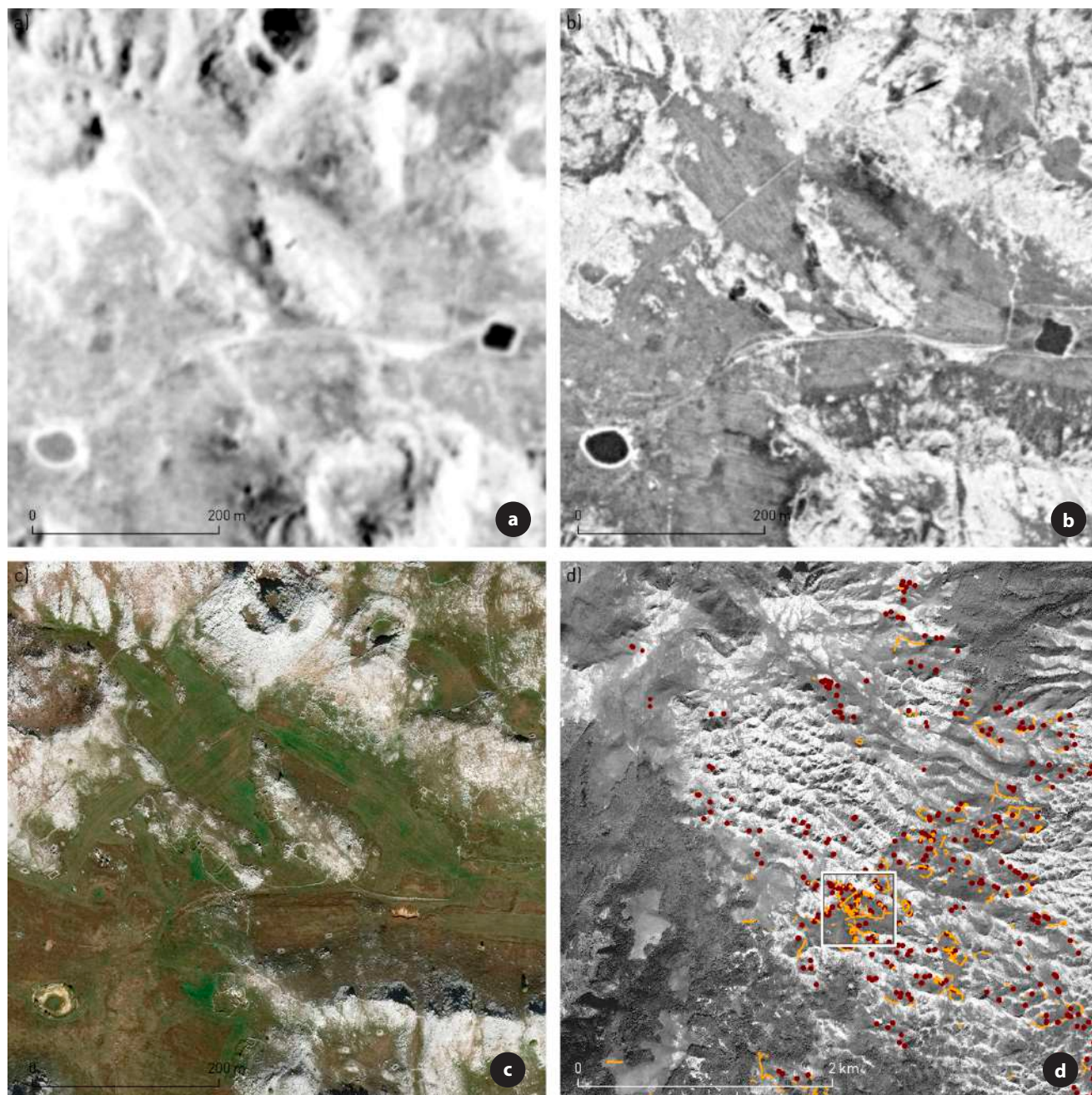
25 EROS Center 2017a.

26 EROS Center 2017b.

27 Burnett 1982; Oder *et al.* 1992.

28 Berkowitz 2012.

29 The Corona and Hexagon images can be accessed free of charge at the US Geological Survey's (USGS) EarthExplorer website: <https://earthexplorer.usgs.gov>.



Sl. 3. Katuni Busovača i Tarasovača na satelitskim snimcima: a-Corona (25. jula 1970), b-Hexagon (11. augusta 1972) i c-WorldView-2 (22. oktobra 2012, ©2012 Maxar Technologies); d-jugoistočni rub planine Crvanj i jugozapadni kraj visoravni Morine na savremenoj satelitskoj snimci, s područjem istraživanja označenim bijelim kvadratom. Ostaci objekta prikazani su preuveličano crvenom bojom, a ostali zidovi narandžastim linijama (autor: Ž. Kokalj).

Fig. 3. The Busovača and Tarasovača katuns as seen on a-Corona (25 July 1970), b-Hexagon (11 August 1972), and c-WorldView-2 (22 October 2012, © 2012 Maxar Technologies) satellite images; d-the southeastern edge of Crvanj mountain and southwestern end of the Morine plateau on a modern satellite image, with the study area delineated by a white square. The building's remains are shown exaggerated in red, and other walls as orange lines (author: Ž. Kokalj).

Omogućuje izoštrene slike s rezolucijom od 0,5 m. Za razliku od satelita u programima Corona i Hexagon, manevarska sposobnost satelita WorldView-2, njegovi digitalni senzori i pomoćni sistemi omogućavaju da se slike dobiju, uz vrhunsku preciznost i mnogo većom brzinom, što osigurava efikasnost i pouzdanost. Njime upravlja kompanija Maxar, a

Launched in 2009, WorldView-2 was the first commercial high-resolution 8-band multispectral satellite. It provides pan-sharpened colour imagery with a resolution of 0.5 m. Unlike the satellites in the Corona and Hexagon programmes, WorldView-2's manoeuvrability, digital sensors and ancillary systems enable it to acquire images with pinpoint accuracy and at a much faster rate, ensuring efficiency

slučajevima uglavnom povoljno iskorištena prirodna depresija s dotokom kišnice, u drugim je slučajevima dno bare očvrstnuto kako bi postalo nepropusno (vještački modificirano), a obale su ojačane zidom. Zbog ovih antropogenih intervencija ovakva jezercica zahtijevaju redovno održavanje. Međutim, mnoga od njih sada nemaju vode i pretvorena su u livade s bujnom vegetacijom zbog poboljšanog zadržavanja vlage u tlu. Nestanak izvora vode, skupa s propadanjem pastoralnih praksi u planinskom krajoliku, označava stalne ekološke i kulturne promjene planina.

ARHEOLOGIJA STRUKTURA

Vernakularnu arhitekturu širom svijeta proučavaju razni naučnici, uključujući arheologe, antropologe, istraživače iz oblasti društvenih nauka, semiotičare, antropogeografe, etnografe i psihologe okoliša. Prema razvijenom interaktivnom ili sociološko-ekološkom modelu, okolina i ponašanje su u međuzavisnom odnosu i utječu jedno na drugo. Naglašava se dinamička interakcija unutar antropogenog sistema

water for livestock, people and plants – are now disappearing. Although primarily favourable natural depressions with rainwater inflow were utilised in some cases, in others the pond base was hardened (i.e. artificially modified) to make it impermeable, with the banks being fortified with walls. Due to these anthropogenic interventions, such ponds require regular maintenance. However, many now lack water and have turned into meadows with lush vegetation due to improved soil moisture retention. The disappearance of water sources in parallel with the decline of pastoral practices in the mountainous landscape signifies the highlands' ongoing environmental and cultural changes.

STANDING ARCHAEOLOGY

Vernacular architecture across the globe has been studied from the perspective of various disciplines, including archaeology, anthropology, the (broader) social sciences, semiotics, human geography, ethnography, and environmental psychology. The interactive or sociological-ecological model that has been developed argues that the relationship



Sl. 5. Busovača: Struktura 3 sa dvije popločane prostorije. Pod u Prostoriji 1 s kamenim pločicama otkriven je tek uklanjanjem trave. Prema geoarheološkim analizama naslaga unutar nje, arhitektonskim razlikama u odnosu na druge građevine i informacijama koje su dali lokalni sagovornici, mogla je biti korištena za prerađu mlijeka, pri čemu je jedna prostorija bila povezana s preradom mlijeka/sira, a druga sa njihovim skladištenjem (autor: L. Škerjanec).

Fig. 5. Busovača: Structure 3 with its two paved rooms. The stone-tiled floor of Room 1 was exposed only after removal of the grass. According to geoarchaeological analyses of the deposits within, architectural comparison to other buildings, and information provided by local informants, it might have been used for milk processing, with one room associated with the processing of milk/cheese, and the other with its storage (author: L. Škerjanec).

okoline, koja uključuje promjene i prilagodbe i pokazuje njegovu primjenjivost u različitim kontekstima.³¹ Ovaj model daje teorijski okvir i nudi praktične implikacije za osmišljavanje i razumijevanje izgrađene okoline. Ljudsko ponašanje utiče na organizaciju izgrađenog okoliša, a izgrađeni okoliš utiče na ponašanje, pri čemu jedno može modificirati drugo. Unutar ovog modela, identificirano je sedam faktora koji su determinante oblika kuće, bez obzira na društveni, kulturni ili geografski identitet: klima, topografija, dostupni materijali, nivo razvijenosti tehnologije, ekonomski resursi, funkcija i kulturna konvencija.³² Da bismo razumjeli kako strukture dobivaju određeni dizajn, potrebno je istražiti proces projektovanja i identificirati ključne faktore koji utiču na odluke o dizajnu određenih struktura. Na najširem nivou, arhitektonski dizajn oblikuje dostupnost materijala i tehnologije.³³ Na oblik utiče više faktora, od kojih je funkcija samo jedan: tu je i smjer prevladavajućih vjetrova, položaj mogućih izvora vode, vremenski nepovoljni uslovi koji se ponavljaju i niz kulturnih tradicija. Okolina djelomično utiče na formu, ali dublji uticaj ima dostupnost građevnog materijala.³⁴

Krški okoliš Hercegovine sastoji se od krečnjačke podloge. Krečnjak je glavni građevinski materijal koji se koristi za izgradnju životnih prostora za ljude i životinje, izgradnju mostova, popločavanje cesta, postavljanje granica i označavanje rubova; to je živo svjedočanstvo trajne vrijednosti tradicionalnih metoda gradnje. Suhozidna gradnja neraskidivo je povezana s održivom organizacijom ruralnog prostora. Umijeće suhozidne gradnje direktno je vezano uz poznavanje stijena i prirodnih materijala te općenito uz specifičnu sredinu u kojoj se primjenjuje (smjer i intenzitet vjetrova i kiše, opasnost od erozije, odrona, poplava i sl.). Suhozidni krajolici i arhitektura su opipljivi, anonimni izraz ove tradicionalne građevinske tehnike i izvanredan primjer sposobnosti čovječanstva da se prilagodi okolišu. Oni čine intimnu vezu između materijalne i nematerijalne baštine te između ljudi i prirode.³⁵ Tehnika suhozidne gradnje na području istočnog Jadrana datira još iz prahistorije i koristi se i danas, posebno u ruralnim okvirima.³⁶ Godine 2018. znanje o suhozidu i tehnika gradnje upisani su na Uneskov popis nematerijalne kulturne baštine.³⁷

Tlo oko dva katuna ispresijecano je suhozidom (sl. 2). Neki zidovi okružuju prostor, oblikujući ovalne ili pravougaone površine različitih veličina; drugi su jednostavno linije koje predstavljaju granice, ograđene prostore ili druge vrste ograničenja za životinje i ljude. Svi stambeni objekti su malih dimenzija i smješteni na kamenitim rubovima pašnjaka ili plodnog zemljišta. Upoređujući okruženje Crvnja i Morine s različitim nalazištima u transhumantnim istraživanjima

between the environment and behaviour is interdependent and mutually influential. It stresses the dynamic interaction within an anthropogenic environmental system involving change and adaptation, demonstrating its applicability in various contexts.³¹ This model provides a theoretical framework and offers practical implications for designing and understanding the built environment. Human behaviour influences the organisation of the built environment, and the built environment influences behaviour, with each having the potential to modify the other. Within this model, seven factors have been identified as the determinants of house form, regardless of social, cultural, or geographic identity: climate, topography, available materials, level of technology, economic resources, function, and cultural convention.³² To understand how structures acquire specific designs, one must explore the design process and identify the key factors that influence the decisions behind the design of particular structures. At the broadest level, architectural designs are shaped by the availability of materials and technology.³³ The form is influenced by several factors, of which function is just one; the direction of the prevailing winds, the location of possible water sources, recurring increment weather conditions, and an assortment of cultural traditions must also be taken into account. The environment exerts a partial influence on form, although a more profound impact stems from the availability of building materials.³⁴

The karst environment of Herzegovina is comprised of the limestone bedrock. Limestone is the main construction material used to build living spaces for both humans and animals, construct bridges, pave roads, establish borders and delineate edges; it stands as a living testament to the enduring value of traditional building methods. Dry-stone constructions are inextricably linked with the sustainable organisation of rural space. The art of dry-stone masonry is directly linked to the knowledge of rocks and natural materials and, generally, to the specific environment where it is applied (direction and intensity of winds and rain, risk of erosion, landslides, floods, etc.). Dry-stone landscapes and architecture are the tangible, anonymous expression of this traditional building technique, and constitute an outstanding example of mankind's ability to adapt to the environment. They form an intimate link between tangible and intangible heritage, and between human beings and nature.³⁵ The dry-wall building technique in the eastern Adriatic region dates back to the prehistoric period and is still used today, especially in rural contexts.³⁶ In 2018, this drywall knowledge and building technique was inscribed on the UNESCO Intangible Cultural Heritage List.³⁷

The ground around the two katuns is criss-crossed with dry-stone walls (Fig. 2). Some walls enfold space, marking out

31 Noble 2013.

32 Sanders 1990, 44.

33 McGuire, Schiffer 1983, 278.

34 Noble 2013, 15.

35 UNESCO 01393.

36 Kulušić 1999.

37 UNESCO 01393. Početni upis bio je 2018. (produžen 2024) kao multinacionalna nominacija; začudo, ne uključuje Bosnu i Hercegovinu: <https://ich.unesco.org/en/RL/art-of-dry-stone-walling-knowledge-and-techniques-01393>

31 Noble 2013.

32 Sanders 1990, 44.

33 McGuire, Schiffer 1990, 278.

34 Noble 2013, 15.

35 UNESCO 01393.

36 Kulušić 1999.

37 UNESCO 01393. The initial inscription was in 2018 (extended in 2024) as a multinational nomination; surprisingly, it does not include Bosnia and Herzegovina: <https://ich.unesco.org/en/RL/art-of-dry-stone-walling-knowledge-and-techniques-01393>



Sl. 6. Tarasovača: ostaci prahistorijske keramike pronađeni u geoarheološkoj testnoj jami (TP026) na sjeveroistočnoj padini iznad katuna Tarasovača, između dva kružna ograđena prostora (autor: L. Grahek).

Fig. 6. Tarasovača: fragments of prehistoric pottery found in a geoarchaeological test pit (TP026) on the northeastern slope above Tarasovača katun, between two circular enclosures (author: L. Grahek).

planinskih lanaca Apenina ili Pirineja, opći je zaključak da okrugli ograđeni prostori potiču iz prahistorijskog perioda, dok su pravougaone strukture srednjovjekovnog porijekla.³⁸ Iako ovaj trend nije vidljiv u Irskoj,³⁹ može se primijetiti na Mediteranu, uprkos nekim nedavno izgrađenim kružnim pastoralnim ograđenim prostorima.

Kvaliteta i tehnika gradnje zidova variraju zavisno od njihove funkcije i struktura koje tvore. Razlikujemo dvije vrste zidova: jednostrane i dvostrane. Iako se na prvi pogled može učiniti jednostavnom, izgradnja jednostranog zida zahtijeva vještinu i snalažljivost. Uglavnom su građeni većim kamenjem pri dnu, a manjim prema vrhu. Kamenje je složeno bez vezivnog šuta, ali se međusobno preklapa kako bi se spriječilo urušavanje. Dakle, takvi zidovi imaju mnogo proreza, a ne pravo lice. S druge strane, dvostrani zidovi (sl. 5) imaju s obje strane probrano kamenje za lice, a sredina je ispunjena sitnim kamenjem i šutom. Kamenje je čvrsto postavljeno i spojeno kako bi se uklonile sve praznine. Kod viših očuvanih zidova (1,0 m i više) vidimo sužavanje prema vrhu s obje strane – smanjenjem težine prema vrhu povećava se čvrstoća zida. Vrh zida – završni kamen – obrađen je većim, vodoravno postavljenim kamenjem koje se proteže od jednog ruba preko sredine ili cijele širine zida.⁴⁰

Najviše truda i planiranja uloženo je u izgradnju ulaza u građevine, gdje možemo vidjeti pomno slagane slojeve ravnog kamenja. Ostali ulazi ili prolazi kroz (pašnjačke) zidove su jednostavniji, sa samo malim otvorom kroz koji prolaze ovce i koji je zatvoren jednostavnim drvenim vratima ili samo granom grmlja kako bi se spriječila ispaša stada.

oval or rectangular areas of different sizes; others are simply lines, representing boundaries, enclosures, or other forms of partition for animals and humans. All the residential buildings are of small dimensions and located on the stony edges of pastures or fertile land. When comparing the Crvanj and Morine setting with various sites in transhumant studies of the Apennines or the Pyrenees mountain ranges, a generalisation that the round enclosures date back to the prehistoric period, while rectangular structures are of medieval origin can be made.³⁸ While this trend is not evident in Ireland,³⁹ it can be observed in the Mediterranean, in spite of some circular pastoral enclosures having been more recently built.

The quality and construction technique of the walls vary based on their function and the structures they form. We can distinguish two types of walls: single- and double-face. Although from the outside it would appear a relatively simple task, building a single-face wall requires skill and resourcefulness. They are mostly built with larger stones at the bottom and smaller ones towards the top. The stones are stacked without binding debris, but are interlocked to prevent collapse; thus, such walls have many slits and no true 'face'. In contrast to this, double-face walls (Fig. 5) have selected face stones on both sides, and the middle is filled with rubble and debris. The stones are tightly fitted and interlocked to eliminate any gaps. Tapering towards the top from both sides – reducing the weight towards the top increases the strength of the wall – can be observed in higher preserved walls (1.0 m and over). The wall's top is finished using larger, horizontally placed stones (capstones) extending from one edge across the middle or the whole width of the wall.⁴⁰

The most effort and planning went into constructing the entrances to the structures, where we can see the careful layering of flat stones. Other entrances or passages through

³⁸ Walsh *et al.* 2014; García-Casas, Gassiot Ballbè 2022.

³⁹ Cf. Aalen 1964.

⁴⁰ Kremenčić 2022; Čok 2014.

³⁸ Walsh *et al.* 2014; García-Casas, Gassiot Ballbè 2022.

³⁹ Cf. Aalen 1964, 15.

⁴⁰ Kremenčić 2022; Čok 2014.

Od svih suhozidnih konstrukcija samo su dva jasna kružna ograđena prostora, oba smještena na padini istočno od katuna Tarasovača i označena kao torovi. Graditelji su iskoristili prirodni raspored i krečnjačke izdanke kao zidni okvir. Ovi pojedinačni zidovi sačuvani su do tri sloja kamenja. Za razliku od većine drugih zidova u katunima Busovača i Tarasovača, kamen koji je korišten za ove zidove nije bio obrađen niti posebno odabran. Čini se da su bili neselektivno položeni ili umetnuti u otvore između izdanaka stijene, a ne pažljivo složeni u slojeve, kao u stambenim zgradama ili nekim dijelovima koliba za životinje. Nejasno je ukazuje li to na specifičnu tehniku gradnje ili je posljedica protoka vremena. Međutim, njihov kružni oblik i blizina prahistorijskog kamenog tumulusa – oko 75 m jugoistočno – potaknuli su nagađanja o njihovom prahistorijskom porijeklu. I ubrzo je stigao odgovor.

Tokom geoarheološkog istraživanja, postavljena je jedna od testnih jama (TP206) između dva kružna ograđena prostora. Na dubini od 15 cm pronašli smo tri fragmenta prahistorijske keramike (sl. 6). Proučavajući tehnike ručnog oblikovanja tih fragmenata i tehnološke karakteristike materijala, pronašli smo analogije u keramici kasnog bronzanog i starijeg željeznog doba sa šireg geografskog područja, sve do gromila Hatelji u Dabarskom polju, udaljenih oko 70 km. To sugerira da je Tarasovača možda bila dio razgranate mreže u tom razdoblju, što ukazuje na moguće interakcije između (različitih) grupa i širenje tehnoloških i umjetničkih uticaja. Još nije sigurno da li je razlog umrežavanja bila trgovina ili transhumantna ekonomija. Potrebno je više istraživanja usmjerenih na prahistorijske elemente planinskih područja. Buduća istraživanja obrazaca naseljavanja i socioekonomskih struktura zajednica koje su u to vrijeme nastanjivale regiju pružit će uvid u njihov svakodnevni život, ekonomsku praksu i društvene interakcije tokom ovih transformativnih razdoblja.

GROBLJE

Nekropola je prilikom naše prve posjete ostala skrivena zbog visoke trave, a otkrivena je tek nakon detaljnog pregleda terena u septembru 2023. godine. Nalazi se na ledničkoj moreni, zapadno od katuna Busovača, na pola puta do lokve. Nakon što je trava pokošena, mogli smo identificirati 12 očitih grobnih oznaka (sl. 7a, b). Od toga su bila tri stećka, a devet je bilo drugog tipa: bili su izgrađeni od prirodno lomljenih kamenih ploča složenih u okvirne pravougaone oblike koji predstavljaju grobne pokrove. Osim toga, okomite kamene ploče postavljene su duž rubova grobova kako bi formirale okvir i dale obrub pojedinačnim grobnim parcelama. Tri stećka se pojavljuju u obliku ploče: dvije su neukrašene vodoravne ploče, a jedna je pravougaona ploča debljine 26 cm s uklesanim ukrasima poput rozeta, polumjeseca, mača i štita na gornjoj plohi (sl. 7b). Historijski konsenzus smješta stećke u period između 12. i 16. vijeka. Devet ukopa se izrazito razlikuje od stećaka po tipu biljega. Na osnovu njihovog izgleda

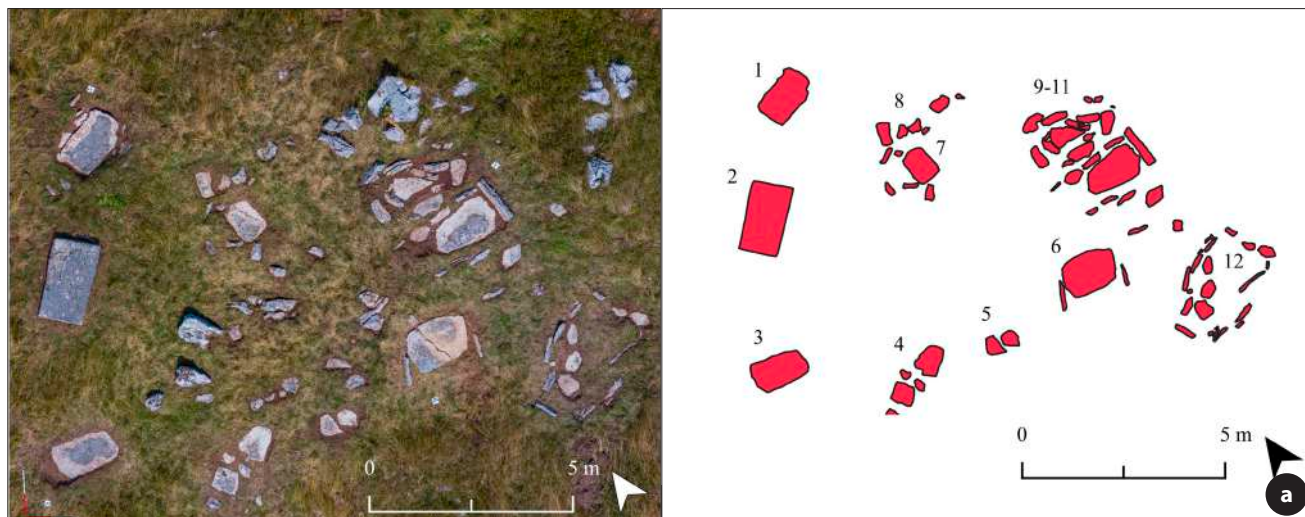
the (pasture) walls are simpler, with only a small gap for the sheep to pass through, closed off with a simple wooden gate, or even just a branch to prevent the herds from grazing.

Out of all the drywall structures, there are only two clear circular enclosures, both located on the slope east of Tarasovača katun and identified as corrals. The builders utilised the natural layout and limestone outcrops as a wall frame. These single walls are preserved with up to three layers of stones. Contrary to most other walls in the Busovača and Tarasovača katuns, the stones used for these walls were neither dressed nor specifically selected. It appears they were indiscriminately laid or inserted into the openings between the bedrock outcrops and not carefully stacked in layers, as is seen in residential buildings or some parts of animal huts. It is unclear if this indicates a specific building technique or is rather a consequence of the passage of time. However, their circular shape and the proximity of a prehistoric stone mound – about 75 m to the southeast – raised conjecture about their prehistoric origin. And the answer came soon after.

The geoarchaeological survey set one of the test pits (TP206) between the two circular enclosures. At a depth of 15 cm, we found three fragments of prehistoric pottery (Fig. 6). Upon examining their handmade shaping techniques and technological characteristics of the fabric, we found analogies in the Late Bronze Age and Early Iron Age pottery from a wider geographical area, all the way to the Hatelji mounds in Dabarsko polje, about 70 km away. This suggests that Tarasovača may have been a part of an extensive network during that period, indicating possible interactions between (different) groups and the spread of technological and artistic influences. Whether the reason for such networking was trade or the transhumant economy has not yet been established; more research focusing on the prehistoric elements of the highland areas is required. Future research into the settlement patterns and socio-economic structures of the communities inhabiting the region at the time will provide insights into their daily lives, economic practices and social interactions during these transformative eras.

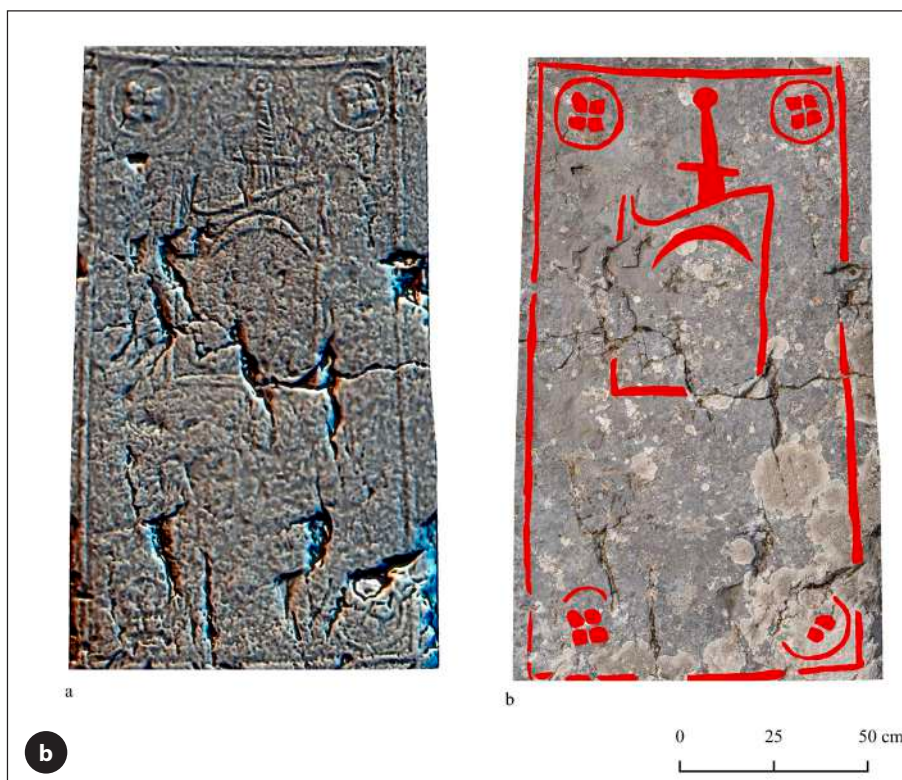
BURIAL GROUND

The necropolis stayed hidden during our initial visit due to the high grass, and it was only discovered after a detailed survey of the area in September 2023. It is located on a glacial moraine, west of the Busovača katun, halfway to the water pond. Once the grass was cut, we were able to identify 12 apparent grave marker structures (Fig. 7a, b). Three of these were stećci tombstones, and nine were of a different type: they were constructed from naturally broken stone slabs assembled into roughly rectangular shapes to represent burial covers. In addition, vertical stone slabs were placed along the edges of graves to form a frame and provide a border to individual burial parcels. The three stećci appear in a slab form: two are undecorated horizontal slabs, and one is a 26 cm thick rectangular slab with carved decorations including rosettes, a crescent moon, a sword, and a shield on the upper surface (Fig. 7b). The historical consensus places stećci between the 12th and 16th centuries. The



Sl. 7. a-Nekropola Busovača: Različiti prikazi nekropole na glacijalnoj moreni, b-detalan prikaz ukrašenog stećka (autor: L. Škerjanec).

Fig. 7: a-The Busovača necropolis: various views of the necropolis on a glacial moraine, b-the detailed view of the decorated stećak (author: L. Škerjanec).



protumačili smo ih kao postsrednjovjekovne ukope, što je hipoteza koju budući iskopi i metoda datiranja upotrebom radiougljika mogu potvrditi. Međutim, ovdje se postavlja pitanje: ko su ljudi koji su ukopani uz katun Busovača? Iako je nejasna, ovo groblje dokazuje vezu između srednjovjekovnih stećaka i transhumantnog stočarstva.

GEOARHEOLOŠKA PROCJENA

Intenzivnim geoarheološkim istraživanjem obuhvaćene su pedosedimentarne sekvence povezane s različitim geomorfološkim oblicima reljefa i izgrađenim okolišem na katunima. To nam je omogućilo da otkrijemo bogatu

nine burials are distinctly different from the stećci in terms of marker type. Based on their appearance, we interpreted them as post-medieval burials, a hypothesis that future excavation and carbon analyses can corroborate. However, at this point, the question arises: Who are the people buried beside the Busovača katun? Although the connection is unclear, this burial ground proves a tangible link between medieval stećci and transhumant pastoralism.

GEOARCHAEOLOGICAL ASSESSMENT

An intensive geoarchaeological survey captured pedo-sedimentary sequences associated with different geomorphological landforms and built environments at the katuns. This

mikrohistoriju lokaliteta, kojoj se pristupa iz vizure geomorfologije i arheologije. Tokom istraživanja prikupili smo 53 masovna uzorka iz 21 testne jame (TP), ali je u analizu uključeno samo 46 njih (sl. 2, 8).

Lokacije testnih jama pažljivo su odabrane kako bi se procijenile varijacije u pedosedimentarnim sekvencama povezanim s različitim geomorfološkim oblicima reljefa i kulturnim karakteristikama, uključujući objekte, torove za životinje, otvorene prostore na različitim udaljenostima od izgrađenih struktura, izvora vode, mogućeg polja i nekropole (sl. 8).

Geoarheologija usvaja različite tehnike iz nauke o zemlji i tlu kako bi rekonstruirala prirodne i antropogene procese uključene u formiranje određenog sloja.⁴¹ Prvi korak istraživanja bila je serija analiza tla na 46 skupnih uzoraka⁴² kako bi se odredili:

1. pH vrijednost tla,
2. postotak organske tvari u tlu (SOM) i
3. količina fosfata u tlu.

Skupni uzorci tla osušeni su na zraku, lagano usitnjeni u mužaru i prosijani na veličinu od 2 mm.⁴³ Aktivna (pH-H₂O) kiselost tla mjerena je elektrometrijski u suspenziji tla, s omjerom tla i dejonizirane vode 1 : 5 (v/v).⁴⁴ Ukupni sadržaj organskog ugljika određen je suhim izgaranjem i spektroskopskom analizom proizvedenog CO₂ pomoću instrumenta Vario Max CN Element Analyser.⁴⁵ Biljkama pristupačan fosfor izmjeren je nakon ekstrakcije amonijevim laktatom (AL).⁴⁶ Tlo na lokaciji klasificirano je prema WRB-ju⁴⁷ i nacionalnim klasifikacijskim sistemima.⁴⁸ Sve tri analize tla (pH, SOM i P₂O₅) provedene su u skladu s ISO protokolima, što je osiguravalo poznatu mjernu nesigurnost. Svaki od 46 uzoraka jednom je analiziran za vrijednosti pH, SOM i P₂O₅. Preciznost mjerenja provjerena je korištenjem internih i komercijalnih referentnih materijala.

Statističke analize provedene su putem R softvera (R Development Core Team, 2024), koji sadrži pakete *stats*, *car* i *ggplot2*. Primarni cilj je bio da se utvrdi mogu li se statistički potvrditi uočeni trendovi u razlikama između tipova prostora koji se odražavaju u distribuciji vrijednosti pH, SOM i P₂O₅ (sl. 9–11). Kako bi se poboljšala normalnost distribucije podataka i stabilizirala varijanca, koncentracije SOM i P₂O₅ su logaritamski transformirane. Normalnost podataka procijenjena je Shapiro-Wilkovim testom, dok je za procjenu homogenosti varijansi među tipovima prostora korišten Leveneov test. Zatim je provedena jednosmjerna analiza varijanse (ANOVA) kako bi se ispitala razlike među vrstama prostora. Rezultati ANOVA-e su pokazali statistički značajne razlike za pH ($p < 0,001$) i marginalno značajne

allowed us to uncover the site's rich micro-history, accessed through geomorphological and archaeological lenses. During the survey, we collected 53 bulk samples from 21 test pits (TP), however only 46 were included in the analysis (Fig. 2, 8).

The locations of the TPs were carefully chosen to assess variations in pedo-sedimentary sequences associated with different geomorphological landforms and cultural features, including buildings, animal corrals, open spaces at varying distances from built structures, water sources, a putative field, and the necropolis (Fig. 8).

Geoarchaeology adopts various techniques from earth and soil sciences to reconstruct natural and anthropogenic processes involved in the formation of a particular deposit.⁴¹ As a first step of research, a series of soil analyses were undertaken on 46 bulk samples⁴² to specify:

1. the pH of the soil;
2. the percentage of the soil organic matter (SOM); and
3. the amount of phosphate in the soil.

Bulk soil samples were air-dried, gently powdered with a mortar and pestle, and sieved to a 2 mm size.⁴³ Active (pHH₂O) soil acidity was measured electrometrically in a soil suspension, with a 1:5 (v/v) ratio of soil and deionised water.⁴⁴ The total organic carbon content was determined with dry combustion and spectroscopic analysis of the produced CO₂ using a Vario Max CN Element Analyser.⁴⁵ Plant-available phosphorus was measured after extraction with ammonium lactate (AL).⁴⁶ The soil at the site was classified according to the WRB⁴⁷ and national classification systems.⁴⁸ All three soil analyses (pH, SOM, and P₂O₅) were conducted in accordance with ISO protocols, ensuring known measurement uncertainty. Each of the 46 samples was analysed one time for its pH, SOM, and P₂O₅ values. Measurement accuracy was verified using both internal and commercial reference materials.

Statistical analyses were conducted using R software (R Development Core Team, 2024), utilising the *stats*, *car*, and *ggplot2* packages. The primary objective was to determine whether the observed trends in differences between space types, reflected in the distribution of pH, SOM, and P₂O₅ values (Fig. 9–11), could be statistically confirmed. To enhance the normality of data distribution and stabilise variance, SOM and P₂O₅ concentrations were log-transformed. Data normality was assessed using the Shapiro-Wilk test, while Levene's test was employed to evaluate the homogeneity of variances among space types. A one-way analysis of variance (ANOVA) was then performed to examine differences across space types. The ANOVA results indicated statistically significant differences for pH ($p < 0.001$) and marginally significant differences for P₂O₅ ($p = 0.060$), but no statistically significant differences for SOM ($p = 0.863$). To further

41 Canti, Corcoran 2015; Rapp, Hill 2018.

42 Veliki uzorci s pojilišta (TP019), mogućeg polja (TP021) i groblja (TP020) nisu uključeni u ovaj rad.

43 SIST ISO 11464: 2006.

44 SIST EN ISO 10390: 2022.

45 SIST ISO 10694: 1996.

46 ÖNORM L 1087: 2006 (modifikacija AL ekstrakcije).

47 Zech *et al.* 2021.

48 Resulović *et al.* 2008.

41 Canti, Corcoran 2015; Rapp, Hill 2018.

42 Bulk samples from a watering hole (TP019), a putative field (TP021), and a cemetery (TP020) were not included in this paper.

43 SIST ISO 11464: 2006.

44 SIST EN ISO 10390: 2022.

45 SIST ISO 10694: 1996.

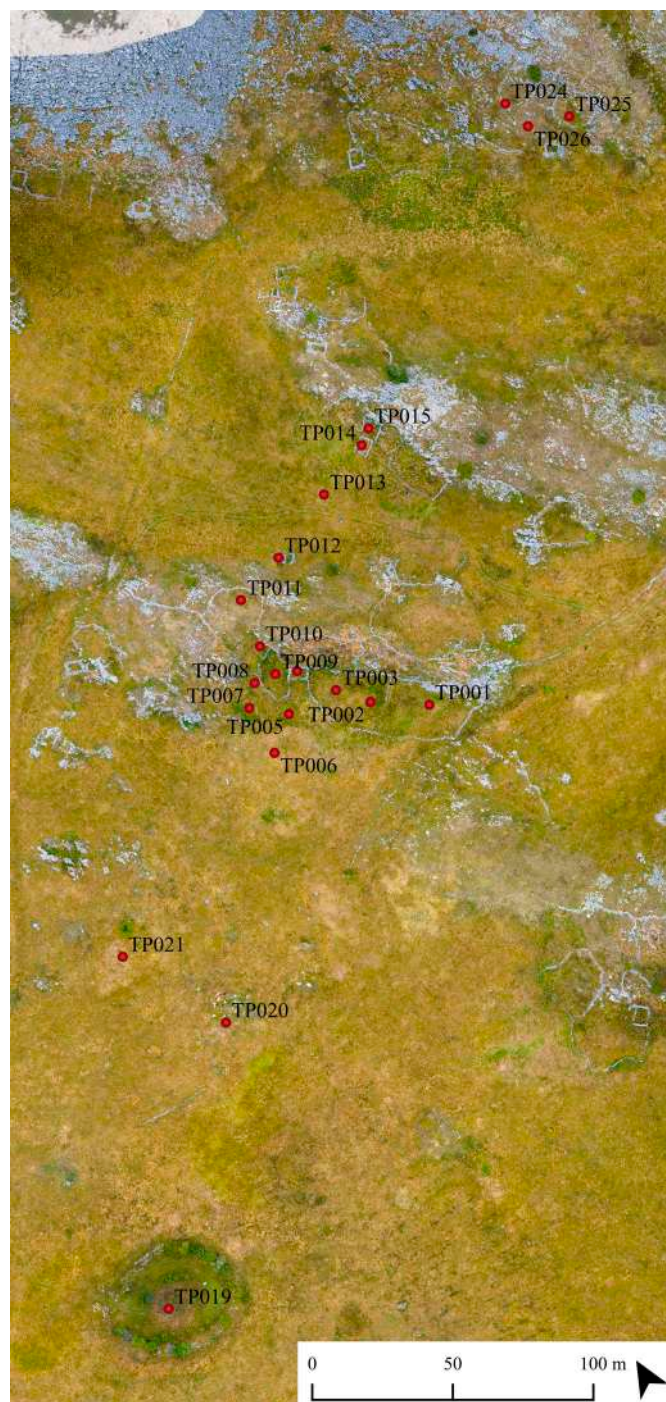
46 ÖNORM L 1087, 2006 (modification AL extraction).

47 Zech *et al.* 2021.

48 Resulović *et al.* 2008.

Sl. 8. Istraživanje je uključivalo relativno ravan središnji dio lokacije (TP001 – TP006, TP012, TP013), male grebene koji se protežu u pravcu SZ–Jl preko njega (TP009 – TP011, TP014, TP015), nekoliko vrtača (duboka – TP007 i TP008, te šira i plića – TP021), vrh malog humka povezanog s prizemnom morenom (TP020) i padinama na SI rubu nalazišta (TP024 – TP026). Iz arheološke perspektive, TP-i su izvađeni iz pet objekata (TP004, TP010, TP012, TP014, TP015), pet torova (TP001 – TP003, TP007 – TP009, TP011, TP024 – TP025), četiri otvorena prostora smještena na različitim udaljenostima od izgrađene strukture (TP005 – TP006, TP013, TP026), pojilišta (TP019), mogućeg polja (TP021) i groblja (TP020) (autor: L. Škerjanec).

Fig. 8. The survey included the relatively flat central section of the site (TP001 – TP006, TP012, TP013), small ridges running NW-SE across it (TP009 – TP011, TP014, TP015), a couple of dolines (a deep one (TP007 and TP008), and a wider and shallower one (TP021)), the top of a small mound associated with the ground moraine (TP020) and the slopes at the NE edge of the site (TP024 – TP026). From an archaeological perspective, the TPs were extracted from five buildings (TP004, TP010, TP012, TP014, TP015), five corrals (TP001 – TP003, TP007 – TP009, TP011, TP024, TP025), four open spaces located at varying distances from built structures (TP005, TP006, TP013, TP026), a watering hole (TP019), a putative field (TP021), and a cemetery (TP020) (author: L. Škerjanec).



razlike za P_{2O5} ($p = 0,060$), ali ne i statistički značajne razlike za SOM ($p = 0,863$). Kako bi se dodatno istražile razlike u parovima među grupama primijenjen je Tukeyev HSD test.

Preliminarni geoarheološki rezultati pokazuju da je područje istraživanja geomorfološki dinamična sredina, u kojoj intenzitet antropogenog signala lokalno varira. Na osnovu morfoloških opisa iskopanih pedosedimentarnih sekvenci, procjene njihove teksture na terenu i pH analize (tab. 1, sl. 8, 9), na lokalitetu su identificirane tri referentne

investigate pairwise differences between groups, Tukey's HSD test was applied.

The preliminary geoarchaeological results indicate that the study area is a geomorphologically dynamic environment, in which the intensity of the anthropogenic signal varies locally. Based on the morphological descriptions of the excavated pedo-sedimentary sequences, their textural assessment in the field, and their pH analysis (Tab. 1, Fig. 8, 9), three reference soil groups with distinct geomorphological

Sp.Type / tip prostora	Test Pit (TP) istražna sonda	Soil Reference group (WRB)	Jedinica tla u nac. klasifikaciji*	Soil Horizon / horizont tla	Depth / dubina [cm]	Soil Text. Assessm. / tekst. klasa tla	pH (H ₂ O)	SOM / humus [%]	P ₂ O ₅ [mg/kg]
Buildings / zgrade	TP004	Leptosols and Phaeozems	crnica i smeđa tla na krečnjacima	Ah	0 - 5	SiL	5.8	11	69
				AB	5 - 42	SiL - CL	6.2	4.8	64
	TP010	Eutric Cambisols	eutrična smeđa tla	A	0 - 9	L - SiL	5.6	10.2	60
				AB	9 - 20	CL	6.0	4.3	32
				Brz	20 - 40+	CL - C	6.2	3.4	376
				TP012	Leptosols and Phaeozems	crnica i smeđa tla na krečnjacima	Ah	above sp**	SiL
	AB	below sp***	L				7.6	13.4	2221
	TP014	Eutric Cambisols	eutrična smeđa tla	A	0 - 9	L	6.3	10.2	527
				AB	9 - 20	SL - L	6.4	4.5	430
	TP015	anthropogenic sequence	antropogena tla	I	0 - 18	L	6.4	29.5	1255
II				18 - 25	CL	6.9	6.4	1502	
			III	25 - 40+	CL - C	6.9	3.4	911	
Corrals / torovi	TP001	Dystric Cambisols	kisela smeđa tla	Oh	0 - 5	–	5.2	21.6	334
				A	5 - 34	L	5.2	7.6	334
				AB	34 - 42	L - SL	5.1	3.4	334
	TP002	Dystric Cambisols	kisela smeđa tla	Ah	0 - 8	L	6.2	10	334
				AB	8 - 19	SL - L	5.6	5.2	334
				B	19 - 25+	L	5.4	3.8	435
	TP003	Dystric Cambisols	kisela smeđa tla	Ah	0 - 9	L - SiL	5.5	15.7	137
				AB	9 - 20	L	5.6	7.1	101
				B	20 - 30+	SiL - L - SL	5.8	4.1	37
	TP007	Leptosols and Phaeozems	crnica i smeđa tla na krečnjacima	Ah	0 - 8	SiL	5.7	16	266
				AB	8 - 22	SiL - CL	6.6	8.6	243
	TP008	Eutric Cambisols	eutrična smeđa tla	A	0 - 12	L	5.6	10.9	78
				AB	12 - 42	L - SiL	5.8	5.9	256
	TP009	Dystric Cambisols	kisela smeđa tla	Ah	0 - 9	L	5.5	12.1	215
				AB	9 - 22	L	5.2	5.2	133
				B1	22 - 60	L	5.3	4.7	46
	TP011	Eutric Cambisols	eutrična smeđa tla	A	0 - 9	L - SiL	5.9	13.1	229
				AB	9 - 25	CL	6.6	8.3	87
B				25 - 35+	CL - C	6.6	4.3	23	
TP024	Leptosols and Phaeozems	crnica i smeđa tla na krečnjacima	Ah	0 - 6	L - SiL	5.3	13.1	128	
			A2	6 - 50	L - SiL	5.3	6.4	92	
TP025			Ah	0 - 6	SiL - L	5.8	12.8	293	
Open Spaces / otvoreni prostori	TP005	Dystric Cambisols	kisela smeđa tla	A	0 - 8	L - SL	5.3	13.1	110
				AB	8 - 38	L - SL	5.1	7.8	119
	TP006	Dystric Cambisols	kisela smeđa tla	A	0 - 10	L	4.9	17.6	78
				AB	10 - 36	SL - L	4.8	7.9	87
				B	36 - 48+	SiL	4.8	5.7	82
				TP013	Dystric (?) Cambisols	kisela/eutrična smeđa tla	A	0 - 9	L - SL
	AB	9 - 24	SL - L				6.0	4.7	284
	B1	24 - 47	SiL				5.7	3.8	247
	TP026	Leptosols and Phaeozems	crnica i smeđa tla na krečnjacima	Ah	0 - 6	L - SiL	5.9	14.1	160
A2				6 - 18	L - SiL	6.0	7.2	60	

* Resulović et al. 2008; ** above stone paving / iznad kamenog popločanja; ***below stone paving / ispod kamenog popločanja

Tabela 1. Karakteristike tla pojedinih horizonata unutar TP-a (A. Prijatelj i M. Zupan).

Table 1. Soil characteristics of individual horizons within the TPs (by A. Prijatelj and M. Zupan).

Space Type / tip prostora	Soil Horizon (no. of horizons analysed) / horizont tla (broj analiziranih horizonata)	Depth in cm / dubina u cm (min./max. - min./max.)	pH (H ₂ O)			Soil Organic Content / organska materija tla (humus) [%]			P ₂ O ₅ [mg/kg]		
			Mean*	Standard Deviation**	Range (Min.-Max. Value)***	Mean*	Standard Deviation**	Range (Min.-Max. Value)***	Mean*	Standard Deviation**	Range (Min.-Max. Value)***
Buildings*	A (5)	0 - 5/18	6.2	0.4	5.6 - 6.4	22.0	17.3	10.2 - 49.3	544.4	509.2	60 - 1255
	AB (5)	5/18 - 20/42	6.6	0.7	6.0 - 7.6	6.7	3.8	4.3 - 13.4	849.8	970.6	32 - 2221
	B (2)	20/25 - 40+	6.6	0.5	6.2 - 6.9	3.4	0.0	3.4 - 3.4	643.5	378.3	376 - 911
Corrals**	A (10)	0/5 - 6/34	5.6	0.3	5.2 - 6.2	11.8	3.1	6.4 - 16.0	210.6	96.9	78 - 334
	AB (7)	6/34 - 19/50	5.8	0.6	5.1 - 6.6	6.2	1.9	3.4 - 8.6	212.6	105.6	101 - 334
	B (4)	19/50 - 25/60+	5.8	0.6	5.3 - 6.6	4.2	0.4	3.8 - 4.7	135.3	200.1	23 - 435
Open Spaces***	A (5)	0 - 6/10	5.6	0.5	4.9 - 6.0	12.0	4.4	7.2 - 17.6	166.8	149.8	60 - 426
	AB (3)	6/10 - 18/38	5.3	0.6	4.8 - 6.0	6.8	1.8	4.7 - 7.9	68.0	105.7	87 - 284
	B (2)	18/38 - 47/48+	5.2	0.6	4.8 - 5.7	4.8	1.3	3.8 - 5.7	164.5	116.7	82 - 247

*srednja vrijednost; **standardna devijacija; ***minimalno-maksimalne vrijednosti

*zgrade; **torovi; ***otvoreni prostori

Tabela 2. Srednje vrijednosti, standardna devijacija i minimalne i maksimalne vrijednosti za pH, organsku tvar tla (SOM) i P₂O₅ u horizontima A, AB i B uzete iz objekata, torova i otvorenih prostora (autori: A. Prijatelj i M. Zupan).

Table 2. Mean, standard deviation & minimum–maximum values for pH, soil organic matter (SOM), & P₂O₅ in the A, AB & B horizons sampled from buildings, corrals and open spaces (by A. Prijatelj and M. Zupan).

grupe tla s različitim geomorfološkim korelacijama.⁴⁹ Dystric Cambisols⁵⁰ zabilježen je u relativno ravnom središnjem dijelu, gdje su lokalni glečeri i procesi na padinama taložili nekarbonatne naslage. Tla na ovim područjima imaju visok sadržaj krupnih kamenih fragmenata (> 2 mm) koji prema terenskoj procjeni mogu dostići i 40% ispitivanih horizonata tla. Lagane su do srednje teksture, s najčešćim teksturnim klasama koje uključuju pjeskovitu ilovaču (SL), ilovaču (L) i muljevit ilovaču (SiL), a klasificiraju se kao kisle (pH ≤ 5,5; tab. 1).

Područje istraživanja je prvenstveno sastavljeno od mezozoijskih stijena krečnjak bogat crtom,⁵¹ sa Dystric Cambisols naizmjenično sa eutričnim kambisolima⁵² i raznim vrstama feozema. Ove grupe tla prelaze u Leptosols⁵³ na gornjim padinama i prema vrhu centralnih grebena. U poređenju

correlations were identified at the site.⁴⁹ Dystric Cambisols⁵⁰ were recorded in the relatively flat central section, where local glaciers and slope processes deposited noncarbonate debris. The soils in these areas have a high content of coarse rock fragments (> 2 mm) that can reach up to 40% of the examined soil horizons according to the field assessment. They are light-to-medium-textured, with the most common textural classes including sandy loam (SL), loam (L) and silty loam (SiL), and classified as acidic (pH ≤ 5.5; Tab. 1).

The study area is composed of Mesozoic rocks, primarily limestone rich in chert,⁵¹ with the Dystric Cambisols alternating with Eutric Cambisols⁵² and various types of Phaeozems. These soil groups transition to Leptosols⁵³ on the upper slopes and towards the top of the central ridges. Compared to soils in the flat central section, Eutric Cambisols and Phaeozems situated at the foot of the ridges and lower parts of the

⁴⁹ Resulović et al. 2008; Zech et al. 2021.

⁵⁰ Resulović et al. 2008.

⁵¹ Hrvatović 2006.

⁵² Resulović et al. 2008.

⁵³ Resulović et al. 2008.

⁴⁹ Resulović et al. 2008; Zech et al. 2021.

⁵⁰ Resulović et al. 2008.

⁵¹ Hrvatović 2006.

⁵² Resulović et al. 2008.

⁵³ Resulović et al. 2008.

Tabela 3. Poređenje svojstava tla u različitim tipovima prostora; srednja vrijednost $\pm$ standardna pogreška srednje vrijednosti. Grupe s različitim slovima označavaju statistički značajne razlike (R. Turniški).

Table 3. Comparison of soil properties across different space types; mean $\pm$ standard error of the mean. Groups with different letters indicate statistically significant differences (by R. Turniški).

Space Type / tip prostora	pH (H ₂ O)	SOM / humus [%]	P ₂ O ₅ [mg/kg]
Buildings*	6,4 $\pm$ 0,16 a	12,5 $\pm$ 3,94 a	688,2 $\pm$ 198,2 a
Corrals**	5,7 $\pm$ 0,10 b	8,5 $\pm$ 0,88 a	196,9 $\pm$ 26,3 b
Open Spaces***	5,4 $\pm$ 0,16 b	9,0 $\pm$ 1,41 a	165,3 $\pm$ 37,4 b

*zgrade; **torovi; ***otvoreni prostori

sa tlima u ravan središnji dio, locirani eutrični kambisoli i feozemi u podnožju grebena i nižih dijelova padina imaju manji sadržaj grubih fragmenata stijena koji može doseći do 10–20% ispitivanih horizonata tla. Takođe su teksturalno teže, varira između muljevite ilovače (SiL), ilovače (L), ilovače ilovače (CL) i gline (C), te umjereno kisele (pH $\geq$ 6,0; Tab. 1).

Analize pH vrijednosti, organske tvari tla (SOM) i fosfata pokazale su značajne varijacije u svojstvima tla u različitim područjima, što ukazuje na složenu interakciju prirodnih i antropogenih procesa na cijeloj lokaciji. Od toga, pH analiza tla daje uvid u geogene i antropogene procese koji utiču na tlo na lokaciji, dok SOM analiza otkriva mješavinu i omjere biogenih i antropogenih tragova. S druge strane, analiza fosfata posebno pokazuje ljudsku aktivnost na lokaciji.

Varijacije pH uslova od umjereno kiselih do kiselih (tab. 1; sl. 9) odražavaju dvije zasebne vrste prisutne geologije. Prva se sastoji od karbonatnih stijena, prvenstveno krečnjaka, bogatih rožnacima, na kojima su se razvila tla umjereno kisle pH vrijednosti ($\geq$ 6,0) te nekoliko uzoraka s granicom pH vrijednosti do neutralne ili umjereno alkalne. Druga vrsta prisutne geologije sastoji se od nekarbonatnih ostataka, taloženih lokalnim glečerima i procesima na padinama, s tlom pretežno kisle pH vrijednosti ($\leq$ 5,5). Najviša srednja pH vrijednost zabilježena je na objektima, zatim u torovima i otvorenim prostorima (tab. 3). Statističkom analizom utvrđene su značajne razlike između tipova prostora ($p < 0,000$). Povećanje pH vrijednosti na objektima vjerovatno se može pripisati snažnom antropogenom uticaju, pri čemu je pepeo vjerovatno faktor koji doprinosi ovom povećanju.

Sadržaj SOM-a je složen pokazatelj koji istovremeno odražava antropogene i biogene procese na lokaciji. Područje ima planinsku klimu s relativno visokim stopama padavina u ovom području Dinarskog krša (1600–2000 mm godišnje).⁵⁴ S tlima umjereno kisle do kisle pH vrijednosti stvoreni su različiti uslovi zakopavanja na katunima Busovača i Tarasovača, što bi pogodovalo sporijoj razgradnji organske tvari. U prvom slučaju, brzina procesa razgradnje i humifikacije zavisila bi od izvora organske tvari, kao što

slopes have a smaller coarse rock fragment content that can reach up to 10–20% of the examined soil horizons. They are also texturally heavier, varying between silty loam (SiL), loam (L), clay loam (CL) and clay (C), and moderately acidic (pH $\geq$ 6,0; Tab. 1).

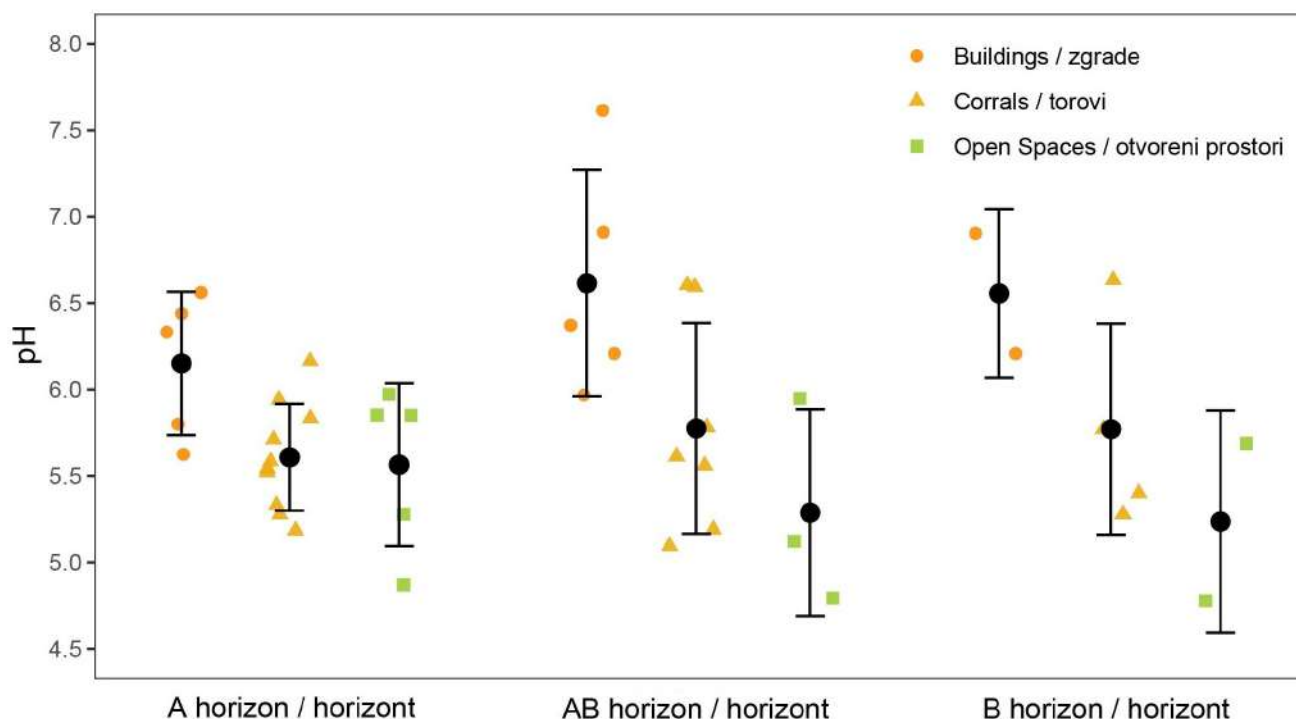
The analyses of pH, soil organic matter (SOM) and phosphates evidenced a notable variation in soil properties in different areas, indicating a complex interplay of natural and anthropogenic processes across the site. Of these, the soil pH analysis provides insights into geogenic and anthropogenic processes affecting the soils, while SOM analysis reveals the mix and proportions of biogenic and anthropogenic traces. On the other hand, the phosphate analysis specifically exhibits human activity at the location.

The variations in pH conditions from moderately acidic to acidic (Tab 1; Fig. 9) reflect two discrete types of underlying geology. The first consists of the carbonate rocks, primarily limestone rich in chert, with soils developed on them having a moderately acidic pH ($\geq$ 6,0), with a few samples having a pH edging to neutral or moderately alkaline. The second type of underlying geology comprises noncarbonate debris, deposited by local glaciers and slope processes, with soils on them being predominantly acidic ($\leq$ 5,5). The highest mean pH value was observed in buildings, followed by corrals and open spaces (Tab. 3). Statistical analysis revealed significant differences between space types ($p < 0,000$). The increase in pH in buildings is likely attributable to strong anthropogenic influences, with ash being a probable contributing factor to this enhancement.

The SOM content acts as a complex proxy, simultaneously reflecting anthropogenic and biogenic processes at the site. The area has a mountainous climate with relatively high precipitation rates in this area of the Dinaric Karst (1600–2000 mm per year).⁵⁴ With soils having a moderately acidic to acidic pH, which created distinct burial conditions at Busovača and Tarasovača katuns, this would have favoured a slower breakdown of the organic matter. In the first instance, the rate of the decomposition and humification processes would have been dependent on the source of the organic matter, such as plant residues (i.e. primary resources) and animal and microbial products (i.e. secondary resources). The source of the

54 Prelovšek 2010.

54 Prelovšek 2010.



Sl. 9. Poređenje pH vrijednosti objekata, torova i otvorenih prostora, kao i vrijednosti unutar njihovih povezanih horizonata tla, pokazuje da je srednja vrijednost za horizonte A, AB i B unutar objekata bila 1,1 do 1,3 puta veća nego za iste horizonte u torovima i otvorenim prostorima. Standardna devijacija za horizonte A, AB i B (vidi tab. 2) kretala se od 0,3 do 0,7 na različitim područjima nalazišta i povećavala se s dubinom. Među tri vrste pastoralnih prostora vrijednost je najviša u objektima. Krugovi, trokuti i kvadrati predstavljaju pojedinačne mjere, crne tačke srednje vrijednosti, a križići standardnu devijaciju (A. Prijatelj i R. Turniški).

Fig. 9. Comparison of pH between buildings, corrals and open spaces and within their associated soil horizons indicates that the mean for A, AB & B horizons within buildings was 1.1 to 1.3 times higher than for the same horizons in corrals and open spaces. The standard deviation for A, AB & B horizons (see Tab. 2) ranged from 0.3 to 0.7 across different areas of the site and increased with depth. Among the three types of pastoral spaces, it was highest in buildings. Circles, triangles and squares represent individual measurements, black dots mean values, and error bars standard deviation (by A. Prijatelj and R. Turniški).

su biljni ostaci (tj. primarni resursi) i životinjski i mikrobnj proizvodi (tj. sekundarni resursi). Izvor organske tvari bio bi u velikoj mjeri podložan ljudskim aktivnostima na cijeloj lokaciji, uključujući ekstenzivnu, dugotrajnu ispašu, držanje stoke u torovima, vrtlarstvo i druge različite aktivnosti unutar objekata. Različite aktivnosti mogle bi uticati na količinu i vrstu organske tvari prisutne u različitim područjima lokacije. Stopa i stepen humifikacije bili bi dodatno određeni skupom složenih abiotičkih i biotičkih faktora, uključujući temperaturu, vlagu, pH vrijednost, geologiju osnovne stijene i vrste prisutnih mikroorganizama.⁵⁵

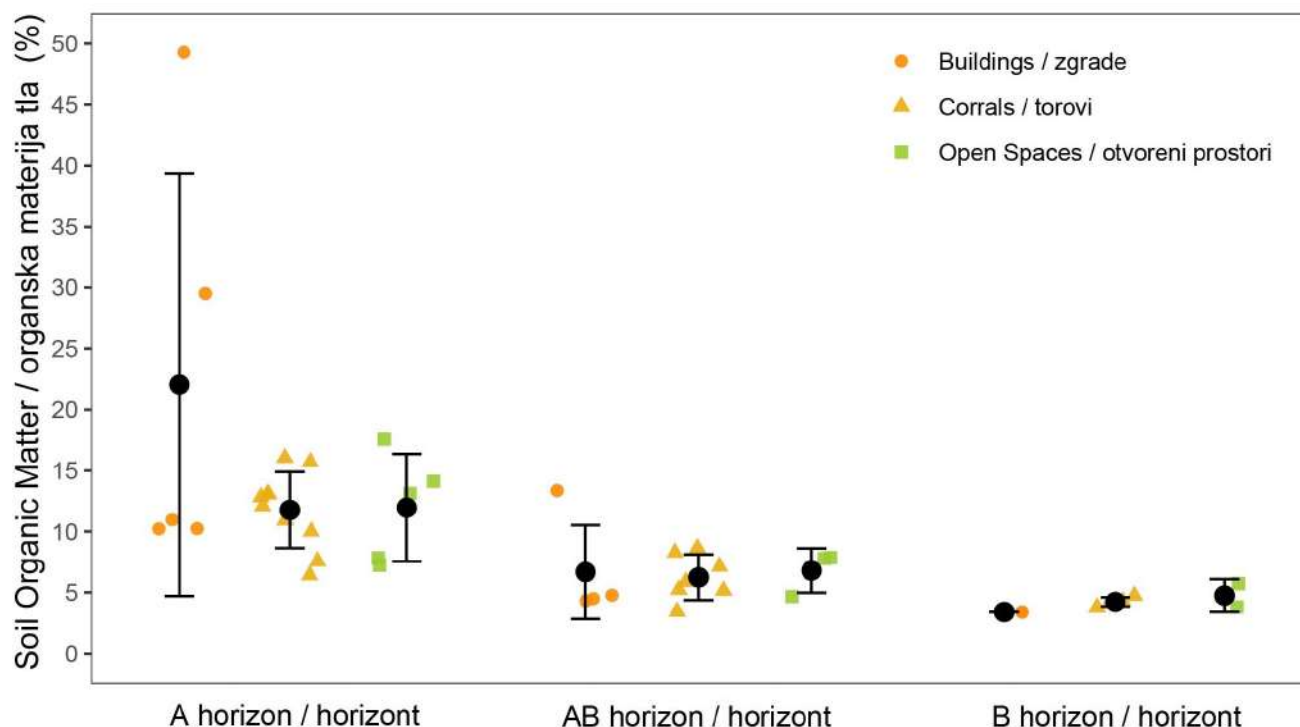
Sadržaj SOM-a bio je najveći u objektima, ali se nije značajno razlikovao od torova i otvorenih prostora (tab. 3). Neke su strukture mogle biti povezane s preradom hrane i mlijeka ili možda s privremenim smještajem stoke (tab. 1; sl. 10). Dok se čini da je obogaćivanje organske tvari tla u torovima i otvorenim prostorima u istom rasponu, izvor SOM-a u ove dvije vrste pastoralnih prostora bio bi izrazito različit. Unutar torova, namijenjenih za držanje stoke, primarni izvor SOM-a bio bi životinjski izmet, dok bi na

organic matter would have been to a large degree subject to human activities across the site, including the extensive long-term grazing, corralling and gardening, as well as various distinct activities within buildings. Different activities would have affected the quantity and type of organic matter present in different areas of the site. The rate and degree of humification would have been further determined by a range of complex abiotic and biotic factors, including temperature, moisture, pH, bedrock geology, and types of microorganisms present.⁵⁵

The SOM content was highest in buildings, but did not differ significantly from that of corrals and open spaces (Tab. 3). Some of the structures may have been associated with food and dairy processing, or perhaps the temporary housing of livestock (Tab. 1; Fig. 10). While the enrichment of soil organic matter within corrals and open spaces appears to be in the same range, the source of the SOM in these two types of pastoral spaces would have been markedly different. Within corrals, intended for confining livestock, the primary source of SOM would have been animal excrement, while in open

55 Cf. i Apsite et al. 2000; Blume et al. 2016.

55 Cf. Apsite et al. 2000; Blume et al. 2016.



Sl. 10. Poređenje sadržaja organske tvari u tlu između objekata, torova i otvorenih prostora, kao i vrijednosti unutar njihovih povezanih horizonata tla, pokazuje da je srednja vrijednost za A horizonte unutar zgrada bila 1,8–1,9 puta veća nego u torovima i otvorenim prostorima (22,0, 11,8 i 12,0%). A horizonti unutar zgrada također imaju najveću standardnu devijaciju (tab. 2) u poređenju s torovima i otvorenim prostorima. Krugovi, trokuti i kvadrati predstavljaju pojedinačne mjere, crne tačke srednje vrijednosti, a križići standardnu devijaciju (A. Prijatelj i R. Turniški).

Fig. 10. Comparison of soil organic matter content between buildings, corrals and open spaces and within their associated soil horizons shows that the mean for A horizons within buildings was 1.8–1.9 times higher than in corrals and open spaces. The A horizons within buildings also had the highest standard deviation (Tab. 2) compared to corrals and open spaces. Circles, triangles and squares represent individual measurements, black dots mean values, and error bars standard deviation (by A. Prijatelj and R. Turniški).

otvorenim prostorima to bila biljna biomasa, koja bi se povećala nakon što bi se napustila dugotrajna, ekstenzivna ispaša.⁵⁶

Kao jedan od najvažnijih pokazatelja ljudskog stanovanja i antropogene izmjene tla,⁵⁷ obogaćivanje fosforom na lokaciji služi kao antropogeni marker, koji ukazuje na razgradnju biljnih i životinjskih ostataka i izlučevina. Kao i kod sadržaja organske tvari, najveće srednje vrijednosti fosfora zabilježene su unutar objekata (tab. 1, sl. 11). Pritom su nivoi fosfora značajno premašivali one u torovima i otvorenim prostorima koji se međusobno nisu značajno razlikovali (tab. 3). Varijabilnost unutar grupe izgrađenih objekata također je bila najveća među svim tipovima prostora (sl. 11), što je rezultiralo marginalno statistički značajnim ($p = 0,06$) razlikama između tri analizirane grupe. Očekuje se da će statističke razlike postati izraženije s većim uzorkom. Naime, i najviši i najniži nivoi fosfora zabilježeni su unutar objekata, što bi moglo sugerirati razlike u njihovoj funkciji. Značajna koncentracija organskog i anorganskog otpada unutar izgrađenih objekata mogla bi biti povezana

spaces it would have been plant biomass, increasing once the long-term, extensive grazing had been abandoned.⁵⁶

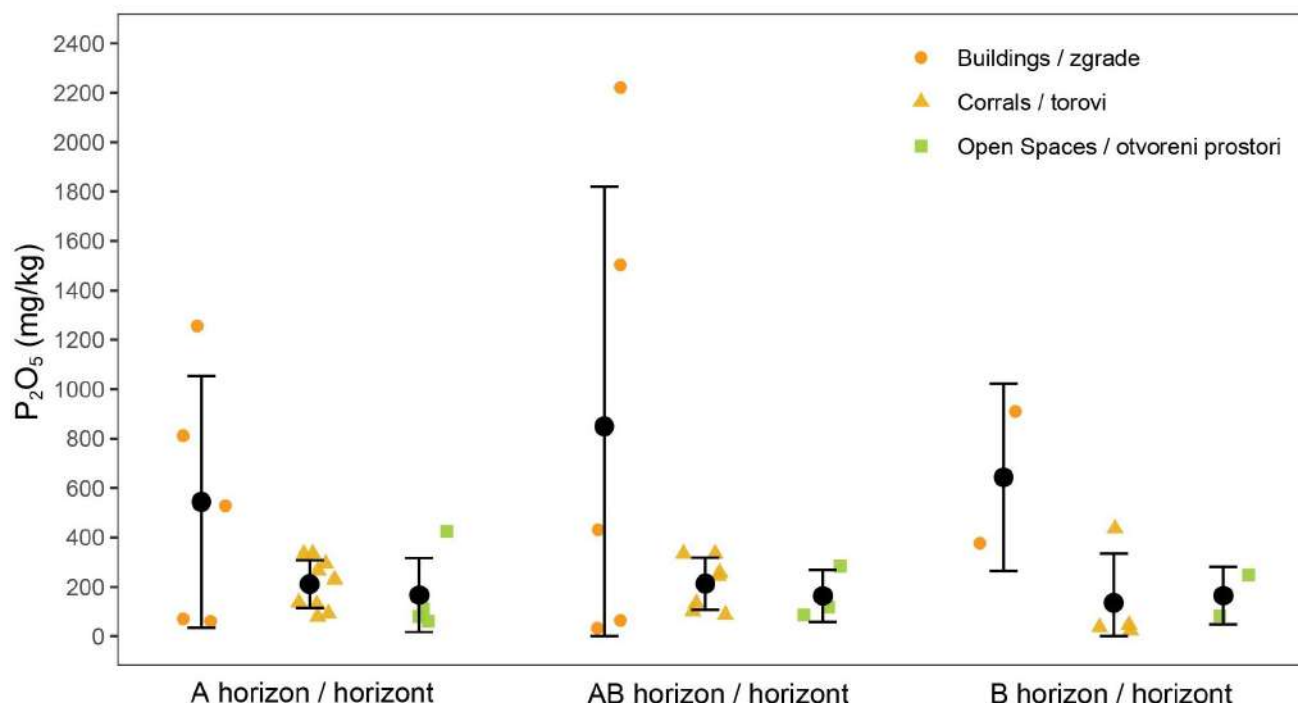
As one of the most important proxies for human habitation and anthropogenic amendment of soils,⁵⁷ phosphorus enrichment at the site serves as an anthropogenic marker, indicating the decomposition of plant and animal remains and excreta. Similar to the organic matter content, the highest mean phosphorus values were recorded within the buildings (Tab. 1, Fig. 11). Therein, phosphorus levels significantly exceeded those in corrals and open spaces, which were not significantly different from each other (Tab. 3). The variability within the building group was also the highest among all space types (Fig. 11), which resulted in marginally statistically significant ($p = 0.06$) differences between the three analysed groups. It is expected that statistical differences would become more pronounced with a larger sample size. Notably, both the highest and lowest phosphorus levels were recorded within buildings, which may be suggestive of differences in their functionality. A significant concentration of organic and inorganic waste within built structures might have been associated with food and dairy processing, or perhaps the

⁵⁶ Npr. Lai, Kumar 2020; Zhang et al. 2017.

⁵⁷ Npr. Bintliff, Degryse 2022; Holliday, Gartner 2007; Kolb 2017.

⁵⁶ e.g. Lai, Kumar 2020; Zhang et al. 2017.

⁵⁷ e.g. Bintliff, Degryse 2020; Holliday, Gartner 2007; Kolb 2017.



Sl. 11. Poređenje sadržaja fosfata između objekata, torova i otvorenih prostora te unutar njihovih povezanih horizonata tla: srednji sadržaj dostupnog fosfora bio je značajno povišen unutar sva tri tipa pastoralnog prostora i unutar sva tri ispitivana horizonta tla. Sadržaj fosfata je 2,6 do 4,75 puta veći u stambenim objektima nego u torovima, a 3,3 do 12,5 puta veći nego u otvorenim prostorima. Značajno je da su AB horizonti unutar zgrada imali najveće standardno odstupanje (vidi tab. 2), dok je standardno odstupanje za B horizonte sva tri tipa pastoralnog prostora ostalo prilično veliko. Krugovi, trokuti i kvadrati predstavljaju pojedinačne mjere, crne tačke srednje vrijednosti, a križići standardnu devijaciju (A. Prijatelj i R. Turniški).

Fig. 11. Comparison of phosphate content between buildings, corrals and open spaces and within their associated soil horizons: the mean content of the available phosphorus was significantly elevated within all three types of pastoral space and within all three soil horizons examined. The phosphate content is 2.6 to 4.75 times higher in residential buildings than corrals, and 3.3 to 12.5 times higher than in open spaces. Notably, AB horizons within buildings had the highest standard deviation (see Tab. 2), with the standard deviation for B horizons of all three types of pastoral space remaining rather large. Circles, triangles and squares represent individual measurements, black dots mean values, and error bars standard deviation (by A. Prijatelj and R. Turniški).

s preradom hrane i mliječnih proizvoda ili možda s privremenim smještajem stoke.⁵⁸ Potencijalna namjena ovih objekata uključuje skloništa za pastire, stražarnice, prostore za preradu mliječnih proizvoda, skladišta i privremene staje za mlade ili ranjene životinje.⁵⁹ To dodatno potvrđuju razlike u veličini i obliku pojedinih građevina i torova širom lokaliteta, kao i različite tehnike njihove suhozidne gradnje. Razlika u nivoima fosfata između torova i otvorenih prostora ukazuje na najmanji intenzitet antropogenog signala unutar otvorenih prostora na lokaciji.

ZAKLJUČAK

Kao praksa predaka, transhumanca je duboko ukorijenjena u znanju o okolišu i obuhvaća društvene prakse i rituale povezane s brigom o životinjama, uzgojem i upravljanjem prirodnim resursima. Sveobuhvatan društveno-ekonomski sistem razvio se oko transhumanca, od regionalno specifičnih

temporary housing of livestock.⁵⁸ Potential uses for these buildings include shelters for shepherds, watchtowers, spaces for dairy product processing, storage facilities, and temporary stables for young or injured animals.⁵⁹ This is further corroborated by the differences in size and shape of the individual buildings and corrals across the site, as well as different techniques employed in their dry-stone construction. The difference in the phosphate levels between the corrals and open spaces suggests the lowest intensity of the anthropogenic signal within the open spaces at the site.

CONCLUSION

As an ancestral practice, transhumance is deeply rooted in environmental knowledge, and encompasses social practices and rituals related to animal care, breeding, and managing natural resources. A comprehensive socio-economic system has evolved around transhumance, from regional-specific types of dairy products to local handicrafts

⁵⁸ Naumović, Dražeta 2023; Puljić 2010.

⁵⁹ Naumović, Dražeta 2023; Puljić 2010.

⁵⁸ Naumović, Dražeta 2023; Puljić 2010.

⁵⁹ Naumović, Dražeta 2023; Puljić 2010.

vrsta mliječnih proizvoda do lokalnih rukotvorina i sezonskih svečanosti. Danas ova praksa nije samo lokalna tradicija već globalno prepoznat i značajan element nematerijalne baštine.⁶⁰

Složeni obrazac strategija transhumance, posmatran u historijskim i etnografskim zapisima, rezultat je kontinuiranog procesa interakcije između ljudi i krajolika i dinamičnog odgovora na društvene, političke, ekonomske i ekološke ritmove. Stoga se etnografski dokumentirane prakse transhumance na Dinaridima ne bi trebale posmatrati kao ostaci fosilnih strategija iz duboke prošlosti, već kao dinamičan odgovor na promjenjive uslove i prakse, uvijek u procesu pregovora.⁶¹ Zapravo, kao arheolozi, krajolike bismo trebali promatrati kao artefakte, kao kumulativne rezultate dugotrajne dinamičke interakcije između okoliša i ljudskih kulturnih praksi.⁶²

Katuni Busovača i Tarasovača iznad Nevesinja topografski su snimljeni u septembru 2023. i 2024. godine. Dok ćemo arhitekturu izgrađenih struktura ispitati u sljedećoj fazi istraživanja, čini se da su oba katuna bila pastoralna mjesta koja su se koristila tokom nekoliko perioda. Rezultati istraživanja sugeriraju da ova dva katuna sadrže dobro očuvane zapise prahistorijskih, srednjovjekovnih i postsrednjovjekovnih praksi transhumance. Na dva najpristupačnija ulaza u dolinu otkrivene su dvije velike antropogene kamene gomile s prahistorijskom keramikom koja upućuje na njihov prahistorijski grobni karakter. Naše početno istraživanje iz zraka otkrilo je suhozidne ograde i ostatke malih jednosobnih ili dvosobnih objekata. Pokraj staze koja prolazi tom lokacijom otkriveno je i kasnosrednjovjekovno do ranonovovjekovno groblje s najmanje 12 grobova. Osim toga, lokalni etnografski izvještaji potvrđuju nastavak korištenja područja tokom modernog doba.⁶³

Preliminarni geohemijski podaci s nalazišta pokazuju potencijal geoarheološkog istraživanja za razumijevanje različitog intenziteta antropogenog signala unutar pastoralnih naselja. Signal, najjači unutar objekata, a najslabiji na otvorenim prostorima, ima važne implikacije za proučavanje pastoralnih krajolika u kojima nije sačuvana izgrađena arhitektura. Ovo naglašava potencijal geoarheoloških istraživanja u takvim kontekstima, posebno važnost takvih istraživanja za razumijevanje pastoralnih krajolika.

U sljedećoj fazi istraživanja, višeskalarni i višemetodski pristup omogućit će nam identifikiranje etnografskih prikaza, posebno u kombinaciji sa snimkama iz zraka Vojnogeoografskog instituta u Beogradu, iz sredine 20. stoljeća. Daljnja geoarheološka istraživanja baviti će se funkcionalnošću pojedinih građevina, torova i otvorenih prostora. Kako bismo

and seasonal festivities. Today, this practice is not just a local tradition but a globally recognised and significant element of intangible heritage.⁶⁰

The complex pattern of transhumance strategies, observed in a historical and ethnographical record, is a result of an ongoing process of interaction between people and landscape and a dynamic response to social, political, economic and environmental rhythms. Thus, ethnographically documented transhumant practices in the Dinarides should not be seen as 'fossil' strategies, remnants from the deep past, but as a dynamic response to changing conditions and practices in a constant process of (re-)negotiation.⁶¹ In fact, as archaeologists, we should look at landscapes as artefacts, as cumulative results of long-term dynamic interaction between the environment and human cultural practices.⁶²

The Busovača and Tarasovača katuns above Nevesinje were topographically surveyed in the Septembers of 2023 and 2024. While the standing archaeology will be examined in greater detail in the next phase of our research, it appears that both katuns were multi-period pastoral sites. The survey results suggest these two katuns contain a well-preserved record of prehistoric, medieval and post-medieval transhumant practices. Two large anthropogenic stone barrows were discovered at two of the most accessible entrances to the valley, with the presence of prehistoric pottery suggesting their age and use for burials. Our initial aerial survey revealed the remains of dry-stone enclosures and small one-to-two-room buildings. Next to a path traversing the site, a Late Medieval to Early Modern cemetery containing at least 12 graves was also discovered. In addition, local ethnographic reports attest to the continued use of the area throughout modern times.⁶³

The preliminary geochemical data from the site demonstrates the potential of a geoarchaeological survey to gaining an understanding of the varying intensity of the anthropogenic signal within pastoral settlements. The signal, strongest within the buildings and weakest in the open spaces, has important implications for studying pastoral landscapes where no built architecture has been preserved. This underscores the potential of the geoarchaeological survey in such contexts, highlighting its importance in understanding pastoral landscapes.

In the following research phase, the multi-scalar and multi-method approach will allow us to identify the ethnographic accounts, especially when corroborated with mid-20th century aero-photo imagery from the Vojnogeoografski Institut in Belgrade. Further geoarchaeological research will address the functionality of individual buildings, corrals and open spaces. To provide a detailed and expanded geochemical mapping and micro-contextual characterisation

60 *Transhumanca, sezonsko istjerivanje stoke*, 2023. godine upisano je na Uneskov Reprezentativni popis nematerijalne kulturne baštine čovječanstva kao multinacionalna nominacija (UNESCO 01964), ali ne uključuje Bosnu i Hercegovinu: <https://ich.unesco.org/en/RL/transhumance-the-seasonal-droving-of-livestock-01964>

61 Mlekuž 2003, 141.

62 Mlekuž Vrhovnik, Fabec 2024, 82.

63 Naumović, Dražeta 2023; Puljić 2010.

60 *Transhumance, the seasonal droving of livestock* has been in 2023 inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity as a multinational nomination (UNESCO 01964); however, it does not include Bosnia and Herzegovina: <https://ich.unesco.org/en/RL/transhumance-the-seasonal-droving-of-livestock-01964>

61 Mlekuž 2003, 141.

62 Mlekuž Vrhovnik, Fabec 2024, 82.

63 Naumović, Dražeta 2023; Puljić 2010.

osigurati detaljno i prošireno geohemijsko mapiranje i mikrokontekstualnu karakterizaciju ovog prostora, planiramo kombinirati sistemsko bušenje većih presječnih površina s probnim iskopavanjem pojedinačnih izgrađenih struktura. Prošireni skup podataka ispitat će razloge jasnog obogaćivanja horizonata podzemnog sloja tla SOM-om i fosforom i dati odgovor na to je li to dvoje rezultat njihovih vertikalnih translokacija nakon taloženja ili pastoralnih aktivnosti tokom niza perioda na lokaciji. Također se očekuje da će statističke razlike između različitih tipova prostora postati očitije s većim uzorkom.

Geoarheološki podaci bit će integrirani s radiougljičnim datiranjem odabranih konteksta, prostornom i hronološkom analizom arheoloških obilježja, analizom postojeće arhitekture te relevantnim historijskim i etnografskim izvorima. Integracija prikazanih podataka olakšat će procjenu obima i intenziteta antropogenih promjena u Busovači i Tarasovači tokom različitih faza njihovog korištenja. U konačnici, ovo će podržati naše napore da uspostavimo i razvijemo fino kalibriran istraživački protokol za proučavanje višerazdobnih pastoralnih krajolika na zapadnom Balkanu i šire.

ZAHVALE

Autori se zahvaljuju Radošu Buhi iz Turističke organizacije Nevesinje, Vatrogasno-spasilačkoj jedinici Nevesinje i Općini Nevesinje na podršci našem istraživanju. Također želimo zahvaliti našim kolegama mr. Urošu Bavecu, dr. Nejcu Čožu, Peteru Pehaniju, Nejcu Golobu i dr. Laszlu Ferenciju na entuzijazmu i marljivom radu tokom terenskog istraživanja 2023. i 2024. godine. Zahvaljujemo se na pomoći i Republičkom zavodu za zaštitu kulturno-istorijskog i prirodnog naslijeđa Banja Luka, posebno Ljiljani Vrućinić i Borisu Radiću.

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of these spaces, we plan to combine systematic augering of larger transect surfaces with trial trenching of individual built structures. The expanded dataset will examine the reasons behind the distinct SOM and phosphorus enrichment of the subsoil horizons, and answer the question of whether the two result from their post-depositional vertical translocations or the multi-period pastoral activities at the site. It is also expected that statistical differences between different types of space will become more evident with a larger sample size.

The geoarchaeological data will be integrated with the radiocarbon dating of selected contexts, spatial and chronological analyses of archaeological features, analysis of standing architecture, and a synthesis of relevant historical and ethnographic sources. The integration of presented data will facilitate the assessment of the extent and intensity of anthropogenic modification at Busovača and Tarasovača during their different occupational phases. Ultimately, this will support our effort to establish and develop a finely calibrated research protocol for studying the multi-period pastoral landscapes in the Western Balkans and beyond.

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LITERATURA/LIST OF REFERENCES

- Aalen, F. H. A.** 1964, Clochans as Transhumance Dwellings in the Dingle Peninsula, Co. Kerry. *The Journal of the Royal Society of Antiquaries of Ireland* 94/1, 39–45.
- Andrič, M., Sabatier, P., Rapuc, W., Ogrinc, N., Dolenec, M., Arnaud, F., von Grafenstein, U., Šmuc, A.** 2020, 6600 years of human and climate impacts on lake-catchment and vegetation in the Julian Alps (Lake Bohinj, Slovenia). *Quaternary Science Reviews* 227: 106043. <https://doi.org/10.1016/j.quascirev.2019.106043>
- Arnold, E. R., Greenfield, H. J.** 2006, *The origins of transhumant pastoralism in temperate southeastern Europe: a zooarchaeological perspective from the Central Balkans*. British Archaeological Reports, Oxford.
- Apsite, E., Oljerts, N., Kljaviš, M.** 2000, The Humification Processes in Different Land-Use Soils in the Vidzeme Upland. *Geografski raksti: Folia geographica* 8: 47–52.
- Barker, G.** 2005, Agriculture, pastoralism, and Mediterranean landscape in prehistory, in: E. Blake, A. B. Knapp (eds.), *The Archaeology of Mediterranean Prehistory*, Oxford, 46–76.
- Barrett, C. J.** 1988, Fields of discourse: reconstituting a social archaeology. *Critique of Anthropology* 7/3, 5–16. <https://doi.org/10.1177/0308275X8800700301>
- Bartosiewicz, L., Greenfield, H. J.,** 1999, *Transhumant Pastoralism in Southern Europe: Recent Perspectives from Archaeology, History and Ethnology*, Budapest.
- Berkowitz, B.** 2012, The Soviet target - Highlights in the intelligence value of Gambit and Hexagon, 1963–1984. *National reconnaissance, Journal of the Discipline and Practice* U1, 103–120.
- Bešliagić, Š.** 1982, *Stećci. Kultura i umjetnost*. Sarajevo.
- Bintliff, J., Degryse, P.** 2022, A review of soil geochemistry in archaeology. *Journal of Archaeological Science: Reports* 43: 103419. <https://doi.org/10.1016/j.jasrep.2022.103419>
- Blume, H. P., Brümmer, G. W., Fleige, H., Horn, R., Kandeler, E., Kögel-Knabner, I., Kretschmar, R., Stahr, K., Wilke, B. M.** 2016, Scheffer/Schachtschabel soil science. Springer, Berlin. <https://doi.org/10.1007/978-3-642-30942-7>
- Bujak, E.** 2018, *Stećkopedija: kameno blago stare bosanske države*. Mladinska knjiga, Sarajevo.
- Burnett, M. G.** 1982, *HEXAGON (KH-9) mapping camera program and evolution*, Lexington, MA, USA.
- Caf, N., Sabatier, P., Šmuc, A., Ogrinc, N., Dolenec, M., Rapuc, W., Potočnik, D., Von Grafenstein, U., Andrič, M.** 2023, Multi-proxy reconstruction of the Holocene vegetation and land use dynamics in the Julian Alps, north-west Slovenia. *Journal of Quaternary Science* 38/1, 107–122. <https://doi.org/10.1002/jqs.3461>
- Canti, M., Corcoran, J.** 2015. *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record*. English Heritage.
- Carrer, F.** 2015, Herding strategies, dairy economy and seasonal sites in the southern Alps: ethnoarchaeological inferences and archaeological implications, *Journal of Mediterranean Archaeology* 28/1: 3–22. <http://dx.doi.org/10.1558/jmea.v28i1.27499>
- Casana, J.** 2020, Global-Scale Archaeological Prospection using CORONA Satellite Imagery: Automated, Crowd-Sourced, and Expert-led Approaches. *Journal of Field Archaeology* 45, sup1, S89–S100. <https://doi.org/10.1080/00934690.2020.1713285>
- Casana, J., Cothren, J.** 2013, The CORONA Atlas Project: Orthorectification of CORONA Satellite Imagery and Regional-Scale Archaeological Exploration in the Near East, in: D. C. Comer, M. J. Harrower (eds.), *Mapping Archaeological Landscapes from Space*, New York, NY, 33–43. https://doi.org/10.1007/978-1-4614-6074-9_4
- Costello, E., Svensson, E.** 2018, *Historical archaeologies of transhumance across Europe*. Themes in Contemporary Archaeology 6, Routledge, London.
- Čok, B.** 2014, Vrste suhih zidov na Krasu, in: E. Belingar (ed), *Priročnik kraške suhozidne gradnje*, Park Škocjanske jame, Škocjan pri Divači, 8–12.
- Day, D.A., Logsdon, J. M., Latell, B.** 1998, *Eye in the sky: the story of the Corona spy satellites*, Smithsonian history of aviation series, Washington, D.C.
- Đurđev, B.** 1963, Teritorijalizacija katunske organizacije do kraja XV veka, in: M. Filipović (ed.), *Simpozijum o srednjovjekovnom katunu*, održan 24. i 25. novembra 1961, Naučno društvo SR Bosne i Hercegovine, Sarajevo, 143–169.
- EROS Center** 2017a: Earth Resources Observation and Science Center. *Declassified Satellite Imagery – 1*, U.S. Geological Survey. <https://www.usgs.gov/centers/eros>
- EROS Center** 2017b: Earth Resources Observation and Science Center. *Declassified Satellite Imagery – 3*, U.S. Geological Survey. <https://www.usgs.gov/centers/eros>
- Filipović, M.** 1963, Katun u našoj istoriografiji, in: M. Filipović (ed.), *Simpozijum o srednjovjekovnom katunu*, održan 24. i 25. novembra 1961, Naučno društvo SR Bosne i Hercegovine, Sarajevo, 9–14.
- García-Casas, D., Gassiot Ballbè, E.** 2022, The Archaeology of Pastoralism in the Central Pyrenees: A Diachronic Analysis of Livestock Structures in Aiguéstortes i Estany de Sant Maurici National Park. *Journal of Mediterranean Archaeology* 35/1, 5–31. <https://doi.org/10.1558/jma.23767>
- Ghuffar, S., Bolch, T., Rupnik, E., Bhattacharya, A.** 2022, A Pipeline for Automated Processing of Declassified Corona KH-4 (1962–1972) Stereo Imagery. *IEEE Transactions on Geoscience and Remote Sensing* 60, 1–14. doi: 10.1109/TGRS.2022.3200151
- Greenfield, H. J.** 1999, The advent of transhumant pastoralism in the temperate southeast Europe: a zooarchaeological perspective from the Central Balkans, in: L. Bartosiewicz, H. J. Greenfield (eds.), *Transhumant Pastoralism in Southern Europe: Recent Perspectives from Archaeology, History and Ethnology*, Arheolingua, Budapest, 17–36.
- Greenfield, H. J.,** 2001, Transhumant pastoralism and the colonization of the highlands in temperate southeastern Europe, in: *Untrampled ground, untrammelled views: Human exploitation of and settlement patterns on new landscapes*, Proceedings of the 31st (1998) Annual Chacmool Conference, 471–492.
- Hanson, W. S., Oltean, I. A.** 2013, *Archaeology from historical aerial and satellite archives*. New York.
- HES** 2024: Historic Environment Scotland. National Collection of Aerial Photography (NCAP). <https://www.historicenvironment.scot/archives-and-research/archives-and-collections/national-collection-of-aerial-photography/>
- Holliday, V. T., Gartner, W. G.** 2007, Methods of soil P analysis in archaeology. *Journal of Archaeological Science*, 34/2: 301–333. <https://doi.org/10.1016/j.jas.2006.05.004>
- Horvat, J.** 2019, Inhabiting the high mountains of the south-eastern Alps. *Forschungsberichte der ANISA für das Internet* 1, 19.
- Hrabak, B.** 1981, Razgranavanje katuna i stvaranje grupa katuna, odnosno plemena u nekadašnjoj Hercegovini (XIII–XV vek), in: *Predmet i metod izučavanja patrijahalnih zajednica u Jugoslaviji*. Radovi sa naučnog skupa, Titograd, 23. i 24. novembra 1978. godine. Naučni skupovi 7, Odjeljenje društvenih nauka 3, Crnogorska akademija nauka i umjetnosti, Titograd, 181–201.
- Hrvatović, H.** 2006, *Geological guidebook through Bosnia and Herzegovina*. Geological Survey of Federation Bosnia and Herzegovina, Sarajevo.
- Isailović, N.** 2017, Legislation Concerning the Vlachs of the Balkans Before and After Ottoman Conquest: An Overview, in: S. Rudić, S. Aslantaš (eds.), *State and Society Before and After Establishment of Ottoman Rule*, Institute of History - Yunus Emre Enstitüsü, Belgrade, 25–42.
- Kovačević, D.** 1963, Srednjovjekovni katun po dubrovačkim izvorima, in: M. Filipović (ed.), *Simpozijum o srednjovjekovnom katunu*, održan 24. i 25. novembra 1961, Naučno društvo SR Bosne i Hercegovine, Sarajevo, 121–140.
- Kremenić, T.** 2022, Valorisation of the dry stone wall heritage of the Cres-Lošinj archipelago. International double PhD Thesis.

- Zagreb: Sveučilište u Zagrebu, Agronomski fakultet.
- Kulušić, S.** 1999, Tipska obilježja gradnje "u suho" na kršu hrvatskog primorja (Na primjeru kornatskih otoka). *Hrvatski geografski glasnik* 61/1, 53–83.
- Kolb, M. F.** 2017, Analysis of Carbon, Nitrogen, pH, Phosphorus, and Carbonates as Tools in Geoarchaeological Research, in: Gilbert, A.S. (ed), *Encyclopedia of Geoarchaeology. Encyclopedia of Earth Sciences Series*. Springer, Dordrecht, 15–24. https://doi.org/10.1007/978-1-4020-4409-0_11
- Lai, L., Kumar, S.** 2020, A global meta-analysis of livestock grazing impacts on soil properties. *PLoS One* 15.8: e0236638. <https://doi.org/10.1371/journal.pone.0236638>
- Lovrenović, D.** 2009, *Stećci. Bosansko i humsko mramorje srednjeg vijeka*. Sarajevo.
- Luković, M.** 2015, Zakon vlahom (Ius Valachicum) in the Charters Issued to Serbian Medieval Monasteries and Kanuns regarding Vlachs in the Early Ottoman Tax Registers (Defters), *Balkanica Posnaniensia* 22/1, 29–47.
- McGuire, R. H., Schiffer, M. B.** 1983, A Theory of Architectural Design. *Journal of Anthropological Archaeology* 2: 277–303.
- Mlekuž, D.** 2003, Early herders of the Eastern Adriatic. *Documenta Praehistorica* 30, Filozofska fakulteta, Ljubljana, 139–151.
- Mlekuž Vrhovnik, D., Fabec, T.** 2024, The Formation of the Kras Landscape from Prehistory to the Early Modern Period, in: B., Fuerst-Bjeliš, J., Mrgić, H., Petrić, M., Zorn, Ž. Zwitter (eds), *Environmental Histories of the Dinaric Karst*. Environmental History, vol 17. Springer, Cham, 81–107. https://doi.org/10.1007/978-3-031-56089-7_4
- NCAP 2024a:** National Collection of Aerial Photography 2024, *Allied Central Interpretation Unit (ACIU)*.
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- NCAP 2024c:** National Collection of Aerial Photography 2024, *Joint Air Reconnaissance Intelligence Centre (JARIC)*.
- NCAP 2024d:** National Collection of Aerial Photography 2024, *Mediterranean Allied Photo Reconnaissance Wing (MAPRW)*.
- Naumović, S., Dražeta, B.** 2023, Who Will Turn Me Away from the Sheep? Present State and Development Trends of Transhumant Pastoralism in Eastern Herzegovina in the 21st Century. *Etnoantropološki problemi* 18/4, 1015–1058.
- Noble, A.** 2013, *Vernacular buildings: a global survey*. Bloomsbury Publishing.
- Oder, F. C. E., Fitzpatrick, J. C., Worthman, P. E.** 1992, *The HEXAGON story*, Lexington, MA, USA.
- ÖNORM L 1087:** 2006, Chemical analysis of soils – Determination of "plant available" phosphorous and potassium by calcium-acetate-lactate (CAL)-method. *Austrian Standards International*, internal modification by ammonium lactate (AL) extraction, Wien.
- Petrović, Đ.** 1986, Dubrovačke arhivske vesti o društvenom položaju žena kod srednjovekovnih Vlaha, *Istorijski časopis XXXII*, Beograd (1985), 5–25.
- Porčić, M.** 2008, Nomadic pastoralism in the Early Bronze Age of the central Balkans evaluation of background knowledge. *Balkanica* 39, 7–31.
- Prelovšek, M.** 2010, Climate, in: A. Mihevc, M. Prelovšek, N. Zupan Hajna, N. (eds.), *Introduction to the Dinaric Karst*. Karst Research Institute at ZRC SAZU, Postojna, 20–24.
- Puljić, I.** 2010, Planištarenje: zašto i kako? in: P. Milanović (ed.), *Mučeništvo Marka Milanovića*, Crkva na kamenu, Mostar, 47–60.
- Rapp G. R., Hill C. L.** 2018, *Geoarchaeology: The Earth-Science Approach to Archaeological Interpretation*. New Haven, London: Yale University Press.
- Resulović H., Čustović H., Čengić I.** 2008, Sistematika tla/zemljišta. Nastavak, svojstva i plodnost. Univerza v Sarajevu, Poljoprivredno-prehrambeni fakultet, Sarajevo.
- Sanders, D.** 1990, Behavioral Conventions and Archaeology: Methods for the Analysis of Ancient Architecture, in: S. Kent (ed), *Domestic Architecture and the Use of Space*, Cambridge: Cambridge University Press, 43–72.
- SIST ISO 11464:** 2006, Soil quality – Pretreatment of samples for physico-chemical analyses. Slovenski inštitut za standardizacijo, Ljubljana.
- SIST EN ISO 10390:** 2022, Soil treated biowaste and sludge – Determination of pH. Slovenski inštitut za standardizacijo, Ljubljana.
- SIST ISO 10694:** 1996, Soil quality – Determination of organic and total carbon after dry combustion (elementary analysis). Slovenski inštitut za standardizacijo, Ljubljana.
- Trifunovski, J.** 1963, Geografske karakteristike srednjovekovnih vlaških katuna, in: M. Filipović (ed.), *Simpozijum o srednjovekovnom katunu*, održan 24. i 25. novembra 1961, Naučno društvo SR Bosne i Hercegovine, Sarajevo, 19–39.
- UNESCO 01393.** 2018, Art of dry stone construction, knowledge and techniques. File No. 01393. *UNESCO Representative List of the Intangible Cultural Heritage of Humanity*: <https://ich.unesco.org/en/decisions/13.COM/10.B.10> (accessed September 11th, 2024).
- UNESCO 01964.** 2023, Transhumance, the seasonal droving of livestock. File No. 01964, *UNESCO Representative List of the Intangible Cultural Heritage of Humanity*: <https://ich.unesco.org/en/decisions/18.COM/8.B.14> (accessed September 11th, 2024).
- Ur, J. A.** 2013, CORONA Satellite Imagery and Ancient Near Eastern Landscapes, in: D.C. Comer, M.J. Harrower (eds.), *Mapping Archaeological Landscapes from Space*, New York, NY, 21–31.
- USGS** 2008, *Declassified intelligence satellite photographs, Fact Sheet 2008–3054*. Water Resources Division, U.S. Geological Survey. <https://doi.org/10.3133/fs200803054>
- Vojvodić, U.** 2021, Transhumance in medieval Serbia. Examples from the Pešter Plateau and northwestern slopes of the Prokletije Mountains, in: P. Dixon, C. Theune (eds.), *Ruralia XIII: Seasonal Settlement in the medieval and early Modern Countryside*, Slidestone Press, Leiden, 69–80.
- Walsh, K., Court-Picon, M., de Beaulieu, J.-L., Guiter, F., Mocci, F., Richer, S., Sinet, R., Talon, B., Tzortzis, S.** 2014, A historical ecology of the Ecrins (Southern French Alps): Archaeology and palaeoecology of the Mesolithic to the Medieval period. *Quaternary International* 353, 52–73. <https://doi.org/10.1016/j.quaint.2013.08.060>
- Zhang, J., Zuo, X., Zhou, X., Lv, P., Lian, J., Yue, X.** 2017, Long-term grazing effects on vegetation characteristics and soil properties in a semiarid grassland, northern China. *Environmental Monitoring and Assessment* 189/5, 1–12. <https://doi.org/10.1007/s10661-017-5947-x>
- Zech, W., Schad, P., Hintermaier-Erhard, G.** 2021, *Soils of the World*. Springer-Verlag GmbH, Berlin.

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Marijan, B. 2010, *Crtice iz prapovijesti Slavonije (brončano doba)*, Sveučilište Josipa Jurja Strossmayera Osijek, Filozofski fakultet Osijek, Osijek.

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Čović, B. 1983b

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Dva ili više autora

Benac, A., Čović, B. 1956, *Glasinac 1 – Bronzano doba / Glasinac 1 – Bronzezeit*, Katalog prehistorijske zbirke Zemaljskog muzeja u Sarajevu, sveska 1, Zemaljski muzej u Sarajevu, Sarajevo.

Hofmann, R., Kujundžić-Vejzagić, Z., Müller, J., Rassmann, K., Müller-Scheessel, N. 2009, Rekonstrukcija procesa naseljavanja u kasnom neolitu na prostoru centralne Bosne, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, Arheologija, n. s., 50/51*, Sarajevo (2008/2009), 11–178.

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Članci u časopisu:

Fiala, F. 1892, Rezultati prehistoričkog ispitivanja na Glasincu u ljeto 1892., *Glasnik Zemaljskog muzeja u Bosni i Hercegovini, IV/4*, Sarajevo, 389–444.

Truhelka, Č. 1902, Zwei prähistorische Funde aus Gorica (Bezirk Ljubuški), *Wissenschaftliche Mittheilungen aus Bosnien und der Hercegovina, Band VIII*, Wien, 3–47.

Čović, B. 1965, Uvod u stratigrafiju i hronologiju praistorijskih gradina u Bosni, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, Arheologija, n.s., god. XX*, Sarajevo, 27–145.

Paškvalin, V. 2008, Kamenjača, Breza kod Sarajeva, *Godišnjak, knj. XXXVII*, Centar za balkanološka ispitivanja, knj. 35, Akademija nauka i umjetnosti Bosne i Hercegovine, Sarajevo, 101–179.

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Marijan, B. 2010, *Crtice iz prapovijesti Slavonije (brončano doba)*, Sveučilište Josipa Jurja Strossmayera Osijek, Filozofski fakultet Osijek, Osijek.

Two or multiple authors

Benac, A., Čović, B. 1956, *Glasinac 1 – Bronzano doba / Glasinac 1 – Bronzezeit*, Katalog prehistorijske zbirke Zemaljskog muzeja u Sarajevu, sveska 1, Zemaljski muzej u Sarajevu, Sarajevo.

Hofmann, R., Kujundžić-Vejzagić, Z., Müller, J., Rassmann, K., Müller-Scheessel, N. 2009, Rekonstrukcija procesa naseljavanja u kasnom neolitu na prostoru centralne Bosne, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, Arheologija, n. s., 50/51*, Sarajevo (2008/2009), 11–178.

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Čović, B. 1987, Grupa Donja Dolina – Sanski Most, in: A. Benac, S. Gabrovec (eds.), *Praistorija jugoslavenskih zemalja V – Željezno doba*, Akademija nauka i umjetnosti Bosne i Hercegovine, Centar za balkanološka ispitivanja, Sarajevo, 232–286.

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Paškvalin, V. 2008, Kamenjača, Breza kod Sarajeva, *Godišnjak, knj. XXXVII*, Centar za balkanološka ispitivanja, knj. 35, Akademija nauka i umjetnosti Bosne i Hercegovine, Sarajevo, 101–179.

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Sijarić, M. 2006, Nadgrobne ploče tri bosanska kralja / Tombstones of three Bosnian kings, *Prilozi Instituta za arheologiju, Vol. 23, No. 1*, Zagreb, 229–256.

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Čović, B. 2011, Bronzano doba sjeverne Bosne u svjetlu novih istraživanja/Bronze Age northern Bosnia in the light of new research, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, Arheologija, n.s.*, 52, Sarajevo (2010), 277–286.

Članak u zborniku sa znanstvenoga skupa:

Raunig, B. 1983, Neki manji i neobjavljeni nalazi bronzanog doba zapadne Bosne, in: B. Govedarica (ed.), *Arheološka problematika zapadne Bosne, Zbornik, knj. I*, Arheološko društvo Bosne i Hercegovine, Sarajevo, 71–78. 7.

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Ako prilog prikazuje predmet koji je pohranjen u nekoj instituciji uz opis navesti: instituciju i inventarni broj pod kojim se predmet vodi u toj instituciji, te ime autora fotografije

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Articles in the proceedings of symposia:

Raunig, B. 1983, Neki manji i neobjavljeni nalazi bronzanog doba zapadne Bosne, in: B. Govedarica (ed.), *Arheološka problematika zapadne Bosne, Zbornik, knj. I*, Arheološko društvo Bosne i Hercegovine, Sarajevo, 71–78. 7.

Referencing digital editions:

Mesihović, S. 2011, Antiqvi homines Bosnae [e-knjiga] Sarajevo: Filozofski fakultet. Available at: https://ebooks.ff.unsa.ba/index.php/ebooks_ffunsa/catalog/book/3 [25.5.2022.]

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