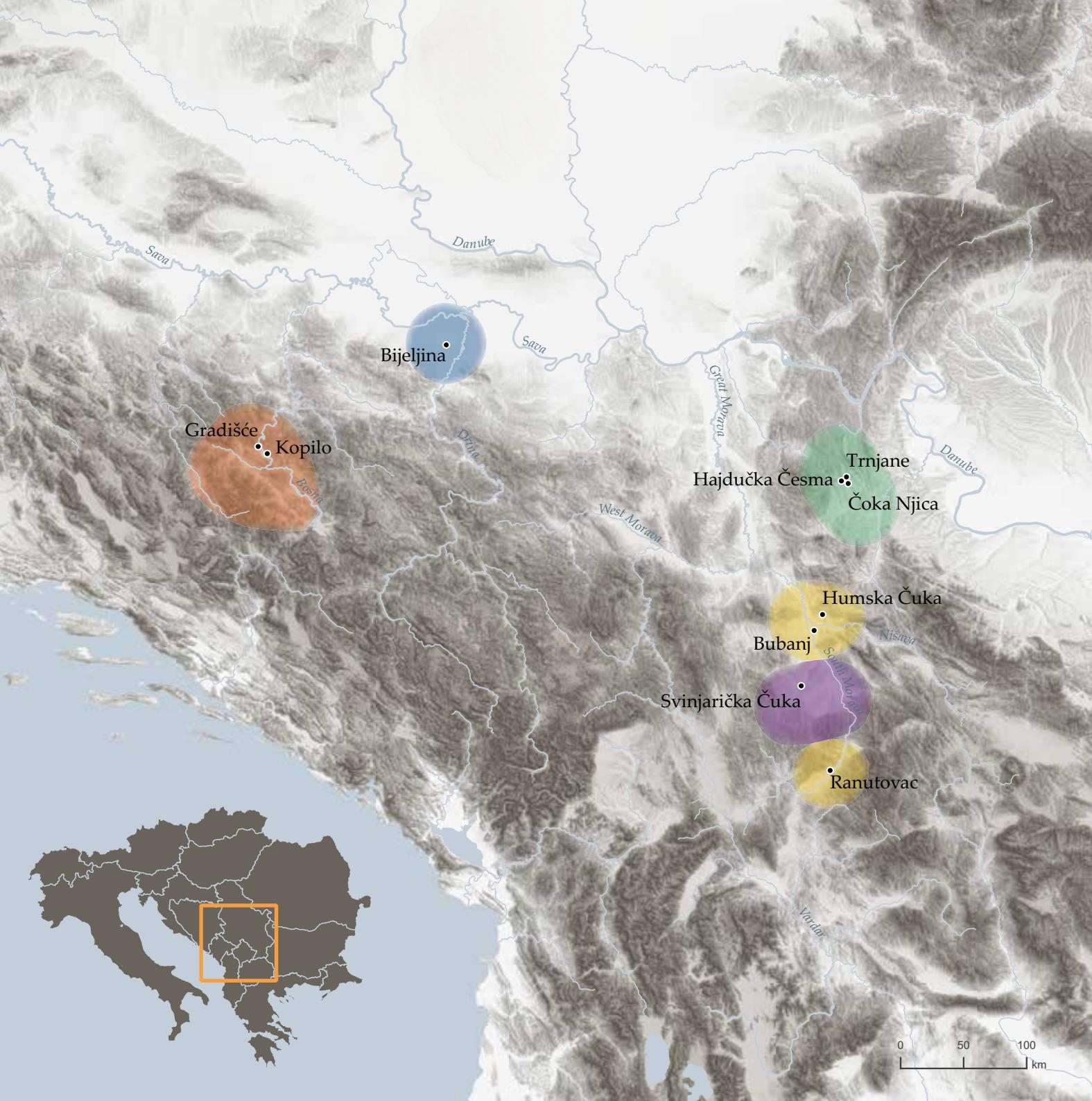




# VISUALIZING THE UNKNOWN BALKANS

# VIZUALIZACIJA NEPOZNATOG BALKANA



VISUALIZING  
THE UNKNOWN BALKANS

VIZUALIZACIJA  
NEPOZNATOG BALKANA

Cover / Naslovica: Northern Trench of Svinjarička Čuka / Naslovna strana: Severna sonda na lokalitetu Svinjarička Čuka (photo/fotografija: F. Ostmann)

The paper used in this publication is DIN EN ISO 9706 certified and meets the requirements for permanent archiving of written cultural property.

All rights reserved.

ISBN 978-3-7001-8811-7

Copyright © OREA, Austrian Academy of Sciences, Vienna 2020

Layout: Angela Schwab

Printing: Prime Rate, Budapest

<https://epub.oeaw.ac.at/8811-7>

<https://verlag.oeaw.ac.at>

Made in Europe

# Table of Contents / Sadržaj

Preface / Predgovor Mario Gavranović / Barbara Horejs	-	4
Introduction / Uvod Mario Gavranović / Barbara Horejs	-	7
First Farmers and Herders in South Serbia / Prvi zemljoradnici i stočari u Južnoj Srbiji Barbara Horejs / Michael Brandl / Bogdana Milić / Clare Burke	-	15
The Rising of Copper Age Central Places / Uspon centralnih mesta bakarnog doba Aleksandar Bulatović	-	33
Prehistoric Burial Mounds (tumuli) in Northeastern Bosnia / Praistorijske grobne humke (tumuli) u sjeveroistočnoj Bosni Mario Gavranović / Snježana Antić / Lukas Waltenberger	-	45
Bronze Age Metallurgy in East Serbia / Bronzanodobna metalurgija u istočnoj Srbiji Mario Gavranović / Aleksandar Kapuran / Mathias Mehofer / Lukas Waltenberger	-	59
Bronze Age Communities in Central Bosnia / Brončano doba u srednjoj Bosni Mario Gavranović / Irene M. Petschko	-	73
Glossary / Rečnik termina	-	87
Figures/Photos / Ilustracije/Fotografije	-	93
Introductory literature / Uvodna literatura	-	102
Research Dissemination / Diseminacija istraživanja	-	106
Funding / Izvori financija	-	110
Partners of Visualizing the Unknown Balkans / Partneri projekta Vizualizacija nepoznatog Balkana	-	112
Acknowledgements / Zahvale	-	113
Authors / Autori	-	114

## Preface

The idea for this booklet is closely related to the research focus on Balkan archaeology of the OREA Institute of the Austrian Academy of Sciences and its various collaboration partners. Thanks to the financial support of the Innovation Fund of the Austrian Academy of Sciences, it has been possible to realize the *Visualizing the Unknown Balkans* project over the last two years. The present booklet aims to set out a physical paper-based summary accompanying a digital 3D movie produced within the framework of the Innovation Fund project. The fragmentation of modern-day archaeology on the Balkans, its high impact on the European past and its scientific attractiveness constitute our starting point for turning a new spotlight on Balkan archaeology for a broader audience.

Visualizing the complex and multi-level research results of interdisciplinary teams represents one of the challenges in state-of-the-art archaeology these days. In explaining and disseminating the outcome of excavations and fieldwork, we could have realized various initiatives for a scientific and broader public. Open-days for guests and press conferences during the excavations in Bosnia and Herzegovina and in Serbia have attracted lots of media attention since 2018. Our new results have been presented in lectures at the Austrian embassies in Belgrade and Sarajevo as well as in lectures held at several international scientific congresses. Recently excavated objects and finds from Svinjarička Čuka (Serbia) were presented in an exhibition and its accompanying catalogue at the Schallaburg in Lower Austria in 2020.

Implementing this multi-level visualization approach was only possible due to the engaged support of many institutions. We are thankful to all the Serbian authorities, especially the Serbian Ministry of Culture and Heritage and our collaboration partners at the Institute of Archaeology in Belgrade. The Ministry for Education, Science, Culture and Sport of the Zenica-Doboj Canton supported our investigations in Bosnia and Herzegovina. We would also like to thank the Armed Forces of Bosnia and Herzegovina for providing help during the excavation in Bijeljina. We additionally thank the National Museum in Leskovac, the Museum of Mining and Metallurgy in Bor, the Museum of Semberija in Bijeljina and the Museum of the City of Zenica. We would like to express our sincere thanks to the Austrian Embassy in Belgrade, the ambassador Nikolaus Lutterotti and Sabine Kroissenbrunner as well as to the cultural attaché Adrien Feix and the first secretary of the Austrian Embassy in Sarajevo, Nicola Hardwick.

The results presented here are based on ongoing research fieldwork in the Balkans, funded by the Austrian Science Fund (FWF projects no. P32096-G25 and no. P32095-G25). We especially thank the Austrian Academy of Sciences and its Innovation Fund for supporting our initiative. We would like to thank the Austrian Academy of Sciences Press for supporting this publication, Angela Schwab for the layout of the present booklet, Irene Petschko for its organization, Felix Ostmann for the help with images/photos and Nicola Wood for the English editing. Finally, we thank each and every member of our excavation teams and all authors for sharing their expertise with us, namely Snježana Antić, Michael Brandl, Aleksandar Bulatović, Clare Burke, Aleksandar Kapuran, Bogdana Milić, Mathias Mehofer, Ognjen D. Mladenović, Irene M. Petschko and Lukas Waltenberger (in alphabetical order).

We hope that the present booklet supports the Visualizing of the Unknown Balkans, revives further interest and informs a broader audience about the continued attractiveness of Balkan archaeology!

Vienna, 8.7.2020

Mario Gavranović / Barbara Horejs

## Predgovor

Ideja za izradu ove brošure usko je povezana sa istraživačkim fokusom na balkansku arheologiju OREA Instituta Austrijske akademije nauka i raznih partnera. Realizacija projekta „Vizualizacija nepoznatog Balkana“ u protekle dvije godine omogućena je zahvaljujući finansijskoj podršci Fonda za inovacije Austrijske akademije nauka. Ova brošura, pored digitalnog 3D filma, ima za cilj da prikaže sažetak istraživanja sprovedenih u okviru projekta. Fragmentacija moderne arheologije na Balkanu, njen veliki utjecaj na evropsku prošlost kao i njena atraktivnost sa naučnog stanovišta polazne su tačke novog interesa za balkansku arheologiju i njenog predstavljanja široj publici.

Vizualizacija složenih i primjenom različitih metoda dobivenih rezultata istraživanja od strane interdisciplinarnih timova predstavlja jedan od velikih izazova savremene arheologije. Prezentacija i popularizacija rezultata terenskog rada i arheoloških iskopavanja u okviru projekta pokrenula je niz raznih javnih inicijativa usmjerenih ka široj i naučnoj javnosti. Otvoreni dani za goste i konferencije za štampu tokom naših istraživanja u Bosni i Hercegovini i Srbiji izazvali su zavidnu medijsku pažnju. Rezultati projekta predstavljeni su na predavanjima u austrijskim ambasadama u Beogradu i Sarajevu, kao i na nekoliko međunarodnih naučnih skupova. Nedavno otkriveni predmeti i nalazi sa iskopavanja na Svinjaričkoj Čuki (Srbija) predstavljeni su 2020 na izložbi u Schallaburgu u Donjoj Austriji kao i u pratećem katalogu.

Realizacija kompleksnog projekta vizualizacije arheoloških istraživanja omogućena je zahvaljujući angažiranoj podršci mnogih institucija. Zahvaljujemo se vlastima u Republici Srbiji, posebno Ministarstvu kulture i baštine Republike Srbije i našim partnerima sa Arheološkog instituta u Beogradu. Ministarstvo za obrazovanje, nauku, kulturu i sport Zeničko-dobojskog kantona podržalo je naše istraživanje u Bosni i Hercegovini. Takođe se zahvaljujemo Oružanim snagama Bosne i Hercegovine na pružanju pomoći tokom iskopavanja u Bijeljini. Dodatno se zahvaljujemo Narodnom muzeju u Leskovcu, Muzeju rudarstva i metalurgije u Boru, Muzeju Semberije u Bijeljini i Muzeju grada Zenice. Iskreno se zahvaljujemo austrijskoj ambasadi u Beogradu, ambasadorima Nikolaus Lutterotti i Sabine Kroissenbrunner, atašeu za kulturu Adrienu Feixu i prvoj sekretarici austrijske ambasade u Sarajevu Nicoli Hardwick.

Predstavljeni rezultatiinicirali su nekoliko tekućih terenskih istraživanja na Balkanu koje finansira Austrijski naučni fond (FWF projekati br. P32096-G25 i br. P32095-G25). Posebno se zahvaljujemo Austrijskoj akademiji nauka i Fondu za inovacije koji su podržali našu inicijativu. Željeli bismo da se zahvalimo i medijskom odjeljenju Austrijske akademije nauka koje je podržalo izradu ove publikacije, Angeli Schwab za tehničku izradu i dizajn, Irene Petschko za organizaciju, Felixu Ostmannu za pomoć u odabiru fotografija i Nicoli Wood za redakciju engleskih tekstova. Na kraju se zahvaljujemo timovima sa naših iskopavanja i svim autorima koji su sa nama učestvovali u izradi tekstova, a to su Snježana Antić, Michael Brandl, Aleksandar Bulatović, Clare Burke, Aleksandar Kapuran, Bogdana Milić, Mathias Mehofer, Ognjen Đ. Mladenović, Irene M. Petschko i Lukas Waltenberger (po abecednom redu).

Nadamo se da će ova brošura uspješno predstaviti prve rezultate projekta „Vizualizacija nepoznatog Balkana“ i pobuditi dalji interes te ujedno informirati širu publiku o fascinantnoj balkanskoj arheologiji i njenoj neprekidnoj privlačnosti!

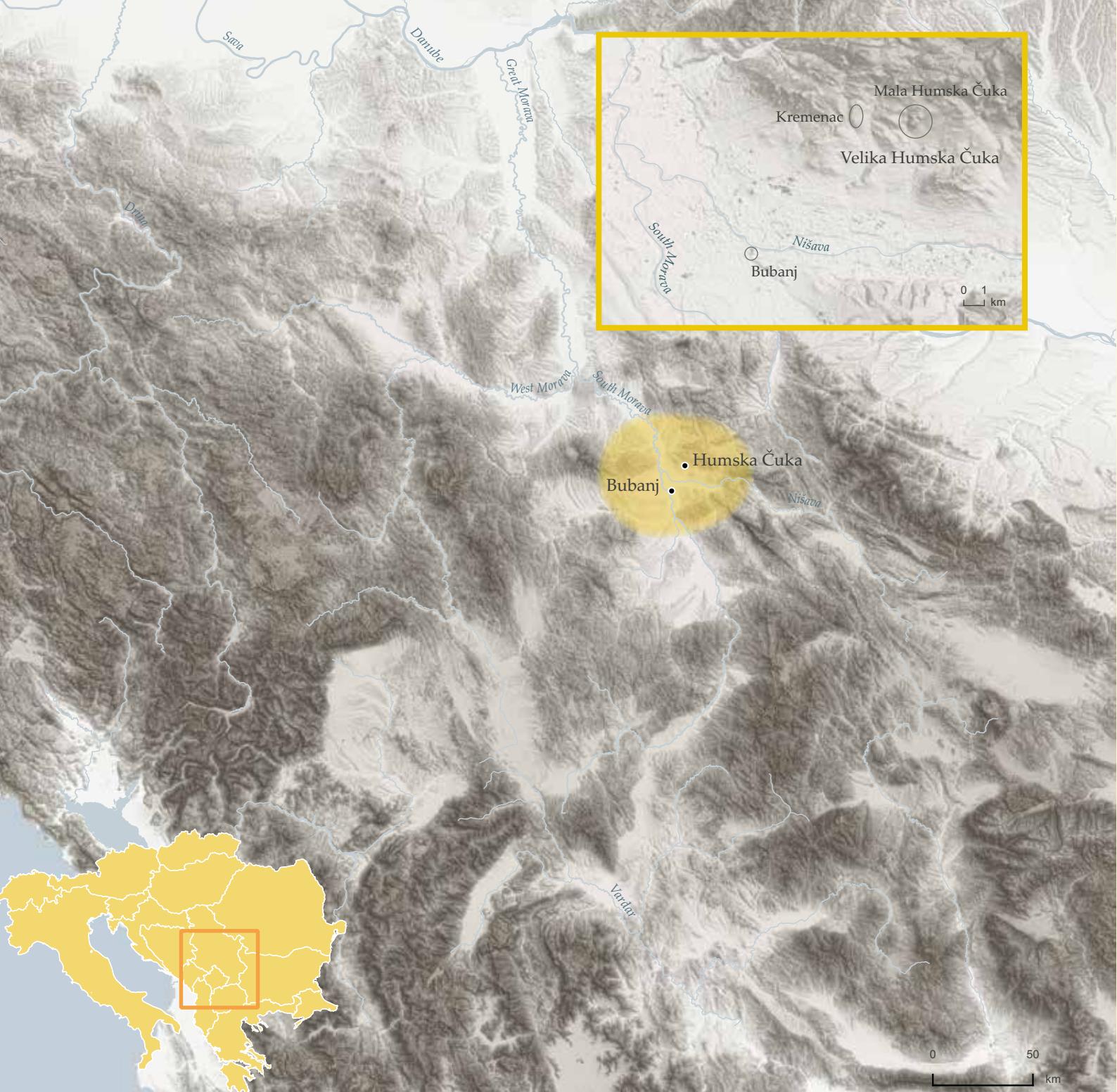
Beč, 8.7.2020

Mario Gavranović / Barbara Horejs

**THE RISING OF COPPER AGE  
CENTRAL PLACES**

**USPON CENTRALNIH MESTA  
BAKARNOG DOBA**

Aleksandar Bulatović





7000 BC

6000

5000

4000

3000

2000

1000

35

## The Rising of Copper Age Central Places

Velika Humska Čuka is an archaeological site located in southeastern Serbia, on the northeastern periphery of the village of Hum, approximately 8 km north of the city of Niš. The site is composed of an oval plateau measuring 125 × 150 m. The plateau lies on a dominant elevation (alt. 454.79 m) with steep and inaccessible slopes, except for the northern side of the site that connects it with the opposite elevation known as Mala Humska Čuka.

The site has a visual connection with the eponymous site of Bubanj (8.6 km aerial distance) and the renowned flint outcrop of Kremenac (2.3 km aerial distance). The position of the site dominates the landscape and provides control of most of the Niš Basin. First archaeological excavations of the sites of Velika Humska Čuka and Mala Humska Čuka were conducted in the 1930s and continued on Velika Humska Čuka in the 1950s. The results of those excavations and the excavations at the neighbouring site of Bubanj have provided the basis for the definition of a particular phase of prehistory, marked as the Bubanj-Hum group.

After a long break, archaeological excavations were continued in 2014 by the Institute of Archaeology in Belgrade and the National Museum in Niš. The excavations are still ongoing, with a surface of more than 500 m<sup>2</sup> examined so far.



## Uspon centralnih mesta bakarnog doba

Lokalitet Velika Humska Čuka se nalazi u jugoistočnoj Srbiji, na severoistočnoj periferiji sela Hum, oko 8 km severno od Niša. Čini ga ovalni plato približnih dimenzija  $150 \times 120$  m na vrhu dominantnog uzvišenja (najviša kota 454,79 m) strmih nepristupačnih strana, izuzev severne kojom je ovaj plato povezan sa manjim uzvišenjem poznatim pod nazivom Mala humska čuka.

Lokalitet Velika Humska Čuka je vizuelno povezan sa eponimnim lokalitetom Bubanj (udaljenost vazdušnom linijom 8,6 km), kao i sa čuvenim nalazištem kremena, odnosno opala Kremencem (2,3 km vazdušnom linijom), a sa njega je moguća kontrola većeg dela Niške kotline. Prva arheološka istraživanja lokaliteta Velika Humska Čuka i Mala Humska čuka izvedena su 1930-ih godina, a zatim nastavljena samo na Velikoj humskoj čuki 1950-ih godina, čiji rezultati su, uz rezultate iskopavanja na lokalitetu Bubanj omogućili izdvajanje posebne faze u praistorijskom periodu označene kao bubarjsko-humska grupa.

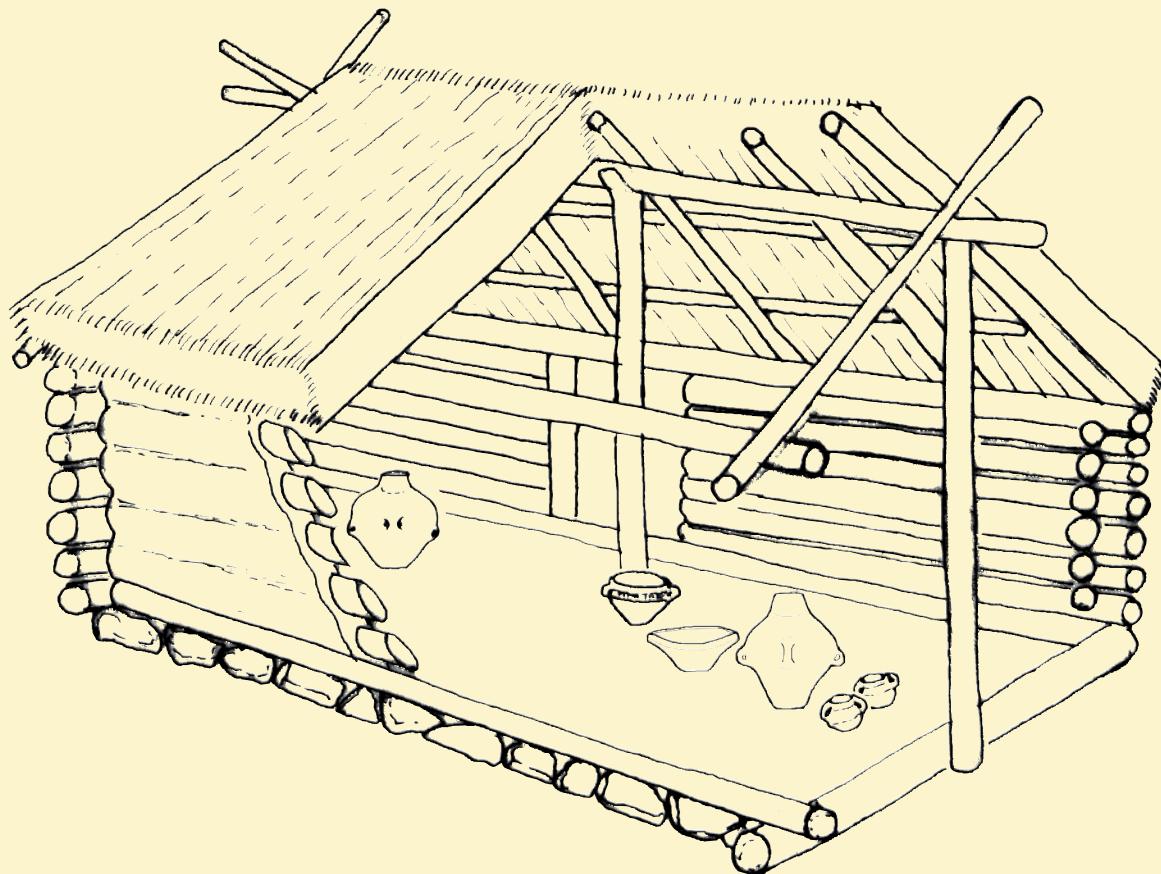
Posle duže pauze arheološka iskopavanja se nastavljaju 2014. godine u organizaciji Arheološkog instituta u Beogradu i Narodnog muzeja u Nišu, koja traju i danas, tokom kojih je istražena površina od preko  $500\text{ m}^2$ .



Cultural layers and enclosed features recorded at the site are attributed to the Early Eneolithic (Bubanj-Hum I, Sălcuța), the Late Eneolithic (Bubanj-Hum II), all phases of the Bronze Age and the Early and Late Iron Age (Late La Tène period). The best-preserved cultural layer belongs to the Early Eneolithic, and it yielded the remains of four houses, multiple kiln floors, and hearths.

Judging by the remains of House 1, which was the best-preserved house at the site, the Early Eneolithic houses had a rectangular ground plan, approximately  $5 \times 3.5$  m in dimension, and were oriented north-south. The houses were built in the wattle and daub technique. A dug-in hearth was recorded in the northern portion of the house, and several ceramic vessels were placed along the axis of the house. The house and its complete inventory were burnt in a large fire.

House 2 was devastated by a large Roman structure, which prevented the precise reconstruction of its ground plan and dimensions. The absolute date for the house puts it into the 44<sup>th</sup>-43<sup>rd</sup> century BC. Interestingly, a cooper's chisel weighing 92 g was found in the house, and it represents one of the earliest-dated copper objects in the central Balkans.



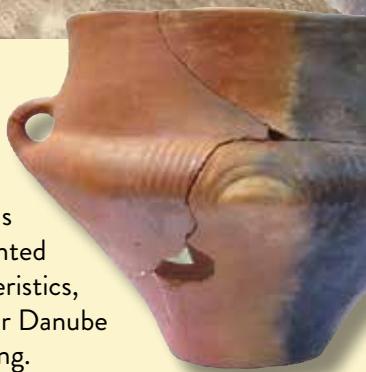


Na lokalitetu su registrovani kulturni slojevi sa zatvorenim celinama iz starijeg eneolita (Bubanj-Hum I, Salcuta IV), pozognog eneolita (Bubanj-Hum II), svih faza bronzanog doba, kao i starijeg i mlađeg gvozdenog doba (pozna latenska kultura). Najbolje je očuvan kulturni sloj starijeg eneolita u kojem su evidentirani i istraženi ostaci četiri kuće, kao i više podnica peći, odnosno vatrišta.

Prema ostacima kuće 1, koji su najbolje očuvani, kuće iz ovog perioda su bile pravougaone osnove približnih dimenzija  $5 \times 3,5$  m, orijentacije S-J, izgrađene tehnikom pleteri i lepa. U severnom delu ove kuće nalazilo se ukopano vatrište, a duž ose kuće bilo je poređano nekoliko posuda, koje su zajedno sa kućom izgorele u velikom požaru.



House 3 was damaged by three Roman pits, allowing for only a partial reconstruction of data, such as the wattle and daub technique (fragments of daub decorated with grooves) and several phases of floor renewal, of which the earliest phase is dated to the 45<sup>th</sup>–44<sup>th</sup> century BC. Two pits were dug into the younger floor, one of which contained several completely preserved vessels painted in blue, ochre, red, and graphite. Some of the vessels and one large rectangular altar painted in white show evidence of secondary burning. According to the stylistic and typological characteristics, finds from the younger phase of this house are common for the concurrent cultures of the Lower Danube Region, and the most indicative finds from this period are two vessels decorated with a gold coating.



Kuća 2 bila je devastirana velikim rimskim objektom, pa se njen izgled i dimenzije nisu mogli rekonstruisati, a apsolutni datum pokazao je da datira iz 44–43. veka pre n.e. Zanimljivo je da je unutar njenih ostataka nađeno bakarno dleto težine 92 g, koje predstavlja jedan od najstarijih datovanih bakarnih nalaza na centralnom Balkanu.

Kuća 3 bila je oštećena sa tri rimske jame, ali su se neki podaci mogli rekonstruisati, kao što je tip gradnje od pleteri i lepa (sa primercima lepa ukrašenim žlebovima) i više faza obnove podnice, od kojih je najstarija datirala iz 45–44. veka pre n.e. U mlađu podnicu kuće bile su ukopane dve jame, od kojih je u jednoj bilo pohranjeno nekoliko celih posuda oslikanih plavom, neke sekund-

belom, oker, crvenom i grafitnom bojom, od kojih su arno gorele, kao i jedan veći goreli pravougaoni



In House 4, excavated in 2019 and dated to a period between the 45<sup>th</sup> and the 43<sup>rd</sup> centuries BC, remains of a floor, house inventory, walls made of baked clay decorated with grooves and Early Eneolithic portable finds were all recorded.

Besides the interesting finds from almost all of from the Early Eneolithic to Late La Tène, red-figure painted pottery from Clas- (4<sup>th</sup> century BC) were also recorded, that the site was inhabited during that period as well. Following the hiatus after the Late La Tène pe- riod, the site was last inhabited for a short period during the Late Antique period.

the prehistoric periods,  
fragments of  
sical Greece  
testifying



žrtvenik oslikan motivima u beloj boji. Nalazi iz mlađe faze ove kuće, prema stilsko-tipološkim odlikama podsećaju na istovremene kulture iz donjeg Podunavlja, a najjindikativniji nalazi iz ovog perioda jesu fragmenti dve posude sa ostacima zlatne prevlake.

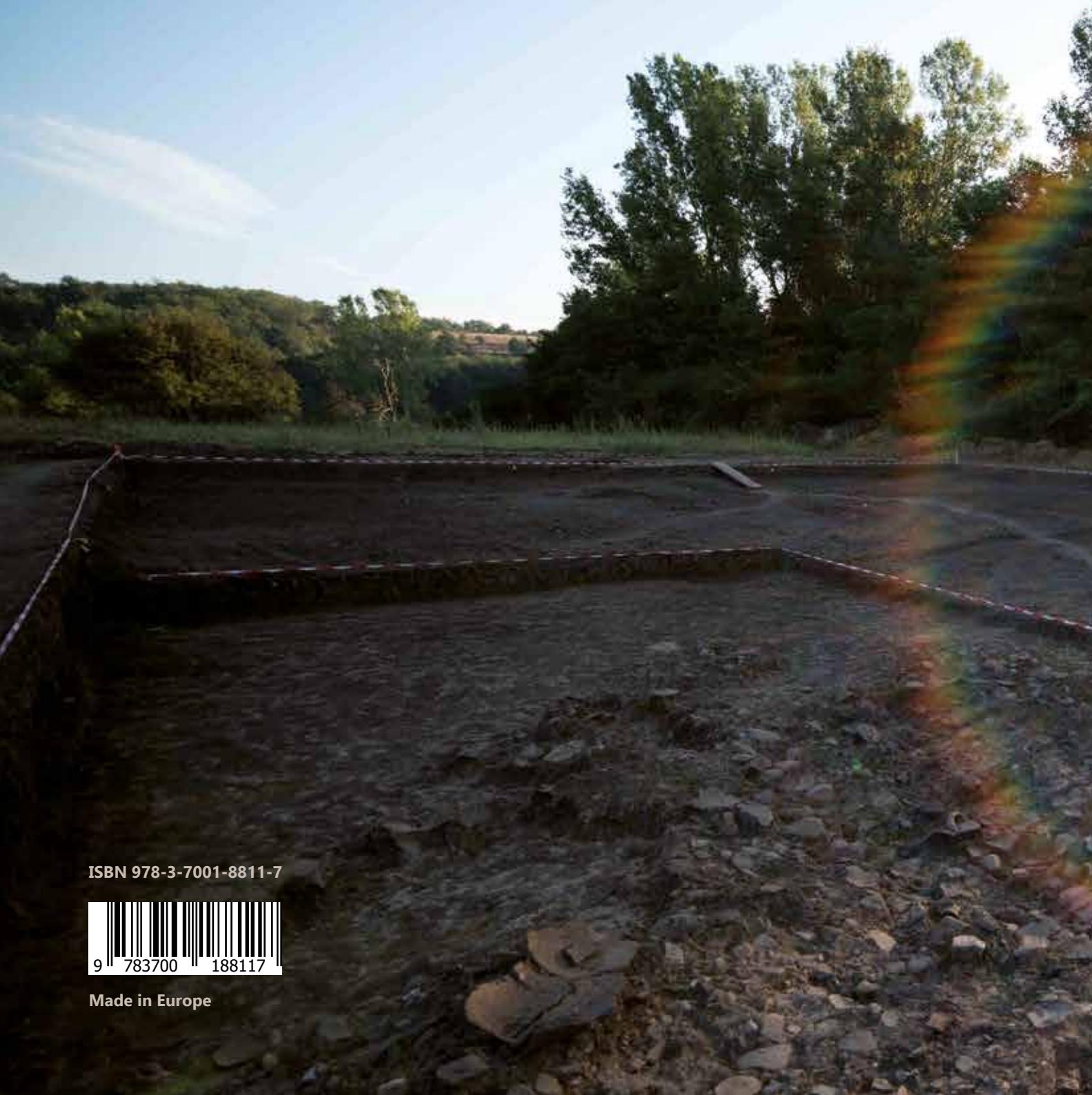
U kući 4 otkrivenoj 2019. godine datovanoj u peri- od 45–43. veka pre n.e. registrovani su ostaci podnice, kućnog mobilijara i zidova od pečene zemlje ukrašenih žlebovima, kao i pokretni nalazi iz starijeg eneolita.

Pored interesantnih nalaza iz gotovo svih perioda pra- istorije od starijeg eneolita do latenskog perioda, na loka- litetu su evidentirani i nalazi slikane crvenofiguralne ker- amike iz perioda klasične Grčke, odnosno 4. veka pre n.e. koji svedoče da je lokalitet bio nastanjen i u ovom periodu. Nakon hijatusa posle perioda pozognog latena lokalitet je bio nakratko nastanjen u kasnoantičkom periodu posle čega se život na njemu potpuno gasi.









A photograph of a railway track curving through a rural landscape. The track is dark and appears to be made of wood or metal sleepers. It curves from the left foreground towards the center of the frame. The surrounding area is filled with dense green trees and bushes. In the background, there are rolling hills under a clear blue sky. A vibrant rainbow effect is visible on the right side of the image, extending from the top right corner down towards the bottom right. The overall scene is peaceful and suggests a quiet day in the countryside.

**ISBN 978-3-7001-8811-7**



Made in Europe