

# NOVA ARHEOLOŠKA SAZNANJA O KASNOME BRONČANOM I STARIJEMU ŽELJEZKOM DOBU PRIGORJA

## NEW ARCHAEOLOGICAL DISCOVERIES ABOUT THE LATE BRONZE AGE AND EARLY IRON AGE IN PRIGORJE

---

**Janja Mavrović Mokos**

Odsjek za arheologiju  
Filozofski fakultet Sveučilišta u Zagrebu  
Ivana Lučića 3  
HR – 10000 Zagreb  
jmavrovi@ffzg.hr

**Franka Ovčarić**

Odsjek za arheologiju  
Filozofski fakultet Sveučilišta u Zagrebu  
Ivana Lučića 3  
HR – 10000 Zagreb  
fovcaric@ffzg.hr

**Laura Šejčić**

Odsjek za arheologiju  
Filozofski fakultet Sveučilišta u Zagrebu  
Ivana Lučića 3  
HR – 10000 Zagreb  
lsejic@m.ffzg.hr

**Janja Mavrović Mokos**

Department of Archaeology  
Faculty of Philosophy and Social Sciences, University of Zagreb  
Ivana Lučića 3  
HR – 10000 Zagreb  
jmavrovi@ffzg.hr

**Franka Ovčarić**

Department of Archaeology  
Faculty of Philosophy and Social Sciences, University of Zagreb  
Ivana Lučića 3  
HR – 10000 Zagreb  
fovcaric@ffzg.hr

**Laura Šejčić**

Department of Archaeology  
Faculty of Philosophy and Social Sciences, University of Zagreb  
Ivana Lučića 3  
HR – 10000 Zagreb  
lsejic@m.ffzg.hr

---

UDK / UDC: 902.2(497.521.5)''637.7/638.3''

Prethodno priopćenje / Preliminary communication  
10.52064/vamz.57.1.3

---

U članku ćemo predstaviti nove rezultate arheoloških istraživanja i terenskih pregleda obavljenih u sklopu projekta „Transferno područje od Sutle preko gornjeg toka rijeke Save tijekom brončanog i željeznog doba – TRANS RIVERS“ financiranoga od strane Hrvatske zaklade za znanost na prostoru Prigorja. Spomenut ćemo i sva dosadašnja istraživanja bilo zaštitna ili sustavna, kao i sve slučajne nalaze predane u razne muzeje iz vremena prapovijesti na spomenutom području. Cilj nam je pokazati kako je taj slabo istražen prostor bio vrlo važan u prapovijesnim vezama i komunikacijama zbog blizine Save koja je bila jedna od žila kucavica u protoku roba, ideja i sirovina. Predstaviti ćemo stratigrafski kontekst i nalaze iz prve sustavno istražene kasnohalštatske kuće iz Svetoga Križa te iz drugoga djelomično istraženoga objekta koji se naslanja na prvi. Ta sustavna arheološka istraživanja provode se u Svetome Križu od

This article presents the new results of archaeological excavation and field surveys carried out in Prigorje as part of the project “Transfer area from the Sutla River across the upper course of the Sava River during the Bronze and Iron Ages – TRANS RIVERS” financed by the Croatian Science Foundation. We will also mention all previous research, whether rescue or systematic excavation, as well as all accidental finds from prehistory in the mentioned area, handed over to various museums. The goal is to show how this poorly explored area was very important in prehistoric communication routes due to its proximity to the Sava River, which was one of the main arteries in the flow of goods, ideas and raw materials. The stratigraphic context and finds from the first systematically excavated Late Hallstatt house from Sveti Križ and the second partially investigated structure that adjoins the first one will be presented. These

2019., a u radu ćemo obuhvatiti sve podatke završno s istraživanjima provedenima tijekom 2022. Iste je godine istražen i jedan kasnobrončanodobni objekt na novootkrivenome lokalitetu Gračec. Lokalitet je otkriven u sklopu terenskoga pregleda tijekom prve godine provedbe projekta. Predstaviti ćemo smještaj naselja Gračec, stratigrafske odnose unutar istraženoga objekta te nalaze koji upućuju na to da je riječ o lokalitetu iz vremena mlade faze kulture polja sa žarama. To je prvi cjelovito istraženi stambeni objekt iz spomenutoga razdoblja sa širega prostora, što s pouzdanom stratigrafijom, nalazima iz zatvorenoga konteksta i radiokarbonskim datumima tvori temelj za nove spoznaje s kraja kasnoga brončanog doba.

#### Ključne riječi:

*Prigorje, Gračec, kasno brončano doba, Sveti Križ, kasni halštat, naselja*

systematic archaeological excavations have been carried out at Sveti Križ since 2019, and all data from the final excavation carried out in 2022 will be included here. In the same year, a Late Bronze Age structure was also excavated at the newly discovered site of Gračec. The site was discovered on a field survey during the first year of the project implementation. The location of the Gračec settlement, the stratigraphic relationships within the excavated structure, and the archaeological finds that date the site to the younger phase of the Urnfield culture will be discussed. This is the first entirely excavated residential building from the mentioned period in a broader area, which, with reliable stratigraphy, finds from a closed context and radiocarbon dates, forms the basis for new knowledge about the end of the Late Bronze Age.

#### Key words:

*Prigorje, Gračec, Late Bronze Age, Sveti Križ, Late Hallstatt, settlements*

## Uvod

S obzirom na složenost definiranja Prigorja,<sup>1</sup> za potrebe ovoga rada odlučili smo omeđiti spomenuti prostor kao relativno usko područje od današnje granice sa Slovenijom, točnije utoka Sutle u Savu, preko južnih obronaka Medvednice do Save te na istoku do Moslavine, bez ikakve namjere uplitanja u geografsku struku. To je ujedno i prostor kojim se bavi projekt „Transferno područje od Sutle preko gornjeg toka rijeke Save tijekom brončanog i željeznog doba – TRANS RIVERS“, u sklopu kojega je i nastao ovaj rad. Tim prostorom dominiraju tri rijeke, Sava, kao glavna žila kucavica u prapovijesnoj trgovini i razmjeni dobara, Sutla, koja se kod današnjega sela Ključ ulijeva u Savu, i Krapina,

## Introduction

Considering the complexity of defining Prigorje,<sup>1</sup> for the purposes of this work we have decided to delimit the mentioned area as a relatively narrow area from today's border with Slovenia, more precisely the mouth of the river Sutla into the Sava River, across the southern slopes of Medvednica to the river Sava and on the east to Moslavina, without any intention of interfering within the geography profession. This is also the area covered by the project “Transfer area from the Sutla River across the upper course of the Sava River during the Bronze and Iron Age – TRANS RIVERS”, within which this article was made. This area is dominated by three rivers, the Sava as the main artery of pre-

1 Sama riječ *prigorje* označava područje uz prisojnu padinu gorskih uzvišenja koja ima obilježja prijelaznoga kraja između uzvišenja i nizine (Curić 1999). To bi značilo da je gledajući s istoga položaja, *prigorje* prostor smješten pri gori, tj. u ovome slučaju s južne strane Medvednice, a suprotno tomu, *zagorje* je smješteno za gorom, tj. sa sjeverne strane Medvednice. Važno je naglasiti kako prostor Prigorja u geografiji nije jasno izdvojen i omeđen kao što je to prostor Zagorja. Tako u Hrvatskoj enciklopediji (Leksikografski zavod Miroslav Krleža, 2021) ne postoji prostorna definicija Prigorja te na većini geografskih karata Hrvatske taj prostor nećemo pronaći kao izdvojenu cjelinu (Anić *et al.* 2004, 8–264). Često, prostor između dobro geografski definiranih regija Zagorja, Podravine, Moslavine, Pokuplja i Posavine ostaje ne-definiran i neimenovan (Karta 1). Nasuprot jasno definiranim geografskim granicama određenoga prostora, znanost razlikuje koncept tzv. tradicijskih regija koji je vezan za razne povijesne oblike teritorijalne organizacije prostora, što utječe na osjećaj zajedništva i pripadnosti, a rezultat je dugotrajnoga procesa razvoja identiteta temeljenoga na povijesnim, arheološkim ili geološkim uvjetima (Fürst-Bjeliš 1998, 83–84). Takav je slučaj i s Prigorjem u kojemu se lokalno stanovništvo jasno izjašnjava kao Prigorcji, uz postojanje brojnih institucija, organizacija, kao i naziva sela u kojima je izražena regionalna komponenta: Muzej Prigorja u Sesvetama, naselje Prigorje Brdovečko, lokalne novine Prigorski kaj, lokalni portal Prigorski.hr te Lag Prigorje. Bez obzira na to gledamo li Prigorje kao tradicijsku ili fizionomsku geografsku regiju, uvidjet ćemo kako ne postoji jasan konsenzus koji se pod tim prostorom podrazumijeva. Ljudi raznih struka; geografi, povjesničari umjetnosti, povjesničari, etnolozi i arhitekti koji su se bavili tim prostor, različito definiraju njegove granice (Bunjak Pajdek 2018, 1–2). Tako ga neki vrlo široko definiraju od Sutle sve do Božjakovine, a drugi pod tim pojmom podrazumijevaju tek dio od Podsuseda do Kašine (Bunjak Pajdek 2018, 1–2).

1 The word *prigorje* denotes an area along the steep slope of the mountain elevations, which has the characteristics of a transitional area between the hills and the lowlands (Curić 1999). This would mean that looking from the same position, *prigorje* is an area located near the mountain, in this case on the south side of Medvednica, while on the contrary, *zagorje* is located behind the mountain, on the north side of Medvednica. It is important to emphasise that the area of Prigorje is not separated and demarcated in geography like the area of Zagorje. Thus, in the Croatian encyclopaedia (Leksikografski zavod Miroslav Krleža, 2021.) there is no spatial definition of Prigorje, while on most geographical maps of Croatia we will not find this area as a separate entity (Anić *et al.* 2004, 8–264). Often, the space between the geographically well-defined regions of Zagorje, Podravina, Moslavina, Pokuplje and Posavina remains undefined and unnamed (Map 1). In contrast to clearly defined geographical boundaries of a certain space, science distinguishes the concept of the so-called traditional regions, which is linked to various historical forms of territorial organisation of space, that affects the sense of community and belonging, and is the result of a long-term process of identity development based on historical, archaeological or geological conditions (Fürst-Bjeliš 1998, 83–84.). This is also the case with Prigorje, where the local population clearly declares itself as “Prigorcji”, along with the existence of numerous institutions and organisations, as well as the names of villages in which the regional component is expressed: the Museum of Prigorje in Sesvete, the village of Prigorje Brdovečko, the local newspaper Prigorski Kaj, the local web Prigorski.hr and Lag Prigorje. Regardless of whether we look at Prigorje as a traditional or physiognomic geographical region, we will see that there is no clear consensus. People of various professions, geographers, art historians, historians, ethnologists and architects who have dealt with this region, define its boundaries differently. Thus, some define it very broadly from the Sutla River all the way to Božjakovina, while others mean by this term only the part from Podsused to Kašina (Bunjak Pajdek 2018, 1–2).

čije je ušće u Savu smješteno na istočnome dijelu, izlazi iz današnjega grada Zaprešića. Uz spomenute rijeke, kao važan izvor sirovina, ali i kao pogodno mjesto za naseljavanje, značajnu ulogu u životu prapovijesnih ljudi svakako su imali Medvednica i nešto niže pribrežje od današnjega grada Zaprešića do sela Prigorje Brdovečko. Brojni izvori ruda koji su sigurno bili značajni prapovijesnim populacijama otkriveni su na Medvednici. Olovne rude pronađene su na njezinu sjeverozapadnom dijelu, na gornjemu toku potoka Bistre, bakrene rude pronađene su na gornjemu toku potoka Mikulić, a halkopirit i malahit pronađeni su na obronku zvanomu Veliki Plazur, na kojemu se danas nalazi kapelica sv. Jakoba ili sv. Jakova. Na Medvednici se nalazi 6 km dugačka rudna zona koja se proteže od Tisove peći do Pustodol-Adolfovcu u kojoj se javljaju isprekidane, 2 – 3,5 m debele uslojene leće željezne rude.<sup>2</sup> Važna sirovina bila je i sol koju također nalazimo na Medvednici i to na nekoliko lokacija; u Slanome potoku i Slanovcu, a u 17. st. spominju se solne jame u blizini Šestina, točnije na izvoru potoka Mikulić.<sup>3</sup> Osim tih važnih sirovina, može se pretpostaviti kako su prapovijesne populacije upotrebljavale i obilje drveta, i za ogrjev i za gradnju kuća, kao i brojne izvore pitke vode. Sve to čini prostor Prigorja iznimno pogodnim za naseljavanje te je isto tako i blizina Save omogućavala nesmetanu razmjenu dobara od prostora jugoistočnih Alpa sve do Podunavlja, a zajednicama koje su kontrolirale spomenuti prostor prosperitetan život i pristup importiranim dobrima.

Brojni nalazi sa spomenutoga prostora govore u prilog toj činjenici te najstarije dokaze o životu na tome prostoru pratimo od neolitika i eneolitika. Kamene sjekire iz Brdovca, Pojatnoga i Kupljenova slučajni su nalazi i za njih nažalost ne postoji točna lokacija pronalaska<sup>4</sup> dok je za kamenu sjekiru-čekić iz Hrastine poznata lokacija.<sup>5</sup> Iz Marije Gorice, također s nepoznate lokacije, potječe bakrena sjekira-čekić koju možemo datirati u drugu polovinu 5. tisućljeća prije Krista.<sup>6</sup> U šumi između današnjih sela Brdovec i Trstenik pronađena je plosnata bakrena sjekira koja predstavlja vrlo važan nalaz jer je možemo smjestiti u drugu polovinu 4. tisućljeća prije Krista, kada na tim prostorima ne znamo za gotovo nikakve arheološke nalaze.<sup>7</sup> Plosnata bakrena sjekira pronađena je i u Dugome Selu.<sup>8</sup> Nalazi bakrenoga doba pronađeni su i na lokalitetu Kuzelin.<sup>9</sup> Na cijelome prostoru kojim se rad bavi pronađene su brojne kamene izradvine, koje su mahom slučajni nalazi, a datiramo ih u širok raspon neolitika i eneolitika<sup>10</sup> (Karta 1). Brončano doba na tome prostoru bolje je istraženo od prethodnih razdoblja, ali i tu postoje određena razdoblja o kojima se zna vrlo malo ili gotovo ništa. Takva je situacija s ranim brončanim dobom o kojemu ne znamo gotovo

historic trade and the exchange of goods, the Sutla River, which flows into the Sava near the present-day village of Ključ, and the Krapina, whose confluence with the Sava is located on the eastern exit from the present-day town of Zaprešić. In addition to the mentioned rivers, as an important source of raw materials, but also as a suitable place for settlement, Medvednica and the lower mountain coast from the present-day town of Zaprešić to the village of Prigorje Brdovečko certainly played a significant role in the life of prehistoric people. Numerous ore sources that must have been important to prehistoric populations were discovered on Medvednica. Lead ores were found in its northwestern part, on the upper course of the Bistra stream, copper ores were found in the upper course of the Mikulić stream, while chalcopyrite and malachite were found on the slope called Veliki Plazur, where today the chapel of St. Jakob or St. Jacob is. On Medvednica, a 6 km long ore zone stretches from Tisova cave to Pustodol-Adolfovac, in which intermittent, 2-3.5 m thick layered lenses of iron ore occur.<sup>2</sup> An important raw material was salt, which is also found on Medvednica in several locations, in Slani Potok and Slanovac, while in the 17th century there are mentions of salt pits near Šestine, more precisely at the source of Mikulić stream.<sup>3</sup> In addition to these important raw materials, it can be assumed that prehistoric populations also used an abundance of wood, both for firewood and for building houses, as well as numerous sources of drinking water. All this makes the area of Prigorje highly suitable for settlement, while the proximity of the Sava River enabled the smooth exchange of goods from the area of the southeastern Alps all the way to Danube, and also provided the communities that controlled the mentioned area a prosperous life and access to imported goods.

Numerous archaeological finds from the mentioned area support the latter, and the oldest evidence of life in this area dates back to the Neolithic and Eneolithic periods. The stone axes from Brdovec, Pojatno and Kupljenovo were found accidentally and unfortunately there is no exact location of the finds,<sup>4</sup> while the location of the stone axe-hammer from Hrastina is known.<sup>5</sup> A copper axe-hammer was also found in Marija Gorica at an unknown location, which we can date to the second half of the 5th millennium BC.<sup>6</sup> In the forest between the present-day villages of Brdovec and Trstenik, a flat copper axe was found, which is a very important find because we can place it in the second half of the 4th millennium BC, when there are no archaeological finds from this area.<sup>7</sup> A flat copper axe was also found in Dugo Selo.<sup>8</sup> Finds from the Copper Age were also found at the site Kuzelin.<sup>9</sup> Numerous stone artefacts were

2 Jurković 2005, 1.

3 Marković 2002, 319–320.

4 Cvitković 2015, 22.

5 Mavrović Mokos 2023.

6 Mavrović Mokos 2023.

7 Mavrović Mokos 2023. Za pomoć pri tipološkome određenju spomenutih sjekira i njihovoj dataciji zahvaljujemo kolegici dr. sc. Jacqueline Balen, voditeljici Pretpovijesnoga odjela Arheološkoga muzeja u Zagrebu.

8 Vinski-Gasparini 1981, 110.

9 Obad Šćitaroci et al. 2015, 49.

10 Đukić 2018.

2 Jurković 2005, 1.

3 Marković 2002, 319–320.

4 Cvitković 2015, 22.

5 Mavrović Mokos 2003.

6 Mavrović Mokos 2003.

7 Mavrović Mokos 2003. For the help with typological determination of the mentioned axes and their dating, we thank our colleague Jacqueline Balen, head of the Prehistoric Department of the Archaeological Museum in Zagreb.

8 Vinski-Gasparini 1981, 110.

ništa. Jedini ranobrončanodobni nalazi jesu ulomci liscenske keramike s Kuzelina koji potječu iz istraživanja Vladimira Sokola.<sup>11</sup> Srednjobrončanodobne tragove kulture grobnih humaka nalazimo na lokalitetu Moravče, položaj Rošnica. Tri skeletna ukopa pronađena su unutar kamenoga tumula, prema čemu je uz nekoliko keramičkih ulomaka određena vremenska pripadnost.<sup>12</sup> Zanimljivo je kako na istoimenome lokalitetu Moravče, položaj Draščica, nalazimo materijal atribuiran virovitičkoj grupi s početka kulture polja sa žarama, točnije iz 13. st. pr. Kr.<sup>13</sup> Tijekom terenskoga pregleda krajem 2007. i početkom 2008. pronađena su dva lokaliteta Zaprešić – Prek Savlje i Zaprešić – Pašinec.<sup>14</sup> Za prvi lokalitet na temelju prikupljenoga materijala ne možemo utvrditi kojemu bi razdoblju pripadao, a Zaprešić – Pašinec nizinsko je naselje virovitičke grupe.<sup>15</sup> Kao nekropola spomenute grupe izdvaja se lokalitet Zagreb – Vrapče.<sup>16</sup> Drugoj fazi ostava prema K. Vinski-Gasparini, odnosno Ha A1 stupnju relativno kronološki, pripadale bi dvije ostave, Zagreb-Dežmanov prolaz, koji je pronađen 1949. prilikom gradnje kuće te ostava Medvedgrad koju su 1959. pronašli planinari pokraj ruševina grada Medvedgrada.<sup>17</sup> Ako se nalazi ostava promatraju u širem kontekstu, također je riječ o drugoj fazi ostava u Sloveniji kako ih je definirao P. Turk (1996.), ali bitno je spomenuti da druga faza ostava na prostoru Slovenije traje nešto duže te pokriva drugu i treću fazu ostava kako ih je definirala K. Vinski-Gasparini. Četvrtoj fazi ostava pripadala bi ostava Ivanec Bistranski, odnosno trećoj fazi ostava u Sloveniji čije se trajanje u potpunosti poklapa s trajanjem četvrte faze na prostoru Hrvatske, a relativno se mogu smjestiti u Ha B1 stupanj. Ostava je pronađena na vrlo zanimljivome mjestu, utoku Krapine u Savu. U blizini vodenoga konteksta, točnije u šljunčari u Savskome Marofu, pronađene su dvije brončane, šuplje sjekire s ušicom,<sup>18</sup> a nedavno u šumi iznad sela Brdovec pronađena je mala, brončana, šuplja sjekira koju možemo smjestiti u peti horizont ostava prema Kseniji Vinski-Gasparini, odnosno u četvrtu fazu prema P. Turku, što bi se relativno kronološki moglo smjestiti u Ha B3 stupanj. Sjekire iz Savskoga Marofa vjerojatno su dio ostave koju bismo mogli smjestiti u isti vremenski horizont kao i nalaze iz ostave Ivanec Bistranski. Dva mača, tip Reutlingen i tip Stätzling, iz starije faze kulture polja sa žarama, pronađena su u Jarunu na velikoj dubini.<sup>19</sup> Kasnobrončanodobna naselja otkrivena su na položaju Samostan Klarisa, Gradec na zagrebačkome Gornjem gradu,<sup>20</sup> Kuzelinu,<sup>21</sup> na položaju Pogorišće<sup>22</sup> i Gradci<sup>23</sup> u Orešju Donjem te na novootkrivenome lokalitetu Gračec o kojemu će biti riječi nešto poslije.

found in the area covered by this work, which are mostly accidental finds, and we date them to a wide time range of the Neolithic and Eneolithic periods<sup>10</sup> (Map 1). The Bronze Age in this area is better known than previous periods, but we also have certain periods about which very little or almost nothing is known. That is the situation with the early Bronze Age, about which we know almost nothing. The only Early Bronze Age finds are fragments of Litzen pottery from Kuzelin, which come from Vladimir Sokol's excavations.<sup>11</sup> Traces of the Tumulus culture from the Middle Bronze Age can be found at the site of Moravče, position Rošnica. Three skeletal burials were discovered within the stone tumulus. Based on these remains, along with several ceramic fragments, the time period was established.<sup>12</sup> Interestingly, at the site Moravče, position Draščica, we find material attributed to the Virovitica group from the beginning of the Urnfield culture, more precisely from the 13th century BC.<sup>13</sup> During the field survey at the end of 2007 and the beginning of 2008, two sites were found: Zaprešić - Prek Savlje, and Zaprešić - Pašinec.<sup>14</sup> Based on the collected material, we cannot determine which period the first site belongs to, while Zaprešić - Pašinec is attributed to a lowland settlement of the Virovitica group.<sup>15</sup> The Zagreb Vrapče site stands out as the cemetery of the mentioned group.<sup>16</sup> According to K. Vinski-Gasparini, two hoards would belong to the II. phase of hoards (Ha A1 phase relative chronologically), the Zagreb-Dežmanov Prolaz, which was found in 1949 during the construction of a house, and the Medvedgrad hoard, which hikers found near the ruins of Medvedgrad in 1959.<sup>17</sup> If the hoard finds are viewed in a broader context, they are equal to the second phase of hoards in Slovenia as defined by P. Turk (1996), but it is important to mention that the second phase of hoarding in Slovenia has a slightly longer duration and covers the second and third phases of hoards as defined by K. Vinski-Gasparini. The Ivanec Bistranski hoard would belong to the IV. phase of hoards, that is, the third phase of hoards in Slovenia, which completely coincides with the duration of the fourth phase in Croatia, and they can be relatively dated to the Ha B1 phase. The hoard was found in a very interesting place, at the mouth of the Krapina River in the Sava River. Near the water, more precisely in the gravel pit in Savski Marof, two bronze hollow lugged axes were found,<sup>18</sup> while recently, in the forest above the village of Brdovec, a small bronze hollow axe was found, which we can place in the fifth phase of hoards by Ksenija Vinski-Gasparini, that is, the fourth phase according to P. Turk, which could be relatively chronologically placed in the Ha B3 phase. Axes from Savski Marof are probably part of a hoard that we could place in the same time horizon as the finds from the Ivanec Bistranski hoard. Two swords, type Reutlingen

11 Obad Šćitaroci *et al.* 2015, 49.

12 Sokol 1986, 104.

13 Sokol 1989, 429.

14 Ložnjak Dizdar 2008, 109.

15 Ložnjak Dizdar 2008, 109.

16 Ložnjak Dizdar, Potrebeca 2017, 79.

17 Vinski-Gasparini 1983, 654.

18 Cvitković 2015, 22.

19 Majnarić-Pandžić 2009, 201.

20 Majnarić-Pandžić 2009, 201.

21 Sokol 1992, 27.

22 Balen Letunić 1996, 15.

23 Rakvin 2019.

9 Obad Šćitaroci *et al.* 2015, 49.

10 Đukić 2018.

11 Obad Šćitaroci *et al.* 2015, 49.

12 Sokol 1986, 104.

13 Sokol 1989, 429.

14 Ložnjak Dizdar 2008, 109.

15 Ložnjak Dizdar 2008, 109.

16 Ložnjak Dizdar, Potrebeca 2017, 79.

17 Vinski-Gasparini 1983, 654.

18 Cvitković 2015, 22.

Tijekom studenoga 2022., u sklopu „TRANS RIVERS“ projekta, proveden je terenski pregled istočnih obronaka Medvednice. Otkrivena su tri potencijalna kasnobrončanodobna lokaliteta. Prvi je Planina Donja – Gradec, koja se u literaturi spominje kao zemljano-drvena utvrda, kaštel. Prilikom obilaska lokacije na dijelu gdje je cesta probila bedem pronađeni su ulomci kasnobrončanodobne keramike (T. 3). Riječ je uglavnom o fragmentima grublje kućanske keramike, izuzev dva ulomka zdjela od kojih je jedan ukrašen horizontalnim fazetiranjem, a drugi kosim kanelurama (T. 3: 5). Druga dva lokaliteta jesu Oštrc i Gradišće koji se nalaze u neposrednoj blizini. Na vrhu Oštrca i na terasama koje se pružaju podno samoga vrha također su pronađeni ulomci kasnobrončanodobne grublje kućanske keramike, ali i nekoliko ulomaka ukrašenih kosim kanelurama (T. 2:10) i kosim fasetama (T. 8–9). Na Gradišću je pronađeno tek nekoliko ulomaka prapovijesne keramike te komad kamenoga žrvnja. Na temelju spomenutih nalaza, lokalitet ne možemo uže datirati, ali obzirom na sam položaj i izgled Gradišća, moguće je da je isto riječ o kasnobrončanodobnom visinskom naselju.

Starije željezno doba, 8. i 7. st. pr. Kr., slabo je poznato na tome prostoru. Na Gradecu, svega 15 m od sonde u kojoj su pronađeni kasnobrončanodobni slojevi, istražene su kuće iz starijega željeznog doba.<sup>24</sup> Situacija se mijenja u kasnome halštatu, tj. u 6. i 5. st. pr. Kr., kada znamo za tri naselja, a to su Sveti Križ, Podsused kamenolom i Kuzelin. Lokalitet Podsused kamenolom nažalost je potpuno devastirani lokalitet uslijed dugogodišnje eksploatacije kamena. Podatci o položaju lokaliteta i uvid u nalaze ostvareni su studentskim projektom „Terenski pregled na zapadnim obroncima Medvednice na potezu Bizek-Jagodišće“, pod vodstvom studentice Nikoline Sever i mentorstvom kolegice Mirne Cvetko s Odsjeka za arheologiju Filozofskoga fakulteta u Zagrebu.<sup>25</sup> Na devastiranu lokaciju nekadašnjega kamenoloma, a time i kasnohalštatskoga naselja, vodio nas je gospodin Zrinko Klobučar, koji je kao dječak obilazio taj prostor i prikupljao nalaze. Prilikom terenskoga pregleda na preostalom dijelu brda nismo naišli na tragove naseljavanja ni pokretni arheološki materijal, što nas je navelo na zaključak da je cijeli dio naselja, a možda i pripadajuće nekropole, u potpunosti uništen.

Nakon toga kraćeg dijela u kojemu su pobrojani prapovijesni lokaliteti na prostoru Prigorja, vidljivo je da, unatoč malomu broju sustavnih istraživanja, taj prostor pokazuje puni potencijal upravo zbog iznimnoga položaja. Medvednica je osiguravala izvore brojnih sirovina dok su Sutla, Krapina i ponajprije Sava omogućavale prapovijesnim zajednicama koje su obitavale u blizini kontrolu nad putovima trgovine i razmjene dobara. Na idućim stranicama predstaviti ćemo dva lokaliteta, kasnobrončanodobni Gračec te kasnohalštatski Sveti Križ, koje istražujemo u sklopu projekta „TRANS RIVERS“. Istraženi objekti na obama lokalitetima te nalazi pronađeni u njima potvrđuju važnost toga prostora i zajednica koje su ga naseljavale.

and type Stätzing, from the time of the older phase of the Urnfield culture were found in Jarun at great depth.<sup>19</sup> Late Bronze Age settlements were found at the sites Samostan Klarisa and Gradec in Zagreb<sup>20</sup>, Kuzelin<sup>21</sup>, on Pogorišće<sup>22</sup> and Gradci<sup>23</sup> in Orešje Donje, and at the newly discovered site of Gračec, which will be discussed later.

In November 2022, as part of the TRANS RIVERS project, an archaeological field survey of the eastern slopes of Medvednica was conducted. Three potential Late Bronze Age sites were discovered. The first one is Planina Donja-Gradec, which is mentioned in the literature as an earthen and wooden fortress. Fragments of Late Bronze Age ceramics (T.3) were found on the position where the road broke through the rampart. These are mainly fragments of coarse household ceramics, with the exception of one bowl fragment decorated with oblique grooves (T.3: 5). The other two sites are Oštrc and Gradišće, located in the immediate vicinity from each other. On the top of Oštrc and on the terraces below, fragments of coarse household ceramics from the Late Bronze Age were also found, as well as several fragments decorated with oblique grooves (T. 2: 10) and oblique facets (T. 2: 8-9). Only a few fragments of prehistoric pottery and a piece of millstone were found at Gradišće. Based on the mentioned finds, we cannot date the site more precisely, but considering the position and appearance of Gradišće, it is possible that it was also a Late Bronze Age high altitude settlement.

The period of the Early Iron Age, the 8th and 7th century BC, is poorly known in this area. On Gradec, only 15 m from the trench where the Late Bronze Age layers were found, houses from the Early Iron Age were excavated.<sup>24</sup> The situation changes during the Late Hallstatt period, precisely in the 6th and 5th century BC, when three known settlements exist – Sveti Križ, Podsused Kamenolom and Kuzelin. The site Podsused Kamenolom is unfortunately completely devastated due to long-term stone exploitation. Data on the location of the site and an insight into the findings were obtained through the student project “Field survey on the western slopes of Medvednica on the Bizek-Jagodišće stretch” led by student Nikolina Sever and mentored by Mirna Cvetko from the Department of Archaeology at the Faculty of Humanities and Social Sciences in Zagreb.<sup>25</sup> Mr. Zrinko Klobučar led us to the devastated location of the former quarry, and thus the Late Hallstatt settlement, who, as a boy, visited the area and collected archaeological finds. During the field survey on the remaining part of the hill, we did not find any traces of settlement or movable archaeological material, which led us to the conclusion that the entire part of the set-

24 Majnarić-Pandžić 2009, 202.

25 Velika hvala kolegici Mirni Cvetko na uvidu u kasnohalštatski materijal i pozivu da im se pridružimo na terenskom pregledu! Hvala studentici Nikolini Sever na daljnjoj suradnji prilikom obrade materijala.

19 Majnarić-Pandžić 2009, 201.

20 Majnarić-Pandžić 2009, 201.

21 Sokol 1992, 27.

22 Balen Letunić 1996, 15.

23 Rakvin 2019.

24 Majnarić-Pandžić 2009, 202.

25 Many thanks to our colleague Mirna Cvetko for the insight into the Late Hallstatt material and the invitation to join them on the field survey! We also thank student Nikolina Sever for further cooperation during the analysis of the material.

**KARTA 1.** Prapovijesni lokaliteti na prostoru Prigorja (izradili: F. Ovčarić i L. Drahotusky-Bruketa).

**MAP 1.** Prehistoric sites in the Prigorje area (made by: F. Ovčarić and L. Drahotusky-Bruketa).



## Kasno brončano doba u sjeverozapadnoj Hrvatskoj

Za vrijeme trajanja kulture polja sa žarama u sjevernoj Hrvatskoj počinju se gušće naseljavati pobježja većih gorskih vijenaca kao što su Špičak-Bojačno, Zagreb-Gradec, Belaj, Kiringrad, Kalnik, uz postojanje puno *nizinskih* naselja poput Novigrada na Savi, Staroga Čiča, Slatine,<sup>26</sup> što je vidljivo i u Sloveniji gdje visinska naselja također postaju dominantna u kasnome brončanom dobu. Takva situacija posebice postaje vidljiva u mlađoj fazi gdje se ona može pratiti u cijeloj sjeverozapadnoj Hrvatskoj i u istočnoj Sloveniji gdje se naselja mogu pratiti sve od Gornje Radgone do Staroga grada iznad Laškoga.<sup>27</sup> U tome razdoblju bitno se počinje povećavati broj visinskih naselja vjerojatno zbog strateških razloga poput kontrole okolnoga prostora i sličnih drugih čimbenika kao što se to može primijetiti i pri odabiru lokacije naselja Gračec. U mlađoj fazi kulture polja sa žarama Podravine vide se utjecaji jugoistočnoalpskoga kruga dok se na prostoru Banovine, Korduna i Posavine vide utjecaji balkanskoga kruga, a prostor istočne Hrvatske pod utjecajem srednjopodunavskoga i donjopodunavskoga kruga.<sup>28</sup> Prema dosadašnjim istraživanjima, naselja su bila podizana u blizini komunikacijskih ruta koje su se nalazile uz vodene tokove ili pogodne gorske prijelaze. Krajnji sjeverozapadni dio Hrvatske koji u kontekstu ovoga rada uključuju Zagorje i Brdovečko Prigorje vrlo je slabo sustavno istraživano izuzev nekoliko naselja

tlement, and perhaps the associated cemetery, was completely destroyed. Of movable archaeological finds, a fragment of a bronze Certosa fibula, a fragment of a bronze bracelet and various Late Hallstatt ceramic fragments stand out. Simple conical bowls and fragments of pots decorated with plastic applications of finger or nail prints, predominate.

After this short introduction in which the prehistoric sites in the Prigorje area are listed, it is evident that, despite the small number of systematic excavations, this area shows its full potential precisely because of its exceptional location. Medvednica Mountain provided the sources of numerous raw materials, while the rivers Sutla, Krupa and especially the Sava enabled the prehistoric communities that lived nearby to control the trade routes and exchange of goods. On the following pages, we will present two sites, Late Bronze Age settlement Gračec and Late Hallstatt settlement Sveti Križ, which we are excavating as part of the TRANS RIVERS project. The investigated structures on both sites and the archaeological finds found in them confirm the importance of this area and the communities that inhabited it.

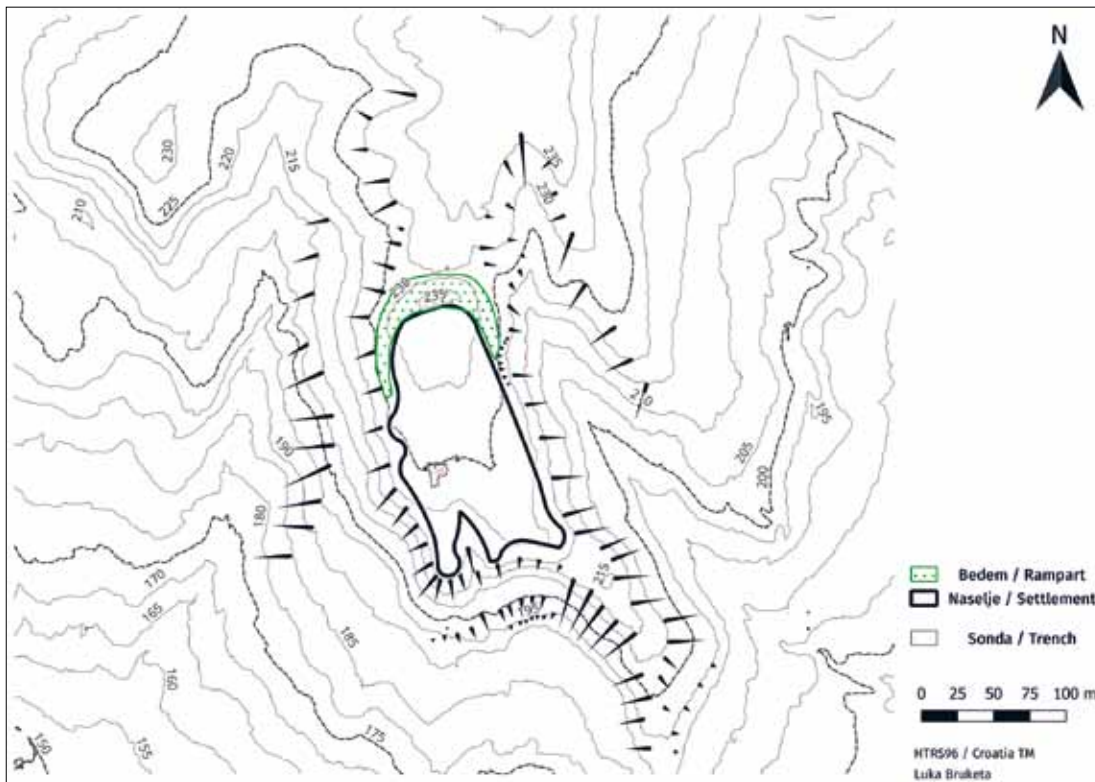
## Late Bronze Age in northwestern Croatia

During the period of the Urnfield culture in northern Croatia, the foothills of larger mountain ranges like Špičak-Bojačno, Zagreb-Gradec, Belaj, Kiringrad and Kalnik began to be more densely populated due to the emergence of lowland settlements such as Novigrad na Savi, Staro Čiče, and Slatina.<sup>26</sup> This was also re-

26 Ložnjak Dizdar, *Potrebnica* 2017, 74.

27 Črešnar 2010, 80.

28 Ložnjak Dizdar, *Potrebnica* 2017, 107.



SLIKA 1. Lidarska snimka lokaliteta Gračec (izradio L. Drahotusky-Bruketa).

FIGURE 1. LiDAR scan of the settlement at Gračec (made by L. Drahotusky-Bruketa).

poput Špičak-Bojačno<sup>29</sup> i Bregana-Kosovac<sup>30</sup> te lokalitet Gračec kod Brdovca koji je prvi sustavno istraživani lokalitet kasnoga brončanog doba na širem području.

### Naselje Gračec

Položaj Gračec nalazi se na sjevernome dijelu općine Brdovec, jugozapadno od kote Veliki vrh (239,6 m) na visini oko 220 m (Karta 1). Lokaciji se može pristupiti s njezine južne strane tako da se s kraja ulice Gračec kreće šumskom stazom koja vodi prema sjeveru do samoga naselja. Položaj prapovijesnoga (brončanodobnoga) naselja čini nekoliko cjelina.

Prvo na samome jugu položaja jest prirodno uzdignuće koje čini svojevrsnu prepreku i moguću kontrolnu točku pri ulasku u gradinski prostor. Iza prvoga prirodnog uzdignuća pruža se plato velikih dimenzija na kojemu se smjestilo naselje. Sam plato sa svoje je istočne i zapadne strane zaštićen relativno strmim padinama, na krajnjemu sjevernom dijelu platoa zabilježena je polukružna struktura tijekom terenskoga pregleda 2021., a riječ je o bedemu koji u obliku slova U ograđuje cijeli sjeverni dio platoa. Zemljani bedem vrlo je lako uočljiv i uzdiže se visoko uz sjeverni rub gradine te se lagano spušta prema istoku i zapadu do strmih padina. Uzevši u obzir navedene informacije, sa sigurnošću se može reći kako se radi o naselju kasnoga brončanoga doba kako je i pretpostavljeno prilikom prvoga terenskog pregleda koji se odvijao tijekom 2021.

recorded in Slovenia, where high-altitude settlements also became dominant in the Late Bronze Age. This situation becomes particularly visible in the younger phase of the Urnfield culture and can be traced throughout northwestern Croatia and eastern Slovenia, where the associated settlements can be found all the way from Gornja Radgona to Stari grad above Laško.<sup>27</sup> In that period, the number of high-altitude settlements began to increase significantly, probably due to strategic reasons such as controlling the surrounding area and similar other factors, as seen in the selection of the Gračec settlement. In the younger phase of the Urnfield culture in Podravina, the influence of the South-Eastern Alpine region is visible, while the influence of the Balkan region is visible in Banovina, Kordun and Posavina. In contrast, the area of eastern Croatia is influenced by the Middle Danube and Lower Danube region.<sup>28</sup> According to previous research, settlements were built near communication routes located along watercourses or convenient mountain passes. The end-part of northwestern Croatia, which in the context of this article includes a part of Zagorje and Brdovečko Prigorje, has been very poorly systematically researched, except for settlements Špičak-Bojačno,<sup>29</sup> Bregana-Kosovac<sup>30</sup> and the Gračec site near Brdovec, which is the first systematically excavated Late Bronze Age site in the area of Prigorje Brdovečko.

29 Pavišić 2006.

30 Vrdoljak 1996.

26 Ložnjak Dizdar, Potrebica 2017, 74.

27 Črešnar 2010, 80.

28 Ložnjak Dizdar, Potrebica 2017, 107.

29 Pavišić 2006.

30 Vrdoljak 1996.





SLIKA 2. Ostatci grede SJ 12 (snimila F. Ovčarić).

FIGURE 2. Remains of the beam (SU 12) (photo by F. Ovčarić).

## Objekt 1

U sondi veličine 187 kvadratnih metara nalazi se objekt čija se konstrukcijska osnova sastojala od velikih stupova (promjera 30–40 cm) te vjerojatno poprečnih greda, a također se mogu primijetiti i ukopi manjih stupova (promjera 7–10 cm) koji su vjerojatno služili kao potporni dio cijeloj konstrukciji. Zapadni zid razlikuje se jer je u potpunosti sagrađen od stupova srednjih dimenzija (promjera 15–20 cm) bez postojanja većih stupova kakvi su vidljivi na sjevernome i južnome zidu te su njihovi ukopi SJ 27, 66, 76, 32 i 33 vidljivi od sjevera prema jugu. Uz zapadni zid može se primijetiti nekoliko nizova manjih ukopa kolčića koji bi potencijalno mogli biti dio ograde izrađene od prepletenoga šiblja. No vrlo je teško ulaziti u takvu interpretaciju jer se iskapani slojevi nalaze dosta plitko i djelomično su devastirani korištenjem guste šumske vegetacije. Istočni zid ne može se ispratiti sa sigurnošću jer se kulturni slojevi nalaze dosta plitko, a i na krajnjemu istočnom dijelu objekta nalazilo se veliko drvo koje je srušeno tijekom arheoloških radova, međutim, ostao je veliki panj koji nije bilo moguće ukloniti, a koji je potencijalno uništio kulturne slojeve. Ipak, pronađeno je i ispražnjeno nekoliko zapuna i ukopa koji bi mogli pripadati konstrukciji istočnoga zida, a to su SJ 92–96. Dimenzije istraženoga objekta jesu 6 x 5,5 m. Na mjestu sjevernoga zida otkriven je i ispražnjen ukop grede SJ 26 te nekoliko većih i manjih rupa od stupa SJ 57–69 koji su vidljivi na nacrtu od istoka prema zapadu. Južni zid bio je sagrađen od nekoliko velikih stupova (SJ 32–38) te manjih stupova koji su mogli služiti kao potporanj većima jer teren pada prema jugu (njihovi su ukopi SJ 88–91). Također je u duljini zida sačuvana greda SJ 12 koja je činila dio konstrukcije južnoga zida objekta.

## The settlement at Gračec

The Gračec archaeological site is located in the northern part of the Brdovec municipality, southwest of the Veliki vrh elevation (239.6 m) at the height of about 220 m. The site can be accessed on its southern side from the end of the street Gračec by following the only existing forest path leading to the north of the settlement. The position of the prehistoric Bronze Age settlement consists of several units.

The first one, in the very south of the site, is a natural elevation that forms a kind of barrier and a possible control point at the settlement entrance. Behind the first natural elevation is a large plateau on which the settlement is located. The plateau itself is protected by relatively steep slopes on its eastern and western sides, and during the archaeological field survey in 2021, a semicircular structure was recorded on the northernmost part of the plateau representing a rampart that encloses the entire northern part of the plateau in the shape of the letter U. The earthen rampart is very easy to see and it rises high along the northern edge of the settlement, then gently lowers to the east and west to the steep slopes. Considering the above information, it can be said with certainty that Gračec is a settlement from the Late Bronze Age, as was assumed during the first archaeological survey in 2021.

## Structure 1

In the archaeological trench measuring 187 square meters, a structure was defined with a base of large wooden posts (diameter 30–40 cm) and probably transverse beams. The post holes of smaller wooden posts (diameter 7–10 cm), which perhaps were supports for the whole construction, were also noticeable. The western wall of the structure differs because it is entirely built of medium-sized (diameter 15–20 cm) wooden posts without the presence of larger posts, which are present in the northern and southern walls with their post holes (SU 27, 66, 76, 32, 33) visible from north to south. Along the western wall, several rows of smaller wooden posts that could potentially be part of a fence made of interlaced brushwood were noticeable. However, it is very difficult to put forward such an interpretation since the excavated layers are very shallow and are partially devastated by the roots of dense forest vegetation. The eastern wall of the structure cannot be traced with certainty, since the cultural layers are very shallow, and also a large stump potentially destroyed the stratigraphic units of the easternmost part. However, several post holes that could belong to the construction of the eastern wall were found and emptied (SU 92–96). The dimensions of the excavated structure are 6 x 5.5 m. In place of the northern wall, a beam (SU 26) and several larger and smaller post holes (SU 57–69) were discovered, visible from east to west. The southern wall was built of several large posts (SU 32–38) and smaller posts (SU 88–91) that probably supported larger ones, since the terrain decreases towards the south. A beam (SU 12), which was part of the construction of the southern wall of the building, was also preserved in the length of the wall.



U kasnome brončanom dobu sjeverozapadne Hrvatske paralele takvom načinu gradnje prapovijesnih objekata možemo pronaći i na lokalitetu Kalnik Igrišće. Na položaju Kalnik Igrišće II, gdje se od 2006. provode sustavna arheološka istraživanja, otkriveni su ostatci rupa za stupove, jama za skladištenje, ognjišta te ostatci dijelova drvene konstrukcije objekta. U slojevima koji se pripisuju kasnobrončanodobnomu horizontu naseljavanja prikupljeni su nalazi poput ulomaka keramike karakterističnih za Ha B stupanj, kameni nalazi te pribor za proizvodnju tekstila poput pršljenova i utega za tkalački stan.<sup>31</sup> U novijim istraživanjima lokaliteta Kalnik Igrišće također je pronađen materijal koji se može datirati i u stariju fazu kulture polja, što bi relativno kronološki uključivalo Br D i Ha A1 stupanj.<sup>32</sup> Najčešće nalaze keramičkih posuda, kao i na lokalitetu Gračec, činili su ulomci lonaca i zdjela te brojni fragmenti prijenosnih ognjišta različitih tipova. Od konstrukcijskih elemenata kuće na položaju Igrišće II pronađene su i dokumentirane rupe od stupova i ostatci drvenih greda te ostatci ognjišta.<sup>33</sup> Uz rubove ukopa rupa od stupova pronađeno je kamenje koje je vjerojatno služilo za učvršćivanje samih stupova kao što je to često slučaj kod takvoga načina gradnje prapovijesnih kuća. Takav način gradnje može se pronaći i na lokalitetu Zagreb – Gradec, gdje su krajem 20. stoljeća istraženi ostatci zemunice s pretpostavljenim kasnobrončanodobnim materijalom.<sup>34</sup> Istražen je plitko ukopani objekt čija se konstrukcija sastojala od ukopanih vertikalnih malih stupova i kolaca. Među pronađenim arheološkim pokretnim nalazima isticali su se ulomci vrlo grube keramike, piramidalni keramički utezi za tkalački stan i kameni nalazi poput žrvnja.<sup>35</sup> Iako se vjerojatno ne radi o stambenome prostoru jer je riječ o objektu manjih dimenzija (1,6 x 3,9 m), nego o radnome prostoru, može se primijetiti velika sličnost u načinu prapovijesne gradnje na svim trima spomenutim lokalitetima. Slični objekti i način gradnje mogu se pratiti i na lokalitetima s prostora istočne Slovenije. Arheološkim istraživanjima u Pobrežju otkriveni su ostatci dvadeset i jednoga objekta koji se vežu za mlađu fazu kulture polja sa žarama.<sup>36</sup> Svi objekti imaju pravokutan tlocrt, ali se razlikuju po veličini, orijentaciji, a kad i po načinu gradnje. Većina objekta izgrađena je od drvenih stupova položenih u pripadajuće rupe različitih dubina gdje su sami stupovi dodatno učvršćeni kamenjem ili ulomcima keramike uz korištenje dodatnih poprečnih greda.<sup>37</sup> Za razliku od nekih slovenskih lokaliteta, u zapunama rupa od stupova na lokalitetu Gračec vrlo rijetko ili nikada pronalazi se materijal poput keramike ili kamena, stoga se može zaključiti kako stupovi nisu bili učvršćeni na taj način. Sličan način gradnje kao na lokalitetu Gračec može se primijetiti na lokalitetu Tribuna u Ljubljani.<sup>38</sup> Riječ je o nizinskome naselju s nekoliko horizonta naseljavanja koji uključuju kasno brončano doba, željezno doba i rano rimsko razdoblje. Objekti koji pripadaju kasnomu

In the Late Bronze Age period in northwestern Croatia, a similar method of building prehistoric houses can be found at Kalnik Igrišće. At the systematically excavated site since 2006, Kalnik Igrišće II, the remains of post holes, storage pits, hearths and remains of wooden structures were discovered. In the layers attributed to the Late Bronze Age settlement horizon, ceramic fragments characteristic to the Ha B phase, stone fins, and textile production items such as loom weights and spindle whorls were collected.<sup>31</sup> In recent excavations at Kalnik Igrišće, the archaeological finds found at the site can be dated to the older phase of the Urnfield culture, which would relatively-chronologically include the Br D and Ha A1 phases.<sup>32</sup> The most common fragments of ceramic vessels, as at Gračec, were fragments of pots and bowls and numerous fragments of portable hearths of various types. Of the construction elements of the house at Igrišće II, post holes and remains of wooden beams and a hearth were found and documented.<sup>33</sup> Along the edges of the post holes, stones were found which probably were put there to strengthen the posts themselves, which is often the case with this type of prehistoric structures. This construction method can also be found at the Zagreb-Gradec site, where at the end of the 20th century the remains of a pit house with presumed Late Bronze Age material were excavated. A shallowly dug-in structure constructed of small vertical posts and poles was excavated.<sup>34</sup> Fragments of very coarse ceramic vessels, pyramidal ceramic loom-weights, and stone finds such as millstones stood out among the archaeological finds.<sup>35</sup> Although the latter is probably not a residential building but a working space, since it is a structure of smaller dimensions (1.6 x 3.9 m), great similarity of prehistoric building construction can be noticed on all three mentioned sites. Similar structures and methods of construction can be observed on sites in eastern Slovenia. Archaeological excavation in Pobrežje revealed the remains of twenty-one structures from the younger phase of the Urnfield culture.<sup>36</sup> All buildings have a rectangular floor plan, but they differ in size, orientation, and sometimes in the construction method. Most of the buildings were built of wooden posts placed in corresponding holes of different depths with the use of transverse beams, and the posts themselves were additionally strengthened with stones or ceramic fragments.<sup>37</sup> In contrast to some Slovenian sites, at Gračec ceramic fragments or stones are rarely or never found in the post holes, so it can be concluded that the posts were not strengthened in that way. A similar construction method to Gračec can be observed at the site Tribuna in Ljubljana.<sup>38</sup> It is a lowland settlement with several settlement horizons from the Late Bronze Age, the Iron Age and the Early Roman period. According to the ceramics and the acquired dates, the structures from the Late Bronze Age are relatively chronologically dated to the Ha A/B, Ha B and Ha B

31 Karavanić 2009, 32.

32 Karavanić, Kudelić 2019, 69.

33 Karavanić 2009, 34.

34 Majnarić-Pandžić 2009, 202.

35 Majnarić-Pandžić 2009, 203.

36 Kramberger, Črešnar 2020, 57.

37 Kramberger, Črešnar 2020, 58.

38 Vojaković 2014, 394.

31 Karavanić 2009, 32.

32 Karavanić, Kudelić 2019, 69.

33 Karavanić 2009, 34.

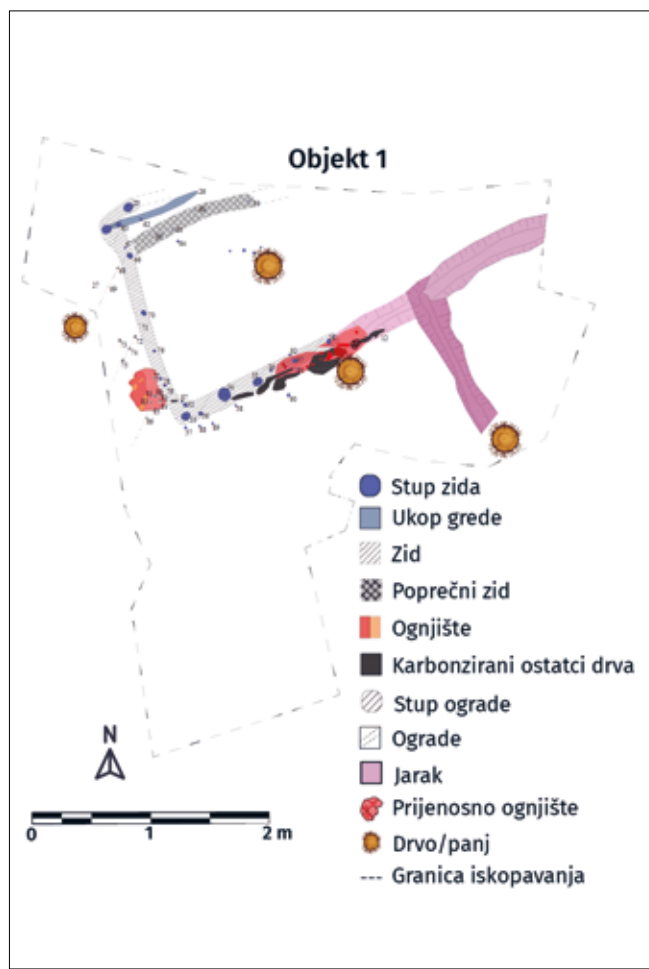
34 Majnarić-Pandžić 2009, 202.

35 Majnarić-Pandžić 2009, 203.

36 Kramberger, Črešnar 2020, 57.

37 Kramberger, Črešnar 2020, 58.

38 Vojaković 2014, 394.



SLIKA 3. Nacrt istraženoga objekta i kanala (izradili F. Ovčarić i L. Drahotusky-Bruketa).

FIGURE 3. Drawing of the excavated structure and ditch (made by F. Ovčarić and L. Drahotusky-Bruketa).



SLIKA 4. Nakupina keramike SJ 20 u blizini ognjišta 2 (snimila F. Ovčarić).

FIGURE 4. Ceramic fragments SU 20 in the vicinity of the hearth (photo by F. Ovčarić).

brončanom dobu s obzirom na keramiku i dobivene datume (Tab 1.), relativno kronološki datiraju se u razdoblje Ha A/B, Ha B i Ha B3/C1 stupnjeva.<sup>39</sup> Osnovna konstrukcija objekta također se sastojala od stupova te poprečnih greda kakve su pronađene i na lokalitetu Gračec. U slojevima koji pripadaju kasnobrončanodobnomu horizontu ističu se nalazi zdjele s horizontalno fasetiranim rubom koji se javlja od Ha A/B do Ha B3/C1 stupnja i ulomci keramičkih posuda ukrašenih urezanim motivima trokuta i krugova, što također predstavlja vodeće dekorativne motive Ha B stupnja.<sup>40</sup> U pretpostavljenoj unutrašnjosti objekta na lokalitetu Gračec nije bilo konkretnoga arheološkog sloja osim uz same zidove kuće, ali to se objašnjava nagibom terena i mogućim erodiranjem kulturnoga sloja od sjevera prema jugu. Tako je uz južni zid u unutrašnjosti kuće i izvan kuće pronađena najveća količina keramičkih ulomaka izuzev zapunama kanala.

3/C1 phases.<sup>39</sup> The basic construction of the building also consisted of wooden posts and transverse beams, like the building construction at Gračec. In the layers from the Late Bronze Age horizon, the finds of a bowl with a horizontally faceted rim that occurs from the Ha A/B to the Ha B3/C1 phases and fragments of ceramic vessels decorated with incised motifs of triangles and circles, which also represent the leading decorative motifs of the Ha B phase,<sup>40</sup> stand out. In the presumed interior of the structure 1 at Gračec, there was no concrete archaeological layer except near the walls of the building, but this is explained by the slope of the terrain and the possible erosion of the cultural layer from north to south. The largest amount of ceramic fragments, except in the ditch, was found along the southern wall in the interior of the building and outside it. To the west of the building, the ditch pits were also discovered and emptied,

39 Vojaković 2014, 394–401.

40 Vojaković 2014, 394.

39 Vojaković 2014, 394–401.

40 Vojaković 2014, 394.



**SLIKA 5.** Prijenosno ognjište N-83 *in situ* at Gračec (snimila F. Ovčarić).

**FIGURE 5.** Portable hearth N-83 *in situ* at Gračec (photo by F. Ovčarić).

Zapadno od objekta otkrivene su i ispražnjene zapune kanala od kojih se najdulji krak proteže u smjeru sjever – jug, a dva manja u smjeru zapad – istok te sva tri kraka kanala zajedno čine oblik slova T. U zapuni kanala (SJ 2 kanal sjever – jug, SJ 9 istočni krak, SJ 15 zapadni krak) pronađena je veća količina keramike od koje je pronađeno puno ulomaka grube, nešto manje ulomaka fine keramike, komadi lijepa te glačani i lomljeni kameni nalazi. Zapadni krak kanala prati se od jugoistočnoga kuta istraženoga objekta gdje je vrlo plitak te se dalje produbljuje prema zapadu gdje je najdublji na spoju središnjega i oba kraka kanala. Zabilježena mu je duljina od 2 metra. Istočni krak kanala također se mogao ispratiti u duljini oko 2 metra, kada ulazi pod istočni profil sonde. Središnji kanal ispraćen je u duljini od 5 metara, međutim na njegovu južnom dijelu usred zapune nalazio se izvrnuti panj, što je znatno poremetilo stratigrafiju u južnome dijelu sonde gdje je i tijekom terenskoga pregleda 2021. uočena velika količina keramike. Kanali su najvjerojatnije služili za odvodnju vode jer se samo naselje nalazilo na dosta ravnome platou gdje se vrlo dugo zadržava voda.

Otkriveni su ostatci dvaju ognjišta od kojih je jedno bilo smješteno uz jugozapad objekta, a drugo uz jugoistok. Ognjište smješteno uz jugozapad objekta imalo je izgrađeno svojevrsnu vidljivu konstrukciju od zapečene zemlje koja je polukružno bila smještena uz zapadni zid objekta. Ognjište je bilo 1,5 m dužine i 1 m širine te su oko njega i na njemu pronađeni keramički ulomci, kameni nalazi te ostatak prijenosnoga ognjišta. Slični komadi prijenosnog ognjišta te ulomci lonaca (T.1: 1-3) i finijih zdjela (T.1: 4-5) prikupljeni su i na lokalitetu Kosovac-Bregana tijekom terenskoga pregleda. U neposrednoj blizini ognjišta, s njegove južne strane, bio je definiran SJ 20 koji je činila velika količina keramike na kojoj su vidljivi tragovi gorenja (Slika 3).

of which the longest arm extends in the north-south direction, the two smaller ones in the west-east direction, and all three arms of the ditch form the shape of the letter T. In the ditch (SU 2 ditch north-south, SU 9 eastern arm, SU 15 western arm) a large number of ceramic fragments was found (many fragments were coarse and slightly fewer fragments were finely made) with pieces of daub and polished and knapped stone finds. The western arm of the ditch is followed from the southeast corner of the excavated structure, where it is very shallow, then it further deepens towards the west, where it is most profound at the junction of the central ditch and both arms. Its recorded length is 2 meters. The eastern arm of the ditch can also be followed in the length of 2 meters when it enters under the eastern profile of the trench. The central ditch was observed to have a length of 5 meters. However, in its southern part, there was an inverted stump, which significantly disturbed the stratigraphy in the southern part of the trench, where a large amount of ceramics was also observed during the archaeological field survey in 2021. The ditches were most likely used for water drainage since the settlement was located on a very flat plateau where water is retained for a very long time.

The remains of two hearths were discovered at the site. One hearth was located southwest of the building, and the other one was southeast. The hearth located along the southwestern side of the building was made of a construction of baked earth, which was located along the western wall. The hearth was 1.5 m long and 1 m wide, and ceramic fragments, stone finds and the remains of a portable hearth were found around and on the hearth. Similar pieces of a portable hearth and fragments of pots (T. 1: 1–3) and fine bowls (T. 1: 4–5) were also collected at the Kosovac-Bregana site during the field survey. In the vicinity

Drugo ognjište koje je bilo smješteno na jugoistoku kuće nije bilo toliko dobro sačuvano zbog velikoga panja koji je u tome dijelu sonde poremetio stratigrafiju. Uz to je ognjište također pronađeno jedno prijenosno ognjište *in situ*, komadi drugih prijenosnih ognjišta te velika količina jako spaljene keramike. Na lokalitetu Tribuna u objektu 8, koji pripada kasnobrončano-dobnomu horizontu, otkrivena su također dva ognjišta, gdje je dimenzija prvoga i većega 3,3 x 1,7 m, a drugoga manjeg 1,0 x 0,9 m.<sup>41</sup>

Dosadašnji dijelovi istraženih naselja mlađe faze kultura polja sa žarama u sjevernoj Hrvatskoj upućuju na postojanje nadzemnih kuća uz pripadajuće poluukopane i ukopane skladišne prostore i radionice<sup>42</sup> kakvi su se mogli pronaći i tijekom arheoloških istraživanja na lokalitetu Gračec.

### Pokretni arheološki materijal

Uz zidove istraženoga objekta pronađeno je puno arheološkoga pokretnog materijala koji uključuje glačano kameno oruđe, litiku, malu količinu fine ukrašene keramike, puno grube kućanske keramike, pribor za proizvodnju tekstila poput pršljenova i utega za tkalački stan te ostatke prijenosnih ognjišta i lijepa. Što se tiče keramičkoga materijala čija je detaljna tipološka analiza trenutačno u tijeku, može se primijetiti kako najbrojniji tip posuda čine lonci i zdjele, a nakon toga šalice. Sami keramički predmeti dosta su fragmentirani, porozni i lako pucaju prilikom pranja ili lijepljenja posuda. Lonci su pečeni i bez postojanja kisika (redukcijski) te uz postojanje kisika (oksidacijski), uglavnom su neukrašeni ili imaju apliciranu traku ukrašenu otiscima prstiju ili štibanjem te izvučen rub prema dosad preliminarno pregledanim komadima. Oni lonci koji su pečeni redukcijski uglavnom su finije izvedbe i fature, a vanjska površina posude jest zaglađena. Trenutačno se ni na jednome pregledanom ulomku keramike ne primjećuju tragovi poliranja, ali je moguće da je riječ o tek lošoj očuvanosti posuda uslijed ne kvalitetne izrade ili utjecaja vanjskih čimbenika. Slični ulomci i zasad preliminarno tipološki određene posude mogu se pronaći i na lokalitetu Šenkovec – Čestinka.<sup>43</sup> Među keramičkim nalazima spomenutoga lokaliteta najbrojnija je keramika grube fature koja je, kao što je to često slučaj, najbolje zastupljena loncima većih dimenzija. Oni su uglavnom pečeni oksidacijski ili redukcijski, fatura im varira od grube do prijelazne, a površina im je najčešće blago zaglađena, tek vrlo rijetko polirana. Zdjele također čine jedan od najbrojnijih tipova posuda na lokalitetu. U najvećemu broju to su neukrašene zdjele uvučenoga ruba, oksidacijski pečene i svjetlije smeđe boje iako postoje i one koje su pečene redukcijski. Jedna oksidacijski pečena zdjela blago uvučenoga ruba, pronađena u zapuni kanala, ukrašena je urezanim horizontalnim i vertikalnim linijama ispod ruba

of the hearth, on its southern side, SU 20 was defined, with a large quantity of ceramic fragments with visible traces of burning (Fig. 4).

The second hearth, located southeast of the building, was not so well preserved because of a large stump that disturbed the stratigraphic units in that part of the trench. Near the latter hearth, one portable hearth was found *in situ*, and pieces of other portable hearths and a large amount of heavily burnt ceramics were also found. Two hearths with the dimensions of the larger one being 3.3 x 1.7 m and the smaller one being 1.0 x 0.9 m, were also discovered at the archaeological site Tribuna in building 8, which also belongs to the Late Bronze Age.<sup>41</sup>

So far, the excavated parts of settlements of the younger phase of the Urnfield culture in northern Croatia indicate the existence of above-ground houses with associated semi-buried and buried storage spaces and workshops,<sup>42</sup> as those uncovered during archaeological excavations at Gračec.

### Movable archaeological finds

Along the walls of excavated structure 1, a lot of movable archaeological material was found, including polished stone tools, lithics, a small amount of fine decorated pottery, a lot of coarse household pottery, items for textile production such as spindle whorls and loom weights, and the remains of portable hearths and daub. Regarding the ceramic material, whose detailed typo-chronological analysis is currently underway, it can be noted that the most numerous types of vessels are pots and bowls, followed by cups. The ceramic finds are very fragmented, porous and they break easily during washing or gluing together. The pots were fired both without the presence of oxygen (the process of reduction), and with the presence of oxygen (the process of oxidation) and they are mostly undecorated or have an applied strip decorated with fingerprints or pinching and a drawn-out rim. Pots fired in the reduction process generally have finer design and texture and the outer surface of the pot is smoothed. Currently, no traces of polishing can be observed on any of the examined ceramic fragments, but there is a possibility that the vessels are poorly preserved due to low quality or the influence of external factors. Similar ceramic fragments and typologically determined vessels can be found at the Šenkovec-Čestinka site.<sup>43</sup> Among the ceramic finds of the mentioned site, the most numerous are the coarse ones, which are best represented by pots of larger dimensions. They are fired in oxidation or reduction processes and their texture varies from coarse to transitional, while their surface is usually slightly smoothed, and less often polished. Bowls also form one of the most numerous types of vessels at the site. Most of them are undecorated bowls with an indented rim, fired in the oxidation process and of a lighter brown colour, although some are reduction-fired. One bowl found in the ditch is decorated with incised horizontal and vertical lines below the rim of the

41 Vojaković 2014, 395.

42 Ložnjak Dizdar, Potrebića 2017, 104.

43 Krmpotić 2020, 358.

41 Vojaković 2014, 395.

42 Ložnjak Dizdar, Potrebića 2017, 104.

43 Krmpotić 2020, 358.

posude. Ostale zdjele, one koje su redukcijски pečene, ukrašene su uglavnom širokim kosim kanelurama ili u manjemu broju horizontalnim fasetama (Sl. 6). Takve zdjele uvučenoga ruba s kosim kanelurama pojavljuju se od sredine Ha A pa sve do Ha C stupnja<sup>44</sup>, stoga se takvi oblici ne mogu približe relativno kronološki datirati izvan arheološkoga konteksta. J. Dular u svojoj studiji iz 1982. navodi kako se ukras kosih kanelura na prostoru Dolenjske, koji on naziva žljebljenjem, na zdjelama pojavljuje u kasnome brončanom dobu i kasnijoj fazi starijega željeznog doba neovisno jedan o drugome. On takve zdjele navodi kao tip 3 te ih smješta u horizont Stična – Novo Mesto.<sup>45</sup> L. Grahek (2016) također navodi kako se ukras kosih kanelura na Stični pojavljuje u najstarijoj fazi nastanjivanja te postoji hijatus između pojave kosih kanelura na kasnobrončanodobnoj keramici i onoj iz kasnoga starijega željeznog doba.<sup>46</sup> O. Kovač (2014) navodi da se na lokalitetu Silovec iznad Orešja kod Bizeljskoga mogu pronaći zdjele uvučenoga ruba ukrašene kosim kanelurama kakve Dular definira kao tip 3. Također se navodi kako se pojavljuju zdjele sa širokim kanelurama kakve su u Pošteli datiraju u 2. i 3. fazu, odnosno u Ha B3-Ha D1 stupanj.<sup>47</sup> Za zdjele uvučenoga ruba s horizontalnim fasetama M. Rakvin navodi da je taj tip na području Transdanubije vrlo poznat i raširen od početka kulture polja sa žarama te ga se može pratiti sve do starijega željeznog doba,<sup>48</sup> što potvrđuju i brojni nalazi s lokaliteta Kalnik Igrišće<sup>49</sup> koji se mogu datirati od kraja Br D/Ha A stupnja te s nekropole u Rušama<sup>50</sup>, na kojemu je isti tip zdjela datiran u mlađu fazu Ha B stupnja. J. Dular (1982) takve zdjele naziva tipom 2 te ih vremenski smješta na sam početak željeznoga doba, odnosno u horizonte Podzemelj 1 i 2.<sup>51</sup> L. Grahek (2016) navodi kako se na Stični zdjele uvučenoga ruba ukrašene fasetiranjem pojavljuju u najstarijoj fazi naselja te su pokazatelj tradicije kulture polja sa žarama.<sup>52</sup> Takav ukras na zdjelama uvučenoga ruba jedan je od vodećih oblika kasnoga brončanog doba te kasnije doljenjske halštatske skupine gdje se također datiraju u Podzemelj 1 i 2 horizont s mogućnošću trajanja u horizont Stična – Novo Mesto 1.<sup>53</sup> Slične zdjele mogu se pronaći i na željeznodobnome lokalitetu Silovec te se one na Brinjevoj gori datiraju u Ha B2/B3 stupanj, a na lokalitetima Poštela i Burgstallkogel u Ha C/D1 stupanj.<sup>54</sup>

Paralele se mogu pronaći na ostalim kasnobrončanodobnim lokalitetima na području sjeverozapadne Hrvatske. Na lokalitetu Šenkovec – Čestinka drugi najzastupljeniji tip posuda predstavljaju zdjele od kojih su najčešće one neukrašene s uvučenim rubom.<sup>55</sup> Međutim, često se pronalaze i zdjele koje su ukrašene kaneliranjem, fasetiranjem, a rijetko žljebljenjem i otiskivanjem<sup>56</sup>, kao što je slučaj i na lokalitetu Gračec. Česte su također

bowl. Other vessels, again those that were reduction-fired, are decorated with wide oblique grooves or, to a lesser extent, with horizontal facets (Fig. 6). Such bowls with an indented rim with oblique grooves appear from the middle of Ha A until the Ha C phase,<sup>44</sup> therefore such forms cannot be dated more closely relative-chronologically outside the archaeological context.

In his study from 1982, J. Dular states that the decoration of oblique grooves in the area of Dolenjska, appears on bowls in the Late Bronze Age and the later phase of the Early Iron Age independently of each other. He lists such bowls as type 3 and places them in the Stična-*Novo Mesto* horizon.<sup>45</sup> L. Grahek (2016) also states that the decoration of oblique grooves at Stična appears in the oldest phase of settlement, and there is a hiatus between the appearance of oblique grooves on Late Bronze Age pottery and that from the Late Early Iron Age.<sup>46</sup> O. Kovač (2014) states that at the site of Silovec above Orešje near Bizeljski, bowls with an indented rim decorated with oblique grooves, which Dular defines as type 3, can be found. It is also stated that there are bowls with wide grooves, such as those in Poštela, dating to the 2nd and 3rd phases, i.e. Ha B3-Ha D1 phase.<sup>47</sup> Regarding bowls with indented rims with horizontal facets, M. Rakvin states that this type is very well known and widespread in Transdanubia from the beginning of the Urnfield culture and can be traced all the way back to the Early Iron Age,<sup>48</sup> which is confirmed by numerous finds from Kalnik Igrišće,<sup>49</sup> dated from the end of the Br D/Ha A phase and from the necropolis in Ruše,<sup>50</sup> where the same type of bowl was dated to the younger period of the Ha B phase. J. Dular (1982) defines such bowls in type two and places them at the very beginning of the Iron Age, in Podzemelj 1 and 2 horizons.<sup>51</sup> L. Grahek (2016) states that bowls with indented rims decorated with faceting appear in the oldest phase of the settlement and are an indicator of the tradition of the Urnfield culture.<sup>52</sup> This decoration on bowls with an indented rim is one of the leading forms of the Late Bronze Age and the later Dolenjska Hallstatt group, where they are also dated to the Podzemelj 1 and 2 horizon with the possibility of dating to the Stična-*Novo Mesto* 1 horizon.<sup>53</sup> Similar bowls can also be found at the Iron Age site of Silovec, and those on Brinjeva Gora, dated to the Ha B2/B3 phase, and at Poštela and Burgstallkogel, dated to the Ha C/D1 phase.<sup>54</sup>

Parallels can be found at other Late Bronze Age sites in north-western Croatia. At the Šenkovec-Čestinka site, the second most represented type of vessels are bowls, of which the most common are undecorated ones with an indented rim.<sup>55</sup> However,

44 Ložnjak Dizdar 2002, 317.

45 Dular 1982, 83–85.

46 Grahek 2016, 204–205.

47 Kovač 2014, 512.

48 Rakvin 2015, 84–85.

49 Vrdoljak 1996, T.16:1

50 Čučković, Čučković 2011, 80–81.

51 Dular 1982, 75–76.

52 Grahek 2016, 228.

53 Grahek 2016, 2015.

54 Kovač 2014, 511.

55 Krmpotić 2020, 366.

56 Krmpotić 2020, 366.

44 Ložnjak Dizdar 2002, 317.

45 Dular 1982, 83–85.

46 Grahek 2016, 204–205.

47 Kovač 2014, 512.

48 Rakvin 2015, 84–85.

49 Vrdoljak 1996, T.16:1

50 Čučković, Čučković 2011, 80–81.

51 Dular 1982, 75–76.

52 Grahek 2016, 228.

53 Grahek 2016, 2015.

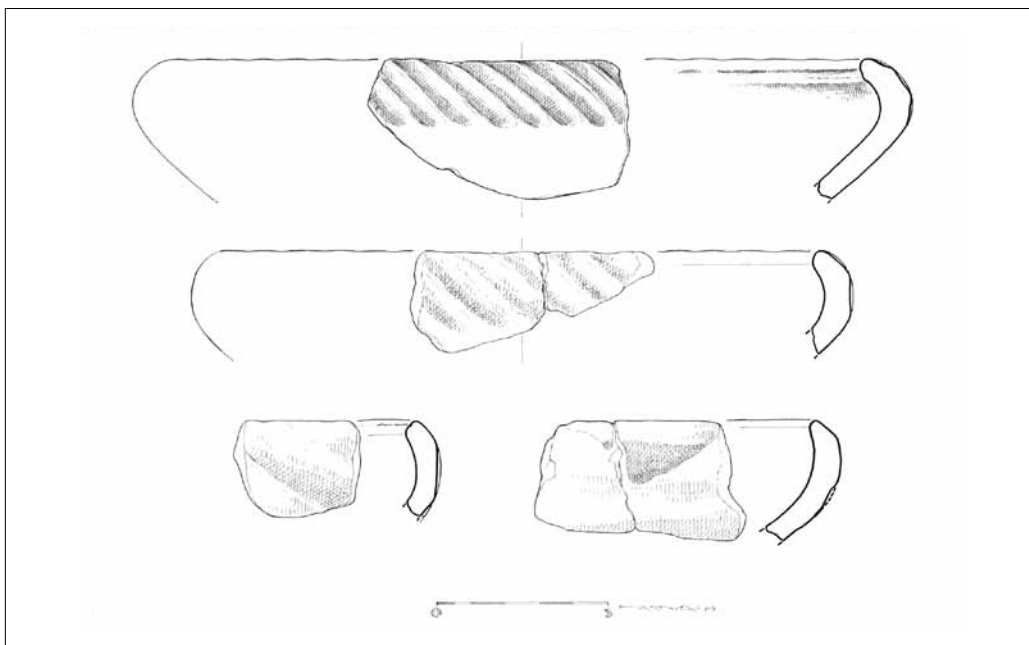
54 Kovač 2014, 511.

55 Krmpotić 2020, 366.



**SLIKA 6.** Ulomci keramike s kosim kanelurama i horizontalnim fasetama (izradila M. Rončević).

**FIGURE 6.** Fragments of pots with oblique grooves and horizontal facets (made by: M. Rončević).



i plitke i duboke zdjele koničnih, blago zaobljenih stijenki dok su polukuglasto oblikovane zdjele vrlo rijetke. Površine svih tipova zdjela u rasponu su od zaglađene do polirane, a pečene su i oksidacijski i redukcijski bez vidljivih pravila. Takvim oblicima zdjela s uvučenim rubom i kosim kanelurama paralele se mogu pronaći na lokalitetima Kiringrad i Gradišće u Starome Čiču,<sup>57</sup> gradini Marić<sup>58</sup> te lokalitetu Špičak kod Bojačnoga.<sup>59</sup>

Prikupljeno je i nekoliko ulomaka fine, redukcijski pečene keramike koja je preliminarno pregledana te zato još nije tipološki detaljno obrađena, a uglavnom je ukrašena plitkim urezivanjem horizontalnih paralelnih linija, ispunjenih i neispunjenih visećih većih i manjih trokuta, pseudovrpčastim ukrasom te cik-cak linijama. Plitko urezivanje horizontalnih i vertikalnih paralelnih linija zabilježeno je na lokalitetima Pobrežje,<sup>60</sup> gdje se datira u cijelo trajanje Ha B stupnja, te na lokalitetu Poštela,<sup>61</sup> gdje se smješta u Ha C stupanj, što bi se relativno kronološki poklapalo s nalazima keramike i dobivenim apsolutnim datumima s lokaliteta Gračec gdje je pronađeno nekoliko ulomaka keramike ukrašene tim motivom. Idući ukras koji se može izdvojiti na lokalitetu Gračec jesu trokuti ispunjeni paralelnim linijama. J. Dular ukras ispunjenih trokuta datira u vrijeme između Ha A i Ha B2/B3 stupnja kada se on pojavljuje u Brinjevoj gori,<sup>62</sup> a Balen Letunić spominje ga kao ukras karakterističan za metalne predmete Ha B1 i Ha B2 stupnja.<sup>63</sup> Također je pronađeno i nekoliko ulomaka keramike ukrašene pseudovrpčastim ukrasom. Za pseudovrpčasti ukras još Vinski-Gasparini<sup>64</sup> piše kako se može datirati u mlađu fazu grupe Velika Gorica, odnosno Ha B2 stupanj.

bowls decorated with grooves, facetes, and rarely with gutters and prints, are also often found,<sup>56</sup> as is the case at the Gračec site. Shallow and deep bowls with conical, slightly rounded surfaces are also common, while hemispherical shaped bowls are very rare. The surfaces of all types of bowls range from smoothed to polished, and they are fired both in the oxidation and reduction process. Parallels to such shapes of bowls with indented rims and oblique grooves can be found at Kiringrad and Gradišće sites in Staro Čiče,<sup>57</sup> Marić Gradina<sup>58</sup> and Špičak near Bojačno.<sup>59</sup>

A few fragments of fine, reduction-fired ceramics were also collected, which were preliminarily examined and therefore not typologically processed yet, but they are mostly decorated with shallow incising of horizontal parallel lines, filled and unfilled hanging larger and smaller triangles, pseudo corded decoration and zig-zag lines. Shallow incising of horizontal and vertical parallel lines was recorded at Pobrežje,<sup>60</sup> where it is dated to the entire duration of the Ha B phase, and Poštela,<sup>61</sup> where it is placed in the Ha C phase, which would coincide relatively-chronologically with the pottery finds and the absolute dates obtained from the Gračec where several fragments of ceramics decorated with that motif were found. The next kind of decoration that can be distinguished at Gračec includes triangles filled with parallel lines. J. Dular dates this decoration to the time between Ha A and Ha B2/B3, when it appears in Brinjeva Gora,<sup>62</sup> and Balen Letunić mentions it as a decoration characteristic of metal objects of Ha B1 and Ha B2 phases.<sup>63</sup> Several fragments

57 Ložnjak Dizdar 2002, 317.

58 Rakvin 2015, T.2: 11.

59 Pavišić 1993 T.8: 6.

60 Pahić 1972, T. 4: 10, T. 14: 10.

61 Teržan 1990, T. 1: 5.

62 Dular 2013, 50.

63 Balen-Letunić 1987, 4-5.

64 Vinski-Gasparini, 1983.

56 Krmpotić 2020, 366.

57 Ložnjak Dizdar 2002, 317.

58 Rakvin 2015, T.2:11.

59 Pavišić 1993 T.8:6.

60 Pahić 1972, T.4:10, T.14:10.

61 Teržan 1990, T.1:5.

62 Dular 2013, 50.

63 Balen-Letunić 1987, 4-5.





SLIKA 7. Izdvojeni pršljenovi (fotografija: Mokos et al. 2023).

FIGURE 7. Selected spindle whorls (photo: Mokos et al. 2023).

Upravo je keramika s tim tipom ukrasa, za koji D. Ložnjak Dizdar<sup>65</sup> piše kako je jedan od omiljenih u Ha B stupnju, pronađena i među keramičkim oblicima s nekropole Velika Gorica, a paralele se mogu pronaći i na nekropoli Dobova. Takvi pseudovrpčasti ukrasi mogu se pronaći i na lokalitetu Hrib u Metliki na posudi u grobu 82 te se povezuje s nalazima iz groba 7 u Rušama, koji se datira u Ha B2 stupanj i grobom 5 iz Habakuka kod Pošte, koji se datira u Ha B3 stupanj.<sup>66</sup> Ukras se može pronaći i na lokalitetu Kostel gdje A. Velušček<sup>67</sup> govori da je upravo takav ukras značajan za mlađu fazu kulture polja sa žarama, odnosno Ha B stupanj ruške grupe, gdje se može pratiti sve do starijega željeznog doba. Motiv cik-cak linija na lokalitetu Gračec pronađen je na svega nekoliko ulomaka, a paralele takvom motivu mogu se pronaći na lokalitetu Brinjeva gora gdje ih J. Dular<sup>68</sup> smješta u razdoblje od Ha B1 do Ha C0 stupnja. On općenito ističe kako je urezivanje najrašireniji način ukrašavanja keramičkih posuda i da se upotrebljava tijekom čitavoga starijega željeznog doba.<sup>69</sup> Pronađeno je i nekoliko ulomaka koji se zasad tipološki mogu odrediti kao šalice s ručkom koje prelaze ili ne prelaze rub posude, a one su također pečene i redukcijski i oksidacijski.

U naseljima kasnoga brončanog doba sjeverne Hrvatske najčešće nalaze čine ulomci keramičkih posuda poput lonaca, zdjela i šalica, nakon čega slijede brončani predmeti poput igli, sjekira, koplja i srpova,<sup>70</sup> međutim, na lokalitetu Gračec, kao drugi najbrojniji nalazi nakon keramičkih pokazali su se oni kameni. Riječ je uglavnom o ulomcima žrvnjeva, rastiračima, brusevima te o nekoliko komada litike poput jezgri, sječiva i odbojaka. U naseljima su pronađeni i brojni ostatci keramičkih predmeta

of pottery decorated with pseudo corded decoration were also found. Vinski-Gasparini<sup>64</sup> dates the pseudo-corded decoration to the younger phase of the Velika Gorica group, in the Ha B2 phase. Ceramics with this type of decoration, according to D. Ložnjak Dizdar,<sup>65</sup> one of the favorite decorations in the Ha B phase, was also found among the ceramic forms from the Velika Gorica necropolis, while parallels can also be found at the Dobova necropolis. Such pseudo-corded decoration can also be found at the site Hrib in Metlika on a vessel in grave 82, and it is connected with finds from grave 7 in Ruše, which is dated to the Ha B2, and grave 5 from Habakuk near Poštela, dated to the Ha B3 phase.<sup>66</sup> This decoration can also be found at Kostel, where A. Velušček<sup>67</sup> says that exactly this decoration is significant for the younger phase of the Urnfield culture, that is, the Ha B phase of the Ruša group, where it can be traced all the way to the Early Iron Age. The motif of zig-zag lines was found on only a few fragments at Gračec, and parallels to this decoration can be found at Brinjeva Gora, where J. Dular<sup>68</sup> places them in the period from Ha B1 to Ha C0 phase. He generally points out that engraving is the most widespread way of decorating ceramic vessels and that it was used throughout the entire Early Iron Age.<sup>69</sup> A few sherds were also found that can be typologically determined as mugs with a handle that may or may not go beyond the edge of the vessel, and they were also fired by reduction and oxidation.

In the settlements of the Late Bronze Age in northern Croatia, the most common finds are fragments of ceramic vessels such as pots, bowls and cups, followed by bronze objects such as needles, axes, spears and sickles.<sup>70</sup> However, at Gračec, the sec-

65 Ložnjak Dizdar 2002, 317.

66 Grahek 2004, 136.

67 Velušček 1996, 6.

68 Dular 2013, 50.

69 Dular 1982, 83.

70 Ložnjak Dizdar, Potrebica 2017, 107.

64 Vinski-Gasparini, 1983.

65 Ložnjak Dizdar 2002, 317.

66 Grahek 2004, 136.

67 Velušček 1996, 65.

68 Dular 2013, 50.

69 Dular 1982, 83.

70 Ložnjak Dizdar, Potrebica 2017, 107.

poput onih za proizvodnju tekstila te biljni i životinjski ostatci, a na lokalitetu Gračec biljni i životinjski ostatci sačuvani su u maloj količini. Najbolje je očuvana greda (SJ 12) koja je bila dio južnoga zida objekta, a (Sl.1) sačuvane kosti spaljene su te ih je pronađeno vrlo malo, uglavnom u neposrednoj blizini ognjišta.

Od ostalih keramičkih nalaza koji su vrlo dobro zastupljeni trebaju se spomenuti neukrašeni pršljenovi raznih dimenzija koji su uglavnom pečeni oksidacijski te su svijetlo smeđe boje (Slika 5). U najvećemu broju zastupljeni su veći bikonični pršljenovi, a tek je nekoliko kuglastih i to uglavnom manjih dimenzija.

Na lokalitetu Gračec pronađeni su uglavnom tipovi posuda koji se mogu relativno kronološki dosta široko datirati u kasno brončano doba pa sve do starijega željeznog doba. Riječ je uglavnom o zdjelama s uvučenim rubom koje su ukrašene kosim kanelurama ili horizontalnim fasetiranjem koji se ističu kao karakteristični ukrasi kasnoga brončanog i starijega željeznog doba. Unatoč tomu što je pronađen mali broj ulomaka ukrašen urezivanjem i utiskivanjem, većina korištenih oblika karakteristična je za kasno brončano doba poput već spomenutoga pseudovrpčastog ukrasa na pojedinim posudama. Neki motivi i načini ukrašavanja poput urezanih linija, šrafiranih trokuta i cik-cak linija lokalitet smještaju u mlađu fazu kulture polja sa žarama te im se mogu pronaći paralele na širem prostoru Karpatske kotline i jugoistočnoga alpskog prostora. Izdvojeni keramički oblici i karakteristični ukrasi u potpunosti odgovaraju dobivenim apsolutnim datumima koji lokalitet smještaju u razdoblje Ha B3/Ha Co stupnja, tj. na sam kraj brončanoga doba i začetak starijega željeznog doba.

Apsolutno je datirano sveukupno 5 uzoraka, od kojih četiri uzorka čini karbonizirano drvo, a jedan uzorak čine spaljene kosti pronađene na ognjištu. Uzorci U5 i U6 (Tab. 1) uzorci su s istočne i zapadne strane grede SJ 12 (Sl. 1) koja je činila konstrukcijsku osnovu južnoga zida Objekta 1. Uzorak U12 (Tab.1) uzorak je spaljene kosti iz SJ 17 sloja koji se nalazio uz zapadni zid Objekta 1 u neposrednoj blizini ognjišta SJ 47 koje je bilo smješteno uz jugozapad objekta. Uzorak U9 i N168 (Tab.1) također su uzorci karboniziranoga drveta prikupljenoga tijekom arheološkoga istraživanja. Uzorak U9 uzorak je drveta iz SJ 13 koji je ostatak urušenja od lijepa južnoga zida objekta koji se pružao paralelno uz gredu SJ 12. Posljednji uzorak N168 uzorak je drveta iz grede SJ 46 koja je činila konstrukcijsku osnovu zapadnoga zida objekta kako je to činila i greda SJ 12 za južni zid. Greda SJ 46 bila je slabije očuvana nego SJ 12, vrlo vjerojatno jer se nalazila dosta plitko ispod hodne površine. Najbolje je bila sačuvana u blizini ognjišta SJ 47.

and most numerous finds after the ceramic ones were stone ones. These are mainly fragments of grinding stones, handstones, whetstones and several pieces of lithics such as cores, blades and flakes. Numerous remains of ceramic artefacts, such as those for textile production, and plant and animal remains were found in the settlements, while a small amount of plant and animal remains were preserved at Gračec. The best-preserved beam (SU 12) was part of the southern wall of the building (Fig. 1), while the preserved bones were burned and very few of them were found, mostly in the immediate vicinity of the hearth.

Of the other ceramic material, the most common are undecorated spindle whorls of various dimensions, which are mostly fired in the oxidation process and are light brown in colour (Fig. 5). Larger biconical spindle whorls are represented in the largest number and there are only a few spherical-shaped ones, mostly of smaller dimensions.

At Gračec, the types of vessels can be relatively-chronologically very broadly dated to the period of the Late Bronze Age up to the Early Iron Age. These are mostly bowls with indented rims decorated with oblique grooves or horizontal faceting, which stand out as characteristic decorations of the Late Bronze and Early Iron Ages. Despite the fact that a small number of fragments decorated with engraving and embossing were found, most of the forms used are characteristic of the Late Bronze Age period, such as the already mentioned pseudo-corded decoration on certain vessels. Notably, some motifs and methods of decoration such as incised lines, hatched triangles and zig-zag lines, place the site in the younger phase of the Urnfield culture, and parallels can be found in the wider area of the Carpathian basin and the southeastern Alpine area. The mentioned vessel types and characteristic decorations correspond to the obtained absolute dates, which place the site in the Ha B3/Ha Co phase, at the very end of the Bronze Age and the beginning of the Early Iron Age.

A total of five samples were absolutely dated, of which four samples consist of carbonised wood, and one sample consists of burned bones found on the hearth. Samples U5 and U6 (Tab. 1) are samples from the east and west sides of beam SU 12 (Fig. 1), which formed the structural basis of the southern wall of structure 1. Sample U12 (Tab. 1) is a sample of burnt bone from SU 17, a layer which was located along the western wall of structure 1 in the immediate vicinity of hearth SU 47, which was located along the southwest of the building. Sample U9 and N168 (Tab. 1) are also samples of carbonised wood collected during the archaeological excavation. Sample U9 is a sample of wood from SU 13, which is a remnant of the collapse of daub of the southern wall of the building, located parallel to beam SU 12. The last sample N168 is a sample of wood from beam SU 46, which formed the structural basis of the western wall of the building, as did the beam SU 12 for the south wall. Beam SU 46 was less well preserved than SU 12, most likely because it was located very shallowly below the walking surface. It was best preserved near the hearth of SU 47.

AMS <sup>14</sup> C laboratorijski kod / AMS <sup>14</sup> C Lab Code	Broj uzorka / Sample prep. Nr.	ID uzorka / Sample ID	Vrsta materijala / Sample material	Konvencionalna <sup>14</sup> C starost (god PS) (± 1σ) / Conventional <sup>14</sup> C age (yrs BP) (± 1σ)	Kalibrirana kalendarska starost (cal pr. Kr.) (2σ) / Calibrated calendar age (cal AD/BC) (2σ)
DeA-39595	I/3233/1	u-6	Karbonizirano drvo / Carbonized wood	2771 ± 19	cal BC 987 – 835
DeA-39596	I/3233/2	u-9	Karbonizirano drvo / Carbonized wood	2748 ± 21	cal BC 965 – 826
DeA-39726	I/3233/3	u-12	Karbonizirano drvo / Carbonized wood	2772 ± 58*	cal BC 1060 – 800
DeA-39597	I/3233/4	n-168	Karbonizirano drvo / Carbonized wood	2588 ± 20	cal BC 803 – 774
DeA-35735	I/3008/1	u-5	Karbonizirano drvo / Carbonized wood	2701 ± 27	cal BC 902 – 807

**TABLICA 1.** Radiokarbonski datumi s lokaliteta Gračec (izradila: F. Ovčarić).

**TABLE 1.** Radiocarbon dates from Gračec (made by: F. Ovčarić).

## Starije željezno doba u sjeverozapadnoj Hrvatskoj

U starijem željeznom dobu sjeverna Hrvatska pripadala je istočnomu halštatskom krugu. Prostor sjeverozapadne Hrvatske nalazio se na razmeđu komunikacijskih putova alpskoga i balkansko-panonskoga svijeta, a bio je definiran utjecajima pontsko-kavkaskoga i karpatskoga područja.<sup>71</sup> Od kulturnih skupina starijega željeznog doba na tome području valja spomenuti skupinu Budinjak s istoimenim eponimnim nalazištem<sup>72</sup> te skupinu Martijanec-Kaptol s istaknutim eponimnim nalazištima Martijanec kod Varaždina i Kaptol u središnjoj Slavoniji.<sup>73</sup>

Kao i u kasnome brončanom dobu, naselja su se u vrijeme starijega željeznog doba uglavnom gradila na visinskim položajima. No, primijećeno je da se u 8. stoljeću prije Krista pojedina naselja napuštaju, dok je broj samih naselja u starijem željeznom dobu manji u odnosu na prošlo razdoblje, ukupne površine naselja su veće.<sup>74</sup> Starije željezno doba jedno je od najslabije istraženih na području sjeverozapadne Hrvatske. Od nizinskih naselja starijega željeznog doba možemo izdvojiti dobro istražene lokalitete Sv. Petar Ludbreški, Martijanec, Sigetec<sup>75</sup> i Zbelava.<sup>76</sup> U kontekstu sigurnih visinskih naselja starijega željeznog doba toga područja svakako treba navesti već spomenute lokalitete

## Early Iron Age in northwestern Croatia

During the Early Iron Age, northern Croatia belonged to the eastern Hallstatt circle. The area of northwestern Croatia was located at the intersection of the communication routes of the Alpine and Balkan-Pannonian worlds, and was defined by the influences of the Pontic-Caucasian and Carpathian regions.<sup>71</sup> Among the cultural groups of the Early Iron Age in this area, we should mention the Budinjak group with the eponymous site Budinjak<sup>72</sup> and the Martijanec-Kaptol group with prominent eponymous sites Martijanec near Varaždin and Kaptol in central Slavonia.<sup>73</sup>

As in the Late Bronze Age, settlements during the Early Iron Age were mostly built on elevated positions. However, it was noticed that in the 8th century BC, individual settlements were abandoned, and while the number of settlements in the Early Iron Age was smaller compared to the previous period, the total area of the settlements was larger.<sup>74</sup> The period of the Early Iron Age is one of the least researched in northwestern Croatia. Among the lowland settlements of the Early Iron Age, we can single out the well-known sites Sv. Petar Ludbreški, Martijanec, Sigetec<sup>75</sup> and Zbelava.<sup>76</sup> In the context of high-altitude

71 Potrebica 2013, 42; Gabrovec 1987.

72 Škoberne 2004, 132.

73 Potrebica 2013, 63.

74 Dular, Tecco Hvala 2007, 74–77.

75 Vinski-Gasparini 1987.

76 Kovačević 2008.

71 Potrebica 2013, 42; Gabrovec 1987.

72 Škoberne 2004, 132.

73 Potrebica 2013, 63.

74 Dular, Tecco Hvala 2007, 74–77.

75 Vinski-Gasparini 1987.

76 Kovačević 2008.



**KARTA 2.** Položaj naselja i nekropole u Svetome Križu (izradila: J. Mavrović Mokos.)

**MAP 2.** The location of the settlement and necropolis at Sv. Križ (made by: J. Mavrović Mokos).

Gradec kod Zagreba, Kuzelin kod Sesveta, Podsused kamenolom i Sveti Križ Brdovečki. Također, slučajnim nalazima i teren-skim pregledom Medvednice uočena su moguća željeznodobna naselja na položajima Gradeček – Gornji Markuševac, Gradina – Laz, Gradina – Čučerie, Gradina – Šimunčevac (Markuševac), Gradišće – Remete, Gradišće (Cikov gradiček), Dolje iznad Stenjevcu te Veliko Gradišće Planina.<sup>77</sup>

### Sveti Križ

Arheološko nalazište Sveti Križ smješteno je u istoimenome naselju u Općini Marija Gorica, desetak kilometara sjeverozapadno od Zaprešića. Lokalitet se nalazi na zapadnome kraju Marijagoričkoga pobrđa, na prostranome uzvišenju od 310 metara s kojega se pruža pogled na Sutlu, savsku dolinu, Krško polje te Samoborsko i Žumberačko gorje.<sup>78</sup> Na prostoru nekadašnjega prapovijesnog naselja danas se nalazi crkva sv. Križa i mjesno groblje, čijom je gradnjom željeznodobno naselje devastirano. Sam toponim naselja *Sveti Križ* najvjerojatnije je povezan s izgradnjom crkve, ali je poznato da se sakralne građevine grade na otprije značajnim mjestima.

settlements of the Early Iron Age in this area, the already mentioned sites Gradec in Zagreb, Kuzelin near Sesvete, Podsused Kamenolom and Sveti Križ Brdovečki should definitely be mentioned. Also, random finds and a field survey of Medvednica revealed possible Iron Age settlements at the locations Gradeček - Gornji Markuševac, Gradina - Laz, Gradina - Čučerie, Gradina - Šimunčevac (Markuševac), Gradišće - Remete, Gradišće (Cikov gradiček), Dolje near Stenjevec and Veliko Gradišće Planina.<sup>77</sup>

### Sveti Križ

The archaeological site is located in the village Sveti Križ in the municipality of Marija Gorica, ten kilometers northwest of Zaprešić. The site is situated on the western slopes of the Marija Gorica hill, on a spacious elevation of 310 m, overlooking the river Sutla, the Sava valley, the Krško field and the Samobor and Žumberak mountains.<sup>78</sup> Today, the church of St. Cross and the local cemetery are located on the prehistoric site which devastated the Iron Age settlement. The very toponym of the settlement Sveti Križ (St. Cross) is most likely connected with the construction of the church, but it is known that sacred buildings were built in places that were already important.

77 Škoberne 2004, 160–162.

78 Registar 1990, 72.

77 Škoberne 2004, 160–162.

78 Registar 1990, 72.

Nalazište se sastoji od naselja na uzvisini i nekropole na položaju Tursko groblje (Karta 2). Između 1987. i 1995. provedena su arheološka istraživanja lokaliteta od strane djelatnika Muzeja Brdovec, koja su nastavljena i 2000-ih, a 2001. slučajno je otkriven kneževski ukop konjanika iz starijega željeznog doba.<sup>79</sup> Nekropola se nastavila istraživati 2011., kada je pronađena nekolicina istovremenih kasnohalštatskih grobova.<sup>80</sup> Od 2019. arheološka istraživanja provodi Odsjek za arheologiju Filozofskoga fakulteta u Zagrebu. Dosadašnjim arheološkim istraživanjima utvrđeno je naseljavanje lokaliteta u starijem željeznom dobu, a nalazi latenske keramike upućuju na nastavak života i u vrijeme mlađega željeznog doba.<sup>81</sup>

## Kneževski grob

Godine 2001. slučajno je otkriven kneževski ukop konjanika iskopavanjem temelja za garažu dimenzija 6 x 4 metara. Pokojnik iz kneževskoga groba ukopan je inhumacijski, a uz njega se nalazio i skelet konja. S obzirom na to da su vidljiva blaga uzvišenja u krajoliku, ne može se isključiti postojanje grobnih humaka na tome području.<sup>82</sup> Od grobnih priloga pronađene su fragmentirane keramičke posude, dijelovi konjske opreme, brončana pravokutna pojasna ploča, jedinstvena kaciga tipa Sv. Križ, zmijolike fibule te ofenzivno naoružanje.<sup>83</sup> Spomenuti grobni prilozu upućuju na visoki društveni status pokojnika, a obrambeno oružje pojavljuje se isključivo u grobovima najbogatijih pripadnika zajednice.<sup>84</sup> Grob je moguće okvirno pripisati kasnom halštatskom razdoblju, odnosno 6. stoljeću prije Krista. Argumente za dataciju pronalazimo u pravokutnoj pojasnoj kopči i žvalama kao dijelu konjsku opreme, koje zasigurno pripadaju konjskoj opremi tipa Szentes-Vekerzug.<sup>85</sup> Također, dvije zmijolike fibule s krilcima tipa Va prema Tecco Hvala<sup>86</sup> i izduženo ofenzivno oružje idu u prilog dataciji u horizont kasnoga halštata. Grobni inventar kneževskoga groba danas se čuva u Muzeju Brdovec.

## Naselje

Naselje u Svetome Križu s tri je strane bilo okruženo prirodnim strminama,<sup>87</sup> a pretpostavlja se da se sa sjeverne strane prostirao bedem čiji ćemo izgled nastojati definirati nadolazećim arheološkim istraživanjima. Gradinski lokalitet odlikuje se iznimno pogodnim strateškim položajem koji je u ondašnje doba omogućavao komunikaciju putem Save i Sutle te kontrolu Brežičkih vrata, odnosno Panonije u predalpski prostor.<sup>88</sup> Na obron-

The site consists of a Late Hallstatt settlement on a hill and a cemetery at the location Tursko groblje (Map 2). Between 1987 and 1995, the staff of the Brdovec Museum carried out archaeological excavation on the site, which continued in the 2000s, and in 2001 a princely burial of an equestrian was accidentally discovered.<sup>79</sup> The excavations at the necropolis continued in 2011, when a few contemporaneous Late Hallstatt graves were found.<sup>80</sup> Since 2019, archaeological excavation has been carried out on the settlement by the Department of Archaeology of the Faculty of Philosophy and Social Sciences in Zagreb. Previous archaeological research has established that the site was inhabited in the Early Iron Age, and finds of La Tene ceramic fragments indicate the continuation of life during the Late Iron Age as well.<sup>81</sup>

## The princely burial

In 2001, the princely burial of an equestrian was accidentally discovered by excavating the foundation of a garage in the size of 6 x 4 meters. The deceased was buried in the form of inhumation, and the skeleton of a horse was also found next to him. Given that slight elevations are visible in the landscape, the existence of burial mounds (tumulus) in this area cannot be ruled out.<sup>82</sup> The grave contained fragmented ceramic vessels, parts of horse-riding gear, a bronze rectangular belt plate, a unique helmet of the Sv. Križ type, serpentine-shaped fibulae and offensive weapons.<sup>83</sup> The grave goods indicate the high social status of the deceased, and defensive weapons appear exclusively in the graves of the wealthiest members of the community.<sup>84</sup> The grave can roughly be dated to the Late Hallstatt period, precisely to the 6th century BC. Arguments for that can be found in the rectangular belt buckle and in the bits of the horse equipment, which undoubtedly belong to the Szentes-Vekerzug type of horse equipment.<sup>85</sup> Also, two serpentine winged fibulae of Va type according to Tecco Hvala<sup>86</sup> and elongated offensive weapons support the dating to the Late Hallstatt horizon. Today, the princely grave's burial inventory is kept in the Brdovec Museum.

## The settlement

The settlement at Sveti Križ was surrounded by natural slopes on three sides,<sup>87</sup> and it is assumed that on the northern side there was a rampart, which we will try to define with the upcoming archaeological excavations. The site is distinguished by its highly convenient strategic position, which enabled the communication through the Sava and Sutla rivers as well as control over the so-called "Brežice Gate", that is, the frontier of

79 Registar 1990; Škoberne 2004; Cvitković, Škoberne 2003.

80 Cvitković 2011, 285–286.

81 Drnić, 2023.

82 Škoberne 2004, 162–170.

83 Uvid u arheološku zbirku Muzeja Brdovec omogućila je ravnateljica Silvija Limani.

84 Križ, Stepančić, Škedelj Petrič 2009, 117.

85 Cvitković, Škoberne 2003, 222–226; Škoberne 2004, 168–170.

86 Tecco Hvala 2014.

87 Škoberne 2004.

79 Registar 1990; Škoberne 2004; Cvitković, Škoberne 2003.

80 Cvitković 2011, 285–286.

81 Drnić, 2023.

82 Škoberne 2004, 162–170.

83 An insight into the archaeological collection of the Brdovec Museum was permissioned by director Silvija Limani.

84 Križ, Stepančić, Škedelj Petrič 2009, 117.

85 Cvitković, Škoberne 2003, 222–226; Škoberne 2004, 168–170.

86 Tecco Hvala 2014.

87 Škoberne 2004.



**KARTA 3.** Položaji istraženih arheoloških sondi 2019., 2021. i 2022. (izradio L. Drahotusky-Bruketa).

**MAP 3.** Excavated trenches from 2019, 2021 and 2022 at the settlement (made by L. Drahotusky-Bruketa).



cima Medvednice u vrijeme starijega željeznog doba postojalo je više istaknutih visinskih naselja. U tome kontekstu treba spomenuti sustavno istraživani lokalitet Kuzelin kod Seseveta, koji se prema položaju naselja i pojedinim pokretnim arheološkim nalazima u kasnohalštatskome kontekstu može usporediti sa Svetim Križem.<sup>89</sup> Kuzelin se nalazi na 511 metara nadmorske visine, na istaknutome vrhu koji tvori prirodnu razdjelnicu Prigorja i Zagorja. Taj položaj omogućavao je komunikaciju između sjevernih i južnih obronaka Medvednice te strateški pogled na Zagorje i Posavinu.<sup>90</sup> Gradec<sup>91</sup> i slučajno otkriveni lokalitet kod Podsuseda<sup>92</sup> ističu se kao još dva lokaliteta starijega željeznog doba na pogodnim strateškim položajima smještenima na Medvednici.

Arheološka iskopavanja Svetoga Križa pod vodstvom doc. dr. sc. Janje Mavrović Mokus provedena su 2019., 2021. i 2022. s ciljem utvrđivanja stratigrafije naselja (Karta 3). Oko 100 metara sjeveroistočno od crkve, na k. č. 1504 istražena je sonda 22 dimenzija 17 x 12 metara s proširenjima koja je iznjedrila ostatke naseobinskih objekata iz starijega željeznog doba. U svojem sjeveroistočnom dijelu sonda 22 spojila se sa sondama 20 i 21 istraživanih od strane djelatnika Muzeja Brdovec.<sup>93</sup> Nažalost, točne lokacije spomenutih prijašnjih istraživanja nisu u cijelosti poznate. Tijekom triju sezona arheoloških iskopavanja definirani

Pannonia into the pre-Alpine area.<sup>88</sup> There were several prominent high-altitude settlements on the slopes of the Medvednica mountain during the Early Iron Age. In this context, we should mention the systematically excavated site Kuzelin near Seseveta, which, according to the position of the settlement and some movable archaeological finds in the Late Hallstatt context, can be compared to Sveti Križ.<sup>89</sup> Kuzelin is located 511 meters above sea level, on a prominent peak that forms a natural borderline between Prigorje and Zagorje. This position enabled the communication between the northern and southern slopes of Medvednica and a strategic view of Zagorje and Posavina.<sup>90</sup> Gradec<sup>91</sup> and the accidentally discovered site near Podsused<sup>92</sup> stand out as two more sites of the Early Iron Age at convenient strategic positions on the Medvednica mountain.

Archaeological excavations of the site Sveti Križ, under the leadership of Janja Mavrović Mokus, PhD, were conducted in 2019, 2021 and 2022, with the aim of determining the stratigraphy of the settlement (Map 3). About 100 meters northeast of the church, at the cadastral parcel 1504, the Trench 22 (17 x 12 meters) with extensions was excavated, which revealed the remains of settlement buildings from the Early Iron Age. In its northeastern part, the Trench 22 joined trenches 20 and 21 excavated earlier by the staff of the Brdovec Museum.<sup>93</sup> Unfortu-

88 Registar 1990; Škoberne 2004, 162–164.

89 Uvid u muzejsku dokumentaciju Muzeja Prigorja omogućila je ravnateljica Morena Želja Želle.

90 Obad Šćitaroci *et al.* 2015, 49; Sokol, 1981.

91 Majnarić-Pandžić 2009.

92 Pavišić 2007; Škoberne 2004.

93 Mavrović Mokus 2019; 2021; 2022.

88 Registar 1990; Škoberne 2004, 162–164.

89 An insight into the museum documentation of the Museum of Prigorje was permissioned from the director Morena Želja Želle.

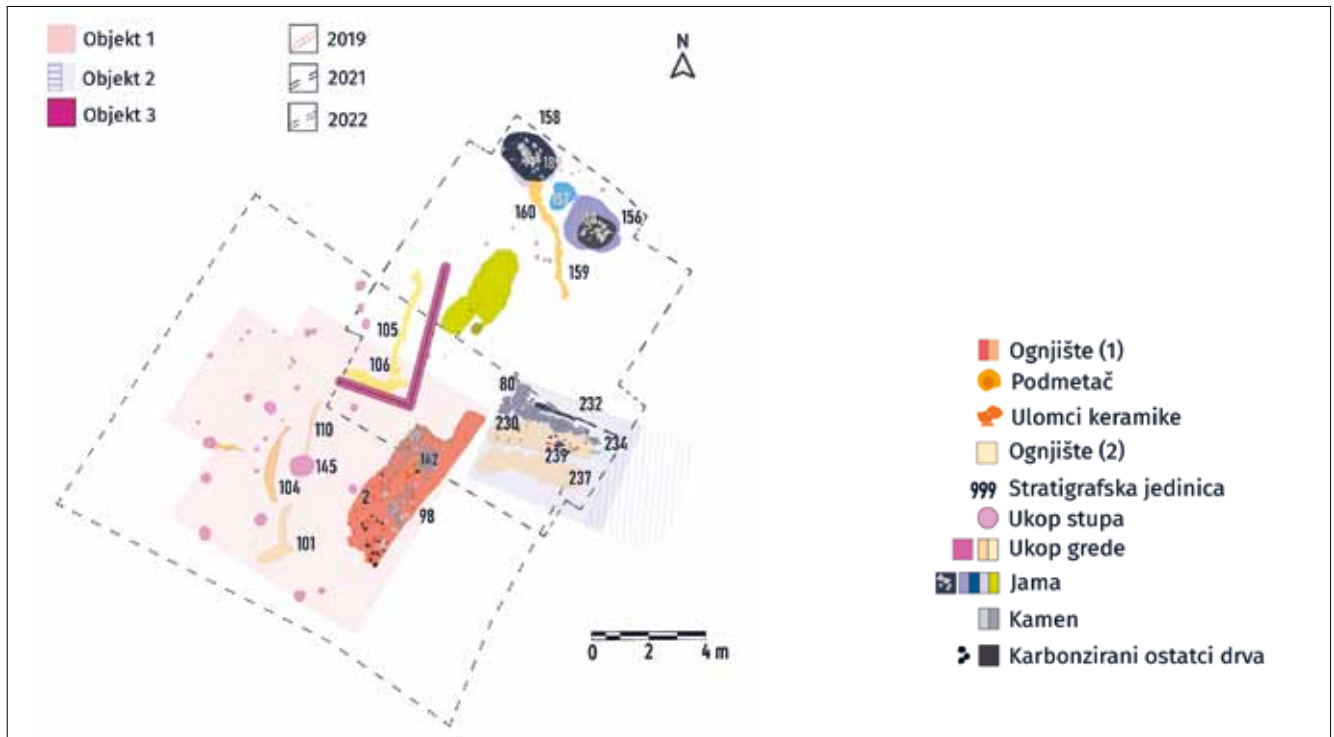
90 Obad Šćitaroci *et al.* 2015, 49; Sokol, 1981.

91 Majnarić-Pandžić 2009.

92 Pavišić 2007; Škoberne 2004.

93 Mavrović Mokus 2019; 2021; 2022.





SLIKA 8. Nacrt svih istraženih nasebinskih objekata od 2019. do 2022. (izradili F. Ovčarić i L. Drahotusky-Bruketa).

FIGURE 8. Drawing of all excavated residential buildings from 2019 to 2022 (made by F. Ovčarić and L. Drahotusky-Bruketa).

su konstrukcijski elementi jednoga cjelovitog objekta (Objekt 1) te je dobiven detaljan uvid u distribuciju arheoloških nalaza unutar objekta. Također, djelomično su definirani konstrukcijski elementi drugoga objekta (Objekt 2), koji se nalazio u neposrednoj blizini prvoga, a pretpostavlja se postojanje i trećega objekta koji je strukturom sličan prvomu objektu (Slika 8).<sup>94</sup> Treba naglasiti da istraženo područje predstavlja tek neznatan dio lokaliteta. Prema trenutačnome stanju istraživanja, arheološki nalazi i nasebinski ostatci za sada pripadaju gotovo isključivo kasnohalštatskomu horizontu starijega željeznog doba te upućuju na iznimnu povezanost s važnim kasnohalštatskim centrima u Sloveniji poput Libne, Cvingera, Stične, Mosta na Soči, Novoga Mesta, i dr.<sup>95</sup>

nately, the exact positions of the mentioned previous trenches are not known. During three seasons of archaeological excavations, the structural elements of one complete building (Structure 1) were defined and a detailed insight into the distribution of archaeological finds within the building was obtained. Also, the structural elements of the second building (Structure 2), which was located in the vicinity of the first, were partially defined, and the existence of a third structure, which is similar to the first object, is assumed (Fig. 8).<sup>94</sup> It should be emphasized that the excavated area represents only an insignificant part of the site. According to the current state of excavation, the archaeological finds and settlement remains belong exclusively to the Late Hallstatt horizon of the Early Iron Age and indicate a distinct connection with important Late Hallstatt centers in Slovenia, for example Libna, Cvinger, Stična, Most na Soči, Novo Mesto, etc.<sup>95</sup>

94 Mavrović Mokos 2022.

95 Škoberne 2004; Dular, Tecco Hvala 2007; Teržan 1990.

94 Mavrović Mokos 2022.

95 Škoberne 2004; Dular, Tecco Hvala 2007; Teržan 1990.

## Objekt 1

Objekt 1 otkriven je 2019.,<sup>96</sup> a u cijelosti je istražen tijekom triju arheoloških kampanja. Radi se o nadzemnome objektu pravokutnoga oblika i većih dimenzija (10 x 8 metara).<sup>97</sup> Objekt je položajem bio okrenut prema Sutli, a zbog strme padine brijega prema zapadu teren je izniveliran slojem tamnožute zemlje debljine od 5 do 40 cm. Iznad nivelacije primijećena je drenaža kuće od manjih kamenih oblutaka pomiješanih sa zemljom te je u obliku manjih sporadičnih nakupina karboniziranoga drveta bio vidljiv i drveni pod objekta.<sup>98</sup> Slične drenaže objekta pronalaze se u arhitektonskim sklopovima na području halštatske kulturne skupine, kao primjerice na lokalitetima Most na Soči<sup>99</sup> i Gradec,<sup>100</sup> a niveliranje terena i danas postoji diljem Prigorja te analogije tomu pronalazimo na slovenskim lokalitetima<sup>101</sup> i na lokalitetu Sisak-Pogorelac.<sup>102</sup> Ispod nivelacije definiran je veliki broj zapuna od stupova i greda s njima pripadajućim ukopima potvrđujući postojanje konstrukcije s okomito postavljenim stupovima kao zidnom, odnosno krovnom osnovom.<sup>103</sup> Stupovi objekta bili su otprilike 40-50 cm promjera dok je središnji stup (SJ 145) bio promjera 90 cm.<sup>104</sup>

Južni rub stambenoga objekta definiran je 2019. ukopom grede SJ 101 i dvama većim i manjim stupovima koji su bili ukopani pod koso podupirući veće stupove.<sup>105</sup> Zapadni rub objekta definiran je 2021., a uz njega su se nalazili manji plići stupovi i ukopi grede koji su bili dio konstrukcijskoga elementa koji nije imao drenažu od oblutaka, pa se zbog toga pretpostavlja da je riječ o drvenome trijemu veličine 4 x 2 m. Stupovi, konstrukcijski elementi trijema promjerom su manji od stupova objekta i iznose otprilike 20 cm.<sup>106</sup> Veće arhitektonske konstrukcije s trijemovima rijedak su nalaz na halštatskim lokalitetima, ali valja spomenuti da su kuće s trijemom uočene na nalazištu Heuneburg, jednom od značajnijih halštatskih kneževskih središta.<sup>107</sup> U samome središtu objekta definirane su grede SJ 104 i SJ 110 paralelne jedna s drugom koje su najvjerojatnije nosile krov,<sup>108</sup> kao što je primijećeno na lokalitetu Cvinger kod Stične.<sup>109</sup> Nalazi profiliranih komada kućnoga lijepa upućuju na to da je kuća bila sagrađena od drvenih balvana, a ne od isprepletanoga pruča.<sup>110</sup> Krov je vjerojatno bio na dvije vode, a drveni zidovi objekta bili su položeni izravno na zemlju. Analogije takvoj gradnji ponovno

## Structure 1

Structure 1 was discovered in 2019<sup>96</sup> and was fully excavated during three archaeological campaigns. The building is built above ground, is rectangular in shape and has larger dimensions (10 x 8 meters).<sup>97</sup> The building faced the Sutla River, and due to the steep slope of the hill to the west, the terrain was levelled with a layer of dark yellow soil 5 to 40 cm thick. Above the levelling, the drainage of the house was noticed, made of small stone pebbles mixed with soil, and the wooden floor was also visible in the form of small sporadic accumulations of carbonized wood.<sup>98</sup> Similar drainage methods are found in architectural structures in the area of the Hallstatt culture, such as at the Most na Soči<sup>99</sup> and Gradec<sup>100</sup> sites, while the levelling of the terrain is still present today throughout Prigorje, but analogies of the same can be found at Slovenian sites<sup>101</sup> and on the Sisak-Pogorelac site.<sup>102</sup> Below the levelling, a large number of post holes and beams with their associated burials were defined, confirming the existence of a structure with vertically placed posts as a wall or roof base.<sup>103</sup> The posts of the building were approximately 40-50 cm in diameter, while the central post (SU 145) was 90 cm in diameter.<sup>104</sup>

The southern edge of the building was defined in 2019 by a beam (SU 101) and two larger and two smaller posts that were buried at an angle, supporting the larger posts.<sup>105</sup> The western edge of the building was defined in 2021, and next to it, there were smaller shallow post holes and beam burials that were part of a structural element that did not have drainage, so it is assumed that this was a wooden porch 4 x 2 m in size. The posts, structural elements of the porch, were smaller in size than the posts of the building and they were approximately 20 cm in diameter.<sup>106</sup> Larger architectural structures with porches are a rare find on Hallstatt sites, but it should be mentioned that houses with porches were observed at the site of Heuneburg, one of the most important princely centers of the Hallstatt culture.<sup>107</sup> In the very center of the building the beams SU 104 and SU 110 parallel to each other were defined, which most likely supported the roof,<sup>108</sup> as was also observed at the site of Cvinger near Stična.<sup>109</sup> Findings of profiled pieces of daub indicate that the house was built of wooden logs, not of interwoven branches.<sup>110</sup>

96 Mavrović Mokus 2019.

97 Mavrović Mokus 2022, 18.

98 Mavrović Mokus 2019, 7-8.

99 Svoljšak, Dular 2016.

100 Majnarić-Pandžić 2009, 202.

101 Dular, Tecco Hvala 2007, 104-105.

102 Drnić, Groh 2018, 95.

103 Mavrović Mokus 2019, 9-10.

104 Mavrović Mokus 2022, 19.

105 Mavrović Mokus 2019; 2021.

106 Mavrović Mokus 2021, 13-14.

107 Stöckli 1991; Potrebica 2013.

108 Mavrović Mokus 2021.

109 Teržan 1994, 129.

110 Cvitković 2017; Mavrović Mokus 2019, 17.

96 Mavrović Mokus 2019.

97 Mavrović Mokus 2022, 18.

98 Mavrović Mokus 2019, 7-8.

99 Svoljšak, Dular 2006.

100 Majnarić-Pandžić 2009, 202.

101 Dular, Tecco Hvala 2007, 104-105.

102 Drnić, Groh 2018, 95.

103 Mavrović Mokus 2019, 9-10.

104 Mavrović Mokus 2022, 19.

105 Mavrović Mokus 2019; 2021.

106 Mavrović Mokus 2021, 13-14.

107 Stöckli 1991; Potrebica 2013.

108 Mavrović Mokus 2021.

109 Teržan 1994, 129.

110 Cvitković 2017; Mavrović Mokus 2019, 17.



**SLIKA 9.** Izdvojeni arheološki nalazi iz Objekta 1: staklene perle, fibula tipa Certosa XIIIId, fibula tipa Certosa IX, dio brončane narebrenе narukvice (snimila F. Ovčarić, L. Drahotusky-Bruketa).

**FIGURE 9.** Selected archaeological finds from structure 1: glass beads, fibulae of the Certosa XIIIId and Certosa IX type, a fragment of a bronze ribbed bracelet (photo by F. Ovčarić, L. Drahotusky-Bruketa).

pronalazimo na području jugoistočne Slovenije, na lokalitetu Kučar,<sup>321</sup> Križni vrh kod Beloga Griča, Gradišče kod Valične vas<sup>322</sup> i Cvinger kod Stične,<sup>323</sup> a treba napomenuti da se u relevantnoj literaturi spominje kako rupe za stupove upućuju na stariju tehniku gradnje dok se u kasnijim fazama na području Dolenjske gradilo u tzv. „blockbau“ ili „postpad“ tehnikama. Međutim, jasno je da su sve navedene građevinske tehnike mogle biti korištene u isto vrijeme na istome području.<sup>324</sup>

Ognjište dimenzija 6,5 x 2 m nalazilo se uz istočni rub Objekta 1. Najgornje slojeve ognjišta činile su dvije stratigrafske jedinice definirane 2019., a to su sloj crvenkasto-narančaste čvrsto nabijene i spaljene zemlje (Sj 02) interpretirane radnom plohom ognjišta te jedan kamen većih dimenzija (Sj 142) i desetak većih kamenja koji su činili kamenu konstrukciju ognjišta (Sj 03).<sup>325</sup> Ispod spomenutih stratigrafskih jedinica definiran je tanki sloj sivo-crne spaljene zemlje s puno gara (Sj 98) te struktura od pravilno raspoređenih kamenih oblutaka koji su činili substrukciju ognjišta (Sj 99). Najveća koncentracija keramičko-ga materijala pronađena je *in situ* upravo na ognjištu i uokolo ognjišta (ulomci posuda, keramički podmetači, keramički utezi, pršljeni i dr.),<sup>326</sup> od kojih je dio deformiran zbog izlaganja visokoj temperaturi. Precizniju dataciju daju nam svijetlo-smeđi i sivi keramički ulomci grublje fature s plastičnim trakama ukrašenim utiskivanjem prsta, čije analogije pronalazimo na kasnohalštatskim nalazištima Zbelava,<sup>327</sup> Poštela,<sup>328</sup> Kleinklein,<sup>329</sup> Brusnice, Magdalenska gora, Stična, Novo Mesto, Dolenjske Toplice, Volčje njive i dr.<sup>320</sup> Uzorci keramičkih posuda (zdjela i lonaca) poslani su na analizu organskih ostataka u stijenjkama posuda, što će nam pružiti detaljniji uvid u podatke o prehrani ondašnjih stanovnika u Sv. Križu.

The roof construction was probably sloped, and the wooden walls of the building were laid directly on the ground. Analogies to such buildings are again found in the area of southeastern Slovenia, on the sites Kučar,<sup>321</sup> Križni Vrh near Beli Grič, Gradišče near Valična Vas<sup>322</sup> and Cvinger near Stična,<sup>323</sup> and it should be noted that in the relevant literature it is mentioned that post holes indicate an older construction technique, while in the later stages in the area of Dolenjska the so-called “*blockbau*” or “*postpad*” building techniques were used. However, it is possible that all the mentioned construction techniques could have been used at the same time in the same area.<sup>324</sup>

The hearth with dimensions of 6.5 x 2 m was located along the eastern edge of Structure 1. The uppermost layers of the hearth consisted of two stratigraphic units defined in 2019, a layer of reddish-orange firmly compacted burnt soil (SU 02) interpreted as the working surface of the hearth, one stone of larger dimensions (SU 142) and a dozen larger stones that made up the stone construction of the hearth (SU 03).<sup>325</sup> Below the mentioned stratigraphic units, a thin layer of dark grey burnt soil with a lot of soot (SU 98) and a structure of regularly distributed stone pebbles that formed the substructure of the hearth (SU 99) were defined. The largest concentration of ceramic material was found *in situ* on the hearth and around it (pot fragments, ceramic coasters, ceramic loom weights, spindle whorls, etc.).<sup>326</sup> Some of which were deformed due to exposure to high temperatures. More precise dating of the material is provided by light-brown and grey ceramic fragments of coarse texture with plastic strips decorated with fingerprints, whose analogies are found at the Late Hallstatt sites Zbelava,<sup>327</sup> Poštela,<sup>328</sup> Kleinklein,<sup>329</sup> Brusnice, Magdalenska gora, Stična, Novo Mesto, Dolenjske Toplice, Volčje njive, etc.<sup>320</sup> Samples of ceramic vessels (bowls and pots) were sent for analysis of the organic remains, which will provide us a more detailed insight into the diet of the inhabitants at Sveti Križ.

111 Dular, Ciglencčki, Dular 1995, 64–65.

112 Dular, Tecco Hvala 2007, 117–118.

113 Teržan 1994, 129.

114 Dular, Tecco Hvala 2007, 117–118.

115 Mavrović Mokos 2019, 16; 2022, 18.

116 Mavrović Mokos 2021, 9–11.

117 Kovačević 2008.

118 Teržan 1990.

119 Dobiati 1980.

120 Dular 2003.

111 Dular, Ciglencčki, Dular 1995, 64–65.

112 Dular, Tecco Hvala 2007, 117–118.

113 Teržan 1994, 129.

114 Dular, Tecco Hvala 2007, 117–118.

115 Mavrović Mokos 2019, 16; 2022, 18.

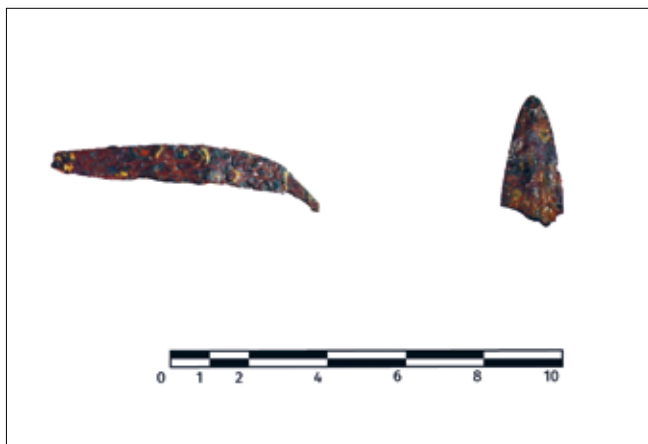
116 Mavrović Mokos 2021, 9–11.

117 Kovačević 2008.

118 Teržan 1990.

119 Dobiati 1980.

120 Dular 2003.



**SLIKA 10.** Izdvojeni metalni nalazi iz Objekta 1 (snimila F. Ovčarić, L. Drahotusky-Bruketa).

**FIGURE 10.** Selected metal finds from Structure 1 (photo by F. Ovčarić, L. Drahotusky-Bruketa).

Arheološkim istraživanjima Objekta 1 dobili smo detaljan uvid u distribuciju nalaza u zatvorenome arheološkom kontekstu koja nije toliko česta na drugim istraživanim naseljima. Naime, na trijemu kuće i u blizini ognjišta spomenutoga objekta pronađeni su pršljeni, piramidalni utezi, dvije plave kolutaste staklene perle i ulomak brončane narebrenene narukvice (Slika 9), što upućuje na žensku djelatnost u tim dijelovima kuće, a u sjeverozapadnome dijelu objekta pronađen je veći željezni nož i vrh koplja (Slika 10) koji su, pretpostavljamo, pripadali muškarcu.<sup>121</sup> U ostalome dijelu prostorije pronađeni su brojni pokretni nalazi, od kojih se posebice ističu ulomci Certosa fibula, koje su nosili i muškarci i žene.<sup>122</sup> Veća koncentracija kasnohalštatskih keramičkih ulomaka i dvije gotovo cjelovite certoške fibule (Slika 9) pronađene u Objektu 1 datiraju ga u horizont kasnoga halštata, tj. u 5. stoljeće prije Krista. Radi se o certoškim fibulama tipa IX i XIII.<sup>123</sup> Certoška fibula tipa IX datira se od 5. do 3. stoljeća prije Krista, a paralele možemo pronaći na području Italije, Slovenije i Hrvatske.<sup>124</sup> Fibula Certosa XIII tipa iz Sv. Križa prema obliku i ukrasima vjerojatno pripada inačici *d* te se taj ulomak može datirati nešto uže između 5. i 4. stoljeća prije Krista. Prema Bibi Teržan, certoška fibula tipa XIII upućuje na izravan utjecaj jugoistočnoalpskoga prostora na panonska područja na istoku.<sup>125</sup> Znajući kako je lokalitet Sveti Križ smješten na iznimno povoljnome položaju koji kontrolira tzv. „Brežička vrata“ i utok Sutle u Savu, možemo pretpostaviti njegovu dominantnu ulogu u komunikaciji Savom od zapada i prostora Dolenjske prema istoku.<sup>126</sup>

Treba spomenuti da su sjeverno od Objekta 1 i djelomično ispod toga objekta istraženi ukopi greda SJ 105 (sjever – jug) i SJ 106 (istok – zapad) i pripadajućih stupova. Grede se spajaju pod pravim kutom i vjerojatno su činile konstrukciju jugoistočnoga kuta, odnosno zida nekoga starijeg objekta (Objekt 3).<sup>127</sup>

The archaeological excavation of Structure 1 gave us a detailed insight into the distribution of finds in a closed archaeological context, which is not so common at other investigated settlements. On the porch of the house and near the hearth of the mentioned building, spindle whorls, pyramidal loom-weights, two blue circular glass beads and a fragmented bronze ribbed bracelet were found (Fig. 9), which indicates female activity in those parts of the building. In contrast, in the north-western part of the building, a larger iron knife and a spearhead (Fig. 10) were found which, we assume, belonged to a man.<sup>121</sup> In the rest of the building, numerous movable artefacts were found, of which the fragments of the Certosa fibula, which were worn by both men and women, stand out.<sup>122</sup> A higher concentration of Late Hallstatt ceramic fragments and two almost complete Certosa fibulae (Fig. 9) found in the structure date Structure 1 to the Late Hallstatt horizon, precisely to the 5th century BC. The two Certosa fibulae belong to the types IX and XIII.<sup>123</sup> The fibula of type IX dates from the 5th to the 3rd century BC, and parallels can be found in Italy, Slovenia and Croatia.<sup>124</sup> Certosa XIII type fibula from Sv. Križ according to its shape and decorations probably belongs to the variant *d*, and it can be dated to the time between the 5th and 4th centuries BC. According to Biba Teržan, the Certosa fibula of type XIII indicates a direct influence of the south-eastern Alpine area on the Pannonian regions to the east.<sup>125</sup> Knowing that Sveti Križ is situated on an highly favourable position that controls the so-called “Brežice Gate” and the mouth of the river Sutla into the Sava River, we can assume its dominant role in communication through the river Sava from the west and the area of Dolenjska to the east.<sup>126</sup>

It should be mentioned that the beams SU 105 (north-south) and SU 106 (east-west) and corresponding post holes were excavated north of Structure 1 and partially under the same structure. The beams joined at right angles, and they probably formed a structure of the south-eastern corner or the wall of an older building (Structure 3).<sup>127</sup>

121 Mavrović Mokus 2019; 2021.

122 Svi spomenuti nalazi karakteristični su za Ha D stupanj.

123 Mavrović Mokus 2019, 18–19.

124 Teržan 1976, 330.

125 Teržan 1976, 338–339.

126 Mavrović Mokus 2019, 18.

121 Mavrović Mokus 2019; 2021.

122 All mentioned finds are characteristic for the Ha D period.

123 Mavrović Mokus 2019, 18–19.

124 Teržan 1976, 330.

125 Teržan 1976, 338–339.

126 Mavrović Mokus 2019, 18.



**SLIKA 11.** Kameni temelj zida Objekta 2 (snimila F. Ovčarić).

**FIGURE 11.** Wall foundation made of stone in Structure 2 (photo by F. Ovčarić).

## Objekt 2

Objekt 2 nalazi se na jugoistočnome dijelu sonde 22 iz 2022.<sup>128</sup> te je prvi put bio djelomično definiran 2021. kada je bio vidljiv samo južni dio kulturnoga sloja koji se nalazio neposredno ispod humusnoga sloja i istočno od ognjišta Objekta 1 (SJ 02).<sup>129</sup> Prilikom istraživanja otkriven je sjeverni zid Objekta 2. Uz kulturni sloj SJ 230 pružaju se ostatci kamenih suhozidnih struktura zida (SJ 80 i SJ 234) i drvene donje vezivne grede (SJ 232) koji su dio konstrukcije temeljnoga zida duljine 4,1 m i širine 0,5 m (Slika 11). Kamena struktura zida od tesanoga kamenja za sada predstavlja jedinstven nalaz prapovijesne konstrukcije u tome dijelu kontinentalne Hrvatske, gdje je takav način gradnje s kamenim temeljima zabilježen tek od rimskoga razdoblja.<sup>130</sup> S obzirom na to da nisu pronađeni pripadajući ukopi za stupove, moguće je da je ta kuća podignuta u tzv. „postpad“ ili „blockbau“ tehnikama, tj. od horizontalno položenih greda postavljenih na kamene suhozidne temelje koje su potom povezane kućnim lijepom.<sup>131</sup>

Analogije takvoj gradnji pronalazimo na nalazištima Kučar,<sup>132</sup> Most na Soči,<sup>133</sup> Ljubljanska Tribuna<sup>134</sup> i Poštela.<sup>135</sup> Kuće s kamenim temeljima provodile su manje vlage nego one građene is-

## Structure 2

Structure 2 is located in the south-eastern part of the Trench 22 from 2022<sup>128</sup> and was partially defined for the first time in 2021, when only the southern part of the cultural layer was visible, located immediately below the humus layer and east of the hearth (SU 02).<sup>129</sup> During excavations, the northern wall of Structure 2 was discovered. In addition to the cultural layer (SU 230), remains of stone dry wall structures (SU 80 and SU 234) and a wooden lower connecting beam (SU 232), which are part of the construction of the foundation wall with the length of 4.1 m and a width of 0.5 m, could be seen (Figure 11). The structure of the wall from sculpted stones represents a unique finding of prehistoric construction in this part of continental Croatia, where this type of stone foundation is not recorded before the Roman period.<sup>130</sup> Given that no corresponding post holes were found, it is possible that this house was built in the so-called “*postpad*” or “*blockbau*” building techniques, precisely from horizontally laid beams placed on stone dry-wall foundations, which are then connected with daub.<sup>131</sup>

Analogies to such construction can be found at Kučar,<sup>132</sup> Most na Soči,<sup>133</sup> Tribuna near Ljubljana<sup>134</sup> and Poštela.<sup>135</sup> Houses with

127 Mavrović Mocos 2019; 2022, 20.

128 Mavrović Mocos 2022.

129 Mavrović Mocos 2021, 7.

130 Mavrović Mocos 2022, 15–17; 20–22.

131 Dular 2008, 341, sl. 2–5; Črešnar 2007, 329.

132 Dular, Ciglencečki, Dular 1995, 63.

133 Svoljšak, Dular 2016.

134 Vojaković 2013, 303–304.

135 Teržan 1990, 31.

127 Mavrović Mocos 2019; 2022, 20.

128 Mavrović Mocos 2022.

129 Mavrović Mocos 2021, 7.

130 Mavrović Mocos 2022, 15–17; 20–22.

131 Dular 2008, 341, fig. 2–5.

132 Dular, Ciglencečki, Dular 1995, 63.

133 Svoljšak, Dular 2016.

134 Vojaković 2013, 303–304.

135 Teržan 1990, 31.



**SLIKA 12.** Odnos Objekta 1 s pripadajućim ognjištem i Objekta 2 (snimio F. Vukoja).

**FIGURE 12.** The stratigraphic relationship between Structure 1 and the associated hearth and Structure 2 (photo by F. Vukoja).



ključivo od drveta, što je produžavalo sam vijek nastambe.<sup>136</sup> Međutim, Objekt 2 nije u potpunosti istražen te o tehnici gradnje možemo tek nagađati.

Ognjište Objekta 2 arheološki je vidljivo u SJ 239. Prilikom uklanjanja SJ 239 i određivanja granice ognjišta prikupljena je najveća količina pokretnih nalaza, a riječ je o kasnohalštatskoj keramici, kamenim nalazima i komadima kućnoga lijepa. Detaljnijim definiranjem slojeva određeno je kako je struktura vjerojatno starijega ognjišta (SJ 99) iz Objekta 1 sastavljena od većega kamena nego struktura mlađega ognjišta iz Objekta 2 (SJ 239). Objekt 2 bio je djelomično naslonjen na zapadni dio ognjišta Objekta 1 (Slika 12). U Objektu 2 pronađeni su ulomci kostiju i kasnohalštatske keramike istovjetne onima iz Objekta 1 te komadi amorfnooga željeza, rogovi i brončana fibula ranolatske sheme (Slika 13), koja se za sada ne može uže tipološki odrediti.<sup>137</sup> S obzirom na to da nisu pronađeni ulomci keramike načinjene na kolu, tj. latenske keramike, Objekt 2 može se datirati u horizont kasnoga halštata, ali pretpostavlja se da je mlađi od Objekta 1.

stone foundations conducted less moisture than those built exclusively from wood, which extended the life of the building itself.<sup>136</sup> However, Structure 2 has not been fully excavated and we can only speculate about the construction technique.

The hearth of the structure is archaeologically visible in SU 239. During the removal of SU 239 and the determination of the border of the hearth, the largest number of movable finds was collected, that is Late Hallstatt ceramics, stone finds and daub. By defining the layers, it was determined that the structure of the probably older hearth from Structure 1 (SU 99) was composed of larger stones than the structure of the younger hearth from Structure 2 (SU 239). Structure 2 was partially leaning against the western part of the hearth of Structure 1 (Figure 12). In Structure 2, fragments of bones and Late Hallstatt pottery identical to those from Structure 1 were found, as well as pieces of amorphous iron, horns, and a bronze fibula of the Early La Tene scheme (Fig. 13), which for now cannot be typologically defined.<sup>137</sup> Given that no fragments of wheel-made pottery or La Tene pottery were found, Structure 2 can be dated to the Late Hallstatt period, but the building is assumed to be younger than Structure 1.

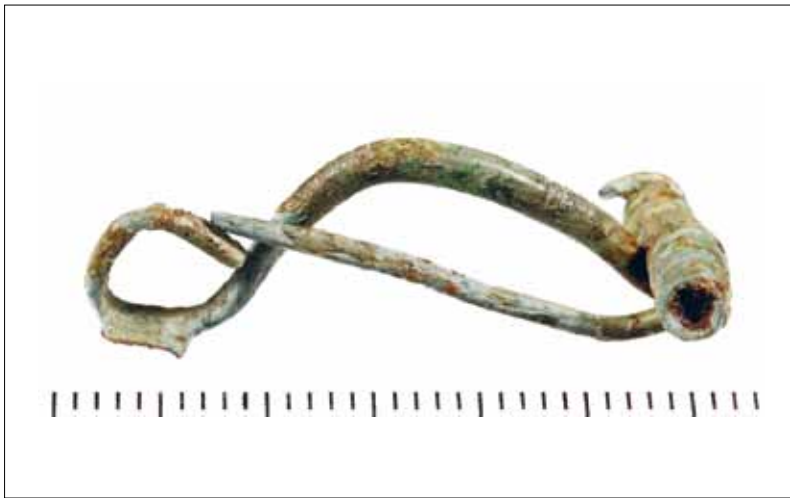
<sup>136</sup> Dular, Ciglencčki, Dular 1995, 63.

<sup>137</sup> Mavrović Mokos 2022, 16–17.

<sup>136</sup> Dular, Ciglencčki, Dular 1995, 63.

<sup>137</sup> Mavrović Mokos 2022, 16–17.





**SLIKA 13.** Brončana ranolatenska fibula iz Objekta 2 (snimio D. Doračić).

**FIGURE 13.** A bronze fibula of the Early La Tene scheme from Structure 2 (photo by D. Doračić).

### Otpadne jame

Tijekom istraživanja provedenih 2022., u sondi 22 pronađene su otpadne jame (Sj 156, Sj 157, Sj 158). Dvije otpadne jame (Sj 156, Sj 158) poprilično su sličnih dimenzija i obje posjeduju pokrov od kamenih struktura (Sj 188, Sj 189) (Slika 14),<sup>338</sup> kakve uočavamo i u otpadnim jamama na lokalitetu Gradišće kod Valične vas.<sup>339</sup> Budući da je Sj 157 manjih dimenzija, pretpostavlja se da bi to mogla biti veća rupa od stupa ili manja otpadna jama bez kamenoga pokrova. Važno je naglasiti da su u profilu samih ukopa jama te uokolo jama definirane manje rupe od stupova te zapune drvene grede Sj 159 i Sj 160 koje čine dio pretpostavljene drvene konstrukcije povezane s otpadnim jamama, tj. svojevrsnu pregradu ili lakšu konstrukciju za natkrivanje.<sup>340</sup> Slična konstrukcija za natkrivanje jama otkrivena je na lokalitetu Kučar u Sloveniji.<sup>341</sup>

U otpadnoj jami Sj 156, promjera 2,3 m, i otpadnoj jami Sj 158, promjera 2,24 m, pronađeno je više stratigrafskih jedinica u kojima je otkriven keramički i koštani materijal. U istočnoj jami pronađena je velika količina kostiju, a u zapadnoj jami pronađena je veća količina keramičkih ulomaka te jedna polovica keramičkoga pršljena. Pretpostavlja se da je riječ o dvjema otpadnim jamama u koje su stanovnici naselja odvojeno bacali kosti i keramiku.<sup>342</sup> Iz zapadne jame posebno se ističu nalazi pršljena, ulomaka naborane keramike na nozi i grafitirane keramike koji slojeve jasno datiraju u kasnohalštatsko razdoblje (Slika 15).<sup>343</sup> Naborani ukras poznat je od stupnja zmijolike fibule, a u uporabi je sve do negovskoga horizonta.<sup>344</sup> Ukrašavanje keramike grafitiranjem se, prema Vinski-Gasparini, na području sjevero-

### Refuse pits

During the excavation conducted in 2022, refuse pits (SU 156, SU 157, SU 158) were found in the Trench 22. The two refuse pits (SU 156, SU 158) were quite similar in size, and both were covered with stone structures (SU 188, SU 189) (Fig. 14),<sup>338</sup> such as we can see in the refuse pits at Gradišće near Valična Vas.<sup>339</sup> Given that the SU 157 is smaller, it is assumed that it could be a hole larger than a post hole or a smaller refuse pit without a stone cover. It is important to emphasise that in the profile of the refuse pits, and around them, small post holes and wooden beams SU 159 and SU 160 were defined, which form part of the presumed wooden structure connected to the refuse pits, something like a separate wooden wall or a lighter construction for covering.<sup>340</sup> A similar structure for covering refuse pits was discovered at Kučar in Slovenia.<sup>341</sup>

In the refuse pit SU 156, with a diameter of 2.3 m, and the refuse pit SU 158, with a diameter of 2.24 m, several stratigraphic units were found in which ceramic and bone material was discovered. A large quantity of bones was found in the eastern pit, while a larger quantity of ceramic fragments and one half of a ceramic spindle whorl were found in the western pit. The assumption is that these are two refuse pits into which the inhabitants of the settlement threw bones and ceramics separately.<sup>342</sup> The finds from the western refuse pit, like the spindle whorl, fragments of embossed footed pottery and graphite-coated pottery clearly date the layers to the Late Hallstatt period (Fig. 15).<sup>343</sup> The embossed ware is known from the stage of the serpentine fibula, and it was used to the Negova horizon.<sup>344</sup> According to

138 Mavrović Mocos 2022, 5–9.

139 Dular, Breščak 1996, 149.

140 Mavrović Mocos 2022, 5–15.

141 Dular, Ciglencečki, Dular 1995, 56.

142 Mavrović Mocos 2022, 20–21.

143 Mavrović Mocos 2022.

144 Gabrovec 1987, 59.

138 Mavrović Mocos 2022, 5–9.

139 Dular, Breščak 1996, 149.

140 Mavrović Mocos 2022, 5–15.

141 Dular, Ciglencečki, Dular 1995, 56.

142 Mavrović Mocos 2022, 20–21.

143 Mavrović Mocos 2022.

144 Gabrovec 1987, 59.

**SLIKA 14.** Otpadna jama – SJ 156 i SJ 188 (snimila F. Ovčarić).

**FIGURE 14.** Refuse pit – SU 156 and SU 188 (photo by F. Ovčarić).



zapadne Hrvatske javlja od razvijenoga halštata.<sup>145</sup> Grafitiranje je poznato i u kaptolskoj skupini,<sup>146</sup> na području Transdanubije,<sup>147</sup> Slovačke,<sup>148</sup> Austrije<sup>149</sup> i u dolenskoj skupini.<sup>150</sup>

Daljnja arheološka iskopavanja Svetoga Križa pružit će nam odgovore na brojna pitanja vezana za kasnohalštatski horizont u sjeverozapadnoj Hrvatskoj. Naime, podatci o naseljima iz toga razdoblja vrlo su oskudni i često nepotpuni<sup>151</sup> te bi Sveti Križ mogao biti jedan od rijetkih sustavno istraživanih kasnohalštatskih naselja. Iako to naselje i popratna nekropola nisu u potpunosti istraženi te nam nedostaje puno podataka o razvoju naselja, njegov strateški položaj, vizualna komunikacija s ondašnjim slovenskim središtima (Kosovac iznad Bregane, Libna, Velike Malence<sup>152</sup> i Silovec nad Orešjem<sup>153</sup>), kao i kontrola nad tzv. „Brežičkim vratima“, Savom i Sutlom<sup>154</sup> te arheološki nalazi iz konjaničkoga groba<sup>155</sup> dopuštaju nam promišljanje o Sv. Križu kao jednom od kasnohalštatskih centara na tome području. Nasebinski slojevi koji upućuju na višestruke tehnike gradnje objekta, velika količina metalnih nalaza koja nije česta na ostalim istraženim naseljima iz toga vremena<sup>156</sup> te mogućnost po-

Vinski-Gasparini, the graphite-coating of ceramics appeared in the area of north-western Croatia in the developed phase of the Hallstatt culture.<sup>145</sup> Graphite-coating of ceramics is also known in the Kaptol group,<sup>146</sup> in the area of Transdanubia,<sup>147</sup> Slovakia,<sup>148</sup> Austria<sup>149</sup> and in the Dolenjska group.<sup>150</sup>

Further archaeological excavations of Sveti Križ will provide us with answers to numerous questions related to the Late Hallstatt period in north-western Croatia. Data on settlements from that period are very scarce and often incomplete,<sup>151</sup> and the archaeological site Sveti Križ could be one of the few systematically excavated Late Hallstatt settlements. Although the settlement and the accompanying cemetery have not been fully excavated and we lack a lot of information about the development of the settlement, its strategic position, visual communication with the Slovenian centers of that time (Kosovac above Bregana, Libna, Velike Malence<sup>152</sup> and Silovec and Orešjem<sup>153</sup>), as well as control over the so-called “Brežice Gate” and the Sava and Sutla rivers,<sup>154</sup> and also archaeological finds from the princely grave<sup>155</sup> allow us to reflect on Sveti Križ as one of the

145 Vinski-Gasparini 1987, 200.

146 Potrebica, 2013.

147 Patek, 1993.

148 Stegmann-Rajtár, 1996.

149 Smolnik, 1994.

150 Dular, 1982.

151 Kovačević 2007, 94; Potrebica 2013.

152 Škoberne 2004.

153 Kovač 2014: 505.

154 Škoberne 2004.

155 Cvitković, Škoberne 2003.

156 Mavrović Mokos 2022.

145 Vinski-Gasparini 1987, 200.

146 Potrebica, 2013.

147 Patek, 1993.

148 Stegmann-Rajtár, 1996.

149 Smolnik, 1994.

150 Dular, 1982.

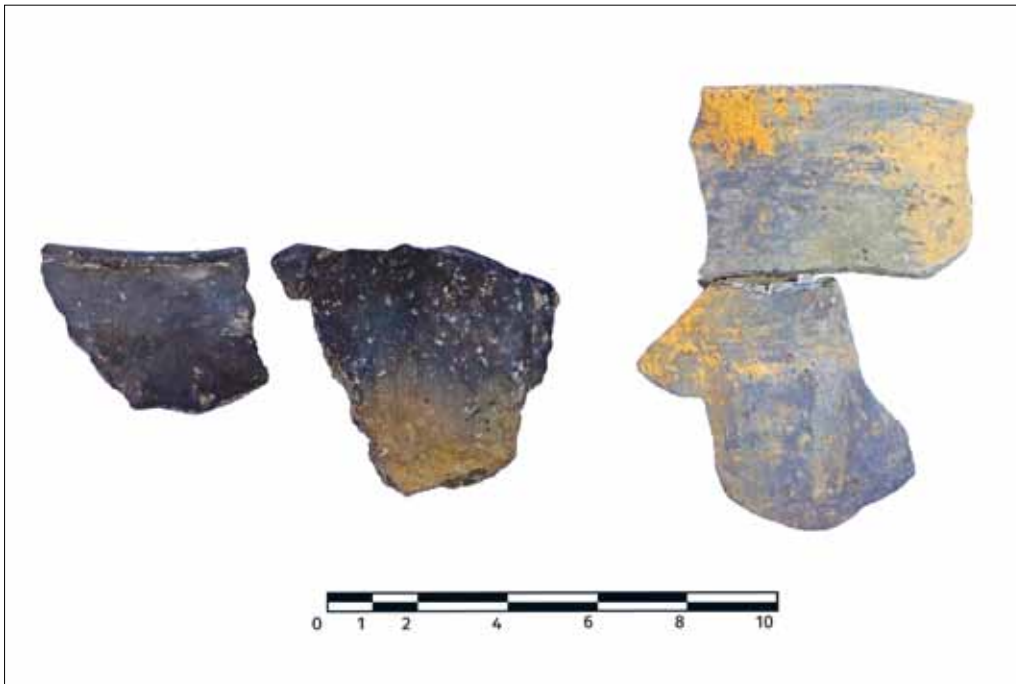
151 Kovačević 2007, 94; Potrebica 2013.

152 Škoberne 2004.

153 Kovač 2014, 505.

154 Škoberne 2004.

155 Cvitković, Škoberne 2003.



**SLIKA 15.** Ulomci keramike iz otpadne jame (snimile F. Ovčarić, L. Drahotusky-Bruketa).

**FIGURE 15.** Fragments of ceramic finds from refuse pits (photo by F. Ovčarić, L. Drahotusky-Bruketa).

stojanja metalurških radionica u Sv. Križu<sup>157</sup> dokazuju da kasnohalštatsko razdoblje ne odaje dojam stagnacije i zaostajanja kako se donedavno mislilo u stručnoj literaturi,<sup>158</sup> nego upravo suprotno. S obzirom na određene paralele i na činjenicu da je dolenska skupina jedina grupa u istočnome halštatskom krugu gdje i dalje u Ha D stupnju traju ukopi pod tumulom,<sup>159</sup> kao što je primijećeno i u Sv. Križu, taj se lokalitet možda može smatrati svojevrsnim facijesom dolenske skupine.

## Zaključak

Recentna arheološka iskopavanja i terenski pregledi u sklopu projekta „Transferno područje od Sutle preko gornjeg toka rijeke Save tijekom brončanog i željeznog doba – TRANS RIVERS“ proširila su postojeća znanja o prostoru Prigorju u vrijeme brončanoga i željeznoga doba. Naime, tijekom terenskih pregleda istočnih obronaka Medvednice zabilježena su tri novootkrivena lokaliteta iz brončanoga doba - Oštrc, Gradišće i Planina Donja - Gradec. Preliminarnom analizom pronađenih ulomaka keramike i jednoga kamenog žrvnja okvirno možemo zaključiti kako je riječ o kasnobrončanodobnim visinskim naseljima. Na nastavak života u starijemu željeznom dobu upućuje poprilično

Late Hallstatt centers in this area. Settlement layers that indicate multiple building construction techniques, a large amount of metal finds that are not so common at other excavated settlements from that time,<sup>156</sup> and the possibility of the existence of metallurgical workshops at Sveti Križ<sup>157</sup> proves that the Late Hallstatt period does not give the impression of stagnation and regression, as was thought in the professional literature<sup>158</sup> until recently, but quite the opposite. Given the certain parallels and the fact that the Dolenjska group is the only group in the eastern Hallstatt circle where burials under the tumuli still exist in the Ha D period,<sup>159</sup> as was also observed at Sveti Križ, this archaeological site can perhaps be considered a facies of the Dolenjska group.

## Conclusion

Recent archaeological excavations and field surveys as part of the project “Transfer area from the Sutla across the upper course of the Sava River during the Bronze and Iron Age - TRANS RIVERS” have expanded the already existing knowledge about the area of Prigorje during the Bronze and Iron Ages. Namely, during archaeological field surveys of the eastern slopes of Medvednica, three newly discovered sites from the Bronze Age were recorded - Oštrc, Gradišće and Planina Donja - Gradec. Based on the preliminary analysis of the found ceramic fragments and one millstone, we can roughly conclude that these are Late Bronze Age high-altitude settlements. The devastated

157 Cvitković 2011, 285.

158 Potrebica 2013; Teržan 1998; Parzinger, Stegmann-Rajtär 1988.

159 Potrebica 2013; Dular, Tecco Hvala, 2007.

156 Mavrović Mokos 2022.

157 Cvitković 2011, 285.

158 Potrebica 2013; Teržan 1998; Parzinger, Stegmann-Rajtär 1988.

159 Potrebica 2013; Dular, Tecco Hvala, 2007.

devastirani lokalitet Podsused kamenolom, čiji se položaj, ali i pokretni arheološki materijal može usporediti s otprije poznatim i značajnim stariježeljeznodobnim lokalitetom Sveti Križ Brdovečki. Tipovi i način ukrašavanja kasnohalštatske keramike s položaja Podsused kamenolom isti su kao i nalazi iz pouzdanih konteksta Objekta 1 i 2 s lokaliteta Sveti Križ. I odabir položaja za naselje vrlo je slično. Sveti Križ nalazi se na istaknutome brdu koji kontrolira utok Sutle u Savu, a naselje na položaju Podsused kamenolom kontroliralo je Savsku nizinu na njezinu dijelu utoka Krapine u Savu. Sve to upućuje na zaključak da su ta dva naselja paralelno egzistirala u kasnome halštatu.

Sustavna arheološka iskopavanja provedena su na lokalitetima Gračec i Sveti Križ kod Brdovca. Dok se Gračec ističe kao prvi sustavno istraživani lokalitet kasnoga brončanog doba na širem prostoru, Sveti Križ jedino je sustavno istraživano kasnohalštatsko naselje na području zapadnoga Prigorja. Na osnovi dosadašnjih istraživanja dobili smo uvid u načine gradnje nastambi i popratnih objekata u brončanom i željeznom dobu na prostoru Prigorja. Arheološkim istraživanjima lokaliteta Gračec zabilježeni su ostatci jednoga nadzemnog objekta (Objekt 1), kanala i dvaju ognjišta, a tijekom terenskoga pregleda 2021. definiran je bedem koji u obliku slova U ograđuje sjeverni dio platoa. Pokretni arheološki materijal i radiokarbonske analize naselje datiraju u Ha B stupanj, na sami kraj kasnoga brončanog doba, što svjedoči o naseljenosti toga područja u mlađoj fazi kulture polja sa žarama. Nadalje, na lokalitetu Sveti Križ u cijelosti je istražen jedan nadzemni objekt (Objekt 1), a djelomično je istražen i drugi objekt (Objekt 2). Zabilježeni su i ostatci trećega objekta te su istražene pripadajuće otpadne jame. Definirana je kamena struktura zida Objekta 2, koja se ističe kao jedinstven nalaz prapovijesne gradnje na tome prostoru. Prema pokretnome arheološkom materijalu, lokalitet pripada Ha D stupnju, tj. kasnohalštatskomu horizontu starijega željeznog doba, a život u naselju najvjerojatnije je nastavljen i u razdoblju latenske kulture.

Oba lokaliteta odlikuju se iznimno značajnim strateškim položajima s mogućnošću kontrole okolnoga područja i pretpostavljenih mreža komunikacijskih pravaca tijekom brončanoga i željeznoga doba. Riječ je o ključnome području koji je intenzivno sudjelovao u trgovini i razmjeni dobara rijekama Savom i Sutlom te pritocima iz panonskoga područja u jugoistočnoalpsko područje, a arheološka istraživanja lokaliteta Gračec i Sveti Križ potvrđuju važnost toga područja. Također, primijećeno je da se upravo za oba lokaliteta najviše analogija u načinima gradnje i pokretnom arheološkom materijalu pronalazi na području Slovenije, što svjedoči o intenzivnoj komunikaciji Prigorja i susjednih slovenskih regija u ondašnje doba. Ipak, treba napomenuti da to može biti i rezultat nedovoljne istraženosti naselja kasnoga brončanog i starijega željeznog doba u sjeverozapadnoj Hrvatskoj. Dosadašnja i nadolazeća arheološka istraživanja, intenzivni terenski pregledi i lidarsko snimanje toga područja omogućit će stvaranje cjelokupne slike arheološkoga krajobraza i dinamike naseljavanja Prigorja u završnim razdobljima prapovijesti.

site Podsused Kamenolom indicates the continuation of life in the period of the Early Iron Age, whose location, as well as the movable archaeological material, can be compared with the already known and significant Early Iron Age site Sveti Križ Brdovečki. The types and decorations of Late Hallstatt pottery from Podsused Kamenolom are the same as the finds from the reliable contexts of Structure 1 and 2 from Sveti Križ. The position of the settlement is also very similar. Sveti Križ is located on a prominent hill that controls the mouth of the Sutla River into the Sava, while the settlement at Podsused Kamenolom controlled the Sava Plain and the mouth of the Krapina River into Sava. All this leads to the conclusion that these two settlements existed parallel during the Late Hallstatt period.

Systematic archaeological excavations were carried out at the sites Gračec and Sveti Križ near Brdovec. While Gračec stands out as the first systematically excavated site of the Late Bronze Age in a wider area, Sveti Križ is the only systematically excavated Late Hallstatt settlement in northwestern Croatia. Based on the recent excavations, we have gained an insight into the construction methods of residential buildings and accompanying objects during the Bronze and Iron Age in the area of Prigorje. Archaeological excavation of Gračec revealed the remains of an above-ground building (Structure 1), a canal and two hearths, and during a field survey in 2021, a U-shaped rampart was defined that encloses the northern part of the plateau. The movable archaeological material and the radiocarbon analysis date the settlement to the Ha B phase which indicates that this area was inhabited during the younger phase of the Urnfield culture. Furthermore, at Sveti Križ, one above-ground building (Structure 1) was fully excavated, and another building (Structure 2) was also partially excavated. The remains of the third building were also recorded and the associated refuse pits were excavated. The stone foundation of the wall of Structure 2 was defined, which stands out as a unique find of prehistoric construction in this area. According to the movable archaeological finds, the site belongs to the Ha D phase, i.e. the Late Hallstatt horizon of the Early Iron Age, and life at the settlement most likely continued in the period of the La Tène culture.

Both archaeological sites are characterized by extremely important strategic positions with the possibility of controlling the surrounding area and the communication routes during the Bronze and Iron Age. It is a key area that intensively participated in the trade and exchange of goods along the Sava and Sutla rivers and their tributaries from the Pannonian area to the southeastern Alpine area, and archaeological research at Gračec and Sveti Križ confirm the importance of this area. Also, it was noticed that for both sites the most parallels in construction methods and movable archaeological material are found in Slovenia, which indicates the intense communication between Prigorje and neighboring Slovenian regions in those times. However, it should be noted that the latter may also be the result of insufficient research of Late Bronze and Early Iron Age settlements in northwestern Croatia. Previous and upcoming archaeological excavation, intensive field surveys and LiDAR data of this area will enable a complete picture of the archaeological landscape and the dynamics of inhabiting the area of Prigorje in the final periods of prehistory.

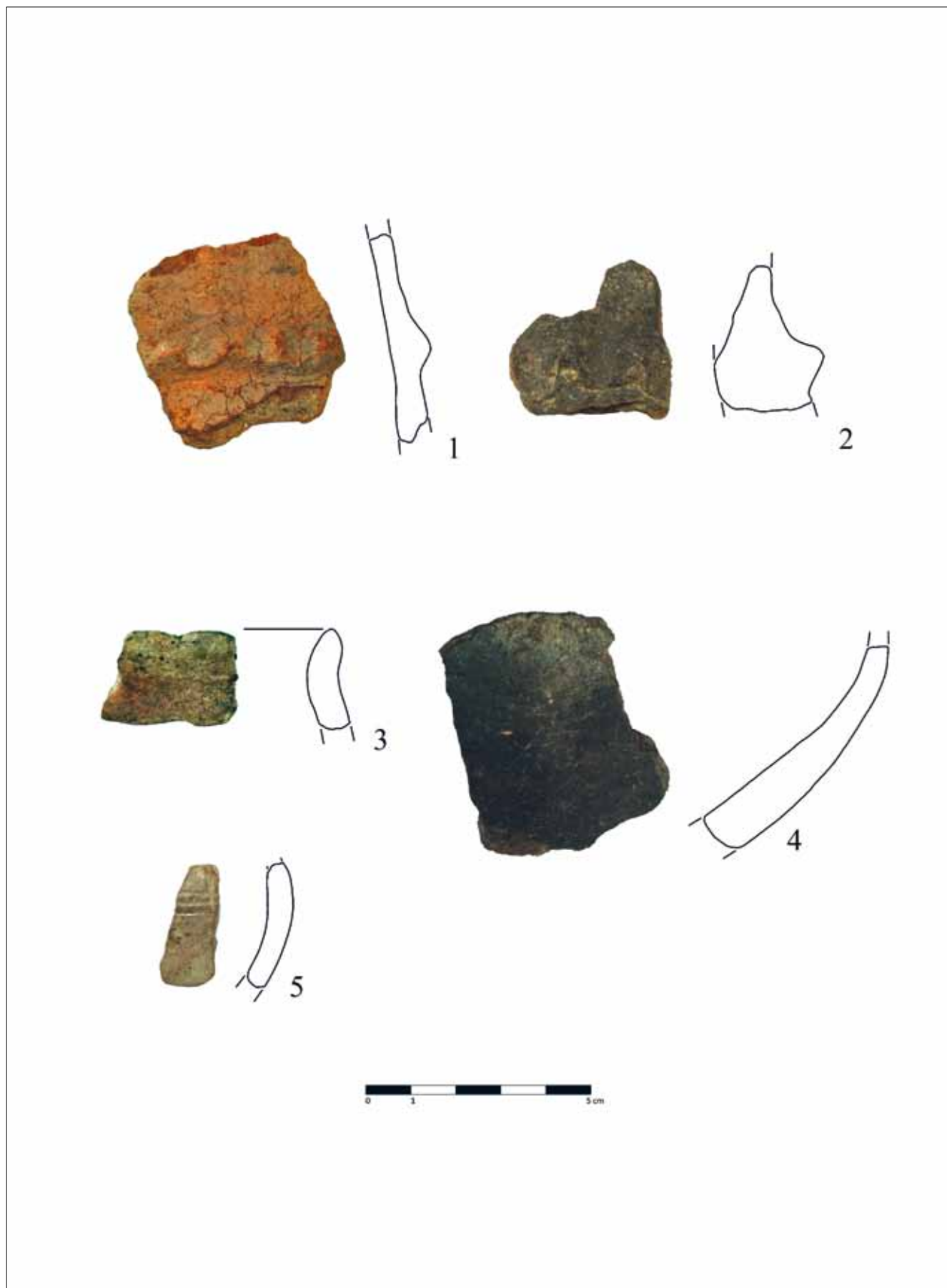
## BIBLIOGRAFIJA

## BIBLIOGRAPHY

- Anić et al. 2004 – V. Anić, D. Brozović-Rončević, Lj. Cikota, I. Goldstein, S. Goldstein, Lj. Jojić, R. Matasović, I. Pranjaković, *Hrvatski enciklopedijski rječnik, knjiga 8*, EPH d.o.o. i Novi Liber do.o.o., 2004.
- Balen-Letunić 1987 – D. Balen-Letunić, Prehistorijski nalazi s Gradine Kirinograd, *Vjesnik Arheološkog muzeja u Zagrebu* 3. s. 20, 1987, 1–30.
- Balen-Letunić 1996 – D. Balen-Letunić, Novi kasnobrončanodobni lokaliteti sa Zagrebačkog područja, *Izdanja Hrvatskog arheološkog društva* 17, 1996, 13–27.
- Bunjak Pajdek 2018 – M. Bunjak Pajdek, *Historijsko geografski razvoj zagrebačkih prigrorskih naselja*, unpublished MSc thesis, Sveučilište u Zagrebu, Prirodoslovno-matematički fakultet, 2018.
- Curić, Curić 1999 – Z. Curić, B. Curić, *Školski geografski leksikon, svezak 14*, Hrvatsko geografsko društvo, 1999.
- Cvitković 2011 – I. Cvitković, Sveti Križ Brdovečki – naselje i nekropola (k.č. 1695), *Hrvatski arheološki godišnjak* 8/11, 2011, 284–286.
- Cvitković 2015 – I. Cvitković, Arheološka zbirka, in Limani, S. (ed.), *Vodič kroz zbirke Muzeja Brdovec*, Muzej Brdovec, 2015, 20–35.
- Cvitković 2017 – I. Cvitković, *Izveštaj s arheoloških istraživanja na lokalitetu Sv. Križ u 2017. godini*, unpublished report, Muzej Brdovec, 2017.
- Cvitković, Škoberne 2003 – I. Cvitković, Ž. Škoberne, The Find of an Equestrian Grave of Iron Age at Sv. Križ Brdovečki (Croatia), *Archäologisches Korrespondenzblatt* 33, 2003, 221–228.
- Črešnar 2007 – M. Črešnar, Wooden house construction types in Bronze Age and Early Iron Age Slovenia, in Blečić, M., Črešnar, M., Hänsel, B., Hellmuth, A., Kaiser, E., Metzner-Nebelsick, C. (eds.), *Scripta Praehistorica In Honorem Biba Teržan, Situla 44*, Narodni muzej Slovenije, 2007, 321–339.
- Črešnar 2010 – M. Črešnar, New research on the Urnfield period of Eastern Slovenia. A case study of Rogoza near Maribor, *Arheološki vestnik* 61, 2010, 7–119.
- Čučković, Čučković 2011 – Z. Čučković, L. Čučković, Arheološko istraživanje na starom gradu Dubovcu 2001. godine, *Opuscula Archaeologica* 35, 2011, 65–132.
- Dobiat 1980 – C. Dobiat, *Das hallstattzeitliche Gräbfeld von Kleinklein und seine Keramik. Schild von Steier, Beiträge zur steirischen vor- und frühgeschichtliche und Münzkunde, Beiheft 1*, Landesmuseum Joaneum Graz, 1980.
- Drnić, Groh 2018 – I. Drnić, S. Groh, Excavations and geophysical prospection of the iron age and roman-period site at Sisak-Pogorelac position (2012-2017), *Vjesnik Arheološkog muzeja u Zagrebu* 51/1, 2018 (2019), 67–140.
- Dular 1982 – J. Dular, *Halštatska keramika v Sloveniji*, Inštitut za arheologiju ZRC SAZU, 1982.
- Dular 2003 – J. Dular, *Halštatske nekropole Dolenjske*, Inštitut za arheologiju ZRC SAZU, Založba ZRC, 2003.
- Dular 2008 – J. Dular, Prazgodovinske lesne gradbene tehnike in njihova terminologija/ Prehistoric building techniques and their terminology, *Annales. Series historia et sociologia* 18/2, 2008, 337–348.
- Dular, Breščak, 1996 – J. Dular, D. Breščak, Poznohalštatska hiša na Gradišču pri Valični vasi, *Arheološki vestnik* 47, 1996, 142–162.
- Dular, Ciglenečki, Dular 1995 – J. Dular, S. Ciglenečki, A. Dular, *Kučar, Železnodobno naselje in zgodnjekršćanski stavbni kompleks na Kučarju pri Podzemlju / Eisenzeitliche Siedlung und fruhchristlicher Gebaudekomplex auf dem Kučar bei Podzemelj*, Opera Instituti Archaeologici Sloveniae 1, ZRC SAZU, 1995.
- Dular, Tecco Hvala 2007 – J. Dular, S. Tecco Hvala, *South-Eastern Slovenia in the Early Iron Age. Settlement – Economy – Society / Jugovzodna Slovenija v starješi železni dobi. Poselitev – Gospodarstvo – Družba*, Opera Instituti Archaeologici Sloveniae 12, ZRC SAZU, 2007.
- Đukić 2018 – A. Đukić, Prapovijesne glačane kamene izradevine sjeverozapadne Hrvatske, *Prilozi Instituta za arheologiju u Zagrebu* 35, 2018, 251–290.
- Fürst-Bjeliš 1998 – B. Fürst-Bjeliš, Turropolje – položaj tradicionalne regije u sustavu geografske regionalizacije, *Acta Geographica Croatica* 33, 1998, 83–90.
- Gabrovec 1987 – S. Gabrovec, Dolenjska grup, in Benac, A. (ed.), *Praistorija jugoslavenskih zemalja V*, Svjetlost – Akademija nauka i umjetnosti Bosne i Hercegovine, 1987, 29–119.
- Grahek 2004 – L. Grahek, Halštatska gomila na Hribu v Metliki, *Arheološki vestnik* 55, 2004, 111–207.
- Grahek 2016 – L. Grahek, *Stična. Železnodobna naselbinska keramika / Stična. Iron Age settlement pottery*, Opera Instituti Archaeologici Sloveniae 32, ZRC SAZU, 2016.
- Houška, Mačković (eds.) 2019 – M. Houška, R. Mačković, *GRACI, od prapovijesti do antike*, Muzej Sveti Ivan Zelina, 2019.
- Jurković 2005 – I. Jurković, Magnetite-Hematite Iron Ore Occurrences in the Triassic-Paleozoic Metamorphic Complex of Medvednica Mountain, Croatia, *Rudarsko-geološko-naftni zbornik* 17, 2005, 1–14.
- Karavanić 2009 – S. Karavanić, *The Urnfield Culture in continental Croatia*, Archaeopress Oxford, 2009.
- Karavanić, Kudelić 2019 – S. Karavanić, A. Kudelić, *Kalnik Igrišče – Naselje kasnog brončanog doba*, Monografije Instituta za arheologiju 14, Institut za arheologiju, 2019.
- Kovač 2014 – O. Kovač, Orešje na Bizeljskem, in Teržan, B., Črešnar, M. (eds.), *Apsolutno datiranje bronaste dobe in železne dobe na Slovenskem*, Katalogi in monografije 40, Narodni muzej, 2014, 505–514.
- Kovačević 2007 – S. Kovačević, Karakteristični nalazi kasnohalštatskog naselja u Zbelavi kod Varaždina i fibula tipa Velem, *Prilozi Instituta za arheologiju u Zagrebu* 24, 2007, 89–112.
- Kovačević 2008 – S. Kovačević, Osvrt na strukturu i keramičku proizvodnju kasnohalštatskog naselja u Zbelavi kod Varaždina, *Prilozi Instituta za arheologiju u Zagrebu* 25, 2008, 47–80.
- Kramberger, Črešnar 2021 – B. Kramberger, M. Črešnar, Pobrežje v Mariboru – Naselbina iz mlajše kulture žarnih grobišč, in Turk, P. (ed.), *Pohorsko Podravje pred tremi tisočletji: Tradicija in inovativnost v pozni bronasti in starejši železni dobi*, Katalogi in monografije 44, Narodni Muzej, 2021, 55–107.
- Križ, Stipančić, Škedelj Petrič 2009 – B. Križ, P. Stipančić, A. Škedelj Petrič, *Arheološka podoba Dolenjske*, Dolenjski muzej, 2009.
- Krmpotić 2020 – M. Krmpotić, Kraj kasnog brončanog i početak starijeg željeznog doba u Donjem Međimurju, in Dizdar, M. (ed.), *Homo Universalis, zbornik radova posvećen Zorku Markoviću povodom 65. obljetnice života*, Institut za arheologiju u Zagrebu, 2020, 357–391.
- Leksikografski zavod Miroslav Krleža, 2021, Hrvatska enciklopedija, mrežno izdanje, <https://www.enciklopedija.hr/trazi.aspx?t=Prigorje>, (6. Decembar 2022).
- Ložnjak Dizdar 2002 – D. Ložnjak Dizdar, Prilog poznavanju nalazišta ponad Sv. Marije Okičke, *Opuscula archaeologica* 26, 2002, 313–329.
- Ložnjak Dizdar 2008 – D. Ložnjak Dizdar, Terenski pregled područja izgradnje HE Podsused, *Annales Instituti Archaeologici* 4, 2008, 109–112.
- Ložnjak Dizdar, Potrebica 2017 – D. Ložnjak Dizdar, H. Potrebica, *Brončano doba Hrvatske u okviru srednje i jugoistočne Europe*, Biblioteca Historica Croatia, 2017.
- Majnarić-Pandžić 2008 – N. Majnarić-Pandžić, Another Look at the Silver Jewellery from Psarjevo near Zelina in Northwestern Croatia, *Archaeologia Adriatica* 11, 2008, 315–323.
- Majnarić-Pandžić 2009 – N. Majnarić-Pandžić, Zagrebački Gradec i njegova okolica u prapovijesti, *Vjesnik Arheološkog muzeja u Zagrebu* 26, 2009, 199–212.
- Marković 2022 – S. Marković, Hrvatske mineralne sirovine, *Geologia Croatica* 55, 2002, 101–102.

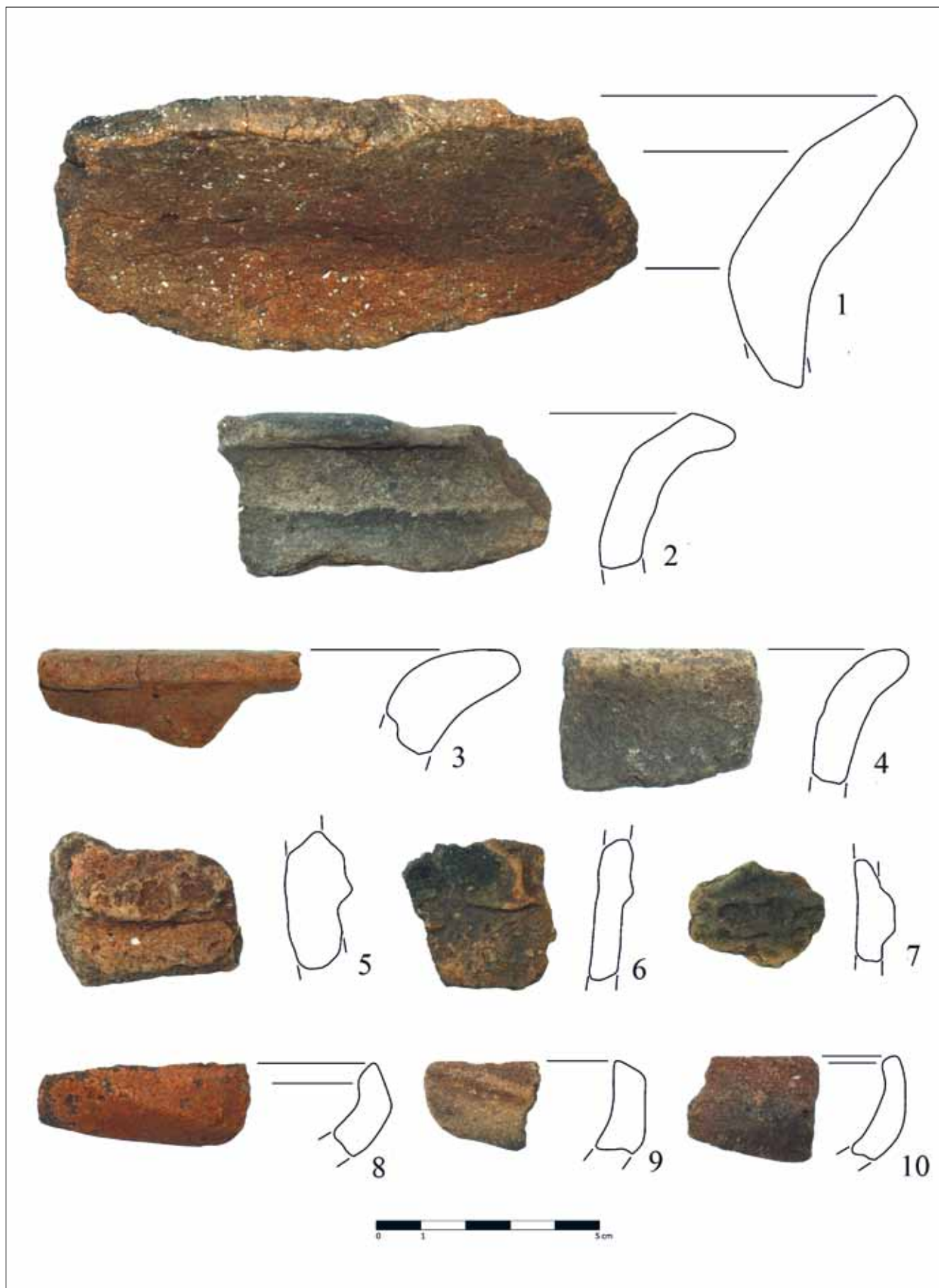
- Mavrović Mokus 2019 – J. Mavrović Mokus, *Stručno izvješće s istraživanja lokaliteta Sveti Križ – k.č. 1504 (sezona 2019.)*, unpublished report, Filozofski fakultet u Zagrebu, 2019.
- Mavrović Mokus 2021 – J. Mavrović Mokus, *Stručno izvješće s istraživanja lokaliteta Sveti Križ – k.č. 1504 (sezona 2021.)*, unpublished report, Filozofski fakultet u Zagrebu, 2021.
- Mavrović Mokus 2022 – J. Mavrović Mokus, *Stručno izvješće s arheološkog istraživanja lokaliteta Sveti Križ – k.č. 1504 (sezona 2022.)*, unpublished report, Filozofski fakultet u Zagrebu, 2022.
- Mavrović Mokus 2023 – J., Mavrović Mokus, Arheološke notice s područja Marije Gorice, in Škoc, M. (ed.), *Marijagorički kolaž*, Marija Gorica, 2023 (forthcoming).
- Mlekuž, Črešnar 2019 – D. Mlekuž, M. Črešnar, Early Iron Age cultural landscapes: case studies from the Poštela and Cvinger (Eastern Slovenia), in Črešnar, M., Mele, M. (eds.), *Early Iron Age Landscapes of the Danube Region*, Archeologia – Iron Age Danube, 2019, 221–240.
- Obad Šćitaroci et al. 2015. – M. Obad Šćitaroci, M. Rukavina, K. Petrić, T. Oberman, D. Fofić, *Studija zaštite i prezentacijskog potencijala arheološkog nalazišta Kuzelin i bliskih arheoloških nalazišta (izabrani dijelovi teksta i grafičkih priloga)*, Muzej Prigorja, 2015.
- Pahić 1972 – S. Pahić, *Pobrežje*, Katalogi in monografije 6, Narodni muzej, 1972.
- Pavišić 2006 – I. Pavišić, Arheološka istraživanja na Špičaku u Bojačnom, *Annales Instituti Archaeologici* 2, 2006, 90–93.
- Pavišić 2007 – I. Pavišić, Arheološka svjedočanstva o prošlosti Stubice i okolice, *Hrvatsko zagorje – časopis za kulturu Krapinsko-zagorske županije* 3–4, 13, 2007, 8–24.
- Patek 1993 – E. Patek, *Westungarn in der Hallstattzeit*, Acta humaniora, 1993.
- Parzinger, Stegmann-Rajtár 1988 – H. Parzinger, S. Stegmann-Rajtár, Smolnice-Molpír und der Beginn skythischer Sachkultur in der Südwestslowakei, *Prähistorische Zeitschrift* 63, 1988, 162–178.
- Potrebica 2013 – H. Potrebica, *Kneževi Željeznoga doba*, Meridijani, 2013.
- Rakvin 2015 – M. Rakvin, Naselje na gradini Marić kod Mikleuške tijekom kasnog brončanog i starijeg željeznog doba, *Prilozi Instituta za arheologiju u Zagrebu* 32, 2015, 75–110.
- Registar 1990 – *Registar arheoloških nalaza i nalazišta sjeverozapadne Hrvatske*, Muzejsko društvo sjeverozapadne Hrvatske, 1990.
- Smolnik 1994 – R. Smolnik, *Der Burgstallkogel bei Kleinklein II, Die Keramik der vorgeschichtlichen Siedlung*, Veröffentlichungen des vorgeschichtlichen Seminars Marburg, Sonderband 9, 1994.
- Sokol 1981 – V. Sokol, Najnovija arheološka istraživanja u Prigorju, *Izdanja Hrvatskog arheološkog društva* 6, 1981, 169–185.
- Sokol 1986 – V., Sokol, Moravče-Rošnica, in Balen-Letunić, D., Demo, Ž., Homen, Z., Jakovljević, G., Marković, Z., Sokol, V., Šimek, M., Tomičić, Ž. (eds.), *40 godina arheoloških istraživanja u sjeverozapadnoj Hrvatskoj*, Koprivnica, 1986.
- Sokol 1989 – V., Sokol, Grob br. 7 kulture žarnih polja iz Moravča kod Seseva (Zagreb), *Arheološki vestnik* 39–40, 1988–1989, 425–436.
- Sokol 1992 – V. Sokol, Arheološki radovi na lokalitetu Kuzelin, *Muzejski vjesnik* 15, Glasilo muzeja sjeverozapadne Hrvatske, 1992, 27–28.
- Stegmann-Rajtár 1996 – S. Stegmann-Rajtár, Eine Siedlung der Späthallstatt-/Frühlatènezeit in Bratislava-Dúbravka, in Jerem, E. (ed.), *Die Osthallstattkultur, Akten des Internationalen Symposiums*, Archeolingua, 1996, 455–470.
- Stockli 1991 – W. Stockli, Die Zeitstufe Hallstatt D 1 und der Beginn der hallstattzeitlichen Besiedlung auf der Heuneburg, *Archäologisches Korrespondenzblatt* 21, 1991, 369–382.
- Svoljšak, Dular 2016 – D. Svovljšak, J. Dular, *Most na Soči. Gradbeni izvodi in najdbe/ Most na Soči. Settlement Structures and Small finds*, Opera Instituti Archaeologici Sloveniae 33, ZRC SAZU, 2016.
- Škoberne 2004 – Ž. Škoberne, Tragovi starijega željeznoga doba središnje Hrvatske u prostoru između definiranih kulturnih skupina, in Balen-Letunić, D. (ed.), *Ratnici na razmeđu istoka i zapada: starije željezno doba u kontinentalnoj Hrvatskoj*, Arheološki muzej u Zagrebu, 2004, 160–172.
- Tecco Hvala 2014 – S. Tecco Hvala, Kačaste fibule z območja Slovenije, *Arheološki vestnik* 65, 2014, 123–186.
- Teržan 1976 – B. Teržan, Certoška fibula, *Arheološki vestnik* 27, 1976, 317–537.
- Teržan 1990 – B. Teržan, *Starejša železna doba na Slovenskem Štajerskem*, Katalogi in monografije 25, Narodni muzej, 1990.
- Teržan 1994 – B. Teržan, Sonde 9, 18 in 19 na prečnem nasipu gradišča / Die Schnitte 9, 18 und 19 im Querwall der Befestigungsanlage, in Gabrovec, S. (ed.), *7 Stična I: nasebnska izkopavanja / Siedlungsausgrabungen*, Katalogi in monografije 28, Narodni muzej Slovenije, 1994, 120–137.
- Teržan 1998 – B. Teržan, Auswirkungen des skythisch geprägten Kulturkreises auf die hallstattzeitlichen Kulturgruppen Pannoniens und des Ostalpenraumes, in Hänsel, B., Machnik, J. (eds.), *Das Südosteuropa-Schriften 20, Prähistorische Archaeologie in Südosteuropa* 12, München-Rahden, 1998, 511–560.
- Teržan, Črešnar 2014 – B. Teržan, M. Črešnar, *Apsolutno datiranje bronaste in železne dobe na Slovenskem*, Katalogi in monografije 40, Narodni muzej, 2014, 661–702.
- Turk 1996 – P. Turk, Datacija poznobronastodobnih depojev / The Dating of Late Bronze Age Hoards. V, in Teržan, B. (ed.), *Depojske in posamezne kovinske najdbe bakrene in bronaste dobe na Slovenskem / Hoards and Individual Metal Finds from the Eneolithic and Bronze Ages in Slovenia* 2, Katalogi in monografije 30, 1996, 89–125.
- Velušček 1996 – A. Velušček, Kostel, prazgodovinska naselbina, *Arheološki vestnik* 47, 1996, 55–143.
- Vinski-Gasparini 1981 – K. Vinski-Gasparini, Prehistorijski nalazi s područja Zagreba i okolice, *Izdanja Hrvatskog arheološkog društva* 6, 1981, 109–129.
- Vinski-Gasparini 1983 – K. Vinski-Gasparini, Kultura polja sa žarama sa svojim grupama, in Benac, A. (ed.), *Praistorija jugoslavenskih zemalja 4*, Svjetlost – Akademija nauka i umjetnosti Bosne i Hercegovine, 1983, 547–667.
- Vinski-Gasparini 1987 – K. Vinski-Gasparini, Grupa Martijanec-Kaptol, in Benac, A. (ed.), *Praistorija jugoslavenskih zemalja 5*, Svjetlost – Akademija nauka i umjetnosti Bosne i Hercegovine, 1987, 182–232.
- Vojaković 2013 – P. Vojaković, *Prazgodovinska Emona: Novo otkrivena protourbana naselbina na Prulah in njeno mesto v času in prostoru*, unpublished PhD thesis, Univerza v Ljubljani, Filozofska Fakulteta, 2013.
- Vojaković 2014 – P. Vojaković, Tribuna, in Teržan, B., Črešnar, M. (eds.), *Apsolutno datiranje bronaste dobe in železne dobe na Slovenskem*, Katalogi in monografije 40, Narodni muzej, 2014, 661–702.
- Vrdoljak 1996 – S. Vrdoljak, Prapovijesno naselje na Kosovcu kod Bregane (Samobor), *Opuscula archaeologica* 20, 1996, 179–188.





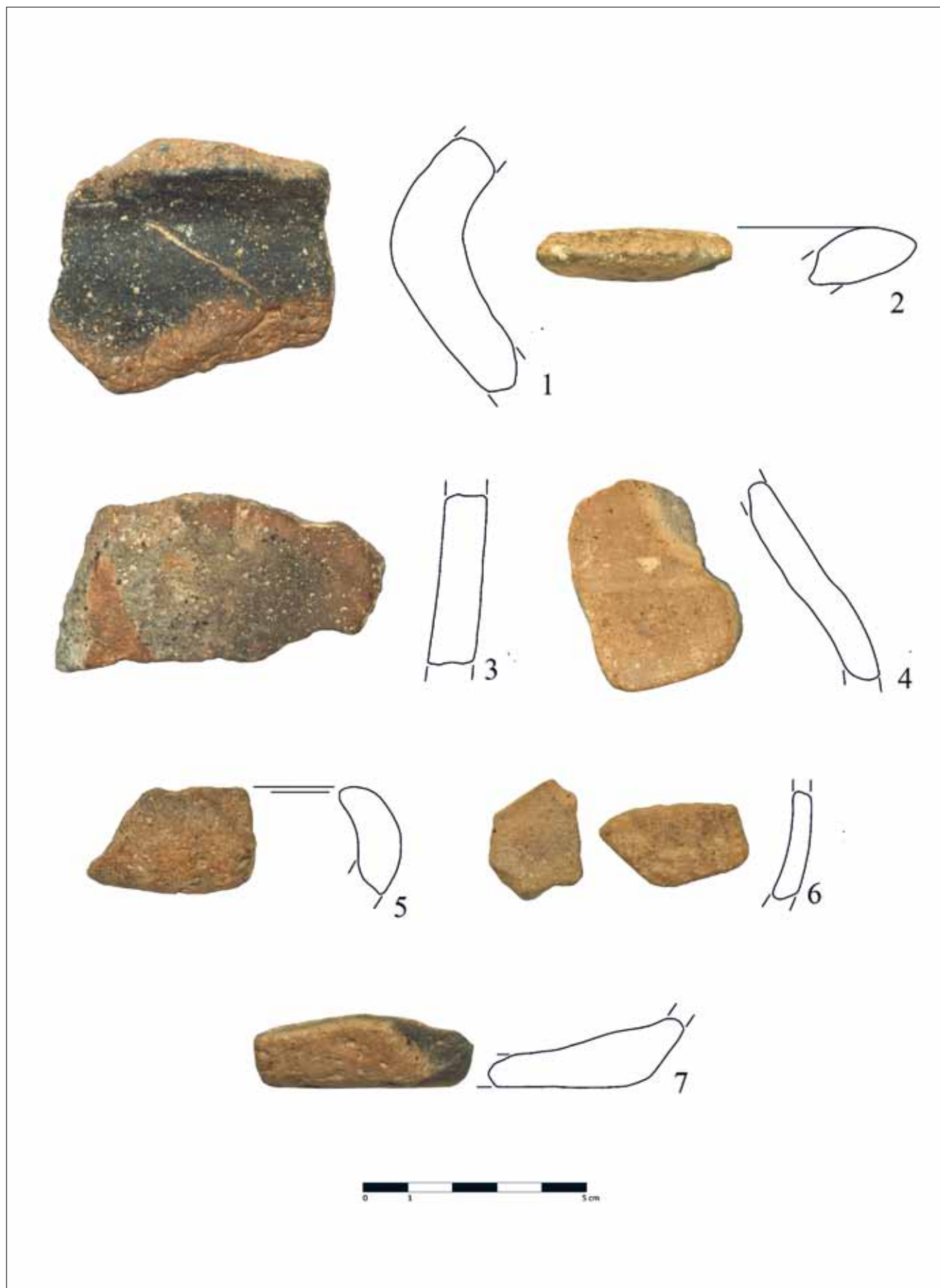
**TABLA 1.**  
Kosovac (materijal nacrtan uz korištenje LAP- Laser Aided Profiler-a,  
izradila M. Rončević).

**PLATE 1.**  
Kosovac (drawing made by M. Rončević).



**TABLA 2.**  
Oštrc (materijal nacrtan uz korištenje LAP- Laser Aided Profiler-a,  
izradila M. Rončević).

**PLATE 2.**  
Oštrc (drawing made by M. Rončević).



**TABLA 3.**  
Planina Donja (materijal nacrtan uz korištenje LAP- Laser Aided Profiler-a, izradila M. Rončević).

**PLATE 3.**  
Planina Donja (drawing made by M. Rončević).