

LATE BRONZE  
AGE MORTUARY  
PRACTICES AND  
SOCIETY IN THE  
CARPATHIAN  
BASIN

— Proceedings of  
the International  
conference in Zagreb  
February 9—10, 2017  
**Zagreb, 2019**



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# VELEBIT, TUMULUS CULTURE (HÜGELGRÄBER) NECROPOLIS IN THE SOUTH OF THE CARPATHIAN BASIN

*The Velebit necropolis located in the southern zone of the Carpathian basin remains to this day an unpublished archaeological site, although it has been known for over 5 decades. It represents the only systematically investigated Tumulus culture (Hügelgräber Kultur) necropolis on the territory of Vojvodina, which makes it very important for studying influences of cultures from Central Europe and Transdanubia on Belegiš and Dubovac cultures in the Serbian part of the Danube basin, and on Vatin culture in the territory of Western Serbia. The bulk of the research documentation has been lost over time, requiring the authors of this paper to undertake completely new research in order to be able to present the results of excavations of this necropolis from the Bronze Age and Late Antiquity. Certain artefacts indicate economic stratification and the presence of craftsmen (metallurgists) in these communities which were mobile in character, which is considered one of the more significant traits of the Tumulus culture.*

## KEY WORDS

Bronze Age

Tumulus culture  
(Hügelgräber Kultur)

necropolises

funeral rites

*We dedicate this paper to the investigators of the Velebit necropolis, the recently departed academic of the Serbian Academy of Science and Arts Nikola Tasić, and also to Laslo Sekereš, Milorad Girić and Predrag Medović.*

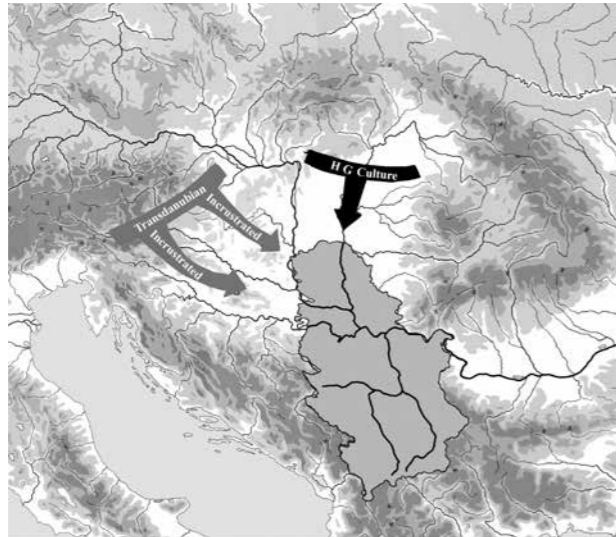
In the Middle Bronze Age, on the general territory from the Rhine in the northwest to the Carpathian Basin in the south and the Serbian part of the Danube Basin in the southeast, movements of new cultural groups were observed, which some authors designated as "the great migration of peoples" (Tasić 1974: 233). In the archaeology of the Bronze Age of Southeast Europe it is considered that the Tumulus culture spread its influence from the central zone of the Carpathian Basin toward the south during the transition from the Middle to the Late Bronze Age, and that in this way it affected the creation of a large number of regional groups and their variants (Tasić 1972: 93). Its vitality represents a unique phenomenon as reflected in the assimilation of numerous indigenous cultures that it came in contact with (Tasić 1972: 94). Following the appearance of Vatin culture and the weakening of the influence of the Encrusted Ceramics culture, a south-eastern variant of the Tumulus culture appeared in northern Vojvodina and spread all the way to the confluence of the Tisa and Danube rivers (Tasić 1983: 86)(Map 1). This process can be seen in the change in funeral rites, as well as in artefacts of material culture (ceramics and metal), primarily initiated by the technological revolution and mass production of bronze objects. In Serbia, this process unfolded in two geographical areas, the first being northern Bačka and Banat, while the second one extended to the Danube basin (Tasić 1974: 234), Drina River basin and the western Morava River valley (Tasić 1974: 234)(Map 2). Necropolises of the first group are characterized exclusively by flat graves without mounds, while on the territory of the second group burial mounds are a common occurrence. The most southern find that can be linked to the Tumulus culture is located in the Nišava River valley near Medoševac (Map 2) (Garašanin 1972: 43-44).

In relative terms the Velebit necropolis near Senta, or more precisely near Kanjiža, represents the best investigated Tumulus culture necropolis on the territory of Serbia (Map 2). The first excavations of this site began after a long period in which the owners of the property unearthed ceramics and bronze

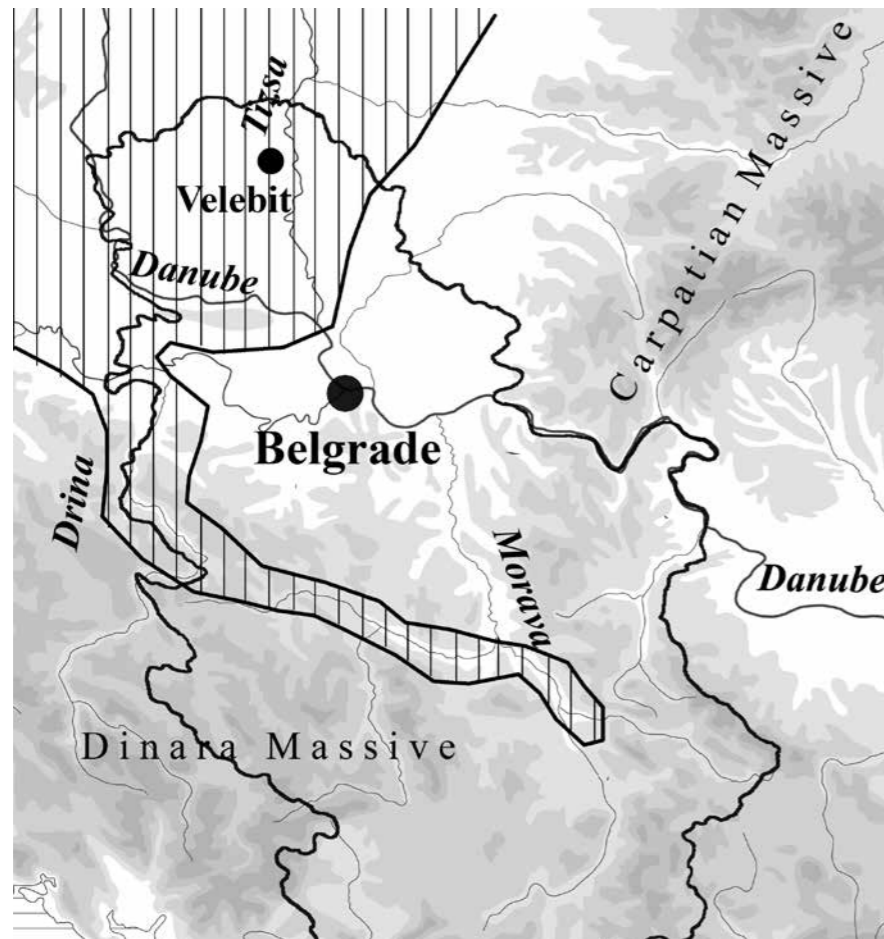
objects during ploughing and other agricultural activities and brought them to the Town Museum in Senta. After three brief campaigns in 1953, 1954 and 1956, without expert supervision, basic information was gathered about spatial distribution and cultural stratigraphy of this necropolis. The last and also the only systematic excavation of this site took place in the summer of 1970. The need for building road infrastructure in the village, as well as financial assistance from the Smithsonian Institute in the USA (Tasić 1974: 235; Тасић 1983: 87), led to systematic excavations in which the site was investigated to the fullest possible extent. Aside from the devastation caused by agricultural activities, a major portion of the prehistoric graves had been destroyed through continuity in late Antiquity by the Sarmatians who used this site for their burials (Sekereš 1971). The high level of acidity of the soil has resulted in the skeletal remains being in the majority of cases in poor condition, or intact *in situ* to a very small extent, so that we are missing the information about the anthropological characteristics of the deceased.<sup>1</sup> Given that excavations were carried out without expert supervision, the first excavations of the necropolis were unclear and ambiguous in respect of results and documentation. By contrast with the previous ones, the systematic excavations in 1970 discovered a total of 108 graves, out of which 77 graves belong to the Bronze Age, and among them 43 are cremations, while 34 are inhumations (Fig. 1).

During the transition from the Middle to the Late Bronze Age, biritual burial rite was practised at the Velebit necropolis (Tasić 1974: 235). The deceased were placed into graves with burial gifts that included ceramic vessels, jewellery and weapons (only daggers) made of bronze. Based on preliminary results of excavations, graves with cremations have 50% more ceramic vessels, while inhumed graves have 30% more bronze artefacts. The remains of the dead were collected from the funeral pyre and placed into urns that are in certain instances covered with conical bowls. The skeletal burials were made in rectangular and oval shaped graves, with offerings that included typologically identical vessels as those in the cremated internments. S-shaped cups with one strap handle and biconical cups with a cylindrical neck and two small handles are equally distributed among the graves in both funeral rituals. Somewhat fewer in number at the Velebit necropolis

<sup>1</sup> — The only documentation from the 1953 and 1954 excavations relates to two burial records filled out unprofessionally, while the situation in the 1956 and 1970 excavations was slightly better in terms of descriptions of graves.



Map 1  
A. Kapuran (2017)



Map 2  
A. Kapuran (2017)

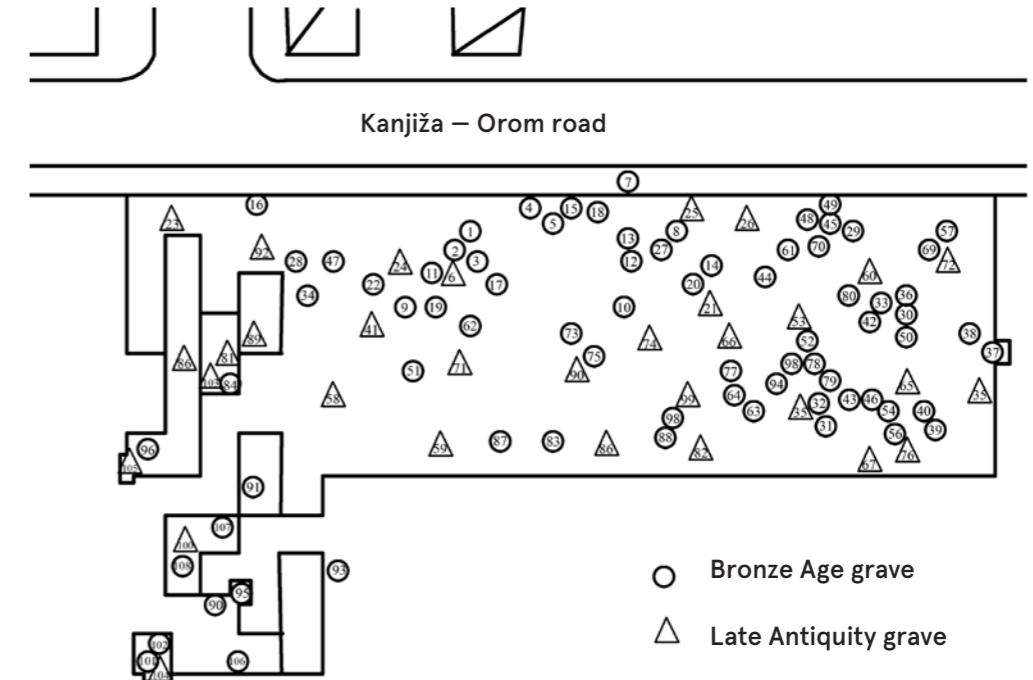


Figure 1  
Velebit necropolis, A. Kapuran (2017)

among the burial offerings are Pannonian or Belegiš beakers that indicate local elements in burial rituals, or indigenous traits that are characteristic of the southern area of the Pannonian Basin. In this paper we will present several characteristic graves as examples of burial rites at the Velebit necropolis.

Not counting burial contexts which date back to the excavations of 1953 and 1956, 34 skeletal remains of deceased were discovered by the systematic excavation of the necropolis conducted in 1970 (Sekereš 1971). In many cases it is difficult to establish the shape of the grave. The commonest graves are rectangular shape dug in the virgin soil, in which the body was laid flat on its back or curled on the side in foetal position, in which the arms are bent at the elbows or raised, such that the hands are at the level of the chin.

As we already noted, the offerings made as part of the burial ritual include bronze objects, jewellery, weapons and ceramic vessels. In some graves rings were discovered on the fingers and toes of skeletons, with necklaces, ornamental pins, anklets and various pendants and ornaments for clothes. As an example we note grave 7 (Fig. 2) in which the skeleton was laid out extended on its back. It is interesting that the fingers of the hands had four rings made of bronze

strips, while the rings on the toes were made of spiral wire. The big toes on both feet were ornamented with rings made of wound wire with ends bent into spirals. Based on the distribution of bronze ornaments discovered *in situ*, it can be observed that the skeleton had around its neck a necklace constructed from a series of alternating heart-shaped pendants and saltaleones. The clothes most likely had attached ornaments made of circular strips with perforations, discoid applications and saltaleones. A double edged bronze dagger was discovered in the same grave. Grave 7 is also interesting for the discovery of two large ceramic vessels that correspond typologically to the Tumulus culture, together with a cup with a single handle.

The skeleton in grave 43 (Fig. 3) is also laid on its back, while the head and legs are bent at the knees and turned to the left. Two ornamental pins of the seal-headed type (*Petschaftkopfnadeln*) were found on both sides of the skeleton at the level of shoulders. The skull was ornamented with several saltaleones, with 9 heart shaped pendants at breast level. There were two bracelets on one arm, and a goblet typical of the Tumulus culture was discovered along the edge of the grave.

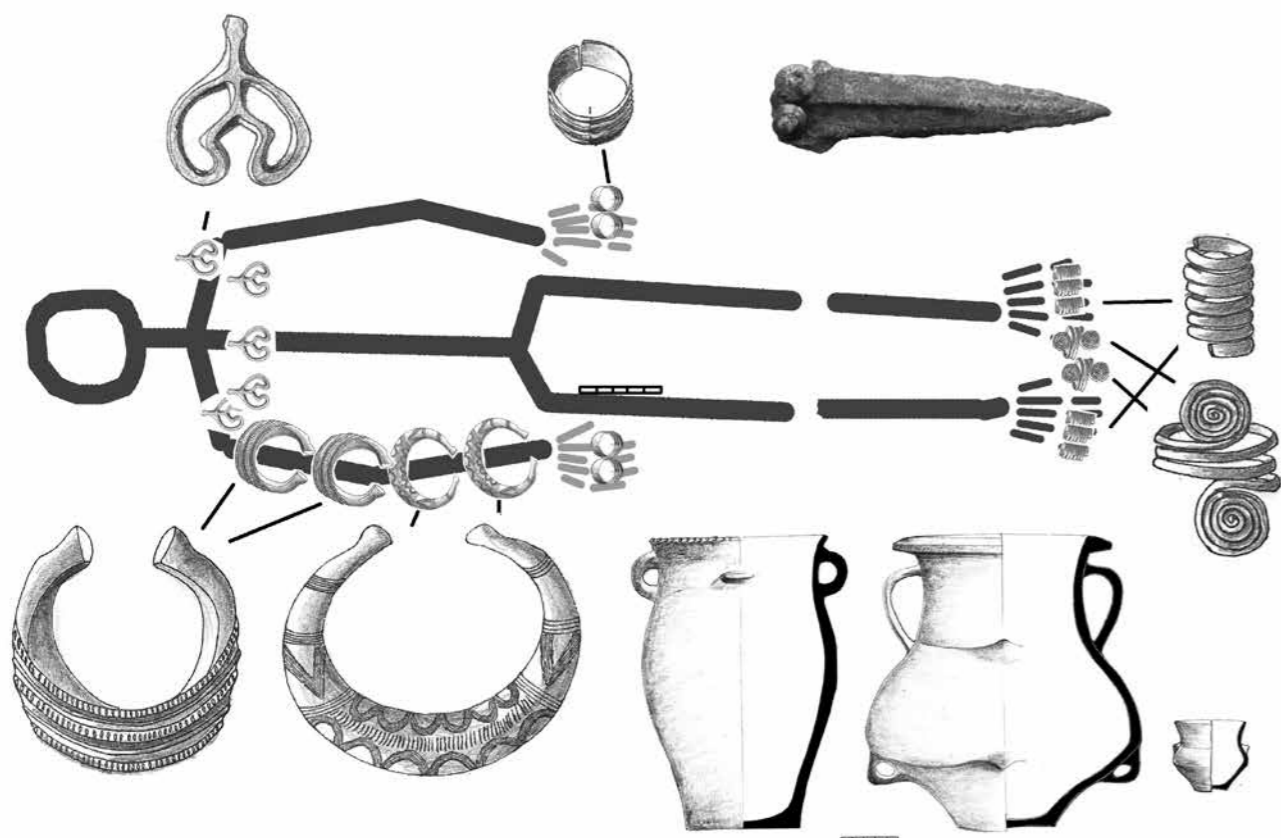


Figure 2  
Grave 7, A. Kapuran (2017)

The next example of skeletal burial at the Velebit necropolis is found in grave number 80 (Fig. 4), which was damaged by subsequent burials in late Antiquity, although it is possible that the grave was robbed. Only the lower extremities of the skeleton remain, with a pair of bronze tin sheet greaves of the Regelsbrunn type discovered *in situ*. Two half-moon shaped bronze pendants, two deformed semi-globular strips, and one ring made of wire wound into a spiral, were found in the same grave context. The discovered ceramic burial offering was an elegant, black, polished ceramic goblet, which is characteristic of the Belegiš culture.

As the last example of inhumations at the necropolis, we present grave 94 (Fig. 5), in which only the upper extremities of the skeleton (forearms) remain intact. The skeleton was most likely destroyed by the effects of the acidity of soil. A belt made of thinly hammered tin sheet bronze was discovered in the part where the waist should have

been. The belt is ornamented with imprinted circles in combination with areas decorated with parallel lines. Two bracelets and three rings made of strips were discovered on the hands of the deceased. The other offerings included two seal-headed pins (*Petschaftkopfnadeln* type) on the left and right sides of the axis of the skeleton. In one of his reports L. Sekereš indicates that the same grave produced a single gold plate which is no longer in the Museum's collection (Sekereš 1971). The ceramic offerings are represented by one single handle goblet.

At the Velebit necropolis 43 cremations were observed in Bronze Age graves in which the remains of the dead from funeral pyres were buried in urns. In a number of cases these urns were covered with bowls (Fig. 8/1-2). Aside from the quantity of ceramic and bronze offerings, the graves of cremated remains also differ in the typology of the vessels used for the urns. In some of the graves there is only one urn, while in other graves several urns and goblets

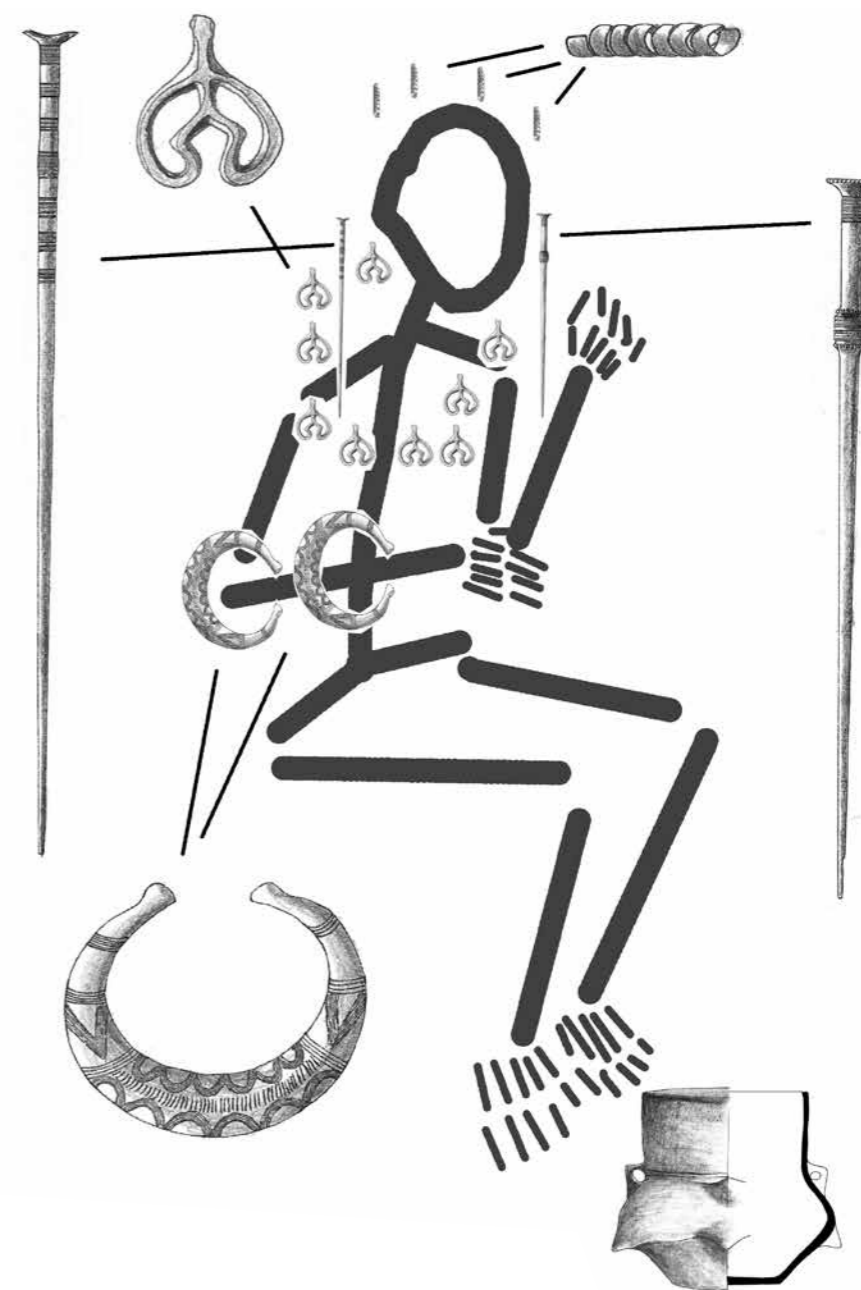


Figure 3  
Grave 43, A. Kapuran (2017)

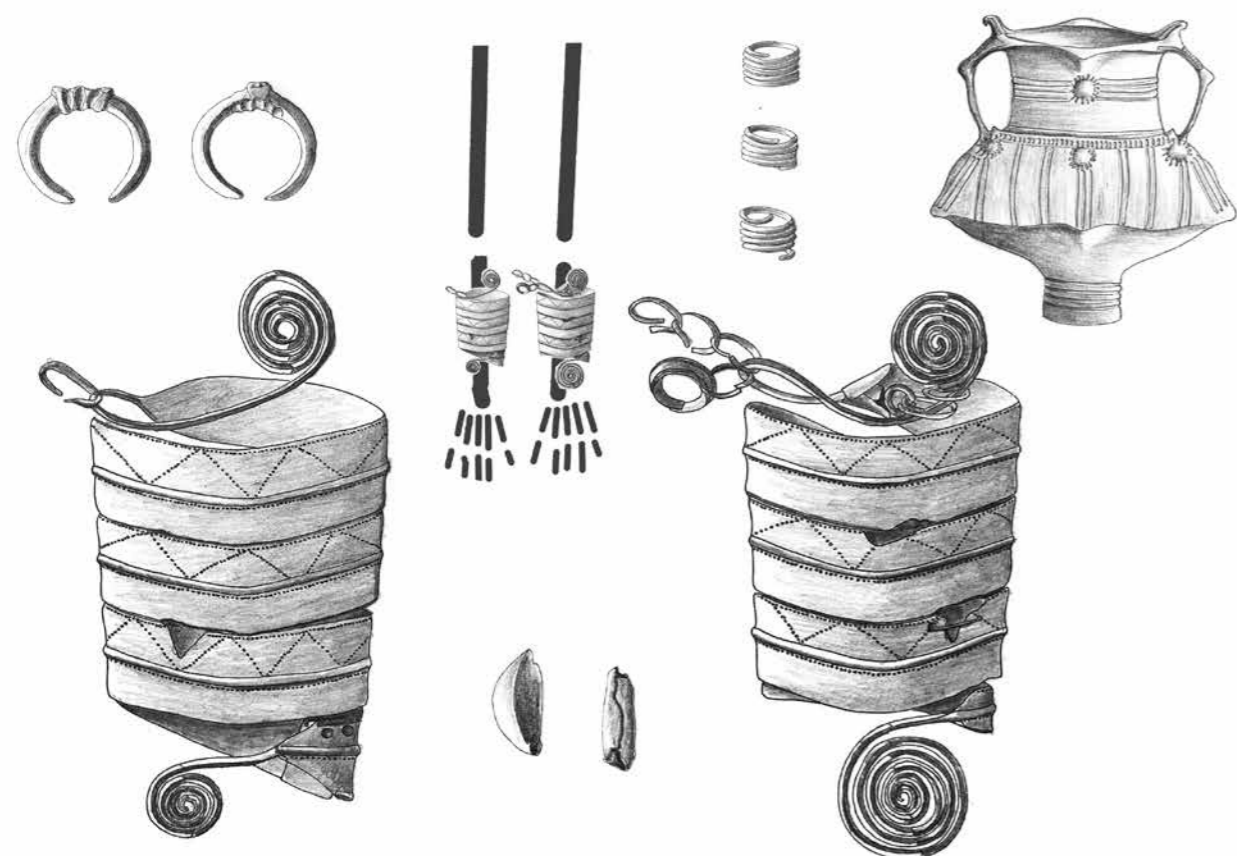


Figure 4  
Grave 80, A. Kapuran (2017)

were discovered. As noted earlier, if we take into account the bronze offerings, it appears that the cremated graves are more modest compared to the skeletal burials.

The first example of incineration is grave number 29 (Fig. 6/a). The incinerated remains are in an urn which is laid upside down, on its rim. Along with the incinerated bones, the urn also contains one bronze bracelet and one ring made of spiral wound wire.

The second example of incineration is provided by grave 14 (Fig. 6/b), which produced a typical urn for the Tumulus culture, containing the remains from the funeral pyre, one devastated dagger and a bronze bracelet. Aside from the urn, an S-shaped goblet with a single handle was discovered. Because of all this, grave 14 could be described as one of the more opulent graves in the necropolis.

Grave 33 is interesting, among other things, for the fact that three typologically completely different goblets were discovered in it (Fig. 7/2-3). While the

first two are characteristic for the Tumulus culture, the third one represents a typical example of Belegiš or "Pannonian" goblets (Fig. 7/1). It is interesting that the incinerated remains are in a rustic shaped urn that has a rough surface. Of interest for the burial ritual in this grave is the fact that the goblet offerings are more luxuriant than the recipient containing the incinerated remains.

Because of the number of ceramic artefacts, grave 57 represents the most opulent of the cremated graves in the necropolis (Fig. 8). Two typologically completely different urns (Fig. 8/2,7) were found in this context, including three goblets and a conical bowl with horn shaped protomes (that probably served as the lid for one of the urns). Aside from these vessels, the grave also contained one fragmented bronze necklace (Fig. 8/6).

Given that bronze objects are far less frequent in the cremated graves than in skeletal ones, it is worth mentioning two more graves. The first one is



Figure 5  
Grave 94, A. Kapuran (2017)

grave 9, which produced an ornamental pin, and one disc shaped and one heart shaped pendant. Grave 51 produced a sewing needle with an eye, one heart shaped pendant, a ring and a saltaleone.

The Velebit necropolis is particularly interesting for the fact that it is currently the only investigated Tumulus culture necropolis bordering on the Belegiš culture in Vojvodina, and because it shares certain elements with better investigated necropolises in the western Morava River valley and the Drina River valley.

Ceramic production at the Velebit necropolis manifests characteristics of the „Carpathian“ variant of the Tumulus culture, which spread along the Tisa River toward the south of Pannonia. Three basic types of urns are found in the graves, of which Type I represents a form with pronounced (wide) hips (Tasić 1974: 235, sl. 187) and a long cylindrical neck (Fig. 2; 6/a; 8/7). In the majority of cases, they are ornamented with buckle applications in combina-

tion with pseudo-tongue handles. Type I urns appear exclusively in cremation graves, with only one case of a skeletal grave. This form appears in the necropolises of Salka I (Točik 1964: Abb. 4/1, Abb. 5/8), Egyek-Szőlőhegy, Tápé (Kovácz 1966: Kép. 2/8, Kép. 4/8, Kép. 8/22), and Hajdukovo (Trogmayer, Sekeresz 1965: T. II/2). Type II is represented by vessels with an extended recipient with a wide opening on which there are triangular shape protomes, in combination with smaller vertical handles (Fig. 8/2). They were probably created under the influence of the Otomani culture (Tasić 1972), and as a rule are produced roughly with a rough surface (Trogmayer 1975: Taf. 14/168-1, Taf. 15/180-3, Taf. 23/259-1, Taf. 26/288-1, Taf. 36/451-7, Taf. 51/595-1.; Kovács 1966: Kép. 4/4, Kép. 8/5, Kép. 13/15,8; Točik 1964: XIX/7, XX/12, XXXV/1). In nearly all cases, Type II urns at Velebit occur in the context of skeletal burials, except for one instance where they occur in a cremation grave. Type III urns have a wide cylindrical neck and a sharp

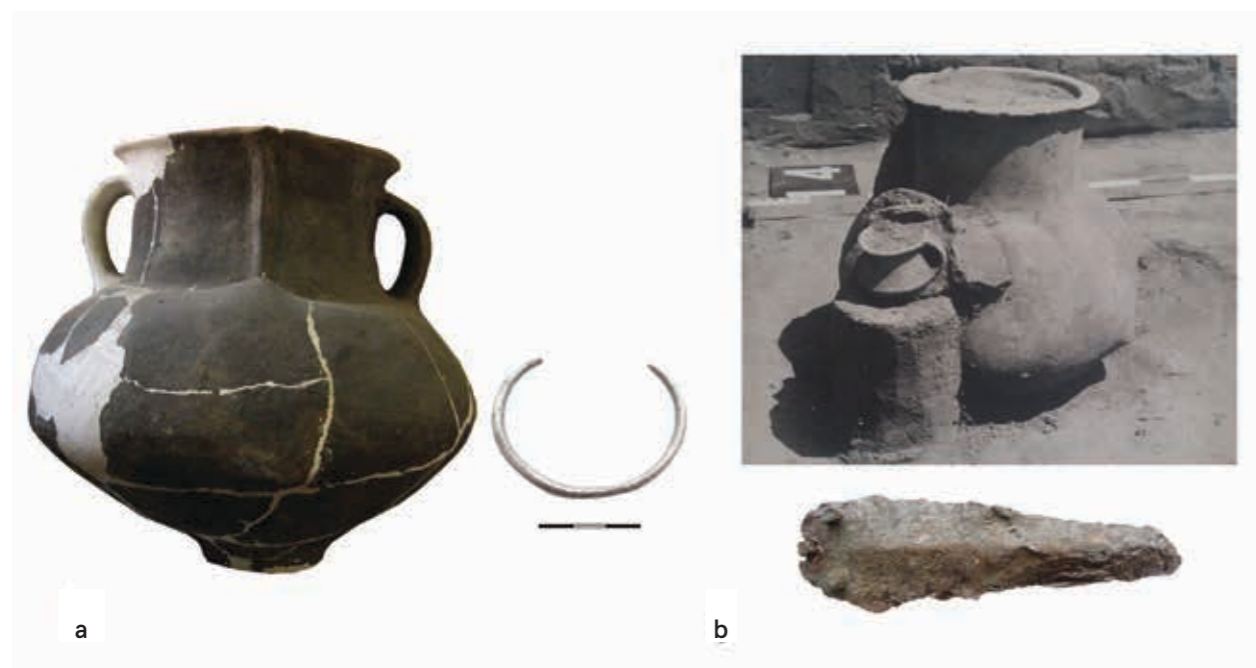


Figure 6  
a) Grave 29; b) Grave 14, A. Kapuran (2017)

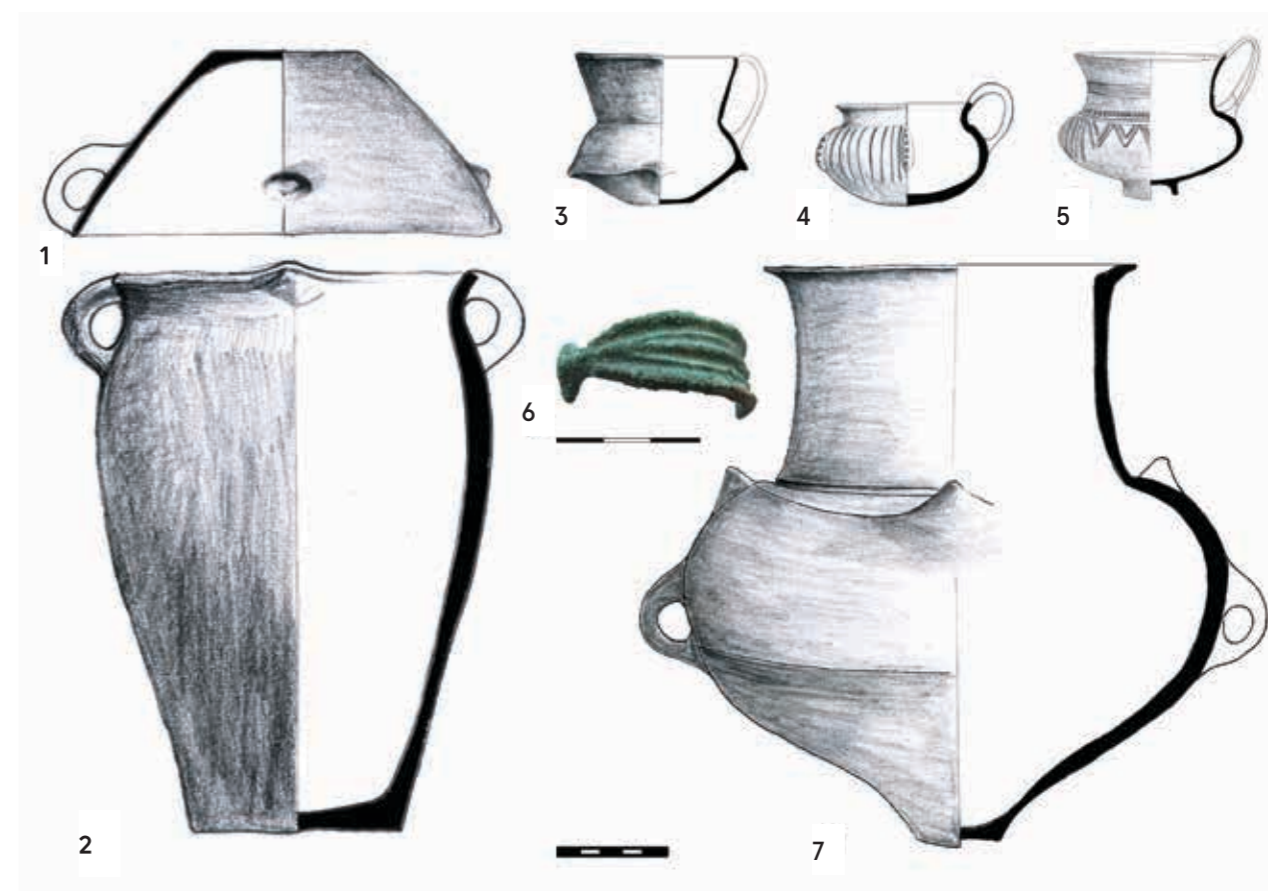


Figure 8  
Grave 57, A. Kapuran (2017)



Figure 7  
Grave 33, A. Kapuran (2017)

biconical belly (Fig. 7/2) (Tasić 1974: 235, Sl. 188). There are two smaller strip-shaped handles at the transition between the neck into the shoulders, and tongue pseudohandles are usually between the neck and belly (Тасиц 1983: Сл. 4, 5, 6; Trogmayer 1975: Taf. 1/5-3, Taf. 8/83-1, Taf. 18/203-3, Taf. 21/234; Kováč 1966: Kép. 14/11, Kép. 17/3; Kemenczei 1963: Kép. 3/9; Točik 1964: Abb. 4/3). At the Velebit necropolis, this type of urn is most frequently found in cremation graves, except for two cases where it is found in the context of skeletal graves. Type IV is represented by urns of a gentle S-profile that have strip handles below the rim (Fig. 7/1). This type of urn is exclusively found in cremation graves. Least frequent are two more types of urns, of which one has a rounded biconical shape with two small handles (Kováč 1966: Kép. 2/5; Kemenczei 1968: Kép. 9/1-17; Točik 1964: Abb. 4/6), and the other one is ball shaped with a short neck, also with two handles. They represent the remnants of the Makó culture (Fig. 9/2-3). The

appearance of Type I-V urns at the Velebit necropolis shows that it belonged to the second phase of the migration of the Tumulus culture toward the south of the Pannonian Basin (Tasić 1972).

Goblets (or beakers) appear in three basic shapes. Type I has a single handle, while the other two types have two handles (beakers). The Type I goblet (or maybe cup?) is classified into vessels with sharp or gentle S-profiles with a single handle (Fig. 8/3) (Kováč 1966: Kép. 11/3,6,8, Kép. 15/1,11, Kép. 19/2, Kép. 22/4; Trogmayer 1975: Taf. 2/12, 14,19-3, Taf. 3/22, Taf. 4/29, Taf. 9/3; Točik 1964: Abb. 5/17). The transition from the neck to the belly is ornamented in certain cases with a series of parallel short strokes, or tongue shaped protomes. This type of vessel is characteristic of the Tumulus culture on the general territory of the Czech Republic, and down to our territory, on the southern edge of the Carpathian Basin. Certain authors link them to the Vátya cultural influences (Tasić 1974: 237, Sl. V.144;



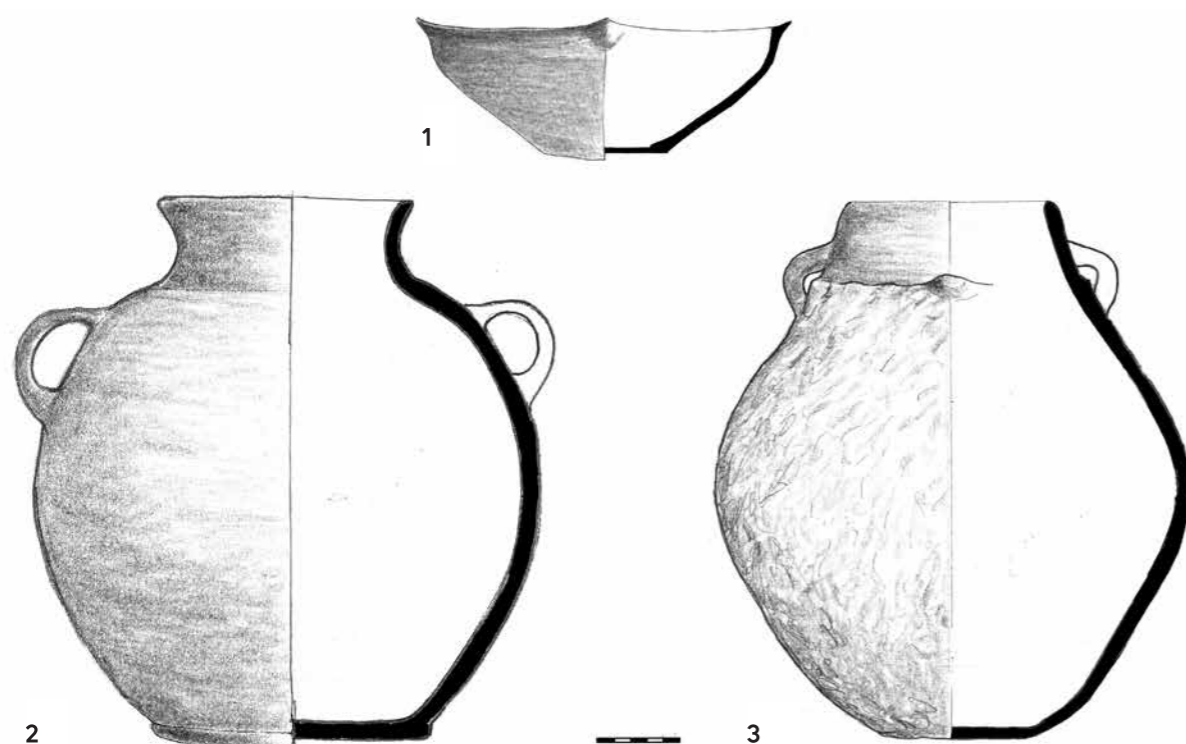


Figure 9

1) Grave 27; 2) Grave 3; 3) Grave 107; A. Kapuran (2017)

Kovacz 1984a: Taf. LXII/2,4,5). Type II goblets are represented by identical forms as Type III urns, but of smaller dimensions (Fig. 3) (Točik 1964: Abb. 5/11). Type III goblets are represented by the so-called Belegiš or Pannonian goblets, biconical shapes on a narrow and tall base, with two articulated handles (Fig. 7/3) (Tasić 1983: Sl. 37/6). This latest type is the least frequent in the graves at the Velebit necropolis, which was also the case at the Tápé necropolis (Trogmayer 1975: Taf. 58/678/1). These three types of goblets appear with equal frequency in both skeletal and cremation graves in the necropolis.

A special type of ceramics is represented by conical bowls with a rectangular opening (mouth) ornamented with horn shaped (buckle) protoms, with or without strip handles (Fig. 9/1) (Trogmayer 1975: Taf. 15/180-7, Taf. 27/301-302-8, Taf. 33/356-4, Taf. 34/388-1, Taf. 41/467-2; Točik 1964: Abb.5/20). These bowls most likely served as lids for urns. For this reason they appear most often in cremation

graves and only once in a skeletal grave. As a special type of bowl or lid, we can also single out a fragmented outer surface of a richly decorated recipient of a bowl from grave 2, which indicates the Makó cultural influence (Kalicz 1984: Taf. XX).

Judging by the jewellery and weapons artefacts, the population buried at Velebit followed the craftsmen traditions of the Koszider cultural group (Tasić 1974: 235, 239), or those of its elements that remained after extending to the south through communities of the Tumulus cultural complex. Given that they lived far from the ore-rich areas of the Carpathians and Transylvania or eastern Serbia, metallurgists in the Carpathian Basin, because of their skills with working bronze, probably played a special role in the communities that lived in northern Vojvodina.

Bronze finds in graves in the necropolis are mainly jewellery, but in three cases they are weapons (daggers) (Fig. 2; Fig. 6). Typologically, the most

distinct artefacts for cultural and chronological determination at the Velebit necropolis are certainly the ornamental pins that are represented by three variants: seal-headed pins (*Petschaftkopfnadeln*) (Fig. 3) (Vasić 2003: Taf. 11/165; Taf. 14/202,203; Taf. 15/205), pin with biconical head (*Doppelkonischem Kopf*) (Vasić 2003: 31, Taf. 10/152) and pins with a bent spiral head (Vasić 2003: 22, Taf. 4/101; Trogmayer 1975: Taf. 41/462-1). There was a discovery of a needle with an eye, which had been used for sewing.

Some of the graves also contain a large number of bronze pendants. Heart-shaped pendants, which appear in the representations of anthropomorphic figurines from the same period, are considered to have been parts of necklaces, diadems, hair decorations, earrings, bracelets and composite ornaments for clothing (Богдановиц 1996: 173) (Fig. 3). Such pendants on necklaces are recognizable on the anthropomorphic figurine of the "Idol from Gardinovac". (Tasić 1974: 528/183; Letica 1973: T. VI/3a-b). Otherwise, heart-shaped pendants made using a casting technique are called "*verkehrt herzförmige Anhänger*" (Willvonseder 1937: 139, 1.1, T. 43,8; Гарашанин 1975: 39, sl. 3/2,3). At the Velebit necropolis they are represented in several variants: as heart-shaped pendants with only the outer frame (Богдановиц 1996: 175), heart-shaped pendants with a vertical bar (Rittershofer 1983: 241, Abb. 20; Kovacz 1984: Taf. XCVIII/4; Богдановиц 1996: 175), and heart-shaped pendants with a developed motive on the vertical bar. At the Velebit necropolis, only in one grave context had crescent-shaped pendants, or maybe pin fastener (Fig. 4), and are dated to the Middle Bronze Age (Schumacher-Matthäus 1985: 89,91; Taf. 58/5; Jovanović 2010:55). Judging by the artefacts at the Zsadány necropolis, Mozolich dates them to the Bronze Age B III phase (Mozolich 1967: 153, 187; Taf 70/4-6). Trogmayer and Sekereš consider this type of jewellery, together with the belts, as a basic characteristic of the Tumulus culture (*Hügelgräber*) style (Trogmayer, Sekereš 1966-1968), probably created from the traditions of the Mureş and Aunjetice cultures. The third type of pendant is represented by a relatively rare example of circular plates with a thin tube for fastening, made of flattened bronze ornamented with fluted concentric circles (Богдановиц 1996: 186; Kovacz 1984: Taf. XCVIII/6). In this case, the thorn from the middle is missing. Such jewellery is also characteristic for the Koszider horizon, where one similar example was discovered at the Tápé necropolis (Trogmayer 1975: Taf. 37/452), although a far more frequent form includes a thorn in the middle, as seen in the Lovas hoard (Vinski 1957: T. II/5-7)

and Medoševac (Garašanin 1971: 43,44), or in some examples from Gomolava (Тасиц 1965: 197, Sl. 8). The largest number of bronze objects in necropolises belongs to semi-globular shape and perforated bronze strips (Fig. 4) (Kovacz 1984: Taf. XCVIII/13). Most likely, they represented applications connected to leather straps for hair, as can be seen in some graves of the Early Bronze Age in Mokrin (Girić 1971: 219-222), or on clothes and belts made of leather, which can be concluded on the basis of the position of the group of artefacts in grave 376 at the Tápé necropolis (Trogmayer 1975: 81).

Several variants of rings and necklaces (Fig. 2) are also classified as jewellery artefacts. I. Bogdanović warns that care should be taken in classifying rings that can sometimes serve as clasps, so that only ornamented examples should be typologically classified as rings (Богдановиц 1996: 169). Rings appear in two basic shapes and techniques of production. The first group is represented by rings made from uniformly spiral wound bronze wire, with certain examples where the ends are finished off with spiral-shaped threads (Fig. 2). The second type of ring is represented by examples of bronze strips with one, two or three longitudinal ribs made by embossing ornamented with shallow punctures in certain cases.

There are more variants of bracelets than of rings. The first variant is represented by simple, fully cast forms of circular or semicircular cross-sections with narrowed ends and a pronounced (thicker) middle part. Such bracelets at Velebit are ornamented by carving parallel lines formed into groups, metopes (Fig. 2 and Fig. 3). Examples of rectangular cross-sections belong to the same type of bracelet, although they are more richly ornamented with indentations, and there are also unornamented examples with a smooth surface. The second type is represented by smooth massive bracelets cast in the form of a strip, with pronounced (thicker) ends, with one or more horizontal ribs. Bracelets with very narrow ends in the form of wire that finish in one or two spirals belong to the same type of bracelets. The third type of bracelet is represented by examples of semicircular cross-sections with pronounced and thicker ends, while their central part has a triangular cross-section. Such bracelets are richly ornamented with sets of indented lines.

Saltaleones, or spiral wound bronze wire in the shape of a tube, are also very frequent among the artefacts at the necropolis (Fig. 3). Other metal artefacts are represented by fragmented examples of thin or thick bronze wire of deformed shape, that are wound into spirals in some cases. A retouched flint

blade, also found in grave 14, represents a unique case among the burial offerings at this necropolis.

The most attractive artefact discovered at the Velebit necropolis is certainly the pair of greaves made of wound spiral bronze strips and chain links, discovered in the already mentioned skeletal grave 80. They are made of thin bronze sheets, with a convex longitudinal rib of a triangular cross-section at the front, while the back side is flat. Only one segment is ornamented with a zig-zag flowing line made with punctures. These greaves, belonging to the Regelsbrunn type, can be found on the territory of Germany and northern Poland, and all the way to our territory, as offerings in graves or in hoards (Rittershofer 1983: 252). Such greave artefacts on the territory of central and south-eastern Europe range chronologically from the Koszider horizon of the Middle Bronze Age, all the way up to Ha A (Kovácz 1997: 261). Their closest analogies can be found at Nagykajdács (Schumacher-Matthäus 1985: 117; Taf. 60/1) and Rácegres (Hänsel 1968: 94; Taf. 26/28,29), as well as in the Lovas hoard (Vinski 1958: II/1) and Hajdukovo, although the last one, according to J. Koledin, belongs to a more recent period (Late Bronze Age or Ha A) (Koledin 2001-2003: T.IV/4). Kováč holds that the centre of production of this type of greaves was most probably west of the Carpathian Basin (Kovácz 1997: 262).

The next attractive example of bronze production is the belt from skeletal grave 94, made of a thin bronze sheet. This belt with narrow ends is 1.08 m long. There is a small hook on one of its ends, with perforations on the other end of the belt. The ornamentation is made by hammering and carving: notches are hammered along the edges of the belt, and there are triangles decorated with parallel lines between the indentation of circles. In the middle zone of the belt, a triple line can be discerned with a meandering shape. Similar belts have been discovered at the necropolises of Molzbach (Holste 1953: Abb. 9/20, Taf. 17/12), Chotin (Mozsolics 1973: Taf. 2/1d; Furmánek 1979: Kat. 23-27), Zala and Tápé (Trogmayer 1975: 25,26). Currently, the only such artefact south of the Sava and the Danube, in Western Serbia, is the belt from the Kriva Reka necropolis (Гаршанин 1957: 47, Fig. 14).

Weapons at the necropolis are represented by short double-edged daggers with a rhomboid-shaped cross-section of the blade and with two or three rivets. On the dagger from grave number 7, both rivets with broad heads are fully intact, and judging by photographs *in situ* and the drawing made during excavations, it had a bronze strip that served

the purpose of fixing the handle. This strip probably disappeared during conservation. Analogies for these daggers in terms of the number of rivets can be observed in the developed Tumulus culture horizon in south Germany and the Würterberg group (Holste 1953: Taf 7/7). Certain analogies can also be found in a rapier in Pecica-e, which is associated with the Koszider group (Mozsolics 1973: 31, Taf. 4/4). For now there is no analogy for fixing the handle with a bronze strip, which makes this rapier truly unique. According to P. Nováku, daggers with this shape belong to the Vrhavěč type in Bohemia (Novák 2011: 20, Taf. 30-31), with a similar example found in the Tumulus cultural group of artefacts from Žikava (cast bracelets with a strip cross-section from this group of artefacts are identical with those at Velebit) (Novák 2011: 20, Taf. 82/1). Grave 7 also contained 5 exceptionally small bronze rivets with a conical head. They probably served as ornaments of the upper flat part of the dagger's handle, as observed in the reconstructed dagger from Wardböhemen (Laux 2011: 65, Taf. 14/215). The two other daggers from the Velebit necropolis could belong to the same type as the previous ones. The dagger from grave 14 is displayed as the Museum's collection, but it appears from the drawing in the field documentation that it had a round plate and two rivets. Most probably, it had been ritually broken prior to the incineration on the funeral pyre. Although the dagger from grave 84 has perforations from three rivets, its form points to analogies with the Chramostek type from Bohemia (Novák 2011: Taf. 26) or S-shaped daggers from the upper Danube Basin (Rittershofer 1983: 212, Abb. 11). A similar dagger was discovered in the same context with a pin with a spiral wound head in a grave of the later phase of the Suci de Sus culture (Bader 1978: Pl. LXXXVIII/27) in north-western Rumania and Detek (Kemencszi 1968: Kép. 5/4b-8) in Hungary, which also belongs to the Tumulus cultural circle. The dagger from grave 84 also demonstrates similar elements as Chramostek-type examples (Novák 2011: 85, Taf. 27).

Aside from the attractive artefacts of jewellery and weapons, the stone casting moulds discovered at the Velebit necropolis that were used for the production of bronze jewelry have also attracted considerable attention. In a 0.9m deep pit at the site of Soltvaldkert (Bács-Kiskun) in Hungary, 41 stone casting moulds have been discovered (Hänsel 1968: 233; Mozsolics 1973: 80). Casting moulds have been observed in Koszider horizon of the necropolises for such objects being buried probably together with the owners, which could be connected with



Figure 10

Velebit necropolis; Casting moulds, A. Kapuran (2017)

the crafts of metallurgy. Unfortunately, the casting moulds at the Velebit necropolis have not been documented adequately, so that their context cannot be reconstructed with certainty. What is certain is that they were discovered during the excavations in the summer of 1954. They are represented *inter alia* by a two-part example for casting half-moon shaped pendants that are typologically close, but not identical, with those discovered in grave 80 (Fig. 10/1). One of these double casts had a dual function, given that a considerably damaged negative was observed on its face, which, judging by its form, was most probably used for casting a socketed axe. Similar casting moulds for making half-moon shaped pendants can be found in the collection of the Museum of Subotica. The next fragmentary cast (Fig. 10/4) most probably served for casting bracelets with a strip-shaped cross-section with three ribs and emphasized ends, for which an analogy can be found in one cast at Soltvaldkert (Hänsel 1968: Taf. 25/15a; Mozsolics 1973: Taf. 108/4a). For the group of three casting moulds, we believe that they could have been used for casting ornamental bronze pins (Fig. 10/3,5), with similar examples found in hoard Soltvaldkert (Mozsolics 1973: Taf. 108/3a). The last example of a cast was most probably used for the production of anvils, which were fixed with a peg to a wooden base (stump) (Fig. 10/2). The numerous examples of casting moulds from the Middle Bronze Age in the Carpathian Basin are most likely the result of the expansion of production of bronze objects during the domination of the Koszider horizon in the Middle Bronze Age. This could partly be explained by the mobility and dynamism of economic development of communities on the territory of central and eastern Europe in the first half of the 2<sup>nd</sup> millennium BC.

In terms of the corpus of artefacts of material culture, but not of the proportion of bi-ritual burial customs, the Tápé necropolis near Szeged in south Hungary (with 575 skeletal and 32 cremation graves) is the closest and geographically most proximate to the Velebit necropolis (Trogmayer 1975). Regarding the number of bronze artefacts, it appears that the Velebit necropolis is more opulent in terms of the number of prestigious bronze artefacts compared to the number of discovered graves. The Tápé necropolis is characterized by the fact that the majority of burials are skeletal, by contrast with Velebit, where the deceased were buried and cremated in nearly equal proportion. It appears that there was no rule for the proportion of skeletal and cremation burials during the domination of the Tumulus culture (Vicze 2011: 140). This proportion is uneven at many necrop-

olises in the Carpathian Basin. Just like the Velebit necropolis, a typologically identical assortment of artefacts can be found with equal frequency both in skeletal and in cremation graves at the Dunaúvaros necropolis, in its phase associated with the Tumulus culture (Vicze 2011: 140). Previously it was held that bi-ritual burial represented a characteristic of the adjacent zones of the Tumulus culture and indigenous populations, which were represented in the central Balkans during the Late Bronze Age by communities in which the deceased were exclusively incinerated and buried in urns (Tasić 1972). At this stage of investigation of Tumulus culture period necropolises in the Carpathian Basin, such a claim is no longer tenable.

A certain number of urns at the Velebit necropolis have common elements with the urns of the later Belegiš phase, although they lack cordware ornaments. The same urns have common elements with the Salke and Egeyek groups (Tasić 1972). The Belegiš goblets from the graves of cremation and skeletal burials could point to the evolution of a local culture that used ornamental motives taken from Vatin and Dubovac, but still represent an independent phenomenon (Tasić 2002: 170). All this convinced N. Tasić to conjecture that the Belegiš culture occurred independently in the zone of contact with the Tumulus culture (Tasić 1972). Bronze objects, which are not that frequent because they were often destroyed on funeral pyres, point to the stylistic and topological similarities between the Tumulus culture and Belegiš cultures (Tasić 1972). Rings, heart-shaped pendants and ornamental pins best reflect how these two cultures intertwined.

Based on everything discussed above, the Tumulus culture sites in northern Bačka and Banat represented a boundary zone for its expansion, which remained unchanged in its original form (Tasić 1972). Judging by the absence of incinerated or destroyed settlements in the transition from the Middle to the Late Bronze Age, and the intertwining of material culture and burial rituals on the territory of the Carpathian Basin, it can be safely said that the theory of the "great migration of peoples" currently has no justification (Vicze 2011: 139). According to the latest dating for the Paulje necropolis in western Serbia (Gligorić, Filipović, Bulatović 2016), which belongs to the later phase of expansion of the *Hügelgräber* culture, the Velebit necropolis is little bit older than the 14<sup>th</sup> century BC, and older than was previously thought (Tasić 1983: 88, 90). For more precise dating of the Velebit necropolis, we must wait for the results of the dating of human osteological remains, which is currently in progress.

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