Boii
Southern Cross-Regional Connections of the Celtic Settlement on the Oberleiserberg: An Analysis of Selected Finds

Maciej Karwowski

Abstract: The analysis of the finds from the Oberleiserberg, Lower Austria, demonstrates the relations and contacts between the Danube region and areas inhabited by the tribes of the Taurisci and Scordisci. Some of these finds represent imports, others point to the spread of ideas or supra-regional stylistic influences. No other site of the La Tène culture north of the Danube displays such an extensive collection of finds pointing to close contacts with the Celtic south.

Keywords: Lower Austria, Oberleiserberg, La Tène period, Taurisci, Scordisci, cross-regional connections.


Stichwörter: Niederösterreich, Oberleiserberg, Latènezeit, Taurisker, Skordisker, transregionale Beziehungen.

The La Tène culture hilltop settlement on the Oberleiserberg in Lower Austria has a special significance for the subject addressed in this volume of proceedings from the conference held at Klement. The choice of this venue, situated on the western slopes of the Oberleiserberg ("Oberleis-Hill"; Fig. 1), had not been a random one. Long-term archaeological excavation and regular surface surveys of the site on the Oberleiserberg have produced an exceptionally rich archaeological assemblage attesting occupation by the people of the La Tène culture. The settlement has been presented in the literature in a general manner on several occasions. Another theme addressed in the publications was that of cross-regional connections, also with the lands to the south and southeast of the Oberleiserberg. Earlier analyses tended to be based mostly on the rich numismatic material and the large collection of fibulae. A special role is played here by a series of locally manufactured objects. The results obtained show quite clearly that in the Late La Tène period the settlement on Oberleiserberg must have been one of the main centres in the region north of the Middle Danube and sustained a lively exchange with the territory inhabited by the Celtic tribes of the Taurisci and the Scordisci known from the written sources. In glaring contrast to these connections would be the unexpectedly meagre evidence of any closer relations with the regnum Noricum, the state ruled by the Celtic Norici. This situation, it seems, is a good reflection of the political situation in this part of Europe around the middle of the 1st century BC.

The analysis given below addresses four categories of archaeological object that document different aspects of the southward cross-regional connections of the Oberleiserberg inhabitants.

Vinkovci Type Fibulae

We open our analysis of the archaeological material from the Oberleiserberg by illustrating the ties of this settlement with the southeastern zone of Celtic settlement during the Late La Tène period with a Vinkovci type fibula (Fig. 2). This is the only find of this form discovered on this site. The typological name of these brooches was recently introduced in literature by Nives Majnarić-
Pandžić and has to do with a noticeable concentration of these forms in the region around the town of Vinkovci in eastern Slavonia. A few years earlier, a closer analysis of this fibula type had been made by Marko Dizdar who distinguished three variants depending on the presence of decorative elements on the bow and the form of this ornament.

Vinkovci type fibulae have a characteristic flat bow, triangular in outline, which makes them similar to the Nauheim type. In some specimens the bow may be sub-oval or lozenge-shaped, always wider at the top, flat in cross-section, and usually not arched; only a few of these fibulae are slightly arched or elbow-shaped. Given the slight thickness of the bow in several specimens, we cannot discount that the bent shape may be the result of secondary deformation. The next characteristic feature of these fibulae is their small catchplate at the lower end of the bow. In this design the fibula does not have a well-defined foot. The point of transition of the bow to the catchplate is usually marked on the upper face of the bow with two or three transverse incisions. The spring is usually of four coils (2 × 2) and often there is an external chord. The surface of the bow may be plain, without ornament (variant 1 of M. Dizdar), or with a single or double groove along the edges (variant 2), or, finally, there may be an ornament of several ring-and-dot motifs (variant 3). Most of these brooches are small in size, about 50 mm long.

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The specimen from the Oberleiserberg (Fig. 2) survives incomplete as a slightly damaged flat bow with a small catchplate and only a small fragment of the spring. The number of coils or the position of the chord cannot be ascertained. The pin is missing too. The length of the fibula is 54 mm. The bow is decorated with single lines running along the two edges, which classifies this fibula as variant 2. The point where the bow passes to the catchplate is marked with two transverse incisions; two more similar incisions are seen on the bow between the two lines of ornament.

As mentioned earlier, the Vinkovci type fibulae display several similarities in their construction and style to Nauheim type fibulae, and especially, to their most “southeastern” variant, defined by S. Demetz as Nauheim type, variant II.1.5 Specimens of this variant are practically the only representatives of Nauheim type fibulae known from finds which cluster visibly in the southeastern Alpine region (Fig. 3). They are known also from several finds recorded in the Mokronog group, which include the easternmost finds known from Slovenian Styria and Lower Carniola.6 Dragan Božič hints that they were manufactured in northeastern Italian workshops.7 Vinkovci type fibulae are not observed within the distribution area of Nauheim type fibulae (Fig. 3). On the other hand, quite a few are recorded in central and eastern Slavonia, i.e. the territory of the Celtic Scordisci adjacent to the eastern boundary of the distribution area of Nauheim type, variant II.1, fibulae.8 The largest group of Vinkovci type fibulae, comprising eight specimens representing all three variants, is known from the cemetery at Blato found in the northeastern district of Vinkovci.9 Two fibulae classified as variant 3 were found at the settlement at Vinkovci-Pjeskana,10 and another specimen of the same variant, at Vinkovci-Leskovac.11 From settlements in the immediate vicinity of Vinkovci comes a small series of variant 2 fibulae. Some solitary finds are known also from Stari Mikavoci,12 from Markušica13 and from Orolik-Oraši.14 Three of these brooches, two

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8. Dizdar 2003, 337–338, Map 1. – Majnarić-Pandžić 2009, 238–240, Fig. 4. – See also Dimitrijević 1979, 144–146, Fig. 4, Map 1. – Dizdar 2001b, 22–27, Figs. 5–8.
10. Majnarić-Pandžić 1970, 66, Fig. 5/3, Pl. 22/2. – Dimitrijević 1979, 147, Pl. 9/3. – Dizdar 2003, 345, Pl. 1/10. – Majnarić-Pandžić 2009, Fig. 1/9.
11. Majnarić-Pandžić 2009, Fig. 2/2.
14. A specimen with an unusual construction design to secure the fibula spring. – Majnarić-Pandžić 2009, 238–240, Fig. 2/1.
of them less typical, with a longitudinal rib on the bow, come from a cemetery, Sotin-Vručak, found directly on the Danube River.15

Outside the region around Vinkovci the fibulae under discussion are known from other areas of Scordiscan settlement, in the southern reaches of central Slavonia: a variant 1 specimen from a settlement at Imrijević in the eastern area of the Požeža Valley16 and two more, both variant 3, from a destroyed grave at Zbijeg on the Sava River near Slavonski Brod.17

From the territory lying to the east of the range of Nauheim type fibulae there is a record of further fibulae; forms with a broad, flat-sectioned bow of triangular or lozenge-shaped outline. Their bow is without any decoration. Instead of a well-defined foot the bow passes to a solid catchplate. Thus, in their style design and construction, these fibulae resemble Vinkovci type forms, although their attribution to this type is very doubtful.

From the territory of Scordiscan settlement we need to mention brooches with a long, multiple-coil spring and an external chord. They are known from single specimens recorded in the cemetery at Sotin-Zmajevac18 and an open settlement at Hrtkovci-Gomolava in Vojvodina.19 From the same settlement comes another, similar fibula, of a design closer to the Vinkovci type, stating that they are distinctive for the Dacian culture and classified them in his group 8b.20

Among the materials from Zemun, which come from several destroyed cemeteries and settlements, are about a dozen similar fibulae which, nevertheless, do not make up a stylistically uniform group.22 Only one of them has on its lower bow transverse incisions,23 a detail characteristic for most Vinkovci type fibulae. The ornamentation of another fibula, a pattern of a dotted border on the bow,24 recalls the motif often encountered on Nauheim type, variant II.1, fibulae.25 On the bow of five other fibulae there is a longitudinal rib,26 an element comparable to the one seen on the two fibulae mentioned earlier, from the cemetery at Sotin-Vručak. In the group of fibulae from Zemun there is, moreover, a specimen made of iron,27 which, from the point of view of typology, we need to treat as an imitation of the bronze originals.

The settlement complex at Zemun lies in an area of overlapping influence of the Celtic Scordisci and the Dacians who inhabited the broad territory to the north of the Lower Danube. From this zone comes a find of another similar fibula, from the Dacian hill-fort Divici-Grad at Socol in the Romanian Banat.28 Aurel Rustoiu described fibulae that in their design are close to the Vinkovci type, stating that they are distinctive for the Dacian culture and classified them in his group 8b.29 They have a characteristic trapeze-shaped bow and, usually, a slightly longer spring, of at least six coils. These brooches are known only from isolated finds spread across the large territory of Dacian settlement, in the Carpathian Basin, in the Danube region in the south, and in western Moldavia (Fig. 3).30 Among these fibulae finds is a unique gilt specimen,31 and another, made of iron32 similar to the specimen discovered at Zemun – which should be treated as more of a “poor” imitation.

Similar fibulae are known from the area immediately south of the concentration zone of Vinkovci type fibulae found in Slavonia, i.e. from northern Bosnia. Four of these specimens come from two sites found a small distance apart on the right bank of the Sava: three from a cemetery at Donji Laminci33 and one from a settlement at Donja Dolina.34 An analogy to these fibulae could be also the find with an unusually narrow and flat bow recorded in the Iapodian cemetery of Ribić near Bihać in Bosanska Krajina, in northwestern Bosnia.35

As Dizdar has noted, the fibulae under discussion display a stylistic similarity to some specimens of the so-

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25. Demetz 1999, 83. – Božič 2008, 58–65. – Cf. also e.g. Sedlmayer 2009, 64, Pl. 2/23, Tab. 37.
28. Guma, Rustoiu, Săcărin 1999, 68, Fig. 1/7.
29. Rustoiu 1997, 41, Fig. 34/3, 5–10.
30. Rustoiu 1997, Fig. 33.
31. Rustoiu 1997, 190, Fig. 34/9.
32. Rustoiu 1997, 103.
33. Truhelka 1901, 21, Figs. 8–10.
called legionary fibulae dating to the Early Roman period. Specimens of this fibula variant, with an expanded, flat bow, are known from a series of finds recorded in southern and southeastern Pannonia. However, Late La Tène and Early Roman brooches of a similar design are known from a broad area covered by the Roman provinces. The style design of these fibulae appears, on the one hand, to be evidently inspired by La Tène models, on the other however, their simple design induces the conclusion that in different environments they could have evolved independently of each other. Many of them are made of iron.

The question of a more detailed typological separation of Vinkovci type fibulae and forms related to them in their design and style, including Dacian type 8b specimens and early Roman fibulae definitely requires more research. It may be especially crucial to make an in-depth analysis of the materials from the settlement complex at Zemun. When it comes to the most “classic” Vinkovci type fibulae, Dizdar has claimed that they are a form manufactured locally in eastern Slavonia. Their likely centre of production was the fortified settlement at Dirov Brijeg, on the river Bosut, in the western district of Vinkovci.

Another relevant point is that the distribution range of this fibula form largely overlaps with the distribution range of so-called Lanzenfibeln. Admittedly, the latter have a Middle La Tène construction, but their bow has a foot folded over it, very broad and with a characteristic triangular shape. Despite basic differences in construction and typology both these types of fibula appear to be very close stylistically. The Lanzenfibeln have very close analogies among one of the leading forms in Zarubintsy culture – so-called Zarubintsy fibulae known from a cluster of finds on the middle Dnieper and the Pripyat.

Still not fully resolved is the question of a more detailed typological separation of Vinkovci type fibulae. They definitely belong in the Late La Tène period, although none of them can be given a closer dating owing to their context of discovery. Dizdar has argued that Vinkovci type fibulae, as local forms related to Nauheim type fibulae, must be later. Assuming that this conclusion is correct, we need to date them at the earliest to the beginning of the second half of the 1st century BC. This would make them one of the final locally produced categories of artefact that we can link, without much ambiguity, with the Celtic Scordisci.

**Astragal Belts**

The next dress accessory relevant to this discussion is the so-called astragal belt. In the finds inventory from the settlement on the Oberleiserberg are three fragments of a multipartite astragal belt. These are segments cast of bronze (Fig. 4). One of them is complete, the two others are fragmentary. The segment which survives whole consists of six rectangular elements (“cells”) that are half round in cross-section. The length of this element is 50 mm. The two incomplete segments have the form of two oval and two rectangular “cells” half-round in section. The length of these two surviving fragments is 19 and 21 mm. In all the segments the “cells” alternate with small ribs which have on their surface oblique incisions. In all three segments the underside is flat.

Multipartite astragal belts have been the subject of several detailed studies. They are mostly thought to derive from Illyrian cultures of 6th and 5th century BC. Numerous finds of astragal belts are known from the western and northern Balkans as well as from Slavonia, Vojvodina and central Serbia. The tradition of wearing them was later adopted also in the La Tène culture environment. Astragal belts were found together with weapons in a number of graves from the Late Hallstatt period, which suggests that at the time they were an element of the military attire of Illyrian warriors. In La Tène culture, similar belts were rather an item of personal adornment and parts of women’s costume.

In the typological classification of La Tène astragal belts developed by Božić, they are distinguished into three main types: Osijek, Beograd and Dunaszekcső. However, these individual types can only be unambiguously

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40. SEE ALSO ĐIMIČIJEVIĆ 1979, 144–146, Fig. 4, Map 2. – DIZDAR 2001b, 22–29, Figs. 5–8.
41. POPOVIĆ 1994, 57–65, Figs. 3–7. – POPOVIĆ 1999, 47–48, Fig. 2.
42. KASPAROVA 1977. – SEE ALSO PACHKOVA 2006, 73–74, Fig. 27. – WENDOWSKI-SCHÜNEMANN 2010, 30–35, Fig. 7.
43. DIZDAR 2003, 343.
44. In the finds inventory from the Oberleiserberg there are also a few more small fragments that may be elements of an astragal belt. Their preservation is too poor to allow a more conclusive interpretation (author’s archive).
46. BRUNŠMID 1962, 73.
47. Todorović 1964, 47. – Božić 1982, 52–54.
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distinguished in the case of well-preserved specimens. A diagnostic feature of the Beograd type are round discs placed next to the plaque which forms the base of the triangular belt hook. In the Osijek and Dunaszekcső types the belt hooks are virtually identical: shaped like a triangle, with a rectangular plate for their base. Typological differences are observable in the construction of the belt segments. In the Osijek type the segments have three, possibly four, “cells” which alternate with ribs which are marked with longitudinal incisions. In the Beograd type each belt segment has four “cells”, arranged alternately with obliquely notched ribs. These ribs may additionally have longitudinal incisions along their edges. Dunaszekcső type belts have the longest segments, of five or six “cells”, alternating with obliquely notched, or plain, ribs. In keeping with the classification system of Božić, the complete belt segment from the Oberleiserberg would represent the Dunaszekcső type, whereas the two fragmented segments could be attributed to either the Beograd or Dunaszekcső type.

Astragal belts are not a sensitive chronological marker in the La Tène culture. Nevertheless, thanks to a number of their finds from funerary contexts it is possible to propose a more general chronological classification of their individual types. The oldest belt form would be the Osijek type, dating to the Middle La Tène period (LT C). The Beograd and Dunaszekcső types appear, without exception, to have a Late La Tène chronology (LT D), and may have lingered until the Early Roman period. Consequently, the dating of all the elements of astragal belts discovered on the Oberleiserberg would have to be of Late La Tène date.

Finds of astragal belts datable to the La Tène period form a concentration within a relatively small territory of Scordiscian settlement (Fig. 5). This is mainly the area of eastern Slavonia, Vojvodina, and northern parts of central Serbia, where belts of this description are known from more than 20 archaeological sites. However, given that many finds of belts dated to the Hallstatt period cannot be distinguished conclusively from those dated to the La Tène period, the number of sites suggested here is only approximate. In most cases, when the typological classification is fairly unambiguous, the belt finds from this area are types Osijek and Beograd. It is also worth noting that finds of these two types of belt are rarely recorded outside

50. Todorović 1964, Pl. II. – Božić 1982, Fig. 1. – Jovanović 1998, Maps 3 and 4. – Arsenijević 1998, Map p. 29. – See also M. Dizdar’s article in this volume.
this zone of concentration. It is also relevant that this zone does not extend north across the Danube-Drava line.

In the region immediately to the north of this line there are only a small number of sites with finds of astragal belts in La Tène culture contexts. Two elements of such belts come from Vrbas in Vojvodina. One of them was discovered in a La Tène culture settlement, the second was a secondary deposit in a medieval grave.51 Their preservation is too poor for any closer typological attribution but these are, it seems, elements belonging to Late La Tène belts.

More numerous in the same region are finds from archaeological sites lying to the west of the Danube. In every instance where their preservation allows typological classification, they are of the Dunaszekcső type. A few fragments from Batina in Croatian Baranya presumably come from a grave.52 Better preserved parts of a few other belts are known from only a little farther north, the Hungarian part of Baranya (southern Transdanubia), from the cemetery at Dunaszekcső,53 the eponymous site for this belt type. A whole series of well-preserved belt finds is associated with the region around Rególy54 and Szarázd55 in southern Transdanubia. Unfortunately, all of them are from unclear contexts. The list of finds of astragal belts recorded in southern Transdanubia is rounded off by the site at Lengyel.56 Among the chronologically earliest finds are from unclear contexts. The list of finds of astra-

A relatively large series of finds of astragal belt elements comes from the La Tène culture territory to the north of the Middle Danube, in the area of the so-called Boii coinage. Here the westernmost site is the one on the Oberleiserberg, with at least three belt segments (Fig. 4). Other finds from Lower Austria worth noting include a complete Dunaszekcső type belt segment from the Ringelsdorf settlement on the Thaya River in the eastern Weinviertel.60

On the Danube River itself, east of the Thaya River, are two important oppida, at Devin and at Bratislava, which have also yielded finds of segments belonging to astragal belts. Two complete specimens from Devin are of the Dunaszekcső type,61 and some damaged segments, from Devin62 and Bratislava,63 cannot be easily classified as to their typology but definitely are from the Late La Tène period.

Finds of astragal belts in southwestern Slovakia are known also from outside the Danubian zone. Individual Dunaszekcső type segments come from Nitra64 and from Pobedim.65 In the latter case, the astragal belt segment was found in a grave with no other grave goods, discovered in a La Tène culture settlement. Of special note is a find from the hilltop settlement at Trenčianske Bohuslavce of an incomplete hook fastening of an astragal belt with four “cells”.66 The surviving fragment retains no traces of circular discs, the diagnostic feature of the Beograd type, which suggests that this specimen comes from a Middle La Tène belt of the Osijek type. This would make this particular find the only one of its kind to be discovered outside the territory settled by the Scordisci. From southwestern Slovakia we know also of further, rather obscure, elements of astragal belts recovered at Slovenský Grob and Boldog.67

Astragal belts recorded farthest north are two segments from the oppidum of Staré Hradisko in Moravia.68 One of them, of the Dunaszekcső type, survives complete. The second is fragmentary and thus without typological determination, but definitely belongs in the Late La Tène.

Finds of comparable belts dated to the Late La Tène period are known also from outside the La Tène culture zone. Rustouï has listed seven sites on the territory of

55. Kemenczei 2012, 324, 332, Figs. 6/5–6, 18, 7/2 and 8/8.
57. MISKE 1908, Pl. XIV/36.
59. Gleirscher 1996, Fig. 5/1.
60. Allerbauer, Jedlicka 2001, 618, Fig. 580.
61. Pieta, Zachar 1993, Fig. 115/11. – Plachá 1997, Fig. 112/4. – Harmadyová 2012, Fig. 310.
62. Plachá 1997, Fig. 112/3.
63. Bazovsky, Gregor 2009, Fig. 5/1.
64. Brézinová, Samuel 2007, 31, Fig. 42.
66. Pieta 2010, Fig. 118/7.
67. Bazovsky, Gregor 2009, 137.
68. Meduna 1961, 5, Pl. 3/1, 2. – Čižmář 2005, 131, Fig. 1/2, 3.
the Dacian state where these forms have been recorded. Six of these sites are in the mountainous region of Transylvania: Câpâna, Costești, Crișeni, Sebeș and Sibiu; one is from the Romanian Banat: Pecica, or the ancient Dacian Ziridava, and one in Oltenia: Ociuța. All the belt finds from Dacian territory may be classified as the Dusaszczko type and most are dated by their context in the 1st century BC.

Astragal belts are known also from the northern area of the eastern Carpathians and the western Carpathians. They were recorded in the Dacian hill fort at Malaya Kopana in Carpathian Ukraine, in the Celto-Dacian sacrificial site at Zemplín-Kertalja in eastern Slovakia, and a settlement centre of the Púchov culture at Liptovská Mara in northern Slovakia. A finely preserved belt find from Zemplín was reconstructed. It consisted of a few dozen segments each of them made up of four “cells” alternating with obliquely notched ribs, a typological feature of Beograd type belts. At the same time, the fact that there are no circular discs at the two belt hooks brings this specimen closer to the Dusaszczko type. As to the specimens from Malaya Kopana and from Liptovská Mara, a few segments each, only one may be attributed to the Dusaszczko type and comes from the Dacian settlement. In all the other cases poor preservation prevents a conclusive typological classification.

When the distribution of Vinkovci type fibulae is compared with the distribution of astragal belts, similar patterns of interregional connections become apparent on the Oberleiserberg (Figs. 3 and 5). However, there is also an important difference. Whereas the brooch from the Oberleiserberg is a completely isolated find from the area to the north of the Danube in the eastern area of the “Boii” zone, finds of astragal belts are relatively frequent. The observed stylistic differences suggest that in the area to the north of the Middle Danube at least some of them are of local manufacture. A several hundred years’ tradition of wearing multipartite astragal belts, and their evident popularity in the region from the western and the northern Balkans as far as the line of the Danube and the Drava, leads us to conclude that the idea of a belt of this design was adopted in the “Boii” zone from the La Tène culture environment linked with the Scordisci.

**Bosses Decorated with Enamel**

The inventory of finds from the settlement on the Oberleiserberg includes a sizable series of cast bronze bosses. Rather than dress accessories, like the fibulae and the astragal belts, they are more likely to be horse harness mounts. Thirteen of them are distinctive through their ornament—a central round knob with a design of incised intersecting lines (Fig. 6). Most often—in six cases—there are double intersecting lines, in five cases—triple lines forming a regular hatched pattern, and only in two cases, the lines are single, in the design of a plain cross. It is likely that originally the incisions held enamel, but unfortunately, none survives at present on the specimens from the Oberleiserberg. The dimensions of the bosses are fairly similar, with a diameter in the range of 21 to 24 mm. On their lower face all of them have a 4–6 mm wide groove, presumably to accommodate the leather strap. Over it is a single half-round or rectangular eye, presumably to attach the strap. Four specimens have on their upper face the decorative central knob surrounded by concentric lines (scratch marks). These give the impression of being traces of additional working of the bosses—possibly with a tool similar to a lathe.

Analogous bosses, of which most have two eyes on their lower face—as opposed to the specimens from the Oberleiserberg—have been the object of research on a number of occasions. They are recorded across much of the La Tène culture territory and, interestingly enough, almost all of them come from oppida and hilltop settlements (Fig. 7). Their Late La Tène chronology, accepted by most researchers, appears to be well confirmed by their context of discovery.

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69. Rusoiu 1996, 201, Fig. 71.
70. Rusoiu 1996, Fig. 73/10, 11, 13, 15.
71. Rusoiu 1996, Fig. 73/12.
72. Rusoiu 1996, Fig. 73/14.
74. Kotigoroško 1991, Fig. 7/53, 54.
76. Pieta 1982, 47–48, Pl. XI/8–11. – Pieta 2001, 323, Fig. 5/3, 4. K. Pieta (Pieta 2010, 32) refers also to “numerous fragments” of astragal belts from Late Celtic, Púchov culture and Dacian culture contexts but without giving any closer details.
77. Furmánek, Pieta 1999, 101, Fig. 67.
78. Kotigoroško 1991, Fig. 7/54.
Fig. 6. Bronze bosses from the Oberleiserberg (Photo: M. Karwowski; drawing: E. Smagur).
Sites with finds of bosses decorated with a central knob and intersecting incised lines cluster on the territory of the Mokronog group in Slovenia. Božič lists eight archaeological sites, each of them, however, with only a single find. Most of these objects come from hilltop settlements rather than from graves: on Cvinger at Vir pri Stični, on Trnišča at Mihovo, on Stari Grad at Podbočje and on Gradišče at Dunaj, all of them in Lower Carniola, and also on Vipota at Pečovnik in Slovenian Styria. Only two bosses come from a funerary context, from the cemetery at Novo Mesto and a specimen not included by Božič from the cemetery at Bela Cerkev-Vinji Vrh, both in Lower Carniola. Of the two final specimens from the territory of the Mokronog group listed by Božič, one is from the river Savinja at Celje in Slovenian Styria; the second was discovered in an unclear context when investigating in the central area of today’s Ljubljana.

More finds of comparable bosses come from the territory of Norican settlement in Carinthia bordering the northwest area of the Mokronog group. They come from two sites, both of them hilltop settlements. Three specimens are known from the Magdalensberg, and a few more from the settlement on Gracarca at Sankt Kanzian.

More La Tène culture sites with finds of these bosses lie to the north of the Alps. Of these sites, the largest group of these finds from a single site is from the hilltop settlement on the Oberleiserberg, with its series of at least thirteen specimens (Fig. 6). In the zone of Boian coinage two bosses each originate from the valley settlement at Thunau am Kamp in Lower Austria and from the oppidum at Bratislava, and one specimen each from the oppidum at Trenčianske Bohuslavice in western Slovakia and from the settlement at Bratislava-Rusovce on the southern bank of the Danube.

Several finds of bosses decorated with a central knob with a pattern of intersecting incised lines are known also from two large oppida in the Bohemian Basin: seven specimens from Stradonice in central Bohemia and a few more from Třísov in southern Bohemia.

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84. Kenner 1961, 144, Fig. 81/8. – Deimel 1987, 298–299, Pl. 79/1–3.
86. Author’s archive.
87. Vrtel 2012, Fig. 260.
89. I am indebted for this information to J. Militký and A. Danieliová.
What is interesting is the markedly limited number of finds of this type of decorated boss in the area to the west of the “Boian” zone. Just two specimens are known from the oppidum of Manching in Bavaria96 and one specimen each from two other oppida: the Titelberg in Luxembourg97 and Mont Beuvray-Bibracte in Burgundy.98

Only one boss of this form is known from outside the La Tène territory. It comes from the settlement centre of the Púchov culture at Liptovská Mara in northern Slovakia.99

The distribution range of decorative bosses that emerges from the discussion given here (Fig. 7) differs from the distribution range of the other two categories of archaeological object discussed earlier (Figs. 3 and 5). In their case we are dealing with obvious links of the “Boian” zone with the territory inhabited by the Taurisci. The direction and nature of these connections remains unclear however. On the one hand we have an obvious concentration of (single) finds on a small territory of the Mokronog group, on the other, a group of 13 specimens from the settlement on the Oberleiserberg. It is notable that in terms of quantity this group corresponds approximately to the total finds from the territory of the southeastern Celts, the territory of the Norici included. Especially striking is the entire lack of comparable decorated bosses in the Staré Hradisko oppidum in Moravia and in the hilltop settlement in Velem Szentvid in western Transdanubia, two sites known for having produced impressive series of finds dating to the Late La Tène period. As Božič has noted,100 both these sites have yielded finds of bosses of a similar design but with a different decoration on the central knob.101

Iron Curved Knives

In addition to the three bronze artefact forms discussed above it is worth noting another object recovered on the Oberleiserberg, this time made of iron. This is a well-
preserved knife (Fig. 8).\textsuperscript{102} This specimen has a blade and tang of 23.5 cm and 9.5 cm respectively, for an overall length of 33 cm. The maximum width of the blade is 4.5 cm and the width of the flat, rectangular tang is 2.4 cm. The tang has three approximately square-shaped holes. Two of them retain rivets used for attaching the hilt plates.\textsuperscript{103} Two especially characteristic features include a well-marked curvature of the back at mid-length of the knife and a double, ca. 4 mm-wide groove on both faces of the blade. The cutting edge of the knife is visibly convex and rounded, which suggests that this item had not been used long enough to become worn.

A knife of this form may be said to be a “foreign” element in the central European territory of the La Tène culture. At the same time, characteristic curved knives, \textit{sicae}, were known in the northern region of the Balkans as early as the 5\textsuperscript{th} century BC, as confirmed both by classical written sources and the iconographic record.\textsuperscript{104} In this area they were one of the weapons of the Thracian population and later, became popular in the Dacian environment. A typical \textit{sica} was a sword or long knife up to 40 cm long with a curved blade, a groove on each face and, usually, an ornament of excised geometric or zoomorphic designs. This final shape presumably was formalised at the turn of the third and second century BC. The popularity of this type of knife during the period of interest is likely to be associated with the military aristocracy of the northern Balkans, something that would be reflected by the archaeological material from grave inventories of the so-called Padea-Panajurski Kolonii group.\textsuperscript{105} These burials cover in their range northwestern Bulgaria, western and southern Muntenia, much of Oltenia, the Iron Gates region and southwestern Transylvania.\textsuperscript{106}

Fighting knives are known from weapon graves of the Padea-Panajurski Kolonii group where, next to swords, they are the largest category of finds. Zenon Woźniak distinguished these forms typologically into four types, of which types III and IV have a markedly curved back.\textsuperscript{107} Type III are knives with a visibly tapering hilt plate,\textsuperscript{108} and type IV are forms with a broad, flat hilt.\textsuperscript{109} Next to the grooves, present on both faces of the blade, a typological feature, many of these knives have decoration on the blade.\textsuperscript{110}

As Rustoiu notes, the northward migration of warriors associated with the Padea-Panajurski Kolonii group resulted in the adoption of knives, reminiscent in the design of the \textit{sica}, in the Dacian environment.\textsuperscript{111} Their finds are recorded in the Dacian environment in many burials dating to the 1\textsuperscript{st} century BC,\textsuperscript{112} quite a few of these forms are encountered also in fortified settlements.\textsuperscript{113} This settlement context leads to the surmise that the owners of \textit{sica} knives held an important social position. At the same time, their ornamentation suggests that these knives possibly had a religious or symbolic role. Special significance of these knives in the Dacian aristocracy would be confirmed by the fact that their popularity ceased at the time of Dacia’s conquest by the Romans, at which time they disappear from the military equipment.\textsuperscript{114}

Whereas the \textit{sica} is a form adopted in the region with Thracian traditions, in the area adjacent to that region, which drew on Illyrian or Celtic traditions, large knives were also in use. Their forms are individual for each of these regions.\textsuperscript{115} But this does not mean that the characteristic curved knives are entirely unknown in these areas (Fig. 9). Similar finds, noted in the wide borderland between the territory of the La Tène culture and that of Iapodian settlement, have been classified by Dubravka Balen-Letunić to the type Pritoka-Bela Cerkev.\textsuperscript{116} These are knives with a flat grip, usually with three rivet holes, and a blade with a groove on each face. Thus, stylistically they are reminiscent of type IV \textit{sicae} of Z. Woźniak. The specimen from the Oberleiserberg is closest to this category.

Finds of a total of eleven knives of this type are recorded in four sites of the Mokronog group identified with the settlement of Celtic Taurisci. Four specimens belong to the rich collection of items recovered from the river Ljubljanica near the locality Bevke in Inner Carniola.\textsuperscript{117} Others surfaced in cemeteries of Lower Carniola: two at Bela Cerkev-Vinji Vrh and one, each, at Novo Mesto-Okrajno Glavarstvo\textsuperscript{119} and at Podzemelj.\textsuperscript{120}

\textsuperscript{102} See also Stuppner 2006, 19, Fig. 37.

\textsuperscript{103} During conservation treatment the damaged tang was reconstructed as having a length of 11.5 cm and four rivet holes: cf. Stuppner 2006, Fig. 37. In the presented image (Fig. 8) these reconstructions have been corrected.

\textsuperscript{104} Rustoiu 2007, 67.

\textsuperscript{105} Rustoiu 2007, 67–68.


\textsuperscript{107} Woźniak 1974, 94–99.

\textsuperscript{108} Woźniak 1974, 96–97, Fig. 9/8, 14, 15.

\textsuperscript{109} Woźniak 1974, 97–98, Fig. 9/10, 13.

\textsuperscript{110} Woźniak 1974, 99–102, Fig. 10.

\textsuperscript{111} Rustoiu 2007, 70.

\textsuperscript{112} Rustoiu 2002a, 47–55, Fig. 38.

\textsuperscript{113} Rustoiu 2002b, 74.

\textsuperscript{114} Rustoiu 2007, 70–73.

\textsuperscript{115} Rustoiu 2007, 70, Fig. 5.

\textsuperscript{116} Balen-Letunić 2006, 65, Map 1.


\textsuperscript{119} Božič 2008, 168, Pl. 20/2.

\textsuperscript{120} Gabrovč 1966, 177, Pl. 22/1. – Božič 2001, 187, Fig. 17.
Fig. 9. Map of distribution of finds of iron curved knives reminiscent of types IV (A) and III (B) to the west of the zone of their highest frequency (C) (Graphics: M. Karwowski).

A group of four more knives stylistically reminiscent of type IV comes from central Croatia: three of them from Sisak\textsuperscript{121} and one from Zagreb.\textsuperscript{122} From the Mokronog group environment comes also a single find of a knife close stylistically to type III. This decorated specimen presumably belongs to a grave inventory from the cemetery at Slatina v Rožni Dolini in Slovenian Styria.\textsuperscript{123} It is the westernmost find of this knife type in the La Tène culture.

A series of curved knives with a rectangular tang is known also from areas lying to the south of the Tauriscian settlement of the Mokronog group. A knife of this form comes, e.g. from a cemetery at Vinica, on the southern margin of Lower Carniola,\textsuperscript{124} linked with the tribe of the Colapiani. This specimen survives complete but is bent out of shape, perhaps deliberately.

Further comparable finds are known from the territory settled by the Iapodes. One specimen comes from the Ribić cemetery near Bihać in Bosanska Krajina,\textsuperscript{125} and two more, from the cemetery at Pritoka-Jezerine,\textsuperscript{126} both sites in the valley of the river Una in northwestern Bosnia. Two large curved knives were discovered in Graves 71 and 75 in the cemetery at Prozor near Otočac in Lika.\textsuperscript{127}

The specimen from Grave 75 appears to be reminiscent stylistically of type III. From the same area we can only list the find of a knife from the region of Obrovac in northern Dalmatia.\textsuperscript{128}

Large curved knives are known also from the territory settled by the Celtic Scordisci in Slavonia, Vojvodina and central Serbia. The westernmost of these finds presumably comes from a destroyed grave – a type IV specimen from Paka in the Požega Valley in central Slavonia.\textsuperscript{129} Further comparable specimens derive from cemeteries in eastern Slavonia: at Osijek,\textsuperscript{130} Dalj\textsuperscript{131} and two at Sotin.\textsuperscript{132} Also relevant for us is a type IV knife from the cemetery at Donji Laminci, on the right bank of the Sava River, i.e. in northern Bosnia.\textsuperscript{133} Marko Dizdar and Hrvoje Potrebica have proposed that in the Late La Tène period the knives under discussion became a typical element for the region of the Celtic Scordisci.\textsuperscript{134}

Finds of knives stylistically reminiscent of the \textit{sica} are known also from the region more to the east, i.e. southern Vojvodina. Four such specimens – all of them likely representatives of type IV – come from a destroyed cemetery at Kupinovo,\textsuperscript{135} and one more – type III – from the cemetery at Novi Banovci.\textsuperscript{136} A series of knives of the \textit{sica} type is recorded in the cemetery at Belgrade-Karaburma. We can list here both specimens reminiscent stylistically of type IV,\textsuperscript{137} but also of type III.\textsuperscript{138} All of them are relatively small, without decoration. Another knife, type III, comes from the settlement complex at Zemun in the northern district of today’s Belgrade.\textsuperscript{139} Also notable are finds of three similar knives from a hilltop settlement associated with the Scordisci found much more to the south, on Veliki Vetren in central Serbia.\textsuperscript{140}

The easternmost finds of \textit{sica} type knives, in the context of Scordiscian graves are recorded in cemeteries found in the Iron Gates area at Vajuga-Pesak and at Ajmana.\textsuperscript{141}

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{121} Balen-Letunić 2006, 65, 69, Pl. 1/1–2.
\item \textsuperscript{122} Majnarić-Pandžić 1970, 67, Pl. XXI/3. – Balen-Letunić 2006, 69, Pl. 2/2.
\item \textsuperscript{123} Gaspari, Krempuš, Brišnik 2004, 269, Pl. 2/4.
\item \textsuperscript{124} Gabroveč 1966, 179, Pl. 20/1.
\item \textsuperscript{125} Marić 1971, Pl. 10/27.
\item \textsuperscript{126} Radiški 1895, 133, 156, Figs. 358 and 470.
\item \textsuperscript{127} Drechslер-Brižić 1973, 41, Pls. XXXIV/3 and XXXV/1. – Balen-Letunić 2006, 69, Pl. 2/1.
\item \textsuperscript{128} Stipčević 1960, 88–90, Figs. 1–2.
\item \textsuperscript{129} Dizdar, Potrebica 2005, 60, Fig. 2.
\item \textsuperscript{130} Majnarić-Pandžić 1970, 87, Pl. XXI/3.
\item \textsuperscript{131} Majnarić-Pandžić 1970, 89, Pl. XXIV/10.
\item \textsuperscript{132} Majnarić-Pandžić 1970, 94, Pl. XXXVI/8. – Majnarić-Pandžić 1973, 58, Pl. IV/2.
\item \textsuperscript{133} Truhelka 1901, 27–28, Pl. VI/1.
\item \textsuperscript{134} Dizdar, Potrebica 2005, 62, Map 1.
\item \textsuperscript{135} Majnarić-Pandžić 1970, 83, 85, Pls. XIII/13 and XVI/1, 5, 8.
\item \textsuperscript{136} Majnarić-Pandžić 1970, 90, Pl. XXVIII/5.
\item \textsuperscript{137} E.g. Todorović 1972, 32, 35, Pls. XXX/97/14 and XXXIV/112/6.
\item \textsuperscript{138} E.g. Todorović 1972, 19, 20, 26, Pls. XI/28/1, XIII/32/1 and XXI/60/14.
\item \textsuperscript{139} Todorović 1968, 153, Pl. LII/10. – Majnarić-Pandžić 1970, 98, Pl. XLVI/6.
\item \textsuperscript{140} Stojić 2003, 41, 91, Figs. 147, 148 and 311.
\item \textsuperscript{141} Popović 1991, 173, Figs. 3/2, 3 and 4/8.
\end{enumerate}
\end{footnotesize}
These knives typologically resemble type III, and thus, they differ from most of the curved knife finds discussed earlier discovered on the territory of Celtic settlement. Worth noting at this point is the observably higher frequency of type III knives on the eastern periphery of the territory of La Tène culture settlement (Fig. 9).

Outside the southern, or also, southeastern territory of La Tène culture, knives stylistically reminiscent of the sica are known from only two finds attributed to that culture. Other than the specimen discovered on the Oberleiserberg (Fig. 8), there is a knife from the Pohanská oppidum at Plavecké Podhradie in western Slovakia, a specimen classifiable to type IV belonging to one of several deposits known from this oppidum.

From western Slovakia we know of one more find of a large curved knife. This is a type III specimen from a hilltop settlement of the Púchov culture at Košca-Nozdrovice. Two other knives, both with a rectangular tang, i.e. a style characteristic for type IV, come from settlement centres of the Púchov culture at Folkušová and at Liptovská Mara, both in northern Slovakia. The Upper Tisza region has yielded more finds of curved knives – one from Grave 128 in the Celto-Dacian cemetery at Zemplín in eastern Slovakia, and one from a Dacian hill-fort Malaya Kopana in Carpathian Ukraine. Both specimens stylistically resemble type III.

As may be concluded from the list given here, outside the Dacian zone, where they are quite common, finds of curved knives are apparently distributed in two “corridors” running westward (Fig. 9). The southern “corridor” runs from the Iron Gates along the Danube River and then along the Sava River, all the way to the southeastern Alps. It is worth stressing here that knives found in this zone are recorded as far as the Danube-Drava line, but do not cross it northward. The northern “corridor”, with a much smaller number of finds, runs from the northern region of the Dacian territory and follows the inner line of the western Carpathians to the westernmost site – the settlement on the Oberleiserberg.

That said it is hard to prove the significant use of the curved knife from the Oberleiserberg. Its design has a more apparent affinity with specimens known from the southeastern Celtic zone than with the typical Dacian sica. This helps us to interpret this find as another piece of evidence to confirm the interaction of the inhabitants of the Oberleiserberg of the Late La Tène period with the Taurisci and the Scordisci. An additional argument in favour of this direction of contact could be the almost complete lack of Dacian forms on the Oberleiserberg. The good preservation of the knife from the Oberleiserberg, and more especially its markedly convex cutting edge, suggest that this specimen had not been long in use. This can be a strong piece of evidence to interpret this knife as a product of a local blacksmith, who naturally must have come into contact with the manufacturing of similar knives sometime earlier.

Summary

Out of the four different categories of finds from the settlement on the Oberleiserberg, used here as a point of departure to discussing the southern connections of this centre, only the Vinkovci type fibula can be treated as an import. It is most likely the product of a Scordiscan workshop, and, as may be judged from its distribution range, it was not intended for long-distance exchange. The solitary find recorded on the “Boii” territory north of the Middle Danube could be treated as a random occurrence if not for the context provided by the other categories of finds. Good examples here are the astragal belts. In their case it is quite likely that on the “Boii” territory they are local products but also that their concept must have been introduced to the La Tène culture environment from the territory of the Scordisci.

On the statistical evidence it is safe to claim that the settlement on the Oberleiserberg was the production site of bronze bosses decorated with enamel. Their popularity in the territory of the Mokronog group appears to be the result of influence transmitted north to south. It remains an open question why the majority of these finds comes from hilltop settlements while other categories of artefact in the territory of the Taurisci are mostly discovered in graves.

Another local product from the settlement on the Oberleiserberg could be the large curved knife. In this case the claim is supported more by the state of preservation of this specimen than in the distribution map of comparable specimens. Curved knives were introduced to the La Tène culture area from the Dacian-Scordiscian border area, but were also adopted by the Taurisci and the Lapodes. As with the astragal belts a certain role could have been played here also by an older local tradition. In the case of the knife from the Oberleiserberg we cannot underestimate the significance of (direct or indirect) Dacian influence.

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143. NEŠPOROVÁ 2001, 141, Fig. 101/2.
144. PIETTA 2010, Fig. 27/9 and 69/1.
145. PIETTA 2010, Fig. 69/3.
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The Coins of the Taurisci and Norici Found in Bohemia and Moravia

Jiří Militký

Abstract: This contribution considers issues of relations and contacts between the Boii and the areas inhabited by the tribes of the Taurisci and Norici. Coins are particularly important for tracing far-reaching contacts between individual sites and regions. The onset of these imports dates to before the time of the oppida, but most of the coins of the Taurisci and Norici can be associated with the oppida horizon.

Keywords: Bohemia, Moravia, Taurisci, Norici, coins, imports.


Stichwörter: Böhmen, Mähren, Taurisker, Noriker, Münzen, Importe.

Coinage is of particular relevance for our understanding of the Celtic communities of the Late La Tène period in central Europe. Its distribution makes it possible to establish relatively reliably what long-distance contacts existed between central places and the wider world. In this contribution we aim to document the numismatic evidence for contacts in the territory of what nowadays is the Czech Republic, that is, between the Boii and the Taurisci and Norici. Our data consist of coin finds which show a strong connection between the regions under study.

The area occupied by the Celtic tribe of the Taurisci lies in present-day Slovenia and parts of Styria. As the hoard of Enemonzo in northern Italy shows,1 the Taurisci began to issue coins – silver tetradrachms and obols – during the first half of the 2nd century BC at the latest. The inventory of Celtic coins from Slovenia recovered up to 1977 has been studied,2 and Robert Göbl has published a detailed typology of the issues of the Taurisci.3 Nevertheless the internal chronology of these coins and questions relating to their minting remain somewhat unclear. The Iron Age agglomeration of Kéleia, which was to become the Roman Civitas Celeia on the site of the present-day town of Celje,4 was the main centre of the Taurisci.

The second area of study consists of what is known as western Noricum; it was occupied by the tribe of the Norici5 and is located mainly in Carinthia. There the Norican kingdom (regnum Noricum6) emerged in the course of the 2nd century BC under strong influence from Rome, retaining its independence until 16/15 BC. It is only during the reign of Claudius, around AD 40, that the region became a true Roman province. Celtic coins – tetradrachms and obols – were minted in quantity in western Noricum. It was Göbl again7 who defined their typology. Two important centres with abundant finds of coins are known from western Noricum – Gurina8 and the Magdalensberg.9

The region to the north of the Middle Danube consists essentially of an area settled by the tribe, or more

4. For a summary of the site, see Lazar, Kos 2012.
5. In fact several Celtic tribes – the Alauni, Ambisoutes, Saevates, Laianci, Ambilici and Ambritavi – occupied the area.
8. For a summary of the site, see Gleirscher 2012.
precisely by the confederation, of the Boii. It encompasses Bohemia, Moravia, but also Silesia, southwestern Slovakia and northeastern Austria. It is clear that such a vast zone was not unified in the Middle and Late La Tène period.

The written sources occasionally mention contacts between the Boii and the Taurisci and Norici. Between 186 and 183 BC Celts from Noricum moved to northern Italy, into the area later known as the Veneto. Between 120 and 113 BC central and western Europe saw the incursions of the Cimbri and Teutones. They most probably crossed the territory of the Boii and were also active in Noricum. It is there that they were defeated by the Romans in the battle of Noreia of 113 BC. The fact that there was a chieftain named Boiorix among the Cimbri, Teutones and Ambrones is worth noting. It is likely that some Boii joined their Germanic aggressors at certain stages of the conflict. The Boii are mentioned again in Noricum around 58 BC, in relation to a largely unsuccessful attempt at conquering the region. In 44/40 BC the Boii and Taurisci became allies in a pact against the Dacian king Burebista. They lost the ensuing war and are reported to have been decimated by the Dacians. The demise of Boian power on the Middle Danube enabled, at least theoretically, the Norici to extend their power into that region. Celtic supremacy in the Middle Danube region ended in the penultimate decade of the 1st century BC with the arrival of the Romans on the Danube.

There is evidence for contact between the areas occupied by the Norici and Taurisci in the form of specific categories of archaeological finds (e.g. fibulae, metal vessels), but it is rarely possible to pinpoint their location precisely. Among the finds assemblages, the coins constitute the best defined group, best able to document mutual contacts. Bohemia and Moravia have yielded a surprisingly large quantity of coin finds, which are revisited and presented in this contribution.

Finds Catalogue

I. BOHEMIA

STRADONICE (District of Beroun)

1. Settlement finds (17 items)

To date, nearly 2000 individual finds of coins and at least three hoards have been recorded in the area occupied by that most important of Celtic oppida in Bohemia. Imports of coins constitute a significant group besides the coins minted locally; coins issued by the Taurisci and Norici figure in this assemblage. The finds listed here consist of single items that have been recovered between the 19th century and today.

Eastern Noricum, Taurisci

1.1 AR tetradrachm, Samobor C type (dies 96 / 191)

Ref.: Göbl 1973, 137, No. SC 18/1–2, Pl. 43/SC 18/1–2.

This coin: Píč 1903, 11–12, Fig. 2/1. – Göbl 1973, 137, No. SC 18/2, Pl. 43/SC 18/2. – Dembski 1998, 93, No. 940, Pl. 52/940. 9.16 g

Provenance: area of oppidum, 1877.

Current location: Kunsthistorisches Museum Vienna, Inv. no. 39.242.

1.2 AE/AR tetradrachm (fourrée, subaeratus), Frontalgesicht type (dies 78 / 148) – halved

Ref.: Göbl 1973, 131, No. 6/15 (?), Pl. 31/15 (?).

4.211 g; 22.4/- mm; die-axis: 9 o’clock


Current location: private collection, Ev. no. PČ 4267.

1.3 AR obol, Frontalgesicht type

Ref.: Paulsen 1933, Pl. 26/609–610. – Göbl 1973, 140, No. HH/1–2, Pl. 45/HH/1–2. – Mackensen 1975, 272, No. 75, Pl. 4/75. – Kos 1977, 112. No. 993, Pl. 40/20. – Militký 2012a, 52, Fig. 29/17.

This coin: Paulsen 1933, 67, 153, No. 610, Pl. 26/610. – Göbl 1973, 140, No. HH/1, Pl. 45/HH/1. – Mackensen 1975, 272, No. 75, Pl. 4/75. – Drda, Rybová 1998, 183, Fig. 10.

0.408 g; 11.5 mm

Provenance: area of oppidum, around 1877–1881 (?).

Current location: Národní Muzeum Prague, lost (coll. Š. Berger?).

1.4 AR obol, Frontalgesicht type


The Coins of the Taurisci and Norici Found in Bohemia and Moravia

993, Pl. 40/20. – MILIKÁ 2012a, 52, Fig. 29/17.
This coin: Pič 1903, Pl. II/76 (obverse only). –
PAULSEN 1933, 67, 153, Pl. 26/609. – GÖBL 1973,
140, No. HH/2, Pl. 45/HH/2. – DRDA, RYBOVÁ
1998, 183, Fig. 9.
0.525 g; 8.6/9.3 mm; die-axis: 10 o’clock
Provenance: area of oppidum, around 1877–1881.
Current location: Národní Muzeum Prague, Inv.
no. H1-235.477 (coll. Š. Berger).
1.5 AR obol
Ref.: KOS 1977, as Pl. 19/25–26. – KOSTIAL 2003,
65, as No. 295.
0.539 g; 9.3/9.4 mm
Current location: private collection, Ev. no. PČ
4.641.

Western Noricum, Norici
1.7 AR tetradrachm, Tinco-Stufe B2 type (dies 2J? /
23?)
Ref.: GÖBL 1973, 118, No. B2/7 (?), as Pl. 3/7. –
KOSTIAL 1997, 42, as No. 116.
9.550 g; 21.2/21.7 mm; die-axis: 6 o’clock
XRF (ÚJF Řež u Prahy): Cu 4.9 %; Au <0.2 %;
Pb 0.4 %; Bi (0.05) %; Ag 94.6 %
Provenance: area of oppidum (?), around 2003 (?) –
not confirmed.
Current location: private collection, Ev. no. PČ
4030 (formerly Ev. no. PS 87/2003:2).
1.8 AR tetradrachm, Tinco-Stufe B2 type (dies ? / ?)
9.671 g; 20.6/21.8 mm; die-axis: 10 o’clock
XRF (ÚJF Řež Prague): Cu 10.8 %; Au <0.2 %;
Pb 0.5 %; Bi 0.13 %; Ag 88.4 %
Provenance: area of oppidum (?), around 2003 (?) –
not confirmed.
Current location: private collection, Ev. no. PS
1.9 AR obol, Magdalensberg type, group GÖBL (1973)
IAa
This coin: Pič 1903, Pl. II/75 (reverse only). –
PAULSEN 1933, 67, 153, Pl. 26/607. – DRDA, RYBOVÁ
1998, 183, Fig. 22.
0.482 g; 10.2/8.6 mm
Provenance: area of oppidum, around 1877–1881.
Current location: Národní Muzeum Prague, Inv.
no. H1-235.475 (coll. Š. Berger).
1.10 AR obol, Magdalensberg type, group GÖBL (1973)
IAd
Ref.: PAULSEN 1933, 153, Pl. 26/601. – GÖBL 1973,
This coin: Pič 1903, Pl. II/77 (reverse only). –
PAULSEN 1933, 67, 153, Pl. 26/601. – DRDA, RYBOVÁ
1998, 183, Fig. 16.
0.751 g; 7.7/8.3 mm
Provenance: area of oppidum, around 1877–1881.
Current location: Národní Muzeum Prague, Inv.
no. H1-235.474 (coll. Š. Berger).
1.11 AR obol, Magdalensberg type, group GÖBL (1973)
IAd
Ref.: PAULSEN 1933, Pl. 26/602. – GÖBL 1973, Pl.
This coin: KOBÖTZ 1918, 100, No. 28. – PAULSEN
EE1, Pl. 45/EE1. – DRDA, RYBOVÁ 1998, 183, Fig. 21.
0.563 g; 13.4 mm
Provenance: area of oppidum, before 1918.
Location: collection. E. Lorber, today unknown.
1.12 AR obol, Magdalensberg type, group GÖBL (1973)
IAf
This coin: PAULSEN 1933, 67, 153, Pl. 26/606. –
DRDA, RYBOVÁ 1998, 183, Fig. 21.
0.563 g; 9.2/7.6 mm
Provenance: area of oppidum, second half of 19th
century.
Current location: Národní Muzeum Prague, Inv. no.
1.14 AR obol, *Magdalensberg* type, group Göbl (1973) IIh
This coin: Paulsen 1933, 67, 153, No. 604, Pl. 26/604. – Militký, Vacinová 2012, 32, No. 34. – Göbl 1973, 140, No. DD/1, Pl. 45/DD/1. – Drda, Rybová 1998, 183, Fig. 19.
0.668 g; 8.5/10.3 mm
Provenance: area of oppidum, second half of 19th century.
Current location: Národní Muzeum Prague, Inv. no. H5-29.899 (coll. K. Chaura)

1.15 AR obol, *Magdalensberg* type, group Göbl (1973) IIIh
This coin: Paulsen 1933, 67, 153, Pl. 26/599.
0.791 g; 9.0/9.2 mm
Provenance: area of oppidum, before 1931.
Current location: Národní Muzeum Prague, Inv. no. H5-201.094.

1.16 AR obol, *Magdalensberg* type, group (?) 1/7
Ref.: Göbl 1973, as Pl. 47.
This coin: Koblitz 1918, 100, No. 27. – Paulsen 1933, 66, No. 1414a.
0.35 g; 11 mm
Provenance: area of oppidum, before 1918.
Location: collection E. Lorber, today unknown.

1.17 AR obol, group Göbl (1973) M1
0.65 g; 8,5 mm
Provenance: area of oppidum, before 1903.
Current location: private collection, today unknown.

**ZBIROH (District of Beroun)**

3. Hoard (2+? items)
A hoard of Celtic silver coins was discovered in 1856 in the neighbourhood of Zbiroh but no further details are available concerning the circumstances in which the find was made. The original number of coins is unknown and only two survive today. Both come from the collection assembled by E. Mikš and K. Buchtela, kept in the National Museum in Prague since 1922.22 The coins are imported silver obols of the *Magdalensberg* type and it is likely that further issues of this type were once present.

17. Koblitz 1918 refers to the Pič type (1925), Pl. II/75, 78, Dessewffy type (1910), Tab. XIX/481 and Forrer type (1928/1968), Fig. 136.


21. This assemblage is being prepared for publication by J. Militký.

The Coins of the Taurisci and Norici Found in Bohemia and Moravia

Western Noricum, Norici

3.1 AR obol, Magdalensberg type, group Göbl (1973) IAc
Ref.: Göbl 1973, Pl. 47/IAc.
This coin: Koblitz 1918, 98, No. 41 – Paulsen 1933, 67, 153, Pl. 26/603. – Drda, Rybová 1998, 183, Fig. 24.
0.725 g; 10.0/9.1 mm
Current location: Národní Muzeum Prague, Inv. no. H1-27.326.

3.2 AR obol, Magdalensberg type, group Göbl (1973) IIc
Ref.: Göbl 1973, Pl. 47/IIc.
This coin: Paulsen 1933, 67, 153, Pl. 26/600. – Drda, Rybová 1998, 183, Fig. 23.
0.782 g; 10.0/9.5 mm
Current location: Národní Muzeum Prague, Inv. no. H1-27.325.

PLZEŇ (District of Plzeň)

4. Single find (1 item)
A tetradrachm of the Taurisci was found in the second half of the 19th century; there are no details of its discovery in Pilsen or nearby. The coin comes from the collection assembled by E. Mikš and later K. Buchtela, kept in the National Museum in Prague since 1922 (Inv. no. H5-27.328).23

Eastern Noricum, Taurisci

4.1 AR tetradrachm, Gjurgjevac type (dies 60 / 128)
This coin: Koblitz 1918, 98, No. 68. – Drda, Rybová 1998, 183, Fig. 3 (but cited as coming from Stradonice).
0.278 g; 21.5/24.1 mm; die-axis: 12 o’clock

KNÍNICE (District Ústí nad Labem)

5. Single find (1 item)
A tetradrachm was found in 2003/2004 by metal-detectorists acting privately. It was recovered in woodland on the southern slope of the rise known as “Nákléřovská výšina”, a little to the south of the road leading from Telnice to Knínice and Nákřlov (GPS coordinates: 50°43’59.982”N, 13°59’5.637”E, broadly the location of the finds spot). A repeat visit to this location did not produce any further coins or any finds of the La Tène period. The coin is kept in a private collection (Ev. no. PS 361-2014-1) and has not been published so far.

Western Noricum, Norici

5.1 AR tetradrachm, NEMET type (dies 10a / 53)

6. Single find (1 item)
A tetradrachm was found in 2012/2013 by metal-detectorists acting privately. The find was recovered from a meadow surrounded by woodland on the southern slope of the rise known as “Nákléřovská výšina”, north of the road leading from Telnice to Knínice and Nákřlov (GPS coordinates: 50°44’3.452”N, 13°58’50.551”E, broadly the location of the finds spot), some 300 m NWW of the previous find. A repeat visit to this location did not produce any further coins or any finds of the La Tène period. The coin forms part of a private collection (Ev. no. PS 356-2013-1) and has not been published so far.

Western Noricum, Norici

6.1 AR tetradrachm, ADNAMATI type (dies 9a / 50)
7.290 g; 20.8/22.1 mm; die-axis: 5 o’clock

ZBEČNO-SÝKOŘICE (District of Rakovník)

7. Single find (1 item)
Sometime before 1918 a tetradrachm of the Taurisci was found in the neighbourhood of the villages of Zběčno and Sýkořice, at a location not known more precisely.24 The coin was kept in the collection assembled by Eduard Lerber (1860–1941) but is now lost.

Eastern Noricum, Taurisci

7.1 AR tetradrachm, Gjurgjevac type25
This coin: Koblitz 1918, 100, No. 100.
9.40 g; 24 mm

23. See Koblitz 1918, 98, No. 68. – Radoměřský 1955, 59, No. 89. – Waldhauser 2001, 385, No. 7. E. Fiala (1891, 10, No. 68) refers to a coin from the collection of E. Mikš, described as follows: “Celtiberan tetradrachm found in Pilsen”; weight 11.50 g. The clearly different weight suggests that this exemplar may not be the same coin. The description (obverse: head with beaded headband on left side; reverse: horse on right side) does not allow for closer identification. – Further references to this find can be found in Ječný 1921, 4, No. 7. – Pink 1939/1974, 109, No. 244.


25. Variant unidentified; Koblitz 1918 refers to the Dessewffy (1910) type, obverse as No. 734, reverse as Nos. 477 and 479.
II. MORAVIA

NĚMČICE NAD HANOU (District of Prostějov)
8. Settlement finds (2 items)
Two obols from our study area feature among the large assemblage of coins from the trade and production centre of Němčice nad Hanou26 (Cat. no. 8.2 was most probably found within the area of the settlement but this cannot be verified). Both coins belong to private collections; find 8.2 has not been published so far.

Western Noricum, Norici
8.1 AR obol, Kugelreiter type
This coin: Kolníková 2012a, 55–56, No. 943, Fig. 63/943.
0.693 g.

Eastern Noricum, Taurisci
8.2 AR obol, Varaždin type
0.80 g.
Current location: private collection.

MALÉ HRADISKO (District of Prostějov)
9. Settlement finds (2 items)
Staré Hradisko, the most important oppidum in Moravia, lies in the municipality of Malé Hradisko.27 Some 600 coins have been recorded to date on this site but only a small proportion has been published.28 The imported coins form only a small group among the local coin finds; issues of the Taurisci and Norici are represented by a single exemplar each. The coins belong to two private collections and have so far not been published.

Eastern Noricum, Taurisci
9.1 AE/AR tetradrachm (fourrée, subaeratus?), Gjurgjevac type
Ref.: Göbl 1973, as Pl. 25/3–4 (but does not show the same die).
7.54 g; 23.3/23.0 mm; die-axis: 7 o’clock

Western Noricum, Norici
9.2 AE tetradrachm (fourrée, subaeratus), unpublished type (?)
Ref.: Göbl 1973: not considered by Göbl.
4.38 g; 21.3 mm, 4.5 h; fragment c. 50 %.
Provenance: northern slope, around 2010.
Current location: private collection.

POŠTORNÁ (District of Břeclav)
10. Settlement find (1 item)
A tetradrachm of the Taurisci was found in 2005 by metal-detectorists acting privately. The coin was recovered from a field located south of the village, NW of “Františkův rybník” (GPS coordinates: 48°43’24.4” N, 16°51’1.3”E), from the area occupied by the La Tène settlement. It belongs to a private collection (Ev. no. PS 362/2014:1) and has not been published so far.

Eastern Noricum, Taurisci
10.1 AR tetradrachm, Samobor C type (dies 102/202)
Ref.: Göbl 1973, 138, No. SC 23/8–9, Pl. 43/8–9. 9.49 g; worn die

KLENTNICE (District of Břeclav)
11. Settlement find (1 item)
A coin of the Taurisci, of the Gjurgjevac type, was found in archaeological excavations in the vicinity of the drilling site of Pavlov 1, in the area occupied by a La Tène settlement. It has been deposited at the Archeologický ústav, Akademie věd České republiky, Brno (Ev. no. 4154604/06614-3/04) and has so far not been published.29

Eastern Noricum, Taurisci
11.1 AE/AR (?) tetradrachm (fourrée, subaeratus), Gjurgjevac type
Ref.: Göbl 1973, as Pls. 29/104–105 and 30/106. 7.37 g; 22.6/21.6 mm; die-axis: 7 o’clock; surface corrosion.

29. Dr. B. Komoróczy kindly gave permission to publish this coin and this is gratefully acknowledged.
The Coins of the Taurisci and Norici Found in Bohemia and Moravia

POLKOVICE (District of Prostějov)
12. Settlement find (1 item)
An obol of the Norici\(^{30}\) was found by metal-detectorists operating privately apparently in the area of a La Tène settlement.\(^{31}\) The coin is being kept in a private collection and has not been published so far.

Western Noricum, Norici
12.1 AR obol, Magdalensberg type, group Göbl (1973) IAf
Ref.: Göbl 1973, Pl. 47/IAf.
0.51 g.

JEVÍČKO (District of Svitavy)\(^{32}\)
13. Hoard find? (1+2 items)
The circumstances surrounding the discovery of a hoard at Jevíčko remain obscure.\(^{33}\) It must have been found before 1902. Two Dacian tetradrachms found their way into the collection of F. Forrer (one of which ended up in the Swiss National Museum in Zurich), as did a tetradrachm of the Velký Bysterec type from northern Slovakia. A tetradrachm of the Taurisci from Jevíčko was kept in the Dessewffy collection, now housed in the Hungarian National Museum. It is unlikely that these coins were part of a single assemblage. At least two Dacian tetradrachms of the Virțești-București and Inotești-Racoasa types may have belonged to the hoard, while the remaining coins may have been found individually.

Eastern Noricum, Taurisci
13.1 AR tetradrachm, Augentyp-Stamm type (Dies 84F / 172B)
10.11 g.

Basic Characteristics of the Collection
Surprisingly the finds of coins of the Taurisci and Norici recovered in the Czech Republic are quite frequent: they number 35, and come from at least 13 sites (Tabs. 1 and 2, Figs. 1–3). The majority comes from Bohemia, amounting to 25 coins from 6 sites. The total number of such coins in Bohemia was obviously much greater – we do not know, for example, how many coins were originally present in the Zbiroh hoard (Cat. no. 3). Two coins come from the trade and production centre of Němčice nad Hanou (Cat. no. 8), which is extremely useful from a chronological perspective. The fact that 21 coins were found within the areas occupied by oppida – at Stradonice (Cat. No. 1), Třísov (Cat. no. 2) and Staré Hradisko (Cat. no. 9) – is also highly significant, as will be shown below. The coins from Poštorná (Cat. no. 10), Klentnice (Cat. no. 11) and Polkovice (Cat. no. 12) were found on lowland settlements. As for the coins from Zbiroh (Cat. no. 3) and Jevíčko (Cat. no. 13), they originally belonged to hoards. The Knínice tetradrachms (Cat. nos. 5–6) were recovered in very specific circumstances, and the remaining finds represent isolated finds or finds without further information (Nos. 4, 7 and 14). Only the Třísov obol (Cat. no. 2.1) was found in an archaeological context, the remainder have no direct provenance. The coins found in the oppida and settlement sites are representative of the period of occupation of these sites.

A comparison of Tables 1 and 2 shows that the ratio of coins of the Taurisci and that of the Norici is 13:22, while at Stradonice this proportion is 6:11 (Tabs. 1, 2 and 5). Tetradrachms dominate the Tauriscan issues, whereas obols are more common among the Norician issues.

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\(^{30}\) The coin was kept in a private collection together with two further coins (Nos. 13.1–2); one of these can be securely attributed to the settlement of Polkovice. The identification of the actual piece is 90% reliable.

\(^{31}\) For the site, see Kolníková 2012a, 71, No. XVII.

\(^{32}\) Today Jevíčko is in the administrative region of Pardubice; historically it belongs to Moravia, and hence it is listed among the Moravian finds.


\(^{34}\) These finds were made by private metal-detectorists.
Tab. 1. Finds of coins of the Taurisci from Bohemia and Moravia.

<table>
<thead>
<tr>
<th>Cat. no.</th>
<th>Site</th>
<th>Denomination</th>
<th>Type</th>
<th>GÖBL 1973</th>
<th>Type of find</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8.2 Němčice nad Hanou</td>
<td>AR obol</td>
<td>Varaždin</td>
<td>GG1</td>
<td>Settlement find</td>
</tr>
<tr>
<td>2</td>
<td>4.1 Plzeň</td>
<td>AR tetradrachm</td>
<td>Gjurgjevac</td>
<td>60 / 128</td>
<td>Single find</td>
</tr>
<tr>
<td>3</td>
<td>7.1 Zbečno-Sýkořice</td>
<td>AR tetradrachm</td>
<td>Gjurgjevac</td>
<td></td>
<td>Single find</td>
</tr>
<tr>
<td>4</td>
<td>9.1 Malé Hradisko</td>
<td>AE/AR tetradrachm (subaeratus)</td>
<td>Gjurgjevac</td>
<td></td>
<td>Settlement find</td>
</tr>
<tr>
<td>5</td>
<td>11.1 Klatenice</td>
<td>AE tetradrachm (subaeratus)</td>
<td>Gjurgjevac</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>1.2 Stradonice</td>
<td>AE/AR tetradrachm (subaeratus)</td>
<td>Frontalgesicht</td>
<td>787 / 148?</td>
<td>Settlement find</td>
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<tr>
<td>7</td>
<td>13.1 Jevíčko</td>
<td>AR tetradrachm</td>
<td>Augentyp-Stamm</td>
<td>84F / 172B</td>
<td>Hoard find?</td>
</tr>
<tr>
<td>8</td>
<td>1.1 Stradonice</td>
<td>AR tetradrachm</td>
<td>Samobor C</td>
<td>96 / 191</td>
<td>Settlement find</td>
</tr>
<tr>
<td>9</td>
<td>10.1 Požitomá</td>
<td>AR tetradrachm</td>
<td>Samobor C</td>
<td>102 / 202</td>
<td>Settlement find</td>
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<tr>
<td>10</td>
<td>1.3 Stradonice</td>
<td>AR obol</td>
<td>Frontalgesicht</td>
<td>HH/1</td>
<td>Settlement find</td>
</tr>
<tr>
<td>11</td>
<td>1.4 Stradonice</td>
<td>AR obol</td>
<td>Frontalgesicht</td>
<td>HH/2</td>
<td>Settlement find</td>
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<tr>
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<td>1.5 Stradonice</td>
<td>AR obol</td>
<td></td>
<td></td>
<td>-</td>
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<td>13</td>
<td>1.6 Stradonice</td>
<td>AR obol</td>
<td></td>
<td></td>
<td>Settlement find</td>
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Tab. 2. Finds of coins from western Noricum from Bohemia and Moravia.

<table>
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<tr>
<th>Cat. no.</th>
<th>Site</th>
<th>Denomination</th>
<th>Type</th>
<th>GÖBL 1973</th>
<th>Type of find</th>
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<tr>
<td>1</td>
<td>8.1 Němčice nad Hanou</td>
<td>AR obol</td>
<td>Kagelreiter</td>
<td>B2</td>
<td>Settlement find</td>
</tr>
<tr>
<td>2</td>
<td>1.7 Stradonice</td>
<td>AR tetradrachm</td>
<td>Tinco-Stufe</td>
<td>2J? / 23?</td>
<td>Settlement find</td>
</tr>
<tr>
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<td>1.8 Stradonice</td>
<td>AR tetradrachm</td>
<td>Tinco-Stufe</td>
<td>-</td>
<td>Settlement find?</td>
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<tr>
<td>4</td>
<td>6.1 Knínice</td>
<td>AR tetradrachm</td>
<td>ADNAMATI</td>
<td>9a / 50</td>
<td>Single find</td>
</tr>
<tr>
<td>5</td>
<td>5.1 Knínice</td>
<td>AR tetradrachm</td>
<td>NEMET</td>
<td>10a / 53</td>
<td>Single find</td>
</tr>
<tr>
<td>6</td>
<td>9.2 Malé Hradisko</td>
<td>AR tetradrachm (subaeratus)</td>
<td>Unpublished (?)</td>
<td>-</td>
<td>Settlement find</td>
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<tr>
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<td>1.9 Stradonice</td>
<td>AR obol</td>
<td>Magdalensberg IAa</td>
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<td>Settlement find</td>
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<td>3.1 Zbiroh</td>
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<td>Magdalensberg IAc</td>
<td>1A</td>
<td>Hoard find</td>
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<td>2.1 Tříšov</td>
<td>AR obol</td>
<td>Magdalensberg IAc</td>
<td>1A</td>
<td>Settlement find</td>
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<td>10</td>
<td>14.1 Moravia</td>
<td>AR obol</td>
<td>Magdalensberg IAc</td>
<td>1A</td>
<td>?</td>
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<td>1.10 Stradonice</td>
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<td>Magdalensberg IAd</td>
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<td>1.12 Stradonice</td>
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<td>Magdalensberg IAd</td>
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<tr>
<td>14</td>
<td>1.13 Stradonice</td>
<td>AR obol</td>
<td>Magdalensberg IAd</td>
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<td>12.1 Polkovice</td>
<td>AR obol</td>
<td>Magdalensberg IAf</td>
<td>1</td>
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<td>16</td>
<td>14.2 Moravia</td>
<td>AR obol</td>
<td>Magdalensberg IVb</td>
<td>1</td>
<td>?</td>
</tr>
<tr>
<td>17</td>
<td>3.2 Zbiroh</td>
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<td>Magdalensberg IVc</td>
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<td>18</td>
<td>1.14 Stradonice</td>
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<td>Magdalensberg IVh</td>
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<td>1.15 Stradonice</td>
<td>AR obol</td>
<td>Magdalensberg IVh</td>
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<td>1.16 Stradonice</td>
<td>AR obol</td>
<td>Magdalensberg ?</td>
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<tr>
<td>21</td>
<td>2.2 Tříšov</td>
<td>AR obol</td>
<td>Magdalensberg M1</td>
<td>1</td>
<td>Settlement find</td>
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<td>22</td>
<td>1.17 Stradonice</td>
<td>AR obol</td>
<td>Magdalensberg M1</td>
<td>1</td>
<td>Settlement find</td>
</tr>
</tbody>
</table>
Fig. 1. Coins of the Taurisci and Norici from the Czech Republic (the numbering follows that of the catalogue).
The Coins of the Taurisci in the Czech Republic, Slovakia and the Danube Region of Austria

Thirteen coins of the Taurisci have been recorded from the Czech Republic to date (Tab. 1; Fig. 2); five of these were recovered in Moravia. Apart from occasional mentions it seems that no in-depth research has been conducted on this topic. First, we should mention the so far unpublished obol bearing a horse motif on both sides of the coin (Varaždin type), which apparently came from the trade and production centre of Němčice nad Hanou (Cat. no. 8.2). It is a rare instance of a coin known only from a few exemplars. The context of the find suggests that this obol is highly likely to belong to a pre-oppidum phase (La Tène C2).

The remaining coins of the Taurisci from the Czech Republic belong to the oppida period, i.e. La Tène C2/D1 to D2. The tetradrachms of the Gjurgjevac type (Cat. nos. 4.1, 7.1, 9.1 and 11.1) with a stylised head facing to the left and a horse facing to the right are the most frequent type. This type was struck in large quantities in the territory of the Taurisci. The greatest quantity of such coins was found in the hoard of Gjurgjevac in Croatia – comprising 350 to 400 coins, of which some 144 coins have survived. The tetradrachms of this type were struck with a number of different dies. It is only on the exemplar from Pilsen (Cat. no. 4.1) that an actual combination of dies (60/128) can be identified. The coin from Zbečno-Sykořice (Cat. no. 7.1) has disappeared and is known from its description only. The Staré Hradisko tetradrachm (Cat. no. 9.1) is a thickly silver-plated subaeratus (fourrée) which was struck with a die that has so far not been recorded elsewhere. A further subaeratus tetradrachm was recovered from the La Tène settlement of Klentnice (Cat. no. 11.1). The surface of this coin is covered with a silvery metal, but it is not clear whether it is actually silver. The location of the mint issuing Gjurgjevac type coins is not known. Current research dates this type of coin to the end of the 2nd century BC. The presence of this type on the oppidum of Staré Hradisko, where it could have appeared during the last third of the 2nd century at the earliest, is significant from a chronological perspective, especially in terms of its long period of circulation. A silver-plated subaeratus tetradrachm from the oppidum of Stradonice (Cat. no. 1.2), of the Frontalgesicht type, split in half at a later date, constitutes a new, so far unpublished find. Coins of this type have repeatedly attracted attention: Robert Göbl identified individual dies and their combinations in his typological study and their distribution was mapped by Michael Mackensen. Iconographically this type of coin is particularly interesting: the obverse shows a diadem motif and a frontal face beneath. On the reverse there is yet again a horse facing to the left, but complemented by an unfinished wavy line above its back. More recently Giovanni Gorini has considered this type and updated its distribution map. The finds are mainly concentrated in Slovenia, and a further enclave with a clear concentration of finds is located in Lower Austria, especially on the oppidum of Oberleiserberg. The Stradonice tetradrachm is thus apparently the northernmost occurrence of this particular type. The fact that it is a subaeratus and that it had been split is highly interesting. It raises the question whether this was done to test the coin, given that subaerati are rare among this type of tetradrachm. It was not possible to identify precisely the type of die; it may have been a combination of 78 (?) and 148.

Stradonice has also yielded two obols of the Frontalgesicht type (Cat. nos. 1.3–1.4). They are undoubtedly small denominations of tetradschrachs of the same type. Since we do not yet know where coins of this type were minted, these two obols are of great importance. Indeed (with a few exceptions) they do not occur in hoards. Besides the examples from Stradonice, only one obol of this type was known up to quite recently, at Celje. It is only in 2011 that three more examples have been published: they were found on the Oberleiserberg, i.e. once again outside their primary area of circulation. The coins of the Frontalgesicht type are dated to the end of the 2nd century BC, in line with the tetradrachs, a dating that their presence on the oppidum of Stradonice would confirm in principle. The final analysis of the assemblages from Oberleiserberg will provide important insights into their chronology. The area in which these coins originated is not known, but the fact that only one obol of this type was found at Celje suggests that they were minted elsewhere.

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37. Mackensen 1975, 263, Fig. 4. – Kos 1977, 46, Map 6.
42. Mackensen 1975, 264, Fig. 5.
44. Gorini 2004, 58, Fig. 1. – Militký 2011, 1200–1201.
A tetradrachm of *Augentyp-Stamm* was apparently found in the Jevíčko hoard (Cat. no. 13.1) but the circumstances of discovery are obscure. According to Göbl’s typology,\(^51\) which identifies a series of different dies, this coin exhibits a combination of dies 84F and 172B. Such coins are known from Slovenia and Croatia, but also from Hungary.\(^52\) They are likely to date to the first half of the 1\(^{st}\) century BC.

A tetradrachm of the Taurisci of the Samobor C type was found in 1877 within the confines of the oppidum of Stradonice (Cat. no. 1.1). The coin belongs to group SC 18,\(^53\) bearing a combination of dies 96 and 191. So far it is the only tetradrachm securely identified as coming from the oppidum itself. A new find of a Samobor C type coin, as yet unpublished, was made at Poštorná in southern Moravia (Cat. no. 10.1), from within the area of a lowland settlement. It belongs to group SC 23\(^54\) and combines dies 102 and 202, which were substantially worn at the time the coin was struck. Finds of coins of the Samobor C type are concentrated in Slovenia\(^55\) and appear to date to the first half of the 1\(^{st}\) century BC.

Only two instances of obols of the Taurisci are present among the finds from the oppidum of Stradonice (Cat. nos. 1.5 – 1.6). The small coinage of the Taurisci is a highly complicated question: although there have been attempts at classifying it in detail,\(^56\) these have only been based on a partial assessment. The typology is complicated by the relatively slight variations in the representation of horses on the reverse and the absence of an image on the obverse. Peter Kos even tried to correlate some of the items in the

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\(^{52}\) Mackensen 1975, 265, Fig. 6. – Kos 1977, 40–41, Map 3.

\(^{53}\) Göbl 1973, 112, 137.


Celje hoard with actual types of Tauriscan tetradrachms. A very large group of obols has been defined as belonging to the Karlstein variety (Karlsteiner Art). This numismatic designation seems no longer appropriate today. The coins of the Karlstein type clearly belong to the Boii and generally consist of a thin, shell-shaped metal disc with a clearly low weight. The obols of the Taurisci are generally heavier, much more massive discs. Even the representation of the horse facing left (and right in some rare instances) is stylistically different. The character of the blanks and the single-sided representation of the horse on obols of the Taurisci are more reminiscent of obols of the Boii of Roseldorf/Němčice I and II type, which, however, are undoubtedly older (La Tène C2). Mackensen’s and Kos’s mapping of the distribution of Tauriscan obols shows that they occur in regions occupied by the Taurisci but also in western Noricum. They were present in large quantities in the Celje hoard, but are also known from a series of other sites. At the same time the Celje assemblage also attests to the massive import of western Norican obols of the Magadalensberg type. The two obols of the Taurisci from Stradonice belong to types that have so far not been identified, and whose exact provenance is unknown.

A tetradrachm of the Frontalgesicht type is known from Devin; it is only known from a published drawing, and it seems to belong to a type whose dies have so far not been recorded. It is worth noting that coins of the Taurisci rarely appear in Slovakian assemblages, just as they are quite rare in Moravia. It is particularly significant that we do not encounter them at all on the oppidum of Bratislava, in contrast to western Norican coins. This must have wider historical and political implications, as we shall see below.

A clear concentration of coins of the Taurisci is recorded in Lower Austria (Tab. 3/4–32; Fig. 2). Let us mention a few sites that have produced such coins. A tetradrachm of the Brezelohr type, group A, was recovered from the area of the Ringelsdorf-Niederaubendorf 12 settlement, a tetradrachm of Frontalgesicht type was found on the settlement of Drösing 18, and an obol of the Taurisci came from Carnuntum. A hoard of some 100 tetradrachms contained within a vessel was discovered in the first half of the 18th century in an area east of Hainburg, probably on the hilltop settlement of Braunsberg. Besides coins of the Kroisbach and Velem types, tetradrachms of the Frontalgesicht type were apparently also present in this hoard. The hoard has not survived, and we only know its composition from a single description. In any case the hoard is unique for this area.

The oppidum of Oberleiserberg is of fundamental importance for establishing what contacts Lower Austria north of the Danube had with the Taurisci. The Oberleiserberg yielded a most interesting assemblage of 160 coins which has disappeared and which has never been published in its entirety. The majority of the coins are coins of the Boii (gold denominations, obols of Roseldorf/Němčice II and mainly Karlstein types) but the range of imports is of particular interest. Contacts with regions occupied by the Taurisci are documented by the import of a substantial number of coins (25 coins) as well as by imitations of Tauriscan coins, the so-called local dirhams. The intensive circulation of issues of the Taurisci on the site is demonstrated by the presence of two subaerati tetradrachms of the Gjurgjevac type, eight tetradrachms and three obols of the Frontalgesicht type, three tetradrachms of the Brezelohr type, group A, and nine obols with horse motif on the reverse (Tab. 3/4–28). It is the largest concentration of coins of the Taurisci on a single site north of the Danube. The frequency of coins of the Frontalgesicht type is especially noteworthy.

59. E.g. most recently Militký 2013, 108.
61. Mackensen 1975, 262, Fig. 3.
65. The obols of the Taurisci occur in much smaller numbers in the assemblage from the Magdalensberg (Krmnicek 2010, 327–340, Nos. 668–744).
67. Elschek, Kolníková 1996, 213–214, Fig. 1/2. – Kolníková 1996, 14, No. 10, Fig. 2/3.
68. Bazovský, Kolníková 2011, 103, No. IV/5, Fig. 1/3.
69. Kolníková 1996, 14, No. 10, Fig. 2/3.
Tab. 3. Finds of coins of the Taurisci from Slovakia, Lower and Upper Austria.

<table>
<thead>
<tr>
<th>Site</th>
<th>Denomination</th>
<th>Type</th>
<th>Type of find</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zohor, Slovakia</td>
<td>AR tetradrachm</td>
<td>Gjurgjevac</td>
<td>Single find</td>
<td>ELSCHER, KOLNÍKOVÁ 1996, 213–214, Fig. 1/2</td>
</tr>
<tr>
<td>Bratislava-Rusovce, Slovakia</td>
<td>AR tetradrachm</td>
<td>Gjurgjevac</td>
<td>Single find</td>
<td>BAZOVSKÝ, KOLNÍKOVÁ 2011, No. IV/5</td>
</tr>
<tr>
<td>Devin, Slovakia</td>
<td>AR tetradrachm</td>
<td>Frontalgesicht</td>
<td>Settlement find</td>
<td>KOLNÍKOVÁ 1996, No. 10, Fig. 2/3</td>
</tr>
<tr>
<td>Oberleiserberg, Lower Austria</td>
<td>AE/AR tetradrachm (subaeratus)</td>
<td>Gjurgjevac</td>
<td>Settlement find</td>
<td>MILITKÝ 2011, Pl. II/15</td>
</tr>
<tr>
<td>Oberleiserberg, Lower Austria</td>
<td>AR obol</td>
<td>Frontalgesicht</td>
<td>Settlement find</td>
<td>MILITKÝ 2011, Pl. II/17</td>
</tr>
<tr>
<td>Oberleiserberg, Lower Austria</td>
<td>AR obol</td>
<td>Frontalgesicht</td>
<td>Settlement find</td>
<td>MILITKÝ 2011, Pl. II/18</td>
</tr>
<tr>
<td>Oberleiserberg, Lower Austria</td>
<td>AR obol</td>
<td>Frontalgesicht / group A</td>
<td>Settlement find</td>
<td>MILITKÝ 2011, Pl. II/19</td>
</tr>
<tr>
<td>Oberleiserberg, Lower Austria</td>
<td>AR obol</td>
<td>Frontalgesicht</td>
<td>Settlement find</td>
<td>MILITKÝ 2011, Pl. II/19</td>
</tr>
<tr>
<td>Oberleiserberg, Lower Austria</td>
<td>AR obol</td>
<td>Frontalgesicht</td>
<td>Settlement find</td>
<td>MILITKÝ 2011, Pl. II/19</td>
</tr>
<tr>
<td>Oberleiserberg, Lower Austria</td>
<td>AR obol</td>
<td>Frontalgesicht</td>
<td>Settlement find</td>
<td>MILITKÝ 2011, Pl. II/19</td>
</tr>
<tr>
<td>Oberleiserberg, Lower Austria</td>
<td>AR obol</td>
<td>Frontalgesicht</td>
<td>Settlement find</td>
<td>MILITKÝ 2011, Pl. II/19</td>
</tr>
<tr>
<td>Oberleiserberg, Lower Austria</td>
<td>AR obol</td>
<td>Frontalgesicht / group A</td>
<td>Settlement find</td>
<td>MILITKÝ 2011, Pl. II/19</td>
</tr>
<tr>
<td>Carnuntum, Lower Austria</td>
<td>AR obol</td>
<td></td>
<td>Settlement find?</td>
<td>HUMER 2006, No. 182</td>
</tr>
<tr>
<td>Braunberg, Lower Austria</td>
<td>AR tetradrachm</td>
<td>Frontalgesicht + further tetradrachm types</td>
<td>Hoard find</td>
<td>RUSKE 2011, No. V3</td>
</tr>
<tr>
<td>Traun, Upper Austria</td>
<td>AR tetradrachm</td>
<td>Frontalgesicht</td>
<td>Single find</td>
<td>PROKISCH 1999, No. B 34</td>
</tr>
<tr>
<td>Neubau, Upper Austria</td>
<td>AR obol</td>
<td></td>
<td>Settlement find</td>
<td>PROKISCH 2004, No. A 211</td>
</tr>
<tr>
<td>Neubau, Upper Austria</td>
<td>AR obol</td>
<td></td>
<td>Settlement find</td>
<td>PROKISCH 2004, No. A 212</td>
</tr>
</tbody>
</table>

The iconographic influences on local coinage represent a further level of contact between the inhabitants of the Oberleiserberg and the regions occupied by the Taurisci. It affects two out of the three groups of so-called local didrachms of Oberleiserberg type 1. These coins imitate on the obverse the tetradrachms of the Frontalgesicht type, which are the most numerous items imported to the site from the area occupied by the Taurisci. The second group of so-called local didrachms showing Tauriscan influences encompasses the type defined as Oberleiserberg type 3. These coins have a head with laurel wreath facing left. Their stylish representations link them directly to the Norican tetradrachms of the Tinco-Stufe. Göbl even presumed that they had been struck with the same – but worn – die and he defined the whole group as group B3. Göbl’s assumption does not appear to be very realistic, as a detailed comparison reveals that the obverse of types Oberleiserberg 3a and 3b were struck with two different dies. The presence of an identical head on the...


81. GÖBL 1994, 41.


83. GÖBL 1973, Pl. 3/B3.
obverse of a drachm in the Tótfalu hoard is also highly significant. The reverse bears a horse motif but the coin is struck with two stylistically entirely different dies. The horse on variant 3a, of which two examples are available, is quite coarsely drawn. An almost identical horse design exists on the drachms of the Tótfalu type, mentioned above. The horse depicted on the so far only example of type 3b is completely different and its prototype is clearly a Tauriscan coin – perhaps of the Samobor B type. The different die used for its reverse, which is inspired by issues of the Taurisci, underlines the specific character of type 3b. Whether the drachms of the same type as the one from the Tótfalu hoard constitutes an issue of the Velem type is not known from the published drawing. The Košelaje type obols were struck at the same time as the tetradrachms and are dated to the middle of the 2nd century BC. The context of the Němčice coin constitutes further evidence that it belongs to the site's pre-oppidum phase (La Tène C2). The majority of the Norican coins found in the Czech Republic belongs to the period of the oppida. However, as has been shown, they still exhibit a number of interesting attributes. The obverse of a drachm minted at the Kugelreiter type of coin appears to be concentrated in Alpine regions. The dies used on the exemplar from Němčice cannot be identified from the published drawing. The Kugelreiter type obols were struck at the same time as the tetradrachms and are dated to the middle of the 2nd century BC. The context of the Němčice coin constitutes further evidence that it belongs to the site’s pre-oppidum phase (La Tène C2). The majority of the Norican coins found in the Czech Republic belongs to the period of the oppida. However, let us first examine five coins that were not found on oppida. First, the site of Knínice has yielded two, so far unpublished, tetradrachms (see finds Cat. nos. 5–6). The coins were found on open land on the slope below “Naklěrovská výšina”, i.e. along the historic route of communication known as the “Chlumecká stezka”. The first of the two coins is a tetradrachm inscribed ADNAMATI (Cat. no. 6.1). Göbl’s typological study of the western Norican tetradrachms bearing this inscription identifies the combination of dies as 9a and 50. Coins of this type were frequently struck and are mainly found in hoards such as those of Gerlitzen, Magdalensberg 1965, Tauria (=St. Peter in Holz) or Moggio. The second of the two Knínice coins is a tetradrachm inscribed NEMET (Cat. no. 5.1). This type was also examined by Göbl, who classified its combination of dies as 10a and 53. A whole series of dies, as well as their occurrence in hoards, indicates that the NEMET type was extensively minted; examples were recovered at Eis, Gerlitzen, Magdalensberg 1965, Magdalensberg 1976 and

93. Kos 2013, 365, Fig. 5.
94. Kolníková 2012a, Fig. 63/943.
100. Luschin 1904.
The coins of the Taurisci and Norici Found in Bohemia and Moravia

Teurnia (=St. Peter in Holz). The coins of ADNAMATI and NEMET type were struck during the 1st century BC in an unknown location, possibly on the actual oppidum of Magdalensberg.

The NEMET-inscribed tetradrachms are quite often associated with those bearing the ADNAMATI inscription. This suggests that the two Knínice examples are chronologically close. It is surely no coincidence that they are the only western Norican tetradrachms so far recovered in Bohemia. The two Knínice coins were found separately at a distance of c. 300 m from each other, which suggests that they did not come from a disturbed hoard. It is more likely that they represent votive deposits on the edge of the settlement. Votive deposits of coins in the La Tène period are a rare phenomenon in the Czech Republic, so far only represented by the coin from Strážné.

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The Knínice coins are likely to reflect the frequentation of a route known as the “Chlumecká stezka” (=Kulmer Steig or Kulm trail), which connects Chlumec (Kulm) with Pirna over the “Nakléřovská výšina” (Nollendorf pass), most probably already in existence in La Tène times. The coins are the first Celtic coins found in this region, but not the first archaeological finds to be made in the parish of Knínice. There is evidence of occupation during the Neolithic, Bronze Age, Early Iron Age, and the early and high medieval period, as summarised by Klaus Simon and Knut Hauswald.

107. For a summary of the coinage, see Krmincék 2010.
111. Cížmář 2008. – Militký 2010b. The author also reports that Roman coins have been found most recently in the area of Nakléřovská výšina.
also published further elements of Knínice’s occupation in the La Tene and Roman periods. Nonetheless, the discovery of tetradrachms of the Norici is an unusual find, and their presence suggests that the site was particularly significant.

A second discovery of Norican coins outside those found in oppida is of note: it was made in 1856 in Zbiroh (finds Cat. no. 3) but it is not known how many coins were involved. Only two obols survived; they are of the Magdalensberg type, variants IAc (Cat. no. 3.1) and IIC (Cat. no. 3.2) according to Göbl’s\textsuperscript{112} classification. Surely Magdalensberg type, variants IAa (Cat. no. 1.10 – 1.12), IAf (Cat. no. 1.13), IIh (Cat. nos. 1.14–1.15) and an unidentifiable type (Cat. no. 1.16), Type M1 (Cat. no. 1.17) is extremely rare. Obols of the Magdalensberg type are small western Norican coins with a smoothly convex obverse and various variants of a cross on the reverse.\textsuperscript{121} These coins were struck, among others, on the oppidum of Magdalensberg, where they occur in large concentrations (in hoards and as single finds).\textsuperscript{122} They have also been recovered in the hoards of Gurina\textsuperscript{121} and Eis,\textsuperscript{121} as well as in large quantities on Alpine passes.\textsuperscript{122} The distribution of these obols has been mapped by Mackensen\textsuperscript{126} and Kos,\textsuperscript{127} who show that they occur in western Noricum but also in regions occupied by the Taurisci, as attested by their frequency in the hoard of Celje,\textsuperscript{128} where they circulated as imported currency. The occurrence of obols of the Magdalensberg type together with obols of the Taurisci could be a significant chronological factor. Traditionally they are dated to a period after 50 BC.\textsuperscript{129} It is however possible that some are older, i.e. datable to the first half of the 1st century BC, as the coin collections from oppida in the Czech Republic appear to indicate, at least to a degree. At Stradonice type M1 (Cat. no. 1.17, with a stylised laurel wreath on the obverse\textsuperscript{132}) was recovered in addition to the standard variants of Magdalensberg type obols. This is a particularly important coin, of which two other examples are known from Bohemia. In any case the assemblage of Norican coins recovered at Stradonice is the richest north of the Danube, and a particularly valuable testimony of the close contacts that existed between the Boii and the Norici.

The evidence from Stradonice is complemented by two Norican obols from the oppidum of Třísov. The first was recovered in an excavation of 1977 (Cat. no. 2.1). The type is variant Göbl IAF.\textsuperscript{131} The second was found in 2013 during an archaeological metal-detector survey in the southern part of the oppidum (Cat. no. 2.2) and is a Göbl M1\textsuperscript{132} variant. Both Třísov coins suggest that the inhabitants of this site established contacts

\textsuperscript{121} Obols of the Eis type, with the image of a head on the obverse, are related to these obols (Göbl 1973, Pl. 45/O–CC). The question is whether these are contemporary or older issues.


\textsuperscript{123} Ruske 2011, 72, No. F1.

\textsuperscript{124} Ruske 2011, 63, No. V5.

\textsuperscript{125} Dembski 2001. – Lippert, Dembski 2013.

\textsuperscript{126} Mackensen 1975, 262, Fig. 3.

\textsuperscript{127} Kos 1977, 51, Map 8.

\textsuperscript{128} Kos 1977, 88–97, Nos. 40–460.

\textsuperscript{129} Kolněková 1996, 34. – Görini 2009, 122.

\textsuperscript{130} Paulsen 1933, Pl. 26/628. – Göbl 1973, Pl. 44/M1.

\textsuperscript{131} Göbl 1973.

\textsuperscript{132} Göbl 1973.
with the Norici. The oppidum lies on a route that leads from Bohemia to the Middle Danube region, where the coins originated; thus they could have reached Bohemia along this route.

Moravia has far fewer coins of the Norici dating to the period of the oppida, but the quantitative difference with Bohemia has become less pronounced thanks to recent discoveries made in prospections by metal-detectorists. A most interesting find was made in the oppidum of Staré Hradisko (Cat. no. 9.2), a fragment of a subaeratus made of a silver-plated unknown alloy. It seems to be an unknown type of Norican tetradrachm. This unusual manner of production may have been influenced by the fact that it is not a standard coin. Recently three obols of the Magdalensberg type – one from the La Tène settlement of Polkovice (Cat. no. 12.1) and two of unknown Moravian provenance (Cat. nos. 14.1–14.2) – have also come to light. These coins indicate that coins of the Taurisci reached Moravia too, which seems quite logical from a geographic viewpoint.

Coins of the Norici reached neighbouring regions too, as attested by 60 coins (Tab. 4; Fig. 3). In Slovakia 41 western Norican coins have been recorded, the majority concentrated in the area of the oppidum of Bratislava (Tab. 4/1–39),133 a figure boosted by the presence of a hoard. Bratislava itself has yielded a tetradrachm of the ADNAMATI type, 13 obols of the Eis type, 25 obols of the Magdalensberg type and two Boian drachms of the Simmering type.134 It is on the basis of this assemblage that Eva Kolníková advanced the idea of a so-called Norican phase at the oppidum of Bratislava.135 Although the Norican coins from Bratislava represent the majority of coins found on sites north of the Danube,136 they are few,137 given that hardly any losses of individual coins (small obols) are documented.138 Losses of single coins are a particularly significant indicator of actual circulation. The single tetradrachm of the COPPO type mentioned earlier represents the sum total of Norican imports into the oppidum of Bratislava. The hoard is one of the most important indicators of contact with Noricum and suggests that some Norici were actually present in Bratislava. On the other hand this hoard is not evidence of widespread local circulation of Norican coins on the oppidum. It must therefore not be taken as proof of a Norican incursion in the Middle Danube region after the defeat of the Boii in their war against the Dacians in 44/40 BC.140 It is also uncertain whether the coins contained in the hoard can be dated to a period as late as the war against the Dacians.141

At this point it is appropriate to briefly consider the chronology of coins of the Eis and Magdalensberg type, which Gorini,142 for example, has dated to as late as the period after 50 BC. There is no doubt that these coins were struck in Noricum at least as late as the second decade of the 1st century BC and that they apparently remained in circulation for a very long time at the Magdalensberg, even in the context of the developing Roman town in the first decade AD.143 The question revolves around the beginning of the minting of Eis and Magdalensberg type obols. There is no unequivocal evidence, but there are some indications that these coins could have been struck at an early date. Today it is clear that the minting of obols among the Norici began at the same time as the introduction of tetradrachms of the Kugelreiter type144 and that this small coinage was struck throughout the entire duration of Norican coins. The Magdalensberg type is unquestionably the more recent type of obol, and its production can be securely tied to the existence of Norican oppida. The current consensus is that this period ended in the course of the third quarter of the 1st century BC.145 It is unlikely that the relatively common occurrence of these coins is closely related only to the final phases of these sites. The concurrent mass occurrence of obols of the Taurisci and Norici in the hoard of Celje,146 where the Tauriscan element is represented by a varied range of types, indirectly points to the possibility of an early date for the obols of the Magdalensberg type.

To return to the hoard of Norican coins from Bratislava, if it really belongs to an early period, i.e. before 44/40 BC, then a so-called Norican phase is out

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134. KOLNÍKOVÁ 1996, 11–12, Fig. 2/1.
135. KOLNÍKOVÁ 1996, 10–11, Figs. 3–5.
136. KOLNÍKOVÁ 1996.
137. KOLNÍKOVÁ 2012b, 214–215.
138. MILITKY 2013, 108.
139. KOLNÍKOVÁ 2012b, 214–215.
of the question at Bratislava (at least from a numismatic perspective).\textsuperscript{147} Moreover, it is interesting that no Norican coins are known from southwestern Slovakia; one would expect their presence to increase during a putative Noric incursion. So far only one obol has been recorded, on the site of Blatné.\textsuperscript{148} Norican imports into Bratislava must therefore be seen as a very specific problem reflecting a complicated situation. Lower Austria, north and south of the Middle Danube, has yielded a number of Norican coins (Tab. 4/42 – 49). ADNAMATI and NEMET tetradrachms have been found on the La Tène settlement of Drösing 20,\textsuperscript{149} an ADNAMATI tetradrachm is known from Roseldorf 150 and a COPO one from Vienna.\textsuperscript{151}

\textsuperscript{147}. Finds of obols of the Karlstein type (Kolníková 1996, 34 – 38), which are clearly Boian coins (see most recently Militký 2013, 108) constitute an important argument in this respect.

\textsuperscript{148}. I am grateful to Dr M. Budaj for drawing my attention to this unpublished find.

\textsuperscript{149}. Jedlička 2004, 91, 152, No. 7.2.6.

\textsuperscript{150}. Dembski 1972, 49.

\textsuperscript{151}. Ruske 2011, 73, No. F.2.

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<table>
<thead>
<tr>
<th>Site</th>
<th>Denomination</th>
<th>Type</th>
<th>Type of find</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Bratislava, Slovakia</td>
<td>AR tetradrachm</td>
<td>ADNAMATI</td>
<td>Hoard</td>
<td>Kolníková 1996, No. 39</td>
</tr>
<tr>
<td>2–14 Bratislava, Slovakia</td>
<td>AR obol</td>
<td>Eis</td>
<td>Hoard</td>
<td>Kolníková 1996, No. 1–13</td>
</tr>
<tr>
<td>40 Bratislava, Slovakia</td>
<td>AR tetradrachm</td>
<td>COPPO</td>
<td>Settlement find</td>
<td>Kolníková 1996, Fig. 2/1</td>
</tr>
<tr>
<td>41 Blatné, Slovakia</td>
<td>AR obol</td>
<td>Magdalensberg</td>
<td>Settlement find</td>
<td>–</td>
</tr>
<tr>
<td>42 Drösing, Lower Austria</td>
<td>AR tetradrachm</td>
<td>ADNAMATI</td>
<td>Settlement find</td>
<td>Jedlička 2004, 91</td>
</tr>
<tr>
<td>43 Drösing, Lower Austria</td>
<td>AR tetradrachm</td>
<td>NEMET</td>
<td>Settlement find</td>
<td>Jedlička 2004, 91, No. 7.2.6</td>
</tr>
<tr>
<td>44 Roseldorf, Lower Austria</td>
<td>AR tetradrachm</td>
<td>ADNAMATI</td>
<td>Single find</td>
<td>Dembski 1972, 49</td>
</tr>
<tr>
<td>45 Vienna</td>
<td>AR tetradrachm</td>
<td>COPO</td>
<td>Single find</td>
<td>Ruske 2011, No. F.2</td>
</tr>
<tr>
<td>46 Thunau, Lower Austria</td>
<td>AR tetradrachm</td>
<td>Tinco-Stufe B2</td>
<td>Settlement find</td>
<td>Göbl 1987, Pl. 35/WN B2a</td>
</tr>
<tr>
<td>47 Oberleiserberg, Lower Austria</td>
<td>AR obol</td>
<td>Magdalensberg</td>
<td>Settlement find</td>
<td>Militký 2011, Pl. II/20</td>
</tr>
<tr>
<td>48 Oberleiserberg, Lower Austria</td>
<td>AR obol</td>
<td>Magdalensberg</td>
<td>Settlement find</td>
<td>–</td>
</tr>
<tr>
<td>49 Oberleiserberg, Lower Austria</td>
<td>AR obol</td>
<td>(VICCA)</td>
<td>Settlement find</td>
<td>–</td>
</tr>
<tr>
<td>50 Aigertsham, Upper Austria</td>
<td>AR tetradrachm</td>
<td>Kugelreiter</td>
<td>Single find</td>
<td>Prokisch 1999, No. B 33</td>
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<tr>
<td>51 Minaberg, Upper Austria</td>
<td>AR tetradrachm</td>
<td>Kugelreiter</td>
<td>Single find</td>
<td>Prokisch 1999, No. B 34</td>
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<tr>
<td>52 Mauthausen, Upper Austria</td>
<td>AR tetradrachm</td>
<td>ATTA</td>
<td>Single find</td>
<td>Prokisch 2010, No. B 56</td>
</tr>
<tr>
<td>53 Brandenberg, Upper Austria</td>
<td>AR obol</td>
<td>Kugelreiter</td>
<td>Single find</td>
<td>Prokisch 2010, No. B 57</td>
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<tr>
<td>54 Neubau, Upper Austria</td>
<td>AR tetradrachm</td>
<td>Kugelreiter</td>
<td>Settlement find</td>
<td>Prokisch 1999, No. A 83</td>
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<td>55 Neubau, Upper Austria</td>
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<td>Settlement find</td>
<td>Prokisch 2011, No. A 537</td>
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<td>56 Neubau, Upper Austria</td>
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<td>Kugelreiter</td>
<td>Settlement find</td>
<td>Prokisch 2011, No. A 538</td>
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<td>57 Neubau, Upper Austria</td>
<td>AR tetradrachm</td>
<td>TINCO</td>
<td>Settlement find</td>
<td>Prokisch 1993, No. A 44</td>
</tr>
<tr>
<td>58 Neubau, Upper Austria</td>
<td>AR obol</td>
<td>Kugelreiter</td>
<td>Settlement find</td>
<td>Prokisch 2011, No. A 539</td>
</tr>
<tr>
<td>59 Neubau, Upper Austria</td>
<td>AR obol</td>
<td>Magdalensberg</td>
<td>Settlement find</td>
<td>Prokisch 1993, No. A 45</td>
</tr>
<tr>
<td>60 Neubau, Upper Austria</td>
<td>AR obol</td>
<td>Magdalensberg</td>
<td>Settlement find</td>
<td>Prokisch 2004, No. A 210</td>
</tr>
</tbody>
</table>

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of the question at Bratislava (at least from a numismatic perspective).\textsuperscript{147} Moreover, it is interesting that no Norican coins are known from southwestern Slovakia; one would expect their presence to increase during a putative Noric incursion. So far only one obol has been recorded, on the site of Blatné.\textsuperscript{148} Norican imports into Bratislava must therefore be seen as a very specific problem reflecting a complicated situation. Lower Austria, north and south of the Middle Danube, has yielded a number of Norican coins (Tab. 4/42 – 49). ADNAMATI and NEMET tetradrachms have been found on the La Tène settlement of Drösing 20,\textsuperscript{149} an ADNAMATI tetradrachm is known from Roseldorf\textsuperscript{150} and a COPO one from Vienna.\textsuperscript{151} A fragment of a tetradrachm of Tinco-Stufe B2 stems from the settlement of Thunau.\textsuperscript{152} Surprisingly the oppidum of Oberleiserberg has yielded only two obols of the Magdalensberg type\textsuperscript{153} and one obol of the S(VICCA) type. This meagre quantity of Norican coins is surprising, compared to the many Tauriscan coins found on the site.

Western Norican prototypes also appear to have influenced the iconography of local coins in Lower Austria. These are the tetradrachms of the Drösing type\textsuperscript{154} which imitate western Norican coins – especially of the NEMET and ATTA type.\textsuperscript{155} It is likely that these coins were also struck on the settlement of Drösing 16. In this case too, the evidence suggests that thick imitation silver coins were produced north of the Danube, i.e. in a zone where tetradrachms were not normally produced. It points to a clear influence from western Noricum and

\textsuperscript{152}. Göbl 1987, 248–249, Pl. 35/WN B2a.

\textsuperscript{153}. Militký 2011, 1200.


\textsuperscript{155}. Göbl 1973, Pl. 10–14.
Tab. 5. Find of coins of the Taurisci and Norici from oppida and central places (single finds and hoard finds).

<table>
<thead>
<tr>
<th>Site</th>
<th>Taurisci</th>
<th>Norici</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tetradrachm</td>
<td>Obol</td>
</tr>
<tr>
<td>Němčice nad Hanou (Cat. no. 8)</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Stradonice (Cat. no. 1)</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Třísov (Cat. no. 2)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Staré Hradisko (Cat. no. 9)</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Bratislava</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Oberleiserberg</td>
<td>13</td>
<td>12</td>
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<tr>
<td>Drössing</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Thunau</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Neubau</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Manching</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusions

The coinage of the Taurisci and Norici represents a relatively prominent group among the coins imported into the area of the Czech Republic. It emerges that imports already began in Moravia in the period preceding the flourishing of the oppida, as attested by two obols (Cat. nos. 8.1–8.2) found at the trade and production centre of Němčice nad Hanou.163 In Bohemia, there is so far no evidence of coins of the Taurisci and Norici in the pre-oppida period. On the other hand there is a clear concentration of Norican coins of the Kugelreiter type on sites pre-dating the oppida in Upper Austria (Tab. 4/50–51, 54–56 and 58).

The majority of Tauriscan and Norican coins recovered in the Czech Republic coincides with the oppida horizon. Their presence is particularly noticeable at the oppidum of Stradonice (Cat. no. 1), but also Třísov (Cat. no. 2). It is a matter of speculation whether the coinage in the area under study represents an influx into the region that is connected with the arrival of people, or whether it reflects the increasing penetration of long-distance trade. Both propositions are possible, but the evidence of the Zbiroh hoard (Cat. No. 3) suggests that the latter is more likely. Regular contacts of commercial and diplomatic character are also attested by the import of coins from other regions, especially Gaul and southern Bavaria.

The coins from central places and oppida are the most significant for our study. It is indeed these sites that show the most intensive evidence for exchange, and hence losses, considering that the assemblages that have survived represent a minute proportion of the original

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159. For the site, see Moser 2001.
quantity of imported coins. In any case the finds from the oppida and central places north of the Danube provide a degree of objectivity, which makes their comparison an interesting exercise (see Tab. 5).

The overview in Table 5 shows that the contribution of Tauriscan and Norician coins to individual sites is quite uneven. Stradonice appears to show a relatively balanced situation with 6 Tauriscan and 11 Norican coins. The table illustrates two extremes: an overwhelming prevalence of coins of the Taurisci on the Oberleiserberg and their complete absence from Bratislava. The settlement of Drösing lies between these two oppida; there only Norican coins have been recovered, and it is also where of Drösing lies between these two oppida; there only Norican coins have been recovered, and it is also where the Taurisci and Norici contributes to a better understanding of this situation.

Acknowledgements
This contribution results from work undertaken within the projects “The coinage of the La Tène oppida in Bohemia” (Mincovníctví na českých oppidech doby laténské; Grant no. P405/10/1588) and “Celtic coinage of the 3rd and 2nd centuries BC in Czech regions and its relationship with the period of the oppida” (Keltské mincovníctví ve 3. a 2. století v českých zemích a jeho vztah k oppidálnímu období; Grant no. 13-24707S), funded by the Czech Republic. I am most grateful to M. Ručka and R. Méchura for their considerable help with compiling the finds catalogue.

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PhDr. Jiří Militký, Ph.D.
Archeologický ústav AV ČR, v.v.i., Praha
Letenská 4,
118 01 Prague

Národní muzeum-Historické muzeum, Numismatické odd., Vinohradská 1
110 00 Prague
Czech Republic
militky.jiri@seznam.cz
Abstract: Small bronze rings with various arrangements of knot-like projections (Knotenringe) are a characteristic element of the oppida period in the eastern La Tène culture. A significant increase in discoveries in recent years in the zone of Boian coinage allows their precise typological classification. The Knotenringe are an example of the transfer of ideas along the corridor of the Amber Route. Their function, however, remains unknown.

Keywords: Knotenringe, typology, Boii, oppida period, La Tène culture.

Small rings made of bronze, decorated on the outside with variously spaced knob-like projections in relief, are known in the literature as Knotenringe ("knot rings"). They are generally considered to be characteristic of the Late La Tène or oppida period. In Joseph Déchelette’s opinion they are one of the artefacts that symbolise the unitary character of the La Tène culture over its entire range, from Gaul to the Carpathian Basin; he considered them one of the type-fossils of the phase that he defined as La Tène III.1 This view was generally accepted and it commonly appears in the literature of the following decades.

The knots on the rings vary in size and shape, and show different arrangements and combinations, which enables us to classify them into characteristic types. Ioan Glodariu first established such a classification on the basis of finds from Dacia.2 He distinguished four main types, based on the spacing between the knots: Type I is characterised by large intervals between the knots (three to five knots in all); Type II has smaller, regular intervals between knots; Type III hardly has any spaces between knots, which form an uninterrupted series around the whole ring; Type IV contains examples with irregular spacing. These main types were further subdivided into variants, depending on whether the knots appeared individually along the perimeter of the ring or whether they were accompanied by lateral knots. Aurel Rustoiu also attempted to classify the Dacian finds in a similar manner.3 In his typology, which encompasses different kinds of rings, the Knotenringe belong to his Type 2, subdivided into sub-types a–d. They correspond to Glodariu’s types I–IV.

Miloš Čižmár also proposed grouping the Knotenringe in his analysis of finds from Moravia.4 He distinguishes between a variant “with three knots”, where one knot on the outside of the ring is combined with two lateral knots to make a distinctive pattern. Another variant consists of an arrangement in which individual knots on the perimeter alternate with combinations of three knots (one on the outside and two on either side). Čižmár defined two further variants: Knotenringe with a knot on the outer perimeter alternating with two knots on the sides of the ring, and Knotenringe where the knots are so arranged that each knot consists of three small nodules.

Achim Leube classified the finds from assemblages recovered in the catchment area of the Oder that con-
tained rings which stylistically resemble the Knotenringe and which are dated to the period of Roman influence. He identified three main types, as well as a variant (Variant 1) with clusters of three knots, which is stylistically related to the La Tène Knotenringe.

The typological schemes outlined above formed the starting point for our assessment, which focuses on the systematic examination of the Knotenringe from the area of the so-called “Boian coinage zone”. It is located in the eastern La Tène culture zone of central Europe, i.e. Bohemia, Moravia, southwestern Slovakia, northeastern Austria and a few small enclaves in southern Poland. The typological scheme that we propose here is based on traits such as the number of knots, the way they are spaced and the manner of their arrangement.

Two main types were identified in the collection that we have examined. The first (Type I) consists of rings with knots or groups of knots on the outside of the ring where the intervals are greater than the size of the individual knots; the second (Type II) contains rings where the interval between knots is equal or smaller than the size of the individual knots. In addition, each of these main
types was subdivided into sub-types A, B and C. This detailed classification is based on the differential number of knots and on the way they are distributed around the ring. The Knotenringe included in our typological scheme have a diameter generally ranging between c. 10 mm and c. 40 mm; in a few cases this diameter is marginally greater. Our typological analysis concerns 153 rings, divided into six sub-types. We also consider twelve finds which fall outside our typological scheme, which we have assigned to an “undefined” category. In all, the collection of Knotenringe that we have examined contains 165 rings from 54 archaeological sites (Fig. 1).8

Knotenringe of Type I
Rings with intervals between the knots or groups of knots that are greater than the individual knots.

Type IA
Evenly distributed groups of knots in groups of three, one on the outer surface of the ring and two on its sides; the number of knot groups ranges from three to twelve, depending on the spacing and size of the ring.

Forty-one examples of Type IA were identified in the collection gathered in the study area; this represents 25% of the collection (Figs. 2–4). Type IA is the second-most frequent type after type IIB, presented below.

The largest assemblages of Knotenringe of Type IA in the Boian coinage zone are those from the oppida of Staré Hradisko in Moravia and Pohánská in Plavecké Podhradie in western Slovakia, each with six examples (respectively Nos. 30–35 and 20–25). At the oppidum of Pohánská four of the Type IA Knotenringe formed part of a rich hoard (Nos. 22–25). The open settlement of Klenovice na Hané in Moravia (Nos. 7–10) and the hilltop settlement on the Oberleiserberg in Lower Austria (Nos. 16–19) yielded four rings each. The oppida of Stradonice (Nos. 36–38) and Třísov (Nos. 39–41) in Bohemia and the open settlement of Drösing (Nos. 3–5) in Lower Austria each produced three. Two examples are known from the hoard of Křižovany nad Dunajcem in western Slovakia (Nos. 12–13). As for single finds of Type IA rings, the list includes the following: in Bohemia in the spring deposit of Krásný Les (No. 11), and from an unknown context in Sezemice nad Loučnou (No. 29); in Moravia: at the large open settlement of Němčice nad Hanou (No. 15), the nearby settlements of Hruška (No. 6) and Měrovice nad Hanou (No. 14), and in the hoard of Ptení (No. 26); in Lower Austria: from the settlements of Bernhardsthal (No. 2) in the Moravian Field (Marchfeld), and south of the Danube at Bad Deutsch-Altenburg (No. 1), Purkersdorf (No. 27) and Sankt Pölten (No. 28).

The knots on some of the Knotenringe of Type IA are quite uncharacteristically moulded: each is made up of several, usually three, smaller nodules or protuberances. The whole cluster looks like a cluster of grapes. Four instances of such Knotenringe have been recorded on the oppidum of Staré Hradisko: three of Type IA (Nos. 33–35) and one of Type IIA (No. 90), presented below. These particular rings have been defined as the “Staré Hradisko variant”.9 This variant is also encountered quite frequently on other sites, including two examples of Type IA at Plavecké Podhradie (No. 25) and Třísov (No. 41), and three examples of Type IB, discussed below (Nos. 48, 55 and 58). Two small rings made of silver and found attached to one of the Knotenringe from Plavecké Podhradie (No. 21) are an interesting additional element.

Type IB
Knots in groups of three, one on the outer surface of the ring and two on its sides, alternating with single knots on the outer surface of the ring; the number of groups ranges from six to a dozen, depending on the spacing and size of the ring.

Seventeen examples of Type IB were identified in the collection from the area defined as the Boian coinage zone; this represents 10.5% of the collection (Fig. 5). Four Knotenringe of Type IB were found on the oppidum of Stradonice in Bohemia (Nos. 52–55). In Moravia, the oppidum of Staré Hradisko (Nos. 49–51) and the hoard of Ptení (Nos. 46–48) have yielded three examples each. Further sites have produced single examples: in Bohemia at the hillfort of Hazmburk in Klášter (No. 44), from the river Malše in České Budějovice (No. 42) and from unknown contexts in Svárov (No. 56) and Výrava (No. 57); in Moravia in the settlement of Hrubice (No. 43) and a grave at Žďárnice (No. 58); in western Slovakia on the oppidum of Pohánská in Plavecké Podhradie (No. 43).

Three rings of Type IB possess knots that are composed of three smaller nodules or protuberances, i.e. they belong to the variant described above as the Staré Hradisko variant. They were found at Ptení (No. 48), Stradonice (No. 55) and Žďárnice (No. 58). Two Knotenringe, from

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8. All the finds are listed in the typological list appended to the end of this contribution. The finds numbers given in brackets in the text correspond to the numbers in the list. This numbering also corresponds to the finds that are illustrated. When preparing this list, we did not aim to make an inventory of all the Knotenringe that have been found in the area of Boian coinage but to present a reasonably full selection of the material under study.

9. See also Dębiec, Karowski 2014, 670.
Fig. 3. Knotenringe of Type IA (the finds numbers correspond to those of the finds list) (after Zachar 1977. – Adler, Nowak 1988. – Pieta 2010. – Čižmář 2002. – Čižmář, Kolníková 2006. – Mangel, Jílek 2012. – Archive of M. Čižmář and M. Karwowski).
Stradonice (No. 52) and Svárov (No. 56), possess an additional element, in the form of moulded rings around the knots.

**Type IC**
Individual knots on the outer surface of the ring, sometimes alternating with groups of two; on the few examples of this type that have survived the number of knots or groups of knots ranges from four to eight.

Six rings of Type IC have been identified in the collection, which represents a mere 3.5 % of the whole (Fig. 6). This type is the least well represented.

Two finds assigned to Type IC come from the oppidum of Stradonice in Bohemia (Nos. 63 and 64). All other finds are single finds: in Moravia the oppidum of Staré Hradisko (No. 62) and the open settlements of Dyjákovice (No. 59) and Klenovice na Hané (No. 60) yielded one each; in Lower Austria one such ring was recovered on the hilltop settlement on the Oberleiserberg (No. 61).

The Knotenring from Stradonice (No. 63) stands out for its form and quality. Its unevenly spaced knots are large and spherical. The Oberleiserberg ring (No. 61) possesses several idiosyncratic traits: instead of typical knots on its outer perimeter there are three clearly visible bulges and a cluster of five nodules set in the shape of a cross. The example from Klenovice (No. 60) is partly deformed, probably as a result of the secondary effects of fire.

**Knotenringe of Type II**
Rings with intervals between the knots or groups of knots which are equal to, or smaller than, the individual knots.

**Type IIA**
Densely spaced knots in groups of three, one on the outer surface of the ring and two on its sides; the number of groups ranges from one to several dozen, depending on the spacing and size of the ring.

Twenty-seven examples of Type IIA have been identified from the Boian coinage zone, which represents 16.5 % of the collection analysed (Figs. 7–8).

The Knotenringe of Type IIA are best represented in Moravia. The site of Ptení (Nos. 80–84) yielded five such rings, four from its hoard and one (No. 84) from the surface of the site. The oppidum of Staré Hradisko also has five recorded instances (Nos. 86–90). Two examples were recovered in the large open settlement of Klenovice.
Fig. 5. Knotenringe of Type IB (the finds numbers correspond to those of the finds list) (after Meduna 1961. – Zachar 1977. – Čižmář 2002. – Čižmárová 2004. – Mangel, Jílek 2012. – Archive of M. Čižmář).

na Hané (Nos. 72 and 73). Single instances were found in the settlements of Němčice nad Hanou (No. 76), Hrubčice (No. 69), Hrušky (No. 70) and Polkovice (No. 79), as well as in unknown contexts in Bedihoště (No. 65) and Ivaň (No. 71). Type IIA Knotenringe have also been found in Bohemia – from the river Elbe in Litoměřice (No. 75) – and in western Slovakia, with two examples from the hilltop settlement of Devín in Bratislava (Nos. 66 and 67) and one each from the hoard recovered on the oppidum of Pohanska in Plavecké Podhradie (No. 78) and the hoard of Križovany nad Dudváhom (No. 74). In Lower Austria single finds of this type are reported from the settlements on the Oberleiserberg (No. 77), Enzersfeld im Weinviertel (No. 68), Thunau am Kamp (No. 91), and, south of the Danube, from the settlement of Purgstall an der Erlauf (No. 82).

One of the Knotenringe from Staré Hradisko (No. 90) has knots which are made up of three smaller nodules or protuberances, i.e. it belongs to the Staré Hradisko variant, as described above.

**Type IIB**

The knots do not form groups on the outer surface of the ring and its sides but are densely distributed in three
rows; the number of knots on the outer surface and sides does not have to be even but this is generally the case; the number of knots ranges from one to several dozen, depending on the spacing and size of the ring.

Forty-six examples of Type IIB have been recorded in the study area, which represents 28% of the collection analysed (Figs. 9–11). This makes Type IIB the most frequently encountered type.

Numerous Knotenringe of Type IIB were found in the large open settlement of Němčice nad Hanou in Moravia, with as many as 11 examples (Nos. 107–117). Another five were recovered on the oppidum of Staré Hradisko in Moravia (Nos. 128–132), and three each in the settlement of Hrubéč (Nos. 102–104) and the oppidum of Stradonice (Nos. 133–135) in Bohemia. Four Knotenringe of Type IIB are known from Lower Austria, i.e. two from the hilltop settlement on the Oberleiserberg (Nos. 118 and 119) and two from the open settlement of Bernhardsthal (Nos. 92 and 93). Single finds of this type have been found in several locations: in Bohemia, on two oppida: Hrazany (No. 101) and Trťov (No. 137); in Moravia on the hilltop settlement of Brno-Obřany (No. 96), the open settlements of Diváky (No. 97), Dolní Němčí (No. 98), Měrovice nad Hanou (No. 105), Mutěnice (No. 106) and Polkovice (No. 124), as well as in undefined contexts in Bréclav (No. 95), Podivín (No. 123) and Pravice (No. 125); in western Slovakia in the hoard on the oppidum of Pohanská in Plavecké Podhradie (No. 122) and, south of the Danube, in the settlement of Bratislava-Rusovce (No. 94); in Lower Austria on the hilltop settlement of Thunau am Kamp (No. 136), the open settlements of Enzersfeld im Weinviertel (No. 99) and Oberweiden (No. 120), as well as on several sites located south of the Danube: the hilltop settlement on the Braunsberg in Hainburg an der Donau (No. 100), the open settlements of Petronell-
Fig. 7. Knotenringe of Type IIA (the finds numbers correspond to those of the finds list) (after Pieta, Zachar 1993. – Karl, Karl 1997. – Čížmár 2002. – Čížmár et al. 2008. – Archive of M. Čížmár).
Carnuntum (No. 121) and Sommerein (No. 127), and from an unknown context in Sankt Pölten (No. 126).

Suspension loops are a fairly infrequent element on Knotenringe. In the case of the Type IIB ring from Thunau (No. 136) the loop was probably formed when two knots, cast with the ring in one piece, became conjoined. Distinct bulges or protuberances preserved on the perimeter of a few other rings of this type – from the Oberleiserberg (Nos. 118 and 119), Bernhardsthal (No. 93) and Hainburg (No. 100) – may be the remnants of other such loops.

A small gold Knotenring from Petronell-Carnuntum (No. 121; Fig. 12) is particularly noteworthy. So far it is the only Knotenring in the collection that we have assembled that is not made of bronze.

Type IIC
The knots do not form distinct groups, they are densely distributed along the outer perimeter of the ring, but appear more sparsely on the sides of the ring, at wide intervals; generally the number of knots on the outer surface is at least double that of the knots on the sides; the number of knots ranges from one to several dozen, depending on the spacing and size of the ring.

Sixteen examples of Type IIC have been recorded in the zone of Boian coinage, which represents 9.5 % of the collection analysed (Fig. 13).

Most Type IIC rings have been recovered in Moravia: two each come from the oppidum of Staré Hradisko (Nos. 151 and 152), from the settlement of Němčice nad Hanou (Nos. 142 and 143) and from the hoard of Ptení (Nos. 149
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Fig. 9. Knotenringe of Type IIB (the finds numbers correspond to those of the finds list) (after Adler 1995. – Urban 1995. – Karl, Karl 1997. – Bazovský 2002. – Čižmář et al. 2009. – Archive of M. Čižmář).

and 150), single rings occur on the open settlements of Hrubčice (No. 140), Hrušky (No. 141) and Polkovice (No. 148), while the Břeclav find (No. 138) comes from an undefined context. Three such rings formed part a rich hoard discovered on the oppidum Pohanská in Plavecké Podhradie in western Slovakia (Nos. 145–147). The oppidum of Stradonice in Bohemia has yielded a single find (No. 153), as has the hilltop settlement on the Oberleiserberg in Lower Austria (No. 144); in western Slovakia the find from Gajary (No. 139) is without context.
Fig. 10. Knotenringe of Type IIB (the finds numbers correspond to those of the finds list) (after Archive of M. Čižmář and M. Karwowski).
Fig. 11. Knotenringe of Type IIB (the finds numbers correspond to those of the finds list) (after Schützbier 1988. – Meduna 1965. – Karwowski 2006. – Archive of M. Čičmál).
Fig. 12. Unusual gold Knotenring of Type IIB from Petronell-Carnuntum in Lower Austria (No. 121) (after Humer 2006).

Fig. 13. Knotenringe of Type IIC (the finds numbers correspond to those of the finds list) (after Meduna 1970b. – Čižmár 2002. – Karwowski 2009. – Archive of M. Čižmár).
A characteristic trait of several Knotenringe of Type IIC consists of elongated knots and, frequently, the presence of one clearly larger knot, as recorded at Staré Hradisko (Nos. 151 and 152) and among single finds from Gajary (No. 139), Hrubčice (No. 140), Hrušky (No. 141) and the Oberleiserberg (No. 144). The unusually massive ring from Stradonice (No. 153) is atypical. Its knots, which are distributed along its sides, are double.

Typologically Undefined Knotenringe
A small collection of Knotenringe from the Boian coinage zone could not be classified, either because they were too poorly preserved, or the publication did not permit identification, or because their unusual traits rendered them typologically unclassifiable. Twelve such finds were assigned to the "undefined" category, which represents 7.5% of the collection studied (Fig. 14).

The group consists mainly of small fragments that retain characteristic clusters of three knots, from Moravian sites such as the oppidum of Staré Hradisko (Nos. 162–164) and the open settlements of Čejč (No. 155) and Medlovice (No. 158), as well as from the oppidum of Závist (No. 165) in Bohemia. These fragments could belong to any of the types defined above.

Five small, complete Knotenringe were also assigned to the "undefined" category because they are atypical. The ring from the settlement of Kúty in western Slovakia (No. 157) clearly has more knots on the sides of the ring than on the outer surface, and it also has a large loop. The latter, as can be deduced from the publication of this find, could have been added at a later stage. The ring from the settlement of Čejč in Moravia (No. 154) also has a greater number of knots on the sides of the ring than on the outer surface.
Three fully preserved Knotenringe were also classified in the “undefined” category because they merely had bulges, rather than actual knots, fairly densely distributed around the outer surface of the ring. The settlement of Němčice nad Hanou in Moravia yielded two examples of such rings (Nos. 159 and 160), and a further example was recovered on the settlement of Reinthal in Lower Austria (No. 161).

In one case – a find from the settlement of Jakuszowice in Lesser Poland (No. 156) – the published information suggests that we were dealing with a Knotenring, but it cannot be attributed to a type. This find is all the more important that it is the only Knotenring so far discovered on a La Tène culture settlement north of the Carpathians.

Rings, which, in addition to knots, possess zoomorphic ornamentation, are stylistically and probably also chronologically related to the Knotenringe presented in this study. However, we believe that they belong to a separate class of finds, and they will therefore not be discussed in detail here. Moreover they have been the subject of extensive study. H. Dannheimer\textsuperscript{10} was the first to consider these rings, in the context of the publication of a find from Garching near Munich in Bavaria, and he cited a number of parallels. The most comprehensive overview of this class of artefacts is owed to C. Tappert who collected all the finds of rings with zoomorphic design known to her and established a typological scheme.\textsuperscript{11} Both authors consider, from a typological perspective, that these rings belong to the Late La Tène Knotenringe but that they constitute a special group.\textsuperscript{12} The animals represented on these small, carefully made rings, suggest that the function of these rings is linked to the symbolic realm.\textsuperscript{13}

\textit{Knotenringe} which possess additional elements inside the ring (most often in the shape of a cross, less frequently a human figure or other motif) indicate that we are dealing with a similar situation. Such artefacts are generally interpreted as pendants or amulets with a symbolic meaning and have been discussed in the literature.\textsuperscript{14} Although typologically the presence of “knots” connects these rings to the Knotenringe under study, they form a fairly heterogeneous group, which we have excluded from our analysis.

Large bronze rings with an inside diameter of 7 to 10 cm and decorated with differentially spaced knots have also been left out of the classification that we propose here. The decoration of these rings is sometimes very similar to that of the Knotenringe, especially those of types IA and IB. Large rings with triple knots occur in burials of the La Tène culture and are dated to the Early La Tène or beginning of the Middle La Tène period.\textsuperscript{15} Presumably these large “Knotenringe” are artefacts which are linked to the “Plastic Style” and which were used as bracelets or anklets. In the zone of Boian coinage they are known from burial assemblages\textsuperscript{16} but also from Late La Tène settlements and oppida.\textsuperscript{17} Several such rings were found in the hoard discovered on the oppidum of Pohanská in Plavecké Podhradí\textsuperscript{18} associated with Knotenringe of Type IA (Nos. 22–25), IIA (No. 78), IIB (No. 122) and IIC (Nos. 145–147) (Fig. 15). It cannot therefore be excluded that the style of the large rings inspired our Knotenringe, and that some of them were produced simultaneously following the same trends. We nevertheless consider that the large rings need to be studied as a separate class of artefacts.

The idea of producing small rings with regularly spaced groups of knots probably originated in southeast-

\textsuperscript{10} Dannheimer 1975, 60–65.  
\textsuperscript{11} Tappert 2000.  
\textsuperscript{12} Dannheimer 1975, 61. – Tappert 2000, 173.  
\textsuperscript{13} Rings with animal ornamentation are also known from the Boian coinage zone but were not taken into account in C. Tappert’s study (Tappert 2000, 208–213). In Bohemia such finds were made on the oppida of Stradonice (Př. 1903, Pl. XII/13. – Dannheimer 1975, 63, Fig. 3/3) and Třísov (Hláva 2009, 119–125, Fig. 1/15); in Moravia in the hoard of Ptení (Čičmařík 2002, 203, Fig. 3/1) and on the large open settlement of Klénovice na Hané (Archive of M. Čičmařík); in Upper Austria on the large open settlement of Neubau near Linz (Gruber 2007, 58–59, figure on p. 58); in Lower Austria on the hilltop settlement on the Oberleiserberg (Archive of M. Karwowski) and from an unknown context in Petronell-Carnuntum (Hummer 2006, 46, Fig. 51); in western Slovakia at the hilltop settlement of Devin in Bratislava (Pietta 2012, Fig. 88/1 and 136/14) and in two deposits on the oppidum of Pohanská in Plavecké Podhradí (Pietta 2010, 228, Fig. F23/2) and Križovany nad Dudávohm (Kraskovská 1943, 234, Pl. 1/20. – Zacha 1987, 152, Fig. 197).  
\textsuperscript{14} Božík 1998, 143–144. – Čičmařík 2002, 204–205, 217. A few rings found in the Boian coinage zone which have an element in the shape of a cross inside the ring, and which have not been considered in the publications, must be mentioned. They come from the open settlement of Čejetín and from an unknown context in Podivín in Moravia (Archive of M. Čičmařík), as well as from the hilltop settlement on the Oberleiserberg in Lower Austria (Archive of M. Karwowski). Another example, from the oppidum of Stradonice in Bohemia, has a circle set on three knots inside the ring (Př. 1903, Pl. XII/12). Given that they also have knots on the outer side, these rings are typologically related to Type IA (Oberleiserberg, Stradonice) or IIC (Čejetín, Podivín).  
\textsuperscript{15} Balke 1999, 63–65. – Bujna 2005, 71, Fig. 55.  
\textsuperscript{16} E.g. Trugly 1996, 173, Fig. 142/2. – Čičmařík 2004, 185, figure on p. 185.  
\textsuperscript{17} E.g. Př. 1903, Pl. XI/15, 20. – Stupner 1984, 269, Fig. 383. – Stupner 1990, 200, Fig. 473. – Plachá 1997, 150, Fig. 112/2. – Pietta 2010, 338, Fig. F23.  
\textsuperscript{18} Pietta 2010, 338, Fig. F23.
ern Europe, especially in Transylvania, Dobruja and Moldova, as well as on the northern coast of the Black Sea. This is attested by numerous finds from these regions dated to the 4th and 3rd centuries BC. Further, moulds for manufacturing Knotenringe have been recorded in the Greek colonies of Olbia and Tyras on the Black Sea. The rings made there are typologically linked to the rings of types IA and IC in our classification. Nevertheless they differ from the majority of the central European rings in the arrangement and spacing of their knots. Relatively close parallels can be found in Transylvania, Dobruja and Moldova, but also at the Púchov culture hillfort of Obírka in Loučka in the area of the Moravian Gate. Type IC is the least less well represented group in our collection, but parallels for this type are more frequent in southeastern Europe.

The influx of Knotenringe, or of the idea of producing such artefacts, into the Boian coinage zone most probably came via the regions which are associated with the occupation of the Celtic Scordisci and Taurisci, i.e. the southeastern fringes of the La Tène cultural sphere. This is suggested by quite numerous finds from these regions. In this context, it must be noted that such finds are distinctly fewer in the neighbouring area occupied by the Celtic Norici. Only four items are known from the latter’s main centre on the Magdalensberg in Carinthia.

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21. Furmanska 1958, 48, Fig. 2/1–2; Pl. IV/5. – Samojlova 1988, Fig. 16/1.
22. Gădariu 1984, Fig. 1/9. – Moscalu 1990, Fig. 1/18 and 2/11, 16, 17.
23. Čížmář, Salaš 2009, Fig. 7/11.
24. Gădariu 1984, 64–67, Fig. 1/1–4. – Moscalu 1990, 150–151, Figs. 1/8 and 2/1, 7. – See also Warneke 1999, 83–85.
27. Müller-Karpe 1951, 647, Fig. 12/14. – Deimel 1987, 62–63, 208–209, Pls. 44/21, 23 and 45/1.
While Knotenringe are known from practically the entire La Tène culture, their presence in the west is far less well attested in archaeological assemblages. The Bohemian Basin, i.e. the western part of the Boian coinage zone, forms the western limit of the relatively frequent occurrence of Knotenringe. The clearest concentration of finds is in the wide “corridor” of the so-called Amber Route, which encompasses Moravia but also eastern Lower Austria and western Slovakia (Fig. 1). The largest collection of La Tène Knotenringe, comprising 25 rings, comes from the Moravian oppidum of Staré Hradisko.28 The presence of 17 rings at the settlement of Náměšť nad Hanou in Moravia is of great interest because finds of the Late La Tène period are rare on that site.29 The distinct concentration of Knotenringe in Moravia suggests quite convincingly that these finds were made locally and were not imports.30 Similar quantities of finds are otherwise only recorded on the Bohemian oppidum of Stradonice and the hilltop settlement of Veľké St. Vid in Transdanubia, located to the south of the Boian coinage zone in western Hungary.31 The few examples found in key Bavarian La Tène sites, i.e. west of the Boian zone, contrast starkly with the more numerous finds further east. The oppidum of Manching has yielded only three Knotenringe,32 while the settlements of Egglfing33 and Berching-Pollanten34 each have a single instance recorded.

Knotenringe have been found in the region of the Púchov culture in northeastern Moravia and northwestern Slovakia, that is, regions on the immediate borders of the Boian coinage zone. They have been recorded, among others, in the area of the Moravian Gate, one of the key stretches of the Amber Route. A couple of instances are mentioned from the hillforts of Obírka in Loučka35 and Požaha in Jičina.36 A further example comes from the Púchov culture settlement centre of Liptovská Mara37 in northern Slovakia. The presence of Knotenringe north of the La Tène culture zone, in particular on sites of the Przeworsk and Oksywie cultures in Poland,38 raises interesting questions. These sites are located in the northern section of the Amber Route which leads through the Moravian Gate. On the other hand, Knotenringe are hardly represented in the Jastorf culture, though stylistically similar bracelets decorated with knots are known from several sites of this culture.39 The only instance of an actual Knotenringe is the find of Gubin in the province of Lubusz in Poland.40 All the burial assemblages that are well recorded indicate that the Knotenringe under study did not become common in central Europe much earlier than the beginning of the Late La Tène period. The dating of this class of artefacts was mainly addressed by scholars concerned with the southeastern part of the La Tène culture zone. Both M. Guštín41 and D. Božič42 have considered the Knotenringe in their chronological classifications of the Mokronog group; they assign them fairly securely to the early phase of the Late La Tène period. J. Meduna43 shared this opinion, based on the assemblage from House 1/64 at the oppidum of Staré Hradisko in Moravia. This assemblage contained a Knotenring of Type IIB (No. 131), associated, among other finds, with a Nauheim type fibula. He also dated the Knotenringe from the nearby hoard of Ptení, which belong to types IA (No. 26), IB (Nos. 46–48), IIA (Nos. 80–83) and IIC (Nos. 149 and 150), to this phase.

In the current state of research, it does not seem possible to give precise indications about which types of Knotenringe, as defined by us, are earlier and which are later. In Glodariu’s scheme44 the earlier forms do not have so many and such regular clusters of knots on the outer surface of the ring (in particular our Type IC, but also types IA and IB) and as time goes on the intervals between knots become closer (Types IIA and IIB). The rings with densely spaced knots on the outer surface of the ring and only a few knots on its lateral sides (Type IIC) may have been the antecedents of the latest rings. Such a chronological scheme is in part endorsed by burial assemblages. The earliest burials of the Przeworsk and Oksywie cultures which yielded Knotenringe exclusively contain rings of Type IA.45 These burials are dated to phase A2 of the pre-Roman period, which roughly

28. See also Dębiew, Karwowski 2014.
29. Čižmař, Kolníková 2006, 267, 279.
30. Čižmař 2002, 205–206. It should be noted that the great concentration of Knotenringe observed in Moravia is largely owed to the use of metal-detectors.
33. Štejna 2000, 4, Fig. 11/17.
34. Schäfer 2010, 67–68, Fig. 46/2517.
35. Čižmař, Saláš 2009, Fig. 7/10–11.
38. Balke 1999, 75–76, Fig. 10.
42. Božič 1987, 876–78, Fig. 46/10, Pl. LXXXVIII/8. – See also Božič 1993, 192–193, Fig. 3. – Božič 2008, 50–54, Fig. 25/10–13.
44. Glodariu 1984, 67–69, Fig. 6.
corresponds to LT D1 or possibly the end of LT C2.\textsuperscript{46} However, let us note that Type IA rings are also known from burials of LT D2 date.\textsuperscript{47} Knotenringe of Type IA and IB have also been found in burials of the Mokronog group, dated to LT D1.\textsuperscript{48}

It is still quite uncertain what function our Knotenringe fulfilled. Among the “creative forces” behind the artefacts of the La Tène culture there was a predilection for various objects of personal adornment in the form of rings. Grave goods such as various small rings, armlets and bracelets, and the characteristic neck rings (torques) formed a substantial element of the panoply right from the beginning of the La Tène culture, with clearly visible links to Hallstatt traditions. But the typical Knotenringe appear late in the La Tène cultural repertoire, i.e. only in its developed stage or oppida period. Yet stylistically they are linked to items of personal adornment current in the Middle La Tène period decorated with rows of small nodules or in the so-called pseudo-filigree technique.\textsuperscript{49}

The shape and size of the Knotenringe suggests that they may have been pendants or finger rings. They may also have served as linking elements, for example on belts, or formed part of horse gear.\textsuperscript{50} Traces of use give some indications as to what the Knotenringe were used for. There are indeed clear traces of use-wear on one side of the rings, or defects such as missing knots or damage to parts of knots. These traces are the result of substantial tension from tying (see for example Nos. 9, 14, 88, 107, 109–111). In many cases such damage could have been the result of faults in the production of the rings.

A symbolic or religious function, for example as amulets, cannot be excluded. Indeed functional and symbolic uses need not be mutually exclusive. The unique gold Knotenring of Type IIB from Petronell-Carnuntum in Lower Austria (No. 121; Fig. 12) may have had an especially significant symbolic meaning. In this context, let us note that in the zone of Boian coinage, which is largely based on gold, gold artefacts that are not coins are very rare.\textsuperscript{51}

Some insight into the function of Knotenringe may be gained from burial assemblages. However, such assemblages are practically non-existent in the Boian coinage zone, and we need to examine those of neighbouring regions: the region of the Mokronog group in Slovenia, associated with the area occupied by the Celtic Taurisci, and the Przeworsk and Oksywie culture groups in Poland, which are linked to eastern Germanic tribes. In several instances the Knotenringe found in burials belong to multi-part necklaces that include glass and amber beads, as is the case in Slovenia\textsuperscript{52} and northern Poland.\textsuperscript{53} Parallels for these rings, used as decorative elements in a necklace, are also known among several burials of the Roman period.\textsuperscript{54}

Some Knotenringe have small loops for hanging them on strings, cords or small chains. Only two examples in the collection under study possess such a loop: a Type IIB ring from the hilltop settlement in Thunau am Kamp in Lower Austria (No. 136) and a Knotenring in the “undefined” category from the settlement of Kúty in western Slovakia (No. 157).

Some scholars have suggested that Knotenringe could have acted as the equivalent of a currency.\textsuperscript{55} Such suggestions appear not to be founded on solid archaeological or numismatic data. There are no Knotenringe in any of the well-known hoards of Celtic coins; they are however known from a series of treasures and hoards which contained items of personal adornment and jewellery. In the Boian coinage zone the hoard of Ptení in Moravia is the best known: it had ten Knotenringe of types IA (No. 26), IB (Nos. 46–48), IIA (Nos. 80–83) and IIC (Nos. 149 and 150) associated with two rings bearing animal ornament, two circular pendants with human figures inside the ring, two further pendants in the shape of a shoe and a basket and a series of glass and amber beads.\textsuperscript{56} Two similar deposits were found in western Slovakia. The first is a very rich hoard of over 60 different objects made of iron, glass and bronze, including nine Knotenringe of Type IA (Nos. 22–25), IIA (No. 78), IIB (No. 122) and IIC (Nos. 145–147), discovered on the oppidum of Pohanská in Plavecké Podhradie.\textsuperscript{57} The second is the hoard of Križovany nad Dudváhom,\textsuperscript{58} which contained a series of bronze objects, including three Knotenringe of Type IA (Nos. 12 and 13) and IIA (No. 74).

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\textsuperscript{46} Dąbrowska 1988, 62.
\textsuperscript{47} See for example Bokiniec 2005, 17–18, 144, Pls. XV and CLIX/1963.
\textsuperscript{49} See Pieta 2006, 139.
\textsuperscript{50} See for example Glodariu 1984, 70, Fig. 7. – Droberjar 1999, 97. – Pieta 2006, 139.
\textsuperscript{51} Militký, Karwowski 2013, 29–30.
\textsuperscript{52} E.g. Dular 1991, 88, Pl. 51/13–31.
\textsuperscript{53} E.g. Pietrzak 1987, 18–19, Pl. LXIV/42. – Wierzbicki 1991, 49–51, Fig. 3/3.
\textsuperscript{57} Pieta 2010, 338, Fig. F23.
\textsuperscript{58} Kraskovská 1943, 233–234, Pl. 1/19–26. – Pieta 2010, 338.
Knotenringe have also been found in hoards outside the zone of Boian coinage. In particular the hoard from the La Tène hilltop settlement of Schwarzenbach in southern Lower Austria is worth noting: it contained a dozen deliberately destroyed Knotenringe.59 The decoration on two of these indicates that they belong to the Staré Hradiško variant.60 The assemblage also contained prestigious bronze bracelets, among which one decorated with the figure of a ram, as well as other smaller bronze objects.61 Objects of personal adornment, including glass beads, were found together with Knotenringe in the hoard of Szárazd-Regöly62 in Transdanubia.

Finds, including Knotenringe, made in watery places constitute a further context worthy of note. A ring of Type IA from Krásný Les (No. 11) in northern Bohemia was found together with other objects in a spring close to the Naklěrov Pass in the Ore Mountains.63 The site lies on a trade route, which suggests a connexion with supra-regional exchange. Two further Knotenringe were found in rivers in Bohemia: a Type IB ring from the river Malše in České Budějovice (No. 42) and a Type IIA ring from the Elbe in Litoměřice (No. 75). Outside the Boian coinage zone, a Knotenring was recovered from a river in Gruča in Slovenia.64 Similar finds from watery contexts are also known in the western La Tène culture. There the assemblages include bronze rings with animal ornamentation, which stylistically resemble the typical Knotenringe.65 The sites are always located on important routes of communication and their contexts suggest votive (sacrificial) deposition.

List of Finds

Knotenringe of Type IA

Bad Deutsch-Altenburg (District of Bruck an der Leitha, Lower Austria)
1. Fig. 2/1 (Grünewald 1980, 398, Fig. 371).

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59. Urban 1998, 803–804, Fig. 2/3–6, 8–18 and Fig. 4.
60. Urban 1998, Fig. 2/6, 13.
64. Božič 1993, 190.
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Fig. 17. Knotenringe of various types from the hilltop settlement on the Oberleiserberg in Lower Austria (the finds numbers correspond to those of the finds list) (Archive of M. Karwowski).

Bernhardsthal (District of Mistelbach, Lower Austria)

2. Fig. 2/2 (Allerbaier, Jedlička 2001, 614, Fig. 533).

Drösing (District of Gänserndorf, Lower Austria)

3. Fig. 2/3 (Jedlička 1995, 535, Fig. 507).
4. Fig. 2/4 (Jedlička 1997, 462, Fig. 378).
5. Fig. 2/5 (Turetschek 1984, 267, Fig. 368).

Hruška (District of Prostějov, Moravia)

6. Fig. 2/6 (Archive of M. Čízmář, Brno).

Klenovice na Hané (District of Prostějov, Moravia)

7. Fig. 2/7 (Archive of M. Čízmář, Brno).
8. Fig. 2/8 (Archive of M. Čízmář, Brno).
9. Fig. 2/9 (Archive of M. Čízmář, Brno).
10. Fig. 2/10 (Archive of M. Čízmář, Brno).
Krásný Les (District of Ústí nad Labem, Bohemia)
11. Fig. 2/11 (Čižmář 2008, 230, 233, Fig. 3/2).

Križovany nad Dudváhom (District of Trnava, Slovakia)
12. Fig. 16/12 (Kraskovská 1943, 234, Pl. I/22. – Filip 1956, 418–419, Pl. CIV/15. – Zachar 1987, 152, Fig. 197).
13. Fig. 16/13 (Kraskovská 1943, 234, Pl. I/21. – Filip 1956, 418–419, Pl. CIV/11. – Zachar 1987, 152, Fig. 197).

Měrovice nad Hanou (District of Přerov, Moravia)
14. Fig. 3/14 (Archive of M. Čižmář, Brno).

Němčice nad Hanou (District of Prostějov, Moravia)
15. Fig. 3/15 (Čižmář, Kolníková 2006, 264, Fig. 2/13. – Čižmář, Kolníková, Noeske 2008, 660, Fig. 3/13).

Oberleiserberg (District of Korneuburg, Lower Austria)
16. Fig. 3/16 and 17/16 (Archive of M. Karwowski, Vienna).
17. Fig. 3/17 and 17/17 (Archive of M. Karwowski, Vienna).
18. Fig. 17/18 (Mitscha-Märheim, Nischer-Falkenhof 1929, 400, Pl. VI/3. – Archive of M. Karwowski, Vienna).

Plavecké Podhradie-Pohanská (District of Malacky, Slovakia)
19. Fig. 17/19 (Mitscha-Märheim, Nischer-Falkenhof 1929, 400–401, Pl. VI/16. – Archive of M. Karwowski, Vienna).

Ptení (District of Prostějov, Moravia)
20. Fig. 3/26 (Čižmář 2002, 203, Fig. 3/4).

Purkersdorf (District of Wien-Umgebung, Lower Austria)
21. Fig. 3/27 (Adler, Nowak 1988, 244, Fig. 571).

Sankt Pölten (St. Pölten, Lower Austria)
22. Fig. 18/28 (Humer 2006, 45, Fig. 49).

Slezemice nad Loučnou (District of Pardubice, Bohemia)
23. Fig. 3/29 (Mangel, Jílek 2012, 84, Fig. 2/9).
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Fig. 19. Knotenringe of various types from the oppidum of Stradonice in Bohemia (the finds numbers correspond to those of the finds list) (after Pič 1903. – Filip 1956).

Staré Hradisko (District of Prostějov, Moravia)

30. Fig. 4/30 (Dębiec, Karwowski 2014, No. 1. – Archive of M. Čižmár, Brno).
31. Fig. 4/31 (Meduna 1970a, 139, Pl. 8/1. – Dębiec, Karwowski 2014, No. 2).
32. Fig. 4/32 (Dębiec, Karwowski 2014, No. 3. – Archive of M. Čižmár, Brno).
33. Fig. 4/33 (Meduna 1961, 7, Pl. 10/19. – Dębiec, Karwowski 2014, No. 4).

Stradonice (District of Beroun, Bohemia)

34. Fig. 4/34 (Dębiec, Karwowski 2014, No. 5. – Archive of M. Čižmár, Brno).
35. Fig. 4/35 (Dębiec, Karwowski 2014, No. 6. – Archive of M. Čižmár, Brno).
36. Fig. 19/36 (Pič 1903, Pl. XI/14).
37. Fig. 19/37 (Pič 1903, Pl. XI/17).
38. Not illustrated (Pič 1903, Pl. XI/2).
Knotenringe of Type IB

České Budějovice (České Budějovice, Bohemia)
42. Not illustrated (Waldhauser 2001, 182, figure on p. 182).

Hrubčice (District of Prostějov, Moravia)
43. Fig. 5/43 (Archive of M. Čížmář, Brno).

Klapý-Hazmburk (District of Litoměřice, Bohemia)
44. Fig. 20/44 (Filip 1956, 352, Pl. XXVIII/2. – Archive of Regionální muzeum v Teplicích).

Plavecké Podhradie-Pohanská (District of Malacky, Slovakia)
45. Fig. 5/45 (Paulík 1976, 174, Fig. 44/1. – Zachar 1977, 38, Fig. 1/6).

Ptení (District of Prostějov, Moravia)
46. Not illustrated (Schulz 1891, 878–879, Fig. 4/No. 4. – Čížmár 2002, 200, Fig. 2/1).
47. Not illustrated (Schulz 1891, 880, Fig. 4c. – Čížmár 2002, 200, Fig. 2/3).
48. Fig. 5/48 (Čížmár 2002, 203, Fig. 3/7).

Staré Hradisko (District of Prostějov, Moravia)
49. Fig. 5/49 (Lipka, Snětina 1912, 88, Pl. IV/10. – Meduna 1961, 7, Pl. 10/18. – Dębiec, Karwowski 2014, No. 7).
50. Fig. 5/50 (Lipka, Snětina 1912, 88, Pl. IV/12. – Meduna 1961, 7, Pl. 1/13. – Dębiec, Karwowski 2014, No. 8).
51. Fig. 5/51 (Meduna 1961, 7. – Dębiec, Karwowski 2014, No. 9. – Archive of M. Čížmář, Brno).

Stradonice (District of Beroun, Bohemia)
52. Fig. 19/52 (Filip 1956, Pl. CXXVII/32. – Waldhauser 2001, 103, figure on p. 103).
53. Not illustrated (Píc 1903, Pl. XI/8).
54. Not illustrated (Píc 1903, Pl. XI/18).
55. Not illustrated (Píc 1903, Pl. XI/3).

Svárov (District of Kladno, Bohemia)
56. Not illustrated (Schulz 1891, 878, Fig. 3).

Výrava (District of Hradec Králové, Bohemia)
57. Fig. 5/57 (Mangel, Jílek 2012, 84, Fig. 2/5).

Ždánice (District of Hodonin, Moravia)
58. Fig. 5/58 (Čížmárůvá 2004, 350, figure on p. 351).

Fig. 20. Knotenringe of various types from Bohemian sites: from the oppida of Třísov (Nos. 40, 41 and 137) and Hrazany (No. 101) and the hillfort of Hazmburk in Klapý (No. 44) (the finds numbers correspond to those of the finds list) (after Jansová 1965. – Archive of J. Militký and Regionální muzeum v Teplicích).
Knotenringe of Type IC

Dyjákovice (District of Znojmo, Moravia)
59. Fig. 6/59 (Jílek, Mangol 2009, 307, Fig. 2/4).

Klenovice na Hané (District of Prostějov, Moravia)
60. Fig. 6/60 (Archive of M. Čížmář, Brno).

Oberleiserberg (District of Korneuburg, Lower Austria)
61. Fig. 6/61 (Karwowski 2009, 119, Fig. 6. – Archive of M. Karwowski, Vienna).

Staré Hradisko (District of Prostějov, Moravia)
62. Fig. 6/62 (Meduna 1961, 7, 8, Pl. 10/14, 16. – Děbiec, Karwowski 2014, No. 10)

Stradonice (District of Beroun, Bohemia)
63. Fig. 19/63 (Pič 1903, Pl. XI/4).
64. Not illustrated (Pič 1903, Pl. XI/1).

Knotenringe of Type IIA

Bedihošť (District of Prostějov, Moravia)
65. Fig. 7/65 (Archive of M. Čížmář, Brno).

Bratislava-Devín (District of Bratislava IV, Slovakia)
66. Fig. 7/66 (Pieta, Zachar 1993, 197, Fig. 115/15. – Pieta 1996, Fig. 3/2. – Humar 2006, 17, Fig. 6/50).
67. Fig. 7/67 (Pieta, Zachar 1993, 197, Fig. 115/14. – Humar 2006, 18, Fig. 6/51).

Enzersfeld im Weinviertel (District of Korneuburg, Lower Austria)
68. Fig. 7/68 (Karl, Karl 1997, 497, Fig. 539).

Hrubice (District of Prostějov, Moravia)
69. Fig. 7/69 (Archive of M. Čížmář, Brno).

Hrušky (District of Břeclav, Moravia)
70. Fig. 7/70 (Archive of M. Čížmář, Brno).

Ivaň (District of Prostějov, Moravia)
71. Fig. 7/71 (Archive of M. Čížmář, Brno).

Klenovice na Hané (District of Prostějov, Moravia)
72. Fig. 7/72 (Archive of M. Čížmář, Brno).
73. Fig. 7/73 (Archive of M. Čížmář, Brno).

Križovany nad Dudváhom (District of Trnava, Slovakia)

Litoměřice (District of Litoměřice, Bohemia)
75. Not illustrated (Zápotocký 1969, 310, Fig. 20/4. – Waldhäuser 2001, 311, figure on p. 311).

Němčice nad Hanou (District of Prostějov, Moravia)
76. Fig. 7/76 (Archive of M. Čížmář, Brno).

Oberleiserberg (District of Korneuburg, Lower Austria)
77. Fig. 17/77 (Mitscha-Märheim, Nischer-Falkenhof 1929, 400, Pl. VI/2. – Archive of M. Karwowski, Vienna).

Plavecká Podhradie-Pohanská (District of Malacky, Slovakia)
78. Not illustrated (Pieta 2010, 338, Fig. F23/2).

Polkowice (District of Přerov, Moravia)
79. Fig. 7/79 (Čížmář et al. 2008, Fig. 4/20).

Ptien (District of Prostějov, Moravia)
80. Fig. 7/80 (Meduna 1996, 102, Fig. 2/3. – Čížmář 2002, 202, Fig. 3/6).
81. Fig. 7/81 (Čížmář 2002, 203, Fig. 3/5).
82. Not illustrated (Schulz 1891, 880, Fig. 4b. – Čížmář 2002, 200, Fig. 2/4).
83. Fig. 7/83 (Červinka 1914, Fig. 7/2. – Meduna 1996, 102, Fig. 2/6. – Čížmář 2002, 202, Fig. 3/8).
84. Fig. 8/84 (Archive of M. Čížmář, Brno).

Purgstall an der Erlauf (District of Scheibbs, Lower Austria)
85. Fig. 8/85 (Rausch 1992, 304, Fig. 987).

Staré Hradisko (District of Prostějov, Moravia)
86. Fig. 8/86 (Děgiec, Karwowski 2014, No. 11. – Archive of M. Čížmář, Brno).
87. Fig. 8/87 (Čížmář 1985, Fig. 29/10. – Děgiec, Karwowski 2014, No. 12).
88. Fig. 8/88 (Děgiec, Karwowski 2014, No. 13. – Archive of M. Čížmář, Brno).
89. Fig. 8/89 (Děgiec, Karwowski 2014, No. 14. – Archive of M. Čížmář, Brno).
90. Fig. 8/90 (Lipka, Šnětina 1912, 88, Pl. IV/1. – Děgiec, Karwowski 2014, No. 15. – Archive of M. Čížmář, Brno).

Thunau am Kamp (District of Horn, Lower Austria)
91. Fig. 8/91 and 18/91 (Archive of M. Karwowski, Vienna).
Knotenringe of Type IIB

Bernhardsthal (District of Mistelbach, Lower Austria)  
92. Fig. 9/92 (Adler 1995, 557, Fig. 640).
93. Fig. 9/93 (Adler 1995, 554, Fig. 606).

Bratislava-Rusovce (District of Bratislava V, Slovakia)  
94. Fig. 9/94 (Bazovský 2002, 30, Pl. VI/10).

Brno-Obřany (Brno-Maloměřice a Obřany, Moravia)  
95. Fig. 9/95 (Archive of M. Čížmář, Brno).
96. Fig. 9/96 (Archive of M. Čížmář, Brno).
97. Fig. 9/97 (Archive of M. Čížmář, Brno).

Divišov (District of Brno, Moravia)  
98. Fig. 9/98 (Čížmář et al. 2009, 145, Fig. 7/11).

Dolní Němčí (District of Uherské Hradiště, Moravia)  
99. Fig. 9/99 (Urban 1995, 157, Fig. 106/716. – Humer 2006, 33, Fig. 28/114).

Enzersfeld im Weinviertel (District of Korneuburg, Lower Austria)  
100. Fig. 9/100 (Karl, Karl 1997, 497, Fig. 7/11).

Hainburg an der Donau-Braunsberg (District of Bruck an der Leitha, Lower Austria)  
101. Fig. 9/101 (Adler 1995, 557, Fig. 640).
102. Fig. 9/102 (Archive of M. Čížmář, Brno).
103. Fig. 9/103 (Archive of M. Čížmář, Brno).
104. Fig. 9/104 (Archive of M. Čížmář, Brno).

Hrubčice (District of Prostějov, Moravia)  
105. Fig. 10/105 (Archive of M. Čížmář, Brno).

Hrubačice (District of Prostějov, Moravia)  
106. Fig. 10/106 (Archive of M. Čížmář, Brno).

Mutěnice (District of Hodonín, Moravia)  
107. Fig. 10/107 (Archive of M. Čížmář, Brno).
108. Fig. 10/108 (Archive of M. Čížmář, Brno).
109. Fig. 10/109 (Archive of M. Čížmář, Brno).
110. Fig. 10/110 (Archive of M. Čížmář, Brno).
111. Fig. 10/111 (Archive of M. Čížmář, Brno).
112. Fig. 10/112 (Archive of M. Čížmář, Brno).

Němčice nad Hanou (District of Prostějov, Moravia)  
113. Fig. 10/113 (Archive of M. Čížmář, Brno).
114. Fig. 10/114 (Čížmář, Kolníková 2006, 264, Fig. 2/14. – Čížmář, Kolníková, Noeske 2008, 660 Fig. 3/14. – Archive of M. Čížmář, Brno).
115. Fig. 10/115 (Archive of M. Čížmář, Brno).
116. Fig. 10/116 (Archive of M. Čížmář, Brno).
117. Fig. 10/117 (Archive of M. Čížmář, Brno).

Oberleiserberg (District of Korneuburg, Lower Austria)  
118. Fig. 10/118 and 17/118 (Archive of M. Karwowski, Vienna).
119. Fig. 10/119 and 17/119 (Archive of M. Karwowski, Vienna).

Oberweiden (District of Gänserndorf, Lower Austria)  
120. Fig. 10/120 and 18/120 (Archive of M. Karwowski, Vienna).

Polkovice (District of Přerov, Moravia)  
121. Fig. 10/121 (Archive of M. Čížmář, Brno).

Pravice (District of Znojmo, Moravia)  
122. Fig. 10/122 (Archive of M. Čížmář, Brno).

Podivín (District of Přerov, Moravia)  
123. Fig. 11/123 (Archive of M. Čížmář, Brno).

Polavské Podhradie-Pohanská (District of Malacky, Slovakia)  
124. Not illustrated (Pieta 2010, 338, Fig. F23/2).

Podivín (District of Přerov, Moravia)  
125. Fig. 11/125 (Archive of M. Čížmář, Brno).

Sankt Pölten (St. Pölten, Lower Austria)  
126. Fig. 11/126 (Humer 2006, 45, Fig. 50).

Sommerau (District of Bruck an der Leitha, Lower Austria)  
127. Fig. 11/127 (Schützbie 1988, 267, Fig. 393).

Staré Hradisko (District of Prostějov, Moravia)  
128. Fig. 11/128 (Dębiec, Karwowski 2014, No. 16. – Archive of M. Čížmář, Brno).
129. Fig. 11/129 (Dębiec, Karwowski 2014, No. 17. – Archive of M. Čížmář, Brno).
130. Fig. 11/130 (Skutil 1947, 113, Fig. 62. – Meduna 1970a, 12. – Dębiec, Karwowski 2014, No. 18. – Archive of M. Čížmář, Brno).
131. Fig. 11/131 (Meduna 1965, Pl. 12/16. – Meduna 1970b, Fig. 7/1. – Dębiec, Karwowski 2014, No. 19).
132. Fig. 11/132 (Dębiec, Karwowski 2014, No. 20. – Archive of M. Čižmář, Brno).

Stradonice (District of Beroun, Bohemia)
133. Fig. 19/133 (Píč 1903, Pl. XI/19).
134. Fig. 19/134 (Píč 1903, Pl. XI/21).
135. Fig. 19/135 (Píč 1903, Pl. XI/22).

Thunau am Kamp (District of Horn, Lower Austria)
136. Fig. 11/136 and 18/136 (Karwowski 2006, 49, Figs. 25/1794 and 26/1794. – Archive of M. Karwowski, Vienna).

Třísov (District of Český Krumlov, Bohemia)
137. Fig. 20/137 (Archive J. Militký, Prague).

Knotenringe of Type IIC
Břeclav (Břeclav, Moravia)
138. Fig. 13/138 (Archive of M. Čižmář, Brno).

Gajary (District of Malacky, Slovakia)
139. Fig. 16/139 (Eisner 1933, 177, Pl. LIX/9. – Filip 1956, 415, Pl. CIV/18. – Zachar 1977, 38, Fig. 3/3).

Hrubčice (District of Prostějov, Moravia)
140. Fig. 13/140 (Archive of M. Čižmář, Brno).

Hrušky (District of Břeclav, Moravia)
141. Fig. 13/141 (Archive of M. Čižmář, Brno).

Němčice nad Hanou (District of Prostějov, Moravia)
142. Fig. 13/142 (Archive of M. Čižmář, Brno).
143. Fig. 13/143 (Archive of M. Čižmář, Brno).

Oberleiserberg (District of Korneuburg, Lower Austria)
144. Fig. 13/144 and 17/144 (Karwowski 2009, 119, Fig. 6. – Archive of M. Karwowski, Vienna).

Plavecké Podhradie-Pohanská (District of Malacky, Slovakia)
145. Fig. 15/145 (Pieta 2010, 338, Fig. F23/1 and 2).
146. Fig. 15/146 (Pieta 2010, 338, Fig. F23/1 and 2).
147. Not illustrated (Pieta 2010, 338, Fig. F23/2).

Polkowice (District of Přerov, Moravia)
148. Fig. 13/148 (Archive of M. Čižmář, Brno).

Ptěn (District of Prostějov, Moravia)
149. Fig. 13/149 (Červinka 1914, Fig. 7/1. – Meduna 1996, 102, Fig. 2/5. – Čižmář 2002, 202, Fig. 3/3).

Staré Hradisko (District of Prostějov, Moravia)
150. Fig. 13/150 (Schulz 1891, 880, Fig. 4d. – Meduna 1996, 100, Fig. 2/4. – Čižmář 2002, 202, Fig. 3/2).

Typologically undefined Knotenringe
Čejí (District of Hodonin, Moravia)
154. Fig. 14/154 (Archive of M. Čižmář, Brno).
155. Fig. 14/155 (Archive of M. Čižmář, Brno).

Jakuszowice (Kazimierza County, Lesser Poland)
156. Not illustrated (Karwowski 1997, 53).

Kúty (District of Senica, Slovakia)
157. Fig. 14/157 and 16/157 (Zachar 1976, 45, Fig. 15/1 and 16/1. – Zachar 1977, 38, Fig. 1/1. – Zachar 1987, 152, Fig. 197).

Medlovice (District of Vyškov, Moravia)
158. Fig. 14/158 (Archive of M. Čižmář, Brno).

Němčice nad Hanou (District of Prostějov, Moravia)
159. Fig. 14/159 (Archive of M. Čižmář, Brno).
160. Fig. 14/160 (Archive of M. Čižmář, Brno).

Reinthal (District of Mistelbach, Lower Austria)
161. Fig. 14/161 (Jedlička 1998, 812, Fig. 521).

Staré Hradisko (District of Prostějov, Moravia)
162. Fig. 14/162 (Lipka, Snětina 1912, 88, Pl. IV/15. – Meduna 1961, 7, Pl. 10/12. – Dębiec, Karwowski 2014, No. 23).
163. Fig. 14/163 (Dębiec, Karwowski 2014, No. 24. – Archive of M. Čižmář, Brno).
164. Fig. 14/164 (Meduna 1961, 6. – Dębiec, Karwowski 2014, No. 25. – Archive of M. Čižmář, Brno).

Závist (District of Praha-západ, Bohemia)
165. Fig. 14/165 (Motyková, Drda, Rybová 1990, 348, Fig. 38/4).
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Mgr Monika Dębiec
Zaczernie 1004S/1
36-062 Zaczernie
Poland
monikaorszak@gmail.com

Dr. Maciej Karwowski
Institut für Urgeschichte und Historische Archäologie
Universität Wien
Franz Klein-Gasse 1
1190 Vienna
Austria
maciej.karwowski@univie.ac.at
The Pottery with Thickened Club Rim at the End of the Late La Tène Period in the Middle Danube Region (Mineralogical and Petrographic Characteristics)

Radoslav Čambal, Miloš Gregor, Igor Bazovský, Gertrúda Březinová, Branislav Kovár, Maciej Karwowski

Abstract: Pottery with thickened club rim is a typical vessel form of the last phase of the La Tène period at the oppidum of Bratislava and in its hinterland. This type of vessel is also found outside the region, in Styria and Lower Austria (e.g. Oberleiserberg), which points to possible geopolitical connections.

Keywords: La Tène culture, Middle Danube area, ceramics, petrographic analysis.


Schlüsselwörter: Latènekultur, mittlerer Donauraum, Keramik, petrografische Analyse.

The latest phase of the Late La Tène period in the area of present-day southwestern Slovakia has so far remained quite obscure. The so-called Celto-Dacian occupation is assumed to have taken place in the region, following the defeat of the Boii (?). The inhabitants of what is now southwestern Slovakia were the descendants of the indigenous Celtic population but probably also of the Dacians (?) who had remained there in the wake of the expansion and wars of the second half of the 1st century BC under King Burebista. Unfortunately there are no finds from this period and horizon recorded at the oppidum of Bratislava or from its vicinity, or rather: we are not in a position to identify them. The only evidence consists of hand-made “Dacian pottery”. This raises the question whether the Dacian invasion in the region of the oppidum of Bratislava under Burebista was more than a purely military operation. It may indeed represent the demise of the military and political power of the Boii and their allies, the Taurisci, in the Middle Danube region.

Judging by the current state of research, and especially because there are hardly any traces of their presence in the archaeological record, it seems unlikely that the Dacians remained for more than a short time in the area of present-day Bratislava. After Burebista’s death the continued presence of the Dacians – possibly under pressure from the neighbouring Norici – probably became untenable.

Dacian pottery, which appears rarely in archaeological contexts in Bratislava, need not necessarily be linked to the military invasion. Instead, it could have been imported. Dacian ceramics have, as is known, a certain formal and chronological uniformity. Finds of Dacian attribution are better represented in southwestern Slovakia, especially in the valleys of the rivers Hron, Ipeľ and Nitra and around the city of Nitra. The most important site of this chronological horizon is located in Šurany, locality of Nitriansky Hrádok-Zámeček, district of Nové Zámky. The pottery found there is however very mixed, and it is impossible to ascribe it to either the material culture of the Dacians or the Celts.

A specific and characteristic form of vessel (Fig. 1) emerges in the last phase of the Late La Tène period in southwestern Slovakia and in its centre, Bratislava and surrounding areas. These are pots with so-called club rims, the rims being thickened, straight or chamfered, or triangular in section, decorated with comb impressions applied regularly, irregularly or in a metope motif.

1. This contribution is a continuation of the study published by Čambal et al. 2014. – Gertrúda Březinová’s participation is the result of her involvement in the project VEGA No. 02/0032/15.


The pottery – in Slovak “hrniec s kyjovito zosilneným okrajom” (pots with club-shaped rim)\(^4\) – was defined by L. Zachar on the basis of the finds from Bratislava.\(^5\) It has often been assumed in the specialist literature that this type of pottery was hand-made, without using a potter’s wheel. In fact relatively large quantities of such vessels are wheel-turned or have been finished on a potter’s wheel, or the rim was wheel-turned and applied later to the body of the vessel. The pots are quite small, with a rim between 15 and 25 cm in diameter. Up to recently this interesting type of pottery was known from the hinterland of the oppidum of Bratislava only. It is dated to the end of the Late La Tène occupation of this settlement.

Pottery with thickened club rim was recovered from the area of Bratislava Castle (Fig. 2/1–5),\(^6\) in the former Vydrica Lane along the Danube below the castle defences (Fig. 2/9–11),\(^7\) in today’s Námestie Slobody (Freedom Square) (Fig. 2/6–8),\(^8\) and on Site 1 in Uliča Mudroňova, some 200 m west of the castle. The latter also yielded fragments of clay trays for casting small Celtic silver coins.

\(^4\) The rim can be thickened, straight or chamfered.
\(^5\) Zachar 1981, 41.

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of the Karlstein type, a fragment of an iron fibula with spoon-shaped bow, and part of a so-called astragal belt. Further sherds of pottery of the same type have been found in various locations in the old town of Bratislava.

Similar vessels have been recorded in the vicinity and surroundings of the oppidum (up to 25 km from the centre of Bratislava), for example in Senec-Svätý Martin, feature 3/78 (Fig. 3/1–8), in Blatné (Fig. 3/9, 10), in Bernolákovo (Fig. 3/11) and in Bratislava-Vajnory (Fig. 3/12). To the south of the Danube in present-day Bratislava, which historically belonged to Pannonia, pottery of this type was recovered in Bratislava-Rusovce “za parkom kaštěl” (behind the castle park) (Fig. 4/1, 2, 5, 6), in Ilýrska ulica (Fig. 4/3, 4) and at a location named “Lanoviska” (Fig. 4/10–15). A further fragment comes from Bratislava-Jarovce (Fig. 4/16).

Nitra has yielded similar pottery but there the shape of the vessels is quite different from that discovered in Bratislava. Only one rim sherd from the castle defences (Nitriansky hrad) can be attributed to the Bratislava type (Fig. 3/13). All the sites mentioned in Bratislava and surroundings, as well as Nitra, are dated to the Late La Tène phase LT D2 on the basis of the club-rimmed pottery found there (Fig. 1).

A comparison with pottery with thickened, straight or chamfered club rims from Austria and Slovenia – particularly from the eastern Alpine zone, especially Styria – is of particular interest (Figs. 5–6). There the sites that have yielded similar vessel types are concentrated in a relatively small area. Some 30 such sites have so far been recorded in Styria, in a region that was occupied by the Taurisci and Norici. So far the assemblages from Södingberg near Vienna (Vienna-Wien-Aspern) and the Oberleiserberg (Fig. 3/14–19) a few examples have been recovered on the Magdalensberg. But they are completely absent from the fortified sites of the Middle Danube valley, such as the Braunschlag near Hainburg, the Leopoldsberg, Schwarzenbach, Thunau am Kamp, Velem Szentvid, or Budapest Gelérthegy-Tabán. They are also missing from the assemblages from the fortified sites of Kulm bei Weiz, Poštela and Melški Hrib near Maribor in the southeastern Alpine region.

The club-rimmed pottery is associated with “Dacian pottery” in the area of Bratislava. But since there are no similar forms in the actual “Dacian” pottery, there is no proof that the latter originated in Dacia. It is therefore recommended that when analysing finds assemblages the possibility of geopolitical relationships be investigated. It is not unthinkable that the political and territorial expansion of the kingdom of the Norici in the last third of the 1st century BC had some repercussions. The expansion of the Norici took place after the demise of Boian power in the middle of the 1st century BC, brought about by the invasion of the Middle Danube valley by the Dacian king Burebista.

Our pottery type, together with cauldron-shaped tripod pots and the Békásmegyer type of bowl, is particularly characteristic of the LT D2 phase in the area.
The Pottery with Thickened Club Rim at the End of the Late La Tène Period in the Middle Danube Region


The questions relating to the origins of this type of pottery and the date and reasons for its beginnings

remain open. Could it be connected to changes in ethnic composition? It is not impossible that this form of vessel is directly linked to the Norici who had occupied the oppidum of Bratislava shortly before, i.e. after 44 BC, after the fall of the Boii and after the Dacians had left this part of present-day Slovakia. The presence of club-rimmed pottery on the edge of the oppidum’s hinterland south of the Little Carpathians may support this hypothesis. It would also support the interpretations of Austrian scholars, who attribute the presence in Styria of this type of pottery to a Norican ethnic group within a Tauriscan environment. The rest of the Boii later moved south of the Danube, where they established the *civitas Boiorum* between Lake Neusiedl and the Leitha River. The fortified circuit inside the later medieval castle of Devin survived even longer. It was even taken to be Carnuntum I, mentioned in AD 6 in connexion with the expedition of Tiberius against Maroboduus. How long the autochthonous Boii cohabited with the Norici in the vicinity of present-day Bratislava also remains an open question. It is assumed that this continued at least until the beginning of the Augustan Principate, although it is possible that it endured until the end of the century.

The remains of walls dated to the second half of the 1st century BC recently discovered in the area of Bratislava Castle may shed new light on these hypotheses. They too could be interpreted as evidence for the expansion of Noric power. It remains to be seen whether the architectural elements uncovered at Bratislava Castle can be interpreted as belonging to Carnuntum I. There is however another possible explanation. Rome may have lent political support to the Norici in the area of Bratislava because it was an important political and economic centre on the Amber Route. Ultimately there was still a relatively strong, originally Celtic, infrastructure in place in the LT D2 phase (after the death of Burebista in 44 BC or shortly afterwards).

**Mineralogical and Petrographic Characteristics of the Pottery with Thickened, Straight or Chamfered Club-shaped Rim**

**Analytical methods**

Thirty-three samples were selected from vessels with thickened, straight or chamfered club-shaped rim, from which petrographic slides were prepared. The section was oriented vertically on the sherd so that not only the body but also the rim was captured. The thin-sections were analysed in polarised light with an Amplival-Carl Zeiss Jena.

**Geological composition of selected sites**

**Bratislava**

Several sherds from a series of sites in the city of Bratislava were selected for analysis. They come from Bratislava Castle (BA-Burg), Mudroňová ulica, Vydra and Námesto Slobody. The region of Bratislava is geologically quite diverse but the sites are all more or less located in Staré Mesto (Old Town). Therefore we shall concentrate on the geological setting of this part of the town.

A large part of Staré Mesto lies on granitic rock of the Bratislava massif. The most common granitic rock types range from two-mica granite to granodiorite; biotite granodiorite and leucocratic granite are less frequent. The granitic rock is often cut with veins of coarse-grained pegmatite and fine-grained aplite. In many cases the granitic rock was affected by Alpine folding. Apart from granitic rock, smaller parts of amphibolitic diorites are found in Staré Mesto. The best outcrops of diorite are located in the area of Bratislava-Kalvarienberg and Hlboká cesta, while porphyric variants occur in the outcrop on Okániková ulica. The Quaternary sediments, which have a complex structure, constitute a significant component of the geology of Bratislava. They vary greatly in terms of distribution and surface spread, and may be of fluvial or deluvial origin. The fluvial accumulations of the Danube (lower Pliocene–Holocene) are dominant. These sediments are made of gravelly, sandy, silty or clayey sand deposits representing different facies of the Danube riverbed.

Deluvial sediments from the Pliocene to the Holocene are found mainly at the foot of the Little Carpathians, in greatly variable concentrations. These sediments consist of silty or sandy clays. Apart from deluvial fan or cone

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40. Urban 1999, Fig. 183/4. – Varsik 1999, 629.
42. Urban 1999, 229.
44. Zachar 1982, 45.
deposits, aeolian sediments have also been identified in the area of Bratislava, in particular in the area of Mlynská dolina. In this case the aeolian sediments consist of loess deposited on the river terraces of the Danube.49

**Rusovce, Jarovce**
The wider area around the urban districts of Rusovce and Jarovce consists entirely of Quaternary sediments, occurring mainly as fluvial deposits and smaller deposits of aeolian sediments (later Pleistocene–Holocene). The lithological composition of the fluvial sediments represents different facies of the Danube River, like the fluvial deposits of Bratislava-Staré Mesto. They consist mainly of gravel, sandy gravel, sand and silt, clayey, or sandy-silty deposits located in the floodplain.50 Aeolian sediments consist of sandy to clayey sediments, which were reworked by the wind.

**Senec and Bernolákovo**
The region between Senec and Bernolákovo is formed by Quaternary and Tertiary deposits from the Danube Basin. Quaternary (Pleistocene-Holocene) deposits consist of fluvial, deluvial and aeolian sediments. The Tertiary sediments are represented by the Neogene Beladice formation. Fluvial sediments are composed of gravel, medium- to fine-grained sand, silt and clay of the floodplain facies. Deluvial sediments are represented by layers of silt, which were reworked by small temporary streams – therefore some of these sediments can be described as fluvi-deluvial. They consist of clay, sandy silt or washed-out loess. Aeolian sediments are made up of calcareous loess or fine-grained sandy loess. The Miocene Beladice formation (Pannon-Pont) consists mainly of silt and sand.51

**Nitra**
The geological composition of the Nitra region is also very diverse. The town itself lies at the meeting point of the Danube Basin and the Tribeč Mountains. The infilling of the Danube Basin consists of monotonous Neogene sediments, whereas the Tribeč mountain range, which belongs to the core mountains, has a complicated geological composition. The crystalline rock of the Tribeč mountain range consists of two blocks separated by a Tertiary fault oriented northwest to southeast. The southern block, which is partly overlain by the town of Nitra, consists mainly of granodiorite to tonalite. A large part of Upper Mesozoic series is represented by the Lower Triassic Lúžna formation, which consists of quartz arenites. The Middle Triassic is represented by dolomitic calcareous rocks, separated from the Jurassic crinoids and black to grey limestone by a tectonic fault line.52

The geological composition of the Danube Basin in the nearest surrounding of Nitra is fairly monotonous from a lithological point of view. It consists primarily of Neogene sediments belonging to the Beladice and Volkovce formations. Pale grey to green-grey sandy-silty or clayey sediments are found in the Beladice formation. The Volkovce formation, which is found above the former, consists of coarse gravelly to sandy deposits. The sediments of this formation were primarily formed in a limnic environment.

Quaternary deluvial and fluvial sediments are found in a substantial part of the region, while aeolian sediments also occur sporadically. Deluvial sediments consist primarily of silty or sandy loams and clays which were transported over short distances. Fluvial sediments of the Holocene, generally silty or silty-loams or clays occur in the floodplain of the river Nitra. Aeolian loess deposits are rare in Nitra.53

**Oberleiserberg**
Geologically the nearest surroundings of the archaeological site on the Oberleiserberg in the parish of Klement in Lower Austria belong to the so-called “Waschberg zone” which stretches from southwest of Stockerau to the northeast towards the Pollau Mountains. The crest of the mountains in this zone separates the molasse from the flysch zone, forming the boundary between the Carpathians and the Alps. The Leiser Mountains where the Oberleiserberg is located belong to the so-called “Klippenzone” (cliff zone). The individual mountains in this zone consist mainly of Jurassic sedimentary rock.54

The oldest Jurassic sediments belong to the Klentnitz formation near Ernstbrunn, and consist of (organodetritic) limestone, which occurs on the Oberleiserberg itself. Locally there are also micrconate (sharply pointed) layers of the Upper Cretaceous formation, consisting of sand, sandstone and marl. Tertiary marine sediments occur mainly in the form of sand, sandstone, clay-stone and clay. These Tertiary sediments are found among the deposits of the original Danube (Ur-Donau), i.e. gravels, sand and clay. Today these sediments outcrop on the crest of individual rises, because erosion caused an inversion of the relief. Loess forms part of the Quaternary Pleistocene sediments, while various fluvial and deluvial

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(stony, clayey) sediments are the most recent, Holocene sediments.

Results

Mineralogical-petrographic composition of the pottery with thickened, straight or chamfered club rim

The 33 sherds of club-rimmed pottery selected from 10 sites (nine in Slovakia and one in Austria) were divided into four groups, each group containing sherds of similar mineralogical-petrographic composition. Group BA (Bratislava) contained sherds from Bratislava Castle, Mudroňova ulica, Vydrica and Námestie Slobody, as well as Jarovce and Rusovce. Group SC (Senec) had sherds from Senec and Bernolákovo, group NR (Nitra) sherds from Nitra and group OB (Oberleiserberg) sherds from the Oberleiserberg in Austria. With a few exceptions the pottery of all four sherd groups was made in an almost identical manner.

Bratislava group (BA, Fig. 7)
This group includes 20 sherds from the sites of Bratislava Castle, Mudroňova ulica, Vydrica, Námestie Slobody, Jarovce and Rusovce. All the analysed samples have an anisotropic optical character and, following the modified Wentworth scale, they can be divided into coarse grained (14 sherds) and semi-fine (6 sherds) pottery. The distribution of the temper (non-plastic inclusions) is clearly bimodal. The structure of the matrix is randomly or weakly oriented and weakly-oriented pores running parallel to the rim of the ceramic appear to be typical.


Tab. 1. Overview of the mineralogical and petrographic composition of the pottery of group BA (sites: Bratislava Castle, Mudroňova uteč, Vydrica, Námestie Slobody).

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Tab. 2. Overview of the mineralogical and petrographic composition of the pottery of group BA (sites: Rusovce and Jarovce).

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<td>–</td>
<td>–</td>
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<td>+</td>
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</table>
The mineralogical-petrographic composition of all the sherds, except for No. 7 from Námestie Slobody, is almost identical (Tab. 1). The petrographic composition of the latter sample revealed coarse grains of diorite, which occurs naturally at the sites of Hlboč cesta and Okánikova ulica. The same rock type was also used for constructing the stone-fronted earthen Celtic rampart of Bratislava uncovered in the archaeological excavations at Ventúrska ulica 7 and west of the Church of the Poor Clares. Further, sherds with microcline and perthitic feldspars are characteristic for the composition of this group of pottery (Tabs. 1 – 2). The feldspar is often strongly weathered. Among the accessory minerals, which generally occur in the shape of well-rounded grains, amphiboles with green pleochroism, zircons, garnet and epidote were identified. Rarely, grains of tourmaline and pyroxenes were also identified (Tabs. 1–2). The fragments of rock consist primarily of angular to rounded grains of granitic rocks and various kinds of sandstone (mainly coarse sandstone) and siltstone. Grains of well-rounded micritic limestone and radiolarite were also identified in rare cases.

**Senec group (SC, Fig. 8)**

The Senec group SC contains sherds from the sites of Bernolákovo and Senec. As in the previous group, the mineralogical-petrographic composition of the temper in the samples is identical. The optical character of the matrix is anisotropic, except for sample No. 27 (from Senec) which shows isotropic optical character. Samples No. 23 (Bernolákovo) and 27 (Senec), according to the modified Wentworth scale, belong to the semi-fine pottery and the rest of this group can be assigned to coarse grained pottery (Tab. 3). The distribution of non-plastic inclusions in both the semi-fine and coarse-grained pottery is bimodal.

---

The structure of the matrix is either chaotic to fluidal or oriented. The presence of fragments of minerals including microcline or fine-leaved muscovite is characteristic of the mineralogical-petrographic composition of the temper. The accessory minerals consist mainly of well-rounded grains of amphiboles, zircon, epidote and garnet (Tab. 3). The composition of fragments of rocks is quite poor, with only various kinds of sandstone, dominated by quartz arenite, an a few fragments of silicites (Tab. 3).

**Nitra group (NR, Fig. 9)**

This group contains four samples from the site of Nitra-Galéria. The optical character of the samples is anisotropic except for sample No. 6 which is isotropic (Tab. 4). The sherds belong to coarse-grained to semi-fine ceramics, following the modified Wentworth scale. The distribution of the temper is bimodal, like in the other groups, and the non-plastic inclusions themselves are generally sub-angular to angular, with exceptionally a few well-rounded grains. The mineralogical-petrographic composition of this group is characterised by the presence of alkali feldspar, plagioclase feldspar and biotite. The plagioclase feldspars are strongly affected by weathering. Transformation of biotite to chlorite is also clearly visible. Fragments of micritic calcite were identified in sample No. 30. Among the accessory minerals, perfectly rounded grains of amphiboles and rounded grains of titanite and epidote, more rarely of orthopyroxenes, were present (Tab. 4). Fragments of rock consist of grains of granitic rock and various types of sandstone. Fragments of phyllite and silicites are rarer.

**Oberleiserberg group (OB)**

This group contains samples that all come from the site of Oberleiserberg in Lower Austria. The optical character of the samples is anisotropic (samples Nos. 31 and 32) to isotropic (sample No. 30) (Tab. 4). All the sherds belong to coarse grained pottery according to the modified Wentworth scale. Similar to previous groups the distribution of non-plastic inclusions is bimodal. The mineralogical-petrographic analysis of all the sherds in this group reveals large fragments of muscovite (Tab. 4). The accessory minerals are represented by sillimanite and garnet (Tab. 4) and smaller amounts of orthopyroxenes and amphiboles with green pleochroism. The grains of these minerals are rounded to angular. Fragments of rock consist of well-rounded to subangular grains of micaceous schist and various kinds of sandstone.

---

### Tab. 3. Overview of the mineralogical and petrographic composition of the pottery of group SC (sites: Senec and Bernolákovo).

<table>
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<th>Sample</th>
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<td>Coarse</td>
<td>Coarse</td>
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<td>Semi-fine</td>
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Discussion
The club-rimmed sherds analysed show common characteristics, even though they had been divided into four groups. Each group contains sherds whose temper composition is the same. The sherds from a given site or group of sites (e.g. group BA with several sites in Bratislava including Jarovce and Rusovce) contain minerals or rock fragments that are almost identical to those found in the geological composition of these locations. The common attributes of the club-rimmed pottery from all the sites analysed are: optical character of the matrix, types of grains and bimodal distribution of non-plastic inclusions or structural characteristics of the matrix. Nearly all the sherds display anisotropic optical character; only some samples show isotropic optical character. The optical character of the matrix corresponds to clays with a predominance of illite,60 which means that all sherds were made from illitic clays. Based on the grain size, samples can be divided into coarse-grained and semi-fine pottery. The bimodal distribution of the non-plastic inclusions confirms that temper was added to the plastic ceramic paste during clay processing. The structure of the matrix ranges from chaotic through fluidal to weakly oriented.

Provenance of the raw materials

Bratislava group (BA)
This group contains sherds from various sites in Bratislava itself (Staré Mesto – Old Town) and its vicinity (Jarovce and Rusovce). The presence of microcline (alkali feldspar) and perthitic feldspar are common features in this group. The specific association of heavy minerals including amphiboles with green pleochroism, epidote, zircon, garnet and tourmaline are a further characteristic attribute. All mentioned minerals, with the exception of zircon, are well rounded. Typical rock fragments are granites,
The Pottery with Thickened Club Rim at the End of the Late La Tène Period in the Middle Danube Region

Granitic rocks and diorite come directly from the area of the Old Town, where they also occur as natural outcrops (e.g. on Bratislava’s castle hill, Okánikova ulica)\textsuperscript{61} or they can be found as debris in slope deposits. A further clear indication that local material was used is provided by the composition of heavy minerals which is almost identical to that of sandy or gravelly sand sediments of the Danube River. Besides these minerals, well-rounded grains of microline, micritic limestone and radiolarite also correspond to the petrographic composition typical of the Danube’s sandy sediments.\textsuperscript{62} The clay used, whose optical character corresponds to clay with predominant illite,\textsuperscript{63} was extracted either from the sedimentary deposits of the Danube or from clay-stone slope deposits. The presence of fine-leaved muscovite reflects the use of clayey river sediments. The presence of well-rounded and angular to subangular grains may correspond to the mixing of various types of plastic as well as non-plastic raw materials. The plastic material could therefore have come directly from the Danube’s sedimentary deposits and the temper, which was added on purpose, could have come from the slope deposits. In the case of the pottery from Jarovce and Rusovce, both the plastic and non-plastic materials probably derive directly from river deposits, as attested by well-rounded grains of minerals and rock.

Senec group (SC)

The mineralogical-petrographic composition of the sherds from Senec and Bernolákovo resembles that of group BA but the SC group contains far fewer rock fragments in its composition. The temper is characterised by the presence of well-rounded alkali feldspars (mostly microline) and heavy minerals – amphiboles with green pleochroism, epi-

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline
Sample & 1 & 16 & 29 & 30 & 31 & 32 & 33 \\
\hline
Group & NR & NR & NR & NR & OB & OB & OB \\
Matrix & Anisotropic & Isotropic & Anisotropic & Anisotropic & Isotropic & Anisotropic & Anisotropic \\
Structure & Chaotic & Chaotic to fluidal matrix & Chaotic & Chaotic & Fluidal & Chaotic & Chaotic \\
Granulometry & Coarse & Coarse & Semi-fine & Coarse & Coarse & Coarse & Coarse \\
Quartz & + & + & + & + & + & + \\
K-feldspars & Weathered & + & Weathered & + & + & + \\
Plagioclases & Weathered & + & Weathered & + & + & + \\
Muscovite & – & – & – & – & + & + \\
Biotite & + & + & + & + & – & – \\
Calcite & – & – & – & Micritic & – & – \\
Pyroxene & Orthopyroxenes & – & – & – & Orthopyroxenes & – & – \\
Amphibole & + & – & + & + & – & – & + \\
Sandstone & + & – & + & + & + & + & + \\
\hline
\end{tabular}
\caption{Overview of the mineralogical and petrographic composition of the pottery of groups NR (site: Nitra) and OB (site: Oberleiserberg).}
\end{table}
dotes, zircon, garnet and fewer pyroxenes (clinopyroxenes and orthopyroxenes). Rock fragments are rare, consisting of micritic limestone, granitic rock and various kinds of sandstone, among which quartz arenite is dominant. As in the previous group the optical character of the matrix corresponds to that of illitic clays. The composition of the matrix, together with fine-leaved muscovite, corresponds to that of river sediments, which are present in the floodplain facies in the vicinity of both sites. As in the previous group, both the plastic and non-plastic raw materials were obtained from the surrounding area of the two sites. Whereas the temper, which was added to the clay on purpose, originates from sand sediments, the plastic material was extracted from clayey deposits in the floodplain.

**Nitra group (NR)**

This group consists entirely of samples from the site of Nitra-Galéria. Their mineralogical composition is almost identical. They are characterised by the presence of weathered plagioclases, which in some spots are totally replaced with weathering products (sericitisation). The weathered plagioclases and the formation of chlorite from biotite are typical for the granodiorites to tonalites of the Tribeč Mountains, which occur in the region of Zobor. The minerals titanite and epidote as well as granite rocks are also typical (Tab. 4). The identified orthopyroxenes are also a characteristic of the composition of the La Tène pottery from Nitra. Besides granitic rocks, the presence of quartz arenite characterises all samples from the Nitra (NR) group. The distribution of the temper is bimodal, i.e. the non-plastic inclusions were added to the clay paste on purpose and all fractions of the temper are angular to subangular. It is possible that the weathering products of quartz arenite and granitic rocks were used for making the pottery. Such weathering materials usually were transported only over short distances, which is why they preserved their angular and subangular shapes. The source of the raw materials is located exactly on the line of contact between the uplands and the Danube lowlands. Even today several deposits are exploited for ceramic production in this area.

**Oberleiserberg group (OB)**

The sherds from the site of Oberleiserberg contain temper in which minerals such as muscovite and sillimanite, as well as metamorphic rocks such as micaceous schist are dominant. Fewer fragments of garnets and orthopyroxenes were identified among the minerals, and among the rock fragments, grains of various kinds of sandstone appear to be typical. The geological composition of the nearest surroundings of the site, however, shows the presence of carbonates (predominantly organodetritic material belonging to the Cretaceous carbonate platform of Ernstbrunn), which were not identified in the temper of the selected sherds; mucronite layers of the Upper Cretaceous and Quaternary fluvial sediments of the original Danube are located in the wider area. The precise petrographic composition of these sediments was not available for study. It is therefore not clear whether the Oberleiserberg club-rimmed pottery was made from raw materials available near the site or whether it was imported. Detailed petrographic analyses would resolve this question. At present let us note that all the pottery sherds analysed were made from the same material.

**Conclusions**

The samples of club-rimmed pottery sherds from a series of sites in western Slovakia (Bernolákovo, Bratislava, Nitra, Senec) and Lower Austria (Oberleiserberg) were divided into groups based on the mineral-petrographic characteristics of the non-plastic inclusions. A comparison of the composition of the fragments with the geological composition of the studied areas where relevant samples were found enabled us to resolve the question of whether this pottery was imported or not. The fact that the individual groups only contain pottery whose mineralogical and petrographic composition is identical, and similar to the geological composition of the sites and their surroundings, is worth noting. It indicates that only locally available raw materials (both plastic and non-plastic) were used in the production of the club-rimmed pottery. The samples from group BA, i.e. sherds from Bratislava Castle, Mudroňova ulica, Námestie Slobody, Vydrica, Jarovce and Rusovce, show that mainly fluvial sediments from the Danube were used. Similar selection criteria for raw materials are detected in the SC group (sherds from Bernolákovo and Senec). The Quaternary clayey sediments (alluvial sediments) were used as source for raw materials of pottery produced in Nitra.

The samples from the OB group, which contain the sherds from the site of Oberleiserberg, pose more of a problem. The detected grains or fragments of minerals and rocks are typical for metamorphic rocks. Carbonatic rocks which are outcropping directly at the studied locality were not noted in the composition of selected

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64. **Maglay et al. 2005, 147.**
65. **Ivanička et al. 1998, 34–35.**
66. **Gregor, Brezinová 2008.**
67. **Ivanička et al. 1998, 198.**
68. **Schnabel 2002.**
samples. Given that there is little information available on the petrographic composition of potential sources of raw material for the production of pottery there – which includes mostly Tertiary sediments (the so-called mugronite layers) and Quaternary river deposits – it has proved impossible to establish whether the club-rimmed pottery on the Oberleiserberg was imported or not.

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