

*Papers in Honour of Rastko Vasić 80<sup>th</sup> Birthday*

*Зборник радова у част 80 г. живота Растка Васића*

АРХЕОЛОШКИ ИНСТИТУТ

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**Војислав Филиповић**  
**Александар Булатовић**  
**Александар Капуран**

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**PAPERS IN HONOUR  
OF RASTKO VASIĆ  
80<sup>th</sup> BIRTHDAY**

**Editors**

**Vojislav Filipović  
Aleksandar Bulatović  
Aleksandar Kapuran**

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Vojislav Filipović

Aleksandar Bulatović

Aleksandar Kapuran

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## Foreword

Since 1990, after practically 30 years and the publication of the volume of the *Starinar* journal dedicated to the academician and professor Milutin Garašanin, the Institute of Archaeology in Belgrade publishes a volume dedicated to a doyen of both Serbian and European archaeology, Rasko Vasić. In contrast to university centers, where this kind of publications are usual, due to the position of individuals as professors and teachers (*Festschrift*, *Homage...*), the scientific researchers are usually neglected in that respect, which can be seen in the fact that this volume represents the first of a kind published by the Institute of Archaeology. Bearing in mind the significance and the influence of Vasić's work on ex-Yugoslav and prehistoric archaeology of Europe, as well as the fact that he spent his entire career at the Institute of Archaeology, we consider this volume as a humble act of our gratitude for everything our dear colleague Vasić did for archaeology and the Institute, on occasion of his 80th birthday.

Indeed, Rastko Vasić stands as a great of both Serbian and Yugoslav archaeology, distinctly appreciated and esteemed, which stands in opposition to his humble and unobtrusive nature. Vasić's scientific and artistic educations often intertwined in his papers dealing both with the protohistoric art and the particular problems of the Bronze and Iron Age in southeastern Europe. Years of work and scientific questions led him to various phenomena of our prehistoric archaeology, many of which he had himself defined, but from time to time he used to go back and discover the until then unobserved Iron Age art of the Central Balkans. Only a glimpse of his bibliography at the beginning of this volume reveals the archaeological phenomena he had defined and interpreted, and through his serious and responsible scientific work and afterwards authority introduced to archaeology. His first monographs (*Културне групе старијег гвозденог доба у Југославији* and *The Chronology of the Early Iron Age in Socialist Republic of Serbia*) were created on basis of his doctoral dissertation and more than a couple of decades since the publication represent often cited literature.

## Увод

Након безмало 30 лета и *Старинара* посвећеног академику и професору Милутину Гарашанину из 1990. године, Археолошки институт у Београду објављује једну засебну публикацију посвећену дојену српске, али и европске археологије Растку Васићу. За разлику од универзитетских центара, где је овај тип публикација (*Festschrift*, *Homage...*) уобичајен због позиције појединца као професора и учитеља, научни су радници обично занемарени у томе погледу, што се види и по томе да је ово прва таква засебна публикација наше куће. Но, имајући у виду значај Васићевих дела за бившу југословенску и праисторијску археологију Европе и утицај на њу, као и то што је цео свој радни век провео у Археолошком институту, сматрали смо да је овај зборник поводом 80 година живота један скромни чин наше захвалности за све што је драги колега Васић учинио за археологију и Институт.

Растко Васић доиста представља велика на српске и југословенске археологије, изразито уваженог и цењеног, што је у неку руку у супротности са његовом скромном и ненаметљивом природом. Васићево научно, али и уметничко образовање често се сустицало у његовим првим радовима, када се бавио како уметничким протоисторијским темама, тако и конкретним проблемима гвозденог и бронзаног доба југоисточне Европе. Године рада и стручна питања одвела су га ка многим феноменима наше праисторијске археологије, од којих је неке и сам дефинисао, али се с времена на време враћао, а уједно и откривао до тада незапажену уметност гвозденог доба централног Балкана. Само и летимичан поглед на његову библиографију на почетку овог зборника говори о археолошким појавама које је Васић одредио и интерпретирао, а својим озбиљним и одговорним научним радом и доцнијим ауторитетом увео у домаћу археологију. Његове прве монографије (*Културне групе старијег гвозденог доба у Југославији* и *The Chronology of the Early Iron Age in Socialist Republic of Serbia*), настале на основама док-

A complete affirmation in Yugoslav archaeology for colleague Vasić was the invitation to write no less than 13 chapters for the 5th volume of the distinguished publication *Praistorija jugoslavenskih zemalja*, as one of the youngest authors, dealing with less familiar subjects or subjects with scarce background data, undetermined origin or undefined to a great extent. It can be said that even nowadays, after more than 30 years, Vasić's certain syntheses from the aforementioned publication, remain the postulates for the Iron Age of the Central Balkans. Another significant work of Rastko Vasić, although often not emphasized enough, is the fact that under the invitation of the academician Dragoslav Sreјović, he participated in writing of 150 separate units in the unique domestic archaeological encyclopedia - *Arheološki leksikon – preistorija Evrope, Afrike i Bliskog Istoka, grčka, etrurska i rimska civilizacija*, a paper that Yugoslav and Serbian archaeology lacked for a number of decades. His international reputation was confirmed by five monographs published within the prestigious *Prähistorische Bronzefunde* edition. In parallel with that, through his advice and influence, as well as through his scientific renown, he aided younger colleagues to prepare the volumes for the same edition.

In that context, it is important to mention that defending boards for magister or doctoral thesis on the subject on Bronze and Iron Age could not be imagined without the presence of the colleague Vasić. On such occasions, not a single critique or a bad word could be heard from Vasić, but positive opinion and useful suggestions above all, so that the candidate could properly prepare the thesis for future publication. Rastko Vasić has been a member of the editorial board for the *Starinar* journal for more than 40 years, as well as for many other corpora and journals in the territory of southeastern Europe. As a member of editorial staff or as a reviewer of papers and monographs, he would always point out the qualities of the submitted material, and if the other members of editorial staff or reviewers decided to reject the material, his benevolent suggestions would help in publishing each useful paper after all, even in some other journal. Also, as a long-time director of scientific projects at the Institute of Archaeology, he would always do his best to help

торске дисертације, и даље су, неколико деценија након објављивања, цитирано штиво.

Потпуну афирмацију у југословенској археологији колега Васић доживео је када је позван да, као један од тада најмлађих аутора, напише чак 13 поглавља за том V чувене *Праисторије југославенских земаља*, и то на неке теме о којима се мало знало или у вези с којима су подаци били шури, нејасног порекла и добрим делом недефинисани. Може се рећи да и данас, након 30 и више година, поједине Васићеве синтезе из ове серије и даље остају једини постулати гвозденог доба централног Балкана. Још један значајан допринос овога типа, чини се, није довољно помињан у досадашњем његовом раду, а то је чињеница да је на позив академика Драгослава Срејовића учествовао у изради преко 150 засебних јединица у јединственој домаћој археолошкој енциклопедији – *Археолошки лексикон – преисторија Европе, Африке и Блиског истока, грчка, етрурска и римска цивилизација*, делу које је дуги низ деценија недостајало југословенској и српској археологији. Међународни углед потврдио је са пет монографија у престижној едицији *Prähistorische Bronzefunde*, док је паралелно саветима и својим утицајем, као и научним реномеом, помагао млађим колегама да припреме своје свеске за исту едицију.

У томе контексту, важно је поменути да се без колеге Васића није могла замислити комисија за одбрану магистарских или докторских дисертација на тему бронзаног или старијег гвозденог доба. Том приликом од њега се није могла чути покуда или лоша реч, већ надамне позитивно мишљење и корисне сугестије како би кандидат своје дело адекватно припремио за будуће објављивање. Преко 40 година члан је редакције *Старинара*, као и многих зборника и часописа на простору југоисточне Европе. Као чест члан редакција или рецензент радова и монографија, увек је истицао квалитете прилога, а уколико би се остатак редакције или други рецензенти одлучили да одбију аутора, он би сесвојим благонаклоним сугестијама трудио да сваки користан рад ипак буде објављен, па макар у неком другом часопису. Такође, као дугогодишњи руководиоца научних пројеката у Археолошком институту,



young colleagues on each matter, never striking as a boss or a superior.

Plenty of details on the private and professional life of Rastko Vasić, both as an archaeologist and painter and literate, can be found in the continuation of this volume, which was one of the ideas of the editors. Therefore, about 60 pages are dedicated to his life and work, biography and a detailed bibliography, while the interview is illustrated with Vasić's numerous paintings, selected by the celebrant himself. Afterward, there is a collection of papers dedicated to the colleague Vasić, written in English, German, Russian and the ex-Yugoslav languages, assorted chronologically. Unfortunately, certain authors which were invited in agreement with the celebrant did not respond, primarily due to the poor health, so the editors once again point out that they regret the situation, although on the other hand, we are grateful and proud of the content of the volume, on 33 authors of the papers, and the editorial board comprised of prominent names of the word archaeology from nine different countries.

Through this volume, the editorial board and the Institute of Archaeology would like to heartily congratulate the jubilee to our colleague Vasić and to wish him many more years in archaeology.

Vojislav Filipović  
Aleksandar Bulatović  
Aleksandar Kapuran

тудио се да помогне млађим колегама по свим питањима, не постављајући се притом као шеф.

Многи детаљи о приватном и професионалном животу Растка Васића и као археолога, и као сликара и књижевника, могу се наћи у наставку овог зборника, што је била и једна од идеја приређивача. Стога је првих шездесетак страна посвећено његовом животу и раду, биографији и детаљној библиографији, док је интервју илустрован бројним Васићевим сликама, по избору самог слављеника. Након тога уприличени сурадови посвећени колеги Васићу, на енглеском, немачком, руском и језицима бивше Југославије, поређани по хронолошком реду. Нажалост, поједини аутори позвани у консултацијама са слављеником нису се одазвали позиву, поглавито због нарушеног здравственог стања, па уредници и овом приликом напомињу да жале због оваквог развоја ситуације. С друге стране, поносни смо на садржај зборника – како на 33 аутора прилога, тако и на редакцију, у којој су врхунска имена светске археологије из девет земаља.

Колеги Васићу уредници и Археолошки институт овим зборником од срца честитају јубилеј и желе још много година рада у археологији.

Војислав Филиповић  
Александар Булатовић  
Александар Капуран



In the National Museum in Belgrade, 2018 (by Aca Đorđević)  
У Народном музеју, 2018. године (фото Аца Ђорђевић)

# The Find from Medoševac 20 Years Later – an Addition to the Studies of the Tumulus Culture on the Territory of the Central Balkans

Aleksandar Kapuran

*Abstract:* A group of objects discovered close to the village of Medoševac near Niš, represent the southernmost group find of bronze jewelry belonging to the Tumulus culture on the territory of modern Serbia. The manner of how the material reached the National Museum in Niš as well as its geographic isolation from the heartland in which this culture developed (southern Pannonia and the Drina and Lim river valleys), caught the attention of Rastko Vasić. It is obvious that the material comes from a skeletal burial, since the bronze items are in extraordinary condition and, in contrast to cremation, apparently haven't been exposed to flames and high temperatures. New absolute dates extracted from Tumulus culture necropolises in the western and northern Republic of Serbia, confirm that the find from Medoševac can be dated to the 14th century BC at the latest.

*Key words:* Bronze Age, Tumulus culture, burial customs, bronze jewelry.

Many museum collections across Serbia contain certain objects, important for different archaeological periods, that remain shrouded from scholarly circles for different reasons including uncertain contexts. This was also the case with the find from Medoševac, since it isn't certain when it was delivered to the National Museum in Niš, neither who brought it. It is likely the southernmost find of the Tumulus culture, being quite remote and distant from the region of that culture's development in the Western Morava and upper Drina river valleys,<sup>1</sup> as well as the Priboj<sup>2</sup> and Pljevlja regions.<sup>3</sup> The find from Medoševac was first mentioned in the catalogue "*Prehistoric cultures in the Morava river valley and Eastern Serbia*" that followed the same exhibition,<sup>4</sup> and with the exception of "Notes on The Bronze Age in Serbia" by Rastko Vasić<sup>5</sup> only some of the items from this find were mentioned separately in other literature.<sup>6</sup> The reason of our comeback and attention to this group find of bronze items after two decades is due to the new absolute dates for the Middle Bronze Age on the territory of Serbia that we have at our disposal. Furthermore, it is our intention to additionally study some of the items from this context, which were not taken into account in the study from 1997.<sup>7</sup>

The find from Medoševac consists of:

Plate. I/1; Decorative circular plate of thin bronze sheet, with channeled concentric circles and a larger protrusion in the middle. The top of the plate has a fragment of a modelled suspension tube (R=4,2 cm; spike H=2,8 cm).

<sup>1</sup> Kosorić 1976: 15,16; T. XXVIII.

<sup>2</sup> Дерикоњић 2010: 6.

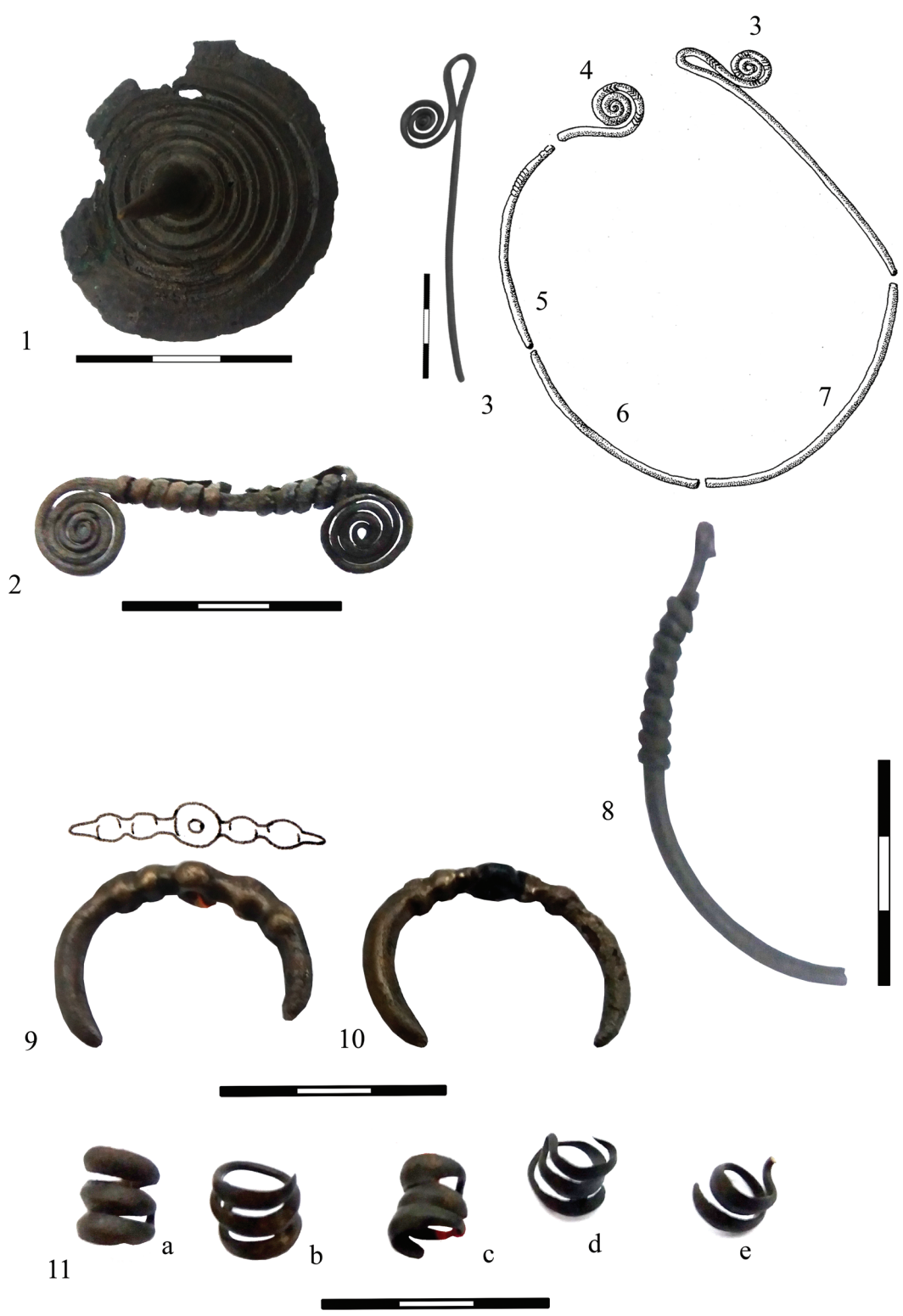
<sup>3</sup> Лазић 2007.

<sup>4</sup> The exhibition was organised by Academic Milutin Garašanin, custodian Radmila Ajdić and the director of the Museum Dragoljub Dejanović; Гарашанин 1971.

<sup>5</sup> Васић 1997.

<sup>6</sup> Васић 1997; Vasić 2010: 19, Taf. 10/71; Стојић, Јоцић 2006: 144, T. XLIV, сл. 26,53,73,74.

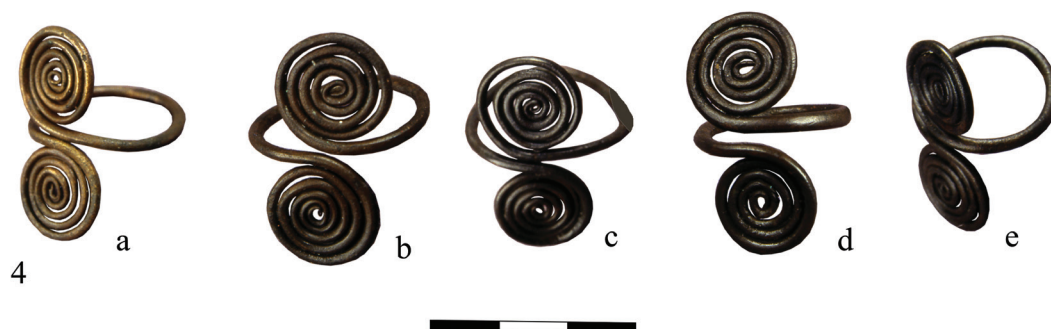
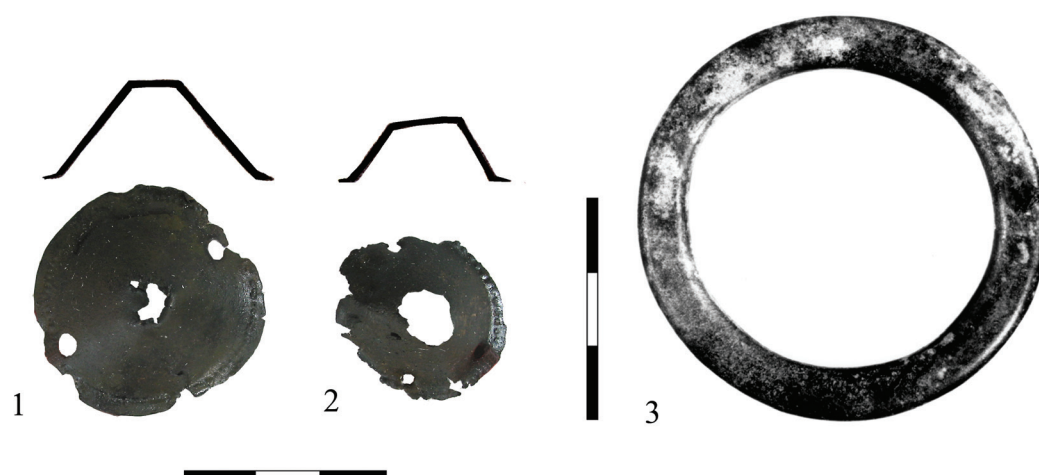
<sup>7</sup> On this occasion we thank the custodian of the prehistoric collection of the National Museum in Niš, Tatjana Trajković-Filipović, who allowed us to study the items exhibited in the Museum.



Pl. 1

Plate. II/1; Circular application of thin bronze sheet and a trapezoid cross section (tutuli), with perforations for fastening upon clothing (R=2,8 cm; H=1 cm).

Plate. II/2; Circular application of thin bronze sheet (tutuli), similar to the previous example (R=3,2 cm; H=1,4 cm).



Pl. 2

Plate. I/8; Bronze pin of the “Cypriot type” with a circular cross section, arched and lacking a pointed end. The head of the pin continues into a coil that is spirally winded around the structure of the item (H=9 cm).

Plate. I/3 Bronze torque ending, of a circular cross-section and retracted head in the form of a spiral which is decorated with incised lines (H=11,5 cm).

Plate. I/4; The other end of the previous torque with the retracted head that ends with a spiral decorated with incised lines (H=3 cm).

Plate. I/5-7; Three fragments of the same torque, arched wire with a circular cross section (H=8,3 cm; H=6,4 cm; H=6 cm).



Pl. 3

Plate. I/2; Decoration made of wined bronze wire with spiral coils on both ends, the truncated bronze wire is wined around its axis (H=5,5 cm) (i.b. 5714).

Plate. I/9; Pin holster in the form of a crescent (horseshoe) with pointed ends, an ovoid cross section, two pairs of embroadments on both sides and a cavity in the middle part (3,6 cm x 3 cm).

Plate. I/10; Pin holster in the form of a crescent (horseshoe) with pointed ends, an ovoid cross section and a cavity in the middle part, decorated as the previous example (4 x 3 cm).

Plate. I/11 a-e; Hairdress decoration of the “noppenringen” type made of spirally wined wire of a triangular cross section with alternating narrowings and broadenings (R=0,9 cm; H=1,3-0,7 cm).

Plate. II/4a-e; Rings made of bronze wire with endings wined into two opposing spirals (R=2,3 cm; h=3 cm) (ib. 5708).

Plate. II/5a-d; Applications (tutuli) made of thin bronze sheet metal and of a conical (bell-shaped) form, one has a broader profilated base (c) (R=1,5 cm; H=3,2 – 4,8 cm).

Plate. II/3; Decorative hoop or some kind of cast solid bronze bracelet with an elipsoid cross section (R=5,8 cm).

Plate. II/6; Decoratove oval plate with four small perforations along the edge and a fixing spike on the reverse side (R= 4,4 cm)

Plate. III; 33 Circular applications of thin bronze sheet in the form of a calotte with two perforations (R=2,2 – 1,1 cm; H=0,7 – 0,2 cm).

Additionally, another three fragments of spirally wined bronze wire of a triangular cross section, most likely rings, that are not part of the exhibition (H=3,9 cm; H=3,1 cm; H=2 cm).

The chronological and cultural determination of the finds from Medoševac precisely determine the age and affiliation of most of the jewelry including are decorative pin, torques, pin holsters, rings and the different application types and pendants.

### Pins

Pins are considered among the earliest items used in clothing. They remained in use up to relatively recently, alternating in sizes and form by depending on different technology and the materials used in their production. The role of these decorative objects in a funerary context is not completely clear. Draga Garašanin assumes that pins might have been used in the course of burial ceremonies, in such a way to fasten the shrouds of the deceased in skeletal burials as well as in cremations, to adorn the shroud before the burning.<sup>8</sup> Igor Bogdanović assumed that long pins were removed from shrouds before burning and that they were additionally placed together with the incinerated remains, although there is large number of cases where pins burned together with the deceased along with other grave goods.<sup>9</sup> Rastko Vasić assumes that the appearance of decorative pins of the Central European type during Br B2/C1 in the territory of modern Serbia probably represents the influence of the expanding Tumulus culture, especially in the Drina and Zapadna Morava river valleys.<sup>10</sup>

Regardless of the fact that one bronze pin from Medoševac belongs to the “Cypriot type” (Plate I/8), which is characteristic for the Early Bronze Age that is the Mureş, Nagyrév and Únětice cultures, they often appear in different variants within the area of the Tumulus culture itself. These pins have coils that represent a decorative continuation of the pin head, although in this case the coil is cut at one point. A bent pin with similar decorations was discovered in grave 235 at the Mokrin necropolis and Milorad Girić determined that it corresponds to the Mokrin III phase.<sup>11</sup> As we pointed out earlier, the pins of the “Cypriot type” are often found in graves of younger cultural groups, noticeable on the example of grave 252 at the Tiszafüred – Majoroshalom necropolis where along with bent pins and coils were also decorated bronze sheet bracelets with broad ends and a dagger, characteristic for the Tumulus culture in the Carpathian basin.<sup>12</sup> It is likely that these pins had longer chronological use, by the opinion of Miloš Jevtić who assumes that one pin of a namely pseudo-Cypriot type, found at the site of Osaonica near Novi Pazar, could have possibly been in use during the Early Iron Age.<sup>13</sup> Furthermore, M. Jevtić presumes that these types of finds can be linked to imports from Greek workshops of the Archaic period or the regions covered by the Glasinac – Mati cultural complex.<sup>14</sup> Since it is a smaller specimen, the “Cypriot type” pin from Medoševac most probably served for fastening overlapping parts of clothing or perhaps even for hairdress decoration,<sup>15</sup> albeit less likely.

### Pin holsters

Bronze production during the Middle Bronze Age, and its issuing expansion during the Koszider horizon, does not show larger differences compared to the production of metal objects in the Bronze Age in general. This is best observed on the example of horseshoe or crescent shaped pendants, one of the most characteristic types of finds from jewelry assemblages in the Koszider horizon of the Middle Bronze Age.<sup>16</sup> Namely, these pendants are in fact pin holsters, of a crescent shape that appears in two variants, with or without a holster cavity for the pointed end

8 Гарашанин 1979: 58.

9 Богдановић 1996: 195.

10 Васић 1997: 44,45; Vasić 2003: 6.

11 Girić 1971: 216, T. LXI/2,3; Vasić 2003: 13.

12 Kovász 1975: T. 23/252.

13 Jevtić, Đorđević 1991: 38, fig. 2.

14 Jevtić, Đorđević 1991: 32.

15 Богдановић 1996: 195.

16 Kovács 1975: 44.

of pin (Plate I/9,10).<sup>17</sup> The function of this kind of jewelry was studied by Dragan Jovanović, who provided a detailed typology and concluded that while it served for the purpose of fastening apparel it also prevented loosing the pin and protected the wearer from injury.<sup>18</sup> The production of these items during the Bronze Age on the territory of modern Serbia is testified by the rare finds of casting moulds from Subotica,<sup>19</sup> Velebit,<sup>20</sup> and Velesnica.<sup>21</sup>

Another integral part of the system that secured a decorative pin was an arrangement of bronze wire, coiled around it and starting immediately below the head and winding further towards the holster.<sup>22</sup> Decorative pins coiled with bronze wire appear on the territory of Serbia towards the end of Bronze Age, as testified by the hoard from Sombor, the finds from Sokobanja,<sup>23</sup> and the items in the Boljetin hoard, at the start of the Early Iron Age.<sup>24</sup> We assume that decorative items of profilated bronze wire with spiral coils on both ends, also represented an integral part of decorated pin holsters (Plate. I/2). We can assume that this type of item developed from earlier models, such as the examples encountered at the Szóreg necropolis<sup>25</sup> in Hungary or concurrent graves from Šafárikove in Slovakia.<sup>26</sup> However, even though this may appear obvious it still remains an assumption, due to the difficulty of finding analogies for this type of object in the all of Central Europe and the Carpathian Basin.

Crescent or horseshoe pendants appear to be somewhat older than heart-shaped pendants and can be dated to the earlier phases of the Middle Bronze Age,<sup>27</sup> thus to be considered as the older finds of the Koszider horizon. Bernard Hänsel determines their age at FD I or Br A1 according to Central European Bronze Age chronology.<sup>28</sup> Furthermore, the finds from the Zsadány necropolis Amália Mozsolics classified into phase B III.<sup>29</sup> O. Trogmayer and L. Szekeres assume that crescent pendants, along with sheet bronze belts, represent basic characteristics of the Tumulus culture<sup>30</sup> and correlate those to Maros and Únětice cultural traditions.

## **Torques**

A single torque, made of wire with a circular cross section and spirally winded ends, in the context of the find from Medoševac can be considered a rare item (Plate I/3-7). We learned of this object's complete outlines after the work carried out by Natalija Đurić, the custodian of the Museum in Niš,<sup>31</sup> who successfully reconstructed its shape by completing six fragments, including two that are spirally winded and decorated by incisions, representing the ends, whereas the remaining four fragments are in fact smooth wire with a circular cross-section. The item was published by Rastko Vasić.<sup>32</sup> Torques of this type were discovered in the Central Balkans, notably in Jančići (Mound 1, grave 3)<sup>33</sup> and at the necropolis in Skakavci (Mound 1, grave)<sup>34</sup> in western

<sup>17</sup> Vinski 1957: T. 3/5.

<sup>18</sup> Jovanović 2010: 55.

<sup>19</sup> Tasić 1974: v. 146

<sup>20</sup> Szekeres 1971: 48.

<sup>21</sup> Васић, Ерцеговић-Павловић, Минић 1984: 125, сл. 110/4.

<sup>22</sup> Jovanović 2010: Sl. 9.

<sup>23</sup> Vasić 2003: 31, 32; Taf. 10/149, Taf. 11/ 159.

<sup>24</sup> Вукмановић, Радојчић 1995: 158, кат. 325.

<sup>25</sup> Bóna 1975: Taf. 126/1,2.

<sup>26</sup> Hackman 1957: Taf. 54/36; Furmánek 1979: Fig. 2/2.

<sup>27</sup> Васић 1997: 41; Schumacher-Matthäus 1985: 89,91; Taf. 58/5.

<sup>28</sup> Hänsel 1968: Beilage 6.

<sup>29</sup> Mozsolics 1967: 153, 187; Taf 70/4-6.

<sup>30</sup> Trogmayer, Sekeres 1966-1968:

<sup>31</sup> Васић 1997: 42.

<sup>32</sup> Vasić 2010: 19, Taf. 10/71.

<sup>33</sup> Икодиновић 1986: кат. бр. 67.

<sup>34</sup> Zotović 1985: 61, T. 13/4.



Serbia. Rastko Vasić dates this torque type into Br C1/C2.<sup>35</sup> It is curious that this type of jewelry, documented in Western and Southern Serbia, Slovenia<sup>36</sup> and Slovakia,<sup>37</sup> is often encountered on anthropomorphic figurines in the Banat region, where incidentally it doesn't appear in the context of hoards or graves at all.<sup>38</sup> Furthermore, torques with spiral ends are discernible on the idol from Kličevac and the figure of the Dupljaja wheel-cart as well as on the idol from Gardinovac. These are associated with Transdanubian incusted pottery.

### Rings

A relatively small number of Bronze Age rings was discovered on the territory of Serbia so far. The only exception is the Velebit necropolis in the northern part of the Vojvodina region in Serbia, where a larger number of different ring types was found.<sup>39</sup> Rings from the Medoševac find count five specimens in the form of bronze wire with endings winded into two opposing spirals (Plate II/4a-e).<sup>40</sup> At the earlier mentioned necropolis of Velebit, where the deceased were biritually buried, in some cases rings were not only found on fingers but on toes as well, and were made in two techniques. Most were made of thin bronze sheet metal that was bent into form while the rest was made of winded smooth bronze wire. Interestingly, the deceased at this necropolis had spirally winded rings with alternating spiral ends only on big or long toes. In addition, this is the very type of ring encountered in the Medoševac find. They belong to variant 1a according to the system devised by Kilian-Dirlmeier, and were used up until the 6th century BC.<sup>41</sup> Two rings of the same type were found in the hoards from Lovas<sup>42</sup> and Tručevac,<sup>43</sup> and on the skeletal remains of the deceased in graves 102 and 160 at the necropolis of Tiszafüred in Hungary.<sup>44</sup> Considering the chronological determination of rings with ends winded into spirals from the Lovas hoard, the appearance of these rings on the territory of modern Serbia took place during Br B/C.<sup>45</sup>

The Catalogue of Prehistoric Cultures in the Morava river valley and Eastern Serbia includes three rings of spirally winded bronze wire with triangular cross sections, from Medoševac. These finds were also mentioned by Rastko Vasić,<sup>46</sup> but turned out absent from illustration plates and weren't included in the permanent exhibition in the National Museum in Niš.

### Spiral headdress adornments

The find from Medoševac also contains five spiral bindings for hairdressing. Some belong to the "noppenringen" type while the rest are ring-shaped (Plate I/5a-e). Katarina Dmitrović describes similar specimens on numerous sites on the territory of western Serbia, where specimens made of bronze sheet metal are most common and have broadening and narrowing segments, varying between 1-1.5 cm in radius.<sup>47</sup> Spiral headdressing adornments are considered characteristic examples of jewelry during the Middle Bronze Age, from phase Br B2 and well until phase D.<sup>48</sup>

<sup>35</sup> Vasić 2010: 20.

<sup>36</sup> Gabrovec 1987: 160, Taf. 18/10.

<sup>37</sup> Novotna 1984: 56 ff.

<sup>38</sup> Васић 1997: 42.

<sup>39</sup> This necropolis is not published.

<sup>40</sup> Гарашанин 1971: 44.

<sup>41</sup> Kilian-Dirlmeier 1980: 251, abb. 1.

<sup>42</sup> Vinski 1957: 2, T. 2/3-4.

<sup>43</sup> Гарашанин 1994: 2, T. I/3.

<sup>44</sup> Kovács 1975: Fig. 9/b; Fig. 12/b.

<sup>45</sup> Vinski 1957: 26.

<sup>46</sup> Васић 1997: 40,41.

<sup>47</sup> Дмитровић 2016: 187.

<sup>48</sup> Hänsel 1968: Beilage 5/32.

### **Pendants and applications**

Among the finds from Medoševac, there is also a large circular application made of thin bronze sheet with embossed channels decorated with concentric circles and a large protrusion in the middle (Stachelandel) (Plate I/1). Such decorative items represent pendants or applications fastened to textile or leather,<sup>49</sup> depending on whether they have a spikelike protrusion in the middle like this one. They could have been worn as parts of a necklace or in arrangement with some composite adornment that could have included spirally winded wire (salteleone).<sup>50</sup> Circular plates decorated with channelling usually contain a smaller or larger protrusion, although there are spikeless specimens with a hollow or vacant middle section. Specimens with suspension cavities on the top are encountered more often than specimens that were sewn to a supporting surface. On the territory of Serbia, such adornments were found at Bela Crkva<sup>51</sup> and Velebit. Those sites belong to the Tumulus culture. Isolated finds appear at Gomolava,<sup>52</sup> Vinča,<sup>53</sup> Vatin,<sup>54</sup> and Gornje Dobrinje.<sup>55</sup> As group finds, adornments of this type were not encountered in Serbia so far, but were encountered in neighbouring areas including the Lovas hoard near Vinkovci,<sup>56</sup> and the necropolis of Savin Lakat in Jabuka near Prijepolje.<sup>57</sup> According to Milutin Garašanin, “Stachelandel” belong to the early phase of the Middle Bronze Age, Reinecke B1 – B2,<sup>58</sup> and this is something that Bernard Hänsel (MD 1 and MD 2)<sup>59</sup> and Willvonseder agree with,<sup>60</sup> whereas Rastko Vasić is of the opinion that they appear slightly later on the territory of Serbia, during Br B2/C1-C2.<sup>61</sup> One oval plate with four perforations along the edges and a suspension in the middle on the reverse is also considered a clothing application (Plate II/6).<sup>62</sup>

The most numerous finds from the necropolises and hoards of the Middle Bronze Age are circular calotte shaped applications made of thin bronze sheet, serving as adornments for clothing or as jewelry, as is the case with the find from Medoševac (Plate III). Sometimes these items were conically bent but what's common for all of them are the perforations by which they were fastened to a surface. Such applications are called tutuli in literature. Bronze sheet bent into the shape of callotes adorned headdresses, as shown by examples from the Early Bronze Age necropolis at Mokrin.<sup>63</sup> They were in use during a longer time span, from the Early Bronze Age to as far as the Early Iron Age. Adornments fashioned in this way could have been used for decoration of leather apparel and belts, as shown by the quantity of such applications found *in situ* in grave 376 at the Tápé necropolis.<sup>64</sup> Calotte shaped applications were most likely parts of larger compositions that formed certain ornate arrangements.<sup>65</sup> The group find of bronze items from Medoševac contains 26 calotte shaped circular applications of smaller sizes and only seven of a somewhat larger radius.

The tutuli from Medoševac also include two specimens of trapezoid cross sections and a hammered base with edges decorated with circular embossments (Plate II/1,2). The upper sur-

<sup>49</sup> Богдановић 1996: 185.

<sup>50</sup> Лазић 2007: 120.

<sup>51</sup> Гарашанин, Гарашанин 1958: 40, 45; сл. 15/б.

<sup>52</sup> Тасић 1965: 197, сл. 8.

<sup>53</sup> Гарашанин 1954: Т. LX/10.

<sup>54</sup> Hänsel 1968: Т. 15/13.

<sup>55</sup> Vasić 2010: 20; Дмитровић 2016: 179.

<sup>56</sup> Vinski 1957: Т. II/5-7.

<sup>57</sup> Лазић 2007: 120: Т. IV/3-5.

<sup>58</sup> Garašanin 1983: 741.

<sup>59</sup> Hänsel 1968: Beilage 6.

<sup>60</sup> Willvonseder 1937: 144.

<sup>61</sup> Vasić 2010: 20.

<sup>62</sup> Гарашанин 1971: 44; Васић 1997: 40.

<sup>63</sup> Girić 1971: 219-222.

<sup>64</sup> Trogmayer 1975: 81.

<sup>65</sup> Schumacher-Matthäus 1985: Taf. 32; Taf. 72/56; Taf. 73/16,26; Taf. 75-77.

faces are damaged. Very similar tutuli are documented at several necropolises in the Zapadna Morava river valley<sup>66</sup> and in the Lovas hoard,<sup>67</sup> while almost identical specimens were discovered in Mound 1 at the site of Latinsko Groblje<sup>68</sup> and Jabuka near Prijepolje.<sup>69</sup> The chronological framework for the dating of these tutuli type adornments ranges from Br B (or Koszider horizon) to Ha A1 (Gava).<sup>70</sup>

According to the results of the anthropological analysis of the material from the necropolis of Dubac in Jačići, these applications were most likely intended for use by the female population.<sup>71</sup> The tutuli of a pronounced conical cross section could represent some form of radial adornment in the area of the head, possibly as a prestigious part of female clothing reserved for distinguished members of the society, as shown by a reconstruction of a cap from one of the graves of this necropolis.<sup>72</sup>

There is also another type of application or tutuli, represented by conically bent bronze sheet, with an occasional highlighted hole. It is likely that these adornments were suspended from belts by strings.<sup>73</sup> The group find from Medoševac contains four such specimens, of which most are corroded (Plate II/5a-d).

### Solid hoop bracelets

Solid cast bronze hoops of an ellipsoid cross section are among the rarest items from Tumulus culture assemblages in Serbia (Plate II/3). It seems apparent that the hoops were in fact bracelets, used probably in female adornment due to the smaller radius of the items. Interestingly enough, open ended bracelets as well as those with overlapping ends are incomparably more present in the Carpathian basin. On the other hand, closed bracelets are encountered in the hoards from Valemszentvid<sup>74</sup> and Abaújszántó<sup>75</sup> in Hungary, and from Curtuiușeni și Cheșereu in Romania.<sup>76</sup>

### Relative and absolute chronology

It is necessary to point out that the main, if not the single most important common characteristic of the Tumulus culture in Central Europe and on the territory of Serbia is the burial custom associated with this culture, regardless of whether cases include mounds or are so called flat graves.<sup>77</sup> However, as revealed by material culture, the society of this particular cultural complex did retain certain (local) characteristics to a limited extent, revealing slight differences between groups in spite of dynamic interaction.

According to the well accepted and ubiquitous Reinecke's chronology, Br A represents the Early Bronze Age, Br B-C represents the Middle Bronze Age (or the Bronze Age of the Tumulus culture that is defined by characteristic burials that are prevalent during this period), whereas the last phase is designated as Br D and Ha A-B, hence the Late Bronze Age of the Urnfield period.<sup>78</sup>

<sup>66</sup> Дмитровић 2016: 191.

<sup>67</sup> Vinski 1957: T. IV.

<sup>68</sup> Летица 1982: Т. 2/6.

<sup>69</sup> Лазих 2007: 120, Т. IV/13.

<sup>70</sup> Mozsilics 1973: 67,68.

<sup>71</sup> Дмитровић 2016: 191.

<sup>72</sup> Дмитровић 2016: 193, sl. 123.

<sup>73</sup> Schumacher-Matthäus 1985: Taf. 55/26.

<sup>74</sup> Řihovský 1983: Taf. 36/49, 67; Taf. 39/26.

<sup>75</sup> Mozsilics 1967: Таф. 51/7.

<sup>76</sup> Bader 1978: 124, Pl. LXXXIII/25.

<sup>77</sup> Tasić 1972: 105.

<sup>78</sup> Harding 2000: 10.

The time of the Tumulus culture's preeminence, according to absolute radiocarbon dates, is between 1500 and 1300 BC.<sup>79</sup>

Nearly half a century ago Nikola Tasić assumed that the sites in the vicinity of Subotica, in the north of the Vojvodina region in Serbia, can be dated to end of the 14th and the beginning of the 13th century BC.<sup>80</sup> Rastko Vasić assumes that the same cultural manifestations on the territory of Serbia can be determined to the Middle Bronze Age or Br B and C,<sup>81</sup> which would coincide with 1600/1500-1200 BC. There are certain divisions of the Bronze Age in the middle Danube region according to which the Tumulus culture is concurrent with MDIII, and does not start before the end of Br B1, or lasts between 1500 and 1300 BC.<sup>82</sup> Such a chronological range mostly corresponds to Br B2-C1 and other authors who excavated necropolises from the same period, such as Tiszafüred – Majoroshalom,<sup>83</sup> Tápé,<sup>84</sup> Pecica Site-14<sup>85</sup> and others<sup>86</sup>, generally agree on that topic.

Regarding the absolute radiocarbon dates retrieved from the territory of Serbia it is safe to say that there isn't that much divergence from established relative chronologies. Namely, the <sup>14</sup>C absolute dates acquired from Gomolava at Layer IV/b, where the "Stachelnadel" mentioned earlier was discovered, turned out related to 1400 BC (Vatin – Belegiš horizon).<sup>87</sup> The AMS dating results obtained from the central grave of Mound XVIII at the Paulje necropolis revealed a calibrated date at 1415-1278 BC with 95,4% certainty, hence this case can correspond with the middle of the 14th century BC.<sup>88</sup>

Furthermore, an absolute date was extracted from a grave from the Velebit necropolis near Kanjiža. The recently obtained AMS date, provided thanks to the director of the Institute of Archaeology Miomir Korać, comes from an incinerated burial from grave 107 at this necropolis. The sample was analyzed by Isotopech ZTR laboratory in Debrecen.<sup>89</sup> The obtained date is 3600±25 BP, or when calibrated, encompasses the time range 1407-1236 BC, with 95,4% confidence. As it turns out this date corresponds very well with the date from the Paulje necropolis. There is yet another date related to the Gomolava IV horizon, moreover containing the earlier mentioned "Stachelnadel" application, that also corresponds to the range from the end of the 15th to the 13th century BC.<sup>90</sup>

From what we've stated so far it's safe to assume that the finds from Medoševac should be chronologically determined into the time span of the 14th/13th century BC, as existing absolute dates from sites in the western and northern parts of the Republic of Serbia are synchronous without that much variation.

*"By aggregating the finds from this period (Bronze Age), uncertainties are easily overcome and lacunae are filled, so we can hope that in the future it would be possible to speak with certainty about all the elements of Bronze Age development in Serbia."*<sup>91</sup>

<sup>79</sup> Harding 2000: 18, Table 1.1.; Kristiansen and Larsson 2005: 130.

<sup>80</sup> Tasić 1974: 240.

<sup>81</sup> Vasić 2003: 3; Vasić 2010: 3.

<sup>82</sup> Hänsel 1968: 143, 170.

<sup>83</sup> Kovász 1975: 49.

<sup>84</sup> Trogmayer 1975: 155.

<sup>85</sup> Sava and Andreica 2013: 51.

<sup>86</sup> Falkenstein 1998: 91, abb. 10.

<sup>87</sup> Waterbolk 1988: 120.

<sup>88</sup> Gligorić, Filipović, Bulatović 2016: 105.

<sup>89</sup> The laboratory team for obtaining the AMS date was comprised of: Molnár M, Riny L, Veres M, Seiler M, Sinal H-A. Environ MICADAS: a mini 14C AMS with enhanced gas ion source interface in the Hertelendi Laboratory of Environmental Studies (HEKAL) Hungary. Radiocarbon Vol 55, Nr 2-3 2013, p. 338-344. Molnár M, Janovics R, Major I, Orsovski J, Gönczi R, Veres M, Leonard AG, Castle SM, Lange TE, Wacker L, Hajdas I, Jull AJT. Status report of the new AMS 14C sample preparation lab of the Hertelendi Laboratory of Environmental Studies (Debrecen, Hungary) Radiocarbon, Vol 55, Nr 2-3 2013, p 665-676.

<sup>90</sup> Szentmiklosi 2009: 104, Fig. 2; Gogáltan 2015: Fig. 21.

<sup>91</sup> Bacuň 1997: 38.

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## List of authors / Списак аутора

**Stefan Alexandrov**  
National Institute of Archaeology and Museum  
Bulgarian Academy of Sciences  
2 Saborna Str.  
1000 Sofia, Bulgaria  
stefanalexandrov@abv.bg

**Dragana Antonović**  
Institute of Archaeology, Belgrade  
Knez Mihailova 35/IV  
11000 Belgrade, Serbia  
d.antonovic.960@gmail.com

**Tiberius Bader**  
Max Eyth Str. 12  
71282 Hemmingen, Deutschland  
tib.bader@web.de

**Martina Blečić Kavur**  
Univerza na Primorskem, Fakulteta za  
humanistične študije, Titov trg 5  
6000 Koper, Slovenia  
martina.blecic.kavur@upr.si

**Jan Bouzek**  
Charles University  
Smetanovo nábřeží 6  
11001 Prague, Czech Republic  
Jan.Bouzek@ff.cuni.cz

**Dragan Božić**  
Znanstvenoraziskovalni center SAZU  
Inštitut za arheologijo  
Novi trg 2  
SI-1000 Ljubljana, Slovenija  
dragan.bozic@zrc-sazu.si

**Игорь Викторович Брюяко**  
Одесский археологический музей  
Национальной академии наук Украины  
Ланжероновская ул.4  
65026 Одесса, Украина  
ibruyako@yandex.ru

**Aleksandar Bulatović**  
Institute of Archaeology, Belgrade  
Knez Mihailova 35/IV  
11000 Belgrade, Serbia  
abulatovic3@gmail.com

**Marko Dizdar**  
Institute of Archaeology  
Ljudevita Gaja 32  
10000 Zagreb, Croatia  
marko.dizdar@iarh.hr

**Katarina Dmitrović**  
Narodni muzej Čačak  
Cara Dušana 1  
32000 Čačak, Serbia  
katarina.dmitrovic@gmail.com

**Aca Đorđević**  
National Museum in Belgrade  
Trg Republike 1a  
11000 Belgrade, Serbia  
a.djordjevic@narodnimuzej.rs

**Vojislav Filipović**  
Institute of Archaeology, Belgrade  
Knez Mihailova 35/IV  
11000 Belgrade, Serbia  
vfilipov1@gmail.com

**Blagoje Govedarica**  
Institut für Prähistorische Archäologie  
der FU Berlin, c/o Eurasien Abteilung des DAI  
Im Dol 2-6, Haus II  
14195 Berlin, Germany  
blagoje.govedarica@dainst.de

**Mitja Guštin**  
profemeritus  
Pusterla 7  
6330 Piran, Slovenia  
mitja.gustin@upr.si

✠ **Bernhard Hänsel**  
Institut für Prähistorische Archäologie,  
Freie Universität  
Fabeckstraße 23-25  
14195 Berlin, Deutschland

**Aleksandar Kapuran**  
Institute of Archaeology, Belgrade  
Knez Mihailova 35/IV  
11000 Belgrade, Serbia  
a.kapuran@gmail.com

**Boris Kavur**  
Univerza na Primorskem, Fakulteta za  
humanistične študije, Titov trg 5  
6000 Koper, Slovenia  
boris.kavur@upr.si

**Jovan Koledin**  
Muzej Vojvodine  
Dunavska 35  
21000 Novi Sad, Srbija  
jovan.koledin@muzejvojvodine.org.rs

**List of authors / Списак аутора**

**Мирослав Д. Лазич**  
Универзитет у Београду, Филозофски факултет,  
Одељење за археологију, Археолошка збирка  
Чика Љубина 18-20  
11000 Београд, Србија  
mdlazic@gmail.com

**Ljuben Leshtakov**  
National Institute of Archaeology with Museum,  
Bulgarian Academy of Sciences  
Sofia, 2 Saborna str.  
1000 Sofia, Bulgaria  
l\_leshtakov@abv.bg

**Marija Ljuština**  
Univerzitet u Beogradu, Filozofski fakultet  
Odeljenje za arheologiju  
Čika-Ljubina 18-20  
11000 Beograd  
mljustin@f.bg.ac.rs

**Daria Ložnjak Dizdar**  
Institut za arheologiju  
Ljudevita Gaja 32  
10000 Zagreb, Hrvatska  
dldizdar@iarh.hr

**Predrag Medović**  
Narodnog fronta 71  
21000 Novi Sad, Serbia

**Dragi Mitrevski**  
Ss. Cyril and Methodius University  
blvd. Goce Delcev 9  
1000 Skopje, Macedonia  
dragimit@yahoo.com

**Ognjen Đ. Mladenović**  
Institute of Archaeology, Belgrade  
Knez Mihailova 35/IV  
11000 Belgrade, Serbia  
mladenovic40@gmail.com

**Kristina Mihovilić**  
Arheološki muzej Istre  
Carrarina ulica 3  
52100 Pula, Hrvatska  
kristina.mihovilic@ami-pula.hr

**Barry Molloy**  
School of Archaeology  
University College Dublin  
Newman Building  
Dublin 4, Ireland  
barrymolloy@gmail.com

**Јовица Станковски**  
Т. Думба 88/4-21  
1100 Куманово, Македонија  
stankovskijovica@yahoo.com

**Milorad Stojić**  
Milutina Milankovića 28  
11000 Beograd, Srbija  
milestojic@gmail.com

**Marija Svilar**  
Institute of Archaeology, Belgrade  
Knez Mihailova 35/IV  
11000 Belgrade, Serbia  
marijasvilar@yahoo.com

**Josip Šarić**  
Institute of Archaeology, Belgrade  
Knez Mihailova 35/IV  
11000 Belgrade, Serbia  
josips@eunet.rs

**Biba Teržan**  
Filozofska fakulteta, Univerza v Ljubljani  
Aškerčeva cesta 2  
1000 Ljubljana, Slovenia  
biba.terzan@ff.uni-lj.si

**Денис Топал**  
Универзитет «Высшая антропологическая школа»  
Зимбрулуй 10а  
2024 Кишинев, Молдова  
denis.topal@gmail.com

**Selena Vitezović**  
Institute of Archaeology, Belgrade  
Knez Mihailova 35/IV  
11000 Belgrade, Serbia  
selenavitezovic@gmail.com