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The Sava Valley (Posavina) – a heritage of communication Some examples from the Late Bronze Age

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Abstract: Dolina na Savi is a settlement and cemetery dated to the younger phase of the Late Bronze Age and the transition to the Early Iron Age. It is situated across the well-known site of Donja Dolina in northern Bosnia. Ten years of excavations in Dolina yielded numerous traces of communication between the communities along and across the river Sava through the centuries. A similar concentration of Late Bronze Age sites on the Sava can be observed near the settlement of Topolovaca Bregovi, some 70 m downstream. The data collected by archaeological research sheds new light on the role of the River Sava in the communication network of the transitional area between the Carpathian Basin, western Balkans, the Danube, and south-eastern Alps. In contrast to the modern perception of the River Sava as a border, the archaeological record from the Late Bronze Age clearly points to Posavina Region as a coherent cultural territory with a strong communication network both on local and regional scales. The distribution of specific bronze objects found in graves and settlements, but also discovered frequently as single finds along the riverbank, indicate the integration of the Posavina communities from the younger phase of the Late Bronze Age (late 12th – 10th centuries BC) into the communication network spanning eastern Austria, Moravia, Bohemia, and western Hungary. Better knowledge of the local communication heritage on both sides of the river is therefore crucial for the understanding of the wider contexts in a diachronic perspective, especially in the important and dynamic area of the middle Sava valley.

Key words: Late Bronze Age, Posavina, settlements, graves, communications, bronze finds

The mud of Posavina is prehistoric mud.
(Matko Peić, *Skitnje*, MH, Zagreb 2002, 260).

Introduction

Dolina na Savi is a settlement and cemetery dated to the younger phase of the Late Bronze Age and the transition to the Early Iron Age. Ten years of excavations at Dolina discovered traces of centuries of communication between the communities along and across the Sava. Dolina na Savi is situated across a very important site, Donja Dolina in northern Bosnia, which consists of a Bronze Age settlement along the river, an Iron Age settlement built on an elevation called Gradina, and an Iron Age necropolis with burials ranging from the 7th to the 4th century BC. A similar concen-

tration of sites on both sides of the River Sava can be assumed for the settlement of Topolovaca Bregovi near Odžak and the settlement close to the village of Jaruge on the Croatian side. In this case, the large number of finds again points to the essential role of the Sava as the local communication line between the communities living along the river, but also to the important role of this river in the communication network of the southern Carpathian Basin.

Strategic spots such as Dolina, and the traces of life on them, lead to questions about the use of landscape, changes in communication lines, and the advantages and disadvantages of life along

the Sava, with the emphasis on the younger periods of prehistory. The data collected by recent archaeological research sheds new light on the role of the River Sava in contrast to the perception of our time and the modern period. The heritage of communication is less visible but crucial for the study of landscape and the interpretation of the past. The orientation of the Požega Basin towards the Sava valley and the natural communication lines in the valley of Orłjava, the gullies between the Slavonian mountains, and the valleys of Ilova, Biđ, and Bosut, affected the close relationship of the Sava valley with the northern area and the inclusion in the wider regional network of the Carpathian Basin and the middle Danube. The communication lines on the other side of the river, through the valleys of the Vrbas and the Bosna, lead to the mountainous areas of central Bosnia as a direct link between the Sava valley and the massif of the Dinarides, i. e. the mountains of the western Balkans. One needs a better knowledge and understanding of the local circumstances along the river to be able to consider the historic changes in a wider regional context, especially for such an important and dynamic area as the one between the Drava and the Sava.

The lowland landscape along the Sava is characterised by alternating plains and natural *greda* – elevations stretching along the river which usually contain traces of past habitation. It was particularly during the later phases of the Bronze Age that these slightly elevated positions were used for settlements; their form, structure and extent followed the natural shape and size of *greda*. Prior excavations uncovered some examples of such settlements: the Bronze Age site known as the “Older Settlement” in Donja Dolina,¹ and Novigrad on the left bank of the Sava;² each of them extends over several hundreds of metres on relatively narrow *greda* in the direction of the flow of the Sava, from the west to the east. The settlement of Topolovaca Bregovi has a different position, as it is situated on a *greda* stretching from the north to the south, with the elevated part turned towards the flow of the Sava, which is about 1 km away from the site nowadays.³

¹ Marić 1964.

² Majnarić-Pandžić 1993; 2000.

³ Belić 2011.

Dolina

A significant step forward in researching the Bronze Age and Early Iron Age communities along the Sava was made during the recent excavations at the site of Dolina on the left bank of the Sava, south of Nova Gradiška and close to the eponymous village. The site of Dolina had already been mentioned in scientific papers because of the chance finds such as a sword of the Boiu Keszethly type,⁴ the hoard of phase II (Ha A1 period),⁵ and an iron necklace and spear.⁶ Along with these single finds, an additional impetus to start the excavations at Dolina was given by the earth mounds that can still be seen in the landscape west of the village (Fig. 1). It was assumed that the earth mounds were made in the Middle Bronze Age on the basis of the chance find of the sword (the Archaeological Museum in Zagreb), found in an unknown location, while the iron objects received by the Nova Gradiška Town Museum (the necklace and the spear) come from the “borrowing grounds” (*pozajmište*), the locations where earth was dug for the Sava embankment. There is no definite information about the circumstances of the discovery of the Late Bronze Age hoard from the Ha A1 period, which is kept in Mainz (Römisch-Germanisches Museum).

All these circumstances, and the fact that the well-known Bronze Age settlement of Donja Dolina stands on the right bank across the river,⁷ were the basis to start archaeological excavations in Dolina in 2009 by the Institute of Archaeology in Zagreb and the Nova Gradiška Town Museum.

The results of these investigations, which are still going on, have located the settlement at the site of Babine Grede and the cemetery under the tumuli at the site of Glavičica, north-west of the settlement. It has been assumed that the tumuli were erected along the path leading from the north to the settlement and the River Sava (Fig. 2). The settlement at Babine Grede was the object of a field survey, geomagnetic prospecting in 2014, and test excavations in the period between 2015, 2016, and 2018, in the eastern part of Babine Grede; they recorded the vertical stra-

⁴ Vinski-Gasparini 1973.

⁵ Schauer 1974.

⁶ Ložnjak-Dizdar / Mihaljević 2014; Mihaljević / Ložnjak-Dizdar 2015.

⁷ Truhelka 1904; Marić 1964.



Fig. 1. *The prehistoric tumulus with the local cemetery from the second half of the 20th century*
(Photo: Daria Ložnjak Dizdar)

tigraphy with several Late Bronze Age horizons.⁸ The excavations from 2019 in the southern part of Babine Grede located the edge of settlement. The field investigations in the settlement area uncovered house floors, dug-out work structures, a few hearths that were renovated several times, the remains of a dome oven, post holes for structures, and waste pits. The archaeological finds and the results of radiometric dating of organic material (charcoal and animal bones) have been used to date the excavated part to the period between the end of the 12th century and the beginning of the 10th century BC. According to the results of geomagnetic prospecting and the surface finds, the settlement at the site of Babine Grede stretches over several hundred metres along a slightly elevated *greda* in the direction of the flow of the River Sava.

The excavations at Glavičice included 7 tumuli that can be seen in the landscape today, with one or two cremation graves inside. The graves contained not only the cremated remains of the dead and the remains of the pyre, but also

whole ceramic vessels, fragments of the ceramic vessels placed on the pyre, and the remains of the costumes in which the deceased were burned. Anthropological and zooarchaeological analyses have shown that animals (horse, dog) were placed on the pyre together with the dead. The cremated remains were laid directly into the ground, sometimes wrapped in an organic wrapper or placed in a wooden box. The earth mound was erected above the remains. On the basis of the finds and structure of the graves, the excavated tumuli can be dated to the second half of the 9th century and the 8th century BC or within a period of 80 to 100 years. The surface finds discovered in the field survey indicate that the western part of the Babine Grede settlement might provide finds that are contemporary with the graves uncovered under the Glavičice tumuli.

Interdisciplinary (archaeological, anthropological, zooarchaeological, radiometric) analyses undertaken as part of the project of the Croatian Science Foundation (UIP 11-2013-5327) have shown that the funerary customs in Dolina at the end of the Late Bronze Age and the beginning of

⁸Ložnjak-Dizdar / Mihaljević / Gavranović 2016; 2017.

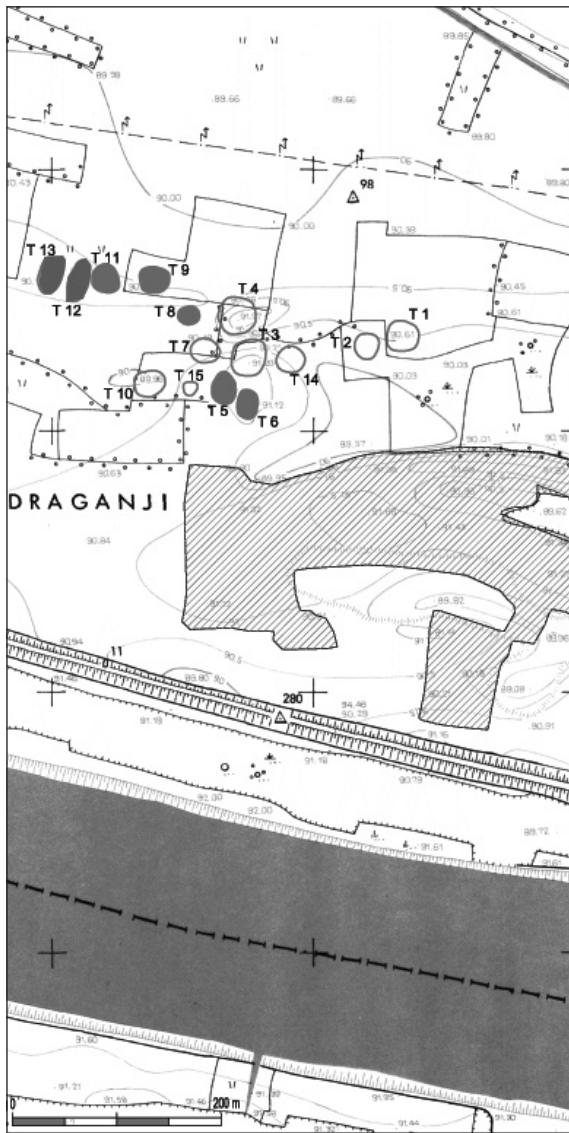


Fig. 2. Dolina, the locations of the Babine Grede settlement and the Glavičice tumulus

the Early Iron Age were a complex event that included older traditional elements and some innovations related to the beginning of the Iron Age.⁹

The cremation burials in the southern Carpathian Basin appeared already in the Early Bronze Age,¹⁰ while during the Late Bronze Age flat cemeteries with urns became a dominant burial and ritual practice of the communities in the areas of central Croatia¹¹ and the neighbouring northern Bosnia.¹² Significantly, in the Late Bronze Age, the area immediately to the south of

the River Sava and along the first Bosnian Mountains represented the south-eastern edge of the wide-ranging European phenomenon known as the Urnfield culture, which had its centre in central and western Europe. South of this boundary, among the western Balkan communities, the dead were mostly buried using the skeleton method, usually under tumuli.¹³ Therefore, it can be concluded that the cremation of the dead in the graves of Dolina is firmly rooted in the older traditions of the southern Carpathian Basin.

On the other hand, the idea of piling a mound above the grave appeared as a fashion across the wider European sphere at the beginning of the Hallstatt culture, which marked the Early Iron Age. The existence of tumuli in northern Croatian has been documented in the Posavina region up to Županja in the east with site Purić near Vrbanja where several tumuli from the beginning of Late Bronze Age were excavated.¹⁴ The closest parallels to the cemetery at Dolina are the younger tumuli at Kaptol in the Požega basin from the Early Iron Age.¹⁵ The neighbouring cemetery in Donja Dolina across the Sava is a flat bi-ritual cemetery dated to the 7th century BC onwards.¹⁶ The piling of mounds in the case of Dolina can definitely be characterised as a new element in the funerary rite that started to spread in the western Carpathian Basin at the beginning of the Iron Age.¹⁷

The objects placed inside the graves in the tumuli at Dolina show that the local community bartered and traded with the wider spheres of Pannonia, the south-eastern Alps, and the Balkans. For example, the costume items point to influences from the south-eastern Alps, the weaponry points to the Danube valley, and the ceramic vessels belong to the local repertory of the Sava valley in Croatia and Bosnia.¹⁸ All the excavated graves at Dolina point to a community that intensely communicated with their contemporaries in the neighbourhood. Tumulus 8 with graves 1 and 2 is one of the older excavated tumuli at Dolina. Aside from the cremated cos-

⁹ Ložnjak-Dizdar et al. 2019.

¹⁰ Tasić 1984; Kalafatić 2006.

¹¹ Ložnjak-Dizdar 2013.

¹² Čović 2011; Gavranović / Jašarević 2014.

¹³ Gavranović 2013.

¹⁴ Vinski / Vinski-Gasparini 1962, 271.

¹⁵ Vinski-Gasparini 1987; Potrebica 2002; 2013.

¹⁶ Truhelka 1904; Marić 1964; Čović 1987.

¹⁷ Gabrovec 1987, 37-38.

¹⁸ Ložnjak-Dizdar / Gavranović 2014; Mihaljević / Ložnjak-Dizdar 2015.

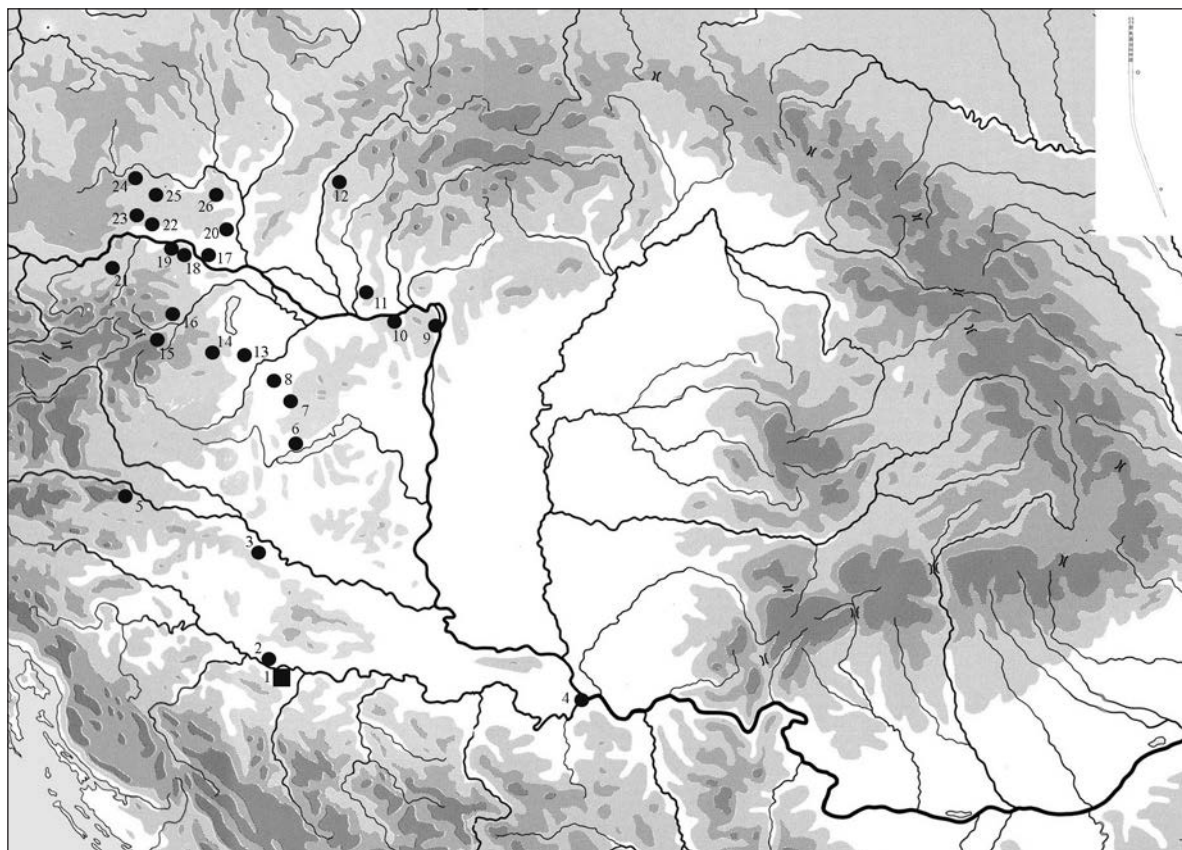


Fig. 3. *Distribution map for the pins with a small vase-shaped head*

tume items (probably a fibula), grave 1 included a ceramic cup; its shape and vertically fluted belly decoration indicates connections with the Danube valley,¹⁹ Grave 2, which lay beneath grave 1, contained a large quantity of cremated bones mixed with pottery fragments that burnt on the pyre. The cremated bones were laid inside an organic material, which was fastened with a pin with a small vase-shaped head that was found right above the cremated bones. Such pins with a small vase-shaped head are a characteristic type of jewellery from the late phase of the Urnfield culture, with wide distribution in the neighbouring areas, but also in the regions of Transdanubia, Lower Austria, Moravia, and Upper Bavaria (Fig. 3).²⁰ In the graves of Urnfield culture graves along the middle Danube, pins with a small vase-shaped head belong to the youngest finds.²¹ The local production of this type in the Sava valley has been confirmed by a mould found at Donja

Dolina.²² A pin similar to the one from the grave at Dolina is known from the settlement of Delovi near Koprivnica in Podravina.²³ The production and distribution leads to the conclusion that this kind of jewellery was primarily characteristic for the western Carpathian basin and the pre-Alpine area; this communication network included obviously the sites along the Sava, Dolina on the left and Donja Dolina on the right bank.

Contacts with the south-eastern Alpine region are indicated by the remains of an early type of the bowl-like helmet of the Libna type²⁴ and an iron fibula of type 2a after the typology of S. Gabrovec,²⁵ found in grave 1 of tumulus 6. The grave also contained a whetstone and an iron bead similar to the ones from the Danube and Tisa valleys²⁶ and a decorated bone pendant. The particular local character can be seen in the ceramic vessels, used in funeral process as a con-

¹⁹ Metzner-Nebelsick 2002, Abb. 73, 18.

²⁰ Říhový 1979, 203; 1983, 45; Vasić 2003, 92.

²¹ Nebelsick 1994, 325.

²² Marić 1964, T. 3, 10.

²³ Marković 1984, T. 2, 1.

²⁴ Škoberne 1999, 88, sl. 67.

²⁵ Gabrovec 1970, 24, Karta V.

²⁶ Burghardt 2012, Abb. 1

tainer for farewell gifts. The ceramic style and shape of the vessels from grave 2 in tumulus 6 has the closest parallels in the area of northern Bosnia.²⁷ The combinations of incision, incrustation and fluting are associated with the specific fashion in pottery decoration at the beginning of the first millennium BC in the area of the Carpathian Basin. This style influenced apparently also communities in northern Croatia and northern Bosnia.²⁸

The finds of costumes inside the graves show that Dolina stood at the crossroad of important roads leading through southern Pannonia at the beginning of the Iron Age and that the local community had links with the contemporaries in the neighbourhood and further out. Taking into account that the costume items indicate wider connections while pottery points to local expressions, it can be concluded that the members of the community at Dolina were open to innovations (such as the idea of a tumulus) that they applied in their own way in everyday life.

The discovery of the Late Bronze Age settlement at Babine Grede and its position across the earlier-known settlement at Donja Dolina on the other side of the river, which also stretched along a *greda* from the west to the east, offers a completely new picture of the patterns and structure of settlements along the Sava. Considering the available ceramic material and on the basis of several metal objects, it seems very plausible that both sites existed at the same time.²⁹ In the younger phase of the Late Bronze Age (Ha A2 – Ha B), there was certainly a settlement on each side of the river. Also, it must be pointed out that today's villages of Dolina and Donja Dolina stand on the spot where the Sava can be easily crossed, which is clear in the dry months, when sand banks appear on both sides and significantly reduce the width of the river. We should also emphasise the large number of bronze objects found in various places on the right bank of the Sava, along the settlement at Donja Dolina.³⁰ Even though their immediate context is unknown, the chronological range and diversity of these finds (pins, knives, swords, axes, spears, necklaces, belt buckles, fibulae) is a clear witness

of intense activity along the river in the period between the 13th and the 8th centuries BC.

Topolovaca Bregovi and Prud

A situation similar to Dolina and Donja Dolina can be seen some 70 km to the east, close to the village of Topolovaca Bregovi near Odžak, and close to the hamlet of Trnjak. Even though the settlement itself stands around 1 km south of today's riverbank of the Sava, it should be underlined that around 2 km to the east of the site there is the mouth of the Bosna River and several old inlets. Recent excavations on the opposite Croatian riverbank discovered another Late Bronze Age settlement near the village of Jaruge.³¹ The importance of the local landscape where the Sava makes a sharp bend almost at a right angle, stretching from Jaruge on the left bank to Prud and Šamac on the right bank and today's mouth of the Bosna, is confirmed by the Beravci hoard, found some 8 km away from the Sava on the Croatian side.³² Furthermore, many bronze objects have been found along the river, primarily on the right, Bosnian side, and mostly in places that seem suitable for river crossing due to sand banks. As in the case of Donja Dolina, the metal objects are from a wide chronological range, underlining the intensity of communications within local communities, but also with the wider region of the south-eastern Carpathian Basin.

Located on a slightly elevated *greda* in the north-south direction, the settlement of Topolovaca Bregovi had a prominent position in the local landscape and was open to communications towards the Sava in the north and the Bosna in the south (Fig. 4). The first finds were collected as early as 1964, but it was only between 1988 and 1991 that the archaeological excavations took place on three occasions.³³ A total of 168 m² was explored; most finds and structures have been associated with the initial phase of the Late Bronze Age (Bz C – Ha A1). But some of the published finds certainly belong to the younger phase of the Late Bronze Age (Ha A2 – Ha B1), which is the period of the settlement at Babine Grede and the

²⁷ Čović 1987, sl. 28; Gavranović 2011, 257-258, Abb. 258.

²⁸ Hänsel 1976; Teržan 1995; Pare 1999.

²⁹ Ložnjak-Dizdar / Gavranović 2014.

³⁰ Marić 1964, T. 1-5; Gavranović 2011, Abb. 92-98.

³¹ Galiot 2013.

³² Vinski-Gasparini 1973, 177.

³³ Belić 2011, 225.



Fig. 4. The site of the Toplovaca Bregovi settlement and the places in the river (sand banks) with frequent finds of bronze objects (Google Earth).



Fig. 5. The sand bank at Zorice seen from the right riverbank (Photo: Mario Gavranović)

Novigrad settlement on the left bank of the Sava, only 7 km upstream from the Topolovaca Bregovi site. This is primarily indicated by the ceramic finds with a very similar typological repertoire and with the same kind of decoration of oblique and horizontal fluting and facets and rare incised ornaments, most often shaped as a zigzagging line, which were also recorded in Dolina and Novigrad.³⁴

Interestingly, the presented material from previous excavations includes several fragments that clearly point to the fluted pottery of the Belugiš II type, although they were not described as such by the author.³⁵ This pottery style is characteristic for the Late Bronze Age communities in the neighbouring Danube valley in Croatia and Serbia,³⁶ with further finds spreading south of Danube and in the Morava valley.³⁷ This kind of pottery in northern Bosnia and south of the Sava is exceptionally rare, even though this region is in the immediate vicinity of the Danube valley. The pottery finds, or the lack of the same, indicate a communication barrier between these two geographically close areas, while the connections along Sava valley in the west-east direction clearly maintained. Bearing in mind the rarity of fluted pottery finds among the archaeological material from northern Bosnia, the presence of this specific type at the Topolovaca Bregovi site certainly reinforces the prominent position of this settlement.

The field survey of the Topolovaca Bregovi site was done in autumn 2018 with the help of P. Matkić, the permanent associate of "Vrata Bosne" (The Doors of Bosnia), a museum collection in the Franciscan monastery in Tolisa. The geophysical explorations undertaken in the accessible part of the slight elevation have offered some new information. Geomagnetic prospecting was done by means of the LEA MAX mobile system with a total of seven probes (Förster Fluxgate Gradiometer FEREX CON650) on the area of 1,5 Ha. The measurements were done by Eastern Atlas, a company from Berlin, and the report was written by C. Meyer and W. Hypiak.³⁸ A simple height model was made for the covered

area, clearly indicating the slightly elevated semicircular part of the settlement stretching further eastwards. The site areas to the east of the covered area could not be examined because of deep grooves, but the stretch of the semicircular elevated part is readily noticeable (Fig. 6). Interestingly, the density of the identified magnetically positive anomalies (darker structures) and the anomaly of the moderate bipolarity (less pronounced black-and-white structures) stretches along the configuration of the terrain, i.e. mostly within the elevated part of the terrain, with the greatest concentration at the tallest central part. Considering the signal and the dimensions, these structures could represent pits filled with organic material, large quantities of pottery and house daub, and hearths and remains of ovens. Strong bipolar anomalies in the north-western part of the covered area are the consequence of modern metal waste scattered across the field. It can be concluded that geomagnetic prospecting included and identified the western edge of the elevated settlement. Considering the configuration of the terrain and the numerous surface pottery finds collected in the east of the prospected part of the site, the total range of the settlement certainly covered a large area, of at least 4 Ha.

The collected surface pottery finds included several fragments that can be associated with the younger settling phase, i.e. the period from Ha A2 to Ha B1. Standing out from the rest, there is a fragment decorated with multiple incised zigzagging lines and several bowl rims with a twisted and obliquely faceted rim, described in the report of B. Belić as typical for the younger settling horizon as well.³⁹

The field survey in the area with deep ploughing yielded a bronze knife with a tongue-shaped handle; the knife was split into two.⁴⁰ (Fig. 7). The knife is similar to the Dašice type, or Daschitzer Typ, as defined by H. Müller-Karpe⁴¹ and described in detail by J. Říhovský in his monograph on the Bronze Age knives from Moravia and the eastern Alpine region.⁴² The Dašice-type knives are characterised by a slightly rounded spine of the blade, which is wedge-shaped as a rule, and

³⁴ Belić 2011, T. 9-10; Ložnjak-Dizdar / Gavranović 2014, 23.

³⁵ Belić 2011, T. 3, 1-3.

³⁶ Forenbaher 1991; Tasić 2002, 183.

³⁷ Bulatović / Filipović 2017, 149.

³⁸ Meyer / Hypiak 2019.

³⁹ Belić 2011, 236.

⁴⁰ All objects collected in the surveys are stored at the museum collection of Tolisa Franciscan monastery.

⁴¹ Müller-Karpe 1950, 320.

⁴² Říhovský 1972, 34.



Fig. 6. The geomagnetic prospecting results and the height model of the terrain with integrated prospecting results (made by Cornelius Meyer)

a more or less straight edge of the blade and a tongue with visibly reinforced ribs, three holes for rivets, and a massive cylindrical ending with a circular or ellipsoid cross-section separating the blade from the handle.⁴³ The Dašice-type knives appear predominantly in the Ha A1 phase in the wide area of the eastern part of central Europe, with the greatest number of finds coming from eastern Austria, Moravia, Czechia, and Slovakia.⁴⁴ Some of the Czech specimens, such as the knife from the skeleton grave from Holubice, can be dated based on the accompanying pottery to a later period, which is the transition between Ha A1 and Ha A2, or the end of the 12th century BC.⁴⁵ Fragments of Dašice-type knives appear relatively frequently in the hoards of horizon II (Ha A1) in the southern Carpathian Basin between the Drava, the Sava, and the Danube.⁴⁶ The

knives or knife fragments that are geographically closest to the Topolovaca Bregovi settlement are those from the Slavonian hoards of Otok-Privlaka and Brodski Varoš.⁴⁷ Parts of tongues that can be attributed to the Dašice type have been found in the Budinščina hoard in Hrvatsko Zagorje⁴⁸ and the Privina Glava hoard in eastern Sarmia.⁴⁹ On the basis of these parallels and the stratigraphy established in earlier excavations, the knife found in the area of the Topolovaca Bregovi can be associated with the beginning of the younger settlement phase, which corresponds with the period from Ha A1 to Ha A2.⁵⁰

The intense activities in the section of the Sava close to the Topolovaca Bregovi settlement result in the numerous bronze objects found at the nearby riverbanks and on the sand banks along the shore. Just like Donja Dolina, where a varied range of bronze objects from a broad chronolog-

⁴³ Ibid.; Gedl 1984, 26; Jiráň 2002, 34.

⁴⁴ Říhový 1972, 36

⁴⁵ Jiráň 2002, 35.

⁴⁶ Holste 1951, T. 5, 5; Vinski-Gasparini 1973, 81; Glogović 2002, 214.

⁴⁷ Vinski-Gasparini 1973, T. 27, 14; T. 55, 9.

⁴⁸ Ibid., T. 78, 21

⁴⁹ Garašanin 1975, T. 64, 18

⁵⁰ Belić 2011, 236

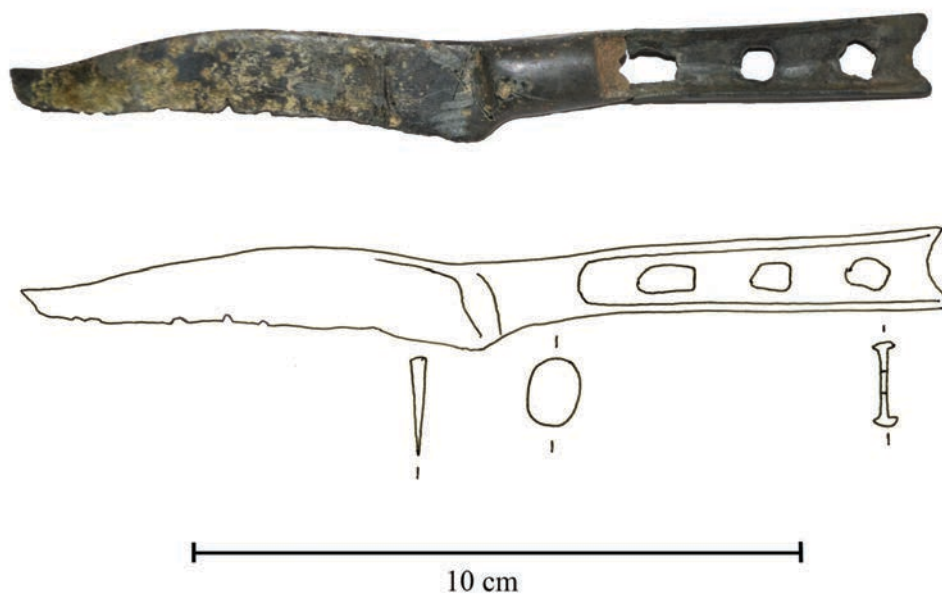


Fig. 7. *The Dašice-type knife from the Topolovaca Bregovi site*
(Photo: Mario Gavranović, drawing: Aleksandar Kapuran)

ical period has been found right next to the river, this section of the Sava has been also the source of many finds in the last 30 years. Most of them are kept in the archaeological collection of the Tolisa monastery. Standing out from the large number of objects from various periods (from the Early Bronze Age to the Middle Ages), is a large group of Late Bronze Age objects that in most cases can be dated in particular phases of this period on the basis of their tyological attributes.⁵¹ Similarly to Donja Dolina, the collected Late Bronze Age artefacts consist of different categories including weaponry (swords, daggers, tips of spears and arrows, knives), tools (axes, sickles), and jewellery (pins). It is further remarkable, that almost all Bronze Age finds originate from two places on the river where sand banks are clearly visible when the water level is low (Fig. 6 and Fig. 7). One place is the hamlet of Zorice, immediately northwards of the Topolovca Bregovi settlement, and the other is Prud, around 2 km westwards, between the old bed of the River Bosna and its current mouth. Taking into account the bronze knife from the settlement, for this occasion three further bronze knives, all found at the bank of the Sava, close to Prud (Fig. 8 and Fig. 9) will be presented. All three finds come from a sand bank

which is around 350 metres long, but they have not been found together.

The first specimen (Fig. 8,1) belongs to the group of the knives with a prong to fit the handle or knives with a shaft handle; the best analogies can be found among the Klentnice-type specimens, after the widely accepted typology made by J. Říhovský.⁵² The Klentnice type belongs to the older generation of prong knives, which are characterised by a simple prong with a circular or ellipsoidal cross-section, and the blade is more or less rounded and usually wedge-sectioned.⁵³ The Klentnice type is characterised by a prong without holes for rivets or without traces of bending. The Klentnice-type knives appear on a large territory between southern Germany, northern Tyrol, Polish Silesia, and western Hungary.⁵⁴ Therefore, the Prud knife seems to belong to the south-eastern edge of this typological and communication sphere. The chronological position of Klentnice-type and similar prong knives of the older generation has been determined with the help of the closed funerary complexes in Moravia (Klentnice) and southern Poland, dated to the period from Ha A2 to Ha B1, i.e. between

⁵¹ Gavranović 2020.

⁵² Říhovský 1972, 50; Gedl 1984, 50; Jirán 2002, 45; Glogović 2002, 2015.

⁵³ Říhovský 1972, 50.

⁵⁴ Ibid.; Gedl 1985, 51.

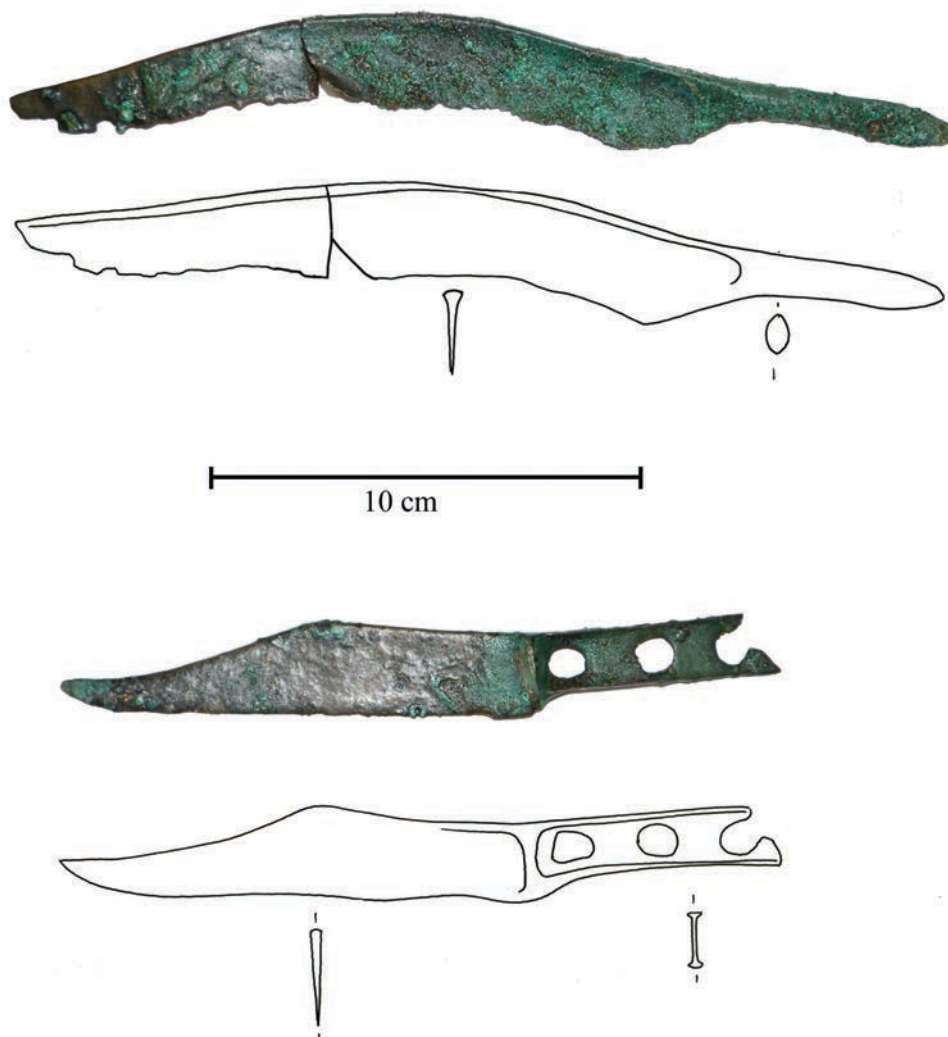


Fig. 8. Knives of the Klentnice type (1) and Pustiměř type (2) from Prud
(Photo: Mario Gavranović, drawing: Aleksandar Kapuran)

the end of the 12th century and the end of the 11th century BC. However, single specimens have been found in the hoards of the Ha B2 phase, such as the knives from the Celldömölk-Sághegy and Románd hoards in western Hungary.⁵⁵ The parallels that are geographically closer include the fragment of a prong knife from the neighbouring Beravci hoard in Croatia, found only a few kilometres north of Prud, which belongs to horizon IV of the northern Croatian hoards, i.e. to the Ha B1 phase.⁵⁶ Even though the Beravci hoard knife cannot have a precise typological determination because it is fragmented, it has been described as the Lešany type, which is characterised by a circular-sectioned prong with a single rivet hole

and a tapered end, with similar dating as the Klentnice type.⁵⁷ In sum, the Prud knife with a prong belongs to the knife type (Klentnice) that was mainly found in the eastern part of central Europe, appearing between the late 12th century and the beginning of the 10th century BC.

The other knife from Prud stands out because of its strongly bent spine of the blade, which reaches the highest point and then bends towards the tip in a gentle arc (Fig. 8, 2). The edge of the blade is almost straight, and the tongue with three rivet holes is separated from the blade with a narrow rib that also marked the end of the lost organic part of the handle. Knives of a very close shape were described by J. Říhový as the Pustiměř type after the find from the eponymous

⁵⁵ Říhový 1983, T. 39, 3; Mozsolics 2000, T. 12, 1; T. 86, 7.

⁵⁶ Vinski-Gasparini 1973, T. 108, 25; Glogović 2002, 213.

⁵⁷ Říhový 1972, 49; Glogović 2002, 14.



Fig. 9. *The Pfatten-type knife from Prud* (Photo: Mario Gavranović, drawing: Aleksandar Kapuran)

necropolis in Moravia.⁵⁸ In fact, the specimen from that necropolis is typologically very similar to the Prud specimen.⁵⁹ Even though knives of this type occur in a large area from Silesia in the north⁶⁰ to Italy and Greece in the south⁶¹ over several phases (from the end of Ha A1 to the beginning of Ha B1), the specimens of primary importance for the dating of the find from Prud are two similar knives from the horizon IV (Ha B1) hoard from Beravci across the Sava.⁶² A similar knife, but without a strongly bent spine, has been found in the horizon III (Ha A2) hoard from Donja Bebrina, around 15 km upstream from Prud.⁶³ Considering these closest analogies, the Pustiměř type knife from Prud can be dated to the period from Ha A2 to Ha B1, i.e. to the range between the end of the 12th century and the end of the 11th century BC; just like the described Klentnice type, this type is mostly found in the eastern part of central Europe. Accordingly, this is another case where a Prud marks the south-eastern edge of distribution.

A similar chronological position as the previous two knives from Prud applies to the third knife found at this spot along the sand bank on the Sava (Fig. 9). The knife with a tongue that slightly widens and is reinforced with ribs, with

a clearly articulated massive cylindrical middle part, and with a saddle-shaped twisted and reinforced spine of the blade, can be associated with the Pfatten type, as described and chronologically determined by H. Müller-Karpe,⁶⁴ or with the Pfatten-Vadena type after the typology of V. Bianco-Peroni.⁶⁵ The only difference is the reinforcement at the joint of the tongue and the cylindrical middle part, which is in most cases emphasized with a ring like thickening, while the knife from Prud has just slight thickening on the central part. Unlike majority of knives of the Pfatten-Vadena type, the specimen from Prud is not decorated along the slightly widened part of the spine and along the upper part of the blade.⁶⁶ It was already in a paper from 1950 that H. Müller-Karpe assumed three main distribution regions for this type, and he believed that the finds from the middle Danube, the south-western Carpathian Basin, and the edge of the eastern Alpine area, were the original variant of the type.⁶⁷ The other two knife distribution regions, described by Müller-Karpe as secondary variants of the type, are located firstly in Tyrol, northern Italy, and Switzerland (“Tiroler Sekundärvariante”), and secondly in the lower Oder in northern Poland, eastern Germany, and southern Scandinavia (“Sekundärvariante an der unteren

⁵⁸ Říhový 1972, 32.

⁵⁹ *Ibid.*, T. 9, 103.

⁶⁰ Gedl 1984, 31.

⁶¹ Müller-Karpe 1959, 135.

⁶² Holste 1951, T. 2, 2-3; Vinski-Gasparini 1973 T. 108, 23, 26.

⁶³ Vinski-Gasparini 1973, T. 94, 15.

⁶⁴ Müller-Karpe, 1950, 322.

⁶⁵ Bianco-Peroni 1976, 21.

⁶⁶ Müller-Karpe 1950, Abb. 8; Bianco-Peroni 1976, T. 6; Jiráň 2002, Taf. 9, 89-90.

⁶⁷ Müller-Karpe 1950, Abb. 7.

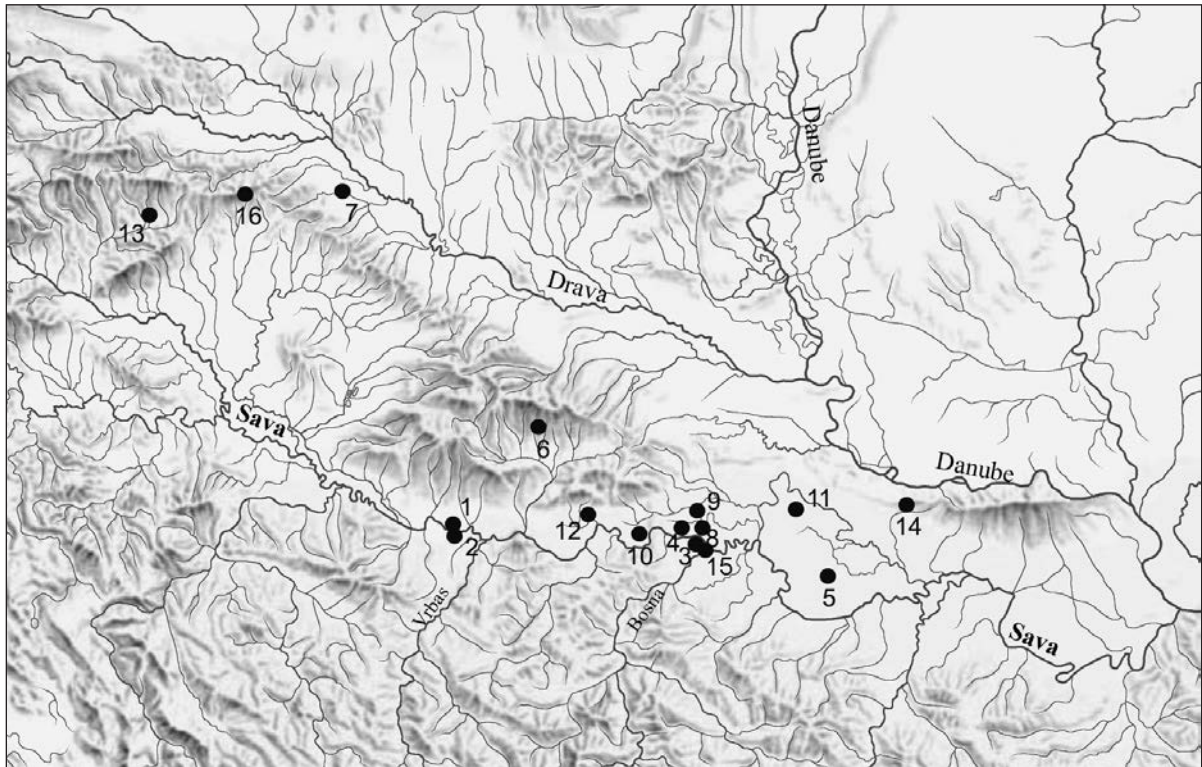


Fig. 10. Map of the sites from the text

Oder”). Regarding chronology, the Pfatten-type knives are associated with the period of the Ha B1 phase, or the younger phase of the Urnfield period, which is equivalent to the 11th century BC in absolute terms.⁶⁸ The closest parallels for the Prud specimen are a knife found in the area of the older settlement in Donja Dolina⁶⁹ and a fragment from the mentioned hoard in Beravci, from the Ha B1 phase, on the opposite bank of the Sava.⁷⁰ H. Müller Karpe included both finds from Beravci and Donja Dolina in the “original” variant of the middle Danube.⁷¹ Compared to these two finds, the knife from Prud has a differently shaped joint between the blade and the cylindrical part, as it is oblique and not almost rectangular as in the finds from Donja Dolina and Beravci. Also, both mentioned knives have a prominent ring-like thickening between the tongue and the central part, which is missing in the Prud find. These typological differences point to the existence of local variants on the

territory of northern Bosnia and the neighbouring Croatian Posavina, or to intense production of metal objects, which has been confirmed for Donja Dolina by the relatively large number of moulds from the period.⁷² In this context, the Pfatten-type knife from Prud can be described as the representative of a local variant of this widely distributed type, characteristic for the period of the Ha B1 or the 11th century BC.

The knife from the Topolovaca Bregovi settlement and the three knives found along the bank of the Sava, in the nearby Prud, belong to the types that occur in the eastern part of central Europe, including the middle Danube, and the western edge of the Carpathian Basin. The fact that they were found on the left bank in the middle section of the Sava underlines once again the prominent and intense communication between the Late Bronze Age communities in Posavina and the areas of Transdanubia, Lower Austria, Moravia, and southern Czechia in the period of Ha A2 and Ha B1 phases, or between the late 12th century and the early 10th century BC. A similar direction of communication was already noticed

⁶⁸ Müller-Karpe 1959, 139; Bianco-Peroni 1976, 22; Gedl 1984, 29.

⁶⁹ Marić 1964, T. 1, 23; Gavranović 2011, sl. 6, 10.

⁷⁰ Vinski-Gasparini 1973, T. 108, 25.

⁷¹ Müller-Karpe 1950, Abb. 7.

⁷² Marić 1964; Gavranović 2013.

in earlier studies; an important role could have been played by crossroads settlements such as Donja Dolina, Dolina, or Topolovaca Bregovi in Posavina, or by hilltop sites such as Kalnik⁷³ or Velem St. Vid.⁷⁴

Conclusion

The communities living in Posavina in the Late Bronze Age were situated on an important communication line and probably a crossroad, as seen from the distribution of the various everyday items they used. The Sava valley was important for the communication between the lower Danube and the south-western Pannonia and the south-eastern Alpine sphere. The distribution of particular types of knives and pins indicates also connections with a wider central European area. The contemporaneous settlements of Donja Dolina and Dolina, the examples of Topolovaca Bregovi and Jaruge, and the finds of the pin in tumulus 8 in Dolina and the pin mould in Donja Dolina, as well as the finds of the knives of the Pfatten, Klentnice, and Pustiměř types in Prud and Beravci, testify all in favour of intense communication on a regional level across the River Sava. As of yet, we cannot make a final judgment about a more precise context of the numerous bronze objects found along the Sava in the locations that were clearly inhabited by contemporary communities on both sides of the river. We should not rule out the possibility that those are parts of destroyed hoards or possible grave finds, but singular depositions of metal finds along rivers or on water crossings are also not unusual for the Late Bronze Age Europe.⁷⁵ However, when we consider the distribution of most of the specific types of jewellery or weaponry, it is possible to partially identify and interpret the Late Bronze Age communication routes, taking into account the different situation and communications in the past as opposed to recent experiences of space. The example of Posavina is a good indicator of different perceptions of space, as the modern age has perceived the Sava only as a border, while archaeological traces show that the area of Posavina in the Late Bronze Age clearly belonged

to the same cultural sphere on both sides of the river.

Considering the funerary rites and pottery finds from the older phase of the Late Bronze Age (Bz D – Ha A1), the communication lines in the valleys of the Drava and the Sava emphasised the east-west direction. From the 11th century BC onwards, at the beginning of the younger phase of the Late Bronze Age (Ha A2 – Ha B1), the communication network changed; there are more prominent regional differences, and the north-south communication became more important, as seen from the examples of pins with a small vase-shaped head or knives of Kletnice or Pustiměř types, which had the main distribution area on the territories of what is now Moravia, Czechia, western Hungary, and eastern Austria, with the finds from the Sava valley often marking the south-eastern edge of distribution. The example of Posavina and its position in the communication network of the Late Bronze Age shows that it is necessary to consider the material culture in particular chronological phases in space, since it is the only way to notice and recognise the changes and pace of communications on both local and regional levels.

Catalogue of the finds

1. Bronze knife with a tongue, broken in two (Fig. 7). The breakage is of an older date. The knife was found in autumn 2018 in the Topolovaca Bregovi settlement. The blade is damaged and shows traces of intense use. Length: 15.3 cm. Weight: 40 g. Inventory number: 2436. Archaeological collection of “Vrata Bosne”, the museum of the Franciscan monastery in Tolisa, Bosnia and Herzegovina.

2. Bronze knife with a prong to fit the handle (Fig. 8,1). The blade has a breakage along the entire length; the whole object is extremely corroded; the blade is highly damaged. Found in 2012 on the bank of the Sava, close to the village of Prud. Length: 21.4 cm. Weight: 33 g. Inventory number: 1418. Archaeological collection of “Vrata Bosne”, the museum of the Franciscan monastery in Tolisa, Bosnia and Herzegovina.

3. Bronze knife with a tongue; the tip of the tongue is missing (Fig. 8,2). Different patinas on the blade and on the tongue. The blade is dull because of a thick layer of patina. Found in 2012 on the bank of the Sava, close to the village of Prud. Length: 16.5 cm. Weight: 27 g. Inventory number: 1410. Archaeological collection of “Vrata Bosne”, the museum of the Franciscan monastery in Tolisa, Bosnia and Herzegovina.

⁷³ Majnarić-Pandžić 1992; Karavanić 2009, 17.

⁷⁴ Miske 1908.

⁷⁵ Soroceanu 1995, 30.

4. Bronze knife with no signs of breakage (Fig. 9). Almost no patina, probably because of water. The knife was found in 2012 in a shallow part of the river, close to the village of Prud. Length: 19.8 cm. Weight: 44 g. Inventory number: 1401. Archaeological collection of "Vrata Bosne", the museum of the Franciscan monastery in Tolisa, Bosnia and Herzegovina.

List 1

Distribution of pins with small vase-shaped head (Fig. 3)

1 Donja Dolina (Marić 1964); 2 Dolina (Ložnjak Dizdar, Gavranović 2014); 3 Delovi (Marković 1984); 4 Zemun (Vasić 2003); 5 Ruše (Müller-Karpe 1959); 6 Badacsony-Bazaltbánya (Darnay-Dornyai 1985); 7 Somlohegy (Patek 1968); 8 Celldömölk-Sághegy (Kemenczei 1996); 9 Budapest Békásmegyér (Nebelsick 1994); 10 Neszmély (Nebelsick 1994); 11 Chotín (Nebelsick 1994); 12 Ilava (Novotná 1980); 13 Górn (Ilon 2001); 14 Velem-Szentvid (Foltiny 1958; Říhovský 1983); 15 Pottachach (Říhovský 1979); 16 Maiersdorf (Říhovský 1979); 17 Wien-Groß Enzersdorf (Hetzer, Willvonseder 1952); 18 Leopoldsberg (Kerchler 1962); 19 St. Andra v. D. Hgt (Eibner 1974); 20 Stillfried (Strohschneider 1976); 21 Statzendorf (Říhovský 1979); 22 Hadersdorf (Stegmann-Rajtár 1992); 23 Haindorf (Lochner 1991); 24 Thunau am Kamp (Říhovský 1979); 25 Limberg (Říhovský 1979); 26 Brno-Obřany (Říhovský 1979).

List 2

Sites mentioned in text (Fig. 10).

1 Dolina; 2 Donja Dolina; 3 Topolovaca Bregovi; 4 Novigrad; 5 Purić Vrbanja; 6 Kaptol; 7 Delovi Koprivnica; 8 Jaruge; 9 Beravci; 10 Donja Bebrina; 11 Otok-Privlaka; 12 Brodski Varoš; 13 Budinščina; 14 Privina Glava; 15 Prud; 16 Kalnik

Sažetak

Dolina Save (Posavina) – baština komunikacija Neki primjeri iz kasnog brončanog doba

Dolina na Savi je naselje i groblje datirano u mlađu fazu kasnoga brončanog doba i prijelaz u starije željezno doba na kojem su u višegodišnjim istraživanjima otkriveni tragovi višestoljetnoga komuniciranja zajednica uz rijeku Savu i preko nje. Dolina na Savi

nalazi se prekoputa vrlo važnoga lokaliteta Donja Dolina u sjevernoj Bosni. Slična situacija s koncentracijom lokaliteta na obje strane rijeke Save može se pretpostaviti i u slučaju naselja Topolovaca Bregovi u blizini Odžaka i naselja u blizini sela Jaruge na hrvatskoj obali. Strateške točke u prostoru, poput Doline, i tragovi života na njima, otvaraju pitanja o korisnosti krajolika, mijeni komunikacijskih pravaca, kao i prednostima te nedostacima života uz rijeku Savu s naglaskom na mlađa razdoblja prapovijesti.

Nizinski krajolik uz rijeku Savu karakteriziraju izmjene nizina i prirodnih greda – uzvišenja koja se pružaju uz tok rijeke, na kojima se najčešće nalaze tragovi života u prošlosti. Osobito za vrijeme kasnijih faza brončanog doba, ovi blago povišeni položaji korišteni su za naseljavanje, a sam oblik, struktura i prostiranje naselja prilagođeni su prirodnom obliku i pružanju greda.

Značajan pomak u izučavanju zajednica brončanog i ranog željeznog doba uz Savu predstavlja novija istraživanja na nalazištu Dolina na lijevoj obali Save, južno od Nove Gradiške, gdje se nalazi i istoimeno selo. Pored nekoliko pojedinačnih nalaza, dodatni poticaj za početak istraživanja u Dolini dali su i zemljani humci, vidljivi i danas u krajoliku zapadno od sela. Rezultati istraživanja, koja Institut za arheologiju u Zagrebu i Gradski muzej Nova Gradiška sprovode od 2009. do danas, locirali su naselje na položaju Babine grede te groblje pod tumulima na položaju Glavičice koji se nalazi sjeverozapadno od naselja. Tijekom istraživanja naselja otkrivene su podnice kuća, ukopani radni objekti, više ognjišta obnavljenih nekoliko puta, ostaci kalotaste peći, rupe za stupove od nadzemnih konstrukcija te otpadne jame. Prema arheološkim nalazima i rezultatima radiometrijskih datiranja organskoga materijala (ugljena i životinjskih kostiju), istraženi dio naselja datira se između konca 12. i početka 10. st. pr. Kr. Na položaju Glavičice dosad je istraženo 7 tumula, od ukupno 15 danas vidljivih u krajoliku, pri čemu su otkriveni jedan do dva paljevinska groba u tumulima. Uz spaljene ostatke pokojnika te ostatke ugljena i gara s lomače, u grobovima se nalaze čitave keramičke posude, ulomci keramičkih posuda koje su bile stavljene na lomaču te ostaci nošnje u kojima je pokojnik bio izložen u lomači. Predmeti koji su bili položeni u grobove pokojnika u tumulima u Dolini ukazuju na razmjenu i trgovinu lokalne zajednice sa širim panonskim, jugoistočnoalpskim i balkanskim prostorom. Dijelovi nošnje pokazuju, primjerice, utjecaje iz jugoistočnoalpskoga područja, oružje s prostora Podunavlja, dok keramičke posude pripadaju lokalnom repertoaru hrvatske i bosanske Posavine. Otkriće kasnobrončanodobnog naselja na Babinim gredama i njegov položaj prekoputa već odranije poznatog naselja u Donjoj Dolini na drugoj obali, koje se također pružalo niz jednu gredu

u pravcu zapad–istok, omogućuje sasvim novi pogled na obrasce i strukturu naselja uz Savu. Sudeći prema raspoloživom keramičkom materijalu, kao i na osnovu nekoliko metalnih predmeta, istovremenost oba naselja čini se vrlo izvjesnom.

Slična situacija kao i u slučaju Doline i Donje Doline može se opaziti i nekih 70 km nizvodno u blizini naselja Topolovaca Bregovi kod Odžaka, odnosno u blizini zaseoka Trnjak. Iako se samo naselje nalazi oko 1 km južno od današnje obale Save, vrijedi napomenuti kako se oko 2 km istočno od lokaliteta nalazi ušće Bosne, kao i nekoliko starih rukavaca. S druge strane rijeke u novijim istraživanjima otkriveno je također naselje kasnog brončanog doba u blizini sela Jaruge. Nadalje treba istaknuti i dosta veliki broj brončanih nalaza pronađenih uz rijeku, prije svega s desne, bosanske strane, i to pretežito na mjestima koja se čine povoljnim za prijelaz usljed pješčanih sprudova. Svojim položajem na blago uzvišenoj gredi u pravcu sjever–jug, naselje Topolovaca Bregovi zauzimalo je istaknuto mjesto u lokalnom krajoliku, a komunikacijski je bilo otvoreno kako prema Savi na sjever tako i prema rijeci Bosni na jug. Arheološkim istraživanjima ukupno je ispitano 168 m², a većina nalaza i struktura pripisana je početnoj fazi kasnog brončanog doba (Bz C – Ha A1). No jedan dio dosada objavljenih nalaza nedvojbeno pripada mlađoj fazi kasnog brončanog doba (Ha A2 – Ha B1), odnosno istom razdoblju kao i naselja na Babinim gredama. Interesantno je kako se među prezentiranim materijalom iz prijašnjih istraživanja nalazi i nekoliko ulomaka koji nedvojbeno asociraju na kaneliranu keramiku tipa Belegiš II. Terenski pregled lokaliteta Topolovaca Bregovi izvršen je u jesen 2018. godine uz pomoć P. Matkića, stalnog suradnika muzejske zbirke “Vrata Bosne” u sklopu Franjevačkog samostana u Tolisi. Na dostupnom dijelu blagog uzvišenja sprovedena su geofizička istraživanja na površini od 1,5 Ha. U brazdama dubokog oranja prilikom terenskog pregleda pronađen je i jedan brončani nož s jezičastom drškom tipa Dašice. O intenzivnim aktivnostima na dionici Save u blizini naselja Topolovaca Bregovi svjedoči i veći broj brončanih nalaza pronađenih na obližnjim obalama rijeke, odnosno na pješčanim sprudovima duž obale. Kao i u slučaju Donje Doline, gdje je uz samu rijeku pronađen raznovrsan spektar brončanih predmeta širokog kronološkog raspona, i na ovom dijelu Save je u posljednjih 30 godina prikupljen znatan broj nalaza koji se čuvaju u arheološkoj zbirci samostana u Tolisi. Između ostalog, vrijedi istaknuti tri brončana noža, sva tri pronađena na obali Save kod mjesta Prud. Riječ je o tipovima Klentnice, Pustiměř i Pfatten rasprostranjenim prije svega u istočnom dijelu centralne Europe, uključujući srednje Podunavlje te zapadni rub Karpatske kotline. Činjenica da su pronađeni na lijevoj obali Save u njenom središnjem toku podcrtava još jednom izraženu

i intenzivnu komunikaciju između zajednica kasnog brončanog doba u Posavini s prostorom Transdanubije, Donje Austrije, Moravske i južne Češke u vrijeme stupnjeva Ha A2 i Ha B1, odnosno između kasnog 12. i ranog 10. st. pr. Kr.

Zajednice koje su živjele u Posavini tijekom kasnog brončanog doba nalazile su se na važnom komunikacijskom pravcu, vjerojatno i križanju puteva, što se vidi u distribuciji različitih predmeta iz njihovog svakodnevnog života. Savskom dolinom prolazi važna komunikacija između donjega Podunavlja i jugozapadnopanonskog te jugoistočnoalpskog prostora. Rasprostranjenost pojedinih tipova noževa i igala ukazuje na veze sa širim srednjoeuropskim prostorom. Istovremenost naselja u Donjoj Dolini i Dolini te na primjeru Topolovaca Bregova i Jaruga te nalazi igle u tumulu 8 u Dolini i kalupa za igle u Donjoj Dolini, kao i nalazi noževa tipa Pfatten, Klentnice i Pustiměř i u Prudu i u ostavi Beravci svjedoče o komunikaciji na regionalnoj razini preko rijeke Save. Sudeći prema pogrebnim običajima i keramičkim nalazima tijekom starije faze kasnog brončanog doba (Bz D – Ha A1), posebnu važnost su imali komunikacijski pravci u smjeru istok–zapad u nizinama Drave i Save. Od 11. st. pr. Kr., odnosno početkom mlađe faze kasnog brončanog doba (Ha A2 – Ha B1), komunikacijska mreža se mijenja te jačaju regionalne razlike, na značaju su dobile komunikacije u smjeru sjever–jug. Primjer Posavine i njezin položaj u komunikacijskoj mreži kasnoga brončanog doba svjedoči o nužnosti sagledavanja materijalne kulture u pojedinim vremenskim fazama u prostoru jer se samo tako mogu uočiti i prepoznati promjene i dinamika komunikacija kako na lokalnoj tako i na regionalnoj razini.

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