

Across the River. The Cemetery in Dolina and New Aspects of the Late Urnfield Culture in Croatian Posavina and Northern Bosnia

Daria Ložnjak Dizdar

Mario Gavranović

Abstract

The site of Dolina in the Croatian region of Posavina has been investigated since 2009 under the leadership of the Institute of Archaeology in Zagreb. In previous excavations five tumuli with one or two cremation deposits of different types (urned, scattered cremation remains, or with an organic container) could be detected. On the basis of characteristic grave goods (bronze pins and fibulae, helmet parts), the burials are dated to the 9th–8th century BC or in the stage Ha B3–Ha C1. Typical of Dolina, but also of other sites in Croatia and Bosnia along the middle course of the Sava River (e.g. Donja Dolina), is the ensemble of finds (jewellery, weapons and ceramics) of different regional origin, which underlines the specific position of this region at the interface between the Carpathian Basin to the north, the Alps to the west, the Balkans to the south and the lower Danube to the east. Vessels with incised zigzag motifs from Tumuli 6 and 8 reveal communication with the neighbouring area of northern Bosnia. Similar ornamentation appears there in contemporaneous settlement layers (at Vis and Zecovi) and in the corresponding cremation burials in flat graves (Petkovo Brdo and Mekota). However, the establishment of tumuli at Dolina, and various burial rites with different grave goods, emphasise a strong local component and a distinct individualisation of the graves, i.e. as buried members of a particular but heterogeneous community.

Keywords

Late Bronze Age, Early Iron Age, Sava Basin, cremation burials, incised ceramic ornaments.

Zusammenfassung

Der Fundplatz Dolina in der kroatischen Region Posavina wird seit 2009 unter Leitung des Instituts für Archäologie in Zagreb erforscht. In den bisherigen Ausgrabungen konnten fünf Tumuli mit ein bis zwei Brandbestattungen unterschiedlicher Art (Urne, Brandschüttung, organische Behälter) entdeckt werden. Anhand charakteristischer Beigaben (Bronzenadeln und Fibeln, Helmteile) lassen sich die bislang verzeichneten Gräber in die Zeit zwischen dem 9. und 8. Jh. v. Chr. bzw. in die Stufe Ha B3–Ha C1 datieren. Bezeichnend für Dolina, aber auch für die anderen kroatischen und bosnischen Fundstellen an der mittleren Save (z. B. Donja Dolina), ist ein Zusammenkommen vieler Formen (Schmuck, Waffen, Keramik) unterschiedlicher regionaler Herkunft, welche die besondere Position dieser Landschaft an der Schnittstelle zwischen dem Karpatenbecken im Norden, der Alpenregion im Westen, dem Balkan im Süden und der unteren Donau im Osten betonen. Auf die Kommunikation mit dem benachbarten Raum Nordbosniens weisen vor allem die mit eingeritzten Zickzack Motiven verzierten Gefäße aus den Tumuli 8 und 6 hin. Dort sind vergleichbare Ornamente aus den zeitgleichen Siedlungsschichten (Vis, Zecovi) und entsprechenden Brandbestattungen in Flachgräbern (Petkovo Brdo, Mekota) bekannt. Die Errichtung der Tumuli in Dolina und mannigfaltige Bestattungsriten mit unterschiedlichen Beigaben unterstreichen jedoch eine starke lokale Komponente und eine ausgeprägte Individualisierung der Gräber bzw. der Bestatteten.

Schlüsselbegriffe

Späte Bronzezeit, Frühe Eisenzeit, Savebecken, Brandbestattung, geritzte keramische Verzierung.

1. Introduction

The geographical term Posavina embraces the region of the Sava River Basin as well as adjacent territories in Slovenia, Croatia, Bosnia-Herzegovina and Serbia. Yet, for historical reasons, the name Posavina as used today refers only to the Croatian side of the middle course of the river and the plains on the opposite Bosnian side. On the regional scale this territory is in an intermediate position between the Carpathian Basin to the north and the mountainous region of the western Balkans to the south. The upper course of the Sava River also provides direct connections to the Alps in the west, while the lower course towards the east is already linked to the Danube and the Black Sea region.

The fact that the middle course of the Sava has represented a political border between Croatia and Bosnia-Herzegovina for more than 100 years has strongly influenced the current state of archaeological research regarding the Late Bronze and Early Iron ages. Numerous regional studies dedicated to this period are mostly determined by the existing state border,¹ which causes perception of the Sava as a distinct cultural boundary. The truth is, however, that the basin of the middle course of the Sava actually connects landscapes with identical geomorphological characteristics and the same resource base on both sides of the river.

For the period of the early Urnfield Culture (Bz D–Ha A1) the obvious geographical relation of Croatian Posavina and northern Bosnia is also evident in the archaeological record. The most striking examples are the cemeteries of the Barice-Gređani group, spread on both the Bosnian and Croatian sides.² This regional group is characterised by a specific funeral rite with urns turned upside down (with the rim to the ground) in small, irregularly-shaped pits. The personal attire of the deceased was also burned on the pyre and put into the urn together with the human remains, apparently immediately after the cremation.³ Except for the urn with cremated body remains and burned accessories, only a few other vessels were occasionally placed alongside the urn.⁴ Although the repertoire of ceramic forms and bronze objects from the graves of the Barice-Gređani group reveals clear typological affiliation with bordering Urnfield groups, this remarkable burial rite is without a

doubt a distinctive local phenomenon, restricted to the region along the middle course of the Sava River. A similar resemblance between the Croatian and Bosnian sides of the Sava Basin during Ha A1 is also noticeable in the composition of the hoards, with the regular deposition of bronze weapons (swords, spearheads and axes), tools (sickles and chisels) and jewellery (pins, bracelets and discs).⁵ This deposition pattern in the early Urnfield period is, however, not limited to this region only, but is also characteristic of the neighbouring territories of the southern Carpathian Basin.⁶ Nevertheless, the cremation graves of the Barice-Gređani group and the spreading of hoards with the same deposition structure clearly point to the common cultural background of northern Bosnia and Croatian Posavina during the early stages of the Urnfield period.

The relationship of these two parts of the Sava Basin in the younger (Ha B1) and late (Ha B2/3) Urnfield period is to a large extent unknown. The main reason is simply the lack of archaeological data from the Croatian side, since so far no younger or late Urnfield Culture graves have been found, while hoards dated to the Ha B1 and Ha B2/3 phases are rare in the whole area.⁷ Yet the discovery of and recent investigations at the Dolina cemetery are gradually changing the overall cultural picture of the Posavina region at the beginning of the last millennium BC.⁸ The main focus of this paper is on those graves from Dolina containing decorated pottery (Tumulus 8, Grave 2 and Tumulus 6, Grave 2), comparable firstly with the contemporaneous finds from settlements and graves in northern Bosnia. In addition this paper examines the burial rites and maintenance of the tradition of cremation in the area of Posavina until the beginning of the Early Iron Age.

2. Dolina

The present-day village of Dolina is located on the left bank of the Sava River, almost exactly opposite the renowned site of Donja Dolina on the right bank, which had been an important centre and river crossing during the Late Bronze and Iron Age. The incentive to begin the archaeological investigations in 2009 were the tumuli, still visible in the landscape, as well as the exceptional chance finds from the Dolina area that had been arriving in museums in Croatia and abroad. These finds span the period from the Middle Bronze Age to the Early Iron Age, for

1 RADIVOJAC 1983. – VINSKI-GASPARINI 1983. – ČOVIĆ 1987. – KÖNIG 2004. – JAMAKOVIĆ 2011.

2 MINICHREITER 1984. – ČOVIĆ 1988. – MARIJAN 2010.

3 MARIJAN 2010, 163.

4 LOŽNJAK DIZDAR 2013, Fig.1/4.

5 VINSKI-GASPARINI 1973, 128. – HANSEN 1994, Fig. 208. – KÖNIG 2004, 165.

6 HANSEN 1994, 326. – TURK 2012.

7 VINSKI-GASPARINI 1973, Tab. 134–135. – KÖNIG 2004, Tab. 79. – LOŽNJAK DIZDAR 2013, 111.

8 LOŽNJAK DIZDAR, MIHALJEVIĆ, DIZDAR 2010. – LOŽNJAK DIZDAR, MIHALJEVIĆ, DIZDAR 2011.

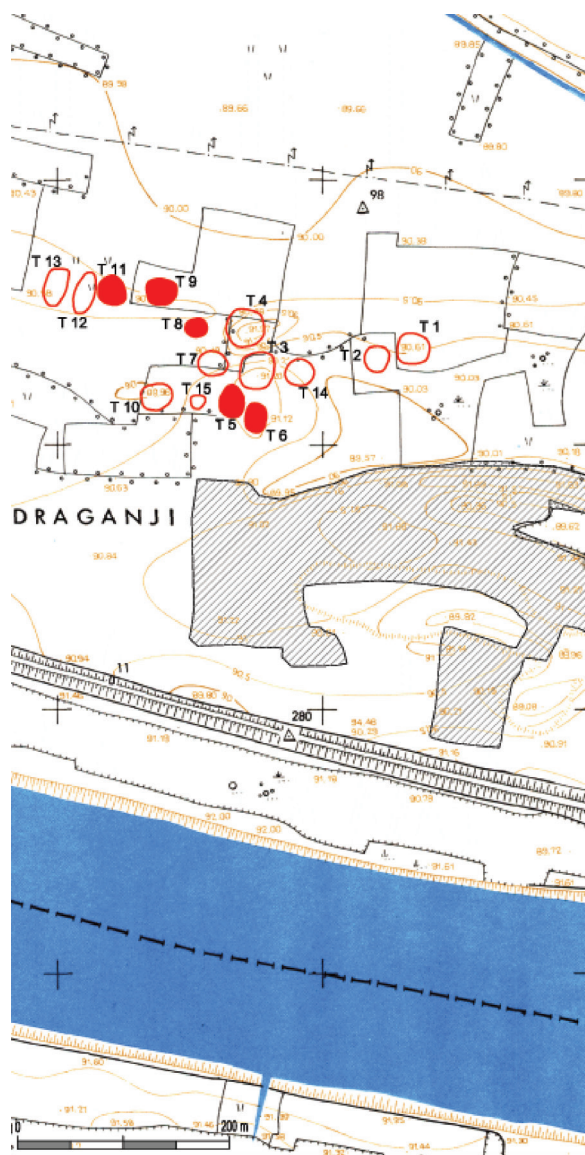


Fig. 1. Map of Dolina with the settlement (hatched area) and the cemetery with tumuli. Investigated tumuli are marked in red.

instance, a bronze sword of the Boiu II type,⁹ the Dolina hoard¹⁰ or the spearheads and torc kept in the Nova Gradiška Municipal Museum.

In the framework of the research project of the Croatian Ministry of Science, Education and Sports entitled *Development and Mobility of Proto-historical Communities in Continental Croatia*, in 2009 the Institute of Archaeology in Zagreb started the archaeological investigations in collaboration with the Nova Gradiška Municipal Museum. Since 2012 the archaeological research in Dolina has also been financially supported by the Croatian Ministry of

9 VINSKI-GASPARINI 1973, 31, Tab. 6/13.

Culture. As of 2013 a total of five tumuli and one flat grave have been investigated (Fig. 1), covering an area of 1002 m².

The archaeological investigations solved the enigma regarding the date of the tumuli in Dolina. Due to the find of a Boiu II type sword it was assumed that the tumuli belonged to the Middle Bronze Age. The results of the research so far and the preliminary analysis of the discovered finds have clearly shown that the cemetery under the tumuli can be dated to a short period spanning 80–100 years at the most, at the turn from the Late Bronze Age and the Early Iron Age in the south of the Carpathian Basin, that is, towards the end of Ha B3 phase and the entire Ha C1a phase after C. F. E. Pare.¹¹

The investigated tumuli in Dolina raised questions about the Late Bronze Age in the Posavina region that until now, due to the state of the research, had been almost entirely neglected: the spatial relationship of the contemporaneous settlement and the cemetery, the structure of grave goods and the acceptance of innovations in the transitional period from the Late Bronze Age to the Early Iron Age.

The settlement of the community that buried their deceased at the cemetery under tumuli at the position of Glavičice has to this point been located only through field surveys. It is situated on the first elevated plateau next to the Sava River, at the position of Babine Grede. Based on the surface finds, the settlement stretches in the east-west direction over a surface of around 66000 m² (495 × 135 m). North-west of the settlement, at the likely position of a one-time path leading from the settlement due north, the site of Glavičice consists of a group of 15 tumuli (Fig. 1). To date, five of the smaller tumuli, directly threatened by intensive land cultivation, have been investigated.

2.1 Tumuli 8 and 6

With a diameter of 16–17 m, the first investigated Tumulus 8 belongs to a group of smaller tumuli in Dolina (Fig. 1). Under the upper layer of the tumulus, almost in its centre, Grave T 8/1 was found with incinerated remains of a deceased woman.¹² The remains were piled up together with fragments of bronze artefacts that were cremated along with the woman as part of her costume. However, fragments of a pin and probably parts of bronze armlets/anklets, as well as part of a small rivet with a hemispherical head, can be recognised. In the centre there is a jug with a handle and a vertically-channelled belly (Fig. 4/3). Under

10 SCHAUER 1977.

11 PARE 1998.

12 In this paper we will present two older graves from Tumuli 8 and 6, which contained mostly ceramic finds. The metal finds from two upper and thus younger graves (T 6/1 and T 8/1) are currently in restoration and will be discussed subsequently.

the bottom layer of the tumulus, also almost in its central part, Grave T 8/2 with cremated remains of a deceased person was found. The pile of incinerated remains is rather compact, which suggests that it must have been laid in a textile or leather cloth (Fig. 2). South of the bones, a larger bronze pin was found with a diagonally-ornamented neck and smaller vase-shaped head at the top (Fig. 5). The pin might have closed the organic material in which the bones were kept. Along with cremated bones, fragments of a reddish vessel were found, which was decorated with zigzag and vertical curved lines filled with a white incrustation (Fig. 4/4). In the north-eastern quadrant, a bit further from the incinerated remains of the deceased, a bowl with a round body and an inverted rim, and a smaller pot with a round body and handles on the neck were found (Fig. 4/5–6). At the level of Grave 2, in the north-eastern quadrant, an oval surface of burned earth stands out that might suggest the spot where cremations used to take place.

The southernmost Tumulus 6, excavated in 2010, covered two cremation graves in a vertical stratigraphic relationship (Fig. 1). The grave goods suggest that the deceased



Fig. 2. Grave 2 in Tumulus 8.



Fig. 3. Grave 2 in Tumulus 6.

were buried at the beginning of the Iron Age (Ha C1a), thus connecting the tradition of cremation burials of the Urnfield Culture with the Hallstatt fashion of marking graves by erecting tumuli. Under a mound of grey mixed earth in the south-western quarter of the tumulus, incineration remains of a rectangular shape with a large amount of soot were identified as Grave 1. It was constructed with four wooden pillars in the corners, along which planks were probably laid. In the grave, thus prepared, a pot was laid – an urn (Fig. 6/1) with the incinerated bones of the deceased, among which was unearthed an iron wire double-looped fibula with a triangular foot and a bow of round cross-section. The fibula is relatively small. Within the urn an iron bead was found, along with small bronze rivets of 0.5 cm in diameter. The urn (Fig. 6/1) was covered with the remains of a funeral pyre with soot, among which incinerated bones, pottery shards, a large amount of small bronze rivets, fragments of a burned iron artefact, two bone pendants, one of which was decorated with concentric circles, and a stone pendant which had deliberately been broken in three parts, were found. Grave 1 was sunk in the mound of Grave 2. The Grave 2 mound was made of brown sandy earth, and is situated in the central part of the grave, in its south-eastern and south-western quarters. Grave 2 was placed in the southern part of the tumulus. Cremated bones mixed with pottery shards and an amount of soot were laid in some sort of organic material (Fig. 3). North of the cremated bones, a set consisting of three pots, a cup and a bowl was laid (Fig. 3). Two of the three pots have the same biconical shape with everted rim, but with different decorative motifs and style (Fig. 6/2, 4). The upper part of the belly of the pot is always decorated, once with vertical and horizontal zigzag curved lines filled with white incrustations (Fig. 6/2). The third pot has a round body with a prominent shoulder and everted rim (Fig. 6/6). The shoulder of the vessel is decorated with a relief band with fingertip impressions and applied vertical relief bands. The grave yielded a biconical cup – decorated with incised motifs – with a slightly everted rim with a handle that rises above (Fig. 6/3), and a bowl with inverted rim, decorated with horizontal flutes (Fig. 6/5). Grave 2 lay on a layer of sterile soil consisting of light yellow sand.

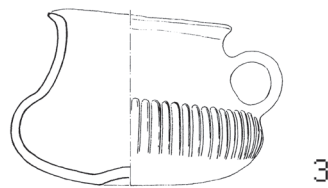
2. 2 Burial practice

The hitherto investigated tumuli document the changes in burial custom practiced by the community towards the end of the Late Bronze Age. Based on the finds from the tumuli, we may conclude that one or two persons were buried in separate graves under each tumulus. The cremated bones and remains of the attire in which the deceased were placed on the pyre were collected into an urn (Grave

GRAVE 1



T 8/G 1



T 8/G 2

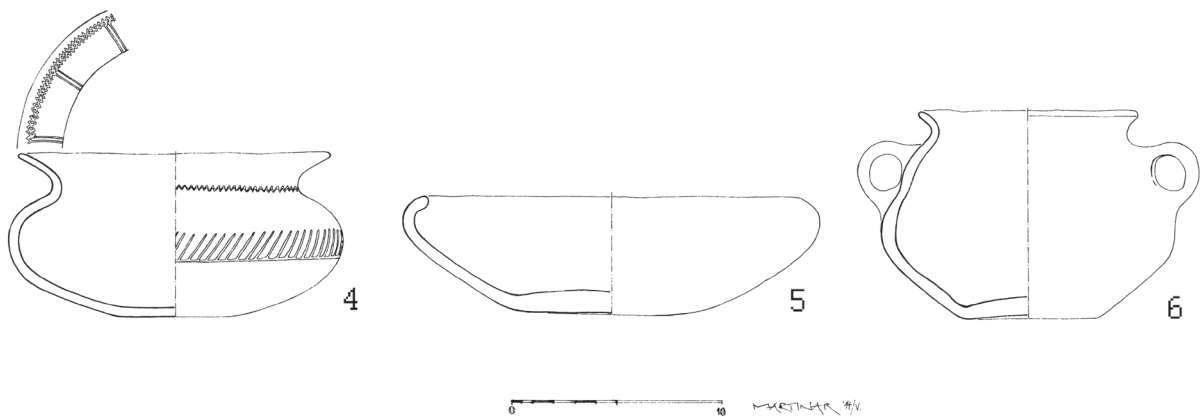


Fig 4. Ceramics from Dolina. – 1–2. Flat, destroyed grave. – 3. Tumulus 8, Grave 1. – 4–6 Tumulus 8, Grave 2 (Drawings: M. Rončević).

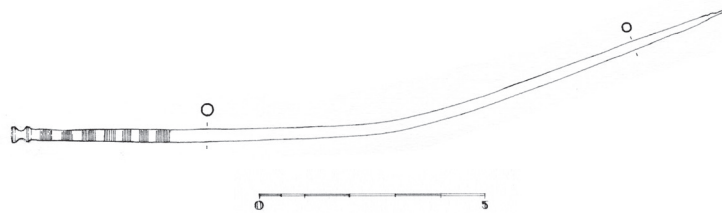
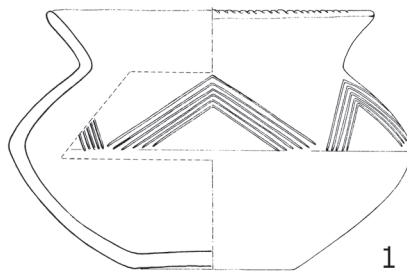


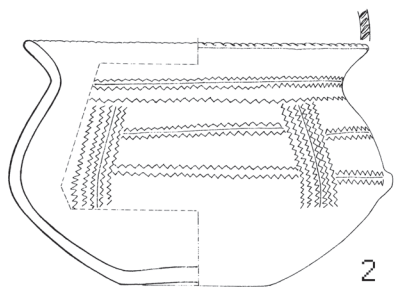
Fig. 5. Bronze pin from Tumulus 8, Grave 2 (Drawing: M. Rončević).

T 6/G 1

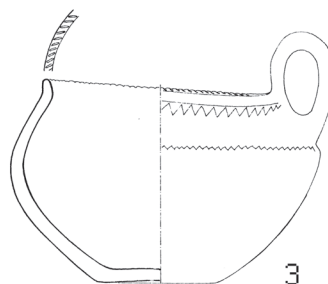


1

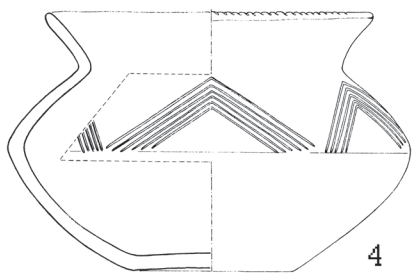
T 6/G 2



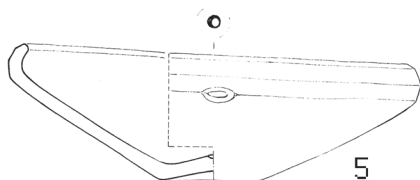
2



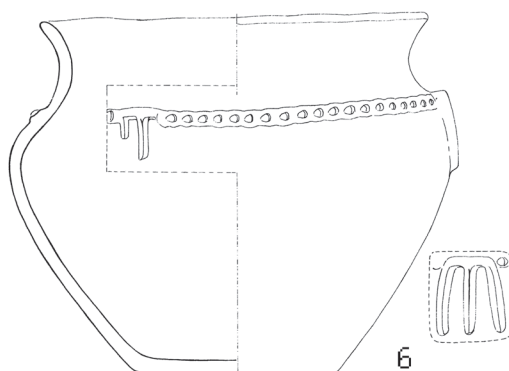
3



4



5



6



Fig. 6. Ceramics from Dolina. – 1. Urn from Tumulus 6, Grave 1. – 2–6. Pottery set from Tumulus 6, Grave 2 (Drawings: M. Rončević).

1 in Tumulus 5 and Grave 1 in Tumulus 6) or into a bag made of organic material. Some graves yielded complete sets of ceramic vessels that probably contained food and drink. Likewise, fragments of broken and burnt ceramic vessels discovered among the cremated bones of the deceased persons are another testimony to the funerary ritual. The cremation rite speaks of the Urnfield Culture traditions, which is visible also in the finds from the flat grave, but it became individualised at the beginning of the Early Iron Age. The only investigated flat grave, which was damaged by farming activities, contained a cremation burial and three vessels as grave goods (Fig. 4/1–2), by which the area north of the Sava River fits into the picture of burial customs of the younger Urnfield Culture in the Carpathian Basin.

Based on the size and duration of the settlement at Babine Grede which, according to the surface finds, may be dated between the 11th and 7th centuries BC, one might expect the existence of a flat cemetery at Dolina, positioned in the immediate vicinity of the tumuli. This was corroborated by sondage 1 at the site of Draganje, which yielded only a single grave, although we may assume that the investigation touched only the extreme western edge of the cemetery from the period of the Urnfield Culture.

The tumuli at Dolina so far investigated also point to various burial customs (Fig. 7), which is particularly true of Tumulus 11, investigated in 2012. The distinctiveness of the grave positioned under the tumulus, coupled with the results of the preliminary anthropological analysis, which in addition to cremated human bones ascertained the cremated bones of several different animals, raises questions about the burial ritual practised at Dolina at the beginning of the Iron Age. The structure of the grave goods in the nine investigated graves at Dolina exhibits certain similarities. For instance, fragments of broken ceramic vessels that had been burned on the pyre were later collected together with the remains of the deceased person and placed into the

grave. But there were also differences – a cremation burial in an urn or without it, the presence of a ceramic set or items of attire and defensive weapons in graves (Fig. 7).

2. 3. The chronological framework of graves in Tumuli 6 and 8

The pin from Grave 2 in Tumulus 8 (Fig. 5) testifies to the Urnfield part of the attire, which can be dated to the end of the Urnfield period in the Carpathian Basin. Pins of this type are very common at cemeteries of the Stillfried group in Lower Austria¹³ and in the settlements in Transdanubia and northern Croatia.¹⁴ A good chronological marker is the find from the Badacsonytomaj hoard, which is dated to the Bükkszentlászló¹⁵ horizon, and Hoard 5 at Celldömölk-Sághegy.¹⁶ Graves 7, 155 and 158 of the Ruše¹⁷ necropolis and Grave 43 from Pobrežje¹⁸ are dated to the same period. The younger vase-headed pins of north-eastern Alpine and Pannonian origin are the youngest finds at flat cemeteries of the Urnfield Culture in north-eastern Transdanubia (e.g. in graves at Békásmegyér, Neszmély and Chotín).¹⁹ Miniature vase-headed pins are also synchronous with the ending of burials at cemeteries of the Chotin/Val group, which corresponds to the late phase of the Urnfield Culture, that is, the Ha B3 phase.²⁰

Thus, it is to the same horizon that we can also date the pin from Grave 2 of Tumulus 8 in Dolina, whose function in the grave was to fasten the organic material holding the cremated bones of the deceased person, with which there was incised pottery. Pins with small vase-shaped heads appear in Transdanubia and the Middle Danube area, and their distribution can be followed also within the territory of Bavaria, northern Moravia, as well as in Podravina and Posavina. The find from Dolina belongs to a group at the southern periphery of their distribution.

Crucial for the dating of Grave 2 in Tumulus 6 are the finds from the stratigraphically slightly younger Grave 1, which suggest the burial of a prominent person from the beginning of the Early Iron Age. The cremation burial of

Grave	urn	tumulus	attire	vessels	defence equipment	parts of broken vessels
I (flat grave)	+	-	-	+	-	+
T 5/1	+	+	+	+	+	+
T 5/2	-	+	-	+	-	+
T 6/1	+	+	+	-	+	+
T 6/2	-	+	-	+	-	+
T 8/1	+	+	+	+	-	+
T 8/2	-	+	-	-	-	+
T 9/1	-	+	+	-	-	+
T 11/1	-	+	+	-	-	+

Fig. 7. An overview of investigated graves from Dolina.

13 HETZER, WILLVONSEDER 1952, 62, 66 and Fig. 10/11; Fig. 13/1. – KERCHLER 1962, 63, 69 and Tab. IV/4. – EIBNER 1974, 31–32 and Fig. 5; Tabs. 19/f; 25/e. – PATEK 1968, 37, 87–88. – STROHSCHNEIDER 1976, 58 and Tab. 9/7. – LOCHNER 1991, 79, 180 and Tab. 56/3.– STEGMANN-RAJTÁR 1992, Fig. 14/8, 23.

14 FOLTINY 1958, 54 and Tab. II/12,15. – ILON 2001, 246 and Tab. II/3.

15 MOZSOLICS 2000, 9, 34, T. 2, 7.

16 KEMENCZEI 1996, 53, Abb. 2b, 2.

17 MÜLLER-KARPE 1959, 115–125, T. 108, J, 3; T. 114, A, 2; B, 1.

18 PAHIĆ 1972, 15, T. 10, 9.

19 NEBELSICK 1994, 324.

20 NEBELSICK 1994, 325. – METZNER-NEBELSICK 2002, Fig. 191.

Grave 1, with the remains partly in the urn and partly scattered in the rest of the grave, clearly points to the traditions of the Urnfield Culture. In the grave, a whetstone, frequently encountered in graves at Dalj and Batina,²¹ was unearthed. The find from Dolina might be the currently westernmost known find of this type of whetstone, associated with eastern, so-called Thracian-Cimmerian, influences.²² Another extraordinary object is a double-looped iron fibula with a triangular foot and a bow with a round cross-section of the type 2a based on Gabrovec, for which there are close analogies in Grave 250 in Ljubljana.²³ The densest distribution of this type of fibulae has been documented in Slovenia (Lower Carniola, Ljubljana and Inner Carniola). However, isolated finds are also known from Glasinac and Vukovar²⁴ and the fibula from Dolina fits well into this picture. Particularly interesting is the discovery of approximately one hundred small bronze rivets of 0.5 cm diameter, which formed a constituent part of the attire or equipment of the deceased and were cremated along with them. They can be interpreted in two ways: a part of their attire (belt, mantle or waistcoat) decorated with rivets, or a bowl-shaped helmet of the Libna group.²⁵ Judging by these chronologically significant attire objects, Grave 1 in Tumulus 6 can be dated to the late 8th century BC, i.e. to the beginning of the Early Iron Age. Grave 2 in the same tumulus can be assigned to the first or, at most, second previous generation, and it is thus somewhat older.

The investigations so far have clearly shown that the discovered graves may be dated to a short period spanning 80–100 years at the most, at the turn of the Late Bronze Age and the Early Iron Age (9th–8th century BC). However, for more complete results and verifications of the hypothesis about the position of the cemetery and the relationship of flat graves and graves under tumuli, we would have to wait until several seasons of archaeological excavations and the complete processing of the results have been finalised.

Items of attire found in the graves also bear witness to the position of Dolina at the crossroads of important routes leading through southern Pannonia at the beginning of the Iron Age, and of a community that communicated with contemporaneous communities in their neighbourhood and further abroad. The iron fibula and the presumed bowl-shaped helmet from Grave 1 testify to western influences, while the ceramic vessels, whetstone and bone pendants bear witness to eastern connections, which is not

surprising considering the geographical position of Dolina in the Sava Valley, a transversal route between the south-eastern Alps and the Danube region.

3. Cultural Context of the Dolina Site

At this stage of the research finds from Dolina cannot be clearly assigned to any of the existing groups of Late Bronze and Early Iron Age in south-east Europe. Since the metal objects from the graves have an obviously trans-regional character, special emphasis should be put on the ceramic vessels used in funeral rites as a presumable expression of the local element in the identity of the community. However, the excavated tumuli graves are dated to the 9th and 8th centuries BC (Ha B3–Ha C1), whereas the settlement area and parts of the graveyard were almost certainly occupied from the 11th century BC, i.e. during Ha B1 as well. Due to limited investigations so far, our present knowledge about the pottery tradition in Dolina from the time before the appearance of tumuli is still very fragmentary. In order partly to overcome this deficit it is worthwhile first to take a closer look at the neighbouring sites of the younger Urnfield period, located at an identical topographic position, immediately on the banks of the river Sava. Most notable among them are Donja Dolina, situated only a few hundred metres from Dolina on the right (Bosnian) side of the Sava, and Novigrad near Slavonski Brod, positioned some 50 km to the east on the left (Croatian) river bank (Fig. 10).

Additionally, our consideration will involve comparison with hill-top settlements situated on the periphery of the plains of Posavina and with contemporaneous burials containing comparable objects. Particularly important are the settlements of Vis and Zecovi in northern Bosnia with documented stratigraphies embracing the periods of the Late Bronze Age and the beginning of the Early Iron Age (Fig. 10). Although most previous studies²⁶ distinguish two cultural groups of the Late Bronze Age in northern Bosnia (Vis-Pivnica in the eastern and Donja Dolina-Zecovi in the western part), the significant difference between the hill-top sites in the west and the east is not attested by the material or by topographic position. Even more vague is the description of the Iron Age group Donja Dolina-Sanski Most, which encompasses the area of north-western Bosnia between the Sana, Una and Sava rivers.²⁷ As pointed out by the author B. Čović himself, the Donja Dolina-Sanski Most group was just a temporary construct with significant chronological and cultural disparities between included

21 METZNER-NEBELSICK 2002, Tab. 6/26.

22 BURGHARDT 2012, Fig. 1.

23 GABROVEC 1970, 24 and Tab. 8/8.

24 GABROVEC 1970, Map V.

25 ŠKOBERNE 1999, 88 and Figs. 59–60.

26 ČOVIĆ 1965. – ČOVIĆ 1988. – JAMAKOVIĆ 2011.

27 ČOVIĆ 1987, 232.

sites.²⁸ Our discussion regarding north Bosnia will therefore not be based on indeterminate cultural groups but rather on the analysis and comparison of the ceramic material itself. This preliminary examination will eventually be used to test the hypothesis about the communities inhabiting the Posavina region at the end of the Late Bronze Age, their contacts, and the type of local worlds on the left and right banks of the river and in the adjoining territories of northern Bosnia and Croatia. In the sense of A. Harding this method corresponds with the bottom-up approach in the consideration of local worlds before incorporating them into a wider framework of communications.²⁹

3.1 Urnfield tradition (Donja Dolina-Novigrad)

Almost in direct visual contact with Dolina is the village of Donja Dolina, undoubtedly the most prominent site or rather site-complex in the whole region. Thanks to the early investigations (between 1899 and 1905) conducted by Č. Truhelka and discovery of the Early Iron Age pile-dwellings and a corresponding bi-ritual flat-grave cemetery with a number of spectacular finds (helmets and shields of a Greek provenance, extraordinary jewellery sets), Donja Dolina has for more than a century been established as one of the key sites of the Early Iron Age archaeology in south-eastern Europe.³⁰ The later excavations in the 1960s and 1970s have revealed the fact that the Iron Age cemetery of Donja Dolina is actually located within an older, Late Bronze Age settlement, which was, according to the stratigraphy, founded in the time between Bz D and Ha A1 and eventually abandoned during the late Ha B period due to extended flooding, visible as distinctive layers.³¹ Subsequently the pile dwellings were erected a couple hundred metres downstream on the elevated terrain called “Gradina” and the old settlement on the river bank, or rather parts of it on the slightly higher ground, were eventually used as a cemetery place.³² The last phase of the settlement in Donja Dolina (between the 5th and 3rd centuries BC) is characterised by the wooden block rectangular houses on the elevated area (“Gradina”), while pile dwellings were apparently not used any more.³³

Since the excavation area within the Late Bronze Age site was limited to just a few trenches (58 m² in total), details about the structure and the capacity of the settle-

ment are still absent. It should also be considered that certain areas of the settlement were used as a graveyard of the pile-dwelling community through the period of several centuries (Ha C–La Tène B), which has inevitably contributed to the devastation.

For the time being there are no documented grave finds from Donja Dolina or the immediate vicinity that could be associated with the Late Bronze Age. However, it is worth pointing out that a large number of bronze finds and casting moulds were found in the area of the site during the building of the dam and other land improvement activities in the last 70 years.³⁴ While the casting moulds clearly point to metallurgical activity in the settlement and in consequence also certain social stratification with developed craftsmanship, some of the bronze finds could also originate from destroyed graves. Yet since no context has been documented, finds from the settlement area can only be typologically determined and chronologically classified using the comparison method. Regarding the composition of the bronze objects from the younger (Ha B1) and late (Ha B2/3) Urnfield periods found in Donja Dolina,³⁵ it is striking that they show similar tendencies to the grave finds from Dolina in terms of different regional provenances. Equally represented among the collected finds are the forms of the Carpathian Basin (pins of Velemszentvid type, socketed axes with Y-ribs and razors of Určice type), Alpine region (*Zwiebelkopfnadeln*, *Vasenkopfnadeln* and socketed axes of Passau type), northern Italy (decorated knives of the Vadena type, pins with cone heads of the Vadena type and of San Constanzo) and the Balkans (Kostel-type short swords, spear heads with a faceted ending and round decorated belt buckles). The same statements about Donja Dolina as a “melting pot” of various cultural influences can also be made for the period of the Iron Age, especially concerning the grave attire sets, regularly containing objects of various geographical origins.³⁶

Far less elaborated than the bronze finds is the pottery of the Late Bronze Age settlement in Donja Dolina. Only a few fragments can be assigned to the actual stratigraphic layers from the excavations in the 1960s and 1970s,³⁷ whereas the majority of the presented material was collected on the surface or found during non-archaeological operations in the field. At the current stage the Late Bronze

28 ČOVIĆ 1987, 278.

29 HARDING 2013, 394.

30 TRUHELKA 1904. – TRUHELKA 1906. – ČOVIĆ 1961. – MARIĆ 1964. – ČOVIĆ 1987.

31 NIKOLIĆ-MUTAVDŽIĆ 1963/1964. – MARIĆ 1964. – ŽERAVICA 1976.

32 MARIĆ 1964, 7–11. – GAVRANOVIĆ 2007, 405–406.

33 ŽERAVICA 1985, 32–36.

34 MARIĆ 1964, Tab. 1. – ŽERAVICA 1993, Nr. 369, 463–464, 544–547, 622.

35 GAVRANOVIĆ 2011, Part 2, Figs. 95–98.

36 ČOVIĆ 1961, Y1–Y10. – ČOVIĆ 1987, Tabs. 25–29. – TERŽAN 1987, Map 6. – TERŽAN 1995, Fig. 16. – BLEČIĆ KAVUR, PRAVIDUR 2012, 40–41.

37 MARIĆ 1964, Tab. 1. – ŽERAVICA 1985, 43–45. – GAVRANOVIĆ 2011, Part 2, Fig. 90.

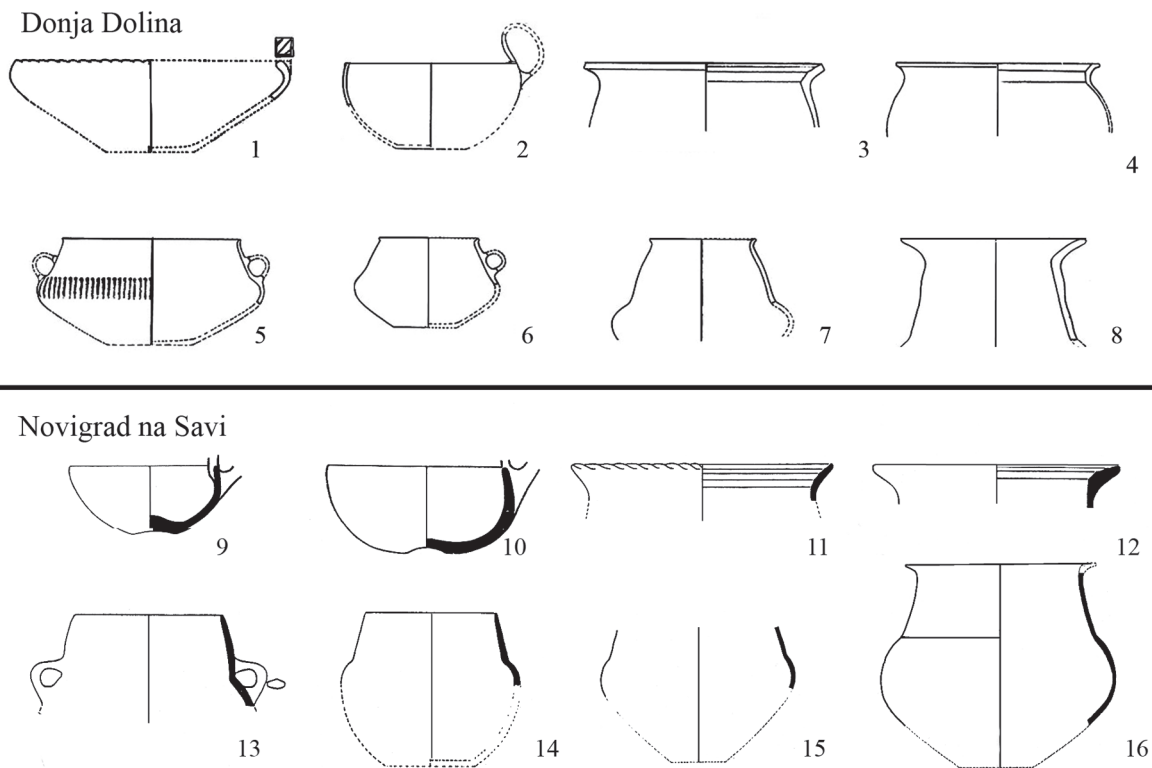


Fig. 8. Characteristic pottery of the Ha A2–Ha B1 time from Donja Dolina (1–8 after Marić 1964) and Novigrad na Savi (9–16 after Majnarić-Pandžić 1993).

Age pottery from Donja Dolina is divided into two chronological groups roughly corresponding to the older and younger Urnfield periods, although there is no strict division since many shapes occur unmodified through several centuries. The following ceramic forms are representative for the period of the 11th and 10th centuries BC, i.e. for the period before the erection of the tumuli in Dolina: urn-like vessels with a long conical or cylindrical neck, hemispherical cups with a high handle, bowls and pots with a channelled rim edge, amphorae and cups with a short conical neck and, as a traditional form known from the older Urnfield period, variations of bellied pots with a funnel rim and horizontal facets on the inside of the everted rim (Fig. 8/1–8). Unfortunately, the pottery from Donja Dolina which would correspond to the 9th and 8th centuries, i.e. to the grave finds from Dolina across the river, is not reproduced among the published material,³⁸ although numerous bronze finds clearly indicate that the settlement was existing at this time.

Similar to Donja Dolina, the site at Novigrad na Savi was also discovered in the late 19th century during the

building of the dam.³⁹ Shortly after, J. Brunšmid published a selection of the collected finds, including some characteristic objects of the older and younger Urnfield periods (a bronze pin and knife, stone casting moulds for socketed axes, rings and chisels and a couple of bronze axes).⁴⁰ K. Vinski-Gasparini, who also presented selected objects from Novigrad in 1973, broadly dated the settlement between Bz D and Ha B.⁴¹ After limited investigations in 1963, extended rescue excavation with two bigger trenches (144 m² in total) took place in 1977.⁴² They revealed the remains of two rectangular houses, placed on slightly elevated (60 cm) wooden platforms with supporting posts in order to protect the interior from damp and occasional flooding, as well as several pits with typical settlement waste material.⁴³ Essential for the dating of the discovered buildings are the bronze and stone objects found within the house structures,

³⁹ MAJNARIĆ-PANĐŽIĆ 1993.

⁴⁰ BRUNŠMID 1900, Tab. 1.

⁴¹ VINSKI-GASPARINI 1973, 153.

⁴² MAJNARIĆ-PANĐŽIĆ 1993. – MAJNARIĆ-PANĐŽIĆ 2000.

⁴³ MAJNARIĆ-PANĐŽIĆ 1993, 153. The same wooden platforms were apparently in use in this region until the late 20th century.

³⁸ MARIĆ 1964, 31. – ČOVIĆ 1987, 237.

including a socketed axe with Y-ribs, a typical form of Ha A2–Ha B1, and yet another casting mould for socketed axes of the same period.⁴⁴ According to N. Majnarić-Pandžić, who led the latest excavations and prospected the surrounding terrain, the settlement area in Novigrad spread along the riverbank for 2 km, presumably with a horizontal stratigraphy from Bz D until Ha B. The published sample of pottery from two excavated areas shows a close resemblance to the finds from Donja Dolina, including an almost identical assemblage of forms (cups, urn-like vessels with conical necks, amphorae with conical or cylindrical necks) and horizontal facets as a dominant decoration technique (Fig. 8/9–16).

3.2 Dolina – Incorporation of innovations

The almost identical ceramic styles at Novigrad and Donja Dolina, as well as further similarities between these two sites (casting moulds, bronze objects originating from various regions), indicate strongly the pivotal role of the Sava River as a link for the communities inhabiting both banks during the younger Urnfield period. The settlement at Babine Grede in Dolina was most certainly a part of this community network. This also opens a perspective on the contacts between the Carpathian Basin and the Balkans, as well as the importance of the Sava Valley as a communication route in the south of the Pannonian Plain, which between the 11th and 8th centuries became important in particular for the exchange of ideas about ceramic forms, techniques and motifs of decoration in the area stretching from the Lower Danube Basin⁴⁵ to Lower Carniola.⁴⁶

The shapes and decorations of vessels from the two presented tumuli graves indicate that some of these innovations were also accepted in Dolina. One significant new feature was decoration with incised zigzag lines, filled with white incrustation on one vessel with a biconical body and everted rim in Tumulus 8, Grave 2 (Fig. 4/4), and on a similar vessel and the cup with the high handle from the ceramic set in Tumulus 6, Grave 2 (Fig. 6/2–3). The closest analogies are found in the hill-top settlements of northern Bosnia at Pivnica,⁴⁷ Vis,⁴⁸ Brdašće,⁴⁹ Zemunica⁵⁰ or Zecovi (Fig. 9) as well as in the cremation graves from the same territory at Petkovo Brdo⁵¹ and Mekota.⁵² According to the

stratigraphies at Vis and Zecovi, zigzag lines with occasional incrustation are already present in northern Bosnia during the younger Urnfield period (Ha A2–Ha B1), together with other incised motifs including garlands, undulate and straight lines and hatched triangles.⁵³ The same repertoire of ornamentation is also characteristic for the sites in the Danube region of northern Serbia (Vojvodina)⁵⁴ and further to the east, reaching the Mureş River in Romania.⁵⁵ Especially valuable is the settlement Gradina na Bosutu between the Sava and the Danube in Syrmia, where pottery with same incised motifs is noted in the oldest stratigraphic layers, dated also to Ha B1.⁵⁶ But as the stratigraphy in Vis, Zecovi or Gradina na Bosutu indicates, both in northern Bosnia and in the Danube region of Serbia the same ornamentation is equally present through the 9th and 8th centuries BC.

Good examples are the finds from the contemporaneous settlement layer at the hilltop site of Zecovi in north-western Bosnia, with zigzag lines and biconical vessels with everted rims, quite comparable with the ceramics from Dolina (Fig. 9). Biconical forms (vessels, jugs and cups) and incised ornaments with white incrustation also dominate the ceramic assemblage from the youngest stage (Ha B3–Ha C1) of the Vis settlement, situated some 30 km south-east of Dolina.⁵⁷ Worth mentioning also are finds from the Pivnica settlement, where pottery with incised motifs (zigzag, garlands and hatched triangles) was discovered with a couple of stone casting moulds, used for the production of faceted spearheads and small socketed axes.⁵⁸ Both bronze objects represent typical local forms of the Ha B3 stage.⁵⁹ Eventually, the same pottery ornaments are also documented in the settlement layer of the site of Bare, near Tuzla, with a double-looped bow fibula with a triangular foot, and fragments of Basarabi ceramics, clearly pointing out the maintenance of such a decorative style until the 8th century BC.⁶⁰

Similar chronological tendencies are registered also in the mountain area of Bosnia, south of the Sava Basin. The occurrence of incised decoration in this region, including zigzag lines with white incrustation, is particularly well documented in the layers of the hilltop settlements Varvara and Pod, both dated to Ha B1.⁶¹ As the numerous examples

44 MAJNARIĆ-PANĐIĆ 1993, 155.

45 HÄNSEL 1976.

46 KRIŽ 2009. – ČUČKOVIĆ, ČUČKOVIĆ 2011.

47 BENAC 1962. – BENAC 1967.

48 MARIĆ 1961.

49 JAMAKOVIĆ, ŽERAVICA 2010.

50 GAVRANOVIĆ 2011, Tab. 76.

51 ČOVIĆ 1966. – GAVRANOVIĆ 2011, Part 2, Fig. 235.

52 MULABDIĆ 2011, Tab. 1.

53 GAVRANOVIĆ 2011, Maps 26–30.

54 MEDOVIĆ 1978. – MEDOVIĆ, MEDOVIĆ 2010.

55 GUMÁ 1993.

56 MEDOVIĆ 1988, Fig. 324.

57 MARIĆ 1961, 159.

58 BENAC 1967, Tab 1. – GAVRANOVIĆ 2011, Part 2, Figs. 3–4.

59 ČOVIĆ 1975, 23. – KÖNIG 2004, Fig. 4.

60 GAVRANOVIĆ 2007, 59–60.

61 ČOVIĆ 1983, 393. – TERŽAN 1995, 373 – GAVRANOVIĆ 2011, 252. – TERŽAN, KARAVANIĆ 2013, 847.

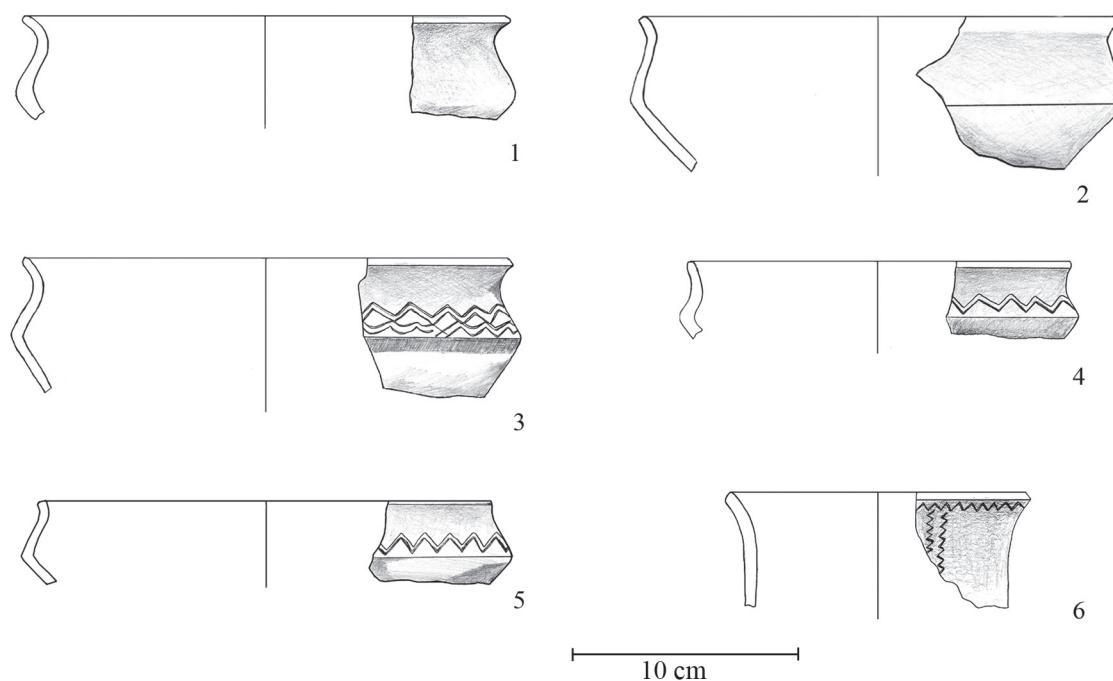


Fig 9. Selection of pottery from the settlement layer dated Ha B3–Ha C1 from the hilltop site of Zecovi (Drawings: M. Gavranović).

from Pod indicate, the same zigzag lines in horizontal and vertical positions are also present in the next settlement stage together with several bronze objects (small socketed axes and razor blades) typical of the Ha B3 period.⁶² Incised zigzag motifs can be traced further west in the Pokuplje region, in the Dubovac settlement near Karlovac,⁶³ as well as at the cemeteries in Trešćerovac and Ozalj.⁶⁴ A similar incised decoration, actually more resembling a wavy line, appears in the neighbouring settlements at Kiringrad⁶⁵ and Belaj, dated to the developed and late Ha B phase.⁶⁶

Incised decoration is particularly common on ceramic vessels of the Ruše group, at the cemeteries of Ruše, Hajdina⁶⁷ and Pobrežje.⁶⁸ Grave 170 in Ruše yielded a vessel with zigzag decoration, as well as a small knife and a spectacle fibula. H. Müller Karpe dated Grave 170 to Ha B1, while Pare dated this grave to Ruše II, that is Ha B3 (950/920–800 BC), which is the same horizon to which he has dated decorated pins with small vase-shaped head, like

the pin from Grave 2 in Tumulus 8 in Dolina.⁶⁹ Zigzag decoration appears at the cemetery in Pobrežje on vessels deposited together with spectacle fibulae and dated to Ha B1 and Ha B2 phases.⁷⁰

A pot with a conical neck and decorated with double zigzag lines was found in Grave 110 at Ruše in association with anthropomorphic pendants and a saddle-shaped fibula⁷¹ which, based on parallels with the anthropomorphic pendant from the previously-mentioned Badacsonytomaj hoard with a pin with a small vase-shaped head, points to a date at the end of the Ha B3 phase.⁷²

A zigzag motif on a ceramic jug also appears in Grave 7 at Lepa Raven near Poštela.⁷³ The same grave yielded ceramic vessels decorated with oblique flutes, which suggests that it probably belongs to a same time horizon as the ceramic set from Grave 2 in Tumulus 6 in Dolina, where a combination of incised and fluted decoration was documented in the same burial context.

62 WEBER 1996, 249. – KÖNIG 2004, 131.

63 ČUČKOVIĆ, ČUČKOVIĆ 2011, 102 and Tab. 9/3.

64 LOŽNJAK DIZDAR 2013, Figs. 2, 11, 23.

65 BALEN-LETUNIĆ 1987, 6 and Tab. 3/3.

66 MAJNARIĆ-PANDŽIĆ 1986, 32 and Fig. 7/1.

67 MÜLLER-KARPE 1959, Tabs. 112D/1–6; 113D/1–2.

68 PAHIČ 1972, T. 4/1.

69 MÜLLER-KARPE 1959, Tab. 112D/1–6. – PARE 1998, 343 and Fig. 25; Tab. 4.

70 PAHIČ 1972, 15 and Tabs. 10/13; 12/1–2.

71 MÜLLER-KARPE 1959, Tab. 112 D/1–6.

72 MOZSOLICS 2000, 9, 34, T. 2.

73 TERŽAN 1990, Tab. 55/7.

Incised zigzag lines are common at the earlier settlement Rogoza, dated from Br D/Ha A transition to Ha B1⁷⁴ and the Brinjeva Gora settlement, which existed in the younger phase of the Late Bronze Age with the continuity into the Early Iron Age,⁷⁵ similar to the Ormož settlement, where a hearth with pottery decorated in the same way is dated to Ha B3–Ha C1.⁷⁶ In the Iron Age such a motif developed into a triple-V fluted decoration, which was documented at Poštela.⁷⁷ Incised ornaments can be traced as an Urnfield tradition in the first horizon of the Martijanec-Kaptol group, whose pottery would later be characterised by fluted or painted decoration.⁷⁸ The technique of decorating pottery with incisions and motifs of zigzag, undulating, vertical and horizontal lines and V-ornamentation that appears on pottery at Dolina, in graves dated to the late Ha B3 phase, fits into the regional style of pottery decoration in the south of the Carpathian Basin. The horizon of incised pottery in the Lower Danube Basin is dated to the 11th century BC,⁷⁹ and the similarity with the decorative style of various groups of Ha B phase along the Drava River westwards has already been discussed.⁸⁰ Pare points out that the horizon of fluted pottery in the eastern part of the Carpathian Basin was superseded by pottery with incised decoration known as the Kalakača phase of the Bosut group, the Insula Banului group and the Cozia group, which share similar motifs, and that the horizon of this pottery is dated between 950/920 and 800 BC.⁸¹ The above-mentioned finds from Sarmia through northern Bosnia, Posavina and Pokuplje in the west show that such a style of decoration was also transferred via the southern communication route, the valley of the Sava River, where local communities adapted it to their taste in the production of pottery.

It is thus evident that the emergence of incised pottery ornamentation during the Ha B1 phase has to be regarded as a part of wider trans-regional framework, noticeable also at nearby sites of northern Bosnia. It is, however, striking that apart from the ornamented pottery, other ceramic forms of this time from places like Vis or Zecovi closely resemble the finds from Donja Dolina and Novigrad (Fig. 8). Yet at this point it cannot be ascertained whether incised motifs were already present at the sites on the Sava

River bank during the same time (Ha B1). The lack of such pottery in Donja Dolina and Novigrad may also have been due to the small selection of published finds, whereas investigations in and around Dolina are yet to be done.

The vessels with incised decorations from Tumuli 6 and 8 nevertheless demonstrate definite contact between Dolina and northern Bosnia by the time of Ha B3–Ha C1. Besides the above-listed examples from the settlement sites (Zecovi, Vis and Pivnica), similarities can also be observed in grave finds of the same period. The site of Petkovo Brdo with ten flat urn graves is located on the slope below the hilltop settlement of Zemunica, some 40 km south-west from Dolina.⁸² Comparable with Dolina especially are biconical vessels used at Petkovo Brdo as urn lids, and smaller jugs and cups with incised ornament (a bundle of straight lines and multiple zigzag lines), found regularly unburned within the urn.⁸³ Crucial for the dating of Petkovo Brdo are round, richly-decorated belt buckles, also put into the urn in undamaged condition. This type of item of personal attire is characteristic of the graves of the late 9th and 8th centuries in the whole of northern Bosnia, including also inhumation graves at Tuzla⁸⁴ and in the cemetery of Jablanica in the north-eastern part of the country.⁸⁵ Small jugs of the same type and with very similar decorations to those at Petkovo Brdo are also recorded at the related settlement of Zemunica,⁸⁶ as well in the corresponding layers at the settlement Brdašće⁸⁷ and among finds from the cemetery at Mekota⁸⁸ on the river Una, which, unfortunately, has not been presented in detail until now, despite the large number of discovered graves (769 in total). According to the preliminary reports, Mekota is a flat graveyard, predominantly cremation graves with several variations (urns with or without lids, scattered human remains without a container), and a smaller percentage of inhumations. The oldest burials (presumably also those with decorated small jugs) are dated to the 9th and 8th centuries, while the youngest published finds, for instance, small spectacle fibulae of the Santa Lucia type,⁸⁹ belong to the late 7th century BC.⁹⁰ Chronologically related to the graves at Dolina is also the single urn grave from Bajinci on the Bosnian side of the Sava River, about 10 km due east.⁹¹ The grave goods in Bajinci (an iron knife

74 ČREŠNAR 2010, 13, 73, Fig. 4, 6, 10–11.

75 PAHIČ 1981, Tabs. 45/7, 46/7, 52/14.

76 DULAR, TOMANIČ JEVIĆ 2010, 192, Tab. 13/4, 13 – DULAR 2013, Fig. 26.

77 TERŽAN 1990, Tab. 40/1, 3.

78 VINSKI-GASPARINI 1987, 221.

79 HÄNSEL 1976, 251.

80 MÜLLER-KARPE 1959, 118. – TERŽAN 1995, 349–353.

81 PARE 1998, 407–410, Fig. 48, Tab. 6.

82 ČOVIĆ 1966, 161. – GAVRANOVIĆ 2011, Part 2, Fig. 235.

83 GAVRANOVIĆ 2011, Part 2, Fig. 236–242.

84 ČOVIĆ 1957, 252.

85 GAVRANOVIĆ 2011, Tab. 12.

86 GAVRANOVIĆ 2011, Tab. 76/1–3.

87 JAMAKOVIĆ, ŽERAVICA 2010, 50.

88 MULABDIĆ 2011, Tab. 3.

89 PABST 2012, 88 and Fig. 13.

90 MULABDIĆ 2011, 85.

91 ČOVIĆ 1987, 238.

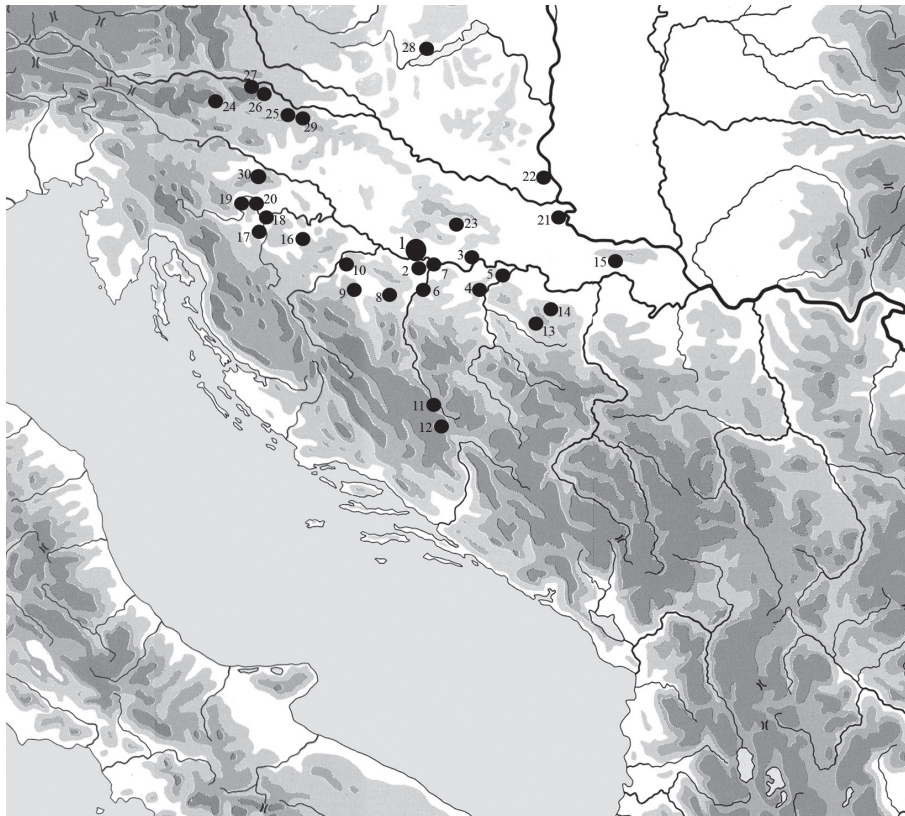


Fig. 10. Map with named sites. – 1. Dolina. – 2. Donja Dolina. – 3. Novigrad na Savi. – 4. Vis. – 5. Pivnica. – 6. Brdašće. – 7. Bajinci. – 8. Zemunica/Petkovo Brdo. – 9. Zecovi. – 10. Mekota. – 11. Pod. – 12. Varvara. – 13. Bare-Tuzla. – 14. Jablanica. – 15. Gradina na Bosutu. – 16. Kiringrad. – 17. Belaj. – 18. Dubovac. – 19. Ozalj. – 20. Treščerovac. – 21. Dalj. – 22. Batina. – 23. Kaptol. – 24. Brinjeva Gora. – 25. Hajdina. – 26. Poštela. – 27. Ruše. – 28. Badacsonytomaj. – 29. Ormož. – 30. Budinjak.

and spearhead, and a bronze pin with a bowl-like head and bronze ring) were placed on the stone slab that covered the urn. Significant for the dating of the grave is the bronze pin for which there are good analogies from the 8th century BC.⁹²

A common aspect of the graves in northern Bosnia and Dolina is obviously evidence of the practice of cremation, which was most probably inherited from earlier stages of the Urnfield period. But despite the shared background concerning the treatment of the dead body, it is at the same time apparent that most burials, in Dolina itself and in the nearby region across the Sava River, have strong local or rather individual notes, manifested mainly through variations in the burial rite and distinctive choices of grave goods, i.e. grave attire sets. The relationship between decorated vessels from graves in Dolina and contemporaneous ceramics of northern Bosnia cannot be denied, but the erection of tumuli during Ha B3–Ha C1 has not been previ-

ously documented anywhere in northern Bosnia, regardless of burial rite. This brings us again to the question of the so-called cultural groups defined in the spirit of the 1950s and 1960s, which demanded a top-down approach giving emphasis to certain similarities (e.g. ceramic ornaments) but also neglecting major disparities (such as those between tumuli and flat graves, or between cremation and inhumation). At the end of the Late Bronze Age new social and economic aspects started developing within the eastern circles of the Urnfield Culture, which are partly manifested in the incipient practice of burying prominent individuals under earthen mounds – tumuli. The existence of tumuli has been documented in the Posavina region eastwards until Vrbanja,⁹³ but so far only the five tumuli in Dolina, and tumuli at the site of Purić near Vrbanja, from the early phase of the Late Bronze Age (Bz D–Ha A1), have been investigated.⁹⁴ The closest conceptual and chronological

⁹³ VINSKI, VINSKI-GASPARINI 1962, 271.

⁹⁴ MALOVOZ 2009. – BUDDEN-HOSKINS, MALOVOZ, MU-CHUN 2013.

⁹² MÜLLER-KARPE 1959, 84. – VASIĆ 2003, 95.

analogy is found in the tumuli at Kaptol in the Požega Basin,⁹⁵ from which the so-far investigated tumuli in Dolina differ in their exclusively earthen construction with the remains of minor timber structures in several graves. The other investigated tumuli dating from the beginning of the Iron Age in northern Croatia exhibit a very different way of burial. The tumuli at Budinjak contained the burials of several members, presumably of the same family, with up to 10 graves in a single tumulus, although their number varies from one tumulus to another.⁹⁶ The tumuli at Kaptol, which are dated to the advanced phase of the Early Iron Age,⁹⁷ suggest that only one, or very rarely two persons at the most were buried in a tumulus, in which case both were interred at the same moment. In view of the results of the latest investigations in the south-east Alpine⁹⁸ and south-west Pannonian areas,⁹⁹ between tumuli and immediately next to a tumulus there were presumably flat graves. This has been corroborated by sondage 1 from the 2009 campaign at the site of Draganje, west of the tumuli in Dolina. The great variety of burial customs and grave goods in Dolina and its surroundings basically requires the previously-mentioned bottom-up approach, with a detailed analysis of singular burials and their items.

Based on all the evidence discussed above we can conclude that the members of the community that lived in Dolina at the beginning of the Iron Age were open to innovations such as the concept of a tumulus, which they applied in their everyday life in their own way: burial with two cremation graves, with separate fills, in a single tumulus.

4. Conclusion

The so-far collected finds from Dolina point to the exceptional position of this site at the beginning of the Iron Age, as a crossroads and the meeting point of the influences from the south-eastern Alps, the lower Danube and the Balkans. Influences from various sides are visible not only in the objects deposited in the graves, but also in the concept of building earthen mounds above graves. The hypothesis about individualised burials at the beginning of the Early Iron Age will continue to be tested in future excavations, as well as through the study of burial customs in the wider area of southern Pannonia once interdisciplinary

analyses and the conservation of finds have been completed.

The exceptional achievements and finds resulting from the investigations at Glavičica in Dolina supplement our picture of funerary customs at the end of the Late Bronze Age and the beginning of the Early Iron Age in the Sava Basin. On the other hand, a number of questions are raised regarding the distribution networks of exchange for ceramic vessels and jewellery – objects people used in everyday life – but also of exceptional objects like helmets, which at that time were certainly symbols of prestige within the community. In the same vein, by comparing the practised burial ritual and the goods found in the graves, Dolina, a site on the periphery of the central European Urnfield Culture in the Late Bronze Age, is a good example for the study of the contact zones of the Carpathian Basin and the Balkans.

As regards the nature of the contacts between these communities we can only conjecture at the moment. Based on the current state of research we cannot shed light on questions about their shared environment, the burial rituals, which are not uniform, or models for the deposition of bronze objects. We can also only make guesses as to whether the marked local differences in identity, such as those shown in ways of burial, were influenced by supra-regional communications that passed through this area at the contact zone of Pannonia and the Balkans. Taking into consideration the importance of the settlement and cemetery in neighbouring Donja Dolina, there must have existed a corresponding settlement on the north bank of the Sava River, through which intensive trade and exchange of ideas and goods must have operated, from the Balkans due north, as well as from west to east. This role was probably played by Dolina. The archaeological investigations at Dolina therefore open a number of new perspectives for research on the Late Bronze Age, and especially into the transitional period to the Early Iron Age, within both the regional framework and the wider cultural framework of south-eastern Europe.

Acknowledgements

We thank Petra Rajić Šikanjić and Zrinka Premužić from the Institute of Anthropological Research in Zagreb for the anthropological analysis. We most cordially thank Maris Kristović and Martina Rončević for drawings and Sanjin Mihelić for translating and proof-reading our text as well as Mark Pluciennik for copy-editing. We would also like to thank two anonymous reviewers for their comments and constructive advice.

95 VEJVODA, MIRNIK 1971. – VINSKI-GASPARINI 1987. – POTREBICA 2002.

96 ŠKOBERNE 1999, 28.

97 POTREBICA 2013, 70.

98 BERNHARD 2003.

99 ŠKOBERNE 1999, 19–39. – KRIŽ, STIPČEVIĆ, ŠKEDELJ PETRIČ 2009, 77–79.

Literature

BALEN-LETUNIĆ 1987

D. BALEN-LETUNIĆ, Prehistorijski nalazi s gradine Kirni-grad, *Vjesnik Arheološkog muzeja u Zagrebu* 20, 1987, 1–30.

BENAC 1962

A. BENAC, Pivnica kod Odžaka i neki problemi kostolačke kulture, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu*, nova serija, *Arheologija* 17, 1962, 21–40.

BENAC 1967

A. BENAC, Kameni klaupi sa Pivnice, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu*, nova serija, *Arheologija* 21/22, 1966/1967, 150–160.

BENAC 1983

A. BENAC (Ed.), *Praistorija jugoslavenskih zemalja IV. – Bronzani doba*. Sarajevo 1983.

BENAC 1987

A. BENAC (Ed.), *Praistorija jugoslavenskih zemalja V. – Željezno doba*. Sarajevo 1983.

BERNHARD 2003

A. BERNHARD, Das unenfelder- und hallstattzeitliche Gräberfeld Masser-Kreuzbauer sowie Gräber aus dem Kaiserschneiderwald. In: A. BERNHARD, A. WEIHS, Neuforschte Gräber der frühen Eisenzeit in Kleinklein (Weststeiermark). *Universitätsforschungen zur prähistorischen Archäologie* 93, Bonn 2003, 1–211.

BLEČIĆ KAVUR, PRAVIDUR 2012

M. BLEČIĆ KAVUR, A. PRAVIDUR, Ilirske kacige s područja Bosne i Hercegovine, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu*, nova serija, *Arheologija* 53, 2012, 35–136.

BRUNŠMID 1900

J. BRUNŠMID, Naselbina bronsanog doba kod Novog grada na Savi, *Vjesnik Hrvatskog arheološkog društva* 4, 1900, 43–58.

BUDDEN-HOSKINS, MALOVOZ, MU-CHUN 2013

S. BUDDEN-HOSKINS, A. MALOVOZ, W. MU-CHUN, The prehistoric tumuli complex of Purić-Ljubanj near Vrbanja in the Spačva Basin, *Županijska Posavina*, *Prilozi Instituta za arheologiju u Zagrebu* 30, 2013, 133–156.

BURGHARDT 2012

M. BURGHARDT 2012, Osełki z otworem do podwieszania w kulturach stepowych p óżnej epoki brązu i wczesnej epoki żelaza, *Collectio Archaeologica Ressoviensis Tomus XVI*, Rzeszów 2012.

ČOVIĆ 1957

B. ČOVIĆ, Nekoliko manjih preistoriskih nalaza iz BiH, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu*, nova serija, *Arheologija* 12, 1957, 241–255.

ČOVIĆ 1961

B. ČOVIĆ, Donja Dolina: Nécropole de l'âge du fer. *Inventaria Archaeologica Iugoslavica Facs* 3, Bonn 1961.

ČOVIĆ 1965

B. ČOVIĆ, Uvod u stratigrafiju i hronologiju praistorijskih gradina u Bosni, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu*, nova serija, *Arheologija* 20, 1965, 27–145.

ČOVIĆ 1966

B. ČOVIĆ, Praistorijska nekropola „Petkovo brdo“ u Radosavskoj, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu*, nova serija, *Arheologija* 21/22, 1966, 161–167.

ČOVIĆ 1975

B. ČOVIĆ, Zwei spezifische Typen der westbalkanischen Bogenfibel, *Wissenschaftliche Mitteilungen des Bosnisch-Herzegowinischen Landesmuseums, Archäologie* 5, Heft A, 1975, 19–33.

ČOVIĆ 1983

B. ČOVIĆ, Prelazna zona. In: BENAC 1983, 390–412.

ČOVIĆ 1987

B. ČOVIĆ, Grupa Donja Dolina-Sanski most. In: BENAC 1987, 232–291.

ČOVIĆ 1988

B. ČOVIĆ, Barice-Gredani – Kulturna grupa, *Kultura polja sa žarama*. In: *Arheološki leksikon Bosne i Hercegovine* 1. Sarajevo 1988, 60–61, 100–102.

ČREŠNAR 2010

M. ČREŠNAR, New research on the Urnfield period of eastern Slovenia: a case study of Rogoza near Maribor, *Arheološki vestnik* 61, Ljubljana 2010, 7–116.

ČUČKOVIĆ, ČUČKOVIĆ 2011

Z. ČUČKOVIĆ, L. ČUČKOVIĆ, Arheološko istraživanje na Starom gradu Dubovcu 2001 – Godine. *Opuscula Archaeologica Radovi Arheološkog zavoda* 35, Zagreb 2011, 65–132.

DULAR 2013

J. DULAR, Severozahodna Slovenija v pozni bronasti dobi. *Opera Instituti archaeologici Sloveniae* 26, Ljubljana 2013.

DULAR, TOMANIČ JEVREMOV 2010

J. DULAR, M. TOMANIČ JEVREMOV, Ormož: Utrjeno naselje iz pozne bro-naste in starejše železne dobe, *Opera Instituti Archaeologici Sloveniae* 18, Ljubljana 2010.

EIBNER 1974

C. EIBNER, Das späturnenfelderzeitliche Gräberfeld von St. Andrä v. d. HGT. P. B. Tulln, NÖ: Aussagewert und Aussagegrenzen von Brandbestattungen für eine historische Interpretation. *Archaeologia Austriaca Beiheft* 12, Wien 1974.

- FOLTINY 1958
S. FOLTINY, Velemszentvid, Ein urzeitliches Kulturzentrum in Mitteleuropa. Veröffentlichungen der Arbeitsgemeinschaft für Ur- und Frühgeschichte 3, Wien 1958.
- GABROVEC 1970
G. GABROVEC, Dvoankaste ločne fibule, Godišnjak Centra za balkanološka ispitivanja VIII/6, 1970, 5–65.
- GAVRANOVIĆ 2007
M. GAVRANOVIĆ, Eisenzeitliche Bestattungen in Donja Dolina – Beispiele der sekundären Bestattung. In: M. BLEČIĆ, M. ČREŠNAR, B. HÄNSEL, A. HELLMUTH, E. KAISER, C. METZNER-NEBELSICK (Eds.), *Scripta Praehistorica in honorem Biba Teržan*, Situla 44, Ljubljana 2007, 405–419.
- GAVRANOVIĆ 2011
M. GAVRANOVIĆ, Die Spätbronze- und Früheisenzeit in Bosnien. *Universitätsforschungen zur prähistorischen Archäologie* 195, Bonn 2011.
- GUMĂ 1993
M. GUMĂ, Civilizația primei epoci a fierului în sud-vestul României. *Bibliotheca Thracologica* IV, Bucharest 1993.
- HÄNSEL 1976
B. HÄNSEL, Beiträge zur regionalen und chronologischen Gliederung der älteren Hallstattzeit an der unteren Donau I, II. Beiträge zur Ur- und Frühgeschichtlichen Archäologie des Mittelmeer-Kulturräumens 16, Bonn 1976.
- HANSEN 1994
S. HANSEN, Studien zu den Metalldeponierungen während der älteren Urnenfelderzeit zwischen Rhönental und Karpatenbecken. *Universitätsforschungen zur prähistorischen Archäologie* 21, Bonn 1994.
- HARDING 2013
A. HARDING, World Systems, cores, and peripheries in prehistoric Europe, *European Journal of Archaeology* 16, 378–400.
- HETZER, WILLVONSEDER 1952
K. HETZER, K. WILLVONSEDER, Das Urnenfeld von Groß-Enzersdorf (Wien, 22. Bezirk), *Archaeologia Austriaca* 9, 1952, 52–76.
- ILON 2001
G. ILON, Siedlungswesen und Bestattungssitten in Gó: Zum Übergang von der Urnenfelder- zur Hallstattzeit, Die Drau-, Mur- und Raab-Region im 1. vorchristlichen Jahrtausend. *Universitätsforschungen zur prähistorischen Archäologie* 78, Bonn 2001, 243–269.
- JAMAKOVIĆ 2011
O. JAMAKOVIĆ, Gradine na području srednjeg toka Vrbasa – područje Banje Luke, *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu*, nova serija, *Arheologija* 52, 2011, 167–223.
- JAMAKOVIĆ, ŽERAVICA 2010
O. JAMAKOVIĆ, Z. ŽERAVICA, Praistorijsko naselje Brdašće u Laktašima / Prehistoric settlement Brdašće in Laktaši, *Godišnjak Centra za balkanološka istraživanja / Jahrbuch Zentrum für Balkanforschungen* 39, 2010, 35–52.
- KEMENCZEI 1996
T. KEMENCZEI, Angaben zur Frage der endbronzezeitlichen Hortfundstufen im Donau-Theißgebiet, *Communicationes archaeologicae hungaricae* 1996, 53–92.
- KERCHLER 1962
H. KERCHLER, Das Brandgräberfeld der jüngeren Urnenfelderkultur auf dem Leopoldsberg, *Wien, Archaeologia Austriaca* 31, 1962, 49–73.
- KÖNIG 2004
P. KÖNIG, Spätbronzezeitliche Hortfunde aus Bosnien und der Herzegowina. *Prähistorische Bronzefunde* XX/11, Stuttgart 2004.
- KRIŽ, STIPČEVIĆ, ŠKEDELJ PETRIČ 2009
B. KRIŽ, P. STIPČEVIĆ, A. ŠKEDELJ PETRIČ, *Arheološka podoba Dolenjske*. Novo mesto 2009.
- LOCHNER 1991
M. LOCHNER, Studien zur Urnenfelderkultur im Waldviertel – Niederösterreich. *Mitteilungen der Prähistorischen Kommission* 25, Wien 1991.
- LOŽNJAK DIZDAR 2013
D. LOŽNJAK DIZDAR, Cremation burials in Northern Croatia 1300–750 BC. In: M. LOCHNER, F. RUPPENSTEIN (Eds.), *Brandbestattungen von der mittleren Donau bis zur Ägäis zwischen 1300 und 750 v. Chr.* *Mitteilungen der Prähistorischen Kommission* 77, Wien 2013, 99–117.
- LOŽNJAK DIZDAR, MIHALJEVIĆ, DIZDAR 2010
D. LOŽNJAK DIZDAR, M. MIHALJEVIĆ, M. DIZDAR, Rezultati pokusnog istraživanja prapovijesnog groblja Glavičice i Draganje u Dolini 2009, *Annales Instituti archaeologici* 6, Zagreb 2010, 41–46.
- LOŽNJAK DIZDAR, MIHALJEVIĆ, M. DIZDAR 2011
D. LOŽNJAK DIZDAR, M. MIHALJEVIĆ, M. DIZDAR, Dolina 2010. – rezultati probnih istraživanja prapovijesnog groblja Glavičice, *Annales Instituti archaeologici* 7, Zagreb 2011, 41–44.
- MAJNARIĆ-PANDŽIĆ 1986
N. MAJNARIĆ-PANDŽIĆ, Prilog poznavanju kasnog brončanog i starijeg željeznog doba na Kordunu i Baniji. *Izdanja Hrvatskog arheološkog društva* 10, Zagreb 1986, 29–43.
- MAJNARIĆ-PANDŽIĆ 1993
N. MAJNARIĆ-PANDŽIĆ, Prilog poznavanju naselja i naseljenosti broskog Posavlja u kasno brončano doba.

- Izdanja Hrvatskog arheološkog društva 16, Zagreb 1993, 149–161.
- MAJNARIĆ-PANDŽIĆ 2000
- N. MAJNARIĆ-PANDŽIĆ, Brodsko Posavlje u brončano i željezno doba-posljednja dva tisućljeća prije Krista. In: Zbornik radova sa znanstvenog skupa o Slavonskom Brodu u povodu 750. obljetnice prvog pisanog spomena imena Broda, Slavonski Brod 2000, 103–130.
- MALOVOZ 2009
- A. MALOVOZ, Purić-Ljubanj. Hrvatski arheološki godišnjak 5/2008, Zagreb 2009, 86–89.
- MARIĆ 1961
- Z. MARIĆ, Vis kod Dervente, naselje kasnog bronzanog doba, Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, nova serija, Arheologija 15/16, 1961, 151–171.
- MARIĆ 1964
- Z. MARIĆ, Donja Dolina, Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, nova serija, Arheologija 19, 1964, 5–128.
- MARIJAN 2010
- B. MARIJAN, Crtice iz prapovijesti Slavonije (Brončano doba). Osijek 2010.
- MEDOVIĆ 1978
- P. MEDOVIĆ, Naselja starijeg gvozdenog doba u jugoslavenskom Podunavlju. Dissertationes et Monographiae 22, Belgrade 1978.
- MEDOVIĆ 1988
- P. MEDOVIĆ, Kalakača: Naselje ranog gvozdenog doba, Vojvođanski muzej. Posebna izdanja 10, Novi Sad 1988.
- MEDOVIĆ, MEDOVIĆ 2010
- P. MEDOVIĆ, I. MEDOVIĆ, Gradina na Bosutu – naselje starijeg gvozdenog doba. Novi Sad 2011.
- METZNER-NEBELSICK 2002
- C. METZNER-NEBELSICK 2002, Der “Thrako-Kimmerische” Formenkreis aus der Sicht der Urnenfelder- und Hallstattzeit im südöstlichen Pannonien. Vorgeschichtliche Forschungen 23, Rahden/Westfalen 2002.
- MINICHREITER 1983
- K. MINICHREITER, Pregled istraživanja nekropola grupe “Gređani” u Slavoniji, Anali Zavoda za znanstveni rad u Osijeku 2, Osijek 1983, 7–122.
- MOZSOLICS 2000
- A. MOZSOLICS, Bronzefunde aus Ungarn, Depotfundhorizonte Hajdúböszörmény, Románd und Bükkszentlászló. Prähistorische Archäologie in Südosteuropa 17, Kiel 2000.
- MULABDIĆ 2011
- E. MULABDIĆ, Mekota u Gornjim Rakanima, Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, nova serija, Arheologija 52, 2011, 81–91.
- MÜLLER-KARPE 1959
- H. MÜLLER-KARPE, Beiträge zur Chronologie der Urnenfelderzeit nördlich und südlich der Alpen. Römisch-Germanische Forschungen 22, Berlin 1959.
- NEBELSICK 1994
- L. D. NEBELSICK, Der Übergang von der Urnenfelder- zur Hallstattzeit am nördlichen Ostalpenrand und im nördlichen Transdanubien, Archäologische Untersuchungen zum Übergang von der Bronze- zur Eisenzeit zwischen Nordsee und Kaukasus. Regensburger Beiträge zur prähistorischen Archäologie 1, Bonn 1994, 307–363.
- NIKOLIĆ-MUTAVDŽIĆ 1963/1964
- V. NIKOLIĆ-MUTAVDŽIĆ, Izvještaj sa iskopavanja u Donjoj i Gornjoj Dolini 1963 i 1964 godine, Zbornik krajiških muzeja Banja Luka 2, 1964, 201–204.
- PABST 2012
- S. PABST, Die Brillenfibeln: Untersuchungen zu spätbronze- und ältereisenzeitlichen Frauentracht zwischen Ostsee und Mittelmeer. Marburger Studien zur Vor- und Frühgeschichte 25, Rahden/Westfalen 2012.
- PAHIČ 1972
- S. PAHIČ, Pobrežje. Katalogi in monografije 6, Ljubljana 1972.
- PAHIČ 1981
- S. PAHIČ, Brinjeva gora 1953, Arheološki vestnik 32, 1981, 71–143.
- PARE 1998
- C. F. E. PARE, Beiträge zum Übergang von der Bronze- zur Eisenzeit in Mitteleuropa, Teil I: Grundzüge der Chronologie im östlichen Mitteleuropa (11.–8. Jahrhundert v. Chr.), Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 45, 1998, 239–483.
- PATEK 1968
- E. PATEK, Die Urnenfelderkultur in Transdanubien. Budapest 1968.
- POTREBICA 2002
- H. POTREBICA, Istraživanje nekropole pod tumulima iz starijega željeznog doba na nalazištu Gradci kod sela Kaptol (sezona 2001.), Opuscula Archaeologica Radovi Arheološkog zavoda 26, Zagreb 2002, 331–339.
- POTREBICA 2013
- H. POTREBICA, Kneževi željeznoga doba. Zagreb 2013.
- RADIVOJAC 1983
- M. RADIVOJAC, Mezeji, panonsko pleme u sjeverozapadnoj Bosni, Zbornik krajiških muzeja Banja Luka 7, 1983, 111–133.

SCHAUER 1977

P. SCHAUER, Der Urnenfelderzeitliche Depotfunde von Dolina, Gde. und Kr. Nova Gradiška, Kroatien: Festschrift Hans Jürgen Hundt zum 65. Geburtstag, Teil 1. Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 21, Mainz 1977, 93–124.

ŠKOBERNE 1999

Ž. ŠKOBERNE, Budinjak: Kneževski tumul. Zagreb 1999.

STEGMANN-RAJTÁR 1992

S. STEGMANN-RAJTÁR, Spätbronze- und früheisenzeitliche Fundgruppen des mittleren Donaugebietes, Bericht der Römisch-Germanischen Kommission 73, 1992, 29–179.

STROHSCHNEIDER 1976

M. STROHSCHNEIDER, Das späturnenfelderzeitliche Gräberfeld von Stillfried. Forschungen in Stillfried 2, Vienna 1976, 31–69.

TERŽAN 1987

B. TERŽAN, The early Iron Age chronology of the central Balkans: a review from the viewpoint of the southeastern Alpine Hallstatt, *Archaeologia Jugoslavica* 24, 1987, 7–27.

TERŽAN 1990

B. TERŽAN, Starejša železna doba na Slovenskem Štajerskem. Katalogi in monografije 25, Ljubljana 1990.

TERŽAN 1995

B. TERŽAN, Stand und Aufgaben der Forschungen zur Urnenfelderzeit in Jugoslawien. In: M. ERBACH (Ed.), Beiträge zur Urnenfelderzeit nördlich und südlich der Alpen. Monographien des Römisch-Germanischen Zentralmuseum 35, Mainz 1995, 323–372.

TERŽAN, KARAVANIĆ 2013

B. TERŽAN, S. KARAVANIĆ, The western Balkans in the Bronze Age. In: H. FOKKENS, A. HARDING (Eds.), *The Oxford Handbook of the European Bronze Age*. Oxford Handbooks in Archaeology, Oxford 2013, 837–863.

TRUHELKA 1904

Ć. TRUHELKA, Der vorgeschichtliche Pfahlbau im Savebette bei Donja Dolina (Bezirk Bosnisch-Gradiška): Bericht über die Ausgrabungen bis 1904. Wissenschaftliche Mitteilungen aus Bosnien und der Herzegowina 9, Vienna 1904, 1–156.

TRUHELKA 1906

Ć. TRUHELKA, Sojenica u Donjoj Dolini: Peto iskopavanje god. 1904, *Glasnik Zemaljskog muzeja u Bosni i Hercegovini*, 1906, 343–347.

TURK 2012

P. TURK, Die Horte der Bronzezeit und ihre Fundplätze im "Kreuzungsbereich der Welten". In: S. HANSEN, D. NEUMANN, T. VACHTA (Eds.), *Hort und Raum: Aktu-*

elle Forschungen zu bronzezeitlichen Deponierungen in Mitteleuropa. Berlin 2012, 211–226.

VASIĆ 2003

R. VASIĆ, Die Nadeln im Zentralbalkan. *Prähistorische Bronzefunde XIII/11*, Stuttgart 2003.

VEJVODA, MIRNIK 1971

V. VEJVODA, I. MIRNIK, Istraživanja prehistorijskih tumula u Kaptolu kraj Slavonske Požege (Prethodni izvještaj), *Vjesnik Arheološkog muzeja u Zagrebu* 5, 1971, 183–210.

VINSKI, VINSKI-GASPARINI 1962

Z. VINSKI, K. VINSKI-GASPARINI, O utjecajima istočnoalpske halštatske kulture i balkanske ilirske kulture na slavonsko-sremsko Podunavlje, *Arheološki radovi i rasprave II*, Zagreb 1962, 263–293.

VINSKI-GASPARINI 1973

K. VINSKI-GASPARINI, *Kultura polja sa žarama u sjevernoj Hrvatskoj*. Zadar 1973.

VINSKI-GASPARINI 1983

K. VINSKI-GASPARINI, *Kultura polja sa žarama sa svojim grupama*. In: BENAC 1983, 547–667.

VINSKI-GASPARINI 1987

K. VINSKI-GASPARINI, *Grupa Martijanec-Kaptol*. In: A. BENAC 1987, 182–231.

WEBER 1996

C. WEBER, *Die Rasiermesser in Südosteuropa, (Albanien, Bosnien-Herzegowina, Bulgarien, Griechenland, Kroatien, Mazedonien, Montenegro, Rumänien, Serbien, Slowenien und Ungarn)*. *Prähistorische Bronzefunde VIII/5*, Stuttgart 1996.

ŽERAVICA 1976

Z. ŽERAVICA, *Gradina u Donjoj Dolini – sojeničko naselje*, *Arheološki pregled* 18, 1976, 49–50.

ŽERAVICA 1985

Z. ŽERAVICA, *Nova istraživanja mlađeg željeznog doba na području sjeverozapadne Bosne*. *Materijali* 20, Beograd 1985, 29–47.

ŽERAVICA 1993

Z. ŽERAVICA, *Äxte und Beile aus Dalmatien und anderen Teilen Kroatiens, Montenegro, Bosnien und Herzegowina*. *Prähistorische Bronzefunde IX/18*, Stuttgart 1993.

*Daria Ložnjak Dizdar
Institut za arheologiju
Ulica Ljudevita Gaja 32
10000 Zagreb
Croatia
ddizdar@iarh.hr*

*Mario Gavranović
Institut für Prähistorische Archäologie
Freie Universität Berlin
Altensteinstr. 15
14195 Berlin
Germany
mario.gavranovic@berlin.de*