Višeslojni tumul u Novom Selu kod Bijeljine

Gavranović, Mario; Antić, Snježana; Meyer, Cornelius; Petschko, Irene; Bulatović, Jelena; Waltenberger, Lukas

Source / Izvornik: **Prilozi Instituta za arheologiju u Zagrebu, 2021, 38, 34 - 74**

Journal article, Published version
Rad u časopisu, Objavljena verzija rada (izdavačev PDF)

https://doi.org/10.33254/piaz.38.1.2

Permanent link / Trajna poveznica: https://urn.nsk.hr/urn:nbn:hr:291:263198

UDK 902
ISSN 1330-0644
Vol. 38/1
ZAGREB, 2021.

PRILOZI

Instituta za arheologiju u Zagrebu

Pril. Inst. arheol. Zagrebu
Str./*Pages* 1–104, Zagreb, 2021.

Pril. Inst. arheol. Zagrebu, 38/1/2021
Str./*Pages* 1–104, Zagreb, 2021.

Izdavač/*Publisher*
INSTITUT ZA ARHEOLOGIJU
INSTITUTE OF ARCHAEOLOGY

Adresa uredništva/*Address of the editor's office*
Institut za arheologiju/*Institute of archaeology*
HR–10000 Zagreb, Jurjevska ulica 15
Hrvatska/*Croatia*
Telefon/Phone ++385/(0)1 61 50 250
Fax ++385(0)1 60 55 806
e-mail: urednistvo.prilozi@iarh.hr
http://www.iarh.hr

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Tisak/Printed by

E-izdanja. Publikacija je dostupna u digitalnom obliku i otvorenom pristupu na
https://hrcak.srce.hr/prilozi-iaz
E-edition. The publication is available in digital and open access form at
https://hrcak.srce.hr/prilozi-iaz?lang=en

Naklada/Issued
400 primjeraka/400 copies

Prilozi Instituta za arheologiju u Zagrebu uključeni su u sljedeće indekse/
Prilozi Instituta za arheologiju u Zagrebu are included in following indices:
DYABOLA – Sachkatalog der Bibliothek – Römisch-Germanische Kommission des Deutschen Archaeologischen Instituts, Frankfurt a. Main
Clarivate Analytics services – Web of Science Core Collection
CNRS/INIST – Centre National de la Recherche Scientifi que/L'Institut de l'Information Scientifi que et Technique, Vandoeuvre-lès-Nancy
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ERIH – European Reference Index for the Humanities, European Science Fundation, Strasbourg
SciVerse Scopus – Elsevier, Amsterdam

Pril. Inst. arheol. Zagrebu, 38/1/2021
Str./*Pages* 1–104, Zagreb, 2021.

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Prapovijesna arheologija

Original scientific paper
Prehistoric archaeology

UDK/*UDC* 903.5(497.6 Bijeljina)"636/637"

Primljeno/*Received*: 23. 10. 2020.
Prihvaćeno/*Accepted*: 11. 01. 2021.

MARIO GAVRANOVIĆ
Austrian Archaeological Institute
Austrian Academy of Sciences
Hollandstrasse 11–13
A–1020 Vienna
Austria
Mario.Gavranovic@oeaw.ac.at

SNJEŽANA ANTIĆ
Museum of Semberija
Karađorđeva 2
BiH–76300 Bijeljina
Bosnia and Herzegovina
snjezanaa@gmail.com

CORNELIUS MEYER
Cmprospection
Prenzlauer Allee 181
D–10405 Berlin
Germany
cornelius@cmprospection.com

IRENE PETSCHKO
Austrian Archaeological Institute
Austrian Academy of Sciences
Hollandstrasse 11–13
A–1020 Vienna
Austria
Irene.Petschko@oeaw.ac.at

JELENA BULATOVIĆ
Laboratory for Bioarchaeology
Department of Archaeology
Faculty of Philosophy
University of Belgrade
Čika–Ljubina 18–20
SR–11000 Belgrade
Serbia
j.bulatovic@yahoo.com

LUKAS WALTENBERGER
Austrian Archaeological Institute
Austrian Academy of Sciences
Hollandstrasse 11–13
A–1020 Vienna
Austria
Lukas.Waltenberger@oeaw.ac.at

doi.org/10.33254/piaz.38.1.2

The first step of the investigations in Novo Selo near Bijeljina (Republic of Srpska), in the northeastern part of Bosnia and Herzegovina known as Semberija, took place between 2016 and 2019 in the frame of the project "Visualizing the Unknown Balkans," initiated by the Institute for Oriental and European Archaeology (now Austrian Archaeological Institute) of the Austrian Academy of Sciences in cooperation with the Museum of Semberija in Bijeljina. The slightly elevated mounds in Novo Selo and Muharine at the eastern outskirts of the city of Bijeljina remained unregistered in archaeological literature despite their exposed position. Following the results of magnetic prospecting in 2016 that indicated the existence of ditches and a variety of structures, the first excavation was carried out in late 2018 at the mound in Novo Selo. At that point, neither a chronology nor an interpretation of the large earth mounds could be put forward, since there were no comparable investigated structures in the surroundings or surface finds suggesting an approximate age. The excavations in Novo Selo revealed highly remarkable structures and the use of the place as burial grounds in the Late Copper Age (3200–2600 BC), the earliest stage of the Middle Bronze Age (1750–1650 BC), and finally in the late Middle Ages (1000–1300 AD). In terms of cultural affiliation, the Copper Age finds (pottery) and urn cremation burials correspond with the repertoire of the late Baden complex and the Kostolac culture, while the Middle Bronze Age inhumation burial shows similarities with the graves in the lower Drina valley. The discoveries made in Novo Selo exemplify the complexity of burial mounds and their importance for prehistoric communities, especially in an open landscape like Semberija, with multifarious influences from the Balkans, the Carpathian Basin, and the Danube area.

Key words: Copper Age, Bronze Age, tumuli, burial, Semberija

Prva faza istraživanja u Novom Selu kod Bijeljine (Republika Srpska) u sjeveroistočnome djelu Bosne i Hercegovine, poznatom i pod imenom Semberija, izvedena je između 2016. i 2019. godine u sklopu projekta „Vizualizacija nepoznatog Balkana". Projekt je iniciran od strane Instituta za orijentalnu i europsku arheologiju (sada Austrijski arheološki institut) Austrijske akademije znanosti, a u suradnji s Muzejom Semberije iz Bijeljine. Iako se nalaze na istaknutome položaju na istočnome rubu grada Bijeljine, blaga uzvišenja na lokalitetima Novo Selo i Muharine ostala su do sada nezabilježena u arheološkoj literaturi. Slijedeći rezulate geomagnetne prospekcije iz 2016. godine koji su ukazivali na postojanje jaraka i raznih drugih struktura, prva iskopavanja provedena su krajem 2018. godine na uzvišenju u Novom Selu. U tom trenutku nije se mogla procijeniti niti starost niti ponuditi bilo kakva interpretacija velikih zemljanih humki, budući da slični nalazi u bližoj okolici nisu poznati, a nisu postojali niti površinski nalazi koji bi približno mogli ukazivati na moguće razdoblje. Iskopavanja u Novom Selu dovela su do otkrića iznimnih struktura te su potvrdila aktivnosti na ovome nalazištu u vrijeme kasnoga bakrenog doba (3200.–2600. g. pr. Kr.), početka srednjega brončanog doba (1800.–1700. g. pr. Kr.) te konačno u kasnome srednjem vijeku (1100.–1200. g. po Kr.). U pogledu kulturnih poveznica, nalazi iz bakrenoga doba i paljevinski grobovi odgovaraju repertoaru kasnoga badenskog kompleksa te kostolačke kulture, dok kosturni ukop iz srednjega brončanog doba ima određene analogije s grobovima iz donjega Podrinja. Otkrića iz Novoga Sela ukazuju na kompleksnost i važnost tumula kao pogrebnih mjesta prapovijesnih zajednica, posebno u otvorenome krajoliku kao što je Semberija, s mnoštvom raznih utjecaja s Balkana, iz Karpatske kotline i prostora Podunavlja.

Ključne riječi: bakreno doba, brončano doba, tumuli, grobovi, Semberija

INTRODUCTION

The region of Semberija is situated on the southern fringe of the Carpathian Basin, between the Sava in the north (the border with Croatia) and the Drina in the east (the border with Serbia). Towards the south and west, the plains of Semberija are bounded by the first foothills of Majevica, which already belongs to the northern edge of the Dinaric Alps (Fig. 1; 5). The investigated mounds in Novo Selo and Muharine are located directly to the east of the city of Bijeljina, ca. 7 km west of the River Drina and 15 km to the south of the River Sava. The aerial photographs of this area show a number of paleo-channels of the River Drina in the immediate vicinity of the mounds, which led to the formation of fluvial gravel terraces during the late Pleistocene. The satellite image also clearly shows other conspicuous elevations that could represent more human-made mounds and potential archaeological sites (Fig. 2).[1] Aerial photographs as well as elevations models suggest the existence of additional mounds in the immediate vicinity of Novo Selo and Muharine (Fig. 2).

1 We would like to thank Kristina Penezić (BioSense Institute, University of Novi Sad) for her assistance with the first reconstruction of the paleo-landscape and the distribution of potential mounds.

UVOD

Semberija se nalazi na južnome rubu Karpatske kotline između rijeka Save na sjeveru (granica s Hrvatskom) i Drine na istoku (granica sa Srbijom). Prema jugu i zapadu ravnice Semberije omeđene su obroncima planine Majevice koja već pripada sjevernome rubu Dinarida (sl. 1; 5) Istraživane humke u Novom Selu i Muharinama nalaze se neposredno istočno od grada Bijeljine, približno 7 km zapadno od rijeke Drine i 15 km južno od rijeke Save. Zračne fotografije ovoga područja pokazuju niz paleokanala rijeke Drine u neposrednome okruženju humki koji su doveli do stvaranja fluvijalnih šljunčanih terasa tijekom kasnoga pleistocena. Na satelitskoj snimci bliže okolice dobro su vidljiva i neka druga uzvišenja koja bi mogla predstavljati daljnje humke te potencijalna arheološka nalazišta (sl. 2).[1] Fotografije iz zraka kao i visinski modeli terena sugeriraju i na postojanje dodatnih humki u samoj blizini Novog Sela i Muharina (sl. 2).

1 Želimo zahvaliti Kristini Penezić (BioSense Institut, Sveučilište u Novom Sadu) za pomoć glede prve rekonstrukcije paleokrajolika te rasprostiranja mogućih humki.

As demonstrated by the excavations in Novo Selo, the river created a slightly undulating gravel floodplain with a cambisol layer on it. In case of Novo Selo, one of the higher grounds in the plain served as a burial and ritual place during the Late Copper Age. In the Bronze Age, a massive earth mound was erected there as a grave monument for an inhumation burial on a pebble structure. During the Middle Ages, the mound was again used as a burial place, with the most recent activity falling into the Ottoman period. The original size and height of the mounds in Novo Selo and Muharine are hard to estimate because of intensive farming in the last century. In the central, highest part, both mounds had a preserved height of 1.5 m and an approximate size of 40 x 40 m (Fig. 2).

In spite of intensive research on prehistoric burial mounds in the catchment area of the River Drina on Bosnian (Kosorić 1976: 83; Kosorić, Krstić 1988: 29) and Serbian sides (Garašanin 1983a: 704; 1983b: 755; 1987: 51; Stojić, Cerović 2011: 37; Filipović 2013: 54; Bulatović et al. 2017), the large monuments near Bijeljina have never been registered as a potential archaeological site. Novo Selo does appear in the Archaeological Lexicon of Bosnia and Herzegovina as a Roman site, but the finds of coins and architectural remains are associated with the actual village of Novo Selo, about 1 km to the north of the mound (Čremošnik 1988: 95; Kraljević 1988: 95). There is, however, an interesting observation by Z. Marić, who investigated the Copper Age site in Dvorovi, about 4 km to the north from Novo Selo (Marić 1960: 44; Govedarica 1997: 154). In his article, he describes an elevation called Humke, located next to the local road, with a preserved height of 1 m and a diameter of 30 m and with no surface finds. Since the investigated site in Dvorovi was also located on elevated terrain, Z. Marić presumed that the Humke mound could be a prehistoric settlement site, "perhaps of the members of the Baden culture" (Marić 1960: 46). It is uncertain whether this remark refers to Novo Selo, Muharine, or some other mound in the area (Fig. 2), but the fact is that the earth mounds near Bijeljina were hitherto not considered as possible burial grounds. One of the reasons might be the considerably different size and natural setting of the previously investigated tumuli in the area of the lower Drina between Pađine and Roćević (Kosorić, Krstić 1970; 1972) or at the sites of Bandera, Cerik, and Šumar in northwestern Serbia (Garašanin, Garašanin 1958; 1962; Garašanin 1973: 704). They are all located in the hilly region by the first foothills and terraces of the Dinaric Mountains and grouped in clusters of between 5 and 40 tumuli. Furthermore, they appear to be significantly smaller, with a diameter rarely exceeding 25 m. The characteristic metal and pottery finds suggest a long tradition of tumuli burials in this region, from the Early Bronze Age graves in northwestern Serbia, also known as the Belotić–Bela Crkva group, with cremation (no urn) and inhumation rites (Garašanin 1983a: 710), up to the Middle and Late Bronze Age graves in the area of Pađine and Roćević with inhumation graves on pebble and stone structures (Kosorić, Krstić 1988: 29). As indicated by the

Fig. 1 Geographical location of Bijeljina (made by: I. Petschko)
Sl. 1 Zemljopisni položaj Bijeljine (izradila: I. Petschko)

Arheološka iskopavanja u Novom Selu pokazala su da je djelovanjem rijeke nastala šljunkovita plavna ravnica na kojoj se kasnije nataložio sloj kambisola. U slučaju Novog Sela, jedno od blagih šljunčanih uzvišenja, odnosno manji šljunčani greben služio je kao groblje i ritualno mjesto tijekom kasnoga bakrenog doba. U brončanome dobu na istom mjestu nasuta je masivna zemljana gomila koja je pokrivala kosturni ukop postavljen na konstrukciji napravljenoj od riječnih oblutaka. Tijekom srednjega vijeka tumul je ponovno korišten, dok najmlađa aktivnost pada u osmansko razdoblje. Izvornu veličinu i visinu humki u Novom Selu i Muharinama teško je procijeniti zbog intenzivne poljoprivrede u prošlome stoljeću. U središnjem, najvišem dijelu, obje su humke imale očuvanu visinu od 1,5 m s približnom veličinom 40 x 40 m (sl. 2).

Unatoč prilično intenzivnim istraživanjima prapovijesnih tumula u slivu rijeke Drine kako na bosanskoj (Kosorić 1976: 83; Kosorić, Krstić 1988: 29), tako i na srpskoj strani (Garašanin 1983a: 704; 1983b: 755; 1987: 51; Stojić, Cerović 2011: 37; Filipović 2013: 54; Bulatović et al. 2017), velike humke u blizini Bijeljine do sada nisu bile registrirane kao potencijalno arheološko nalazište. Položaj Novo Selo navodi se u Arheološkome leksikonu Bosne i Hercegovine kao rimsko nalazište, ali nalazi novca i arhitektonski ostaci potječu iz samoga sela Novo Selo koje se nalazi oko 1 km sjeverno od humke (Čremošnik 1988: 95; Kraljević 1988: 95). Zanimljivo je, međutim, zapažanje Z. Marića koji je istraživao nalazište bakrenoga doba u Dvorovima, oko 4 km sjevernije od Novog Sela (Marić 1960: 44; Govedarica 1997: 154). U svome članku on opisuje uzvišenje zvano Humke koje je smješteno uz lokalnu cestu s očuvanom visinom od 1 m i promjerom od 30 m, bez površinskih nalaza. Budući da se istraženo nalazište u Dvorovima nalazilo također na povišenome terenu, Z. Marić je pretpostavio da bi lokacija Humke mogla biti prapovijesno naselje, „možda pripadnika badenske kulture" (Marić 1960: 46). Nemamo pouzdanih informacija da li se ova napomena odnosi na

Fig. 2 Location of the sites of Novo Selo and Muharine east of Bijeljina alongside other potential grave mounds and palaeochannels of Drina and an elevation model of Novo Selo mound and potential neigbouring tumulus (3D captured by: M. Börner, processed and visualized by: I. Petschko; modified satellite image: Google Earth)

Sl. 2 Položaj nalazišta Novo Selo i Muharine istočno od Bijeljine s daljnim mogućim tumulima i paleokanalima Drine i visinski model humke u Novom selu i potencijalnog susjednog tumula (3D model snimak: M. Börner, izradila i vizualizirala: I. Petschko; prilagođena satelitska snimka: Google Earth)

tumuli on the sites of Paulje and Maovi, mostly cremation graves under smaller tumuli grouped in necropolises remained the dominant burial form in northwestern Serbia throughout the Late Bronze Age (Gligorić, Canić-Tešanović 2010; Filipović 2013: 54). Mounds dated to the Early and Middle Bronze Ages and made of earth and stone have also been registered at the site of Crkvina Međe in Doljani near Bihać in northwestern Bosnia, but apart from several diagnostic pottery fragments, no burials could be attested in the first excavations (Raunig 2011: 39).

Evidence of much older burials was provided by the investigation of an earth mound with a diameter of 30 m in Šošari – Sač in eastern Bosnia (Kosorić 1979: 187; Govedarica 1997: 151). Scattered cremation remains and associated finds pointed to the period of mid and late 4th millennium BC, with pottery forms associated with the Cernavodă III–Boleráz and Baden complexes of the Copper Age, making Šošari – Sač one of the oldest burial tumuli in the region between the River Sava and the Dinaric Alps. The burial place of Šošari – Sač contained not only Copper Age cremation burials and a rectangular burned structure with layers of ash and stone covering from the same period (Govedarica 1997: 153), but also inhumation graves from the Early, Middle and Late Bronze Ages with stone cists and rectangular stone structures (Kosorić 1979). A scattered cremation burial from the Middle Copper Age, associated with the Cernavodă III–Boleráz complex, was discovered in the mound at the site of Tolisavac – Banjevci in northwestern Serbia together with burned remains, ashes, animal bones, and charcoal (Garašanin 1987: 52). Hence, the tradition of mound burials in the territories of the Drina valley and northwestern Serbia seems to reach back to the Copper Age, with a significant increase in tumuli during the Bronze Age, i.e. in the course of the 2nd millennium BC (Kosorić 1976: 37; Garašanin 1987: 53). The burials from the Copper Age most probably include the cremation burials in urns that were found more than 100 years ago at the site of Tatinice, in the middle Drina valley near Višegrad, yet the documentation and finds are not available for a more detailed assessment (Čović 1983: 187). Cremation burials with scattered remains and pottery indicative of the Copper Age were also discovered during the early investigations of the burial mounds at the site of Gosinja Planina, in the Glasinac area of eastern Bosnia, but again there is no further information (Fiala 1896: 352; Čović 1983: 186).

Further to the south, in the upper course of the River Drina and in the adjacent territories of eastern Herzegovina and Montenegro, there are also tumuli made of stone and earth from the Late Copper Age. The burial practice included inhumation in rectangular pits, as in the case of the burial mounds from Ljeskova Glavica 11 near Trebinje (Čović 1983: 162) or Gruda Boljevića near Podgorica (Baković, Govedarica 2009; Guštin, Preložnik 2015: 21), and crouched inhumation in stone cists, most prominently in the graves from Mala and Velika Gruda (Primas 1996). The exceptional finds of gold jewellery (hair rings) and weaponry made of silver and gold are the reason why the Novo Selo, Muharine ili neku drugu humku na tome području (sl. 2), ali činjenica je da se zemljane humke u blizini Bijeljine do sada nisu smatrale kao moguća ukopna mjesta. Jedan od razloga mogao bi biti taj što su veličina i prirodno okruženje prethodno istraženih tumula na području donje Drine između Pađina i Roćevića (Kosorić, Krstić 1970; 1972) ili na nalazištima Bandera, Cerik i Šumar u sjeverozapadnoj Srbiji (Garašanin, Garašanin 1958; 1962; Garašanin 1973: 704) znatno različiti. Svi navedni tumuli smješteni su u brdovitome predjelu, prema prvim podnožjima i terasama Dinarskoga gorja te su grupirani u skupine koje broje između 5 i 40 tumula. Nadalje, riječ je uglavnom o znatno manjim tumulima čiji promjer rijetko prelazi 25 m. Karakteristični nalazi metalnih predmeta i keramike upućuju na dugu tradiciju podizanja tumula u ovoj regiji, počevši od grobova ranoga brončanog doba u sjeverozapadnoj Srbiji, označenih kao grupa Belotić-Bela Crkva s obredom spaljivanja (bez urne) i inhumacije (Garašanin 1983a: 710), pa do grobova srednjega i kasnoga brončanog doba na području Pađina i Roćevića s inhumacijama postavljenima na konstrucije odnosno odar od kamena i riječnih oblutaka (Kosorić, Krstić 1988: 29). Kao što pokazuju tumuli na lokalitetima Paulje ili Maovi, relativno manji tumuli s primarnim obredom spaljivanja, grupirani u nekropole, karakteritična su forma sahranjivanja na sjeverozapadu Srbije kroz cijelo kasno brončano doba (Gligorić, Canić-Tešanović 2010; Filipović 2013: 54). Humke datirane u rano i srednje brončano doba, izrađene od zemlje i kamena, također su registrirane i na lokalitetu Crkvina Međe u Doljanima kod Bihaća u sjeverozapadnoj Bosni, no osim nekoliko dijagnostičnih ulomaka keramike, u prvim iskopavanjima nije pronađen niti jedan grob (Raunig 2011: 39).

Dokaze o mnogo starijim ukopima pružila su istraživanja zemljane gomile promjera 30 m na lokalitetu Šošari – Sač u istočnoj Bosni (Kosorić 1979: 187; Govedarica 1997: 151). Raštrkani ostaci kremiranih pokojnika i pripadajući nalazi ukazuju na vrijeme sredine i kasnog 4. tis. pr. Kr. s keramičkim oblicima pripisanima bakrenodobnim kompleksima Cernavodă III–Boleráz i Baden, što Šošari – Sač čini jednim od najstarijih grobnih mjesta između rijeke Save i Dinarida. Pored bakrenodobnih paljevinskih grobova, i pravokutne strukture sa slojevima pepela i kamena iz istog su razdoblja (Govedarica 1997: 153), na lokalitetu Šošari – Sač zabilježeni su i kosturni grobovi iz ranoga, srednjega i kasnoga brončanog doba s kamenim škrinjama i naslaganim pravokutnim kamenim konstrukcijama (Kosorić 1979). Paljevinski ukopi iz bakrenoga doba s rasutim kremiranim ostacima, pepelom, životinjskim kostima i ugljenom, pronađeni su i u tumulu na lokalitetu Tolisavac – Banjevci u sjeverozapadnoj Srbiji koji je na osnovi keramičkih nalaza također pripisan kompleksu Cernavodă III–Boleráz (Garašanin 1987: 52). Prema tome, čini da se tradicija grobnih humki na području donjega toka rijeke Drine i u sjeverozapadnoj Srbiji seže do bakrenoga doba sa značajnim porastom broja tumula u brončanome dobu, odnosno tijekom 2. tis. pr. Kr. (Kosorić 1976: 37; Garašanin 1987: 53). Najvjerojatnije iz bakrenoga doba potječu i paljevinski grobovi

burials from Boljevića Gruda and Mala and Velika Gruda are often described as princely tombs (Baković, Govedarica 2009); their emergence has generally been regarded as an outcome of the interaction with the regions in the north and the spread of steppe populations in the early 3rd millennium BC (Marijanović 2003: 99; Heyd 2011; Guštin, Preložnik 2015: 22).

In terms of appearance and size, good comparisons for the mounds in Bijeljina are found on the plains north of the River Sava, where tumuli of similar proportions already occur from the Middle and Late Copper Age (Tasić 1995: 73; Spasić 2016: 167). Of particular note are the mounds in Vojka and Batajnica near Zemun in Syrmia, with scattered cremation burials and pottery of the Vučedol culture pointing to the first half of the 3rd millennum BC as the most probable chronological frame (Tasić 1967; Spasić 2016: 167).

A number of large earth mounds with a diameter between 40 and 50 m is known from the territory of Banat (Medović 1987; Lazić 1989; Włodarczak et al. 2020: 4) and from the adjacent area east of the River Tisza in Hungary (Horváth 2011). Many contained inhumation graves in pits with a wooden structure and are thus identified as burials associated with the spreading of the Yamnaya culture between 2800 and 2500 BC (Tasić 1995: 72; Heyd 2011: 535; Włodarczak et al. 2020: 14). However, some of the mounds contain evidence of Copper Age activity, mostly in relation to cremation burials. The urns from the sites of Arđenska humka near Mokrin or Slatinska humka near Srpski Krstur most probably belong to the Baden horizon of the late 4th millennium BC (Girić 1987: 71). Because of poor documentation, however, it is not clear whether the Copper Age cremations correlate with the erection of the mounds or were subsequently covered with the earth mounds built for the Yamnaya inhumation burials (Sachsse 2010: 171; Włodarczak et al. 2020: 11). In any case, this situation at a few sites in the region of Banat, just like the site of Šošari – Sač in eastern Bosnia, suggests a long continuity of burial places throughout the Copper and Early Bronze Ages.

Several earth mounds of comparable size to Novo Selo and Muharine have been registered in the region of eastern Slavonia around the city of Vinkovci (Vinski, Vinski-Gasparini 1962: 268; Potrebica, Dizdar 2002: 80). Earlier excavations at the Stari Jankovci site uncovered finds from the Copper Age, but no burials from this period were discovered. However, recent investigations revealed that one of the mounds, with a diameter of 40 m and a preserved height of 1 m, was erected upon a grave from the Roman period with spectacular finds of a chariot and horses dating from the 3rd cent. AD (Kratofil et al. 2020).

Given the analogies from the neighbouring regions, the chronological determination of the large earth mounds near Bijeljina was far from certain before the excavation. As suggested by the recent find from Stari Jankovci, there was also the possibility that the mounds were not of prehistoric origin. Furthermore, the local community in Bijeljina claimed that the elevations in Novo Selo and Muharine were "the remains of Turkish military towers" from the Ottoman period.

u urnama pronađeni prije više od 100 godina na lokalitetu Tatinice u srednjem toku Drine u blizini Višegrada, ali dokumentacija i nalazi nisu dostupni za detaljniju procjenu (Čović 1983: 187). Paljevinski ukopi s raštrkanim ostacima i karakterističnom keramikom bakrenoga doba također su otkriveni u ranim istraživanjima grobnih gomila na području Glasinca u istočnoj Bosni na lokalitetu Gosinja planina. I u ovome slučaju nedostaju daljnje informacije (Fiala 1896: 352; Čović 1983: 186).

Dalje prema jugu, u gornjem toku rijeke Drine i na susjednim područjima istočne Hercegovine i Crne Gore, tumuli od kamena i zemlje također su prisutni od kasnoga bakrenog doba. Praksa pokopa uključivala je inhumacije u pravokutnim jamama, kao u slučaju grobova iz Ljeskove Glavice 11 kod Trebinja (Čović 1983: 162) ili Grude Boljevića kod Podgorice (Baković, Govedarica 2009; Guštin, Preložnik 2015: 21) te kosture u zgrčenome položaju u kamenim škrinjama s grobovima iz Male i Velike Grude kao najpoznatijim primjerima (Primas 1996). Na osnovi iznimnih nalaza zlatnoga nakita (sljepoočničarke) i oružja od srebra i zlata, ukopi iz Boljevića Grude, Male i Velike Grude često se označavaju kao kneževske grobnice (Baković, Govedarica 2009), dok se njihov nastanak općenito smatra kao ishod interakcije s regijama na sjeveru i širenja stepskoga stanovništva početkom 3. tis. pr. Kr. (Marjanović 2003: 99; Heyd 2011; Guštin, Preložnik 2015: 22).

U pogledu izgleda i veličine, dobre analogije za humke iz Bijeljine poznate su iz ravničarskoga predjela sjeverno od rijeke Save, gdje se tumuli sličnih proporcija pojavljuju od srednjega i kasnoga bakrenog doba (Tasić 1995: 73; Spasić 2016: 167). Posebno se ističu humke u Vojki i Batajnici kod Zemuna u Srijemu s paljevinskim ukopima bez urni i keramikom vučedolske kulture koja ukazuje na prvu polovicu 3. tis. pr. Kr. kao najvjerojatniji kronološki okvir (Tasić 1967; Spasić 2016: 167).

Niz velikih zemljanih humki promjera između 40 i 50 m poznat je s područja Banata (Medović 1987; Lazić 1989; Włodarczak et al. 2020: 4) te iz susjednoga područja istočno od rijeke Tise u Mađarskoj (Horváth 2011). Mnogi od njih sadržavali su kosturne grobove u jamama s drvenom konstrukcijom te su stoga identificirani kao pokopi povezani sa širenjem Yamnaya kulture između 2800. i 2500. g. pr. Kr. (Tasić 1995: 72; Heyd 2011: 535; Włodarczak et al. 2020: 14). Ipak, u nekim od humki postoje dokazi o aktivnostima i za vrijeme bakrenoga doba koje su uglavnom povezane s paljevinskim grobovima. Urne s nalazišta Arđenska humka kod Mokrina ili Slatinska humka kod Srpskog Krstura najvjerojatnije pripadaju badenskome horizontu s kraja 4. tis. pr. Kr. (Girić 1987: 71). Zbog nedostatne dokumentacije, nije jasno jesu li bakrenodobne kremacije u korelaciji s podizanjem humki ili su naknadno prekrivene zemljanim tumulima izgrađenima za kosturne grobove Yamnaya kulture (Sachsse 2010: 171; Włodarczak et al. 2020: 11). U svakome slučaju, ovakva situacija na nekoliko lokaliteta u Banatu ukazuje, kao i u slučaju lokaliteta Šošari – Sač u istočnoj Bosni, na izrazito dugi kontinuitet ukopnih mjesta kroz bakreno i rano brončano doba.

GEOPHYSICAL PROSPECTING

In order to detect possible structures in and around the mounds, a geophysical prospection was conducted prior to excavations. During the one-day survey, a total surface of 3.83 ha was investigated with the use of the LEA MAX magnetic gradiometer array (Fig. 3). Specially developed by Eastern Atlas, a Berlin company, for magnetic surveys of all kinds of archaeological sites, this system was configured with seven fluxgate gradiometer probes mounted on a light and foldable cart. The investigated area with alluvial sediments of the Drina valley demonstrated very good surface conditions with a moderate amount of sources of disturbance, permitting a solid interpretation of the geophysical data. The magnetic data provided various indications of archaeological remains (Fig. 4). Both mounds were encircled with concentric structures consisting of layers of sandy and calcareous sediments and organically enriched fills.

In the case of Muharine, the circle of positive anomalies around the base of the mound had a diameter of approximately 36 m. In its center there was a circular structure of weakly negative gradient values with a diameter of 3 m (Fig. 4). The negative values points to a fill composed of predominantly calcareous or sandy sediments without substantial organic content. The very center of this structure shows only a weak positive magnetic anomaly. Without archaeological investigations, it cannot be safely decided whether this slight increase in magnetization points to a deeper archaeological structure or just to alterations of the sediments on top of the mound. Additionally, a few small-scale anomalies of increased magnetization (in black) are scattered over the entire mound area. In comparison with the results of the geophysical survey of the burial mounds on the Kupres high plain in western Bosnia, it is likely that these features reflect secondary, i.e. younger burials (Müller-Scheeßel et al. 2014). Another circular structure can be recognized 70 m northwest of the mound. The data show a section of a circular ditch with a diameter of about 15 m (Fig. 3). However, the magnetic anomalies are very weak, and no other detailed structures can be distinguished. Moreover, a completely different feature was captured in the southwestern part of the area. The data clearly show an approximately 90 m long section of a 7 to 9 m wide linear structure consisting of two parallel rows of ditches or pits (Fig. 3). The structure can also be traced in the satellite image in both directions, towards the northwest and southeast. Apart from assumed archaeological structures, there are some rather large-scale alterations of the magnetic field representing geomorphological structures. Satellite images show a multitude of meander channels, revealing that the investigated area was crisscrossed by branches of the hydrological system of the Drina with silted-up branches and their banks (Fig. 2). The mound in Muharine seems to have been erected on slightly elevated terrain or a meander cut-off, without implying that there was water at the time of construction. Still, the location on

Nekoliko zemljanih humki slične veličine registrirano je i u istočnoj Slavoniji u blizini Vinkovaca (Vinski, Vinski-Gasparini 1962: 268; Potrebica, Dizdar 2002: 80). Ranija iskopavanja na lokalitetu Stari Jankovci dala su nalaze bakrenoga doba, premda nisu otkriveni grobovi iz toga razdoblja. Međutim, nedavna istraživanja otkrila su da je jedna humka promjera 40 m i očuvane visine od 1 m podignuta iznad groba iz rimskoga razdoblja sa spektakularnim nalazima kočija i konja iz 3. st. (Kratofil et al. 2020).

S obzirom na analogije sa susjednih područja, kronološka pozicija velikih zemljanih humki u blizini Bijeljine bila je neizvjesna prije početka iskopavanja. Kao što je pokazao nedavni nalaz iz Starih Jankovaca, postojala je opravdana mogućnost da humke možda i nisu iz prapovijesnoga razdoblja. Osim toga, u današnjoj lokalnoj zajednici u Bijeljini za uzvišenja u Novom Selu i Muharinama tvrdi se kako je riječ o „ostacima turskih vojnih kula" iz osmanskoga razdoblja.

GEOFIZIČKA PROSPEKCIJA

Kako bi se otkrile moguće strukture u humkama i oko njih, prije iskopavanja je provedeno geofizičko snimanje terena. Tijekom jednodnevne akcije istražena je ukupna površina od 3,83 ha korištenjem magnetskoga gradiometra LEA MAX (sl. 3). Ovaj sustav, koji je posebno izradila tvrtka Eastern Atlas iz Berlina za magnetska ispitivanja svih vrsta arheoloških nalazišta, u ovom slučaju bio je konfiguriran sa sedam sondi fluxgate gradiometra postavljenih na lagana i sklopiva kolica. Prospektirano područje s aluvijalnim sedimentima Drine pružilo je vrlo dobre uvjete s umjerenom količinom modernih smetnji, što je omogućilo bolju interpretaciju geofizičkih podataka. Na magnetskoj slici mogle su se prepoznati razne naznake arheoloških ostataka (sl. 4). Obje humke bile su okružene koncentričnim strukturama koje su se sastojale od slojeva pjeskovitih i vapnenačkih sedimenata s organski obogaćenim zapunama.

U slučaju Muharina, krug pozitivnih anomalija oko osnove humke imao je promjer od približno 36 m. U njegovome središtu mogla se prepoznati kružna struktura slabe negativne magnetizacije promjera 3 m (sl. 4). Negativna magnetizacija ukazuje na materijal koji se sastoji od vapnenačkih ili pjeskovitih sedimenata bez značajnoga organskog sadržaja. Samo središte ove strukture pokazuje samo slabu pozitivnu magnetsku anomaliju. Bez arheoloških zahvata nije moguće utvrditi da li ovaj blagi porast magnetizacije ukazuje na arheološku strukturu u dubljim slojevima ili samo na promjene sedimenta. Uz to, uočene su i anomalije pozitive magnetizacije malih dimenzija (crne), rasute po cijelome području humke. U usporedbi s rezultatima geofizičkoga istraživanja grobnih humki na Kupreškoj visoravni u zapadnoj Bosni, vjerojatno je da ove strukture predstavljaju sekundarne, odnosno mlađe ukope (Müller-Scheeßel et al. 2014). Na udaljenosti od 70 m u smjeru sjeverozapada može se također prepoznati još jedna kružna struktura. Podaci pokazuju dio kružnoga jarka promjera oko 15 m (sl. 3). Međutim, magnetske anomalije

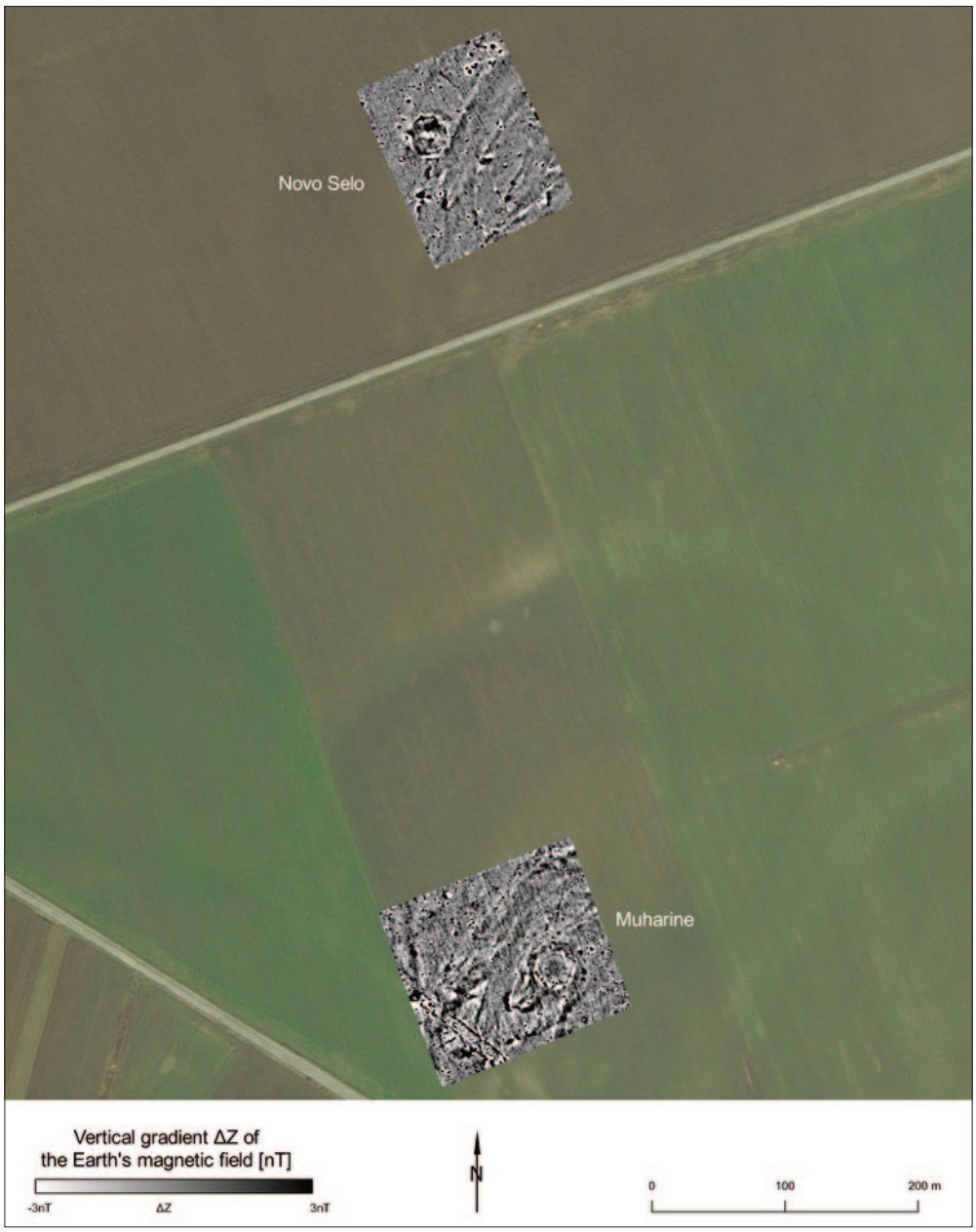

Fig. 3 Visualization of the magnetic survey (made by: I. Petschko; geomagnetic data: Eastern Atlas GmbH & Co. KG; satellite image: Microsoft Bing)

Sl. 3 Vizualizacija magnetskoga snimanja (izradila: I. Petschko; geomagnetski podaci: Eastern Atlas GmbH & Co. KG; satelitska snimka: Microsoft Bing)

a former meander cut-off might explain the sandy or calcareous sediments without high organic content that were used to heap up the mound.

The average field intensity of the magnetic data set of Novo Selo is slightly higher as compared to that of the Muharine data, which is probably the outcome of somewhat different sediment composition (Fig. 4). Similar to the Muharine mound, the data from Novo Selo reveal a large concentric structure with a diameter of approximately 40 m with an area of negative magnetic gradient indicating sandy and calcareous fills. This structure could be connected with the remains of the ditch or fence (Fig. 4). On both

na ovome su mjestu vrlo slabe i ne mogu se detaljnije opisati. Uz to, na jugozapadnome dijelu ispitanoga područja zahvaćena je jedna potpuno drugačija struktura. Mjerenja su otkrila postojanje jedne jasno uočljive, približno 90 m duge i između 7 do 9 m široke linearne strukture koja se sastoji od dva paralelna niza jaraka ili jama (sl. 3). Ova anomalija također se može pratiti na satelitskoj slici u oba smjera, prema sjeverozapadu i jugoistoku. Osim pretpostavljenih arheoloških struktura, neke prilično velike oscilacije magnetskoga polja proizilaze i iz geomorfološke situacije terena. Satelitske slike pokazuju niz meandriranih kanala koji su dokaz kako su istraženo područje ispresijecali razni

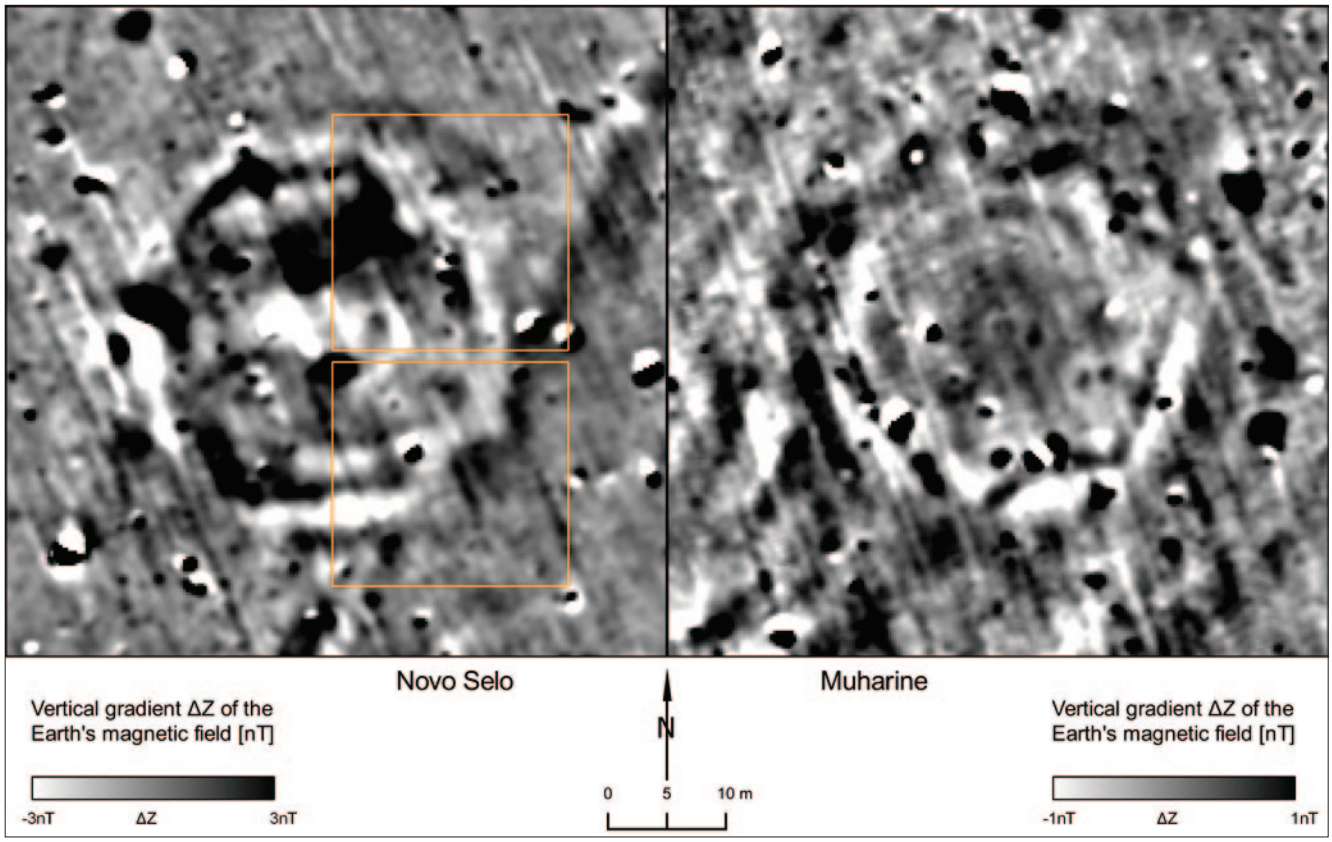

Fig. 4 Results of the magnetic survey in Novo Selo and Muharine and the outline of Trenches 2 and 3 in Novo Selo (made by: I. Petschko; geomagnetic data: Eastern Atlas GmbH & Co. KG)

Sl. 4 Rezultat magnetskoga snimanja u Novom Selu i Muharinama te plan sondi 2 i 3 u Novom Selu (izradila: I. Petschko; geomagnetski podaci: Eastern Atlas GmbH & Co. KG)

sides, in the south and in the north, there are large positive anomalies, suggesting organically enriched fills. Smaller, pit-like structures probably correspond to secondary burials. The large-scale geomorphological structures around the mound in Novo Selo show a preferential direction from the southwest to northeast. The diverse superposition of silted-up river branches and meander cut-offs makes an unambiguous interpretation difficult, but it can be assumed that the Novo Selo mound was also constructed on a slight elevation that resulted from the hydrological dynamics of the River Drina system.

In sum, the magnetic survey provided promising results, with numerous signs of potential archaeological structures. In spite of the severe destruction by agricultural activity and erosion processes, large concentric structures could clearly be deduced from the data in both Muharine and Novo Selo. However, a mutual stratigraphic and chronological relation between structures and features was still unknown, as only archaeological investigations could clarify it more precisely. Considering the scope and time limits of research and the narrow time slots for the fieldwork (due to agriculture), the first verification of geophysical results was accomplished only for the mound in Novo Selo (Fig. 4).

ogranci hidrološkoga sustava Drine sa zamuljenim rukavcima i njihovim obalama (sl. 2). Čini se stoga da je humka u Muharinama podignuta na blago povišenome terenu ili na presjeku meandra, ne implicirajući pri tome kronološku podudarnost prisutnosti vode i vremena izgradnje. Ipak, mjesto na bivšem rubu meandra moglo bi objasniti postojanje pješčanih ili vapnenačkih sedimenata bez visokoga organskog sadržaja koji su korišteni za podizanje humke.

Prosječna razina amplitude magnetskih podataka u slučaju Novoga Sela nešto je viša u usporedbi s podacima iz Muharina, što je vjerojatno rezultat nešto drugačijega sedimentnog sastava (sl. 4). Slično kao i kod humke Muharine, snimci iz Novog Sela ukazuju na postojanje velike koncentrične strukture promjera približno 40 m negativne magnetizacije koja se može povezati s pješčanim i vapnenačkim zapunama. Ova bi se strukura mogla dovesti u vezu s ostacima jarka ili nekoga okruženja (sl. 4). Na obje strane, na jugu i na sjeveru, pojavljuju se i velike pozitivne anomalije, što ukazuje na postojanje organski obogaćenih zapuna. Manje anomalije slične jamama vjerojatno su tragovi sekundarnih ukopa. Geomorfološke strukture oko humke u Novom Selu pružaju se uglavnom od jugozapada prema sjeveroistoku. Raznolika superpozicija muljem zatrpanih riječnih rukavaca i dijelova meandra otežava jed-

EXCAVATIONS AND UNEARTHED STRUCTURES

The excavations in Novo Selo took place in November 2018 (Fig. 5). They investigated the eastern half of the mound (Fig. 4), divided into two areas measuring 20 x 20 m in the northeastern part (Trench 2) and 19 x 20 m in the southeastern part (Trench 3), with 1 m of a section bridge in between (Fig. 6).

In the first step, the 25 to 30 cm thick ploughing horizon (SU 1) was dug off in both trenches with the help of an excavator, strictly following the elevation of the mound that was still visible. The amount of the soil removed from an area of 780 m^2 (20 x 20 m in Trench 2 and 20 x 19 m in Trench 3) was around 200 tonnes (Fig. 5). The first finds in Trench 3, immediately under the ploughing horizon, were two inhumation burials (Grave 1 and Grave 2) with badly preserved stretched skeletons oriented in the west–east direction (Fig. 14). The associated iron belt buckle (Grave 2) and bronze earring (Grave 1) pointed to the Middle Ages (Fig. 26).

In order to get the first information about the structure and layering of the mound, the next step included digging the test trench on the eastern boundary of Trench 3 (Fig. 6). The idea behind the test trench (5 x 4 m) was to determine the border of the mound and to capture the first elevation layers, which were expected to be visible in the sections. Therefore, the soil layers from the test trench were completely removed to reach the alluvial gravel layer, which represented the geological sterile underground. The earth deposits in the test trench had a thickness of

noznačnu interpretaciju, ali može se pretpostaviti da je i humka u Novom Selu podignuta na blagoj uzvisini koja je rezultat hidrološke dinamike riječnoga sustava Drine.

Sve u svemu, geomagnetsko istraživanje dalo je obećavajuće rezultate s brojnim indicijama potencijalnih arheoloških struktura. Unatoč devastaciji kroz poljoprivredne djelatnosti i kroz erozijske procese, podaci su nedvojebno potvrdili postojanje velikih koncentričnih struktura u Muharinama i Novom Selu. Ipak, međusobni stratigrafski i kronološki odnos između vidljivih struktura mogao se preciznije utvrditi samo arheološkim istraživanjima. Uzimajući u obzir opseg i vremenska ograničenja istraživanja te uske vremenske okvire za terenske radove (zbog poljoprivrede), prva provjera geofizičkih rezultata izvršena je samo u slučaju humke u Novom Selu (sl. 4).

ISKOPAVANJA I OTKRIVENE STRUKTURE

Iskopavanja u Novom Selu provedena su u studenome 2018. godine (sl. 5). Istraženo područje obuhvaćalo je istočnu polovicu povišenoga terena (sl. 4) koja je podijeljena na dvije sonde veličine 20 x 20 m u sjeveroistočnome dijelu (sonda 2) i 19 x 20 m u jugoistočnome dijelu (sonda 3). Između dvije sonde ostavljen je kontrolni profil širine 1 m (sl. 6).

U prvom je koraku, uz pomoć bagera, u obje sonde skinut površinski sloj oranice u debljini od 25 do 30 cm (SJ 1), pri čemu je strogo praćena postojeća konfiguracija terena s još uvijek vidljivim uzvišenjem. Količina uklonjene zemlje s površine od 780 m^2 (20 x 20 m u sondi 2 i 20 x 19 m u sondi 3) iznosila je oko 200 tona (sl. 5). Prvi nalazi pojavili

Fig. 5 Aerial view of the excavations in Novo Selo from the north (photo by: M. Börner)
Sl. 5 Zračna snimka iskopavanja u Novom Selu sa sjevera (snimio: M. Börner)

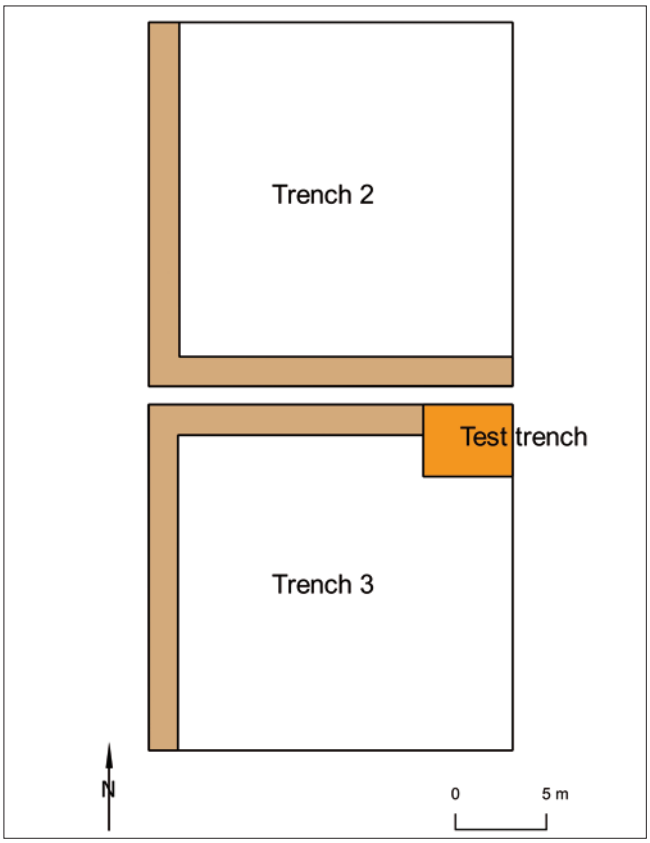

Fig. 6 Trenches during the 2018 excavations at Novo Selo (made by: I. Petschko)
Sl. 6 Sonde tijekom iskopavanja 2018. u Novom Selu (izradila: I. Petschko)

ca. 1 m, including approximately 30 cm of the ploughing horizon (SU 1) and 70 cm of a light brownish humus layer with small fragments of burnt daub and uncharacteristic handmade pottery (SU 24). In the south section of the test trench, there was a clearly visible rise in the alluvial layer of gravel (SU 10) towards the west or towards the centre of the mound, which was the first indication that the mound was actually situated on naturally elevated terrain (Fig. 7). In fact, the observation about the rise in the virgin soil layer of gravel (SU 10) cast doubt on whether the mound in Novo Selo was human-made at all or just a natural deposition of soil on a gravel crest.

su se u sondi 3, neposredno ispod horizonta oranice. Riječ je o dva kosturna groba (grob 1 i grob 2) s loše sačuvanim ispruženim kosturima orijentiranima u smjeru zapad – istok (sl. 14). Pripadajuća kopča od željeznoga pojasa (grob 2) i brončana naušnica (grob 1) ukazivali su na razdoblje srednjega vijeka (sl. 26).

Kako bi se dobile prve informacije o strukturi i slojevima humke, sljedeći je korak uključio otvaranje ispitnoga rova na istočnoj granici sonde 3 (sl. 6). Namjera otvaranja ispitnog rova (5 x 4 m) bila je odrediti granicu humke te po mogućnosti dokumentirati početne slojeve uzvišenja za koje se očekivalo da će biti vidljivi na profilima. Stoga su slojevi iz ispitnoga rova u potpunosti uklonjeni sve dok se nije dosegao aluvijalni sloj šljunka koji je predstavljao geološku podlogu, odnosno zdravicu. Naslage u ispitnome rovu imale su debljinu od oko 1 metra, uključujući približno 30 cm horizonta oranice (SJ 1) te 70 cm svijetlosmeđega humusnog sloja s malim ulomcima izgorenoga lijepa i nekarakteristične ručno izrađene keramike (SJ 24). Na južnome profilu ispitnoga rova jasno se vidio uspon aluvijalnoga sloja šljunka (SJ 10) prema zapadu ili prema središtu humke, što je bio prvi pokazatelj da se humka zapravo nalazi na prirodno povišenome terenu (sl. 7). Zapravo, uspon šljunčane zdravice (SJ 10) u prvome momentu izazvao je sumnju je li humka u Novom Selu uopće napravljena ljudskom rukom ili predstavlja samo prirodno taloženje tla na šljunčanome grebenu.

S ciljem da se razjasni priroda uzvišenja, s obje strane kontrolnoga profila između sondi 2 i 3 otvorena su dva rova širine 1,2 m (sl. 6). Iskopavanje je započelo od istoka prema zapadu, odnosno od nižega dijela prema prema najvišem djelu humke u sredini. Ovaj je korak izveden uz pomoć bagera koji je kopao tlo u otkopima debljine između 20–30 cm. Situacija u prvim metrima u oba rova bila je nepromijenjena u usporedbi s ispitnim rovom s blago rastućim slojem prirodnoga šljunka (SJ 10) i smeđkastim slojem (SJ 24) koji je počeo dobivati tamnije tonove (SJ 6) kako je iskop napredovao prema sredini humke (sl. 11).

Prvi nalaz u rovu južno od kontrolnoga profla (sonda 3) predstavljala je cjelovita keramička posuda (SJ 5), položena izravno na sloj prirodnoga šljunka (sl. 8). Kao što je pokazalo kasnije pražnjenje, ova posuda zapravo je urna sa spaljenim ljudskim ostacima (grob 6). Tragovi jame ili bilo kakve druge strukture oko urne nisu primjećeni (sl. 8).

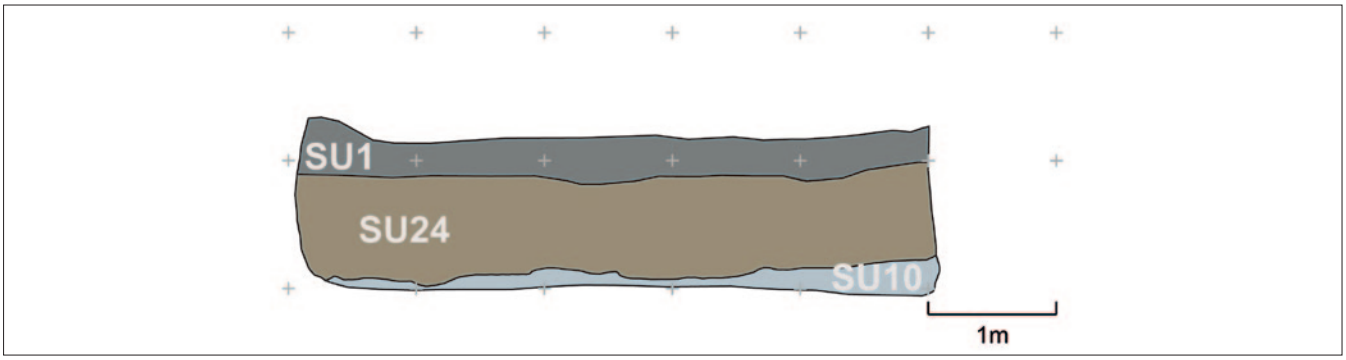

Fig. 7 South section of test trench (made by: I. Petschko)
Sl. 7 Južni profil probnoga rova (izradila: I. Petschko)

With the aim of clarifying the nature of the mound, two 1.2 m wide strip trenches were opened on both sides of the section bridge between Trenches 2 and 3 (Fig. 6). The excavation started from the east to the west or towards the higher area in the centre. This step was accomplished with the help of an excavator, which dug off the soil in several spits (20–30 cm). The situation in the first metres in both strip trenches was unchanged as compared to the test trench, with a slightly rising natural gravel layer (SU 10) and a brownish layer (SU 24) that was getting darker (SU 6) as the excavation advanced toward the mound centre (Fig. 11).

The first finds were encountered in the strip trench south of the section bridge (Trench 3), with the discovery of a complete pottery vessel (SU 5) that was lying directly on the natural gravel layer (Fig. 8). When it was emptied, the vessel turned out to be an urn with cremated human remains (Grave 6). There were no traces of a pit or any other structure around the urn (Fig. 8).

The next structure, unearthed immediately to the west of the vessel, was a reddish layer (SU 4) with an abundance of burned organic remains (grass stalks, small plants). The red layer with clear traces of burning was spread in both strip trenches and was covered with the darker brown soil (SU 6). When the reddish organic layer was exposed, the excavations continued manually. The brown soil (SU 6) was easily peeled off from the red layer (SU 4), which rose towards the highest area of the mound (Fig. 9). A regular array of river pebbles and parts of a human skeleton with legs in a crouched position were discovered in the area of Trench 2 near the middle of the mound. After the first cleaning, it was clear that the skeleton lay on a stone platform, covered by the darker brown soil (SU 6). The inhumation grave with the skeleton in the crouched position and the pebble stone platform was designated as Grave 3 (Fig. 10).

After the excavation in the two strip trenches reached the western edge of the investigated area, two further strip trenches of the same width (1.20 m) were opened in the south–north direction (Fig. 6). This time, the excavations started from the centre of the mound toward the

Fig. 8 Grave 6 in situ (photo by: M. Gavranović)
Sl. 8 Grob 6 in situ (snimio: M. Gavranović)

Slijedeća struktura otkrivena odmah zapadno od posude bio je crvenkasti sloj (SJ 4) s obiljem izgorjelih organskih ostataka (stabljike trave, manje raslinje). Crveni sloj s tragovima gorenja nalazio se u u oba rova te je bio prekriven tamnijom smeđom zemljom (SJ 6). Otkrivanjem crvenkastoga organskog sloja, iskopavanja su nastavljena ručno. Smeđe tlo (SJ 6) lako se ljuštilo od crvenkastoga izgorenog sloja (SJ 4) koji se počeo uzdizati prema sredini humke (sl. 9). Blizu središta uzvišenja na dijelu rova u sondi 2 otkriven je pravilan niz naslaganih riječnih oblutaka te dijelovi kostura sa zgrčenim nogama. Već nakon prvoga čišćenja bilo je jasno da kostur leži na kamenoj platformi koje je pokrivalo smeđe tamnije tlo (SJ 6). Kosturni ukop u zgrčenome položaju kao i platforma od riječnih oblutaka označena je kao grob 3 (sl 10).

Nakon što je iskopavanje u oba rova dosegnulo zapadni rub istraženoga područja, otvorena su dva daljnja rova iste širine (1,20 m) u smjeru jug – sjever (sl. 6). Ovaj su put iskopavanja započela iz središta humka prema sjevernome rubu u sondi 2 te prema južnome rubu u sondi 3. Crvenkasti sloj s brojnim izgorenim organskim ostacima (SJ 4) mogao se pratiti na duljini od 8 do 10 m od središta u oba smjera, dok su izvan crvenoga sloja smeđa tla u različitim

Fig. 9 SU 4 (reddish layer with burnt vegetation remains) in Trench 3 (photo by: M. Gavranović)
Sl. 9 SJ 4 (crvenkasti sloj sa spaljenim ostacima vegetacije) u sondi 3 (snimio: M. Gavranović)

northern fringe in Trench 2 and the southern fringe in Trench 3. The reddish layer with abundant organic remains (SU 4) could be followed over a length of 8 to 10 m from the centre in both directions; outside of the red layer, different variations of the brown soil (SU 6, SU 30) covered the natural gravel layer. Bearing in mind the discovered inhumation burial with the pebble grave platform and the size of the mound, the further course of the excavations focused primarily on Trench 2 or the northeastern quarter of the mound (Fig. 6).

The basic stratigraphic composition of Trench 2 was quite recognizable thanks to the sections of the excavated strip trenches in the south and west (Fig. 11). Apart from the already observed layers (SU 1 – the ploughing horizon; SU 6/SU 24 – the brown soils rising toward the centre of the mound; SU 30/SU 32 – younger intrusions in SU 6; SU 4 – the reddish organic layer covered by the brown soils; SU 10 – the natural gravel layer), the sections revealed a shallow ditch, approximately 2 m wide (SU 7). The ditch was cut into the natural gravel layer (SU 10) and covered by brown soil (SU 24/SU 6). The filling of the ditch (SU 7) consisted of a greyish mixture of calcareous material and humus inclusions (Fig. 12). The west section of Trench 2 showed that the gravel layer (SU 10) rose continuously toward the north and outside of the mound, indicating an undulation of natural terrain (Fig. 11).

The next actions in Trench 2 consisted of a detailed uncovering of Grave 3, including a careful recovery of the skeletal remains by anthropologists, and the removal of the brown fill layers (SU 6/SU 24) in the whole area of Trench 2 (400 m^2). The main aims were to find out the exact shape of the stone platform of Grave 3 and the extensions and borders of the reddish organic layer (SU 4). Starting from the higher level, the reddish layer was followed toward the lower area of Trench 2 by removing the brown soil. The outer margin of the reddish layer was reached at the distance of approximately 6 m from the stone platform of Grave 3 (Fig. 14). The excavations in the area outside the

Fig. 10 First view of Grave 3 in Trench 2 (photo by: M. Gavranović)
Sl. 10 Prvi pogled na grob 3 u sondi 2 (snimio: M. Gavranović)

varijacijama (SJ 6, SJ 30) prekrivala šljunčanu zdravicu. Imajući na umu otkriveni grob s kamenom platformom i veličinu humka, daljnji tijek istraživanja usredotočen je prvenstveno na sondu 2, odnosno na sjeveroistočnu četvrtinu humke (sl. 6).

Osnovna stratigrafija sonde 2 već se mogla jasno definirati zahvaljujući profilima dvaju iskopanih rovova na jugu i zapadu (sl. 11). Osim već uočenih slojeva (SJ 1 – horizont oranja; SJ 6/SJ 24 – smeđi slojevi koji se podižu prema središtu humke; SJ 30/SJ 32 – mlađe intruzije u SJ 6; SJ 4 – crvenkasti organski sloj prekriven smeđim slojevima; SJ 10 – prirodni sloj šljunka, odnosno zdravica), u profilima rovova jasno su bili prepoznatljivi i ostaci plitkoga jarka širine 2 m

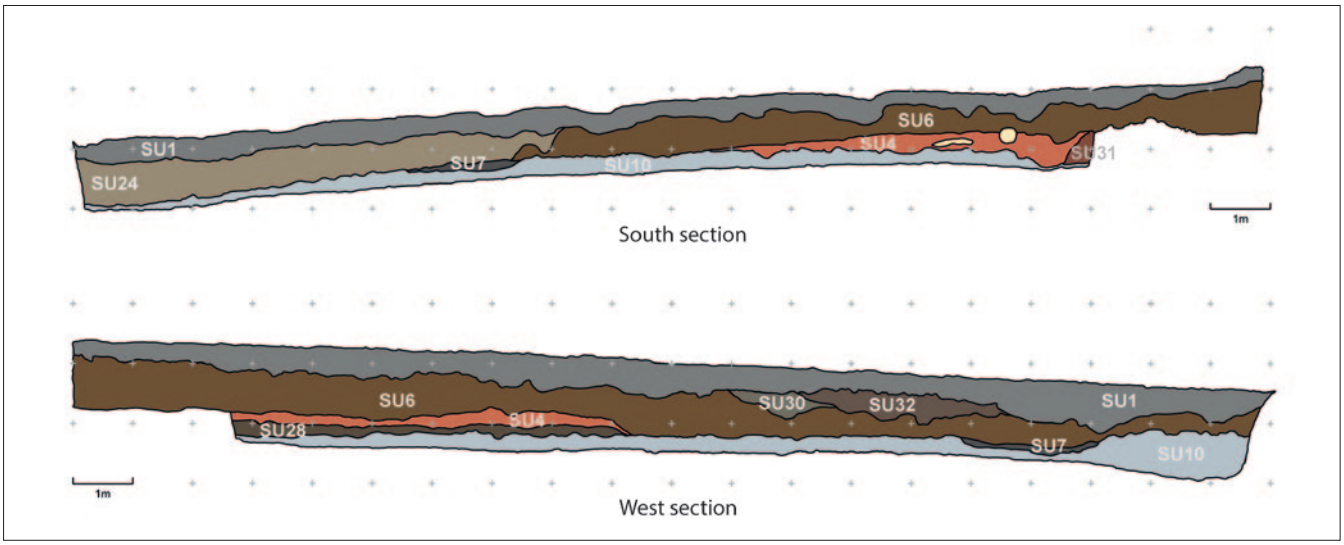

Fig. 11 South and west section of Trench 2 (made by: M. Konrad and I. Petschko)
Sl. 11 Južni i zapadni profil sonde 2 (izradili: M. Konrad i I. Petschko)

reddish layer revealed further parts of the ditch (SU 7), which was already captured in the sections of Trench 2 in the west and south. The shallow ditch was characterized by a grey surface that could be distinguished from its surroundings (Fig. 12).

The extension and the direction of the ditch showed a clear resemblance with the parts of the enclosing structure recognized in the magnetic data (Fig. 4; 14). The ditch was occasionally interrupted by stratigraphically younger features. This was particularly clear in the area where two round charcoal features (SU 22 and SU 23) with a diameter of ca. 30 cm flanked the edges of the interruption (Fig. 14). Along the ditch, a few irregular, shallow pit-like structures came to light, described as SU 9 and SU 18. They were of irregular shape and contained a dense concentration of potsherds, animal bones, and traces of burning, yet without any clearly recognizable structure (Fig. 14).

The excavation of the zone outside of the enclosed area (SU 7) resulted in the discovery of another inhumation burial (Grave 4) in a stretched position with the same orientation like Graves 1 and 2 (Fig. 14). Another significant find outside the ditch was a large pottery vessel in an inverted position (Fig. 13). Small fragments of cremated human bones around the vessel indicated a cremation burial, which was designated as Grave 5. The inverted vessel with two short handles was already on the level of the natural gravel layer. The possibility that the vessel covered a cremation burial led to the decision to excavate Grave 5 in a block that encompassed the vessel and the surrounding gravel layer to the depth of 1 m (Fig. 13; 17).

Several distinct features came to light in the area of Grave 3 and its immediate surroundings (Fig. 14). The slightly trapezoid pebble stone platform with the crouched skeleton on top (SU 16) consisted of bigger stones on the outside (SU 14) and a layer of smaller gravel stones (SU 15) in the inside area under the skeleton. Around the skeleton there was a rectangular feature that included brownish, organic material (SU 13). After the excavations reached the bottom of the structure, it was obvious that the oval-

(SJ 7). Jarak je bio ukopan u prirodni sloj šljunka (SJ 10) i prekriven je smeđim slojevima (SJ 24/SJ 6). Zapuna jarka (SJ 7) sastojala se od sivkaste smjese vapnenastoga materijala i inkluzija humusa (sl. 12). Zapadni dio sonde 2 pokazao je da se sloj šljunka (SJ 10) počeo kontinuirano uzdizati prema sjeveru i izvan humke, što ukazuje na valovitost prirodnoga terena (sl. 11).

Slijedeće akcije u sondi 2 uključivale su detaljno iskopavanje groba 3, uključujući pažljivo dokumentiranje kostura od strane antropologa i uklanjanje smeđih slojeva nasipa tumula (SJ 6/SJ 24) na cijelome području sonde (400 m^2). Glavni ciljevi bili su otkriti točan oblik kamene platforme groba 3 te ustanoviti granice crvenkastoga organskog sloja (SJ 4). Polazeći od više razine, crvenkasti sloj praćen je prema nižem području uklanjanjem smeđega zemljanog nasipa. Vanjski rub crvenkastoga sloja dosegnut je na udaljenosti od približno 6 m od kamene konstrukcije groba 3 (sl. 14). Iskopavanja na području izvan crvenkastoga sloja otkrila su daljnje dijelove jarka (SJ 7) koji je već bio registriran u profilima rovova na zapadu i jugu. Plitki jarak karakterizirala je siva površina po kojoj se razlikovao od okolice (sl. 12).

Oblik, veličina i pravac pružanja jarka pokazali su veliku sličnost s dijelovima okruženja koje je zabilježeno u magnetskim snimkama (sl. 4; 14). Stratigrafski mlađe smetnje povremeno su prekidale jarak. To se posebno jasno može vidjeti na mjestu gdje su dvije kružne strukture s ugljenom (SJ 22 i SJ 23) promjera približno 30 cm otkrivene uz bok rubova prekida jarka (sl. 14). Duž jarka opaženo je nekoliko nepravilnih, plitkih jama opisanih kao SJ 9 i SJ 18. Ove amorfne strukture sadržavale su veću količinu razbijenih posuda, životinjskih kostiju i tragove gorenja, ali bez nekoga prepoznatljivog oblika (sl. 14).

Iskopavanje zone izvan ograđenoga prostora (SJ 7) dovelo je do otkrića još jednoga kosturnoga groba (grob 4) u ispruženome položaju iste orijentacije poput grobova 1 i 2 (sl. 14). Drugi značajan nalaz izvan jarka bila je velika kermička posuda u okrenutome položaju (sl. 13). Mali ulomci spaljenih ljudskih kostiju oko posude ukazivali su da je riječ o paljevinskome ukopu koji je označen kao grob

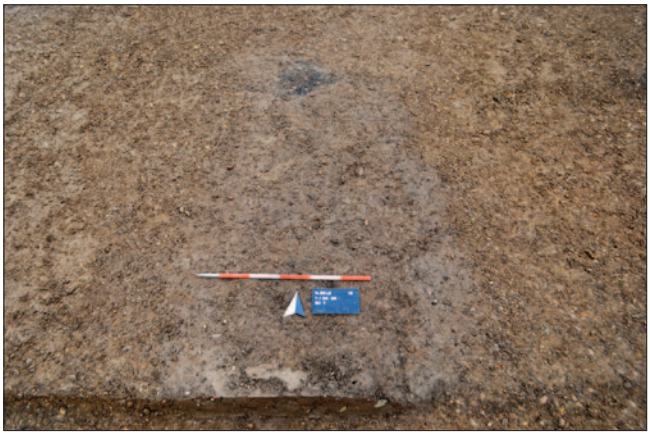

Fig. 12 Part of the ditch (SU 7) (photo by: M. Gavranović)
Sl. 12 Dio jarka (SJ 7) (snimio: M. Gavranović)

Fig. 13 Lid of Grave 5 in situ (photo by: M. Gavranović)
Sl. 13 Poklopac groba 5 in situ (snimio: M. Gavranović)

shaped pebble platform was erected directly on the reddish organic layer (SU 4). In the course of cleaning the reddish layer, a burned dark structure with charcoal (SU 19) was documented north of Grave 3 (Fig. 14). Like SU 4, the burned feature contained plant and wood remains. The array of small postholes on the western side of Grave 3 (SU 20) was the first indication of some lighter above-ground construction connected to the burial. The uncovering of another array of postholes of the same size and at the same distance from each other (SU 21) in the south corroborated the assumption that Grave 3 was embedded in an above-ground structure (Fig. 14; 22).

5. Preokrenuta posuda s dvije kratke ručke svojim je dnom ležala na razini prirodnoga šljunka. Mogućnost da posuda prekriva jamu s ostatkom spaljenih ostataka dovela je do odluke da se grob 5 iskopa u bloku koji je obuhvatio posudu i okolni sloj šljunka do dubine od 1 m (sl. 13; 17).

Nekoliko karakterističnih detalja izašlo je na vidjelo u daljnjem tijeku iskopavanja groba 3 i neposredne okoline (sl. 14). Blago trapezoidna platforma od naslaganih oblutaka sa zgrčenim kosturom (SJ 16) na vrhu sastojala se od većega kamenja s vanjske strane (SJ 14) te sloja manjega kamenja (SJ 15) u unutrašnjosti, odnosno ispod samoga kostura. Oko kostura uočena je pravokutna struktura s proslojima smeđkaste organske materije (SJ 13). Nakon što

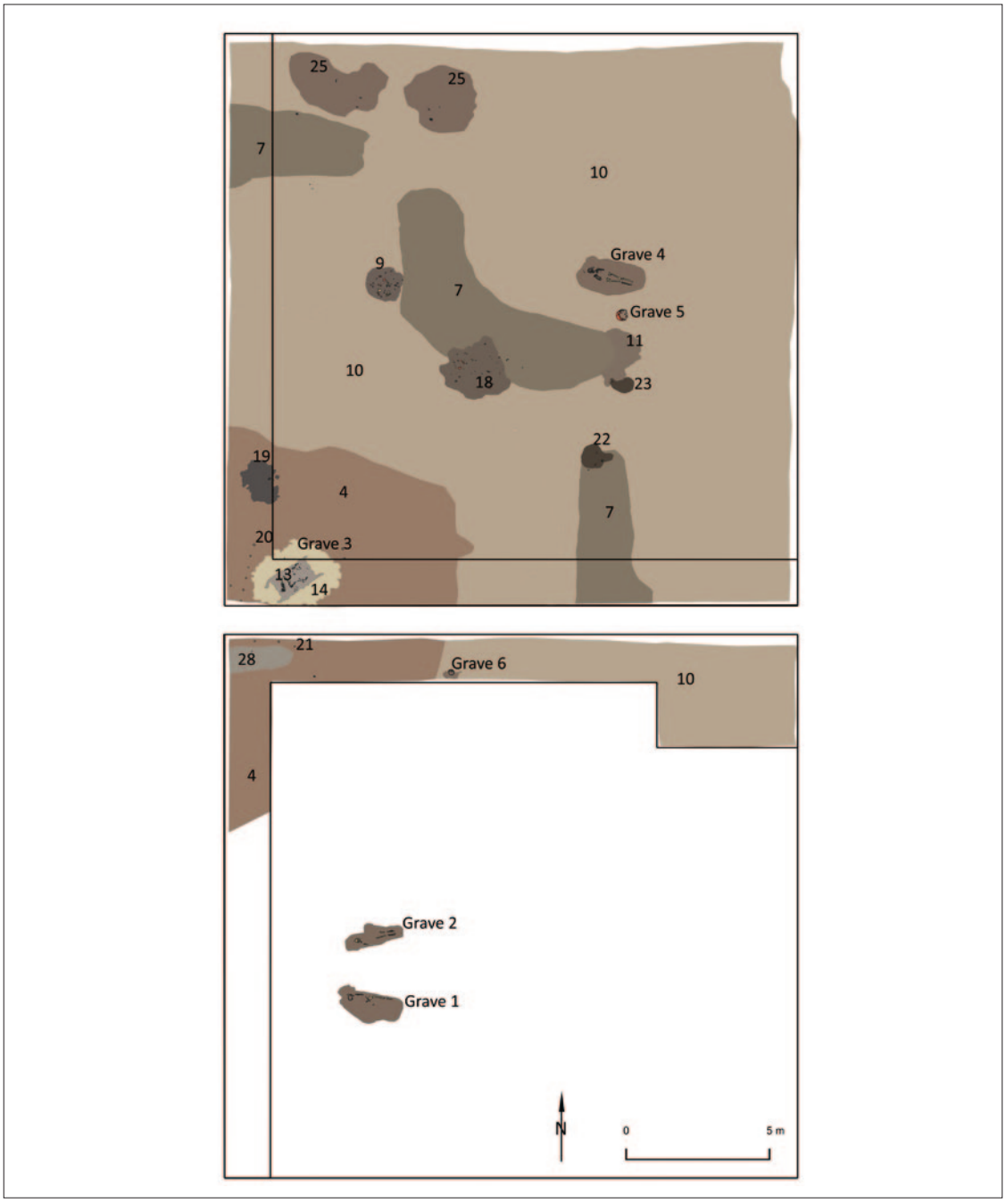

Fig. 14 All features documented during the 2018 excavations at Novo Selo (made by: M. Konrad and I. Petschko)
Sl. 14 Svi objekti dokumentirani u iskopavanjima 2018. u Novom Selu (izradili: M. Konrad i I. Petschko)

The final phases of the excavation were the recovery of the skeleton, the cutting of the stone platform of Grave 3, and the removal of the reddish layer. This step confirmed the existence of further deposits below the reddish layer in the central part of the mound, described as SU 28 (Fig. 14). Between 20 and 30 cm thick, this clayey, light brown cultural layer with finds of pottery and small animal bones was clearly overlaid with the burned red layer (SU 4) and certainly stratigraphically older (Fig. 11). The clayey layer (SU 28) lay just above the gravel virgin soil (SU 10) and therefore represents the remains of the oldest occupation of the naturally elevated spot that later became the burial mound.

THE FINDS: CHRONOLOGY AND FIRST EVALUATION

The chronological assessment of the structures and finds discovered in Novo Selo is based mainly on the stratigraphy and absolute data and to certain extent on the analogies from other sites in the wider region. The chronologically significant finds include diagnostic potsherds from shallow pits (SU 9 and SU 18), with the best parallels found among the material of the late Baden pottery complex. Bronze and iron costume items from inhumation Graves 1 and 2 clearly point to the late Middle Ages, while other burials did not contain chronologically characteristic finds.

Fence/ditch (SU 7)

The two-meter wide, shallow ditch was dug into the natural gravel layer and represents the oldest indication of human activity in the investigated area in Novo Selo. Although only parts of the ditch were recorded in Trench 2, its shape and extent unambiguously correspond to the structure captured by geophysical prospecting (Fig. 4; 14). The relatively high amplitude of the magnetic field indicates a filling of material that differs from its surroundings. However, the excavated parts of the ditch contained no organic material (bones, charcoal) or finds (pottery). The fill consisted of grey, clayey material mixed with gravel stones of the virgin soil (Fig. 12).

The unusual shape of the entire ditch structure in Novo Selo with two arc-shaped edges and the straight part in the east finds no comparison among the sites in the region investigated thus far. Yet, according to the geomagnetic data, there is most probably a ditch of similar shape and orientation in the nearby mound of Muharine, which has not been excavated yet (Fig. 4). Based on stratigraphic observation, the ditch in Novo Selo predates the raising of the mound. As clearly shown by both sections of Trench 2 (Fig. 11), the slightly rising soil layers (SU 6/SU 24) covered the remains of the ditch (SU 7). Hence, the mound was almost certainly non-existent during the time when the ditch/fence was in function. Judging by the current picture, the enclosed area encompassed a natural elevation. The arc-shaped part of the ditch was cut by pit SU 18,

su iskopavanja dosegla dno konstrukcije s vanjske strane, bilo je očito da je kamena platforma podignuta izravno na crvenkastome organskom sloju (SJ 4). Tijekom čišćenja crvenkastoga sloja dokumentirana je izgorjela crna struktura s ugljenom (SJ 19) koja se nalazila sjeverno od groba 3 (sl. 14). Kao i u slučaju SJ 4, i ova struktura sadržavala je ostatke izgorenih biljaka i drveta. Niz malih rupa za stupove na zapadnoj strani groba 3 (SJ 20) bio je prvi pokazatelj kako je oko groba postojala neka lakša nadzemna građevina. Otkrivanje još jednoga niza rupa za stupove iste veličine i na istoj međusobnoj udaljenosti (SJ 21) na jugu, potvrdilo je pretpostavku kako se grob 3 najvjerojatnije nalazio unutar nekoga nadzemnog objekta (sl. 14; 22).

Vađenje kostura, presijecanje kamene platforme groba 3 i uklanjanje crvenkastoga sloja bile su posljednje radnje terenskoga istraživanja. Ovaj je korak potvrdio postojanje daljnjih naslaga ispod crvenkastoga sloja u središnjem dijelu tumula, opisanih kao SJ 28 (sl. 14). Ovaj glinoviti, svijetlosmeđi kulturni sloj debljine između 20 i 30 cm, s nalazima keramike i manjim životinjskim kostima, bio je očito prekriven izgorenim crvenim slojem (SJ 4) te prema tome stratigrafski stariji (sl. 11). Glinoviti sloj (SJ 28) ležao je neposredno iznad šljunčane zdravice (SJ 10) te stoga predstavlja tragove prvih aktivnosti na prirodno povišenome mjestu na kojem je kasnije nasut tumul.

NALAZI – KRONOLOGIJA I PRVA EVALUACIJA

Kronološka pozicija otkrivenih struktura i nalaza u Novom Selu temelji se uglavnom na stratigrafiji i apsolutnim datumima, a donekle i na analogijama s drugih nalazišta u široj regiji. Među kronološki značajnim nalazima mogu se naglasiti dijagnostički ulomci keramike iz plitkih jama (SJ 9 i SJ 18) s najboljim paralelama među materijalom kasnoga badenskog kompleksa. Brončani i željezni predmeti iz kosturnih grobova 1 i 2 ukazuju na kasni srednji vijek, dok ostali ukopi nisu sadržavali kronološki karakteristične nalaze.

Ograda/jarak (SJ 7)

Plitki jarak širine dva metra ukopan je u sloj prirodnoga šljunka i predstavlja najstariji pokazatelj ljudske aktivnosti na istraženome području u Novom Selu. Iako su se u sondi 2 mogli dokumentirati samo dijelovi ograde, odnosno jarka, njegov oblik i produžetak nedvosmisleno odgovaraju strukturi vidljivoj na geomagnetskim snimcima (sl. 4; 14). Relativno velika amplituda magnetskoga polja ukazuje na punjenje s materijalom koji se razlikuje od okoline. Međutim, u iskopanim dijelovima nedostajalo je organskoga materijala (kosti, ugljen) ili nalaza (keramika). Zapuna se sastojala od sivoga, glinovitog materijala pomiješanoga sa šljunčanim kamenjem zdravice (sl. 12).

Neobičan oblik cjelokupne konstrukcije jarka u Novom Selu s dva ruba u obliku luka i ravnim dijelom na istoku nema odgovarajuću usporedbu među do sada istraženim nalazištima u bližoj i široj okolici. Ipak, prema geomagnet-

with finds and absolute dates confirming Copper Age activity (3100–2900 BC), which provides a *terminus ante quem* (Fig. 14). However, the fact that no finds or organic material have been found in the excavated area makes it difficult to estimate the exact dating of the ditch.

Find concentrations (SU 9/SU 18)

Features SU 9 and SU 18 were uncovered on the inside of the arc-shaped ditch section. Both structures were characterized by a dark grey, clayey soil and by a significant concentration of potsherds and animal bones (Fig. 14). Feature SU 9, with a depth of 15 cm, lay directly on the natural gravel layer without any intersection with the fence (SU 7). SU 18, with a similar depth (15–20 cm), was also dug into the gravel layer; however, the northeastern part of the structure also cut the ditch. Since both the ditch (SU 7) and SU 18 were very similar in terms of consistency and soil structure (clay), the only notable difference was the slightly darker colour of SU 18. The modest spectrum of diagnostic potsherds from SU 9 and SU 18 includes S-profiled bowls with stitched, oval-shaped ornaments on the belly of the vessel (Fig. 15: 1; 16: 1–2), pots with everted neck and stamped decoration on the inside rim (Fig. 16: 3–5), conical lids with relief ribbons with additional incisions or stitches (Fig. 16: 5–6), and wall fragments with incised fishbone ornaments (Fig. 15: 2; 16: 7), rows of oval stitches (Fig. 15: 3; 16: 8), horizontal and vertical rows of round stitches (Fig.15: 4), and fluting (Fig. 16: 9–10).

skim podacima, ograđivanje sličnoga oblika i orijentacije vjerojatno se nalazi u obližnjem i još uvijek neotkopanom humku Muharine (sl. 4). Na osnovi stratigrafskih odnosa, jarak u Novom Selu datira svakako prije podizanja humke. Kao što je jasno vidljivo u profilima sonde 2 (sl. 11), blago rastući nasuti zemljani slojevi (SJ 6/SJ 24) prekrivali su ostatke jarka (SJ 7). Stoga humka gotovo sigurno nije postojala u vrijeme kada su jarak, odnosno ograda bili u funkciji. Sudeći prema trenutnoj slici, ograđeni prostor obuhvaćao je prirodno uzvišenje. Dio jarka u obliku luka presječen je jamom SJ 18 s nalazima i apsolutnim datumima koji ukazuju na aktivnost tijekom bakrenoga doba (3100.–2900. g. pr. Kr.), što je ujedno i *terminus ante quem* (sl. 14). Činjenica da na otkrivenome području jarka nisu pronađeni nikakvi nalazi niti organski materijal otežava, međutim, točniju procjenu datuma izgradnje jarka.

Koncentracije nalaza (SJ 9/SJ 18)

Strukture SJ 9 i SJ 18 otkrivene su s unutarnje strane lučnoga dijela jarka. Obje je karakterizirala tamnosiva, glinovita ispuna te značajna koncentracija ulomaka keramike i životinjskih kostiju (sl. 14). Struktura SJ 9, s dubinom od 15 cm, ležala je izravno na sloju prirodnoga šljunka bez ikakvoga presijecanja s ogradom (SJ 7). SJ 18, sa sličnom dubinom (15–20 cm), također je ukopana u sloj šljunka. Međutim, sjeveroistočni dio ove plitke jame presjekao je jarak. Budući da su jarak (SJ 7) i SJ 18 bili vrlo slični u pogledu konzistencije i strukture (glinoviti sloj), jedina značajna ra-

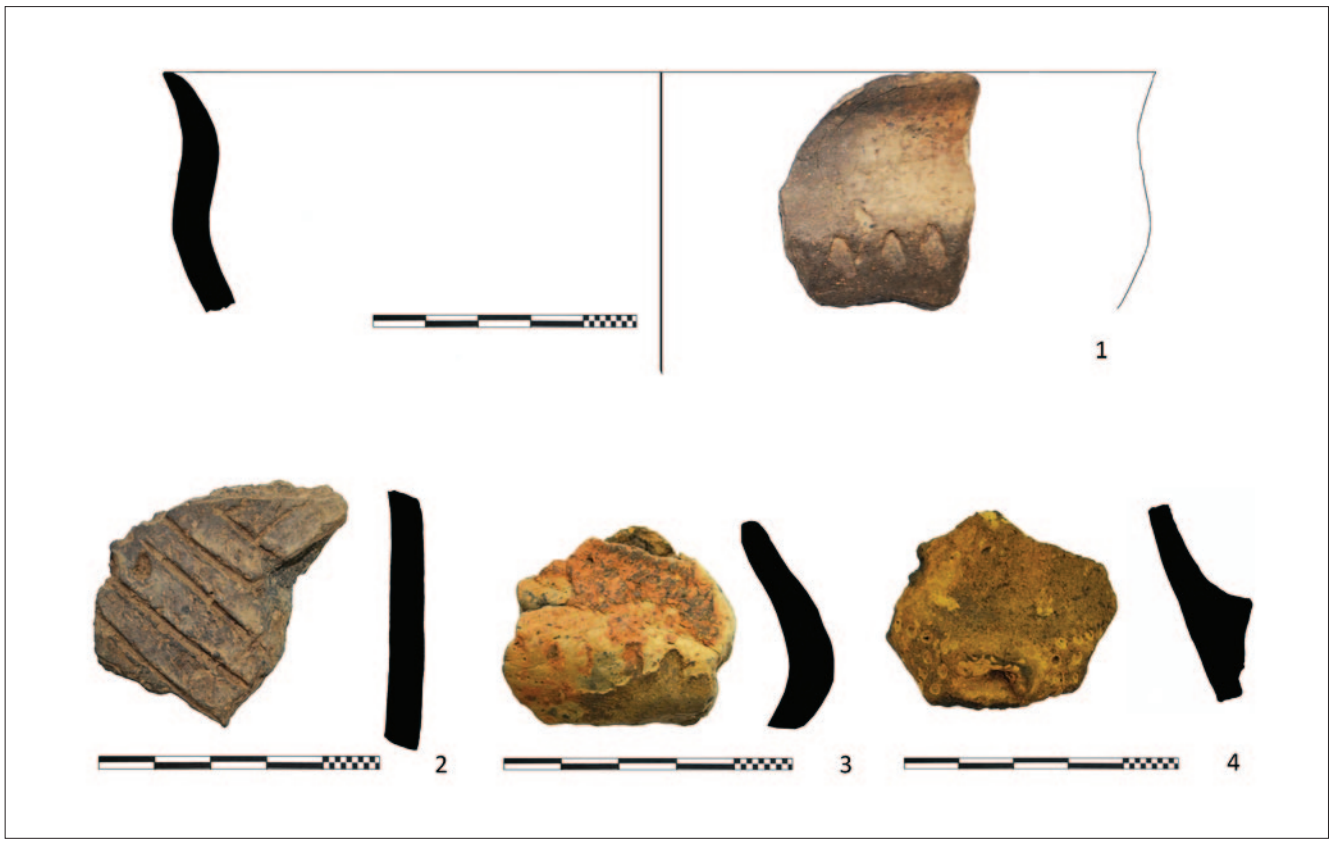

Fig. 15 Pottery from SU 9 (photo by: M. Gavranović; drawings: S. Antić)
Sl. 15 Keramika iz SJ 9 (snimio: M. Gavranović; nacrtala: S. Antić)

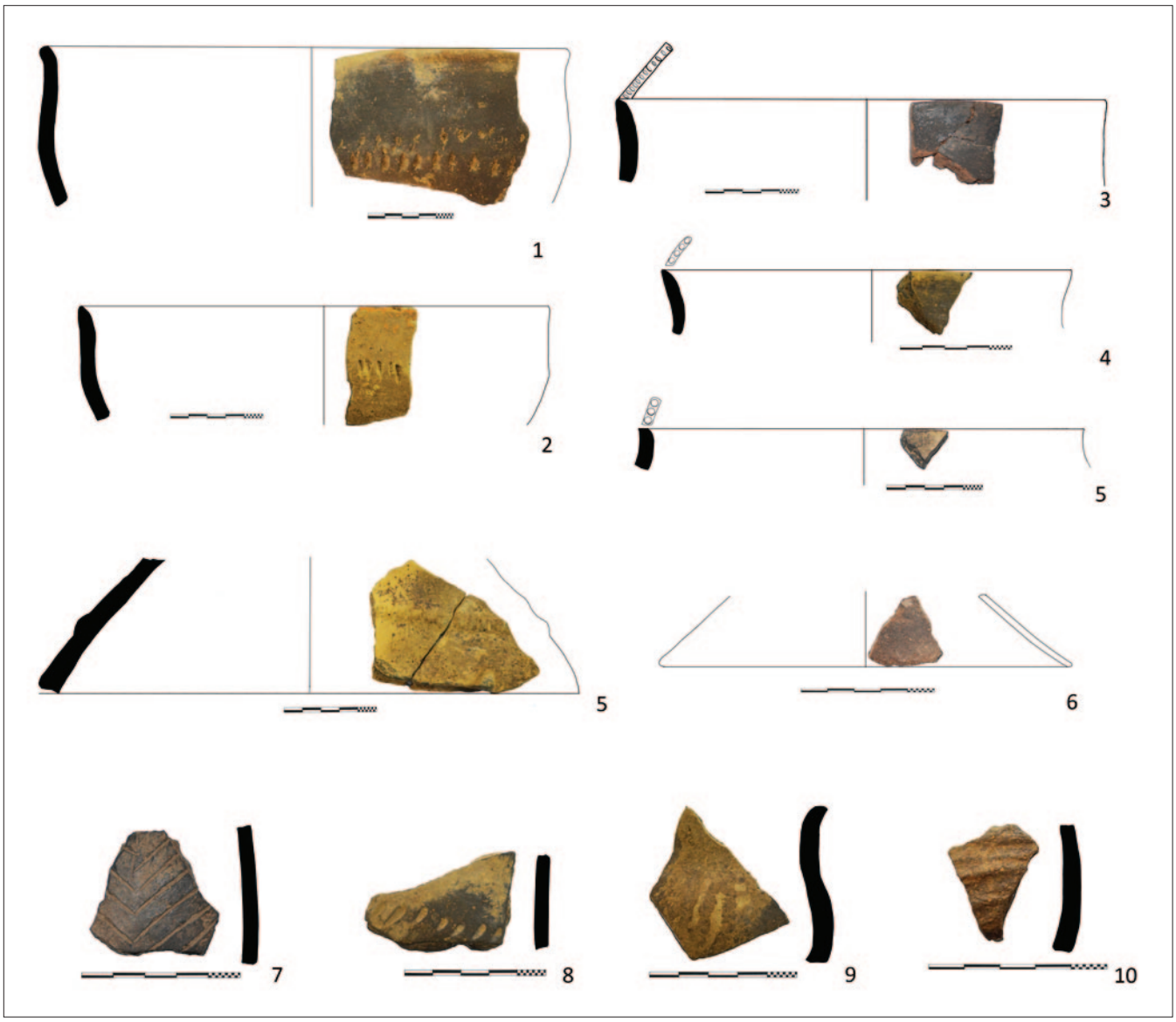

Fig. 16 Pottery from SU 18 (photo by: M. Gavranović; drawings: S. Antić)
Sl. 16 Keramika iz SJ 18 (snimio: M. Gavranović; nacrtala: S. Antić)

The best analogies are the finds from the neighbouring areas of Croatia and Serbia north of the River Sava, mostly associated with the advanced stages of the Baden pottery complex.[2] Notable sites are Josipovac Punitovački (Čataj 2009: Pl. 3: 3; 4: 4; 9: 2), Sarvaš (Balen 2006: Pl. 5: 18; Rajković, Balen 2016: Pl. 9: 55; 10: 58–59: 6), Beli Manastir (Dimitrijević 1979: Pl. 24: 4), and Lice – Erdevik (Tasić 1995: Fig. 26). Pottery indicative of the Baden complex was also discovered at several sites in the surroundings of Novo Selo. Comparable in terms of decoration with stamped and incised motifs, as well as fishbone ornaments, the finds from the sites of Brdo in Dvorovi (Marić 1960; Kosorić 1965: Pl. 2), Rapanovića Polje near Triješnica (Kosorić 1982: 123), and Veliki Gradac near Ostojićevo (Kosorić 1982: Pl. 5), are

2 The term »Baden pottery complex« is used here in the sense of the studies of M. Furholt (2006; 2008; 2009), who provided a sufficient amount of valid arguments for such a description.

zlika bila je nešto tamnija boja SJ 18. Skromni spektar dijagnostičkih keramičkih nalaza iz SJ 9 i SJ 18 uključuje zdjele sa S-profiliranim i ovalnim ubodima na trbuhu posude (sl. 15: 1; 16: 1–2), lonce s izvijenim vratom i utisnutim ukrasima na unutarnjem obodu (sl. 16: 3–5), stožaste poklopce s plastičnim vrpcama s dodatnim urezima ili ubodima (sl. 16: 5–6) te ulomke stijenki posuda s urezanim ukrasima u obliku riblje kosti (sl. 15: 2; 16: 7), zatim redom ovalnih uboda (sl. 15: 3; 16: 8), vodoravnim i okomitim redovima okruglih uboda (sl. 15: 4) te kanelura (sl. 16: 9–10).

Odgovarajuće analogije mogu se, prije svega, pronaći među nalazima sa susjednoga područja Hrvatske i Srbije sjeverno od rijeke Save koji se uglavnom pripisuju razvijenim fazama badenskoga kompleksa.[2] Od nalazišta mogu se istaknuti Josipovac Punitovački (Čataj 2009: T. 3: 3; 4: 4;

2 Pojam badenski keramički kompleks ovdje je korišten prema studijama M. Furholta (2006; 2008; 2009) koje pružaju dovoljno potkrepljujućih argumenata za ovakav opis.

all located a few kilometres to the north. Remains of a settlement from the same period were identified at the site of Njiva in Golo Brdo near Patkovača, about 3 km southeast of Novo Selo (Kosorić 1978: 17). Also, Baden complex pottery appears at several sites in northern and central Bosnia (Benac 1980; Marijanović 2003; Periša 2006), such as Vinogradine in Šavarlije near Doboj (Benac 1964), Gradina in Alihodže (Benac 1950), and Kastel in Banja Luka (Žeravica 1983); a few single decorative elements from Novo Selo, such as incised fishbone ornaments (Fig. 15: 2; 16: 7), have analogies among the material from the hilltop sites of Biograd near Prusac (Marijanović 2001: Pl. 15: 6) and Varvara (Čović 1978: 44).

As confirmed by a number of radiocarbon dates, the later stage of the Baden pottery complex in the territories of the southern Carpathian Basin corresponds with the period between 3100 and 2800 BC (Bankohoff, Winter 1990: 188; Forenbaher 1993: 246; Balen 2008: 25; Horváth et al. 2008: 451; Rajković, Balen 2016: 61). The two absolute dates of the samples from SU 9 and SU 18 in Novo Selo, taken from animal bones, also fall in this range. They both (MAMS 39761 for SU 18 and MAMS 39763 for SU 9) point to the time between 3100 and 2900 BC, with the period between 3050 and 2950 BC as the statistically most probable age (Fig. 18). In consequence, it can be deduced that both structures originate from approximately the same period. Regarding the region of Semberija, it is important to underline the existence of more or less contemporary sites in the immediate surroundings, suggesting the occupation of this area in the period of the late 4th and early 3rd millennium BC. The finds from Novo Selo complement this local cultural background in the Late Copper Age and offer, for the first time, the possibility of chronological anchoring in absolute terms.

The analysis of highly fragmented animal remains from SU 9 and SU 18 showed that not even a single skeletal element in the faunal assemblage was found complete. The majority of the assemblage is comprised of animal fragments, with lengths varying between 1 and 5 cm (93%), while the rest had a maximum length between 5 and 10 cm. The surface of all specimens was slightly to moderately weathered, while one specimen from SU18 had gnawing marks. Two specimens (a medium mammal skull fragment from SU 9 and a long bone fragment from SU 18) were burnt – carbonized and calcined. There were no specimens with butchery marks or pathological changes. Out of the total number of fragments (TNF = 84) only nine specimens (10.7%) were identified down to the species level. This low percentage of specimens identified down to the species (or genus) level is the consequence of their fragmentation and bad preservation. Except for one specimen (metatarsal bone) of red deer (*Cervus elaphus*), all the other identified specimens belonged to major domesticates – cattle (*Bos taurus*), pigs (*Sus domesticus*), and caprines (sheep or goat, *Ovis/Capra*).

9: 2), Sarvaš (Balen 2006: T. 5: 18; Rajković, Balen 2016: T. 9: 55; 10: 58–59), Beli Manastir (Dimitrijević 1979: T. 24: 4) i Lice – Erdevik (Tasić 1995: sl. 26). Keramika badenskoga kompleksa otkrivena je i na nekoliko lokaliteta u okolici Novog Sela. U pogledu ukrašavanja utisnutim i ureznim motivima kao i ukrasima u obliku riblje kosti, slična keramika pronađena je na lokalitetima Brdo u Dvorovima (Marić 1960; Kosorić 1965: T. 2), Rapanovića polju kod Triješnice (Kosorić 1982: 123) i Velikom Gradcu kod Ostojićeva (Kosorić 1982: T. 5) koji se svi nalaze nekoliko kilometara sjevernije. Ostaci naselja iz istoga razdoblja identificirani su i na lokalitetu Njiva na Golom Brdu kod Patkovače, oko 3 km jugoistočno od Novog Sela (Kosorić 1978: 17). Keramika badenskoga kompleksa pojavljuje se i na nekoliko lokaliteta u sjevernoj i srednjoj Bosni (Benac 1980; Marjanović 2003; Periša 2006), kao što su Vinogradine u Šavarlijama kraj Doboja (Benac 1964), Gradina u Alihodžama (Benac 1950) i Kastel u Banjoj Luci (Žeravica 1983), dok je nekoliko specifičnih ukrasnih elemenata iz Novog Sela, poput urezanih ukrasa u obliku riblje kosti (sl. 15: 2; 16: 7), prisutno i među materijalom s visinskih nalazišta Biograd kod Prusca (Marjanović 2001: T. 15: 6) i Varvara (Čović 1978: 44).

Kao što je potvrđeno nizom radiokarbonskih datuma, kasniji stupanj badenskoga keramičkog kompleksa na prostoru južne Karpatske kotline odgovara razdoblju između 3100. i 2800. g. pr. Kr. (Bankohoff, Winter 1990: 188; Forenbacher 1993: 246; Balen 2008: 25; Horváth et al. 2008: 451; Rajković, Balen 2016: 61). Dva apsolutna datuma iz SJ 9 i SJ 18 u Novom Selu, dobivena iz uzoraka životinjskih kostiju, također odgovaraju ovome vremenskom rasponu. Oba mjerenja (MAMS 39761 za SJ 18 i MAMS 39763 za SJ 9) ukazuju na vrijeme između 3100. i 2900. g. pr. Kr., a razdoblje između 3050. i 2950. g. pr. Kr. statistički je najvjerojatnija dob (sl. 18). Posljedično, može se zaključiti kako obje strukture potječu iz približno istoga razdoblja. Što se tiče Semberije, važno je naglasiti vjerojatno postojanje istodobnih lokaliteta u neposrednoj okolici koji dokazuju naseljavanje u vrijeme kasnoga 4. i ranoga 3. tis. pr. Kr. Nalazi iz Novog Sela nadopunjuju, dakle, lokalnu kulturnu sliku u kasnome bakrenom dobu i po prvi puta nude mogućnost točnijega kronološkog određivanja u apsolutnome smislu.

Analiza dosta fragmentiranih životinjskih ostataka iz SJ 9 i SJ 18 pokazala je da niti jedan dio kostura nije pronađen u cjelovitom faunističkom sklopu. Većinu nalaza čine fragmentirane životinjske kosti čija je duljina varirala između 1 i 5 cm (93%), dok su ostali imali maksimalnu duljinu između 5 i 10 cm. Površina svih primjeraka bila je blago do umjereno oštećena djelovanjem vanjskih faktora, dok je jedan primjerak iz SJ 18 imao tragove griženja. Dva su uzorka (ulomak lubanje sisavca srednje veličine iz SJ 9 i ulomak duge kosti iz SJ 18) izgorjela, odnosno bila su karbonizirana i kalcificirana. Nije bilo primjeraka s tragovima rezanja ili patološkim promjenama. Od ukupnoga broja (TNF = 84), samo je devet primjeraka (10,7%) identificirano na razini vrste. Ovaj nizak postotak identificiranih primjeraka na razini vrste (ili roda) posljedica je njihove usitnjenosti i loše sačuvanosti. Osim jednoga primjerka (metatarzalne

Grave 5/SU 12

Grave 5 is a cremation burial found just outside the ditch on the eastern edge of the arc-shaped part (Fig. 14). Since the central part of the large lid with two short handles was heavily fragmented, the cremated remains were already partly visible on the site (Fig. 13). The later cleaning of the excavated block revealed that the lid covered a large conical bowl that served as the primary container/urn for the cremated remains (Fig. 17). The bowl was laid into the natural gravel layer and covered with the lid, without any visible traces of a pit or any other structure. Both vessels were of different fabrics. The lid with two handles had a smooth surface and was well burned with sand tempering, while the bowl had a coarse structure with visible remains of organic temper.

Human remains

Grave 5 contained a total weight of 869 g of cremated remains of one individual. Artefacts or pyre residuals were not recovered. The analysis of human remains was performed following the guidelines of the British Association for Biological Anthropology and Osteoarchaeology (Brickley, McKinley 2004). Grave 5 predominantly featured bone fragments of a mean size between 5 to 10 mm and a maximal size of 40.6 mm. All human bone fragments were separated into the following sieve fractions: larger than 10 mm, 5 to 10 mm, 2 to 5 mm, and smaller than 2 mm. All the fragments from the different sieve fractions were individually separated into the following anatomical areas: cranium, axial skeleton (containing the spine, thorax, and pelvis), upper limbs (including the shoulder girdle), lower limbs, diaphyses and metaphyses of long bones, and autopodia, which could not be classified to a certain anatomical area. All the fragments of all anatomical regions had a white colour. Only the tooth roots had a blue-grey colour. This suggests a complete calcination of all skeletal remains. According to Holden et al. (1995), the coloration was consistent with cremation temperatures higher than 800°C. In all anatomical regions, fragments could be identified that showed heat-induced fragmentation after the categories of Stewart (1979) and Herrmann and Bennett (1999). In the cranial area there were longitudinal fractures, transverse curved fractures, delamination, and warping. Postcranially, there were warping, delamination, longitudinal and transverse fractures.

The vessel contained bone fragments of all body areas. For the cranium, there were temporal bone (both sides), parietal bone, and sphenoid bone fragments. The human remains also contained some tooth root fragments. It was not possible to allocate them to a specific tooth number. The axial skeletal region contained fragments of ribs, thoracic and lumbar vertebrae, and *os coxa*. The identified bones from the upper limbs were scapula, humerus, and radius; the identified bone from the lower limbs were the femur, *talus* and *calcaneus*. The only recovered element of diagnostic relevance was the petrous bone. There were no diagnostic features for sex determination. All the elekosti) jelena (*Cervus elaphus*), svi ostali pripadali su domaćim životinjama – govedu (*Bos taurus*), svinji (*Sus domesticus*) i kozama (ovce ili koze, *Ovis/Capra*).

Grob 5/SJ 12

Grob 5 je paljevinski grob u urni pronađen neposredno izvan jarka na njegovome istočnom rubu u obliku luka (sl. 14). Budući da je središnji dio velikoga poklopca s dvije kratke ručke bio fragmentiran, spaljeni ostaci djelomično su bili vidljivi već pri otkriću (sl. 13). Kasnije čišćenje iskopanoga bloka pokazalo je da je poklopac zapravo prekrivao veliku koničnu zdjelu koja je služila kao primarni spremnik, odnosno urna za spaljene ostatke (sl. 17). Zdjela je ukopana u prirodni sloj šljunka i prekrivena je poklopcem, bez vidljivih tragova jame ili neke druge strukture. Posude su imale različitu strukturu i kakvoću. Poklopac s dvije ručke imao je zaglađenu površinu, bio je dobro pečen s primjesama sitnoga pijeska, dok je zdjela grublje izrade s vidljivim ostacima organskih primjesa.

Ljudski ostaci

Grob 5 sadržavao je 869 g spaljenih ostataka jedne individue. Artefakti ili ostaci lomače nisu pronađeni. Analiza ljudskih ostataka izvedena je prema smjernicama Britanskoga udruženja za biološku antropologiju i osteoarheologiju (Brickley, McKinley 2004). U grobu 5 uglavnom su se nalazili fragmenti kostiju srednje veličine između 5 i 10 mm i maksimalne veličine 40,6 mm. Svi fragmenti ljudskih kostiju razdvojeni su prema sljedećim frakcijama sita: veće od 10 mm, 5 do 10 mm, 2 do 5 mm i manje od 2 mm. Svi fragmenti iz različitih frakcija pojedinačno su odvojeni u sljedeća anatomska područja: lubanja, aksijalni kostur (koji sadrži kralježnicu, prsni koš i zdjelicu), gornji udovi (uključujući rameni pojas), donji udovi, dijafize i metafize dugih kostiju te autopodije koje se ne mogu anatomski svrstati. Svi ulomci svih anatomskih dijelova imali su bijelu boju. Samo su korijeni zuba imali plavo-sivu boju. To ukazuje na potpunu kalcifikaciju svih koštanih ostataka. Prema Holdenu et al. (1995), ova boja karakteritična je za spaljivanje s temperaturama višim od 800°C. U svim anatomskim regijama mogle su se identificirati spaljene kosti koje su pokazale fragmentaciju induciranu toplinom slijedeći kategorije Stewarta (1979) i Herrmanna i Bennetta (1999). Na kostima lubanje uočeni su uzdužni prijelomi, poprečno zakrivljeni prijelomi, delaminacija i iskrivljenje. Prisutni su i postkranijalni, deformirani, uzdužni i poprečni prijelomi.

U posudi su se nalazili fragmenti kostiju svih dijelova tijela. Od kostiju lubanje pronađeni su fragmenti sljepoočne kosti (obje strane), tjemene kosti i sfenoidne kosti. Među ostacima nalazili su se i fragmenti korijena zuba koje nije bilo moguće dodijeliti određenim zubima. Aksijalni dio kostura sadržavao je ulomke rebara, prsnoga i lumbalnoga kralješka i *os coxa*. Od gornjih udova mogli su se prepoznati lopatica, humerus i radijus, a od donjih udova bedrena kost (*talus* i *calcaneus*). Jedini dijagnostički element bila je petrozna kost. Dijagnostičke značajke za određivanje spola nisu pronađene. Svi su elementi bili vrlo fragmenti-

Fig. 17 Urn and plan of Grave 5 with lid (photo by: M. Gavranović; drawing: S. Antić; plan: M. Konrad and I. Petschko)
Sl. 17 Urna i plan groba 5 s poklopcem (snimio: M. Gavranović; nacrtala: S. Antić; plan: M. Konrad i I. Petschko)

ments were highly fragmented. Metric sex estimation was also not possible. The age estimation was based on the ossification on the epiphyses (Schaefer et al. 2009) and the transition analysis (Boldsen et al. 2002). Only the fusion of vertebral rings to the body could be evaluated (older than 18 years). The coronal and sagittal sutures were completely

rani, a metrička procjena spola također nije bila moguća. Procjena dobi provedena je na osnovi okoštavanja epifiza (Schaefer et al. 2009) i tranzicijske analize (Boldsen et al. 2002). Fuzija kralježničkih prstenova s tijelom upućivala je dob stariju od 18 godina. Koronalni i sagitalni šavovi bili su ektokranijalno potpuno spojeni. Endokranijski je bila vid-

fused ectocranially. Endocranially, only a thin line was visible. Age at death was estimated at 23 years to 92 years with a mean age of 58 years and a maximum likelihood of 76 years. It was consistent with this estimation to assume that the individual was likely to be more than 40 years old. There was no visible osteophyte formation. There were no visible pathologies, traumata, occupational stress markers, or epigenetic traits.

Dating and cultural context

The inverted position of the vessel and its basic shape with two short handles initially led to the assumption that Grave 5 might be associated with the Late Bronze Age Barice–Gređani group (Minichreiter 1984; Čović 1988; Marijan 2010). The cemeteries with the characteristic burial practice of inverted urn vessels appear in northern Bosnia and in Slavonia during the early Urnfield period (Br D – Ha A1) and are often located on slightly elevated terrain (Minichreiter 1984; Čović 1988), which seems to match the situation in Novo Selo. In addition, two urn cemeteries in the nearby sites of Batković and Dvorovi show that the territory of the Barice–Gređani group included the region of Semberija as well (Kosorić 1965; 1967; Gavranović 2013: 146).

Only in the post-excavation process did it become clear that the vessel with two handles covered a conical bowl with cremated human remains (Fig. 17). The absence of such a composition (a bowl as an urn and a lid on the top) on the sites of the Barice–Gređani group discarded the possibility of a connection between Grave 5 and the early Urnfield period. The radiocarbon date obtained from the sample of human bone (MAMS 42087) provided the evidence that Grave 5 is significantly older, with an absolute age of 4107±42 BP and a calibrated date suggesting the span 2851–2581 BC as the most probable age (Fig. 18). In relation to the ditch (SU 7) and find concentrations (SU 9/SU 18), Grave 5 appears to be somewhat younger. Evidently, the zone of activities during the Copper Age was not limited to the enclosed space, but also included the area bordering the elevation.

In a wider regional and chronological frame, Grave 5 from Novo Selo seems to correspond with the later stage of the Baden complex (Forenbaher 1993; Stadler et al. 2001; Sachsse 2010: 38; Horváth, Balen 2012) and with the Kostolac culture as the most characteristic cultural phenomena of this period in the southern Carpathian Basin (Tasić 1995: 59; Nikolić 2000; Balen 2002; Horváth 2012). Earlier studies often claimed that the Baden culture preceded the Kostolac culture, yet the new investigations – and particularly a number of radiocarbon dates – have clearly demonstrated that typical Kostolac pottery appears during the time of the classical and late Baden complex, indicating that there is no clear chronological distinction between the Kostolac and Baden styles (Horváth, Balen 2012: 19). Furthermore, southern Hungarian pottery indicative of the Kostolac culture is frequently found in sites assigned to the Baden complex and mixed with Baden pottery, which underlines not only chronological matching but also cultural interljiva samo tanka crta. Starost prilikom smrti je procijenjena na 23 do 92 godine, s prosječnom dobi od 58 i najvećom vjerojatnošću od 76 godina. Vodeći se ovom procjenom, može se pretpostaviti kako je individua vjerojatno starija od 40 godina. Osteofit nisu opaženi, a nisu bile vidljive niti patologije, traume, markeri ili epigenetske osobine.

Datacija i kulturni kontekst

Položaj posude s rubom prema dolje kao i njezin oblik s dvije kratke ručke doveli su do početne pretpostavke kako bi se moglo raditi o žarnome ukopu kasnobrončane grupe Barice–Gređani (Minichreiter 1984; Čović 1988; Marijan 2010). Nekropole s karakterističnim grobnim ritualom s obrnuto položenim urnama pojavljuju se u sjevernoj Bosni i Slavoniji tijekom ranoga razdoblja kulture polja sa žarama (Br D – Ha A1), a često su smještene na blago povišenome terenu (Minichreiter 1984; Čović 1988), što bi odgovaralo situaciji u Novom Selu. Uz to, dva groblja s urnama na obližnjim nalazištima Batković i Dvorovi potvrdila su kako je prostor rasprostiranja grupe Barice–Gređani obuhvaćao i Semberiju (Kosorić 1965; 1967; Gavranović 2013: 146).

Tek u procesu nakon iskopavanja postalo je jasno da posuda s dvije ručke pokriva koničnu zdjelu sa spaljenim ljudskim ostacima (sl. 17). Kako na grobljima grupe Barice–Gređani takvi ukopi sa zdjelom kao urnom i poklopcem nisu zabilježeni, moguća datacija groba 5 u rano razdoblje kulture polja sa žarama činila se malo vjerojatnom. Radiokarbonski datum dobiven iz uzorka ljudske kosti (MAMS 42087) pružio je dokaz da je grob 5 znatno stariji, s apsolutim datumom 4107±42 BP i kalibriranim datumom koji pokazuje raspon između 2851. i 2581. g. pr. Kr. kao najvjerojatniju dob (sl. 18). U odnosu na jarak (SJ 7) i koncentracije nalaza (SJ 9/SJ 18), grob 5 trebao bi biti nešto mlađi. Očito je dakle da zona aktivnosti na lokalitetu tijekom bakrenoga doba nije bila ograničena samo na unutarnji dio ograđenoga prostora, već je obuhvaćala i granično područje povišenoga terena.

U širem regionalnom i kronološkom okviru, grob 5 iz Novog Sela bi odgovarao kasnijoj fazi badenskoga kompleksa (Forenbaher 1993; Stadler et al. 2001; Sachsse 2010: 38; Horváth, Balen 2012) te kostolačkoj kulturi kao najkarakterističnijim fenomenima ovoga razdoblja u južnome dijelu Karpatske kotline (Tasić 1995: 59; Nikolić 2000; Balen 2002; Horváth 2012). U ranijim studijama često se isticalo kako badenska kultura prethodi kostolačkoj, no novija istraživanja, a posebno zavidan broj radiokarbonskih datuma jasno su pokazali kako se tipična kostolačka keramika pojavljuje u doba klasičnoga i kasnoga badenskog kompleksa, što ukazuje da ne postoji jasna kronološka razlika između ova dva stila (Horváth, Balen 2012: 19). Nadalje, u južnoj Mađarskoj keramika indikativna za kostolačku kulturu često je pronađena na mjestima koja su pripisana badenskome kompleksu te je pomiješana s badenskom keramikom, što naglašava ne samo kronološku podudarnost, već i kulturno isprepletanje (Horváth, Balen 2012: 15).

Na području Semberije na lokalitetu Dvorovi pronađen je jedan paljevinski grob kostolačke kulture, no za razliku

weaving (Horváth, Balen 2012: 15).

In the region of Semberija, one cremation grave assigned to the Kostolac culture has been documented in Dvorovi; unlike Novo Selo, however, its cremation remains were placed on the ground and covered with a decorated bowl (Kosorić 1965: 90). Based on the bowl decoration, the cremation grave from Dvorovi falls into the later stage of the Kostolac culture (Tasić 2001: 416). Other cremation graves with an urn and a bowl-lid decorated with typical Kostolac ornaments are known from Ilok in eastern Croatia (Tomičić et al 2008: Fig. 10) and from the site of Padina, located on the Danube bank in the Iron Gates in Serbia (Jovanović 1976: 134).

Better analogies for Grave 5 come from the cemetery of Balatonboglár – Berekre-dűlő in southwestern Hungary, which is also described as a site of the Kostolac culture (Bondár 1996; 2001; Siklósi 2004; Sachsse 2010). Notably, there is a lid of similar shape with two handles from grave 245 as well as several urn graves with a lid (Sachsse 2010: Pl. 21: B3; 22). Urn graves with inverted bowls serving as a lid are also documented in other contemporary sites in Hungary, such as Keszthely – Fenékpuszta II (Siklósi 2004: 144; Sachsse 2010: Pl. 83B) and Center (Sachsee 2010: Pl. 53C), and are considered as one of the characteristic burial practices of the late Baden complex and the Kostolac culture in this area (Jovanović 1976; Sachssee 2010: 286). We should also mention a few distinctly older cremation burials with an urn and a lid from the territory of Moravia in the mound necropolises of Náměšt na Hane – Dlouhá Nivá and Ludéřov (Šmíd 2004), both dating from the middle of the 4th millennium BC.

In sum, both the radiocarbon date (2851–2581 BC) and the analogies from Hungary, especially from the Balatonboglár – Berekre-dűlő site, support the dating of Grave 5 from Novo Selo to the Late Copper Age; in the area of the southern Carpathian Basin, this corresponds with the late stage of the Baden complex and the Kostolac culture (Tasić 1979; 1984; Horváth, Balen 2012; Đukić 2018).

od Novog Sela spaljeni ostaci postavljeni su na tlo i prekriveni ukrašenom zdjelom (Kosorić 1965: 90). Na osnovi ukrasa na posudi, grob iz Dvorova datiran je u kasniji stupanj kostolačke kulture (Tasić 2001: 416). Paljevinski grobovi s urnom i zdjelom kao poklopcem ukrašenom tipičnim kostolačkim motivima poznati su iz Iloka u istočnoj Hrvatskoj (Tomičić et al. 2008: sl. 10) te s lokaliteta Padina smještenoga na obali Dunava u Đerdapskoj klisuri u Srbiji (Jovanović 1976: 134).

Bolje analogije za grob 5 mogu se pronaći na groblju Balatonboglár – Berekre-dűlő na jugozapadu Mađarske, koje je također pripisano kostolačkoj kulturi (Bondár 1996; 2001; Siklósi 2004; Sachsse 2010). Vrijedi istaknuti poklopac sličnoga oblika s dvije ručke iz groba 245, kao i nekoliko grobova s urnom i poklopcem (Sachsse 2010: T. 21: B3; 22). Paljevinski grobovi s obrnuto okrenutim zdjelama u funkciji poklopca dokumentirani su i na drugim istodobnim nalazištima u Mađarskoj, poput Keszthely – Fenékpuszta II (Siklósi 2004: 144; Sachsse 2010: Pl. 83B) i Center (Sachsee 2010: T. 53C) te se smatraju jednom od karakterističnih funeralnih praksi kasnobadenskoga kompleksa i kostolačke kulture na ovome području (Jovanović 1976; Sachssee 2010: 286). Spomenimo i nekoliko starijih žarnih ukopa s poklopcem s teritorija Moravske pronađenih u tumulima u Náměšt na Hane – Dlouhá nivá i Ludéřov (Šmid 2004), oba datirana u sredinu 4. tis. pr. Kr.

Ukratko, i radiokarbonski datum (2851.–2581. g. pr. Kr.) i analogije iz Mađarske, posebno s nalazišta Balatonboglár – Berekre-dűlő, podupiru datiranje groba 5 iz Novog Sela u kasno bakreno doba koje na području južne Karpatske kotline odgovara kasnoj fazi badenskoga kompleksa te kostolačkoj kulturi (Tasić 1979; 1984; Horváth, Balen 2012; Đukić 2018).

Grob 6 / SJ 5

Zdjela zaobljenoga tijela identificirana je kao urna tek u procesu nakon iskopavanja kada se utvrdilo da se u posudi nalaze spaljeni ljudski ostaci (sl. 19). Zdjela je pronađena na

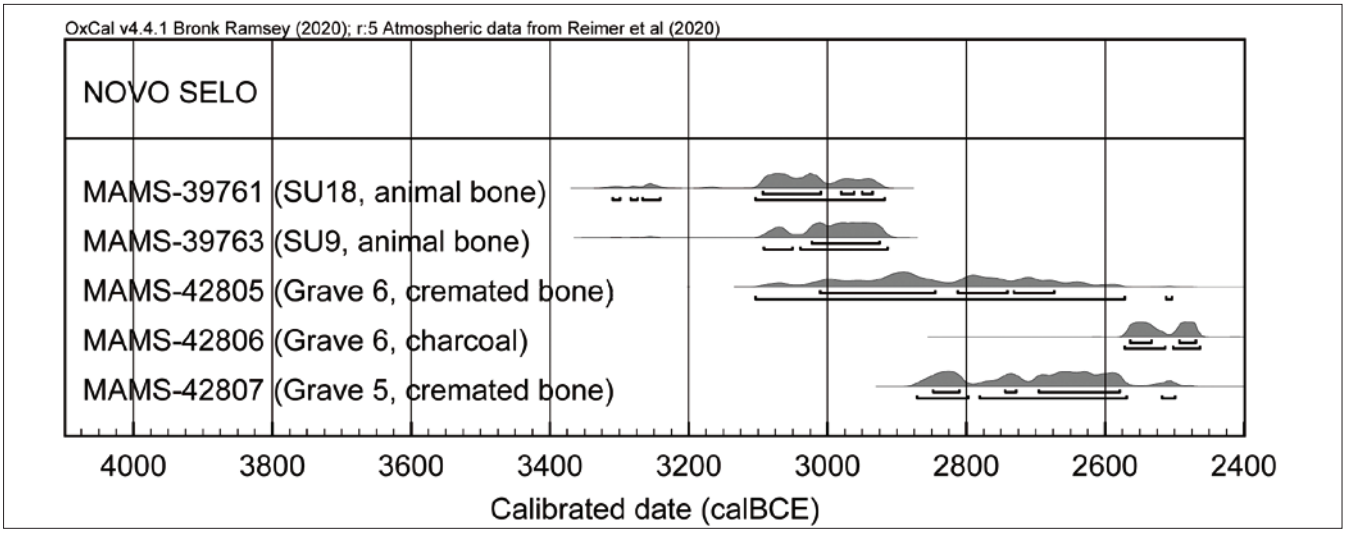

Fig. 18 Calibrated radiocarbon dates of the Copper Age finds from Novo Selo (Graves 5 and 6, SU 19 and SU 8) (OxCal v. 4.4.1 Bronk Ramsey 2020; made by: L. Webster, Austrian Archaeological Institute)

Sl. 18 Kalibrirani radiokarbonski datumi za nalaze iz bakrenoga doba iz Novog Sela (grobovi 5 i 6, SJ 19 i SJ 8) (OxCal v. 4.4.1 Bronk Ramsey 2020; izradila: L. Webster, Austrian Archaeological Institute)

Grave 6/SU 5

The spherical bowl was identified as an urn only in the post-excavation process as it became obvious that the vessel contained cremated human remains (Fig. 19). The bowl was discovered on the eastern fringe of the reddish layer with organic remains (SU 4) that covered the central part of the elevation (Fig. 14). The stratigraphic position of Grave 6 on the upper part of the natural gravel base implies that the deposition took place before the erection of the mound. The urn was of blackish colour on both sides and in cross-section, with smooth surface and no macroscopically observable tempering in well-burnt clay.

Human remains

Grave 6 contained a total weight of 678 g of cremated human remains. Charcoal was also recovered from the urn. The analysis of human remains was performed following the same guidelines as in the case of Grave 5. All the fragments of all anatomical regions had a white colour. Only small areas of the pelvis were blue-grey. This suggests a complete calcination of all skeletal remains. According to Holden et al. (1995), the coloration was consistent with cremation temperatures higher than 800°C.

Bone fragments of all body areas could be recovered. For the cranium, there were frontal bone, parietal bone, occipital bone and petrous bones (left and right side), maxilla, sphenoid, and fragments of the mandibular body and left mandibular ramus. Three left lower teeth were lost *ante mortem* (I1, I2, C). The alveolar sockets were completely closed. Furthermore, the finds included the left lower M3, one lower M1, and one additional root fragment. The lower M1 was worn down to the root. There was a visible occlusion facet. The axial skeletal region contained fragments of ribs, cervical, thoracic and lumbar vertebrae, sacrum, and *os coxa*. The identified bones from the upper limbs were scapula, clavicle, radius, and ulna. Also, a fragment of a lunate and fragments of left and right humerus were identified. The identified bones from the lower limbs were a left patella, femoral, tibial, and fibular fragments. The elements of diagnostic relevance were the supraorbital margin of the frontal bone, the mandibular body including the mental eminence, two lower permanent molars, patella, and distal humerus.

The sex estimation was done based on morphological features of the supraorbital margin, the supraorbital ridge, and mental eminence (Ferembach et al. 1979), and using length measurements of postcranial elements (Cavazzuti et al. 2019). Morphologically, the skeleton was estimated as probably female. Using the diameter of the humerus capitulum ($p = 0.789$) and the maximal thickness of the patella ($p=0.74$), the skeleton was determined as female.

The age estimation was done based on the ossification on epiphyses (Schaefer et al. 2009), the iliac auricular surface (Lovejoy et al. 1985; Osborne et al. 2004; Buckberry, Chamberlain, 2002), tooth abrasion (Miles 1963), and the transition analysis (Boldsen et al. 2002). The minimum age at death was determined as older than 19 years by the

istočnome rubu crvenkastoga sloja s organskim ostacima (SJ 4) koji je prekrivao središnji dio uzvišenja (sl. 14). Stratigrafski položaj groba 6 na gornjem dijelu prirodne šljunkovite podloge implicira da se ukop dogodio prije nasipanja tumula. Urna je crne boje s obje strane i u presjeku, površina je zaglađena i bez makroskopski vidljivih primjesa u dobro pečenoj glini.

Ljudski ostaci

Grob 6 sadržavao je 678 g spaljenih ljudskih ostataka. U urni su pronađeni i pougljenjeni ostaci drveta. Analiza ljudskih ostataka izvedena je slijedeći iste smjernice kao u slučaju groba 5. Svi ulomci svih anatomskih područja imali su bijelu boju. Samo su mala područja karlične kosti bila obojena plavo-sivo. Ovo stanje odgovara potpunoj kalcifikaciji svih koštanih ostataka. Prema Holdenu et al. (1995), boja kostiju je u skladu s temperaturama spaljivanja većim od 800°C.

Pronađeni su ulomci kostiju svih dijelova tijela. Od kostiju lubanje identificirane su frontalna kost, tjemena kost, zatiljna kost i petrozne kosti (lijeva i desna strana), gornja čeljust, klinasta kost te fragmenti mandibule i lijeve sjedne kosti. Tri lijeva donja zuba izgubljena su *ante mortem* (I1, I2, C). Alveolarne duplje bile su potpuno zatvorene. Nadalje, pronađeni su i lijevi donji M3, jedan donji M1 i jedan dodatni ulomak korijena. Donji M1 istrošen je do korijena s vidljivom okluzijom. Aksijalni dio kostura sadržavao je ulomke rebara, vratne, prsne i lumbalne kralješke, križnu kost i *os coxa*. Od gornjih udova mogli su se prepoznati lopatica, ključna kost, radijus i ulna. Pored toga, također su identificirani ulomak lunata i ulomci lijevoga humerusa. Od donjih udova pronađeni su ulomci lijeve patele, bedrene kosti, tibije i fibule. Dijagnostički relevantne elemente činili su supraorbitalni rub frontalne kosti, tijelo donje čeljusti, uključujući vilicu, dva donja trajna kutnjaka, patela i distalna nadlaktična kost.

Procjena spola provedena je na osnovi morfoloških značajki supraorbitalnoga ruba, supraorbitalnoga grebena i donje čeljusti (Ferembach et al. 1979) i korištenjem mjerenja duljine postkranijalnih elemenata (Cavazzuti et al. 2019). Morfološki gledano, kostur je procijenjen kao vjerojatno ženski. Koristeći promjer humerus capitulum ($p = 0,789$) i maksimalnu debljinu patele ($p = 0,74$), kostur je također određen kao ženski.

Procjena starosti provedena je na osnovi okoštavanja epifiza (Schaefer et al. 2009), ušne površine (Lovejoy et al. 1985; Osborne et al. 2004; Buckberry, Chamberlain 2002), abrazije zuba (Miles 1963) i tranzicijske analize (Boldsen et al. 2002). Minimalna dob nakon smrti određena je kao veća od 19 godina jer su epifize bile spojene (nadlaktične kosti, prstenova kralježaka, glava rebara, acetabulum, ishijalna gomolja i tibija). Koronalni i sagitalni šavovi ektokranijalno su potpuno zatvoreni, dok je endokranijalno vidljiva samo tanka crta. Dob nakon smrti procijenjena je između 53 i 92 godine, s prosječnom dobi od 73 godine i najvećom vjerovatnoćom starosti od 78 godina. Osteofitska formacija također je bila vidljiva.

union of epiphyses (humerus, vertebral rings, rib heads, acetabulum, ischial tuberosity, and tibia). The coronal and sagittal sutures were completely fused ectocranially. Endocranially, only a thin line was visible. Age at death was determined as 53 to 92 years with a mean age of 73 years and a maximum likelihood of 78 years. There was visible osteophytic formation.

Na koštanim ostacima primjećeno je nekoliko degenerativnih patologija. Na glavi humerusa i distalnoj bedrenoj kosti opaženi su tragovi artritisa. Na nekoliko torakalnih i lumbalnih kralješaka vidljiva je mikroporoznost, makroporoznost te artritis, što odgovara osteoartritisu kralježnice. Prisutne su bile i entezopatije ligamenta na nekoliko kralješaka (*spiculae*), gomoljaste kosti (sakrotuberozni ligament)

Fig. 19 Urn and plan of Grave 6 (photo by: M. Gavranović; drawing: S. Antić; plan: M. Konrad and I. Petschko)
Sl. 19 Urna i plan groba 6 (snimio: M. Gavranović; nacrtala: S. Antić; plan: M. Konrad i I. Petschko)

Several degenerative pathologies were visible on the skeletal remains. There was slight marginal lipping on the humeral head and distal femur. Microporosity, macroporosity, and marginal lipping developed on several thoracic and lumbar vertebrae. This is consistent with the osteoarthritis of the spine. There were enthesopathies of the nuchal ligament at several vertebrae (*spiculae*), the ischial tuberosity (*sacrotuberous* ligament), and the crest of the greater tubercle of humerus (*pectoralis major*). After the guidelines by Mariotti et al. (2007), these occupational stress markers on the humerus were scored as robusticity level 2 and ossification exostoses level 1. There were no visible traumata or epigenetic traits.

Dating and cultural context

The two radiocarbon dates obtained from a cremated bone (MAMS 42805) and a charcoal piece from the urn (MAMS 42806) set a relatively large time span for Grave 6: between approximately 3000 and 2500 BC (Fig. 18). Moreover, the calibrated dates for the bone (3010–2679 BC) and charcoal (2563–2473 BC) do not overlap, with the charcoal date having a strikingly smaller range (3988±24 BP) than the bone (4258±94 BP). Thus, the two absolute dates just provide a wider chronological frame within the first half of the 3rd millennium BC. Regarding the other finds from Novo Selo, the range of the bone date leaves the possibility that the deposition of Grave 6 falls in the same period as the concentrations of finds along the ditch (SU 9/SU 18). Also, we should not exclude that it is contemporary with Grave 5. On the other hand, the charcoal date signifies that Grave 6 might be somewhat younger than Grave 5.

The spherical bowls with pronounced base occur as urn containers in several Copper Age cemeteries. A vessel of similar shape was discovered in grave 20 of the urn cemetery of Gemer in western Slovakia, dated to the classical and late stage of the Baden complex (Kovács 1987; Sachsse 2010: Pl. 72C). Bowls of this shape are also known from the Middle Copper Age cemetery at the site of Pod Kotom – Jug in eastern Slovenia (Šavel 2007: Pl. 4:3). The urn from Grave 6 in Novo Selo is also comparable to the finds from the inhumation graves of the late Baden complex in the Hungarian sites of Budapest – Fővárosi-tanács-üdülője and Palotabozsok (Sachsse 2010: Pl. 51C; 127: 4). There is also the fact that vessels of spherical shape in the traditional pottery classifications of the Baden pottery in the Carpathian Basin are rather indicative of later stages (Némejcova-Pavúková 1981: Fig. 5H), although they do not have a significant chronological relevance in general (Čataj 2009: 114).

The chronological determination is somewhat vague and spans the period between 3000 and 2500 BC, but Grave 6, together with Grave 5, represents clear evidence that the elevated terrain in Novo Selo was used as a burial ground in the period of the Late Copper Age. A clear association with other Copper Age finds (Grave 5, ditch, the find concentrations of SU 8 and SU 19) cannot be connected with the grebenu većega tuberkula humerusa (*pectoralis major*). Slijedeći smjernice Mariottija et al. (2007), ovi markeri stresa na humerusu ocijenjeni su kao razina robusnosti 2 i egzostoze okoštavanja 1. Traume ili epigenetske osobine nisu bile vidljive.

Datacija i kulturni kontekst

Dva radiokarbonska datuma iz uzorka spaljene ljudske kosti (MAMS 42805) i iz uzorka pogljenjenoga drveta iz urne (MAMS 42806) dala su relativno širok vremenski raspon između 3000. i 2500. g. pr. Kr. (sl. 18). Štoviše, kalibrirani datumi za kost (3010.–2679. g. pr. Kr.) i ugljen (2563.–2473. g. pr. Kr.) se ne preklapaju, a datum dobiven iz ugljena (3988±24 BP) ima znatno manji raspon od datuma dobivenoga iz spaljene kosti (4258±94 BP). Dakle, apsolutni datumi pružaju samo širi kronološki okvir u prvu polovicu 3. tis. pr. Kr. Što se tiče ostalih nalaza u Novom Selu, raspon datuma kostiju ostavlja mogućnost da grob 6 pada u isto razdoblje kao i koncentracije nalaza duž jarka (SJ 9/SJ 18). Kronološka podudarnost s grobom 5 također nije isključena. S druge strane, datum ugljena ukazuje da bi grob 6 mogao biti i nešto mlađi od groba 5.

Zdjele zaobljenoga tijela s izraženim dnom korištene su kao urne na nekoliko ukopnih mjesta bakrenoga doba. Posuda sličnoga oblika kao u Novom Selu otkrivena je u grobu 20 nekropole Gemer u zapadnoj Slovačkoj koji se datira u klasičnu i kasnu fazu badenskoga kompleksa (Kovács 1987; Sachsse 2010: T. 72C). Zdjele ovoga oblika poznate su i s groblja srednjega bakrenog doba na lokalitetu Pod kotom – jug u istočnoj Sloveniji (Šavel 2007: T. 4: 3). Paralele s urnom iz groba 6 mogu se uočiti i među nalazima iz kosturnih grobova kasnoga badenskog kompleksa na mađarskim nalazištima Budapest – Fővárosi-tanács-üdülője i Palotabozsok (Sachsse 2010: T. 51C; 127: 4). Dodajmo također činjenicu da u tradicionalnim keramičkim klasifikacijama badenske keramike u Karpatskoj kotlini posude zaboljenoga tijela obično ukazuju na kasnije faze (Némejcova-Pavúková 1981: sl. 5H), iako općenito nemaju značajniju kronološku vrijednost (Čataj 2009: 114).

I pored činjenica da je kronološka pozicija groba 6 donekle nejasna, odnosno postavljena relativno široko između 3000. i 2500. g. pr. Kr., ovaj nalaz, zajedno s grobom 5, predstavlja jasan dokaz da je povišeni teren u Novom Selu korišten kao groblje u razdoblju kasnoga bakrenog doba. Uzajamna povezanost s drugim nalazima iz bakrenoga doba (grob 5, jarak, koncentracije nalaza SJ 8 i SJ 19) ne može se direktno potvrditi, ali s obzirom na to da je samo manji dio nalazišta istražen, mogu se očekivati i daljnji nalazi iz ove faze. Sloj SJ 28, koji je otkriven ispod crvenkastoga sloja s kosturnim ukopom na kamenoj platformi (grob 3), također se prema prvim nalazima može datirati u bakreno doba, što je pokazatelj kako je cijelo područje prirodnoga uzvišenja spadalo u zonu aktivnosti tijekom toga razdoblja.

Grob 3 i crvenkasti sloj (SJ 4)

Crvenkasti sloj s izgorjelim organskim, odnosno vegetacisjkim ostacima, kosturni grob na kamenoj platformi (grob 3) i podizanje humke predstavljaju slijedeću fazu ak-

firmed, but considering that only a small part of the site has actually been excavated, we can expect further finds from this first phase of occupation. The layer SU 28 recovered below the reddish layer and the pebble platform with inhumation (Grave 3) most probably also belongs to the Late Copper Age and is an additional indication that the whole area of the elevation was included in an activity zone during this period.

Grave 3 and the reddish layer (SU 4)

The next phase of activities in Novo Selo deals with the reddish layer with burned organic residues, the subsequent inhumation burial on the pebble platform (Grave 3), and the erection of the mound. Based on the stratigraphy, it is obvious that the pebble platform and the reddish layer are closely connected. One can assume that the reddish layer is the outcome of a single event in which the surface and vegetation in the central part of the elevation were burned down and the Copper Age structures were covered up (Fig. 20).

The platform made of river pebbles was of oval shape, measuring 2.95 m in the southwest–northeast direction and 2.20 m in the southeast–northwest direction, with the rectangular part on the top. The body was placed in a contracted position and lying on its right side with the head towards the northeast. The rectangular upper part of the platform was filled with small pebbles (5 cm); a layer of clayey, dark brown and yellowish soil was visible around the skeleton. The pebble platform was made of more or less round stones (5–15 cm), just stacked on each other and therefore loose. After the removal of the first soil around the skeleton, there were also two clearly visible, straight and well defined narrow depressions along both sides of the interred body (Fig. 21). These two narrow lateral depressions were longer than the rectangular part, with a layer of smaller pebbles and the contracted skeleton (Fig. 21). The bigger pebbles of the platform marked the outer wall of both depressions, while their filling consisted of brownish and reddish soil with macroscopically visible organic remains.

The magnification (20x) of the soil samples revealed the remains of a wooden plank structure and provided first clear evidence that lateral depressions were actually imprints of a wooden structure that belonged to Grave 3 (Fig. 22). Given the length and shape of imprints, it became apparent that the wooden planks most probably represented parts of a bier structure with four grips (extensions) and a rectangular part in the middle where the crouched body was laying. Hence, Grave 3 involved not just a platform made of bigger pebbles and a central part filled with smaller pebbles, but also a wooden mobile structure on top of the pebble bed. Additionally, the grave structure was flanked by rows of smaller postholes pointing to the existence of an associated structure or fence in which the burial was placed (Fig. 22).

tivnosti u Novom Selu. Na osnovi stratigrafije očito je da su kamena platforma groba 3 i crvenkasti sloj usko povezani. Može se pretpostaviti da je crvenkasti sloj rezultat jednoga singularnog događaja u kojem su površina i vegetacija u središnjem dijelu uzvišenja izgorjeli, čime je većina bakrenodobnih struktura ostala pokrivena (sl. 20).

Platforma od riječnih oblutaka ovalnoga je oblika, dimenzija 2,95 m u smjeru jugozapad – sjeveroistok i 2,20 m u smjeru jugoistok – sjeverozapad, s pravokutnim dijelom na vrhu. Tijelo pokojnika je postavljeno u zgrčeni položaj i ležalo je na desnoj strani s glavom prema sjeveroistoku. Pravokutni gornji dio platforme ispunjen je manjim oblucima (5 cm), dok je oko kostura vidljiv sloj glinovite tamnosmeđe do žućkaste zemlje. Platforma je bila izrađena od više ili manje okrugloga kamenja (5–15 cm) koje je samo složeno jedan na drugi te je stoga cijela struktura bila dosta labava. Nakon uklanjanja prvoga sloja glinovite zemlje oko kostura, jasno su se vidjela dva ravna i uska udubljenja uz obje strane položenoga tijela (sl. 21). Ove dvije uske bočne udubine bile su nešto duže od pravokutnoga dijela sa slojem manjih oblutaka i zgrčenim kosturom (sl. 21). Veći obluci činili su vanjski rub oba udubljenja, dok se njihova zapuna sastojala od smeđkastoga i crvenkastoga tla s makroskopski vidljivim organskim ostacima.

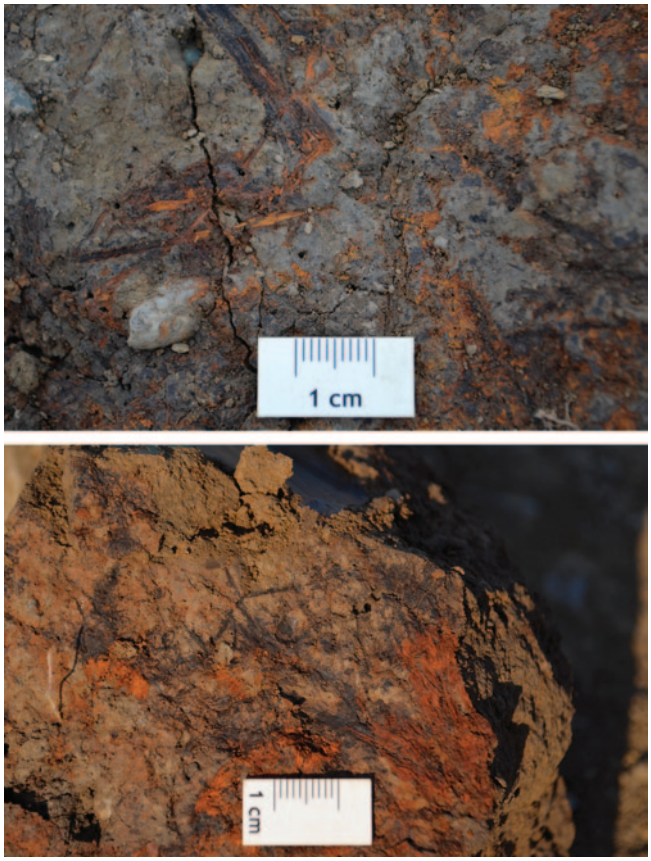

Fig. 20 Burnt organic residue on the surface of SU 4 (photo by: M. Gavranović)

Sl. 20 Spaljeni organski ostaci na površini SJ 4 (snimio: M. Gavranović)

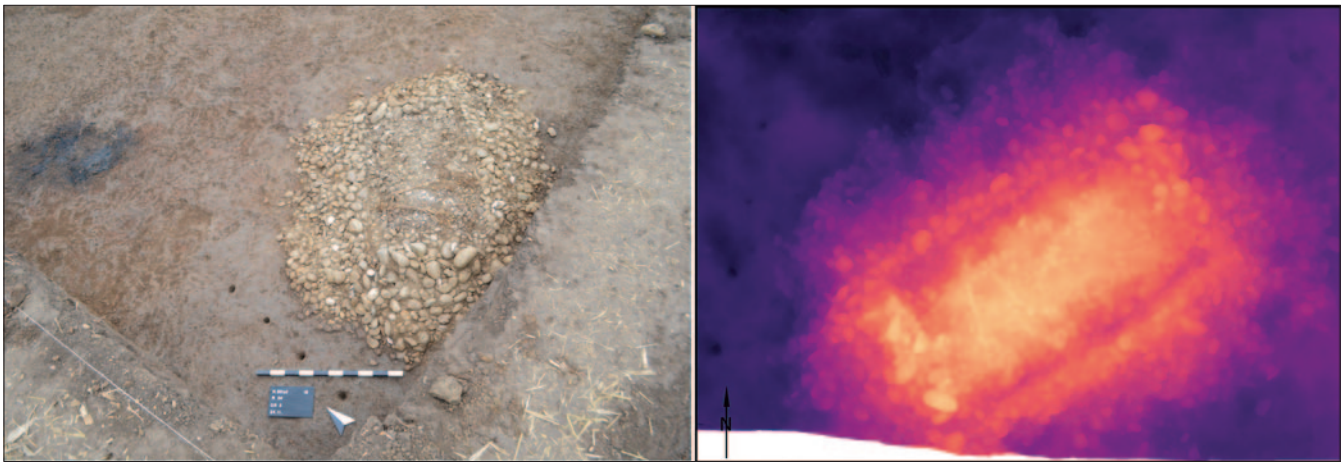

Fig. 21 Grave 3 – pebble platform with the imprint of a potential wooden beam and the elevation model of Grave 3 (photo: M. Gavranović; 3D captured by: M. Börner; processed by: I. Petschko)

Sl. 21 Grob 3 – platforma od oblutaka s otiskom moguće drvene grede te visinski model groba 3 (snimio: M. Gavranović; 3D model: M. Börner; izradila: I. Petschko)

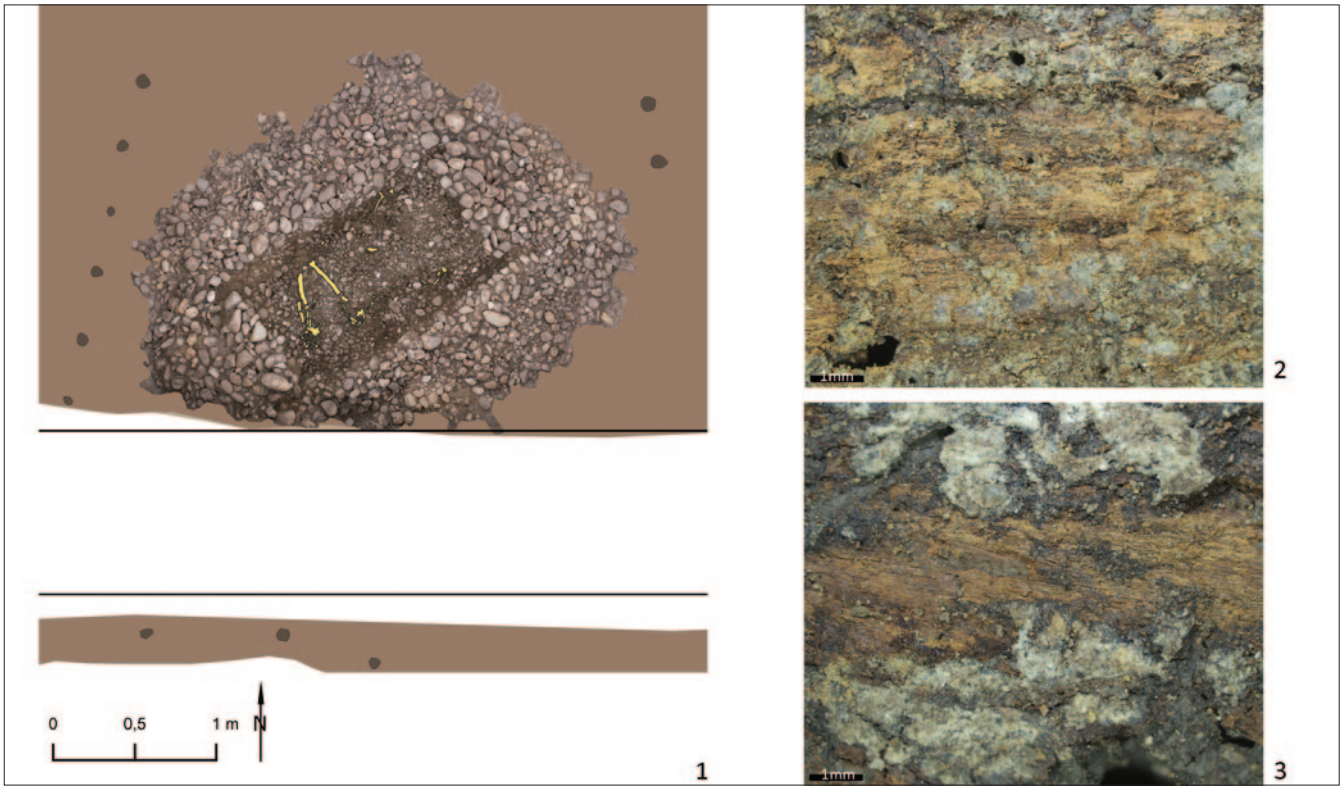

Fig. 22 1 Plan of Grave 3 (made by: M. Konrad, M. Börner and I. Petschko); 2–3 20x magnification of the soil sample taken from the two depressions next to the burial (photo by: M. Brandl)

Sl. 22 1 Plan groba 3 (izradili: M. Konrad, M. Börner i I. Petschko); 2–3 20x magnifikacija uzorka tla uzeta iz dva udubljenja pokraj groba (snimio: M. Brandl)

Human remains

Grave 3 contained the remains of an individual, probably male, who died at the age between 22 and 27 years. Taphonomy: The individual was highly fragmented, i.e. incomplete. After Rhowbotham et al. (2017), who scored the volume of every skeletal element in ratio to the complete skeleton, only approximately 16% of the skeleton was present (Fig. 23). The bone surface was partially smooth,

Mikroskopsko povećanje (20x) uzoraka iz udubljenja otkrilo je ostatke drvene daske te time pružilo prve jasne dokaze kako su bočne udubine zapravo otisci drvene konstrukcije koja je pripadala grobu 3 (sl. 22). S obzirom na duljinu i oblik, očigledno je da su drvene daske dijelovi konstrukcije u obliku nosila s četiri rukohvata (nastavka) i pravokutnim dijelom u sredini na kojem je ležalo zgrčeno tijelo. Grob 3 uključivao je, dakle, ne samo platformu

partially strongly eroded. The lower extremities had visible marks of roots, whose acidity degraded the bones. After Brickley and McKinley (2004), the mean surface erosion of the bones was estimated as grade 3. Large parts of the individual were missing. These parts were most likely dissolved by atmospheric influences, as the skeleton was placed on top of a pebble bed and water could easily penetrate between the stones. Body areas covered in clay were better preserved (feet, pelvis, knees), though they fragmented during the excavation and recovery, because the bones had been penetrated by many roots of corn planted on the site. Furthermore, long bone shafts, foot bones, and hand bones were denser and therefore better preserved than, for instance, the rib cage or shoulder girdle.

izrađenu od većih oblutaka i središnji dio s punjenjem od manjih oblutaka, već i drvenu pokretnu konstrukciju položenu na vrh odra. Pored toga, s bočne strane kamene platforme uočen je niz manjih rupa, što ukazuje na postojanje dodatnoga objekta ili ograde unutar koje se grob nalazio (sl. 22).

Ljudski ostaci

U grobu 3 nalazili su se ostaci vjerojatno muške osobe koja je umrla u dobi između 22 i 27 godina. Tafonomija: Kostur je bio izrazito fragmentiran, odnosno nepotpun. Prema Rhowbotham et al. (2017), koji su procijenili volumen svakoga koštanog elementa u omjeru prema cijelome kosturu, u grobu 3 prisutno je samo 16% od cijeloga

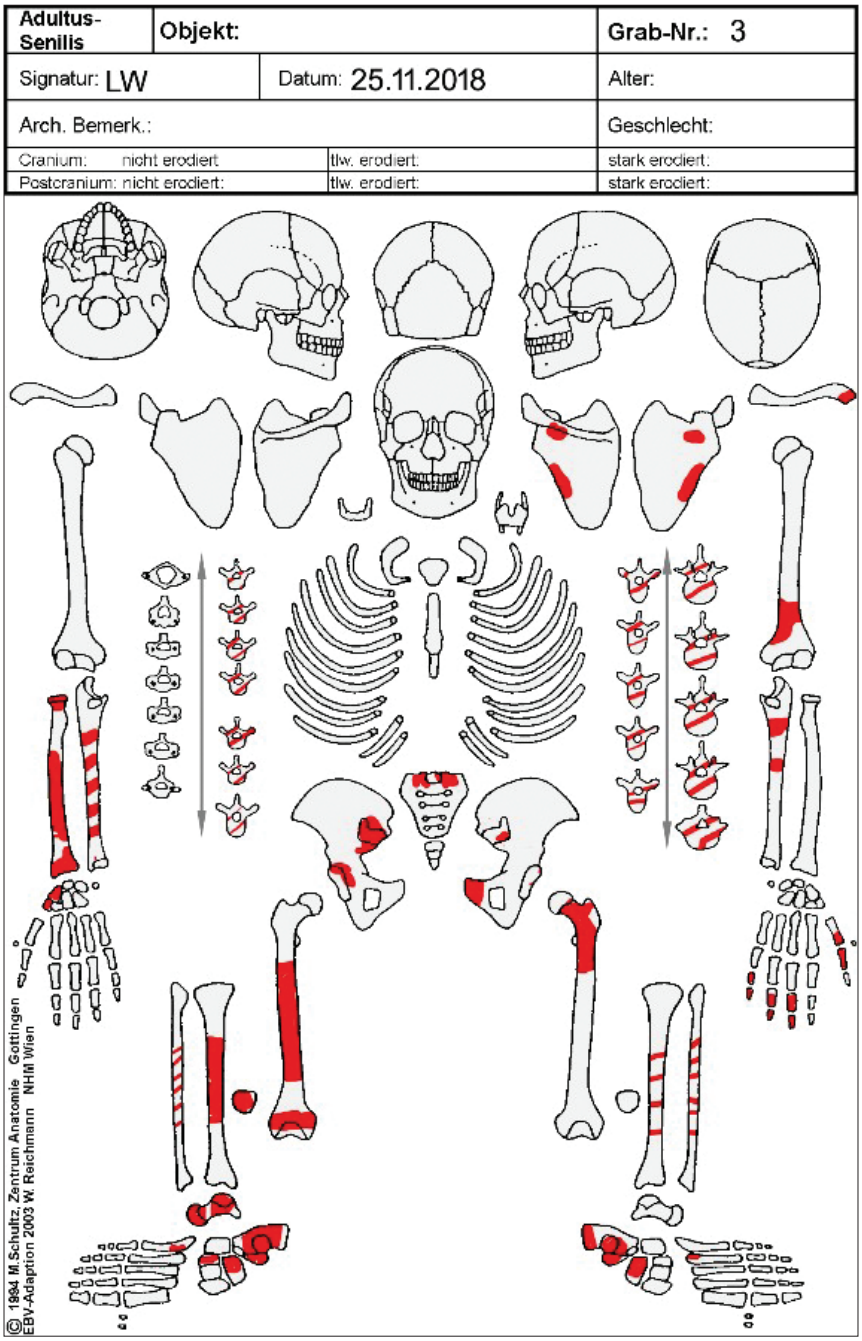

Fig. 23 Parts of the skeleton in Grave 3 (drawing: L. Waltenberger)
Sl. 23 Dijelovi kostura iz groba 3 (nacrtao: L. Waltenberger)

Biological profile: Only one half of the right greater sciatic notch was available for sex estimation. Using a photograph and a superimposition of the expected shape for male and female greater sciatic notches, the method suggested that the individual was probably male. Age at death was estimated at 22–27 years (24.5 ± 2.5) using a combination of the following methods and elements: pubic symphysis (Brooks, Suchey 1990) and the iliac auricular surface (Osborne et al. 2004; Buckberry, Chamberlain 2002). All the present epiphyses are fused. Stature estimation was not possible as the long bones were too fragmented. The single left upper central incisor had slight attrition. The dislocation of the tooth and no other teeth for comparison make the evidence insufficient for a match with the skeleton. Another possibility is that the tooth was as part of the soil fill. No occupational stress markers are visible.

Dating and cultural context

Comparable grave pebble structures with inhumations were documented in a number of mounds located between Pađine and Roćević, some 30 km up the River Drina (Kosorić, Krstić 1970; 1972; Kosorić 1975; 1976; 1978; 1982). The mounds extend over a large area on the first terraces over the flood plain of the River Drina, with several closely connected clusters at the sites of Karavlaške Kuće (26 mounds), Jezero (30 mounds), Livade (34 mounds), Šume (40–50 mounds), Lugovi (12 mounds), and Šundinovača (6 mounds). Most of the excavated tumuli measured between 12 and 20 m in diameter, with only one (Mound III in Jezero with 30 m) reaching approximately the size of Novo Selo (Kosorić, Krstić 1972: Plan 3b). The number of graves varied between two and six in each of the mounds, with the prevalence of inhumation. Only the mounds in Livade (Mound I) and Lugovi (Mound I) contained two and three cremations, respectively, while Mound IX in Jezero contained five cremations and two inhumation graves (Kosorić 1978; 1982). The inhumation graves are characterized by oval or rectangular pebble stone structures with a layer of smaller pebbles in the central part where the body was placed, mostly in a contracted lateral position (Kosorić, Krstić 1970: Plan 9; 1972: Plan 2a). With regard to orientation and position of the body, the burials appear to be highly diverse, with no distinct pattern. However, there are no anthropological analyses. Metal finds in some of the graves with a repertoire of weapons (dagger, winged axe) and jewellery (large pins, bracelets, pendants) were decisive for the chronological assessment, suggesting a period between the Middle and Late Bronze Age or between stages Br B and Br D (Kosorić 1976: 42–43: Kosorić, Krstić 1988).

Further analogies for the inhumation grave from Novo Selo are known in the neighbouring territory of northwestern Serbia. There are particularly interesting tumuli at the sites of Bandera, Cerik, and Šumar, with burials dated to the Early and Middle Bronze Age (Garašanin 1973; 1983a; 1983b; Filipović 2013). The arrangement of their mounds shows a somewhat different picture than the sites on the

kostura (sl. 23). Površina kostiju bila je djelomično glatka, a djelomično jako erodirana. Na donjim ekstremitetima vidjeli su se tragovi korijena biljaka koje su svojom kiselinom razgradile kosti. Prema Brickley i McKinley (2004), srednja površinska erozija kostiju procijenjena je kao stupanj 3. Nedostajali su znatni dijelovi tjela. Najvjerojatnije su se ti dijelovi raspali atmosferskim dijelovanjem jer je kostur postavljen na vrh odra i voda je lako mogla prodrijeti između kamenja. Područja tijela prekrivena glinastim slojem bila su bolje očuvana (stopala, zdjelica, koljena), iako su i ovi dijelovi fragmentirani tijekom iskopavanja i vađenja jer je i korijenje kukuruza zasađenoga na tome mjestu dopiralo do kostura. Duge kosti stopala i kosti šake po svojoj strukturi su dosta čvršći i stoga bolje očuvani od primjerice prsnoga koša ili ramenoga pojasa.

Biološki profil: Od specifičnih kostiju za procjenu spola prisutna je samo polovica desnoga većeg išijasnog ureza. Koristeći fotografiju i superponiranje očekivanoga oblika velikoga išijasnog ureza za muške i ženske, metoda sugerira da je vjerojatno riječ o muškaracu. Starost u vrijeme smrti procijenjena je na 22–27 godina (24,5 ± 2,5) koristeći kombinaciju sljedećih metoda i elemenata: stidna simfiza (Brooks, Suchey 1990) i aurikularna površina bedrene kosti (Osborne et al. 2004; Buckberry, Chamberlain 2002). Sve prisutne epifize su srasle. Procjena stasa nije bila moguća jer su duge kosti bile previše usitnjene. Lagana istrošenost prisutna je na jednom lijevom gornjem središnjem sjekutiću. Zbog dislociranoga položaja zuba i nedostajućih zuba za usporedbu, ne može se s krajnjom sigurnošću reći da li zub pripada otkrivenome kosturu ili je sekundarni nalaz u ispuni. Oznake bilo kakvoga profesionalnog stresa nisu vidljive.

Datacija i kulturni kontekst

Slični oblici grobnih konstrukcija od kamena s kosturnim ukopima dokumentirani su u većem broju tumula smještenih između Pađina i Roćevića, nekih 30 km uzvodno uz rijeku Drinu (Kosorić, Krstić 1970; 1972; Kosorić 1975; 1976: 1978; 1982). Ovi tumuli protežu se na većem prostoru na prvim terasama iznad plavnoga dijela Drine i grupirani su u nekoliko izdvojenih skupina nazvanih po lokalitetima Karavlaške kuće (26 humki), Jezero (30 humki), Livade (34 humke), Šume (40–50 humki), Lugovi (12 humki) i Šundinovača (6 humki). Većina istraženih tumula imala je promjer između 12 i 20 m, a samo je jedan (tumul III u Jezeru s 30 m promjera) približno dosezao veličinu tumula u Novom Selu (Kosorić, Krstić 1972: Plan 3b). Broj grobova varirao je između dva i šest u svakome tumulu, a većinom se radilo o inhumacijama. Samo tumuli u Livadama (tumul I) i Lugovima (tumul I) sadržavali su dva, odnosno tri paljevinska groba, dok je u tumulu IX na Jezeru pronađeno pet paljevinskih i dva kosturna groba (Kosorić 1978; 1982). Za kosturne ukope karakteristične su ovalne ili pravokutne kamene konstrukcije sa slojem manjih oblutaka u središnjem dijelu na koji je postavljeno tijelo, uglavnom u lagano zgrčenom, bočnom položaju (Kosorić, Krstić 1970: Plan 9; 1972: Plan 2a). S obzirom na orijentaciju i položaj tijela, čini se da su

bank of the Drina, with smaller groups of tumuli lined in rows over the crest of a hill (Garašanin, Garašanin 1958: Plan 1; 1962: Plan 2). Most of the tumuli had a size between 15 and 20 m and frequently had an outer stone ring as a border. Both inhumation and cremation were practiced, with or without an urn. Worth mentioning is the occasional appearance of burned, reddish layers with vegetation remains on the level of burial activities at the site of Šumar, which is exactly like the situation observed in Novo Selo. According to the chronological distinction of M. Garašanin, the burned layers were documented in both Early and Middle Bronze Age mounds with no preference for a burial rite (Garašanin 1983a: 709; 1983b: 742). Another resemblance with Novo Selo and graves from Pađine and Roćević is the contracted position of the interred bodies, even though pebble or stone platforms do not occur regularly. We should emphasize, however, the Early Bronze Age grave in Mound 14 at the Šumar site with a contracted skeleton on a pebble stone platform of a similar spherical shape as in Novo Selo (Garašanin, Garašanin 1962: Plan 8). Also striking in the context of the finds from Novo Selo, there are two Early Bronze Age inhumation graves (Graves 24 and 25) in Mound I at the site of Bandera, situated close to each other in a contracted position, with the documented presence of wooden planks (Garašanin, Garašanin 1958: Plan 1; 9). Although interpreted as a cover for the bodies placed directly on the soil (no stone construction) (Garašanin 1983a: 712), the shape of the wooden structure, with recognizable longer grip parts and lateral bars, points to the possibility that the wooden bier was also used in the course of the burial procedure in this case.

Based on the similarities in the adjacent regions of the lower Drina valley and in northwestern Serbia, Grave 3 from Novo Selo could roughly be dated to the period of the Early and Middle Bronze Age or to the first half of the 2nd millennium BC. The absence of any grave goods and the fact that mounds from this period were thus far unknown in the lowlands of Semberija additionally hindered accurate chronological assessment.

However, the radiocarbon dates from the sample of human bone from Grave 3 (MAMS 39760) and from the burned vegetation remains from the reddish layer (MAMS 39762) delivered a more precise chronological frame, both for the pre-burial activities (the burning of the vegetation) and for the inhumation grave in Novo Selo. The striking match of the dates for the human bone (3390±24 BP) and for the reddish layer with dark traces of burning (3384±24 BP), with calibrated dates ranging between 1743–1628 BC and 1742–1624 BC, respectively, is a strong indication that the burning of the elevation area and Grave 3 are directly related and most probably an outcome of the same ritual act (Fig. 24). After the accomplishment of the burial, which obviously included the building of a fence or some lighter structure (rows of smaller postholes) around the pebble platform with the wooden bier on it, the whole area was covered with earth layers that eventually created the large tumulus.

ukopi vrlo raznoliki, bez jasnih obrazaca, dok antropološke analize nedostaju. Kronološka pozicija grobova određena je, prije svega, na osnovi metalnih nalaza iz nekih grobova koji su uključivali oružje (bodež, sjekira s krilcima) i nakit (velike igle, narukvice, privjesci) koji ukazuju na razdoblje između srednjega i kasnoga brončanog doba, odnosno stupnjeve Br B do Br D (Kosorić 1976: 42–43: Kosorić, Krstić 1988).

Analogije za kosturni grob iz Novog Sela poznate su i sa susjednoga područja sjeverozapadne Srbije. Posebno su zanimljivi tumuli na lokalitetima Bandera, Cerik i Šumar s ukopima iz ranoga i srednjega brončanog doba (Garašanin 1973; 1983a; 1983b; Filipović 2013). Raspored ovih tumula pokazuje nešto drugačiju sliku nego u slučaju nalazišta s lijeve obale Drine, s manjim skupinama tumula poredanih u redove na grebenima brežuljka (Garašanin, Garašanin 1958: Plan 1; 1962: Plan 2). Većina tumula imala je promjer između 15 i 20 m, a često se pojavljuju i vanjski kameni vijenci kao ograničenje. U pogledu rituala, prisutne su kako inhumacije, tako i paljevinski grobovi s urnom i bez urne. Vrijedi istaknuti povremene pojave izgorjelih, crvenkastih slojeva s ostacima vegetacije na razini otkrivenih grobova na lokalitetu Šumar, što vrlo dobro odgovara situaciji zabilježenoj u Novom Selu. Prema kronološkoj interpretaciji M. Garašanina, izgorjeli vegetacijski slojevi dokumentirani su u tumulima iz ranoga i srednjega brončanog doba, bez preferencije u odnosu na vrstu rituala (Garašanin 1983a: 709; 1983b: 742). Još jedna sličnost s Novim Selom i grobovima s nalazišta Pađine i Roćević je zgrčeni položaj kostura, iako se kamene platforme od šljunka ili oblutaka ne pojavljaju redovito. Treba svakako istaknuti jedan grob iz ranoga brončanog doba u tumulu 14 na lokalitetu Šumar sa zgrčenim kosturom na kamenom odru sličnoga ovalnog oblika kao u Novom Selu (Garašanin, Garašanin 1962: Plan 8). Ono što je dodatno zanimljivo u kontekstu nalaza iz Novog Sela su dva međusobno blizu smještena kosturna groba iz ranoga brončanog doba (grobovi 24 i 25) u zgrčenom položaju u tumulu I na lokalitetu Bandera kod kojih je dokumentirano postojanje drvenih dasaka (Garašanin, Garašanin 1958: Plan 1; 9). Iako se u originalnoj publikaciji ove daske tumače kao pokrov tijela smještenih izravno na tlo (bez kamene konstrukcije) (Garašanin 1983a: 712), oblik drvene konstrukcije s prepoznatljivim duljim dijelovima rukohvata i debljim bočnim stranama govori u prilog mogućnosti da su se i u ovome slučaju koristila drvena nosila tijekom pokopa koja bi u ovome primjeru predstavljala odar, budući da tragova kamene platforme nije bilo.

Na osnovi sličnosti u susjednim regijama uz tok Drine i u sjeverozapadnoj Srbiji, grob 3 iz Novog Sela mogao bi se, dakle, okvirno datirati u razdoblje ranoga i srednjega brončanog doba, odnosno u prvu polovicu 2. tis. pr. Kr. Odsutnost bilo kakvih grobnih priloga i činjenica da tumuli iz ovoga razdoblja do sada nisu poznati u ravničarskome predjelu Semberije, otežavali su, međutim, precizniju kronološku determinaciju.

Radiokarbonski datumi dobiveni iz uzorka ljudske kosti iz groba 3 (MAMS 39760) i iz izgorjelih ostataka vegetaci-

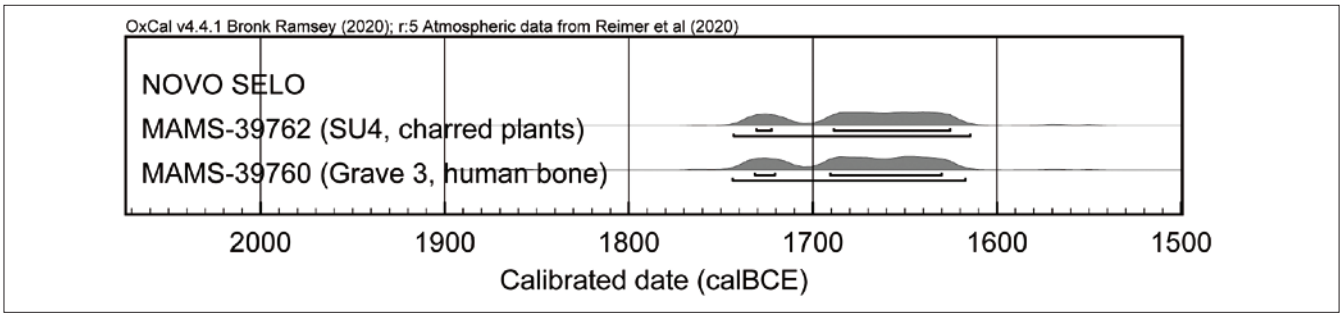

Fig. 24 Calibrated radiocarbon dates for the reddish burnt layer (SU 4) and human bone from Grave 3 (OxCal v. 4.4.1 Bronk Ramsey 2020; made by: L. Webster, Austrian Archaeological Institute)

Sl. 24 Kalibrirani radiokarbonski datumi za crvenkasti spaljeni sloj (SJ 4) i ljudsku kost iz groba 3 (OxCal v. 4.4.1 Bronk Ramsey 2020; izradila: L. Webster, Austrian Archaeological Institute)

The dating of Grave 3 between the end of the Early Bronze Age and the start of the Middle Bronze Age or stages Br A2 – Br B1 in terms of central European chronology (Stockhammer et al. 2015: Fig. 7; David 2019: Fig. 4) shows they were contemporary with some of the graves in the adjacent regions of the lower Drina Valley between Pađine and Roćević and in northwestern Serbia, although absolute dates from these sites are not available. At the same time, the discovery in Novo Selo is the first piece of evidence that burial tumuli with inhumation placed on a pebble platform from the Early and Middle Bronze Ages are also present in the lowlands of Semberija as a southern fringe region of the Carpathian Basin. As the radiocarbon dates suggest, the erection of the tumulus in Novo Selo 3 falls in the period between the late 18th and the first half of the 17th cent. BC, but we should presume the existence of other graves in unexplored areas. We should particularly underline other mounds in the vicinity that potentially represent burial places and thus fundamental markers in the creation of a Bronze Age landscape (Fig. 2).

SU 28: Clayey layers below Grave 3 and the burned reddish layer (SU 4)

The clayey brown layer (SU 28) was discovered after the cutting of Grave 3 and the removal of the reddish layer with burned vegetation remains. The thickness of layer SU 28 varied between 10 and 15 cm, with natural gravel stones starting to appear on the lower margin. Because of the advanced stage of excavations and the time constriction, only a small area around the central part of the mound was uncovered (Fig. 14), but in terms of stratigraphy it is obvious that SU 28 represents the remains of an occupation that is older than the Bronze Age horizon.

The first dating of SU 28 is based on a few diagnostic pottery fragments, including one large bowl (Fig. 25: 1), one pot with an everted rim (Fig. 25: 2), one tongue-shaped handle (Fig. 25: 5), and two fragments with stamped rows of circle ornaments (Fig. 25: 3) and with two relief ribbons with nail-shaped depressions on it (Fig. 25: 4). The corresponding finds from the sites of Beli Manastir (Dimitrijević 1979: Pl. 24: 4–6), Sarvaš (Balen 2006: Pl. 5: 17; Rajković, Balen 2016: Pl. 10: 60), and other sites in Croatia and in

je iz okolnoga crvenkastog sloja (MAMS 39762) ponudili su, međutim, uži kronološki okvir kako za aktivnosti prije pokopa (spaljivanje vegetacije), tako i za sam grob s kosturom iz Novog Sela. Upečatljiva podudarnost datuma iz ljudske kosti (3390±24 BP) i crvenkastoga sloja s datumom iz izgorenoga sloja (3384±24 BP) s kalibriranim datumima u rasponu od 1743. do 1628. g. pr. Kr., tj. 1742.–1624. g. pr. Kr. u slučaju drugog uzorka jasno pokazuju kako paljenje povišenoga terena i grob 3 stoje u izravnoj vezi te da su najvjerojatnije rezultat jednoga ritualnog čina (sl. 24). Nakon završetka ukopa, koji je očito obuhvaćao i izgradnju ograde ili nekog manjega objekta oko kamene platforme (redovi manjih rupa za stupove) s drvenim nosilima na njoj, cijelo je područje prekriveno zemljanim slojevima koji su konačno stvorili veliki tumul.

Datiranje groba 3 u vrijeme između kraja ranoga brončanog doba i početka srednjega brončanog doba ili faze Br A2 do Br B1 po srednjoeuropskoj kronologiji (Stockhammer et al. 2015: Fig. 7; David 2019: Fig. 4) ukazuje na približnu istovremenost s nekim grobovima u susjednim područjima uz obalu Drine između Pađina i Roćevića te u sjeverozapadnoj Srbiji, iako apsolutni datumi s ovih nalazišta nisu dostupni. Istodobno, otkriće u Novom Selu prvi je dokaz da su tumuli s kamenim platformama i na njima postavljenim kosturima iz ranoga i srednjega brončanog doba prisutni i u nizinskome krajoliku Semberije koja čini južni rub Karpatske kotline. Kao što pokazuju radiokarbonski datumi, podizanje tumula u Novom Selu 3 pada u vrijeme između kasnoga 18. i prve polovice 17. st. pr. Kr, no za pretpostaviti je da se u neistraženome dijelu nalaze daljnji grobovi. Treba istaknuti i ostale humke u blizini koje potencijalno također predstavljaju grobna mjesta, a time i bitna mjesta u stvaranju i koncepciji brončanodobnoga krajolika (sl. 2).

SJ 28 – glinoviti slojevi ispod groba 3 i izgorjeloga crvenkastog sloja (SJ 4)

Glinoviti smeđi sloj (SJ 28) otkriven je nakon skidanja groba 3 i uklanjanja crvenkastoga sloja s izgorjelim ostacima vegetacije. Debljina sloja SJ 28 varirala je između 10 i 15 cm s prirodnim šljunčanim kamenjem, odnosno zdravicom koja se počela pojavljivati u donjem dijelu. Usljed uznapre-

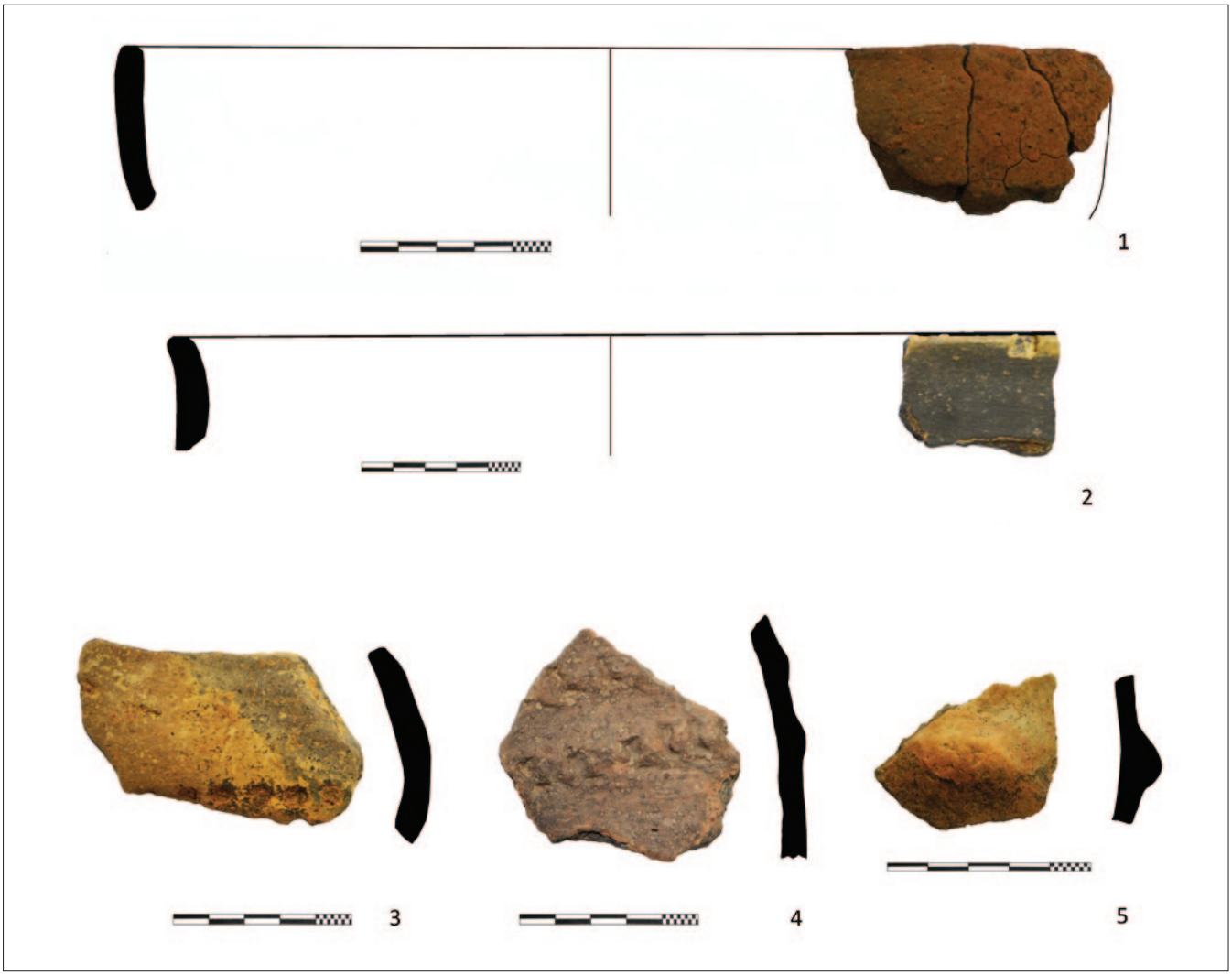

Fig. 25 Pottery from SU 28 (photo by: M. Gavranović; drawings: S. Antić)
Sl. 25 Keramika iz SJ 28 (snimio: M. Gavranović; nacrtala: S. Antić)

Serbia (Tasić 1995: Pl. 6B) point again to the later stages of the Baden pottery complex or to the time around 3000 BC. Consequently, layer SU 28 probably belongs, together with SU 9 and SU 18 and the two cremation burials (Graves 5 and 6), to the first phase, i.e. the Copper Age phase, of the occupation in Novo Selo (Fig. 18).

Graves 1, 2, and 4

In the Middle Ages, the mound was again used as a burial place. Because of intensive agricultural work, the three skeletal graves have been very poorly preserved (Fig. 26).

Grave 1: The body was buried in a stretched position. The left arm was bent at the elbow with the fist resting on the pelvis. The grave structure was not recorded, but it was most likely a pit. An approximate west–east orientation. A badly preserved rectangular buckle made of iron, measuring 4.4 x 4 cm, was found in the pelvic area (Fig. 26: 1).

Grave 2: The body was buried in a stretched position, with preserved bones of the lower limbs and the skull turned to the right. The grave structure was not recorded.

dovale faze iskopavanja i nedostatka vremena, otkriven je tek mali dio ovoga sloja oko središnjega dijela tumula (sl. 14), no u pogledu stratigrafije očito je da SJ 28 predstavlja ostatke aktivnosti koje su starije od brončanodobnoga horizonta.

Datiranje sloja SJ 28 za sada počiva na nekoliko dijagnostičkih ulomaka keramike, uključujući jednu veliku zdjelu (sl. 25: 1), jedan lonac s izvijenim obodom (sl. 25: 2), jednu jezičastu ručku (sl. 25: 5) i dva ulomka s utisnutim redovima ukrasa u obliku kruga (sl. 25: 3) te s dvije plastične vrpce s noktastim udubljenjima (sl. 25: 4). Odgovarajući nalazi s nalazišta Beli Manastir (Dimitrijević 1979: T. 24: 4–6), Sarvaš (Balen 2006: T. 5: 17; Rajković, Balen 2016: T. 10: 60) kao i drugih nalazišta u Hrvatskoj i Srbiji (Tasić 1995: T. 6B) ponovno ukazuju na kasnije faze badenskoga kompleksa ili na vrijeme oko 3000. g. pr. Kr. Slijedom toga, sloj SJ 28 vjerojatno pripada, zajedno sa SJ 9 i SJ 18 te dva paljevinska ukopa s urnom (grobovi 5 i 6), prvoj, odnosno bakrenodobnoj fazi aktivnosti u Novom Selu (sl. 18).

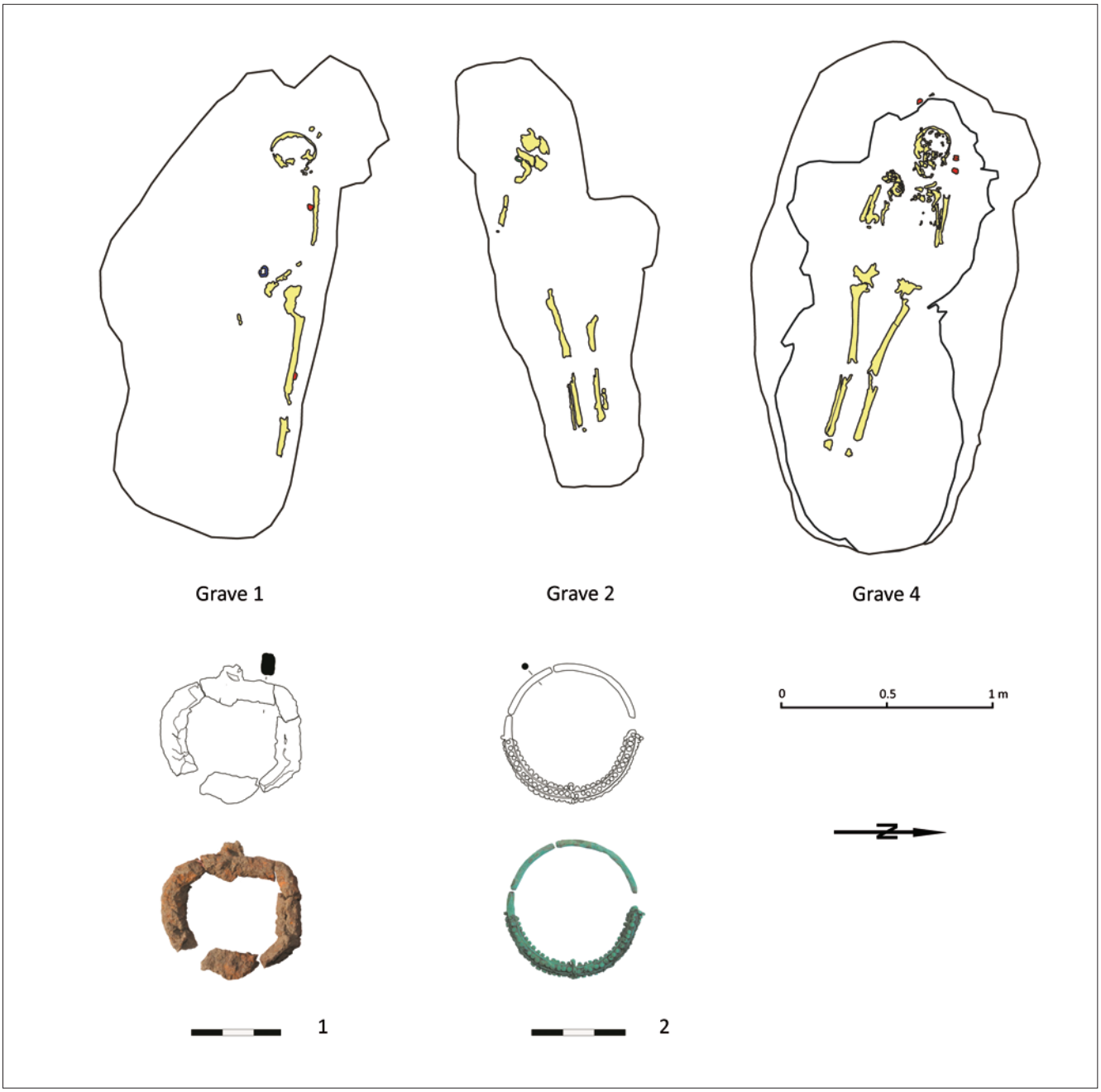

Fig. 26 Medieval burials: Grave 1 (1 iron belt buckle); Grave 2 (2 bronze barbed earring); Grave 4 (photo by: M. Gavranović; drawings: S. Antić; grave plans made by: M. Konrad and I. Petschko)

Sl. 26 Srednjovjekovni grobovi: grob 1 (1 željezna pojasna kopča); grob 2 (2 brončana naroskana naušnica); grob 4 (snimio: M. Gavranović; nacrtala: S. Antić; planove grobova izradili: M. Konrad i I. Petschko)

An approximate west–east orientation. On the left side of the skull there was a bronze barbed earring measuring 4.5 cm in diameter (Fig. 26: 2). The earring was made in the technique of filigree and granulation. In the lower half, rows of small-granulated beads and filigree wire are alternately placed between three evenly spaced knuckles. The lateral knuckles are considerably damaged, and the upper part is also fragmented.

Grave 4: The body was buried in a stretched position; it was somewhat better preserved than the other two (Fig. 26). As in the case of the two above-mentioned burials, the

Grobovi 1, 2 i 4

U srednjem vijeku tumul je ponovno korišten kao grobno mjesto. Zbog intenzivnih poljoprivrednih radova, tri kosturna groba bila su vrlo loše sačuvana (sl. 26).

Grob 1: Pokojnik je pokopan u ispruženom položaju. Lijeva ruka savijena u laktu, a šaka oslonjena na zdjelicu. Izgled grobne rake nije bio vidljiv, ali najvjerojatnije se radi o jami. Orijentacija približno zapad – istok. U području zdjelice pronađena je pravokutna, loše sačuvana kopča izrađena od željeza, dimenzija 4,4 x 4 cm (sl. 26: 1).

grave structure was not detectable, but it was most likely a pit. An approximate west–east orientation. Arms bent at the elbows with fists placed high on the chest. No finds.

Dating and cultural context

The bronze barbed earring from Grave 2 is the only object that enables an approximate chronological determination. Earrings of this type appear in several variants in the territories of Bosnia and Herzegovina, Croatia, and Serbia. Some of the older studies regarded them as jewellery indicative of the period between the 9th and 11th cent. AD (Čremošnik 1951: 245; Jelovina 1976: 96–97). This was revised in a number of recent papers, which all suggest a dating between the 11th and the first half of the 14th cent. AD (Marjanović-Vujović 1984: 86, Fig. 182; Jakšić 1996: 156–158; Bikić 2010: 60–61; Radičević, Crnčević 2016: 430). The closest analogies for the earring from Novo Selo come from the sites of Bošnjaci in Slavonia (Vinski 1949: Pl. 7: 43–44, 46–47; Ercegović 1961: Pl. 8: 1–4), Bela Crkva and Šljivova in northwestern Serbia (Marjanović-Vujović 1976: Pl. 1: 3; 2: 1), Skelani and Vitaljevići in the middle Drina valley (Čremošnik 1951: 259, Pl. 4: 11–12), and Grudine, Čipuljić in central Bosnia (Miletić 1963: 167). Therefore, one can postulate that the mound in Novo Selo was used as a burial place in the span between the 11th and the early 14th cent. AD.

Latest use of the mound

The radiocarbon dates from two charcoal samples found in smaller (ca. 30 cm in diameter) round and burned structures (SU 22 and SU 23) that disturbed the ditch (SU 7) point to the possible use of the mound in Novo Selo during the Ottoman period (Fig. 14). Both samples (DeA 18172 and DeA 18170) were of the same age, with the calibrated date between 1690 and 1730 AD. The same period most probably applies to the few fragments of glazed, decorated pottery from the humus layer in Trench 2 (SU 1). The extent, duration, and background of the Ottoman presence are hard to estimate, but the two burned, round structures could be the remains of strong wooden pillars that carried some large structure. With that in mind, the most common interpretation of the mounds as Turkish towers among today's locals in Bijeljina might partially be rooted in truth.

CONCLUDING REMARKS

The investigations in Novo Selo led to the discovery of unexpected structures and finds, which identify this site as a specific burial and ritual place over several periods. It was the combination of natural conditions with elevated terrain in a plain, and human interaction, first in the Late Copper Age and then in the Bronze Age and the Middle Ages, that brought this place into prominence.

The first attested activities in Novo Selo date back to the end of the 4th millennium BC, when the ditch was excavated, i.e. when the area was enclosed. The deposition of pottery fragments and animal bones near the ditch oc-

Grob 2: Pokojnik je pokopan u ispruženome položaju, sa sačuvanim kostima donjih udova i lubanjom okrenutom udesno, a grobna raka nije bila vidljiva. Orijentacija približno zapad – istok. Na lijevoj strani lubanje pronađena je brončana naroskana naušnica promjera 4,5 cm (sl. 26: 2). Naušnica je rađena u tehnici filigrana i granulacije. U donjoj polovici naušnice su redovi sitnih zrnaca i filigranske žice te su naizmjenično raspoređeni na tri ravnomjerno postavljena zadebljanja. Bočna zadebljanja su znatno oštećena, dok je gornji dio također fragmentiran.

Grob 4: Pokojnik je pokopan u ispruženom položaju, nešto bolje sačuvan od druga dva (sl. 26). Kao i u slučaju dva navedena pokopa, grobna raka nije otkrivena, ali najvjerojatnije se radi o jami. Orijentacija približno zapad – istok. Ruke savijene u laktovima sa šakama postavljenim visoko na prsima, bez ikakvih nalaza.

Datacija i kulturni kontekst

Brončana naroskana naušnica iz groba 2 jedini je nalaz koji omogućava približno kronološko utvrđivanje. Naušnice ovoga tipa pojavljuju se u nekoliko varijanti na područjima Bosne i Hercegovine, Hrvatske i Srbije. U nekim starijim istraživanjima smatrani su nakitom koji ukazuje na razdoblje između 9. i 11. st. (Čremošnik 1951: 245; Jelovina 1976: 96–97). To je revidirano u brojnim novijim radovima koji ukazuju na datiranje između 11. i prve polovice 14. st. (Marjanović-Vujović 1984: 86, sl. 182; Jakšić 1996: 156–158; Bikić 2010: 60–61; Radičević, Crnčević 2016: 430). Najbliže analogije za naušnicu iz Novog Sela potječu s lokaliteta Bošnjaci u Slavoniji (Vinski 1949: T. 7: 43–44, 46–47; Ercegović 1961: T. 8: 1–4), Bele Crkve i Šljivove u sjeverozapadnoj Srbiji (Marjanović-Vujović 1976: T. 1: 3; 2: 1), Skelani i Vitaljevići u srednjem toku Drine (Čremošnik 1951: 259, T. 4: 11–12) te groblja Grudine, Čipuljić u srednjoj Bosni (Miletić 1963: 167). Na osnovi ovih usporedbi može se, dakle, pretpostaviti da je tumul u Novom Selu korištena kao groblje u rasponu između 11. i početka 14. st.

Posljednje aktivnosti na tumulu

Radiokarbonski datumi dobiveni iz dva uzorka pougljenjenoga drveta iz manjih (promjera oko 30 cm) okruglih i izgorenih struktura (SJ 22 i SJ 23) koje su presjekle jarak (SJ 7) ukazali su na moguće aktivnosti u Novom Selu tijekom osmanskoga razdoblja (sl. 14). Oba uzorka (DeA 18172 i DeA 18170) bili su iste starosti s kalibriranim datumom između 1690. i 1730. g. po Kr. Najvjerojatnije iz istoga razdoblja potječe i manji broj ulomaka ostakljene, ukrašene keramike iz humusnoga sloja u sondi 2 (SJ 1). Teško je procijeniti opseg, trajanje i pozadinu osmanske prisutnosti, ali dvije spaljene, okrugle građevine mogle bi predstavljati ostatke jakih drvenih stupova koji su nosili neku veću konstrukciju. Imajući to na umu, najčešće tumačenje tumula među današnjim lokalnim stanovništvom u Bijeljini kao ostacima turskih kula moglo bi dakle djelomično biti ukorijenjeno u istini.

curred within actions that are still unknown. Both the characteristic finds and the radiocarbon dates confirmed that these first activities took place between 3100 and 2900 BC, with diagnostic finds demonstrating a resemblance with the late stage of the Baden pottery complex. The unusual shape of the ditch/fence has no parallels that would help the interpretation. The only exception is a similar structure in the neighbouring mound of Muharine, which has still not been excavated, however. As only one quarter of the area has been excavated, it is hard to estimate the scope of Late Copper Age activities in Novo Selo. The discovery of a Copper Age layer (Fig. 25) below the Bronze Age horizon in the central part of the mound indicates the way in which the entire elevated ground was occupied during the first phase. The lack of any settlement structures (house remains, postholes, pits) underpins the temporary character of the site, possibly as an area of communal gathering and/or ritual ceremonies. There is no doubt that the natural elevation in Novo Selo also served as a burial ground in the Late Copper Age, yet there are no signs of mound erection during this time. The two discovered urn graves are apparently somewhat younger than the ditch itself, with absolute dates between 3000 and 2500 BC. At the same time, the two cremation burials corroborate the assumption about the ritual background of the site. What is remarkable in this context is the high age of interred individuals, with the most probable age of 73 (Grave 5) and 78 years (Grave 6) at the time of death. In addition, the female individual from Grave 6 had a few degenerative pathologies and ante-mortal tooth loss, which brings into question her capacity to be self-sufficient. At this moment, one can only speculate about the social status and role of these two mature individuals, but the fact that an elaborated act of cremation was carried out (ca. 800°C) and that the final depositions of both urns with all body parts took place on the elevated and enclosed area leads to the conclusion that the treatment of these dead was not ordinary. Although most of the area is still untouched, it is unlikely that the elevated area in Novo Selo served as a communal Late Copper Age cemetery. The number of the graves is too small and the age profile seems to be too specific.

In terms of embedding in a local and regional setting, previous investigations confirmed the existence of sites from the Late Copper Age in the immediate vicinity (Kosorić 1982). However, more elaborate statements are not possible because of fragmented and limited research. The nearby sites in Veliki Gradac, Dvorovi, and Patkovača were located on slightly elevated positions, with finds including pottery, stone tools, daub, loom weights, oven parts, hearths, animal bones and shells, which are all indicators of settlements. Yet neither the size nor the structure of these sites can be estimated. With the exception of the scattered cremation grave in Dvorovi (Kosorić 1965; Sachsse 2010: Pl. 56C) and the graves from Ilok (Tomičić et al. 2008) and Padina (Jovanović 1976), which are all associated with the Kostolac culture, Late Copper Age cremation graves are hardly known, not only in Semberija

ZAKLJUČNA RAZMATRANJA

Istraživanja u Novom Selu dovela su do otkrića neočekivanih struktura i nalaza koji potvrđuju kako je riječ o specifičnome grobnom i ritualnom mjestu koje se koristilo kroz nekoliko različitih razdoblja. Prirodni preduvjeti s povišenim položajem na šljunčanome grebenu u ravnici u spletu s ljudskim interakcijama, prvo u kasnome bakrenom dobu, a zatim u brončanome dobu i srednjem vijeku, učinili su ovo mjesto posebnim unutar lokalnoga krajolika.

Prvi tragovi ljudskih aktivnosti u Novom Selu sežu do u kraj 4. tis. pr. Kr. kada je iskopan jarak, odnosno kada je prostor ograđen. U za sada nepoznatim radnjama došlo je do deponiranja ulomaka keramike i životinjskih kostiju uz jarak. Karakteristični nalazi i radiokarbonski datumi potvrdili su da su se prve aktivnosti odvijale između 3100. i 2900. g. pr. Kr., a dijagnostički oblici keramike pokazuju sličnost s kasnom fazom badenskoga kompleksa. Neobičan oblik jarka, odnosno ograde nema paralela koje bi pomogle u boljoj interpretaciji. Jedina iznimka je slična struktura u susjednoj humci Muharine koja, međutim, još uvijek nije iskopana. Sa samo četvrtinom iskopanoga humka teško je procijeniti opseg aktivnosti iz kasnoga bakrenog doba u Novom Selu. Otkriće bakrenodobnoga sloja (sl. 25) ispod horizonta brončanoga doba u središnjem dijelu ukazuje kako je cijelo povišeno područje korišteno tijekom prve faze. Nedostatak bilo kakvih naseobinskih struktura (ostaci kuća, stupova ili jama) govore u prilog privremenoga karaktera, možda kao mjesta zajedničkoga okupljanja i/ili ritualnih ceremonija. Nema sumnje da je u kasnome bakrenom dobu prirodno uzvišenje u Novom Selu služilo i kao groblje, ali za to doba nema znakova o podizanju tumula. Dva otkrivena paljevinska groba u urni s apsolutnim datumima između 3000. i 2500. g. pr. Kr. po svoj prilici nešto su mlađa od samoga jarka. Istodobno, ova dva groba potvrđuju pretpostavku o ritualnoj pozadini mjesta. Ono što je dosta neuobičajeno u ovome kontekstu je visoka starost sahranjenih osoba, s najvjerojatnijom dobi od 73 (grob 5), odnosno 78 godina (grob 6) u trenutku smrti. Uz to, ženska osoba iz groba 6 imala je nekoliko degenerativnih patologija i gubitak zubiju prije trenutka smrti, što dovodi u pitanje njezinu sposobnost samodostatnoga preživljavanja. U ovome trenutku može se samo nagađati o socijalnome statusu i ulozi dviju starijih individua, ali činjenica da je u oba slučaja izvršen složen i zahtjevan čin kremiranja (oko 800°C) i da su urne sa svim dijelovima kostura ukopane na povišenome i ograđenome mjestu u krajoliku, navodi na zaključak kako se ne radi o uobičajenom tretmanu pokojnika. Iako je veći dio nalazišta još uvijek neistražen, manje je vjerojatno da je povišeni teren u Novom Selu služio kao komunalno groblje iz kasnoga bakrenog doba. Broj grobova je naime premalen, a čini se da je dobni profil ukopanih također specifičan.

U pogledu lokalnoga i regionalnoga konteksta, prethodna istraživanja potvrdila su postojanje nalazišta iz kasnoga bakrenog doba u neposrednoj blizini (Kosorić 1982). Detaljnije ocjene, međutim, nisu moguće zbog fragmen-

but also in the wider region on the southern fringe of the Carpathian Basin between the Drava, the Sava, and the Danube (Jovanović 1976; Dimitrijević 1979: 203; Tasić 1995: 53; Balen 2018: 75). In that sense, the two urn graves from Novo Selo gain in importance when it comes to a better understanding of burial practices during this period.

Notwithstanding our current insufficient knowledge about the Late Copper Age communities in Semberija, one can presume that sites like Novo Selo and probably Muharine had a specific role in the local and perhaps even regional context of the late 4th and early 3rd millennium BC as the community ritual places and burial grounds for select individuals. Given this situation, it seems important to underline that the region of Semberija and the lower Drina valley has already been pointed out as a key intermediary area when it comes to the diffusion of the Late Copper Age cultural influences (the Baden complex, the Kostolac culture) towards the mountainous zone of the western Balkans (Benac 1961: 21; Kosorić 1978: 18; Tasić 1979: 238; Govedarica 1997: 155; Periša 2006: 318; Horváth et al. 2008). The occurrence of Baden and Kostolac pottery at the sites in Bosnia and Herzegovina situated further to the south of Novo Selo exemplifies this diffusion, which seems to follow the courses of the Bosna and the Vrbas (Benac 1980: 20; Periša 2006: 317). We should also emphasize the marked differences between the sites in Bosnia with finds of the Baden complex on the one side and Kostolac pottery on the other. On hilltop sites such as Pivnica in northern Bosnia (Benac 1962) or Kadića Brdo in eastern Bosnia (Govedarica 1985), cultural layers with Kostolac pottery clearly point to long-term occupation, while pottery indicative of the Baden complex is largely found on sites with rather short-term settlement activities. With regard to the partial chronological simultaneity of Kostolac and Baden finds, as evidenced by the radiocarbon dates from the southern Carpathian Basin (Horváth 2012; Horváth, Balen 2012) and by the studies pointing at the area of the central Balkans as a core area of Kostolac pottery style (Nikolić 2000: 83), it appears reasonable to include the long-occupied sites in northeastern and eastern Bosnia into the periphery zone of the Kostolac style, with the River Drina as an important means of communication with the main area in the territories of today´s Serbia.

It is to be hoped that the investigations in Semberija in the course of the years to come will help to grasp the complex use of the landscape in this particular area and to elucidate the role of this region in the cultural interactions during the Late Copper Age, especially in relation to burial practices.

More than 1000 years later, the elevation in Novo Selo was again used as a burial place. During the late 18th and the first half of the 17th cent. BC, the central area of the elevation was burned down in the course of ritual preparations for the funeral act. It remains speculative whether the Bronze Age population had any kind of knowledge about the previous character of the site, yet the elevated area was chosen as a place for burial and the erection of

tiranoga i ograničenoga istraživanja. Obližnja nalazišta u Velikom Gradcu, Dvorovima i Patkovači nalazila su se na blago povišenim položajima, a na njima je pronađen širok spektar nalaza, uključujući keramiku, kameno oruđe, izgoreni lijep, utege, dijelove peći, ognjišta, životinjske kosti i školjke, što su sve nedvojbeni pokazatelji naselja. Ipak, ni veličina ni struktura ovih mjesta ne mogu se trenutno procijeniti. Izuzev groba u Dvorovima (Kosorić 1965; Sachsse 2010: T. 56C) i grobova iz Iloka (Tomičić et al. 2008) i Padine (Jovanović 1976), koji su svi pripisani kostolačkoj kulturi, paljevinski grobovi kasnoga bakrenog doba slabo su poznati ne samo iz Semberije, već i iz šire regije južne Karpatske kotline između Drave, Dunava i Save (Jovanović 1976; Dimitrijević 1979: 203; Tasić 1995: 53; Balen 2018: 75). U tome smislu, dva paljevinska groba s urnama iz Novog Sela dobivaju svakako na značaju kada je riječ o boljem razumijevanju ukopa i funeralnih rituala ovoga razdoblja.

Bez obzira na trenutno nedovoljno stanje istraženosti o zajednicama kasnoga bakrenog doba u Semberiji, može se pretpostaviti kako su lokaliteti poput Novog Sela i vjerojatno Muharina imali specifičnu ulogu u lokalnome, a možda čak i regionalnome kontekstu kasnoga 4. i ranoga 3. tisućljeća pr. Kr. kao posebna ritualna mjesta i groblja za odabrane pojedince. U ovome kontekstu čini se važnim naglasiti da je područje Semebrije i donjega toka Drine u ranijim studijama već istaknuto kao jedna od ključnih regija kada je riječ o difuziji kulturnih utjecaja tijekom kasnoga bakrenog doba (badenski kompleks, kostolačka kultura) prema planinskoj zoni zapadnoga Balkana (Benac 1961: 21; Kosorić 1978: 18; Tasić 1979: 238; Govedarica 1997: 155; Periša 2006: 318; Horváth et al. 2008). Pojava badenske i kostolačke keramike na nalazištima u Bosni i Hercegovini smještenima južnije od Novog Sela ilustracija je ovih utjecaja čiji pravac, prema svemu sudeći, slijedi tokove rijeke Bosne i Vrbasa (Benac 1980: 20; Periša 2006: 317). Ono što također treba naglasiti su izrazite razlike između nalazišta u Bosni s nalazima badenske keramike s jedne strane i nalazima kostolačke keramike s druge strane. Na visinskim naseljima kao što su Pivnica u sjevernoj Bosni (Benac 1962) ili Kadića brdo u istočnoj Bosni (Govedarica 1985) kulturni slojevi s kostolačkom keramikom jasno ukazuju na dugotrajniju okupaciju, odnosno naseljavanje, dok je keramika badenskoga kompleksa uglavnom zastupljena na lokalitetima s relativno kratkim kronološkim rasponom. S obzirom na djelomičnu kronološku istovremenost kostolačke i badenske keramike, o čemu svjedoče radiokarbonski datumi iz južnoga dijela Karpatske kotline (Horváth 2012; Horváth, Balen 2012) i studije koje ukazuju na centralni Balkan kao jezgru kostolačkoga stila (Nikolić 2000: 83), područja u sjeveroistočnome i istočnome dijelu Bosne mogla bi se pripisati perifernoj zoni kostolačke keramike s rijekom Drinom kao važnom komunikacijom prema glavnoj zoni rasprostiranja na područjima današnje Srbije.

Za nadati se kako će slijedeća faza istraživanja u Semberiji u narednim godinama pridonijeti boljem shvaćanju kompleksne uloge krajolika na ovome području te na taj način rasvijetliti značaj ove regije u kulturnim interakcija-

a tumulus. The manner in which the burial of the young man was carried out, with a pebble stone platform, a wooden bier, and the contracted body position, implies a close connection with the cemeteries in the lower Drina valley and in northwestern Serbia; however, Novo Selo is the first grave of this kind in the lowlands of Semberija. The matching of radiocarbon dates for the interred individual and for the burned vegetation layer assures the dating of the burial to the period between the late 18th and the early 17th cent. BC (Fig. 24). According to the results of previous research in the neighbouring regions, pebble stone platforms and a contracted body position have no chronological significance by themselves, since they seem to be present from the Early Bronze Age until the beginning of the Late Bronze Age (Kosorić 1976: 42; Garašanin 1983a: 711; 1983b: 743; Kosorić, Krstić 1988: 36; Della Casa, Fischer 1997: 215). Still, without any grave goods, the absolute dates support the association of Grave 3 from Novo Selo with the group of burials dated between the Early Bronze Age and the start of the Middle Bronze Age and introduce the Semberija region into the discussion about the emergence of tumuli in this part of the Balkans (Kosorić 1976: Pl. 32–33; Garašanin 1987: 53; Kosorić, Krstić 1988: 35).

Considering the state of research in Novo Selo and a number of potential other tumuli, it is more than likely that Grave 3 is not just an isolated phenomenon. What also needs to be stressed is the size of the tumulus near Bijeljina – ca. 40 m in diameter, exceeding the size of the tumuli investigated in the adjacent areas thus far. The use of the wooden bier in the burial process, as well as the existence of other accompanying structures or fences around the stone constructions, is also without equivalent among the previously known graves from this period (Fig. 22). At the current state of investigation, it is not to be excluded that the Bronze Age tumuli burials in the region of Semberija represent a distinct and thus far unknown local phenomenon with close links to the area of the Drina valley and the Balkans further to the south. In any case, the discovery of the inhumation grave in Novo Selo sheds new light on the ritual and burial practices of the Early and Middle Bronze Age groups of this region.

Finally, the last stage of documented burial activities in Novo Selo includes three graves from the later stages of the Middle Ages. Again, there is a very high possibility that other graves from this period are present in the unexcavated areas of the tumulus and most probably in a number of other neighbouring mounds.

In sum, we can conclude that investigations in Novo Selo near Bijeljina revealed the existence of a multi-phase burial and ritual place on a naturally elevated gravel crest. During the Late Copper Age, the natural elevation was enclosed by a ditch or some similar structure and used as a ritual and burial ground. It is highly probable that the mound itself was erected at the beginning of the Middle Bronze Age (the 18th and 17th cent. BC) in the course of activities connected with the inhumation grave on the pebble platform. Bearing in mind that neither cremation urn

ma tijekom kasnoga bakrenog doba, osobito po pitanju grobnih rituala tadašnjih zajednica.

Više od 1000 godina kasnije, povišeni teren u Novom Selu ponovno je korišten kao grobno mjesto. Tijekom kasnoga 18. i prve polovice 17. st. pr. Kr. središnje područje uzvišenja očigledno je zapaljeno tijekom ritualnih priprema za ukop. Za sada se može samo spekulirati jesu li pripadnici brončanodobne zajednice imali ikakva saznanja o prethodnome karakteru ovoga mjesta, no upravo je ova lokacija izabrana kao grobno mjesto iznad kojega je nasut zemljani tumul. Način na koji je izvršen ukop mlađega muškarca, s kamenom platformom i drvenim nosilima kao odrom i tjelom položenim u zgrčenom položaju, navodi na blisku vezu s grobljima u dolini Drine i na sjeverozapadu Srbije, no Novo Selo prvi je grob ove vrste u nizinskom prostoru Semberije. Podudarnost radiokarbonskih datuma dobivenih iz uzoraka kostura i iz izgorjeloga vegetacijskog sloja jasan je dokaz kako ukop datira u razdoblje između kasnoga 18. i početka 17. st. pr. Kr. (sl. 24). Prema rezultatima prethodnih istraživanja u susjednim regijama, kamene platforme od riječnih oblutaka i skupljeni položaj tijela sami po sebi ne predstavljaju važan kronološki oslonac jer su na širem području prisutni od ranoga do početka kasnoga brončanog doba (Kosorić 1976: 42; Garašanin 1983a: 711; 1983b: 743; Kosorić, Krstić 1988: 36; Della Casa, Fischer 1997: 215). Iako u grobu 3 iz Novog Sela nisu pronađeni nikakvi grobni prilozi, apsolutni datumi podupiru uvrštavanje ovoga nalaza među grobove iz vremena ranoga i početka srednjega brončanog doba te po prvi puta pokazuju kako se i područje Semberije mora uzeti u razmatranje kada je riječ o pojavi tumula u ovome dijelu Balkana (Kosorić 1976: T. 32–33; Garašanin 1987: 53; Kosorić, Krstić 1988: 35).

Uzimajući u obzir početno stanje istraživanja u Novom Selu i niz potencijalnih drugih tumula u bližoj okolici, više je nego vjerojatno da grob 3 nije jedini nalaz ove vrste u Semberiji. Ono što također treba istaknuti je veličina tumula u blizini Bijeljine s promjerom od otprilike 40 m, što premašuje dimenzije do sada istraženih tumula u susjednim područjima. Upotreba drvenoga nosila, odnosno odra u grobnom ritualu kao i postojanje drugih pratećih objekata ili ograde oko kamene platforme, također su bez ekvivalenta među ranije poznatim grobovima iz ovoga razdoblja (sl. 22). Prema trenutnome stanju nije isključeno kako brončanodobni grobovi u Semberiji predstavljaju zaseban i do sada nepoznat lokalni fenomen, blisko povezan s područjem doline Drine i prostorom Balkana dalje prema jugu. U svakome slučaju, otkriće kosturnoga groba u Novom Selu prilog je boljem razumijevanju grobnih rituala iz ranoga i srednjega brončanog doba u ovoj regiji.

Tri groba iz kasnijih faza srednjega vijeka posljednja su dokumentirana faza korištenja tumula kao grobnoga mjesta. Mogućnost da su daljnji grobovi iz ovoga razdoblja prisutni na neiskopanim područjima tumula, a najvjerojatnije i u nizu drugih susjednih humki, vrlo je velika.

Na kraju se može zaključiti kako su istraživanja u Novom Selu kod Bijeljine otkrila postojanje višefaznoga grobnog i ritualnog mjesta na prirodno povišenome tere-

graves from the Late Copper Age nor inhumation burials from the Bronze Age had hitherto been uncovered in the region of Semberija, the finds from Novo Selo represent the first step toward a better perception of the prehistoric local landscape from a diachronic perspective. With regard to the fact that the prospecting of the nearby mound of Muharine indicated a variety of structures, it is crucial to conduct further investigations that will certainly expand our current knowledge.

Translation / Prijevod
Mario Gavranović

Proofreading / Lektura
Marko Maras

nu šljunčanoga grebena. Tijekom kasnoga bakrenog doba prirodno uzvišenje bilo je ograđeno jarkom ili nekom sličnom konstrukcijom te korišteno kao ritualno i grobno mjesto. Sam tumul podignut je s velikom vjerojatnoćom početkom srednjega brončanog doba (18. i 17. st. pr. Kr.) u sklopu aktivnosti povezanih s kosturnim grobom na kamenoj platformi. Imajući na umu da u Semberiji do sada nisu otkriveni niti paljevinski grobovi u urnama iz kasnoga bakrenog doba niti kosturni ukopi iz brončanoga doba, nalazi iz Novog Sela predstavljaju prvi korak prema boljoj i cjelovitoj percepciji prapovijesnoga lokalnog krajolika u dijakronoj perspektivi. S obzirom na činjenicu da su prve prospekcije na obližnjem humku Muharine ukazale na postojanje većega broja raznih struktura, provođenje daljnjih istraživanja gotovo sigurno će proširiti naša trenutna saznanja.

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