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# Prehistory of north-eastern Serbia using the examples from Felix Romuliana and its surroundings

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GERDA VON BÜLOW/SOFIJA PETKOVIĆ (HERAUSGEBERINNEN)

# GAMZIGRAD-STUDIEN I

ERGEBNISSE DER DEUTSCH-SERBISCHEN FORSCHUNGEN IM UMFELD DES PALASTES ROMULIANA





# GERDA VON BÜLOW / SOFIJA PETKOVIĆ (HERAUSGEBERINNEN)

GAMZIGRAD-STUDIEN I

# **RÖMISCH-GERMANISCHE FORSCHUNGEN**

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# Gamzigrad-Studien I

Ergebnisse der deutsch-serbischen Forschungen im Umfeld des Palastes *Romuliana* 

HERAUSGEGEBEN VON GERDA VON BÜLOW UND SOFIJA PETKOVIĆ

MIT BEITRÄGEN VON

MARIANNE BERGMANN, GERDA VON BÜLOW, SVEN CONRAD, GORDANA JEREMIĆ, ALEKSANDAR KAPURAN, NATAŠA MILADINOVIĆ-RADMILOVIĆ, MARK OPELT, SOFIJA PETKOVIĆ, STEFAN POP-LAZIĆ, ANA PREMK, CHRISTOPH RUMMEL, TIM SCHÜLER, BRIGITTA SCHÜTT, JANA ŠKUNDRIĆ-RUMMEL, JÁNOS TÓTH, MILOJE VASIĆ UND DRAGANA VULOVIĆ

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# Prehistory of North-eastern Serbia using the examples from *Felix Romuliana* and its surroundings

## By Aleksandar Kapuran

### **INTRODUCTION**

The emergence and ways of life of various prehistoric cultures in the vicinity of the Felix Romuliana imperial palace, as well as in the broader area of Crni Timok (Serbian: Crna Reka) basin, were influenced primarily by the landscape encountered in north-eastern Serbia, geomorphological and pedological properties of the soils, richness in water, minerals, and ores, and the climate fluctuations during the several millennia from the beginning of the Neolithic until the establishment of Roman control over this region. The territory of north-eastern Serbia is known as the "Timok eruptive basin" in geomorphological literature. It is situated in the middle of Carpathian-Balkan mountain chain. The landscape comprises of successive rolling hills with mountain peaks and valleys resembling figures on a "chessboard" (fig. 1) through which conical hills are interleaved with numerous river courses. In some areas of this region, karstic relief dominates the landscape, manifested in numerous sinks, pits, caves, and rock shelters as well as natural stone bridges along river gorges. The basin of Crni Timok is exposed to the strong periodical flash floods, and its riverbanks were formed through the redisposition of alluvial soils. We know from the recent past that the Timok basin was covered in dense oak forest, which is preserved only in form of protected enclaves today. In the area around Zlot and Džanovo polje (between Bor town and Crni Timok river course), the Cambisol has formed, through both alluvial and aeolian processes<sup>1</sup>. In temperate climate, the Cambisol type of soil is suitable for agriculture. Along the banks of Crni Timok, the Vertisol type of soil has formed. Vertisol soil contains a higher amount of clay, is a good substrate for grasses, and therefore more suitable for herding.

The Crni Timok river basin was, and still is, an important region which connects the basins of the Morava and Nišava rivers with the Carpathian and Lower Danube regions. During 2008 and 2009, a systematic large-scale survey was organised<sup>2</sup>, thanks to the collaboration between the Institute of Archaeology in Belgrade, the TO-POI project, and the Freie Universität Berlin, to supplement an earlier survey from 2001 which was organised by the Centre for Archaeological Research from the Faculty of Philosophy in Belgrade<sup>3</sup>. These surveys, together with archaeological excavations of which many had remained unpublished<sup>4</sup>, helped to create a new image of the continuity of prehistoric cultures and their settlements in this part of north-eastern Serbia. Judging by the topography of the sites, the majority of them was situated on the river terraces, followed by those on high points overlooking river valleys, while cave settlements and those on some of the hardly accessible ridges are the rarest.

## THE NEOLITHIC

At the beginning of the Holocene, the river courses had stabilised which accelerated the formation of fertile Chernozem soil on the sandy alluvial deposits. The numerous examples from Central Europe have shown that this type of soil is easily eroded by lack of drainage or by the primitive techniques of agriculture. The latter caused short-living settlements and constant movement of the prehistoric societies which is manifested in the mainly horizontal stratigraphies characteristic of the early Neolithic sites<sup>5</sup>. Terrains along the edge of river valleys, above fertile alluvial deposits had a different magmatic rock substructure and were not suitable for early farmers, especially because

- 1 PROTIC et al. 2005.
- 2 Kapuran / Škundrić 2009.
- 3 LAZIĆ et al. 2007–2008.
- 4 Only one excavation published by Miodrag Sladić and Mira Ružić; SLADIĆ / RUŽIĆ 2001.
- 5 TRINGHAM 1971, 30.

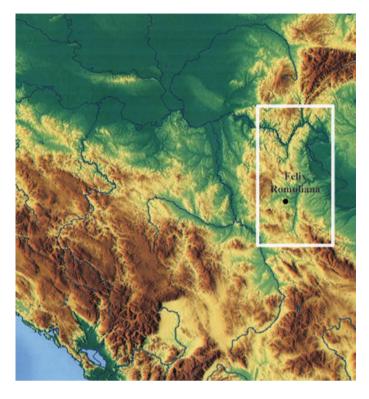
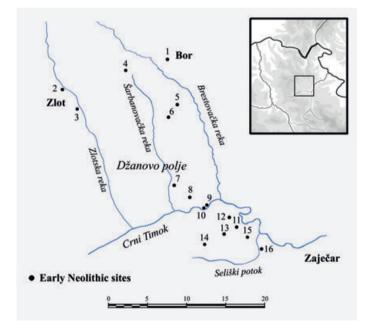


Fig. 1. Central Balkan and north-eastern Serbia.



<sup>Fig. 2. The Neolithic settlement during the Protostarčevo period.
1. Kučajna, 2. Abri iznad Lazareve pećine, 3. Donja Stopanja, 4. Kobila,
5. Dubrava, 6. Cerova faca, 7. La Bunar, 8. Punđilov potok, 9. Kot 1,
10. Kot 2, 11. Višicina bašta, 12. Kravarnik, 13. Varzari, 14. Petronj 1,
15.</sup> *Romuliana extra muros*, 16. Lokalitet južno od Magure.

of a dense wooden cover of mainly oak forests<sup>6</sup>. If we combine topography and finds of material culture, we can assume that recorded sites are representative for the Neolithic settlement during the Protostarčevo period (*fig. 2*)<sup>7</sup>.

The Early Neolithic settlements in the vicinity of Romuliana are: Romuliana extra muros, Kravarnik, Varzari, Petronj 2, the site between Magura and the Roman quarry, and Višicina bašta (fig. 2). In the Bor area, sites belonging to the Early Neolithic are: Kučajna, Cerova faca, Dubrava, Kot 1, Kot 2, Pundilov potok, La Bunar, Smolnica - Izvor Nestorovog potoka, the rock shelter above Zlotska cave, Donja Stopanja, and Kobila (fig. 2). Following the topographic properties in the first place, the Early Neolithic settlements in the Bor and Zaječar areas can be divided into two groups: lowland settlements on river terraces and highland settlements. The first group existed on fertile and moist soils on riverbanks along the tributaries of the Crni Timok river, situated at 180-200 m above sea level. It is represented by the sites of Kučajna, Dubrava, Cerova faca, Kot 1 and 2, Felix Romuliana, Varzari, and Višicina bašta. Gentle slopes of the terrain provide a natural drainage when the precipitations are abundant. It should be noted that there is a lack of evidence about extensive farming at these sites but also kept in mind that all of the excavations were small-scale. In the Pomoravlje and Šumadija regions (Central Serbia), the most important Neolithic sites, such as Grivac, Divostin, and Blagotin, have existed on very similar positions8.

High altitude settlements are situated on vantage points, above watercourses at altitudes between 220 and 300 or more metres. The necessity of the water supply is solved by the use of several springs, usually situated close to the site. The high altitude settlements group in the vicinity of *Felix Romuliana* are: the site between Magura and the Roman quarry, Kravarnik, Petronj 2, Kobila, and the rock-shelter above Zlot cave (*fig. 2*).

Pottery finds discovered at Kučajna near Bor, as well as on the adjacent sites, show the lack of painting and "barbotine" decoration that is characteristic for the Early Neolithic (*pl. 1*). The predominance of roughly made pottery (*pl. 1,2.6.7.10*), monochrome colour (*pl. 1,1.5.10*), impressed decoration (*pl. 1,11.12*), circular, oval, or short rib-shaped appliqués (*pl. 1,13.14*), and applied bands is common in the Early Neolithic pottery assemblages from Iron Gates, at the sites of Padina, Lepenski vir, Ajmana,

<sup>6</sup> TRINGHAM 1971, 30; GLIŠIĆ 1968, 24.

<sup>7</sup> VETNIĆ 1998, 75; JOVANOVIĆ 1969, 38; LAZAROVICI 2006, 126–130; PERIĆ 2004, 13; KOTSOS / UREM-KOTSOU 2006, 200.

<sup>8</sup> Bogdanović 2004; Stepanović 1988; Perić 2008; Vuković 2004.

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Velesnica, Knjepište, and Kamenički potok9. In the Morava river basin, the mentioned properties of pottery are found in large numbers at Protostarčevo sites such as Grivac I and II, Blagotin, Drenovac, etc.<sup>10</sup>. Numerous symbolic artefacts, zoomorphic figurines, amulets, altars (pl. 1,15), and an anthropomorphic figurine (pl. 1,16) also confirm the Early Neolithic or Protostarčevo character of the settlement at Kučajna<sup>11</sup>. The Early Neolithic pottery which was discovered during the excavations at Felix Romuliana in the interior of the palace complex as well as outside of it has been coated in red or orange coloured slip, was often roughened on the exterior, decorated with appliqués and applied bands, and without any painting or regularly organised barbotine. It chronologically belongs into the Starčevo-Köros-Kris cultural complex of the Central Balkans' Early Neolithic.

The route through which the neolithisation reached Eastern Serbia was debated by many scholars<sup>12</sup>. If we assume that the initial Neolithic expanded to the Central Balkans from Pontic and Aegean regions through the Vardar and Morava valleys, Eastern Serbia could have remained isolated. However, Borislav Jovanović proposes that hunter-gatherers from the Iron Gorges maintained contact with the Neolithic societies from the Ključ area (the Serbian part of Danube river) and Oltenia somewhere in the vicinity of the Hajdučka Vodenica site<sup>13</sup>. If we assume a natural communication between the Iron Gorges and the Crni Timok valley following the Porečka and Crnajka river courses, the contact could have been made in north-south direction.

### THE ENEOLITHIC

According to the current state of research, the early Eneolithic or Vinča-Gradac phase is missing at sites in the Iron Gates' hinterlands as well as in the regions around Bor and Zaječar. There is a collection of Neolithic anthropomorphic figurines brought to the Museum in Zaječar during the 1950's, but the figurines are not representative for the Vinča culture and could belong to the later Copper Age<sup>14</sup>. Prehistoric copper mining and maybe even metallurgy is thought to have emerged during the late Vinča period at the site of Rudna Glava near Majdanpek<sup>15</sup>. There are some assumptions that during prehistory numerous surface ore deposits, either in form of pure or sulphidic copper ore, could be found in an area between the Pek river to the west and the Bor eruptive basin to the east<sup>16</sup>. Furthermore, it should be kept in mind that the region of Timočka Krajina is rich in gold deposits, especially during antiquity. In the surroundings of Bor, Krivelj, Crni Vrh, Čoka Dulkan, Tilva Roš, and also at Crnajka and Zlot, there are many indications of a continuous exploitation of gold in form of ancient dig ups, underminings, and shafts, through which the gold deposits were followed and gold was separated or rinsed (fig. 3)17.

The Middle Eneolithic phase, which begins after the disappearance of the Vinča culture, is marked by the appearance of the Bubanj-Salcuţa-Krivodol cultural complex. The most important and at the same time the largest excavated site from this period in north-eastern Serbia is the Zlotska cave<sup>18</sup>. Settlements from the Middle Eneolithic, which are rare in general, are mostly situated at higher altitudes.

High-altitude settlements are the sites of Kučajna, Kmpije, Njiva Z. Brzanović, Beligovo, and Petronj 1. Having in mind the topography and natural environment, we assume that the subsistence economy of these societies was based on the combination of small scale crop cultivation and herding, whereas in metallogenic areas the pursuits were focused on the extraction of ore. For the site of Beligovo, for example, Dubravka Nikolić assumes, based on topographic position and material culture, that it represents a settlement which orientated its economy towards herding<sup>19</sup>. Because the settlement was positioned above the left bank of the Crni Timok river on a dominant high point which splits the gorges of Baba Jona from Gamzigrad spa, it had good control over the key passages through

- 16 Simić 1969, 20; Vuksan 2004.
- 17 Jovanović 2007, 164; 167.
- 18 TASIĆ 1968.
- 19 NIKOLIĆ 1998.

<sup>9</sup> Jovanović 2008, fig. 33–34; Srejović 1969, fig. 44–45; Stalio 1986, fig. 8–12; Vasić 2008, fig. 15–16; Stanković 1986a, fig. 13; Stanković 1986b, fig. 5–6.

<sup>10</sup> Bogdanović 1995, T. I, VIII; Bogdanović 2007, fig. 4; Perić 2008, pl. I; III; V.

<sup>11</sup> Srejović 1969; Stanković 1991, 36; Bogdanović 1995, 13; Letica 1988, 176; Tasić 2009.

<sup>12</sup> Glišić 1968; Tringham 1971; Tringham 2000; Garašanin 1979; Srejović 1981; Jovanović 1969; Jovanović 2008; Bogdanović 1998; Vetnić 1998; Perić 1998; Perić 2004; Radovanović 2006; Tasić 2009, 63–69.

<sup>13</sup> Jovanović 2008, 308.

<sup>14</sup> Lalović 1965, 85-86.

<sup>15</sup> Jovanović 1971.

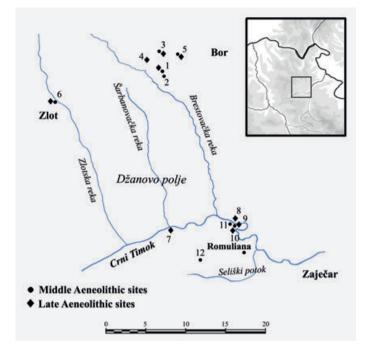


Fig. 3. Indications of a continuous exploitation of gold in form of ancient dig ups, underminings, and shafts.
1. Kučajna, 2. Kmpije, 3. Čoka lu Balaš, 4. Čoka Kormaroš,
5. Čoka Morminc, 6. Lazareva pećina, 7. Selište, 8. Njiva Z. Brzanović,
9. Banjska stena, 10. Banjska potkapina, 11. Beligovo, 12. Petronj 1.

which the herders could have moved between the Kučajske mountains and the valleys of the Veliki and Beli Timok rivers, along their seasonal migrations. On the other hand, the inhabitants of the Kmpije settlement (*pl. 2,4–8*) in the south-eastern suburbs of Bor could have been engaged in exploitation and ore smelting because of their close proximity to the Tilva Roš mine complex known from antiquity and other surface copper outcrops<sup>20</sup>. Finds of smelted copper traces on pottery as well as slags on the floors of the houses and ceramic blow pipes tell us about the important role of early copper metallurgy in this settlement.

The general picture about the relationship between the settlement's position and landscape (proximity of various resources) during the Middle Eneolithic leads to the assumption, that they could have hosted both a sedentary population and migrant herders. Artefacts found during systematic excavations of the sites Čoka lu Balaš<sup>21</sup>, Banjs-ka stena<sup>22</sup>, Petronj 2 (*pl. 2,9*), Kmpije, and Škodrino polje near Knjaževac<sup>23</sup> support this conclusion. Having in mind that a lot of time and energy has to be invested for the large-scale copper smelting metallurgy, these societies could have been engaged in mining and metallurgic activities throughout the entire year, independent of any season. There is no doubt that herding was the main livelihood during this period of prehistory, and it still dominates in

the economy of the present day population in Eastern Serbia. But the monopoly over the mineral resources contributed to the rise of prestige of certain societies as well as the benefits from trading metal implements. The study of socio-economic relationships of the populations engaged in metallurgy during the Middle Eneolithic in the Alpine regions has not shown any profound social differentiations<sup>24</sup>.

The stratigraphy at the sites of Beligovo<sup>25</sup> and Kmpije shows that these settlements existed during one or at most two generations. D. Nikolić is of the opinion that life in the Bubanj-Salcuta-Krivodol culture's societies was not much different from that during the Neolithic (similar dwelling architecture and pottery production, worship of fertility cults, etc.), except that transhumance herding had greater economic importance. Therefore, she interprets the settlements at Beligovo and Banjska Stena as seasonal camps, in these cases winter camps, and also assumes that some larger settlement could have existed somewhere in the vicinity of Zaječar<sup>26</sup>. The change in the positioning and organisation of settlements is manifested in the appearance of hill fort settlements on hardly accessible hilltops – such as the examples at Banjska Stena and Čoka Lu Balaš. At these sites, there are traces of enclosures made of ditch and earthen ramparts, with palisades raised on accessible approaches. Proofs for metallurgic activities were not discovered in these settlements, only traces of everyday household activities like food production and other crafts<sup>27</sup>. The best artefact from this period in the vicinity of Zaječar is represented by a copper axe discovered by chance in the riverbank in the village of Vražogrnac north of Zaječar.

During the Late Eneolithic and Early Bronze Age, settlements of the Cotofeni-Kostolac cultural complex are very rare in the areas around Bor and Zaječar, which is an exception in comparison to other regions of north-eastern Serbia. This pattern could be imposed by the relief characteristics. Nonetheless, we assume that this pattern is in accordance with the surrounding relief, since sites of this cultural group are tightly bounded to the karstic formations<sup>28</sup>. However, most of the important changes in the economy of settlements were a consequence of climate change, which has, among other causes, led to the downfall of Copper

- 21 TASIĆ 1982; TASIĆ 1990; TASIĆ 1995; TASIĆ 1997.
- 22 Srejović / Lazić 1997; Lazić 1998a; Lazić 1998b.
- 23 Lazić / Sladić 1997.
- 24 Krause 2009.
- 25 Nikolić 1998; Nikolić / Đuričić 1997.
- 26 Nikolić / Đuričić 1997.
- 27 Lazić 1998b.
- 28 KAPURAN / BULATOVIĆ 2012, 67.

<sup>20</sup> JOVANOVIĆ 2008.

Age societies, like the Bubanj-Salcuta-Krivodol cultural complex. As climate cycles entered a drier phase with less precipitation, which happened around the second half of the 4<sup>th</sup> and lasted up to the end of the 3<sup>rd</sup> millennia BC, it led to a long-lasting famine and demographic decline<sup>29</sup>. Henrieta Todorova assumes that the Early Bronze Age societies could not have developed on the Balkan Peninsula<sup>30</sup>, since it was affected by the ecological disaster, but that they rather came as a demographic influx towards the end of the 4<sup>th</sup> millennium BC, which coincided with what we call the Indo-European migrations. A particular symbiosis and interaction of two Early Bronze Age cultural complexes, Cotofeni and Kostolac, happened just in the region of north-eastern Serbia<sup>31</sup>. Because the Kostolac populations mainly settled in fertile regions of Pannonia and valleys along the Danube and Morava river courses, they had characteristics of sedentary societies and their economy was probably orientated towards agriculture, judging by the remains of solid dwelling architecture and large amounts of grain found often at the sites. On the other hand, the Cotofeni societies had their economy orientated towards herding and transhumant seasonal movements.

Excavations at the settlement Banjska Stena revealed a stratigraphic level with pottery finds belonging to the

Cotofeni-Kostolac cultural group (pl. 2,13), but the authors pointed out that the occupation was short termed in this case as well<sup>32</sup>. Excavations at the Potkapina site, at the foothill of the Banjska Sterna site, have also produced pottery finds from this period<sup>33</sup>. This sole example in the area around the lower part of Crni Timok river shows a pattern used by the Cotofeni-Kostolac societies when raising settlements in other areas of Eastern Serbia, where a dozen of similar examples exists<sup>34</sup>. During it's inital phase in Eastern Serbia, this cultural group settled on top of hardly reachable cliffs overlooking the river course beneath them as well as the caves of karstic formations around them<sup>35</sup>. In the vicinity of Bor, at the site of Čoka Kormaroš (pl. 2,10), the settlement was also erected on top of the cliffs above the canyon cut through by the river which is a tributary to the Valja Dosul river north-east of Bor. One of the rare examples of lowland settlements is the site of Selište in Šarbanovac (pl. 2,11.12), situated on the right bank of the Crni Timok river terrace, a couple of kilometres upstream from Gamzigrad. In the vicinity of Felix Romuliana, there are two late Eneolithic sites: Njiva Z. Brzanović (pl. 2,14) and Petronj (pl. 2,15).

## THE BRONZE AGE

The climate optimum which took place from the beginning to the mid-2<sup>nd</sup> millennium BC<sup>36</sup>, with an increased amount of rain in a warmer but also more humid climate, has led to the agricultural expansion<sup>37</sup>. Besides the climate factor, the development of bronze production influenced new ways of land cultivation: the use of animals in agricultural activities as well as sickles and ploughs made of bronze<sup>38</sup>. Carts trailed by animals made communications faster and lengthened the distance for the transport of trade goods, thus stimulating the dynamics in exchange networks both of trade goods and ideas.

The pottery from the sites in the Danube Gorges' hinterlands, or more precisely the Timočka Krajina region, shows influences from Pannonia (Vatin culture) (*pl. 3,4;* 4,1.13; 5,10; 6,13), the middle and southern Morava valley<sup>39</sup> (Proto Vatin and Paraćin culture), and southwest Romania and north-western Bulgaria (Verbicioara culture) (*pl. 5,13.17.18*). In terms of style and typology, B. Jovanović thinks that the population buried in the Trnjane necropolis belongs to the Paraćin culture, but Dragoslav Srejović and Miroslav Lazić think, based on the material culture from the Magura necropolis, that the population from north-eastern Serbia belongs to the so-called Gamzigrad culture (*fig.* 4)<sup>40</sup>. We think that the shape and decoration of the urns from the Magura necropolis represent a mixture between the Protovatin culture from the end of the Early Bronze Age on the one hand and the Paraćin and Verbicioara group on the other hand (*pl.* 5,17)<sup>41</sup>. Without a series of absolute dates, more detailed anthropological analyses, and an insight into all aspects of material culture and mortuary practice as well as the complete publishing of the results of the systematic investigations (especially on the Banjska Stena hill fort), neither of the

- 29 TODOROVA 2007, 5
- 30 Todorova 2007, 5.
- 31 TASIĆ 1979; TASIĆ 1982; TASIĆ 1983; TASIĆ 1990.
- 32 LAZIĆ 2010, 24. Results of these excavations still remain unpublished.
- 33 The excavations were led by D. Nikolić at 1996 (still unpublished), but
- the author, A. Kapuran, saw the findings during excavation.
  - 34 KAPURAN / BULATOVIĆ 2012.
  - 35 KAPURAN / BULATOVIĆ 2012, 68-69.
  - 36 TODOROVA 2007, 5.
  - 37 BANKOFF / GREENFIELD 1984, 14; COLES / HARDING 1979.
  - 38 Coles / Harding 1979
  - 39 BULATOVIĆ / STANKOVSKI 2012, 299.
  - 40 JOVANOVIĆ 1999, 7; SREJOVIĆ / LAZIĆ 1997; LAZIĆ 1998a; KAPURAN
- 2009. 41 Kapuran 2009.

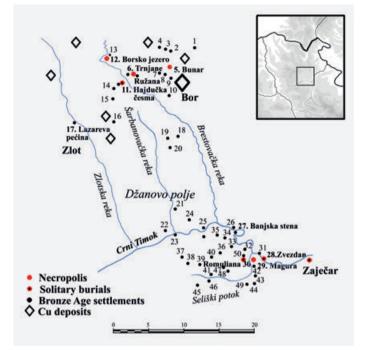


Fig. 4. Bronze Age sites. 1. Tanda, 2. Krivelj, 3. Valja Mare,
4. Valja Mare, ciglana, 7. Čoka Komaroš, 8. Čoka Kazak, 9. Kučajna,
10. Čoka Njica, 13. Selište, 14. Kobila B. Bašinović, 15. Kobila I. Ursolović,
16. Šetaće, 18. Drubava, 19. Trujkanov potok, 20. Cerova faca, 21. La Bunar,
22. Velika padina, 23. Gradište, 24. Punđilov potok, 25. Kot 1, 26. Njiva Z.
Brzanović, 31. Zapadni ulaz u Zvezdan, 32. Selište, 33. Višina bašta,
34. Kravarnik, 35. Mustafa, 36. Vazari, 37. Strenjak, 38. Đokin vis,

 Petronj 1, 40. Petronj 2, 41. Petronj 3, 42. Južno od Magure, 43. Rimski Majdan, 44. Miletov bunar, 45. Nikolov savat, 46. Komora, 47 Potoci, 48. Seosko groblje, 49. Njiva D. Truića, 50. *Romuliana extra muros*.

solutions should be rejected<sup>42</sup>. Along the banks of the Danube in Iron Gates during the 2<sup>nd</sup> millennium BC exsisted a lot of Verbicioara and Žuto Brdo-Girla Mare settlements and necropololises<sup>43</sup>. It is interesting to notice that these settlements do not occur farther than in a narrow strip of Danube river terraces. These are flat type necropolises, although they differ in many elements from the contemporary burial grounds of the Iron Gates' hinterlands south of the Danube river course.

By analysing the relief, morphology of the soil, topography, and distribution of settlements as well as the material culture from the Middle Bronze Age in the Crni Timok river basin, it is possible to recognise two types of settlements. One group of settlements is situated on higher altitudes near the surface copper depositions, so that their economy was orientated towards metallurgy. This is particularly distinct for the area around Bor (*fig. 4*)<sup>44</sup>. Their natural and ecological environments, the higher altitudes on which they are situated as well as the lower quality soil types in their surroundings exclude the possibility that their inhabitants were engaged in a large scale food production, except to the lesser extent in herding<sup>45</sup>. Besides, in the course of archaeological excavations, large amounts of slag were found at a number of sites, not only on the floors of houses but also in burial constructions and on cremated remains of the deceased<sup>46</sup>. B. Jovanović and Ilija Janković believed that the Pyraunos pots found on house floors were used for fractionated roasting of ore before smelting (*pl. 3,16; 4,11; 6,3*)<sup>47</sup>. This type of settlements are Trnjane, Ružana, Tanda-Mali Vizak, Čoka Njica, and Čoka Kazak (*pl. 4,10–12*).

In several cases, there also existed necropolises in close proximity or even inside the settlements as is the case at Trnjane<sup>48</sup>, inside the walls of the palace *Felix Romuliana*<sup>49</sup>, on Bor Lake, Hajdučka Česma, and Kriveljski Kamen-Bunar (fig. 4)<sup>50</sup>. All necropolises from this period belong to the flat necropolises, but they differ from those in the Danube Gorges, Pannonia, and Carpathian basin. They consist of flat graves with circular stone constructions around urns<sup>51</sup>. Although they can slightly differ in size, the urns mostly show the absence of decoration and don't contain grave offerings (except for a couple of urns at the Magura necropolis), giving no hints for the social position of the deceasead<sup>52</sup>. The Trnjane and Borsko jezero necropolises differ from contemporary necropolises in agricultural landscapes (Magura, Felix Romuliana Palace, Zvezdan, and Pišura česma) in that they featured grave constructions and traces of slag were found in urns. In the graves No 2 and No 13 at Borsko jezero, stains of copper slag were found on bones which burned at very high temperatures. Fragments of metal slag were also found in the urns, which leads to the assumption that maybe some of the space used for copper smelting processes could also have been used for the cremation of the deceased<sup>53</sup>.

Bronze Age lowland settlements in the area are situated on river terraces and gentle slopes of hills surrounding

42 JOVANOVIĆ 1999, 71; TASIĆ 2003, 98; KAPURAN 2010, 59–60; BULA-TOVIĆ / STANKOVSKI 2012, 361–363.

43 VASIĆ 1907; CERMANOVIĆ-KUZMANOVIĆ 1960; LETICA 1975; JEVTIĆ / VUKMANOVIĆ 1996, map 2.

44 JANKOVIĆ et al. 1980, fig. 11.

45 KAPURAN 2011a, 11.

46 Jovanović / Janković 1987–1990, 1; Kapuran / Miladinović-Radmilović 2011, 149

47 JANKOVIĆ et al. 1987–1990, 13; 18 fig. 3–4.

- 48 Jovanović / Janković 1987–1990; Jovanović 1999.
- 49 Srejović / Lazić 1997, 229; Kapuran 2011, fig. 5

50 Srejović / Lazić 1997, 227.

51 Srejović / Lazić 1997, 227; Jovanović 1999; Lazić 2010; Kapuran 2011; Kapuran / Miladinović-Radmilović 2011.

52 Lazić 2004, 117.

53 KAPURAN / MILADINOVIĆ-RADMILOVIĆ 2011, 149; KAPURAN et al. 2017.

larger river valleys, where the agriculture is very poorly developed even nowadays. Examples for this in the lower course of the Crni Timok are represented by data collected during the survey of two microregions, Seliški potok in the vicinity of Felix Romuliana<sup>54</sup> and Džanovo Polje near Bor, which both have fertile soils since flash floods deposited a lot of organic material (fig. 4). The lowland settlements comprised several households or numerous smaller features for living and a few for economic purposes<sup>55</sup>. They are spatially separated by a couple of hundred metres up to one kilometre. In the Magura lowland community's necropolis, urns used for cremation burials are slightly richer decorated than the urns from the necropolises of communities at high altitude settlements. Among 85 burials at the Magura necropolis, there are two bronze metal finds, adornments or weapons, and no traces of slag<sup>56</sup>. Burial constructions vary in their dimensions from 2 to 5 m in diameter - with up to three urns in some of these - and can be made up of an urn in a pit with a circular stone construction<sup>57</sup>. Bronze finds are only represented by one spearhead and a fragmented head of a needle, but some of the urns were covered with stone plaques with engraved geometric ornaments<sup>58</sup>. The spear head from the Magura necropolis (type H XII according to Ljuben Leshtakov) probably derives from the Carpathian Basin and southern Pannonia<sup>59</sup>. It belongs to the transition period from Late Bronze to Early Iron Age60. The only object made of bronze, a bronze knife, was discovered at the necropolises of Trnjane<sup>61</sup>. This kind of single-blade knife is similar to the finds from Troy (TR), Epirus (GR), and from some Aegean islands (GR)<sup>62</sup>. It was found in the urn together with remains of a young pregnant women. This can signify a certain degree of social differentiation inside the agrarian communities, but it is not as striking as the social stratification witnessed at the Dubovac-Žuto Brdo-Girla Mare necropolises on the banks of the Danube in Serbia (Glamija and Pesak). The lowland settlements are the sites of Felix Romuliana Basilica II (pl. 6,10–13), Felix Romuliana thermae (pl. 6,8.9), Felix Romuliana extra muros, Njiva M. Simonovića, Konjske štale 2, Selište against the southern wall of Felix Romuliana, Gradište, Višicina bašta, the site at the western entrance of Zvezdan (pl. 4, 1-6), and Njiva D. Trujuća.

Highland settlements around *Felix Romuliana* could have had a subsistence orientated towards herding and additional small scale agriculture if there was a water source nearby. They share the same landscape, same altitude, and important visual control of the surrounding terrain with neighbouring settlements on the broad plateaus on high cliffs, slightly sloped, where insolation as well as ground drainage was better. Highland sites are Kravarnik (pl. 3,8–10), Varzari (pl. 3,5–7), Njiva Z. Brzanović (pl. 3,18–20), Miletov bunar<sup>63</sup>. The site south of Magura, Potoci, Mustafa (pl. 3,11–14), Baba Jona-Selište (pl. 5,16), Potes Petronj (pl. 4,8), Petronj (pl. 4,9), Dokin Vis, and Strenjak-Dokin Vis (pl. 4,7). In the vicinity of Bor, there are Čoka Njica (pl. 5,1–3), Kučajna (pl. 4,14–15), Tanda-Mali Vizak (pl. 6,1–3), Trnjane (pl. 5,10–12), Kobila (pl. 6,7), and Ružana. Lowland settlements in vicinity of Bor are Dubrava (pl. 5,4–6), Džanovo polje (pl. 5,7–9), Kot 1 (pl. 5,13–14), La Bunar (pl. 6,4), Donja Stopanja-Šeršel (pl. 6,5–6).

Most of the important finds connected to copper metallurgy were discovered at the site of Ružana in the vicinity of Bor. In the course of the last 5 years of excavations at the sites of Ružana 1 and 2 in the surroundings of the present-day industrial-metallurgic centre of Bor, the remains of two prehistoric metallurgic kilns have been discovered<sup>64</sup>. New absolute data from this site shows that the copper smelting metallurgical centre at Ružana was active since the 18<sup>th</sup> century BC<sup>65</sup>. A large quantity of slag deposit was found in all areas surrounding the metallurgical kilns at Ružana, but the situation should be the same in the cases of Varzari and Gradište in the vicinity of *Felix Romuliana*, where a lot of fragmented metallic tap slag was collected during a survey. Physical-chemical analysis of these alloys was done by the Mining and Metallurgy Institute in Bor<sup>66</sup>.

After the so called, "depopulation" in the period of climate fluctuations during the 4<sup>th</sup> and 3<sup>rd</sup> millennia BC, south-eastern Europe had "a hunger for metals", that lead to a reintroduction of metallurgy into the economy of these populations<sup>67</sup>. The possession of (adorned) copper and bronze weapons signified a high status within the society, in which the most prestigious job was the direct control of precious mineral sources. The emergence of a metal working craftsmen class, which involved miners, makers of supporting constructions, and separators of ore was triggered by the metallurgic process itself<sup>68</sup>. The logistic problem of feeding the growing numbers of

- 54 Kapuran / Škundrić 2009.
- 55 KAPURAN 2014, 55.
- 56 LAZIĆ 2010, 25; LAZIĆ 2015.
- 57 Lazić 1998a, 111.
- 58 LAZIĆ 1998a, 111; VASIĆ 2003.
- 59 SREJOVIĆ / LAZIĆ 1997, fig. 35; LESHTAKOV 2015, 106 tab. 156 map 16.
- 60 Leshtakov 2015, 106.
- 61 JOVANOVIĆ / JANKOVIĆ 1987–1990, 9.
- 62 Parović-Pešikan 1994/95, 16.
- 63 Sladić / Ružić 2001.
- 64 KAPURAN et al. 2016, 176; 179 fig. 1.
- 65 BULATOVIĆ et al., in progress.
- 66 Tap slag are analysed by Prof. Dragana Živković and Prof. Nada Štrbac.
- 67 TODOROVA 2007.
- 68 WELLS 1984, 59

people engaged in metallurgy led to a higher requirement of resources from agrarian populations living in fertile river valleys. This means that they could function only if they were constantly supplied with food, which they could not achieve to produce since they were engaged in various stages of metal working. For those reasons, there was an intense interaction between metallurgic and lowland agrarian populations settled on the fertile banks of the Crni Timok<sup>69</sup>. Settlement distribution in the area of Seliški Potok and Džanovo Polje shows the pattern that is based on the existence of small, self-efficient households separated by a few hundred metres<sup>70</sup>. A rising number of settlements or a "demographic explosion" has been witnessed in some ore-rich areas of Central Europe<sup>71</sup>. The intensity of copper exploitation during the Bronze Age in the subalpine region and in the same time rise of agrarian settlements in river valleys, are recorded in the vicinity of Salzburg (AT), in the Upper Rhine valley, Tyrol (AT), and the Upper Danube valley<sup>72</sup>. Some studies show that in order to supply 3-4 settlements (around 200 inhabitants) around 60–70 ha of arable land were required<sup>73</sup>. By that count, the areas around Seliški Potok and Džanovo Polje had enough capacity to feed the metallurgic communities around Bor.

The process of settlement and necropolis expansion in the Danube Gorges' hinterlands ended during the Late Bronze Age, when the climate once again became less favourable for agriculture. It is possible that this climate fluctuation was caused by the powerful volcanic eruptions in Iceland<sup>74</sup>. The absence of settlements suggests that these regions were abandoned during several centuries. It is possible that, as was the case during the Neolithic, agrarian societies made an equilibrium - a large turnover to herding, transforming their way of life by turning to transhumant herding. After the dynamic development of metallurgy in the Bronze Age, when the copper exploitation was dominant around today's industrial centres of Bor and Majdanpek, the Early Iron Age, or the Iron Age I, which consists of the horizons of the Gava and Kalakača cultures, has only occupied most of the areas in the Iron Gates. The only evidence of these cultures are bronze needles in the Zlotska cave75 and several bronze hoards such as Topolnica (Ha A2-B1)<sup>76</sup>, Alun (Ha A2)<sup>77</sup>, Urovica (Ha A2-B1)<sup>78</sup>, Brza Palanka (Ha B2)79, Mali izvor80 (Ha A), and the Gornja Bela Reka (Ha A) Hoard<sup>81</sup>. Only three sites around the Zaječar and Bor districts were identified from this period: one grave of Magura necropolis<sup>82</sup>, Zlotska Cave<sup>83</sup>, and Miletov Bunar<sup>84</sup>.

# THE IRON AGE

The economic background of the populations settling in large villages in agrarian areas in the Pannonian basin during the Early Iron Age indicate that agriculture was dominant, which is also proven by archaeobotanical research of various crop grains as well as the number of granaries in which they were deposited (at the site of Kalakača for example, 240 granary pits were discovered)<sup>85</sup>. An increasing number of bronze sickles dominate among the other objects in numerous bronze hoards in this period<sup>86</sup>. From the 8<sup>th</sup> to the 6<sup>th</sup> century BC, a climate period of gradual cooling started, which might have let to the migratory movement of some nomadic populations, especially Scythians, that drove the Thraco-Cimerians into Central Europe<sup>87</sup>. During that phase of the Early Iron Age in the surroundings of Felix Romuliana, a small number of settlements was spotted, mostly at the same place as previous bronze age settlements (fig. 4; 5). This fact suggests that the economic background of these societies was not different. D. Srejović identifies some of the the Tribali elements of these settlement from the first half of the 1<sup>st</sup> millenium BC somewhere in the area of the Imperial palace, although the excavated area was much smaller during his excavations than today<sup>88</sup>. Metal finds from this period are rare and

mostly originate from the bronze hoards from Rujište and Brusnik. The hoard from Rujište includes bracelets, rings, pendants, and a set of flat iron axes, together with bronze

- 69 KAPURAN 2011, fig. 2
- 70 KAPURAN 2014, 55.

71 BARTELHEIM 2009, fig. 1; KRAUSE 2009, fig. 1; KIENLIN / STÖLLNER 2009, fig. 15.

- 72 KIENLIN / STÖLLNER 2009, fig. 15.
- 73 KRAUSE 2009, 63.
- 74 VASIĆ 1998, 192–193.
- 75 JEVTIĆ 2004, 135–137.
- 76 JOVANOVIĆ 1975.
- 77 Srejović 1975a.
- 78 Srejović 1975b.
- 79 Srejović 1975c.
- 80 LALOVIĆ 1975.
- 81 Lalović 1975.
- 82 LAZIĆ 2016.
- 83 KAPURAN et al. 2014, 126 pl. 54.
- 84 SLADIĆ / RUŽIĆ 2001, fig. 10,1.10.
- 85 JOVANOVIĆ 2004: MEDOVIĆ 1990: JEVTIĆ 2011 29
- 86 Wells 1984; Jacanović 1994.
- 87 VASIĆ 1990
- 88 SREIOVIĆ 1983 21

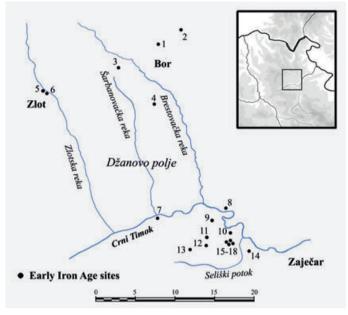


Fig. 5. Early Iron Age sites in the vicinity of *Felix Romuliana*.
1. Krivelj, Staro groblje, 2. Tanda, 3. Dubrava, 5. Lazareva pećina, 6. Trvaj,
7. Selište, 8. Njiva Z. Brzanović, 9. Kravarnik, 10. Gradište, 11. Vazari,
12. Potoci, 13. Petronj, 14. Južno od Magure, 15. Njiva M. Simonovića,
16. Konjske štale, 17. Selište zu južni bedem, 18. *Felix Romuliana thermae*.

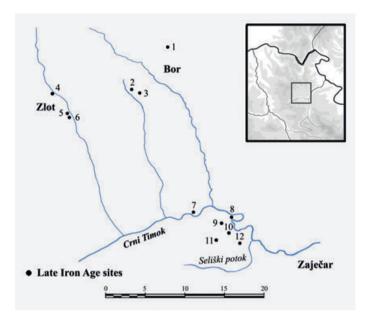


Fig. 6. Late Iron Age sites in the vicinity of *Felix Romuliana*.
1. Krivelj, Staro groblje, 2. Džanov potok, M. Blagojević,
3. Džanov potok, L. Dudić, 4. Lazareva pećina, 5. Donja Stopanja, Petrujkić,
6. Donja Stopanja, Šeršel, 7. Muskal, 8. Banjska stena, 9. Kravarnik,
10. Višina bašta, 11. Varzari, 12. *Felix Romuliana*.

torques and a spectacle shaped fibula<sup>89</sup>. The hoard from Brusnik is poorer and consists of a torque, a bracelet, and one fragmented spectacle shaped fibula<sup>90</sup>.

Highland settlements of the Early Iron Age in the vicinity of *Felix Romuliana* are the sites of Njiva Z. Brzanović (*pl. 8,4.5*), Kravarnik, Mustafa, Varzari, Miletov bunar, Petronj 1(*pl. 8,11*), Petronj 3, the site to the south of Magura, Njiva D. Trujića, and Potoci. All of the mentioned sites are located at the same places as previous Bronze Age settlements before them. Because of the small scale of studies, it is not possible to unequivocally reconstruct the subsistence background of the Early Iron Age economy. From the site of Varzari, which was excavated only in one small test trench, came numerous fragments of big storage pots, which could have served for the stockpiling of grains.

In contrast to Varzari, the site of Kravarnik is surrounded by three springs, which – according to local inhabitants – never run dry, so they contributed to suitable conditions for herding and small-scale agriculture. Strong water sources were, according to Miloš Jevtić, one of the key factors for the settlement formation during the Early Iron Age, especially during the final phase of the Basarabi cultural complex<sup>91</sup>.

A new manifestation in the settlement organisation in comparison to previous periods is the formation of clusters, placed about 500 m apart from each other, which are interpreted as "A complex of the settlements"92. According to the material culture, a group of closely related sites of this kind were able to maintain visual contact and had different roles in processions during seasonal gatherings of religious, political, or mercantile purposes. Felix Romuliana is situated in one of these complexes, since the following four sites were discovered within a radius of 500 m: Njiva M. Simonović (pl. 8,9), Konjske štale 2, Selište against the southern wall (pl. 8,10), thermae inside the palace complex (pl. 9,1-6), and Basilica II (pl. 8,7-15). The sites of Selište south of the village gravevard and Gradište should also be incorporated into this group. The horizon with the Early Iron Age settlement is confirmed by the excavations of the *thermae* inside the palace complex<sup>93</sup>. In this sector of the Imperial Palace, the stratigraphy containing the Basarabi phase of the Early Iron Age was discovered, with corresponding pottery production (pl. 7, 1-6), as evidenced by conical bowls with inverted rim, decorated with parallel or twisted facets. The pots are nearly conical in shape with strengthened rim and plastic

89 Lalović 1975.

- 92 HODDER / ORTON 1976.
- 93 KAPURAN 2008

<sup>90</sup> Lalović 1975.

<sup>91</sup> JEVTIĆ 1992.

applications in form of ribs. We can assume that these settlements could cover a larger area than the south-eastern sector of the Palace complex and, therefore, could have extended beyond the walls, which should be confirmed by archaeological excavations.

In the same period, in the area around Bor, the absence of sites from the Early Iron Age is even more prominent. Besides Zlotska cave and Trvaj<sup>94</sup>, there are the lowland sites of Dubrava and Ružana at the centre, and at the periphery are the highland settlements of Džanovo polje, Krivelj-Staro groblje, and Mali Vizak-Tanda (*fig. 5*).

During the Late Iron Age or La Tène culture and during the period just before the Roman conquest, the number of sites in the vicinity of Felix Romuliana was still shrinking in contrast to the previous periods (fig. 6). Investigations inside the palace have revealed rare finds of pottery and fibulae belonging to the La Tène culture, mostly in the sector of the *thermae*  $(pl. 9, 1-6)^{95}$ . In the close surroundings of the Palace, La Tène settlements are identified at the sites of Višicina Bašta and Varzari (pl. 9,7.8). One bronze fibula of outstanding crafting technique was discovered at Baniska stena together with a small quantity of La Tène pottery<sup>96</sup>. This kind of fibula is characteristic for the second part of the 4<sup>th</sup> century BC, which determines this cultural horizon as belonging to the times just after the first Celtic arrival on the Central Balkans. Miodrag Sladić proposes that during the 2<sup>nd</sup> and 1<sup>st</sup> centuries BC this area was settled by the Timaci tribe, or perhaps by the Picensi (their name derived from the gold-bearing Pek river), who were skilled miners and metallurgists<sup>97</sup>.

In the Bor area, the situation was quite different from the surroundings of Felix Romuliana. This ore-rich landscape witnessed an equal number of settlements in the Late Iron Age as in the previous Early Iron Age (fig. 6)<sup>98</sup>. In the Zlotska cave, the Late Iron Age horizon is weakly documented, but the region of Džanovo polje was populated by the so called Scordiscan tribal alliance. La Tène settlements of lowland type are found at the Gornia Stopania-V. Vlaucić site (pl. 9,10.11), M. Blagojević site (pl. 9,15), and L. Dudić site Džanov potok (pl. 9,14), and at the sites of Petrujkić and Šeršel (pl. 9,13) in Donja Stopanja, and finally at Muskal (pl. 9,9) in Metovnica. Those belonging to the highland settlement type are the sites of Rgotina-Bela stena (pl. 9,16) and Krivelj-Staro groblje. In pottery forms from La Tène sites, the S-profiled bowls are prevailing as well as situla-shaped pots decorated with comb ornaments and bowls imitating fructiers.

Judging by written sources from antiquity, the first contact between the Romans and indigenous populations could have happened during the time of the Dardanic war 75–73 BC<sup>99</sup>. These sources don't allow a precise identification of the tribes that the Romans encountered in the area of present-day north-eastern Serbia, as they mention Tribali, Dacians, Dardans, Scordisci, and Timaci<sup>100</sup>. The only site at which the Romanisation process is observed is the site of Višicina bašta in the village of Gamzigrad. On the basis of pottery finds and fibulae, M. Sladić assumes that this settlement belonged to the Picensi tribe and was settled at the end of the 1<sup>st</sup> and beginning of the 2<sup>nd</sup> century AD<sup>101</sup>.

## **CONCLUSION**

Besides its geomorphological and geographic characteristics, the region between the towns of Zaječar and Bor presents a self-contained area in a certain sense. The main characteristics represented here are its geological past and dense concentrations of minerals as well as communications that follow the valley of the Crni Timok river course. During the last five millennia BC, a couple of cultural groupes in this region can be identified, such as Starčevo, Bubanj-Salcuţa, Coţofeni-Kostolac, Vatin-Verbicioara (Gamzigrad culture), Gava, Basarabi, Zlotska groupe, and La Tène. Characteristics of these cultures are not only represented in the stylistic and typological properties of the material culture but also in the way in which life and economies were organised in certain natural environments and in the proximity of economically attractive resources.

94 JEVTIĆ 2004, 157.
95 JEVTIĆ 2004, 157.
96 SLADIĆ 2003; SLADIĆ 2010.
97 SLADIĆ 2010.
98 BULATOVIĆ et al. 2011.
99 PETROVIĆ 1997, 115.
100 PETROVIĆ 1997, 115.
101 SLADIĆ 2005, 220

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# **REFERENCES OF ILLUSTRATIONS**

*Figs 1–6:* A. Kapuran. – *Plates 1–9:* photos and drawings A. Kapuran. – *Plates 2,1–3; 3,1–4; 5,17–18:* by SREJOVIĆ /

Lazić 1997.

# ABSTRACT

In the chronological range from the 6<sup>th</sup> to the 1<sup>st</sup> millennium BC, the territory around the Crni Timok Basin in north-eastern Serbia was inhabited by many cultures such as Starčevo, Vinča, Bubanj-Salkuţa-Krivodol, Kostolac-Coţofeni, Vatin-Verbicioara, Gava, Bassarabi, and Zlot cultural groups. The topography and distribution of settlements in prehistory were determined by the geomorphological characteristics of the Timok eruptive basin, while the economy and way of life depended on climatic fluctuations and technological innovations, primarily on agriculture, exploitation of ore, and metallurgy. Several surveys conducted over the past ten years in the area around *Felix Romuliana* and Bor (okr. Bor) have helped to clearly see the pattern of change in the settling of these areas as well as to identify the causes that affected the greater or lesser density of settlement in accordance with technological developments during certain epochs of the end of the Stone Age (Neolithic) and the periods where the production of metals dominated (the Copper, Bronze, and Iron Ages). Material culture and funeral customs show that these two areas were culturally homogeneous during prehistory, especially during the Bronze Age, when it was possible to reconstruct intensive economic interaction between the agricultural and metallurgical occupational groups of settlement.

## ZUSAMMENFASSUNG

Vom 6. bis zum 1. Jahrtausend v. Chr. ist das Gebiet um das Crni-Timok-Becken im Nordosten Serbiens von vielen Kulturen besiedelt worden, wie z. B. Starčevo, Vinča, Bubanj-Salkuţa-Krivodol, Kostolac-Coţofeni, Vatin-Verbicioara, Gava, Bassarabi und Zlot-Kulturgruppen. Die Topographie und Verteilung der Siedlungen in der Vorgeschichte wurde durch die geomorphologischen Eigenschaften des Timok-Eruptionsbeckens bestimmt, während die Wirtschaft und die Lebensweise von klimatischen Schwankungen und technologischen Innovationen abhing; vor allem von der Landwirtschaft, dem Abbau von Erzen und der Metallurgie. Mehrere Prospektionen, die in den letzten zehn Jahren in der Gegend um *Felix Romuliana* und Bor (okr. Bor) durchgeführt wurden, haben geholfen, die Muster des Wandels der Besiedlung dieser Gebiete klar zu erkennen und die den technologischen Entwicklungen geschuldeten Ursachen für die mehr oder weniger dichte Besiedlung während bestimmter Epochen vom Ende des Neolithikums und den Metallzeiten (Kupfer-, Bronze- und Eisenzeit) zu bestimmen. Die materielle Kultur und die Bestattungsbräuche zeigen, dass diese Gebiete in der Vorgeschichte kulturell homogen waren, insbesondere während der Bronzezeit, für die es möglich war, die intensive wirtschaftliche Interaktion zwischen den landwirtschaftlichen und metallurgisch geprägten Besiedlungsgruppen zu rekonstruieren.

(Übersetzung: J. Gier)





Plate 1: 1–4. Felix Romuliana extra muros; 5. Petronj 2; 6–7. Kravarnik; 8–10. Varzari; 11–12. Site between Magura and Roman querry; 13–15. Kučajna.



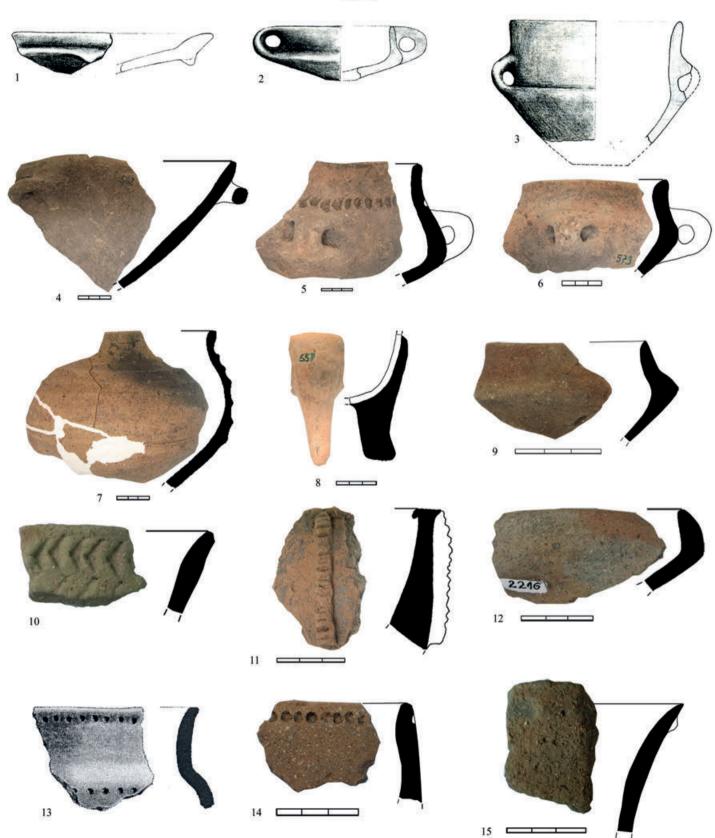


Plate 2: 1–3. Beligovo; 4–8. Kmpije; 9. Petronj 2; 10. Čoka Kormaroš; 11–12. Šarbanovac-Selište; 13. Banjska stena; 14. Njiva Z. Brzanović; 15. Petronj.



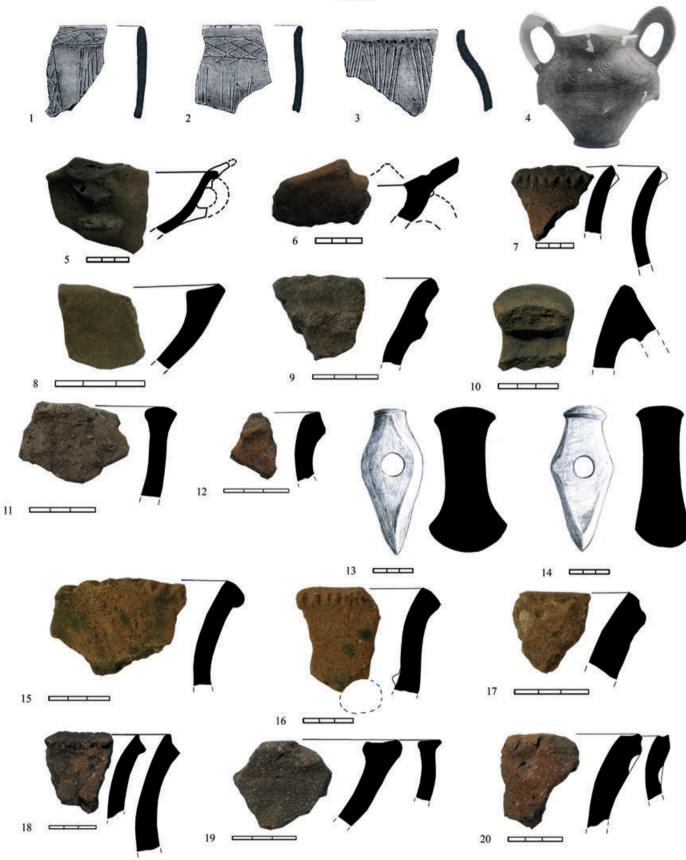


Plate 3: 1-4. Banjska stena; 5-7. Varzari; 8-10. Kravarnik; 11-14. Mustafa; 14-17. Nikolov savat; 18-20. Njiva Z. Brzanović.



Plate 4: 1-6. Lokalitet na ulazu u Zvezdan; 7. Strenjak-Dokin Vis; 8. Potes Petronj; 9. Petronj; 10-12. Čoka Kazak; 13. Trnjane; 14-15. Kučajna.





Plate 5: 1-3. Čoka Njica; 4-6. Dubrava; 7-9. Džanovo polje; 10-12. Trnjane; 13-15. Kot 1; 16. Baba Jona-Selište; 17-18. Magura.



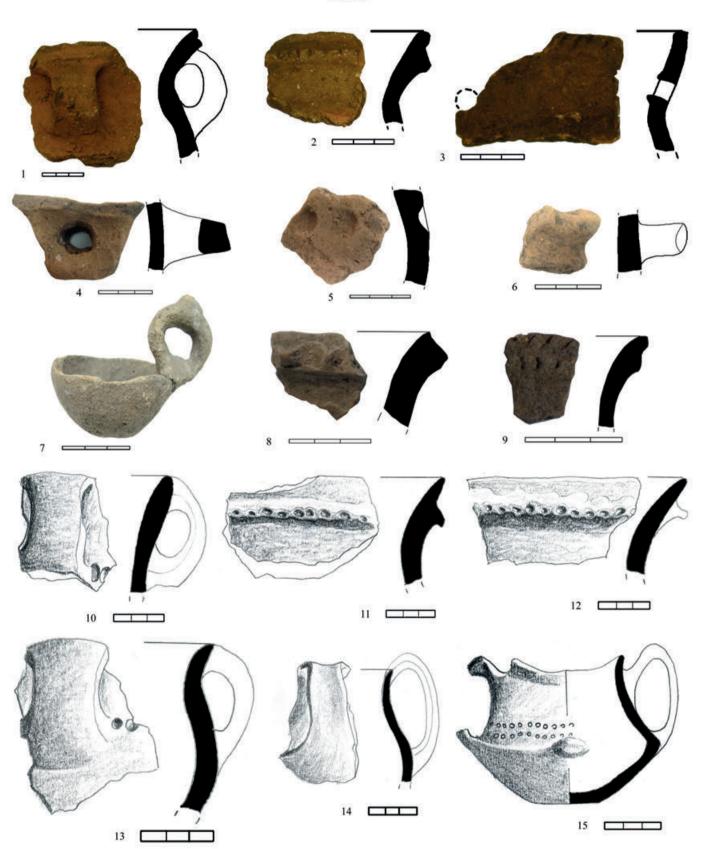


Plate 6: 1–3. Tanda-Mali Vizak; 4. La Bunar; 5–6. Donja Stopanja, Šeršel; 7. Kobila; 8–9. *Felix Romuliana thermae*; 10–13. *Felix Romuliana Basilica II*; 14. Veliki Izvor-Bezdanica; 15. Podgorac-Strmljeno.



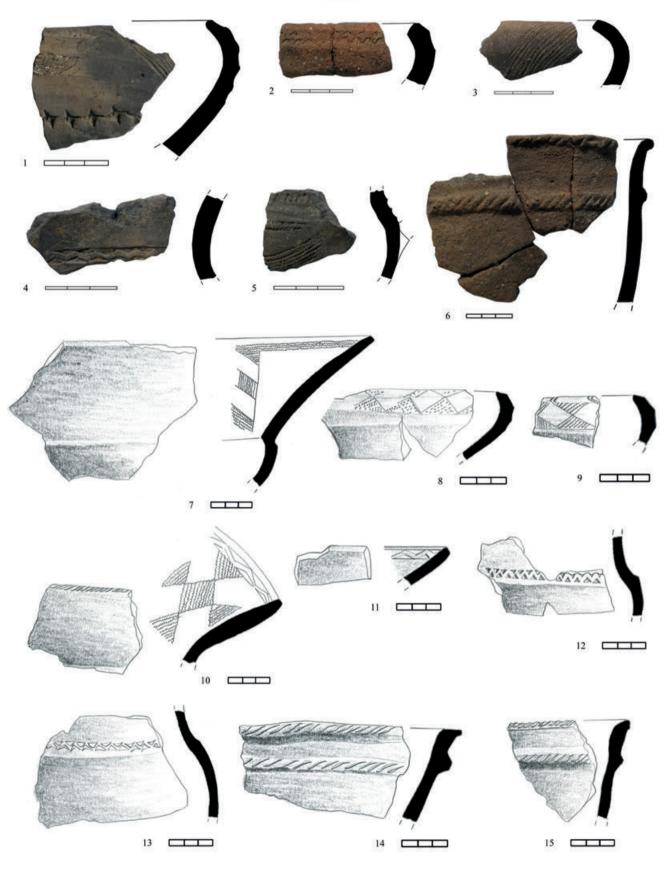


Plate 7: 1-6. Felix Romuliana thermae; 7-15. Felix Romuliana Basilica II.

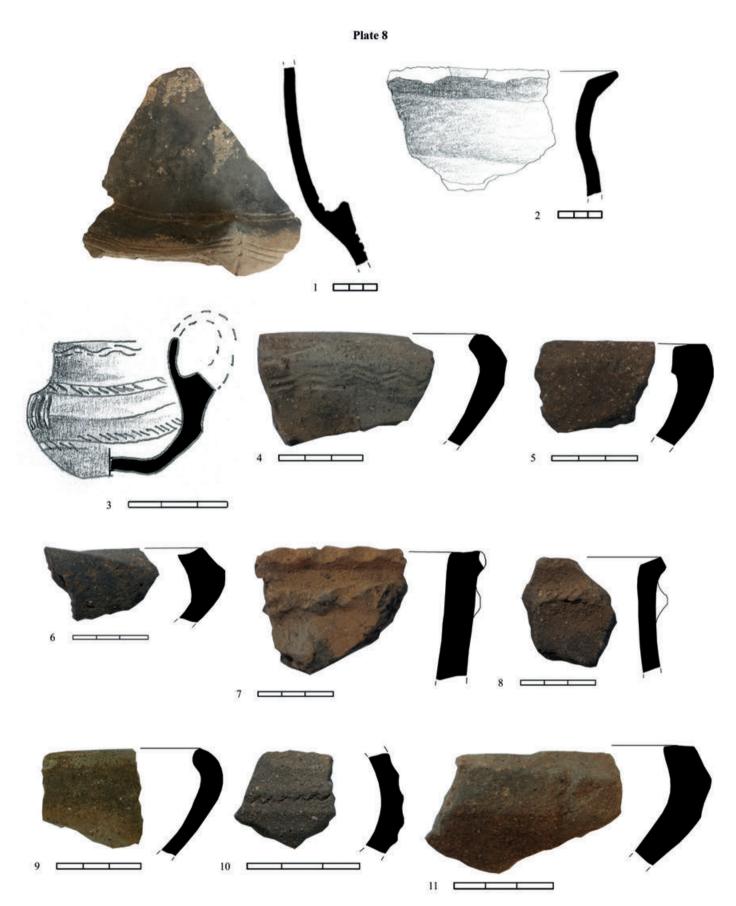


Plate 8: 1, 2. Zaječar-Djure Salaja st.; 3. Gornja Bela reka; 4, 5. Njiva Z. Brzanović; 6-8. Njiva I. Veljković; 9. Njiva M. Simonović; 10. Selište; 11. Petronj.





Plate 9: 1–6. Romuliana thermae; 7–8. Varzari; 9. Muskol; 10–12. Gornja Stopanja-V. Vlaucić; 13. Gornja Stopanja-Šeršel; 14. Džanov potok L. Dudić; 15. Džanov Potok-M. Blagojević; 16. Rgotina-Bela stena.