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BAND 85

MACIEJ KARWOWSKI, PETER C. RAMSL (Eds.)

BOII – TAURISCI

VERLAG DER
ÖSTERREICHISCHEN
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IN MEMORIAM

MILOŠ ČIŽMÁŘ (1945–2012)

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Einleitende Worte der Herausgeberin der Reihe

Der nun 85. Band der traditionellen MPK-Reihe rückt neue Forschungen zu Boiern und Tauriskern in den Mittelpunkt dieser Latènestudien. Die insgesamt 14 hier zusammengestellten Beiträge stammen aus einer 2012 veranstalteten Tagung beim Oberleiserberg, einem traditionellen Zentrum für Latèneforschung in Ostösterreich. Die beiden Organisatoren und Herausgeber des Bandes, Maciej Karwowski und Peter Ramsl, haben aktuelle Forschungen zu vier Schwerpunkten zusammengestellt und namhafte Autoren/Autorinnen dafür gewinnen können. So ist den Herausgebern ein Band gelungen, der neueste und durchaus kritische Studien und Diskussionen zu verschiedenen Aspekten ostkeltischer Kultur beinhaltet. Die vier zentral behandelten Themen Taurisker, Boier, allgemeine Fragen zu den Ostkelten und Interaktion im mittleren Donauraum zeigen die ungebrochene Bedeutung materieller und typologischer Studien für die mitteleuropäische Latèneforschung, wobei Münzen, Fibeln, Knotenringe und Keramiktypen eine traditionell große Rolle in der weiteren soziokulturellen Interpretation spielen. Zusätzliche archäologische Quellen, wie beispielsweise Grubenhäuser oder neue Siedlungen, werden in weiteren Beiträgen behandelt. Die Intensität von Interaktion zwischen Regionen und ihr Einfluss auf lokale Entwicklungen werden in verschiedenen Beiträgen und unter unterschiedlichen Gesichtspunkten behandelt. Im generellen konzeptionellen Verständnis von der Einbettung materieller Kultur in historisch überlieferte Rahmendaten werden dabei Kontakte und Verbindungen im mittleren Donauraum diskutiert, wobei neben der wohl bekannten Bernsteinstraße auch zusätzliche potentielle Routen ins Blickfeld gerückt werden. Neben diesen wissenschaftlichen Ergebnissen aus der Tagung beim Oberleiserberg sei auch die Vernetzung der Latèneexperten/-expertinnen verschiedener zentraleuropäischer und nordadriatischer Regionen hervorgehoben, die sich nicht nur in diesem Band, sondern auch in späteren Folgeveranstaltungen zeigt.

Für die Finanzierung des vorliegenden international begutachteten Bandes danke ich dem Fond zur Förderung der wissenschaftlichen Forschung (FWF) sowie dem Land Niederösterreich (Gruppe Kultur, Wissenschaft und Unterricht). Mein weiterer Dank gilt Estella Weiss-Krejci für die Koordination der Publikationsarbeiten sowie ihr und Ulrike Schuh für die gründliche Redaktion. Schließlich ist den beiden Herausgebern nicht nur besonders zu danken, sondern es seien ihnen auch interessierte Leser zu wünschen, die die hier angestoßenen Diskussionen aufgreifen und fortsetzen mögen.

Barbara Horejs
Direktorin des Instituts für Orientalische und Europäische Archäologie
Wien, Februar 2016

Vorwort

Der Oberleiserberg steht seit mehr als 100 Jahren im Mittelpunkt der Latèneforschung des Weinviertels. In den letzten Jahrzehnten führten namhafte Heimatforscher und Wissenschaftler systematische Forschungen und Analysen der späteisenzeitlichen Phase dieser prominenten Höhensiedlung durch. Daher wurde dieser Ort auch für die Tagungsreihe über die Probleme der Eisenzeit des mittleren Donauraumes gewählt.

An dieser Stelle soll folgenden Personen und Organisationen gedankt werden:

Dem Wissenschaftsfonds FWF, der das Projekt „Die keltische Höhensiedlung am Oberleiserberg“ (Projekt-Nr. P22615-G21) gefördert hat, in dessen Rahmen die hier publizierte Tagung stattgefunden hat.

Dem Wissenschaftsfonds FWF (PUB 264-G25) und der Gruppe Kultur, Wissenschaft und Unterricht des Amtes der Niederösterreichischen Landesregierung für die Finanzierung dieser Publikation.

Herwig Friesinger, jahrelang Projektleiter der Grabungen auf dem Oberleiserberg und Koordinator der Forschungen, für die finanzielle und organisatorische Unterstützung der Konferenz in seiner damaligen Funktion als Obmann der Prähistorischen Kommission der Österreichischen Akademie der Wissenschaften.

Alois Stuppner, der von Seiten der Universität Wien 13 Jahre als Grabungsleiter auf dieser Fundstelle tätig war, für die Führung am Oberleiserberg und für die Darstellung der Ergebnisse seiner Forschungstätigkeit.

Gerhard Trnka, in seiner Funktion als Leiter des FWF-Projekts „Die keltische Höhensiedlung am Oberleiserberg“, für seine organisatorische und wissenschaftliche Unterstützung.

Johann Prügl, (Alt-)Bürgermeister von Ernstbrunn, für die tatkräftige administrative Unterstützung der lokalen Forschung und für die erwiesene Gastfreundschaft gegenüber den Konferenzteilnehmern in seiner Gemeinde.

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Nicht zuletzt Barbara Horejs in ihrer Funktion als Direktorin des Instituts für Orientalische und Europäische Archäologie für ihre Unterstützung und die Aufnahme dieses Bandes in die MPK-Reihe.

Maciej Karwowski, Peter C. Ramsl
Wien, Juli 2015

Preface

The Oberleiserberg has been at the centre of La Tène research in the wine-growing region of northeastern Lower Austria (the Weinviertel) for over a century. In the last few decades a number of leading vocational and professional archaeologists have conducted systematic investigations and analyses of the Late Iron Age occupation of this prominent hilltop settlement. This was one of the reasons for choosing the site as the subject of our conference on issues relating to the Iron Age in the Middle Danube region.

We would like to take the opportunity to thank the following people and organisations:

The Austrian Science Fund (FWF) for funding the project "The Celtic Hilltop Settlement on the Oberleiserberg" (Project no. P22615-G21) which provides the framework for the conference published here.

The Austrian Science Fund (FWF) (PUB 264-G25) and the Department of Culture, Science and Education of the Governmental Office of Lower Austria for providing the financial support for this publication.

Herwig Friesinger, who has directed the excavations on the Oberleiserberg for many years and coordinated its investigation, for financial and organisational support of the conference, in his capacity (at the time) as Chairman of the Prehistoric Commission of the Austrian Academy of Sciences.

Alois Stuppner, who for 13 years has been the site's field director on behalf of the University of Vienna, for acting as guide to the excursion on the Oberleiserberg and for presenting the results of his investigations.

Gerhard Trnka, leader of the FWF project "The Celtic Hilltop Settlement on the Oberleiserberg", for his support, both scientific and organisational.

Johann Prügl, then Mayor of Ernstbrunn, for actively encouraging local engagement in research and for hosting the conference delegates so generously in his municipality.

Estella Weiss-Krejci, Ulrike Schuh and Silvia Hack for coordinating, formatting and editing the present publication, as well as Katharina Rebay-Salisbury and Roderick Salisbury for translating the introduction into English, and for correcting the English contributions of Boris Kavur, Marko Dizdar, Ivan Drnič, Maciej Karwowski und Lőrinc Timár.

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Last but not least, Barbara Horejs, director of the Institute for Oriental and European Archaeology in Vienna, for her support and accepting this publication for the MPK series.

Maciej Karwowski, Peter C. Ramsl
Vienna, July 2015

Einleitung

Maciej Karwowski, Peter C. Ramsl

Anlass der Klement/Oberleiserberg-Tagung war ursprünglich das Keramik-Seminar „Die späteste latènezeitliche Keramik im Mitteldonauraum und ihre Verbindungen zu den Randgebieten“, welches am 16. Mai 2011 in Oberleis-Klement im Rahmen des FWF-Projekts „Die keltische Höhensiedlung am Oberleiserberg“ (FWF Projekt-Nr. P22615-G21) stattfand. Die Organisation dieses Seminars war dank der finanziellen Unterstützung seitens der (damaligen) Prähistorischen Kommission der Österreichischen Akademie der Wissenschaften möglich. Dieses Treffen war keine typische Konferenz, sondern eine Diskussion an Originalfunden. Die Teilnehmer hatten die Gelegenheit, sowohl die keramischen Siedlungsfunde aus den eigenen Forschungen zu präsentieren als auch sich mit den Funden von anderen Fundstellen vertraut zu machen. Am Seminar nahmen 39 Forscher aus sechs Ländern teil, nämlich aus Österreich, der Slowakei, der Tschechischen Republik, Polen, Slowenien und Deutschland. Besonders wichtig für diesen Anlass war, dass die KollegInnen aus Slowenien anhand der Originalfunde die Bedeutung der Gemeinsamkeiten für ihre Region konkret realisierten. Daher wurde angeregt und letztendlich beschlossen, auch eine Tagung über dieses Thema der Kontakte der Latènekultur im Mitteldonauraum mit dem Südostalpenraum/Adriabereich zu veranstalten. Der hier vorliegende Band ist das gedruckte Ergebnis dieser Konferenz, welche vom 14.–15. Juni 2012 im Veranstaltungszentrum Schüttkasten in Oberleis-Klement, Niederösterreich, stattfand.

An der Tagung nahmen rund 40 Forscher aus acht Ländern teil: Österreich, Slowakei, Tschechische Republik, Polen, Slowenien, Kroatien, Ungarn und Deutschland. Den thematischen Schwerpunkt der präsentierten Beiträge bildete der Verlauf der Hauptkontakte und Beziehungen zwischen den Siedlungsgebieten der Latènekultur, die aufgrund der numismatischen und schriftlichen Quellen mit den keltischen Stämmen der Boier und Taurisker in Verbindung gebracht werden.

Während die Taurisker historisch und archäologisch gut belegt und allgemein anerkannt sind, wird über den Begriff „Boier“ seit jeher heftig diskutiert. „Boier“ wird hier als *terminus technicus* für ein bestimmtes Gebiet (Böhmen, Mähren, Südpolen, Nordostösterreich und Südwestslowakei) verstanden, welches mit einem auf Gold gestützten sogenannten „boischen“ Münzsystem verbunden ist (siehe auch Beitrag Milítký).

Taurisker und Skordisker

Den größten thematischen Block dieses Tagungsbandes bilden Beiträge, die sich mit dem Siedlungswesen der Taurisker im Stromgebiet von Drau und Save, also in Slowenien und Kroatien sowie der Skordisker südöstlich davon, befassen. In diesen Artikeln werden sowohl die lokale Eigentümlichkeit der Siedlungsstrukturen und archäologischen Funde als auch die intensiven Kontakte mit den benachbarten Gebieten, vor allem in nördlicher Richtung, angesprochen.

In seinem Beitrag behandelt **Boris Kavur** die frühesten keltischen Bestattungen auf dem Gebiet der Steiermark (in Österreich und Slowenien), die an das Ende der Phase La Tène B datiert werden können. Auf den Gräberfeldern überwiegen noch die Skelettgräber, Bestattungen von Männern sind durch unbeschädigte Schwerter mit verzierten Scheiden mit durchbrochenen Ortsbändern gekennzeichnet. Sie bilden eine regionale Gruppe der ersten keltischen Ansiedler dieses Gebietes, die eine starke kulturelle und somit ästhetische Verbindung zur keltischen Gesellschaft im Osten zeigt.

Marko Dizdar diskutiert dagegen die Frage des Besiedlungsnetzes der Skordisker in der Vinkovci Region in Ostslawonien während der späten Latènezeit. Auf mehrphasigen prähistorischen Siedlungen entlang des Bosut-Flusses wurden Rettungsgrabungen durchgeführt, wo die jüngsten Schichten in die Spätlatènezeit datiert sind. Auch während der Feldarbeiten wurden viele gleichzeitige

Tieflandsiedlungen, wie z. B. in Blato mit großen Mengen von Metall- und Glasfunden lokalisiert, die auf die Existenz eines komplexen Modells der Besiedlungsnetzwerke hinweisen. In diesen Siedlungen müssten verschiedene Werkstätten, vor allem mit Töpferöfen, existiert haben, die etliche Arten von keramischen Gefäßen für lokale Bedürfnisse, aber wohl auch für den Handel produzierten.

Ivan Drnić präsentiert gegossene Spätlatène-Fibeln aus dem Gebiet des südöstlichen Pannonien. Die Exemplare aus Dalj, Novi Jankovci und Novi Banovci sind als Kopien des Typs Oberleiserberg anzusehen, die aber aus lokalen Werkstätten stammen. Hier ist auch ein Technologietransfer zu beobachten, da diese Fibeln einerseits aus einer Zinn-Bronze, andererseits aus einer Blei-Bronze-Legierung bestehen. Diese Fälle zeigen die Interaktionen zwischen Niederösterreich und dem südöstlichen Pannonien in der Spätlatènezeit auf.

Im Beitrag von **Dragan Božič** schlägt der Verfasser vor, unter der Bezeichnung „Fibeln vom Typ Zvonimirovo" zwei Gruppen von Bronzefibeln vom Mittellatèneschema zu vereinen: Fibeln, die Biba Teržan 1971 „Fibeln vom Mittellatèneschema mit rhombisch verbreitertem Bügel" bezeichnete, und Fibeln, die Marko Dizdar 2006 „Fibeln vom Typ Zvonimirovo" nannte. Beide Gruppen haben auf dem zurückgebogenen Fuß einen großen, im Querschnitt halbovalen und reich verzierten Knopf, eine ausgeprägte, mit einem leeren oder quer gekerbten Dreieck verzierte Klammer sowie einen breiten Wulst zwischen dem Knopf und der Klammer gemeinsam.

Boier

Der nächste Beitragsblock beschäftigt sich mit dem Gebiet der Boier. Die meisten Autoren betonen die wesentliche Bedeutung der Nord-Süd-Achse („Bernsteinstraße") in der Latènekultur in Zentraleuropa, die über die Mährische Pforte an die mittlere Donau und weiter südlich bis zur Adriaküste verlief.

Jiří Militký beleuchtet in seinem Beitrag Fragen der Beziehungen und Kontakte der Boier mit den durch die Stämme der Taurisker und Noriker bewohnten Gebieten. Für die Kenntnis der keltischen Kommunität der mittleren bis späten Latènezeit in Mitteleuropa haben Münzen eine besonders bedeutende Stellung. Durch ihre Vermittlung ist es relativ zuverlässig möglich, die Fernkontakte zwischen den einzelnen Fundstellen und Regionen zu verfolgen. Die Anzahl der tauriskischen und norischen Münzen aus den boischen Gebieten in Böhmen und Mähren ist mit 35 erfassten Münzen von 13 Fundstellen überraschend umfangreich. Es zeigt sich, dass der Importbeginn noch vor der Oppidazeit liegt, jedoch der Großteil der tauriskischen und norischen Münzen mit dem Oppidahorizont zusammenhängt. Gerade in Zentralsiedlungen und Oppida kam es zum intensivsten Austausch. Es scheint, dass Taurisker und Noriker im Laufe der Oppidazeit in regelmäßigem Kontakt zu verschiedenen Regionen der boischen Welt standen, welche aber sicher nicht so kompakt war, wie es vor allem im Lichte der archäologischen Quellen erscheinen könnte.

Maciej Karwowski präsentiert eine Analyse der Funde vom Oberleiserberg, Niederösterreich, die auf die Beziehungen und Kontakte des Donauraumes mit den durch die Stämme der Taurisker und Skordisker bewohnten Gebieten zeigen. Dies gilt nicht nur für die in einem Artikel von Jiří Militký diskutierten Münzen, sondern auch für die anderen Kategorien von Funden. Einige dieser Funde stellen Importe dar, andere weisen auf die Verbreitung von Ideen und auf überregionale stilistische Einflüsse hin. Von keiner anderen Fundstelle der Latènekultur nördlich der Donau gibt es eine so große Fundansammlung, die auf enge Kontakte mit dem keltischen Süden hinweist.

Monika Dębiec und **Maciej Karwowski** behandeln in ihrem Beitrag die sogenannten „Knotenringe". Kleine Bronzeringe mit verschiedenen Anordnungen von plastischen Knötchen sind in der östlichen Latènekultur sehr charakteristisch für die Oppidazeit. Ein signifikanter Anstieg ihrer Entdeckungen in den letzten Jahren in der Zone der boischen Münzprägung ermöglicht ihre genaue typologische Verteilung. Die Knotenringe sind ein Beispiel des Transfers von Ideen entlang des Korridors der Bernsteinstraße. Offen bleibt jedoch die Frage der Interpretation ihrer Funktionen.

Radoslav Čambal und **MitautorInnen** erörtern eine typische Gefäßform, die in der letzten Phase der Spätlatènezeit im Oppidum von Bratislava und in seinem Hinterland vorkommt. Die Töpfe mit den sogenannten kolbenförmig verdickten, gerade oder schräg abgestrichenen Rändern wurden frei in der Hand und auch auf der Drehscheibe produziert. Töpfe dieses Typus kommen oft mit Fibeltypus Jezerine, Gorica, Alésia, Almgren 18 und mit Münzen des Typus Karlstein vor. Außerhalb des Gebiets des Bratislavaer Oppidums gibt es diese Gefäßtypen auch in der Steiermark sowie in Niederösterreich (Oberleiserberg). Das weist auf neue Möglichkeiten bei der Auswertung sowie auf mögliche geopolitische Zusammenhänge hin. Es könnte vielleicht die sogenannte „Norische Ware" sein, welche im engen Zusammenhang mit der machtpolitischen sowie territorialen Expansion des Norischen Königreichs in das Territorium der Südwestslowakei im letzten Drittel des 1. Jhs. v. Chr. stand.

Allgemeine ostkeltische Thematik

Dieser Teil widmet sich der lokalen Spezifik der Latènekultur im Osten, wie z. B. den Grubenhäusern als charakteristisches Element der materiellen Kultur. Weiters wird diskutiert, ob die sogenannte „Bernsteinstraße" die alleinige Nord-Süd Achse war oder ob auch andere Straßensysteme wie die sogenannte „bastarnische Route" im Osten existierten. So könnte es die Achse Bastarnen-Daker parallel zur Verbindung Boier-Taurisker gegeben haben.

Péter Prohaszká behandelt in seinem Beitrag den 1846 in Óhuta (heute Miskolc Bükkszentlászló, Kom. Borsod-Abaúj-Zemplén, Ungarn) zum Vorschein gekommenen Schatzfund, wobei die sich oft widersprechenden Angaben Dank der Fundakten geklärt werden können. Der Fund bestand aus mindestens drei verschiedenen Münztypen sowie anderen Goldartefakten. Die Tetradrachmen mit Buckelavers und die spätere Variante der Tetradrachme Typ Audoleon wurden im Laufe des 1. Jhs. v. Chr. geprägt. Die Drachme mit Pallaskopf kommt aus dem thrakischen Gebiet. Der spiralförmige Goldring und das Kettchen sind nach Meinung des Autors keine Juwelen, sondern Zahlungsmittel. Den Münztypen zufolge wurde der Schatz im Laufe des 1. Jhs. v. Chr. verborgen.

Piotr Łuczkiewicz präsentiert eine während der großflächigen Rettungsgrabungen am polnisch-ukrainischen Grenzübergang in Hrebenne geborgene Silbermünze. Sowohl die Abmessung als auch das Gewicht und vor allem die Legende verweisen mit hoher Wahrscheinlichkeit – trotz der starken Abnutzung – auf eine geto-dakische Nachahmung eines Staters Philipps II. aus Makedonien (359–336 v. Chr.) vom Typ Huşi-Vovrieşti. Solche Münzen, die nördlich der Karpaten nur punktuell auftauchen, wurden seit dem Ende des 3. bis Mitte des 2. Jhs. geprägt. Mit dem besprochenen Siedlungsfund ergibt sich erstmals ein Datierungsansatz aus dem Fundkontext: Die Keramik aus den Siedlungsgruben verweist auf eine Zeitspanne vom Übergang LT C1/C2 bis zu LT D1.

Lőrinc Timár diskutiert in seinem Beitrag eine typisch latènezeitliche Architekturform. Grubenhütten waren im ganzen Karpatenbecken nicht nur in der jüngeren Eisenzeit, sondern auch im Mittelalter und in der Neuzeit verbreitet. Trotz ihrer geringen Größe und vermutlich einfachen Struktur ist die Interpretation ihrer Überreste aus der mittleren Latènezeit immer noch problematisch. Die Funktion der einzelnen eingetieften Bauten und ihre interne Organisation innerhalb der Struktur der Siedlung sind eng miteinander verbunden. Bisher konnten aber nur die speziellen Gebäudetypen einer bestimmten Funktion zugeordnet werden. Der vorliegende Artikel gibt einen Überblick über die grundlegenden Probleme und konzentriert sich auf die zukünftigen Möglichkeiten der Forschung.

Kontakte des Mittel-Donauraumes mit den Römern

Hier stellt sich die Frage des Oppidums Bratislava um die Mitte des 1. Jhs. v. Chr. Weiters soll der Einfluss des *regnum Noricum* und der Römer diskutiert werden. Auch die späteren Entwicklungen in Zusammenhang mit germanischer Besiedlung (Marbod) werden hier kontrovers präsentiert.

Margaréta Musilová berichtet in ihrem Beitrag über die laufenden Forschungen auf der Burg Bratislava, die durch den Wiederaufbau und die Renovierung des Schlosses und die archäologischen Ausgrabungen wiedereingeleitet wurden. Die keltischen Herrscher auf dem Oppidum Bratislava spielten in der römischen Diplomatie und bei ihren Plänen, die Daker und Illyrer auf dem Balkan zu unterwerfen, wahrscheinlich eine entscheidende Rolle. Zum ersten Mal finden sich Überreste von Architektur des 1. Jhs. v. Chr. in dieser Region: Architektur und Mauerwerk römischer Art. Ein Palast mit römischem Pflaster und Mosaik in *opus signinum*. Die Qualität dieser Konstruktionen dient dazu, den intensiven Kontakt zu Italien und dem Mittelmeerraum zu bestätigen. Eine Besonderheit stellt die Entdeckung eines Münzschatzes von keltischen Gold- und Silbermünzen unter dem Boden der *domus* in der ehemaligen Reithalle dar. Die goldenen Statere tragen die Namen der keltischen Herrscher Biatec und Nonnos. Die Entdeckung der Arx Boiorum verändert laut Autorin nicht nur den Blick auf die Geschichte von Bratislava und Umgebung, sondern auch auf die Entwicklung Mitteleuropas während der späten Latènezeit.

Igor Bazovský präsentiert in seinem Beitrag einen einzigartigen Befund, nämlich einen im Jahr 2011 beim Bau einer unterirdischen Großgarage auf dem Alexander-Dubček-Platz in Bratislava gefundenen Teil eines eingetieften Baus mit unikat verzierter Feuerstelle aus dem 1. Jh. v. Chr. Die Spuren von Erneuerungen des Lehmbodens und der Feuerstelle, die sich ungefähr in der Mitte des Baus befand, zeugen von einer langfristigen Benützung. In die Tonplatte selbst war ein Ornament in Form eines vierzackigen Sterns eingeritzt. Verzierte Herdplatten gibt es bereits seit der älteren Bronzezeit – sie sind auf dem Gebiet zwischen England und der Ukraine verbreitet und werden oft mit religiösen Vorstellungen in Zusammenhang gebracht.

Im Beitrag von **Michael Erdrich** wird die Rolle des Markomannenfürsten Marbod in der römischen Herrschaftssicherung im mittleren Donauraum diskutiert. Aufgrund einer stark dem Wortlaut der antiken Autoren verhafteten Lesung ihrer Berichterstattung über Leben

und Wirken des Marbod gelangte man in jüngster Zeit zur Vorstellung, der Mann hätte aus freien Stücken und ohne römische Einflussnahme die Herrschaft über den Stamm der Markomannen übernommen und seine wenig später erfolgte Abwanderung nach Böhmen sei nicht von Rom gesteuert gewesen. Dieses Bild erscheint aus verschiedenen Gründen, vor allem vor dem Hintergrund der im fraglichen Zeitraum überaus erfolgreich verlaufenden römischen Angriffskriege gegen germanische Stämme, diskussionswürdig. Stattdessen wird hier für eine konstruktive Organisation der römischen Herrschafts- und Vorfeldsicherung im zu dieser Zeit militärisch nicht kontrollierten mittleren Donauraum plädiert, in der Marbod eine zentrale, von Rom abhängige Funktion ausübte.

Von den 20 Symposiumsvorträgen konnten insgesamt 14 Beiträge für diesen Band gewonnen werden. Der daraus erfolgte Erkenntnisgewinn stellt einerseits die Neuvorstellung der Zuwächse von Fund- und Befundkategorien (Münzen, Fibeln, Knotenringe, Architektur und Siedlungsbefunde) dar. Andererseits kann hier eine neue Sicht auf die Beziehungen zwischen dem Raum des boischen Münzsystems, Norikern, Tauriskern und Skordiskern dargestellt werden.

Eingang in diesen Band hat auch die Darstellung der Paradigmenwechsel und die wahrhaftige Explosion von neuem Fundmaterial gefunden, welches die Natur der Daten verändert hat. Dies lässt sich beispielsweise an der anwachsenden Information über die großen Freilandsiedlungen zeigen.

Dieser Band erscheint relativ zeitgleich mit zwei anderen Sammelwerken, einerseits mit dem Sammelband „Fingerprinting the Iron Age“,[1] der speziell mit Paradigmenwechsel arbeitet, und den Akten der Konferenz „Boier zwischen Realität und Fiktion“ in Český Krumlov 2013.[2] Obwohl es einige Überlappungen bei den Autoren und Autorinnen gibt, ergänzen sich diese drei Bände bestens und sind ein Hinweis auf das derzeitige große Interesse an diesen und verwandten Themen.

Gleichzeitig muss an dieser Stelle festgestellt werden, dass im Rahmen des FWF-Projekts „Keltische Keramik in Nordostösterreich“ im Juni 2015 ein weiterer Workshop über handgefertigte Keramik der Latènekultur in Oberleis-Klement stattgefunden hat.

Wichtig war auch, neue grundlegende Kontakte und (oft heftige und enthusiastische) Diskussionen zwischen den Wissenschaftlern auf diesen Gebieten während der 2012 Konferenz wiederzugeben und auch den Raum für die Publikation zur Verfügung zu stellen. Daher wird hier auch kontroversiellen Darstellungen von neuen archäologischen Ergebnissen und Überlegungen Platz gegeben, die sicher zu neuen Diskursen führen werden. Insgesamt kann das Ziel dieser Tagung, das Aufbrechen von konventionellen Denkmustern über Chronologie in der Spätlatènezeit und neue Ansätze in der Interpretation von archäologischen Evidenzen, als erreicht angesehen werden. Die Aussagen in den einzelnen Beiträgen stellen die Meinung der Autoren dar und wurden nur in Extremfällen in eine „diplomatische“ Sprache übertragen, um den weiteren Diskurs nicht zu gefährden.

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2. Karwowski, Salač, Sievers 2015.

Introduction

Maciej Karwowski, Peter C. Ramsl

The Klement/Oberleiserberg conference was initiated at a ceramic workshop on May 16, 2011, "The latest La Tène ceramics in the Middle Danube Region and their links to borderlands", which was organised within the framework of the FWF-funded project "Celtic Hilltop Settlement on Oberleiserberg" (FWF Project no. P22615-G21). The organisation of this workshop was financially supported by the (former) Prehistoric Commission of the Austrian Academy of Sciences. This meeting was not a typical conference, but a discussion of original finds. The participants had the opportunity both to present the ceramic finds from settlements from their own research and to familiarise themselves with finds from other sites. The workshop attracted 39 researchers from six countries, namely Austria, Slovakia, the Czech Republic, Poland, Slovenia and Germany. Especially important at this occasion was that the colleagues from Slovenia realised the significance of the similarities in their region on the basis of original finds in a concrete and tangible way. It has been suggested, and ultimately decided, to hold a conference on the subject of the contacts between the La Tène culture in the Middle Danube region and the east Alpine/Adriatic area. This volume is the printed result of this conference, which was held from June 14–15, 2012 at the Event Centre Schüttkasten in Oberleis-Klement, Lower Austria.

The conference was attended by around 40 researchers from eight countries: Austria, Slovakia, the Czech Republic, Poland, Slovenia, Croatia, Hungary and Germany. The thematic focus of the contributions was the nature of contacts and relations between the settlement areas of the La Tène culture, which are associated with the Celtic tribes of the Boii and Taurisci on the basis of numismatic and written sources.

The Taurisci are historically and archaeologically well documented and generally acknowledged; the term "Boii", however, has always sparked fierce debate. "Boii" is here understood as a technical term for a specific territory (Bohemia, Moravia, southern Poland, northeastern Austria and southwestern Slovakia), which is connected by the gold-based "Boii" monetary system (see also the contribution by Milítký in this volume).

Taurisci and Scordisci

The largest thematic block of this conference volume comprises discussions that deal with the nature of the settlements of the Taurisci in the basins of the Drava and Sava, i.e. in Slovenia and Croatia, and the Scordisci towards their southeast. In these papers, the local peculiarity of settlement patterns and archaeological finds are addressed, as are the intensive contacts with adjacent areas, especially towards the north.

In his contribution, **Boris Kavur** addresses the earliest Celtic burials in the area of Styria (Austria and Slovenia), which can be dated to the end of the La Tène B phase. Inhumations still dominate the cemetery record and male burials are characterised by undamaged swords with decorated scabbards and open-worked chapes. They form a regional group of the first Celtic settlers in this area, which shows a strong cultural and thus aesthetic connection to the Celtic society in the east.

Marko Dizdar discusses the settlement network of the Scordisci in Vinkovci in the eastern Slavonia region (Croatia) during the Late La Tène period. Rescue excavations were carried out on multi-period prehistoric settlements along the Bosut River, where the latest strata date to the La Tène period. Many simultaneous lowland settlements were identified during fieldwork, including Blato, with large amounts of metal and glass finds, which point to the existence of a complex settlement pattern. Various workshops must have existed in these settlements, particularly with pottery kilns, which produced many kinds of ceramic vessels for both local needs and trade.

Ivan Drnić presents cast Late La Tène fibulae from the area of southeastern Pannonia. The specimens from

Dalj, Novi Jankovci and Novi Banovci are to be regarded as copies of the type Oberleiserberg, but coming from local workshops. Here a technology transfer is to be observed, because these fibulae consist on the one hand of a tin-bronze alloy, and on the other hand of a leaded bronze alloy. These cases show the interactions between Lower Austria and southeastern Pannonia in the Late La Tène period.

Dragan Božič suggests combining two groups of bronze fibulae of the Middle-La Tène-construction under the name "fibulae of the Zvonimirovo type", namely the "fibulae of Middle La Tène construction with rhombic expansion of the bow", coined by Biba Teržan in 1971, and "fibulae of the Zvonimirovo type", coined by Marko Dizdar in 2006. Both groups have the following elements in common: a large knob on the bent-back foot, semi-oval in cross-section and ornate, a pronounced collar decorated with a blank or cross-hatched triangle, and a wide bulge between the knob and the collar.

Boii

The next section of the volume deals with the territory of the Boii. Most authors emphasise the crucial importance of the north–south axis ("Amber Route") in the La Tène culture in central Europe, which ran through the Moravian Gate to the Middle Danube and further south to the Adriatic coast.

Jiří Militký 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 understanding Celtic communities of the Middle to Late La Tène period in central Europe. Far-reaching contacts between individual sites and regions can be traced relatively reliably through them. The number of coins of the Taurisci and Norici from the areas of the Boii in Bohemia and Moravia is surprisingly large with 35 coins collected from 13 sites. These imports began before the oppida period, but most of the coins of the Taurisci and Norici can be associated with the latter chronological horizon. Intense commercial exchanges often took place in central settlements and in oppida. It seems that during the oppida period, the Taurisci and Norici were in regular contact with different regions of the Boian world, which, in the light of the archaeological evidence, was certainly not as tightly defined as might appear.

Maciej Karwowski presents an analysis of the finds from the Oberleiserberg, Lower Austria, which demonstrates the relations and contacts of the Danube region with the areas inhabited by the tribes of the Taurisci and Scordisci. The evidence goes beyond the coins discussed in the chapter by Jiří Militký to include other categories of finds. 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 has such an extensive collection of finds that point to close contacts with the Celtic south.

Monika Dębiec and **Maciej Karwowski** discuss the *Knotenringe* ("knot rings") in their contribution. Small bronze rings with various arrangements of knobs are characteristic for the oppida period in the eastern La Tène culture. A significant increase in discoveries of such *Knotenringe* in recent years in the zone of Boian coinage allows us to classify them typologically and study their distribution. The *Knotenringe* are an example of the transfer of ideas along the Amber Route corridor. Their function, however, still remains unknown.

Radoslav Čambal and **co-authors** examine a typical vessel form found in the last phase of the Late La Tène period at the oppidum of Bratislava and in its hinterland. The pots with bulbous, thickened, straight or everted rims were either handmade or produced on a potter's wheel. Pots of this type often occur together with fibulae of the Jezerine, Gorica, Alésia and Almgren 18 types, as well as with coins of the Karlstein type. Outside the territory of the Bratislava oppidum these vessel types are also found in Styria and Lower Austria (Oberleiserberg). These finds point to new possibilities for interpretation, as well as to possible geopolitical contexts. Perhaps the pottery can be identified as "Norican ware", which is closely associated with the political power and territorial expansion of the Kingdom of the Norici into the territory of southwestern Slovakia in the last third of the 1st century BC.

General Themes of the Eastern Celtic Area

In this section of the book, local specifics of the La Tène culture in the east, such as pithouses, are discussed as characteristic elements of the local material culture. Furthermore, the role of the "Amber Road" will be evaluated, questioning whether it was the sole north–south axis, or if other road systems such as the "Bastarnian Road" existed in the east. There might have been a direct connection between the Bastarnae and the Dacians in addition to the connection between the Boii and the Taurisci.

In his contribution **Péter Prohaszká** presents the treasure of Óhuta (now Miskolc Bükkszentlászló, Borsod-Abaúj-Zemplén County, Hungary) discovered in 1846. Contradictory information concerning the context of the finds could be clarified thanks to a detailed examination of the historical documentation. The treasure consisted of at least three different types of coins and other gold artefacts. The tetradrachms with a boss on the obverse (*Buckelavers*), and the later variant of the tetradrachms

of the Audoleon type were minted during the 1st century BC. The drachm with the head of Pallas comes from the Thracian area. The spiral gold ring and the chain are, in the author's opinion, means of payment and not jewellery. The types of coins indicate that the treasure was hidden in the course of the 1st century BC.

Piotr Łuczkiewicz presents a silver coin, which was discovered during large-scale rescue excavations on the Polish-Ukrainian border in Hrebenne. Despite heavy wear and tear the size and the weight, and especially the legend, points to a Geto-Dacian imitation of a stater of Philip II of Macedon (359–336 BC) of the Huşi-Vovrieşti type. Such coins only occasionally appear north of the Carpathians. They were minted from the end of the 3rd to the middle of the 2nd century BC. The context of the find in a settlement and with pottery in pits indicates a date from the LT C1/C2 transition up to LT D1.

Lőrinc Timár discusses a typical La Tène form of architecture in his contribution: buildings with sunken floors (pithouses). They were spread all over the Carpathian Basin, not only in the Late Iron Age, but also in the Middle Ages and modern times. Despite their small size and simple structure, the interpretation of their remains from the Middle La Tène period remains problematic. The function of the sunken buildings and their internal organisation within the structure of the settlement are closely linked. However, only specific types of buildings could be assigned to a specific function so far. The present chapter gives an overview of the basic questions and focuses on future research directions.

Contacts between the Middle Danube Region and the Romans

This raises the question of the oppidum of Bratislava around the mid-1st century BC. In addition, the influence of the *regnum Noricum* and the Romans is discussed. The later developments in the context of Germanic colonisation (Maroboduus), a controversial topic, are also presented here.

Margaréta Musilová reports in her contribution on the ongoing research at Bratislava Castle, which the reconstruction and renovation of the castle, and the archaeological excavations, reinitiated. The Celtic rulers at the oppidum of Bratislava probably played a crucial role in Roman diplomacy and their plans to subjugate the Dacians and Illyrians in the Balkans. Architectural remains of the 1st century BC were found for the first time in this area: architecture and masonry in Roman style – a palace with Roman pavement and mosaic in *opus signinum*. The quality of these structures indicates intensive contact with Italy and the Mediterranean. The discovery of a hoard of Celtic gold and silver coins under the floor of the *domus* in the former riding hall was a particular highlight. The gold staters bear the names of the Celtic rulers Biatec and Nonnos. According to the author, the discovery of the Arx Boiorum not only changes our views on the history of Bratislava and its surroundings, but also on the development of central Europe during the Late La Tène period.

In his chapter, **Igor Bazovský** presents the unique find of an ornate hearth from the 1st century BC discovered in 2011 during the construction of an underground garage on Alexander Dubček Square in Bratislava. Long-term use is indicated by traces of re-plastering of the building's clay floor and hearth, which was located approximately in its centre. The clay hearth itself was decorated with an incised ornament in the form of a four-pointed star. Decorated hearths are known to have existed since the Early Bronze Age; their geographical range extends from England to Ukraine and they are often associated with religious ideas.

The contribution by **Michael Erdrich** discusses the role of Prince Maroboduus of the Marcomanni as the Romans asserted their dominance in the Middle Danube region. The life and work of Maroboduus was recently re-interpreted in the light of a detailed reading of the exact words of the ancient authors, concluding that Maroboduus took power over the tribe of the Marcomanni voluntarily and without Roman influence, and that his migration to Bohemia shortly afterwards was not controlled by Rome. This view is worthy of discussion for various reasons, especially in the light of the extremely successful wars of aggression by the Romans against Germanic tribes in the period in question. Instead, the author argues for a constructive organisation of the Roman domination and takeover of the Middle Danube region, which at the time was not under any military control, in which Maroboduus played a central role dependent on Rome.

Of the 20 papers presented at the conference, 14 written contributions were obtained for this volume. The contribution to archaeological knowledge consists on the one hand of the presentation of contexts of finds in many categories (coins, fibulae, *Knotenringe*, architecture and settlement features). On the other hand, new insights have been gained into the relationship between the area of Boii coinage and settlement areas of the Norici, Taurisci and Scordisci.

The paradigm shifts in Iron Age archaeology and the veritable explosion of new archaeological material – which has changed the nature of the data at our disposal – have

found their expression in this volume, an example being the growing amount of information available from large-scale open settlements.

Our volume appears almost at the same time as two other edited collections, "Fingerprinting the Iron Age"[3] which has those paradigm shifts at its core, and the proceedings of a conference held in Český Krumlov in 2013 – "Boier zwischen Realität und Fiktion" (The Boii between Reality and Fiction).[4] Although there is some overlap among authors, the three volumes admirably complement each other and bear witness to the current lively interest in this and related subjects.

Finally we should mention that a further workshop has been organised in Oberleis-Klement in June 2015, dedicated to the study of hand-made pottery of the La Tène culture within the FWF-funded project "Celtic Pottery in North-eastern Austria".

It was important to provide a forum for new and ground-breaking contacts between researchers in this field and their (often yeasty and fervent) discussions during the 2012 conference, as well as to provide space for publication. Therefore space is given here for controversial presentations of new archaeological findings and considerations that are sure to lead to new dialogue. Overall, the objective of this meeting, the challenging of conventional ways of thinking about chronology in the Late La Tène period and a presentation of new approaches to the interpretation of archaeological evidence, was met. The statements in the individual articles represent the opinion of the authors and were only translated into a "diplomatic" language in extreme cases, so as not to endanger further discourse.

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3. Popa, Stoddart 2014.
4. Karwowski, Salač, Sievers 2015.

Taurisci

The End of the Early La Tène Period in Styria: A View to the East

Boris Kavur

Abstract: The earliest Celtic burials within the former borders of Styria (today belonging to Austria and Slovenia) can be dated to the end of the La Tène B phase. Inhumations still dominate the cemetery record and male burials are characterised by undamaged swords with decorated scabbards with open-worked chapes. They form a regional group of the first Celtic settlers in this area.

Keywords: Early La Tène period, male burials, Hatvan-Boldog type swords.

Zusammenfassung: Am Ende von Latène B überwiegen auf Gräberfeldern innerhalb der einstigen Landesgrenzen der Steiermark (heute zu Österreich und Slowenien gehörend) noch Skelettgräber, und Bestattungen von Männern sind durch unbeschädigte Schwerter mit verzierten Scheiden mit durchbrochenen Ortsbändern gekennzeichnet. Sie bilden eine regionale Gruppe der ersten keltischen Ansiedler dieses Gebietes.

Stichwörter: Frühlatènezeit, Männergräber, Hatvan-Boldog Schwerttyp.

Due to the specific geography of today's Slovenia and its influences on the settlement dynamics and population movements in the middle of the 4th century BC, some newcomers arrived in the area of eastern Slovenia – they were a part of the Celtic communities of central European origin. Their material culture, exhibiting influences from the east and the west, blended with the local traditions to create a mosaic of cultural groups. We can assume that the eastern and central part of Slovenia became more or less Celticised, while in the western part of Slovenia (Inner Carniola, the Karst region and the Soča river basin) only selectively adopted several elements of La Tène material culture; some individuals may have become integrated into the societies as well.

The process of arrival of these newcomers and their appropriation of the territory can be observed in the archaeological record in Styria on the territory between the Graz Basin in Austria and the Drava River in Slovenia. Several small cemeteries consisting of only a few graves as well as some supposedly isolated burials demonstrate how small groups, coming from the east, penetrated into the territory,[1] occupying first the strategically important positions and later settling the same places occupied in previous centuries. The identity and origin of these small groups, led by the sword-bearers, can be discerned from their attire and their equipment, as well as from female attire. In the same way, we can observe the relatively rapid creation of local identity and economy gravitating around local production centres, which developed their own specific "signature" out of the common Celtic stylistic heritage.

In other words, the material culture becomes a derivation of general Eastern Celtic cultural elements, elements that can be observed in the forms and decoration of weaponry, especially swords. In recent decades, discoveries in western Hungary, southern Austria and eastern Slovenia yielded several Early La Tène swords bearing witness to this initial phase of occupation (Fig. 1). Unfortunately, several of these are still not properly published, but the present examples enable us to include the region in the broader cultural development of Eastern Celtic art.

One of the sites listed above, a stone in the great mosaic of initial Celtic settlement, is the site of Srednica in Zgornja Hajdina near Ptuj in Slovenia, where in 2006 and 2007 a little bit more than 65,000 square meters were excavated. It is located on a Late Pleistocene terrace of the Drava River, in a field south of the Pragersko-Ptuj railway. The oldest occupation dates to the Copper Age, two features could be dated to the Early Bronze Age, a cemetery and a settlement could be dated to the Early Iron Age, and finally a Roman settlement covered all of

1. Megaw, Megaw 2012, 402, 404, Fig. 4.

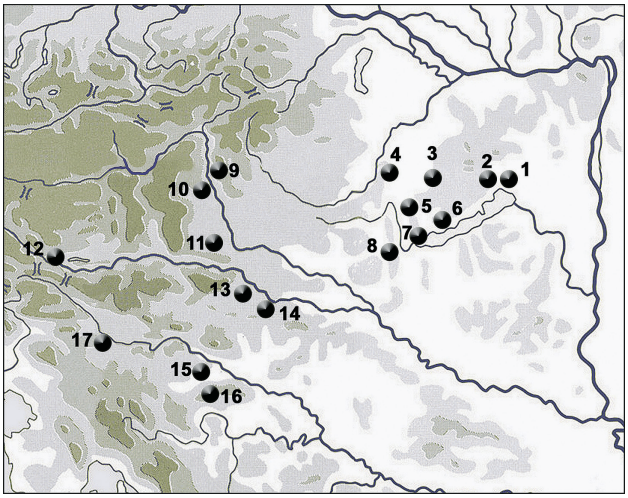

Fig. 1. Sites with Early La Tène type swords in southern Austria, western Hungary and eastern Slovenia. – 1. Litér (type Kosd C). – 2. Jutas (type Kosd C). – 3. Halimba (type Kosd C). – 4. Potypuszta-Csehimindszent (type Kosd C). – 5. Rezi-Rezicseri, Grave 4 (type Kosd D), Grave 66 (type Kosd C). – 6. Tapolca-Szentkút (type Kosd C). – 7. Balatonmagyörök-Kövesmező, grave 1 (type Kosd C). – 8. Magyarszerdahely-Homokidűlő, Grave 30 (type Kosd B). – 9. Graz-Laubgasse (type Kosd C). – 10. Lieboch (type Kosd A2). – 11. Kleinklein (type Kosd C). – 12. Villach-Förk (type Kosd C). – 13. Orehova vas, grave 1 (type Kosd C). – 14. Srednica (type Kosd A2). – 15. Mokronog (type Kosd C). – 16. Novo Mesto, Grave 71 (type Kosd B), Grave 466 (type Kosd A1), grave 555 (type Kosd B), Grave 620 (type Kosd A1). – 17. Ljubljanica (unknown type) (after Lubšina Tušek, Kavur 2011).

it. Archaeological remains were heavily damaged due to intensive modern cultivation.

The Early Iron Age cemetery consisted of 27 small, flattened tumuli with a central grave and a peripheral ditch. Unfortunately, these were completely flattened, and consequently the majority of graves were destroyed. Two inhumations (Graves 4 and 7) and two cremations (Graves 6 and 9) dating to the Late Iron Age were later dug into the peripheral area of the cemetery.[2] The first Celtic settlers obviously selected the former cemetery for their burials and dug Graves 6 and 7 into Tumulus no. 6, Grave 4 into Tumulus no. 4, and Grave 9 into the peripheral area close to the ditch of Tumulus no. 21.

Although very few bones were preserved due to the chemical characteristics of the soil, we could still gather enough details to observe the change in burial rites at this small graveyard. The earliest graves were still inhumations. In the female Graves 4 and 7 parts of the long bones of the deceased were preserved in areas where they were in contact with their bronze ring jewellery. Only the man in Grave no. 9 was buried in a small square pit, and the presence of a small quantity of charcoal remains indicates that he was cremated with his weapons being placed in his grave intact. These graves yielded a set of grave goods which can help us to place these individuals into a broader context of the end of the Early and beginning of the Middle La Tène.

We can clearly observe that Grave 4 is the oldest, and the female buried therein as the "keeper of old traditions" linking the identity of the group to the cultural traditions of the Eastern Celts.[3] This interpretation is due both to her skeletal remains and to several grave goods and elements of her attire, such as a pottery flask, an amber ring pendant, a bracelet made from twisted wire with a loop, iron torques, and a fragment of another iron hollow metal sheet torques with typically Early La Tène decoration consisting of parallel oblique lines and stamped decoration of circles with a point in the middle. On the other hand, the burial of the sword-bearer in the Grave no. 9 was the herald of the new things to come.

Grave 9, with a circular pit measuring 1 × 0.75 m, was dug into the remains of an older Early Iron Age Tumulus no. 21. The grave goods consisted of a fibula, a knife, a spear point, a pottery bottle, a ceramic bowl and a sword. The fibula and the pottery bottle were placed in the centre of the pit with the bowl turned upside down, while the sword and the spear point were positioned on the western side of the grave.[4]

The most interesting and indicative find in the grave was the decorated scabbard of the Hatvan-Boldog type (Fig. 2).[5] The scabbard, fully fitting the definition of a "hybrid", is decorated with an eclectic ornamental design that blends all the La Tène stylistic elements from central Europe.[6] A geometric ornamental design on the scabbard is reminiscent of the Early Style filled with post-Waldalgesheim tendrils, organised in an asymmetrical proto-Hungarian Style manner with an added "*yin-yang*" ornament borrowed from the formal repertoire of the Plastic Style.[7] The top of the ornamental field is decorated with tendrils forming a pseudo-triskele with non-identical arms and side-shots clasped with reinforcement with two lateral clamps and frontal concave discs decorated with floral features elaborated in the Plastic Style. Its decoration is a reflection of the creative potential unleashed with the expansion of the Celtic world at the end of the 4th and the beginning of the 3rd century BC, when

2. Lubšina Tušek, Kavur 2009. – Lubšina Tušek, Kavur 2011.

3. Lubšina Tušek, Kavur 2011, 34–39, 48–50.
4. Lubšina Tušek, Kavur 2009, 128–130, Fig. 3.
5. Lubšina Tušek, Kavur 2009, 130–132.
6. Lubšina Tušek, Kavur 2009, 133–138.
7. Szabó, Petres 1992, 58.

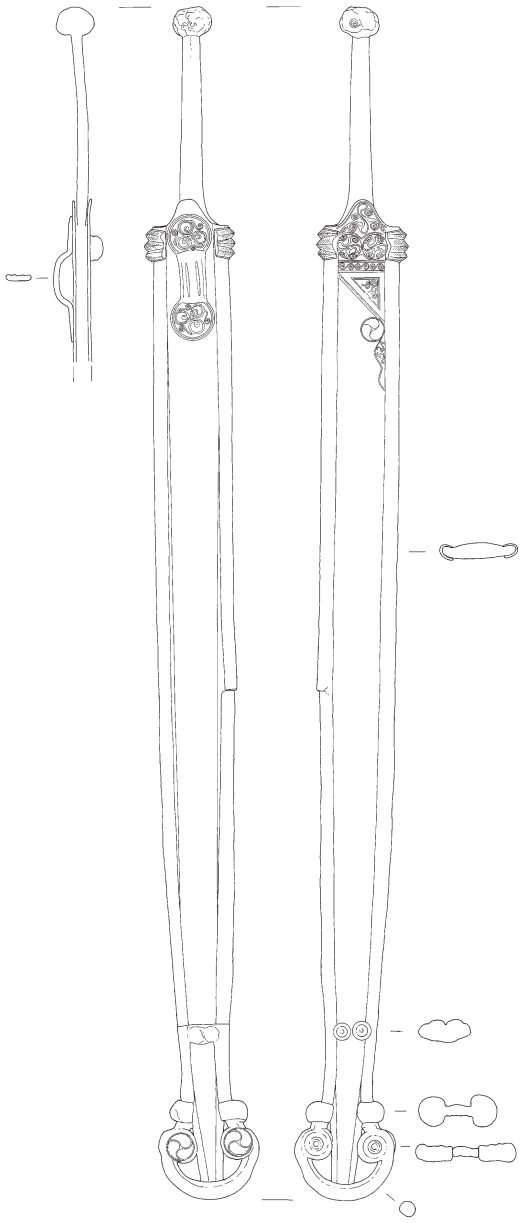

Fig. 2. Sword from Srednica (after Lubšina Tušek, Kavur 2009).

the use and reinterpretation of the old artistic traditions became the basis for the creation of the new Middle La Tène styles. Products of these creative centres in eastern Europe were again distributed in the larger area due to trade and the constant journeying of professional warriors and craftsmen.[8]

To put the sword from Srednica into context, we must consider two almost identical scabbards, from Hatvan-Boldog and from Gáva-Katóhalom from Hungary, both exhibiting decorative elements of post-Waldalgesheim Style (Fig. 3).[9] They have a pseudo-triskele with non-identical arms and side-shots depicted above the frontal reinforcement, which is constructed from two linked discs again linked to two side clamps. The later are decorated with post-Waldalgesheim tendrils, which also decorate the domed-shaped rosettes fixed to the frontal side of the reinforcement.

A second group of finds that relate to our discussion are the swords from Kosd and Szob from Hungary (Fig. 3).[10] Their frontal reinforcements are constructed from two linked discs again linked to two side clamps. The side clamps are decorated in Plastic Style, which also decorates the domed-shaped rosettes fixed to the frontal side of the reinforcement (unfortunately missing on the scabbard from Kosd).

In several technical details and stylistic elements, the sword recovered from Srednica presents a transitional form between the two groups.[11] Considered in a broader spatial perspective, the swords described above were discovered in central Hungary around the Danube Bend, while only the example from Srednica was located to the west. It differs from the others in the massive reinforcement clamps of the scabbard, which were produced in deep plastic relief and further decorated with hatched lines, and the concave discs decorated with tendrils.

When observing the stylistic development of the decoration, the sword from Srednica clearly presents a form derived from the group produced around the Danube Bend in Hungary. However, several less decorated swords in Styria display the same formal characteristics, suggesting that they were produced locally and possibly that they were the products of a single workshop, most probably somewhere in the region between the today's Graz Basin and the Drava River.

One such sword with an identical form and decoration of the chape-end was discovered in Lieboch in Austria.[12] Although less lavishly decorated, its formal features, size and technical details testify that it was clearly a product of the same workshop. Further identical swords are displayed in the Burgmuseum in Deutschlandsberg in Austria.[13] One of the swords depicted in the exhibition catalogue of the museum has the sides of the mouth of the scabbard enclosed with clasps, clearly deeply profiled and decorated with thin ribs running vertically along the edge. This element could be linked to the Plastic

8. Megaw, Megaw 2001, 135.

9. Szabó, Petres 1992, 131, 136, Pls. 13 and 18, Cat. nos. 12 and 18.

10. Szabó, Petres 1992, 188–190, Pls. 70 and 71, Cat. nos. 67 and 68.

11. Lubšina Tušek, Kavur 2009, 135–137.

12. Hebert, Lasnik 1992, 73–75.

13. Berndt, Bernhard 1998, 35, 40–41.

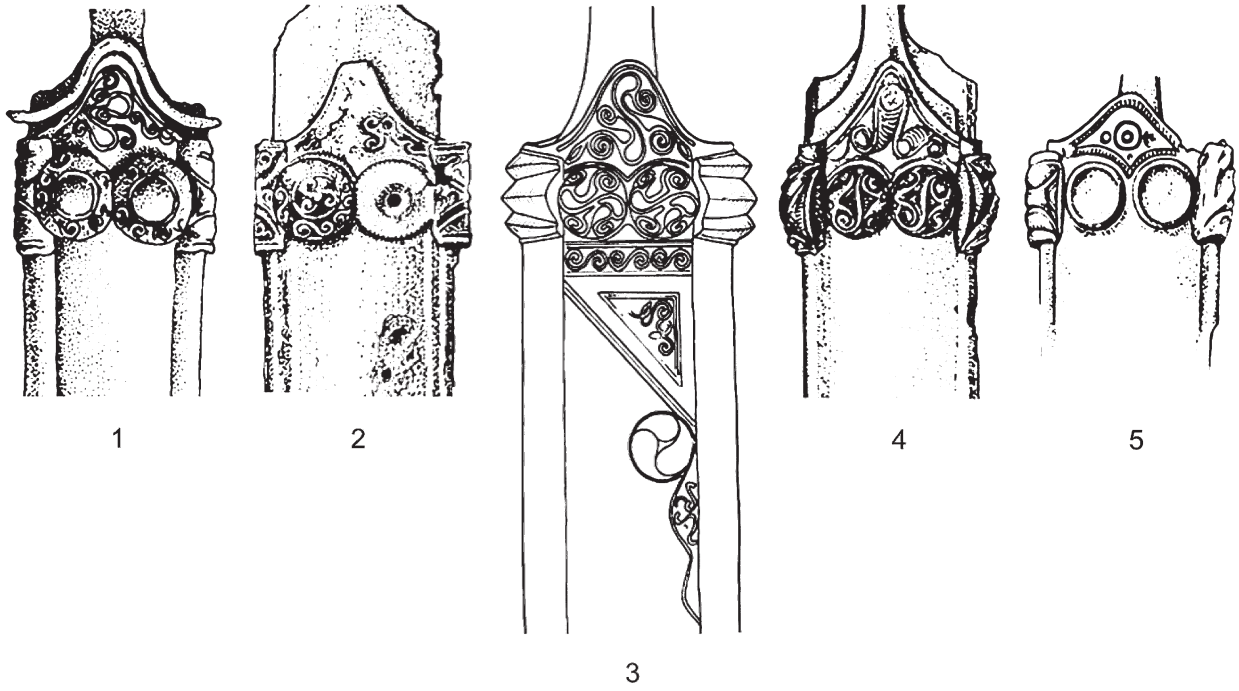

Fig. 3. Swords from Hatvan-Boldog, Gáva-Katóhalom, Srednica, Kosd and Szob (after Lubšina Tušek, Kavur 2009).

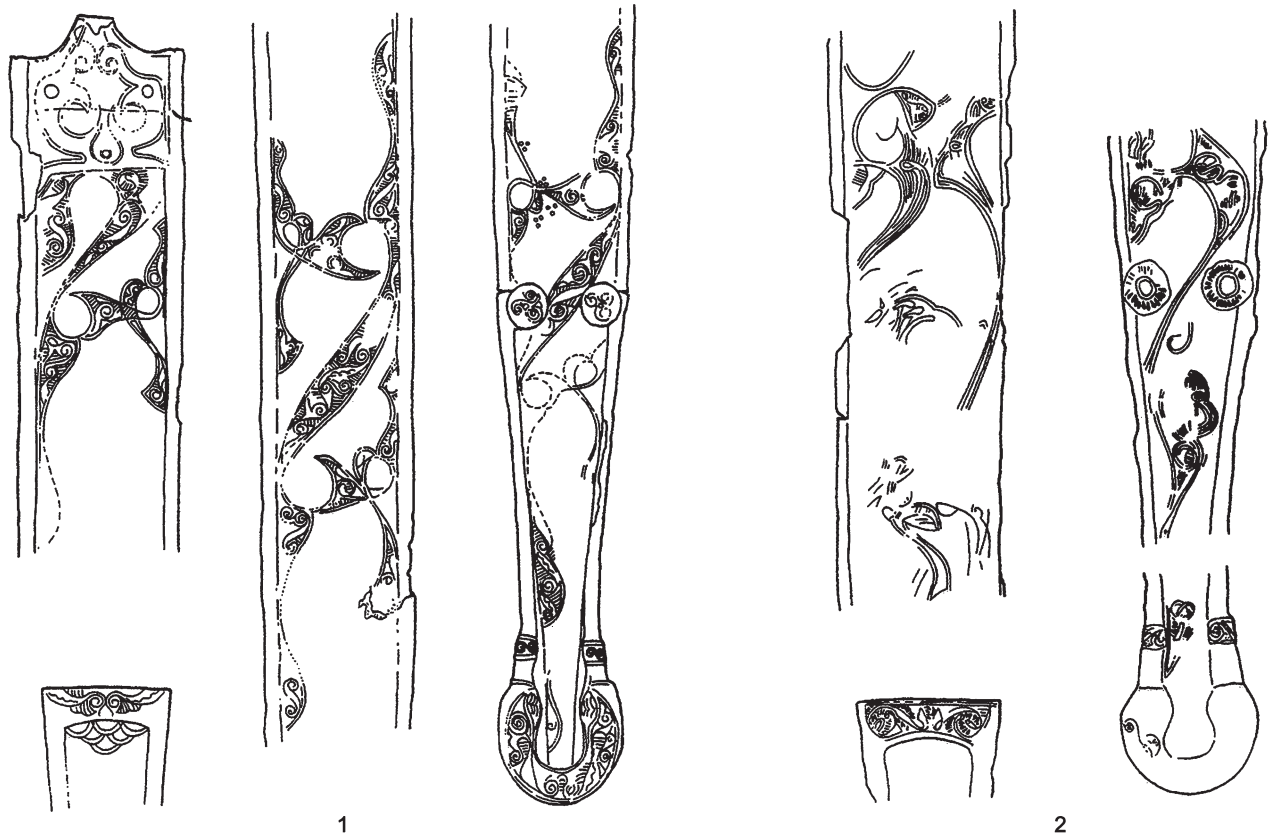

Fig. 4. Swords from Halimba and Kleinklein (after Dobiat 1996).

Style, as could the two lateral concave discs. Although heavily corroded, they exhibit a pattern of tendrils that is very similar if not identical to the decoration of the scabbard from Srednica. Again, its formal features, size and technical details testify that it was also a product of the same workshop.

The three swords discussed here, all discovered in an area between Graz and Ptuj, clearly demonstrate the connectedness of the area to the most probable place of their stylistic and typological origins. These origins were further elaborated in the development of a local metallurgical tradition, which based on the traditions of the Plastic Style can be observed in the massive clasps and the decoration on the chape ends.

Another exceptional find, a part of the "global" Celtic artistic tradition, decorated in the early "Hungarian Sword Style", was discovered in the area of the older Early Iron Age cemetery at Burgstallkogel in Kleinklein and preserved in the Burgmuseum in Deutschlandsberg in Austria (Fig. 4).[14]

Unfortunately badly preserved, the sword has a chape-end decorated with intricate tendril patterns of hatched leaves and spirals as well with a "relief line". The scabbard is decorated with uniaxial free flowing patterns organised in three oblique zones linked with tendrils – all the characteristics of the Hungarian Sword Style. The tight spiral scrolls and half palmette in particular, as well as the decoration of the chape end, exhibit numerous points of comparisons with the sword from Halimba in Hungary (Fig. 4).[15]

In their presentation of the decorated swords from the Carpathian Basin, Miklós Szabó and Éva Petres demonstrated that the manufacture of these swords clearly belongs to the sphere of the Eastern Celtic art, and without presenting the possibility of locating a probable workshop pointed out that there is a major concentration of finds of such decorated swords on the territory to the north of Lake Balaton.[16]

The third exceptional find from the region is the sword discovered in Graz in the former gravel pit in the Laubgasse (Fig. 5). On the badly preserved surface of the scabbard one can recognise a form of decoration present in the whole Celtic world – the punched lozenge decoration in the form of half-palmettes and reversed S's. Although the best comparison can be observed in the same area as presented above on the site of Potypuszta located to the north of Lake Balaton in Hungary (Fig. 5), the swords with such decoration on the scabbards are distributed across the Celtic world from France to Poland and across Austria, Hungary and Slovakia.[17] Observing the similarity, or actually identity, of the stamps led several authors to the conclusion that it is likely that different swords were produced with the same punch.[18] But when referring to the details of two neighbouring swords it becomes clear that the stamped decoration on the scabbard from Graz was a mirror image of the ones from Potypuszta[19] and that the stamps on later swords had a further decorative element in the form of hatched lines behind the half palmette.[20]

In 1997, László Horváth published a map showing the distribution of La Tène cemeteries in Transdanubia.[21] Burials from the period of LT B were concentrated along the Danube and on the territory between the Neusiedler Lake and Lake Balaton, while the burials from the period LT C occurred around Lake Balaton and to the south. The same opinion was reflected in the map showing the distribution of swords of the Hatvan-Boldog type published by Thomas Stöllner two years later.[22] The territory to the south of Lake Balaton was strangely empty on Stöllner's map. But the picture becomes a little bit clearer if we observe the distribution of the swords of the Kosd A to D types according to Szabó and Petres published a few years earlier.[23] This map offers one of the keys for understanding the process of occupation and further development of the late Early La Tène settlement in the region. It was in the first half of the 4th century BC that the Celtic presence was documented in Lower Austria, in southwestern Slovakia and in northern Transdanubia, presumably penetrating from the territory of the Vienna Basin. The sites of Sopron-Bécsidomb and Ménföcsanak should be counted among the earliest. It was thought that at the end of the century the populations moved towards the area around Lake Balaton,[24] but according to the present finds, the first wave of Celtic populations stopped on a line from south of Graz, towards Deutschlandsberg in Austria and finally ending on the fringes of Pohorje and around the Drava in Slovenia. It is important to mention that the finds from the earliest female graves in Srednica as

14. Dobiat 1996, 86.
15. Megaw 1973, 128–129, Fig. 6. – Szabó, Petres 1992, 43, Suppl. 1.
16. Szabó, Petres 1992, 45.
17. Megaw, Megaw 2012, 404.
18. Lejars 1994, 74.
19. Kramer 1994, 20.
20. Frey 1979, 69, 73, Fig. 6.
21. Horváth 1997, 90, Fig. 8.
22. Stöllner 1998, Beilage 3.
23. Szabó, Petres 1992, 81–82, Figs. III and IV.
24. Szabó 1992, 21–22.

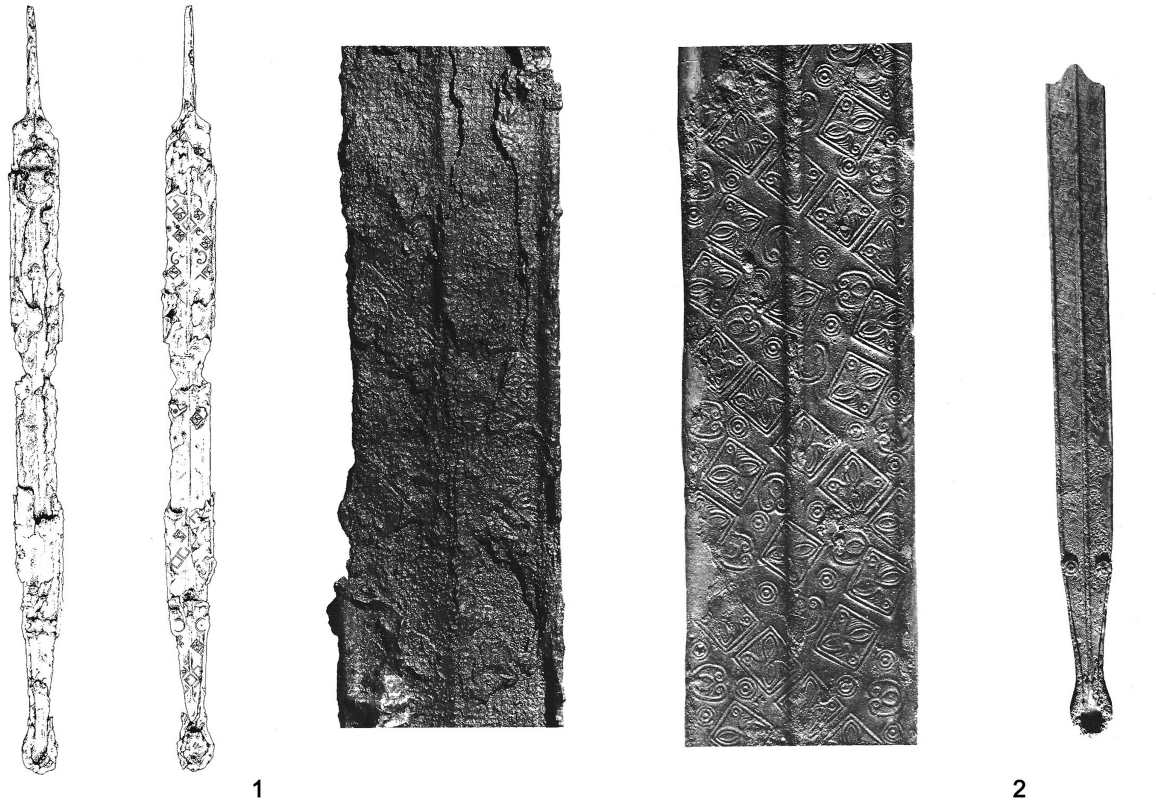

Fig. 5. Swords from Graz-Laubgasse and Potypuszta (after Frey 1979).

well as other finds in southern Transdanubia and further into the Balkan Peninsula demonstrate connection to the centres of Celtic expansion in southern Slovakia.[25] In this initial phase of colonisation only a few inhumation burials are known. They feature the last occurrence of Early La Tène type artefacts – elements of the material culture of the incoming Celts. It might have taken place in the middle of the 4th century BC[26] when the territory of today's Styria became integrated into the cultural *koiné* of the Eastern Celts.[27] Considering these three swords with their decorated scabbards, the finds from Srednica, Kleinklein and Graz, we can conclude that in the period of Late LT B and Early LT C, the area of Styria was the western edge of the Eastern Celtic world, which although initially settled by the communities deriving from the territory between southern Slovakia and the Danube Bend, maintained contacts with the Celtic communities to the north of Lake Balaton and further developed several local traditions. Artistic traditions created and further developed in the local production centres maintained the contacts and the balance but marked the specific cultural development of the Middle La Tène in the region.

25. Horváth 2005, 63. – Szabó, Tanko 2006, 330.
26. Kavur, Guštin 2011, 129–130.
27. Szabó 1985, 65.

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Late La Tène Settlements in the Vinkovci Region (Eastern Slavonia, Croatia): Centres of Trade and Exchange

Marko Dizdar

Abstract: This paper discusses the settlement network of the Scordisci in the area of Vinkovci in the eastern Slavonia region (Croatia) during the Late La Tène period. Excavations at the multi-period prehistoric settlements along the river Bosut as well as many contemporaneous lowland settlements brought to the light large amounts of metal and glass finds. This indicates the existence of a complex settlement network.

Keywords: Late La Tène period, settlement, eastern Slavonia, Vinkovci, exchange, fibulae.

Zusammenfassung: Hier wird die Frage des Besiedlungsnetzes der Skordisker in der Vinkovci Region in Ostslawonien während der späten Latènezeit diskutiert. Sowohl auf mehrphasigen Siedlungen entlang des Bosut-Flusses als auch in vielen gleichzeitigen Tiefland-Siedlungen wurden große Mengen von Metall- und Glasfunden lokalisiert, die auf die Existenz von komplexen Besiedlungsnetzwerken hinweisen.

Stichwörter: Spätlatènezeit, Siedlungen, Ostslawonien, Vinkovci, Austausch, Fibeln.

Our present understanding of the development of the Late La Tène culture in northern Croatia is mostly based on the sites and finds from eastern Slavonia, which confirm that this area formed part of the distribution area of the central European legacy of the Late La Tène culture. In addition to the Late La Tène finds collected since the end of the 19th century,[1] a series of trial and rescue excavations were carried out in the 1970s and 1980s on multi-phase prehistoric settlements along the river Bosut in the Vinkovci region (Orolik, Privlaka, Stari Mikanovci, Dirov Brijeg), as well as in Osijek, where the latest layers are dated to the Late Iron Age (Fig. 1). Based on the finds,

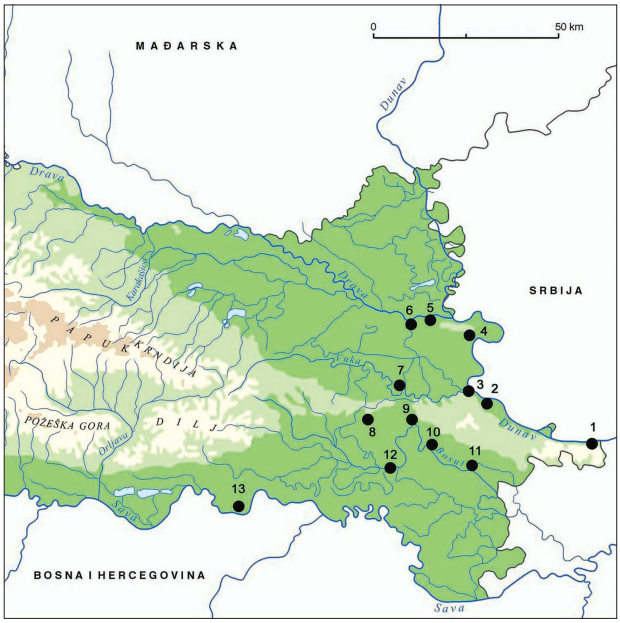

Fig. 1. Fortified and important settlements in eastern Croatia (western Syrmia and eastern Slavonia). – 1. Ilok. – 2. Sotin. – 3. Vukovar. – 4. Dalj. – 5. Sarvaš. – 6. Osijek. – 7. Markušica. – 8. Stari Mikanovci. – 9. Vinkovci. – 10. Privlaka. – 11. Orolik. – 12. Cerna. – 13. Donja Bebrina.

the fortified settlements were dated to the later phase of the Middle and Late La Tène.[2] In the last twenty years, a number of field surveys in the Vinkovci region have revealed many lowland settlements that can also be dated to the Late La Tène.[3] It is interesting that at the moment, contemporary burials in this area are almost unknown, apart from a report of the chance finds of weaponry (Vinkovci, Otok), which in all probability come from destroyed cremation burials.[4] Recent investigations, in addition to the finds deposited in the Vinkovci Munici-

1. Majnarić-Pandžić 1970.

2. Majnarić-Pandžić 1984. – Majnarić-Pandžić 1996a. – Šimić 1997. – Dizdar 2001a.

3. Dizdar 2001b, 107–108.

4. Dizdar 2001b, 107–108, Pl. 1/6, 7, 8.

pal Museum, confirmed the suppositions that during the Late La Tène period this region was densely populated by the Scordisci.

During the Late La Tène period, the Scordisci in the Vinkovci region developed a complex settlement network, which included fortified and lowland settlements. Fortified settlements were always placed on strategically favourable locations and communication routes, on natural elevations along the river Bosut and its tributaries, often on tell type settlements formed during earlier prehistoric periods. These settlements were characterised by a fortification system consisting of an earthen rampart and a wide ditch, while inside were houses and other accompanying structures.[5] It can be supposed that in those settlements different workshops existed, especially workshops with pottery kilns, as on Dirov Brijeg in Vinkovci, which produced various types of vessels catering for local needs, but also probably for trade and exchange within a wider region.[6]

At present, based on a number of rescue excavations and field surveys, Vinkovci can be considered as an area with the best known Late La Tène settlement network in eastern Slavonia. There are in fact several Late La Tène sites situated on the right and left banks of the river Bosut, stretching in a continuous line for several kilometres (Fig. 2).[7] It is supposed that the most prominent position was occupied by the fortified settlement on Dirov Brijeg, placed on an elevated position at the confluence of the Nevkoš stream with the Bosut. The results of rescue excavations prior to the 1980s indicate that the Scordisci erected a settlement at the same place where earlier prehistoric settlements had been built.[8] The settlement area close to the Bosut yielded pottery kilns with ceramic finds from the Late La Tène period. Life in the settlement, based on certain chance finds, like a bronze fibula of the Jezerine type,[9] ended at the end of the 1st century BC in the period of the Roman conquest of southern Pannonia.[10] The position of the cemetery remains unknown, even though single finds of weaponry from a nearby position point to a possible location.[11]

Close to this central settlement on Dirov Brijeg, traces of contemporary lowland settlements were discovered on low elevations on either side of the Bosut – Ervenica and

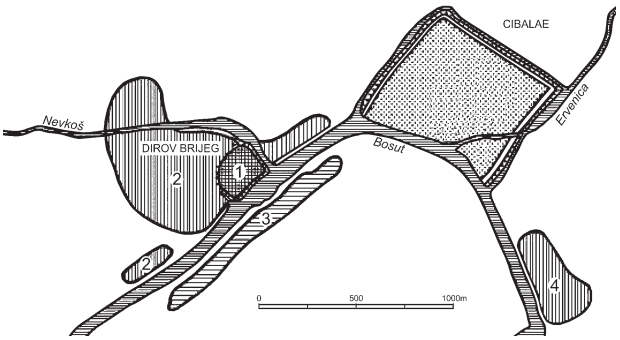

Fig. 2. Late La Tène settlements in Vinkovci and the position of the Roman city *Colonia Aurelia Cibalae*. – 1. Dirov Brijeg. – 2. Krnjaš. – 3. Pjeskana. – 4. Ervenica.

Pjeskana (Fig. 2).[12] During the rescue excavations, traces of settlement infrastructure were revealed, which include different types of structures, such as pits, post holes, etc., although potsherds, as the dominant type of finds, in addition to scarce metal objects, especially fibulae,[13] indicate that the settlements can also be dated to the LT D1.[14] The settlement on Ervenica, based on the pottery finds of characteristic shapes and decoration collected on the western edge of the site, started even earlier, during the earlier phase of the Middle La Tène period (LT C1).[15]

In the early 1990s, during a field survey at Blato in the northern part of Vinkovci (Fig. 3), fragments of pottery vessels and metal and glass finds collected on the surface of the low elevation surrounded by a marshy area point to the existence of a Late La Tène site (Fig. 4). In addition to this, this site yielded finds from other prehistoric periods, as well as from the Roman period. An analysis of the first monographon the Roman city *Colonia Aurelia Cibalae* from 1902 showed that the site had in fact been discovered during the construction of the railway in 1878. At the same time, fragments of ceramic vessels from the Neolithic and the Late La Tène period were collected at the same place. A trial excavation was promptly carried out and confirmed the existence of the site and the identification of the finds.[16]

After the field surveys in the 1990s and a small trial excavation conducted in 1998 it was difficult to form a conclusion about the original context of the discoveries, although the discovery of small fragments of burnt bones pointed to the presence of a Late La Tène cemetery.

5. Majnarić-Pandžić 1984. – Dizdar 2001a.
6. Dizdar 2001a.
7. Dimitrijević 1979, 144–146, Fig. 4. – Dizdar 2001a, 21–27, Figs. 5–8.
8. Dizdar 1999. – Dizdar 2001a.
9. Dizdar 1999, 116, Cat. no. 163.
10. Dizdar 2001a, 109–110.
11. Dizdar 2001b, 105.
12. Majnarić-Pandžić 1970, 66–67, Fig. 5. – Dimitrijević 1979, 147, Pl. 9. – Dizdar 2001a, 24–27, Fig. 7. – Dizdar 2001b, 104–105.
13. Majnarić-Pandžić 1970, 66–67, Fig. 5, Pl. XXII/2, 3.
14. Dizdar 1999. – Dizdar 2003.
15. Dizdar 2001a, 97–99, Pls. 1–3.
16. Brunšmid 1902, 122–123.

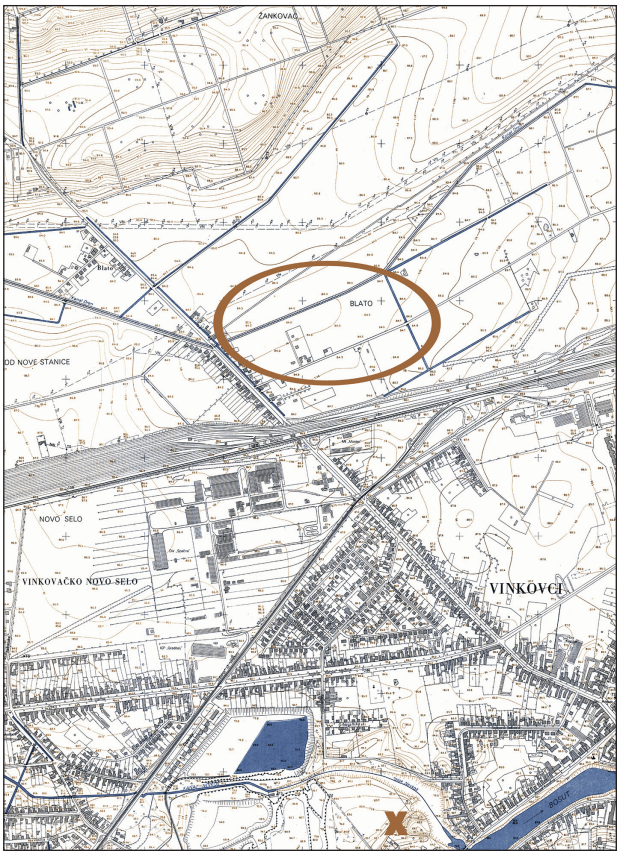

Fig. 3. Locations of the fortified settlement at Dirov Brijeg and the lowland settlement at Blato.

The results of this excavation show that the site has been largely destroyed by deep ploughing and that only the lower parts of features remained preserved.[17] In the following years, the number of collected surface finds rapidly increased, and in 2010 the Vinkovci Municipal Museum and the Institute of Archaeology carried out a trial excavation in the eastern part of the site, excavating a 500 m long trench.[18] During the excavation it was again demonstrated that the site is threatened by ploughing, which was further corroborated by an abundance of finds scattered on the surface of the site. The trench yielded the remains of a lowland settlement with postbuilt houses and pit dwellings separated by shallow ditches. The settlement infrastructure also includes numerous pits and post holes of various shapes, sizes and depths, similar to other contemporary lowland settlements of the Scordisci. During the excavation, a number of potsherds, metal and glass finds were discovered on the surface of the settlement.

Fig. 4. Lowland settlement at Blato with the Đakovo-Vinkovci loess plateau in the background.

The abundance and diversity of metal and glass finds suggest that the settlement at Blato was not an ordinary lowland settlement, but that it more likely played a special role in the settlement and communication network and hierarchy of the Scordisci in the area of present-day Vinkovci. The number of metal and glass objects is much higher than in the contemporary fortified settlements in Dirov Brijeg,[19] Osijek[20] or Gomolava,[21] which indicates that we should reconsider the previous model of the settlement network of the Scordisci, in which the most prominent place was reserved for fortified settlements. Those settlements were considered as production "zones" and centres of trade and exchange, and even as political and administrative centres of their respective areas.[22] The discovery of the settlement at Blato points to the existence of a somewhat more complex model of the settlement network of the Scordisci during the Late La Tène period in eastern Slavonia, for which it is important to carry out a detailed analysis of all the collected finds.

The most numerous finds are the fragments of pottery vessels that were mostly made on a potter's wheel, although hand-made vessels of specific shapes were also recognised (Fig. 5).[23] The other ceramic finds include various forms of weights and spindle whorls. As for the wheel-made forms, two types of bowls predominate: S-profiled bowls with everted rim and bowls with round body and inverted rim. The interior wall of the bowls can be decorated with a grooved wave-line. The most numerous types of pots have a characteristic S-profile, the greatest width in the upper part and a cordon on the shoulder. Some of the pots were decorated with grooved

17. Dizdar 1998. – Dizdar 1999, 47. – Dizdar 2001b, 104–106.
18. I would like to thank my colleagues Hrvoje Vulić, Maja Krznarić Škrivanko and Anita Rapan Papeša from the Municipal Museum in Vinkovci for the finds and information from the investigation at Blato in Vinkovci.
19. Dizdar 1999, 47. – Dizdar 2001b, 104–106, Pls. 4–6.
20. Šimić 1997.
21. Jovanović, Jovanović 1988, 83–85.
22. Majnarić-Pandžić 1984. – Dizdar 2001a.
23. Dizdar 2001a, 116, Pl. 6.

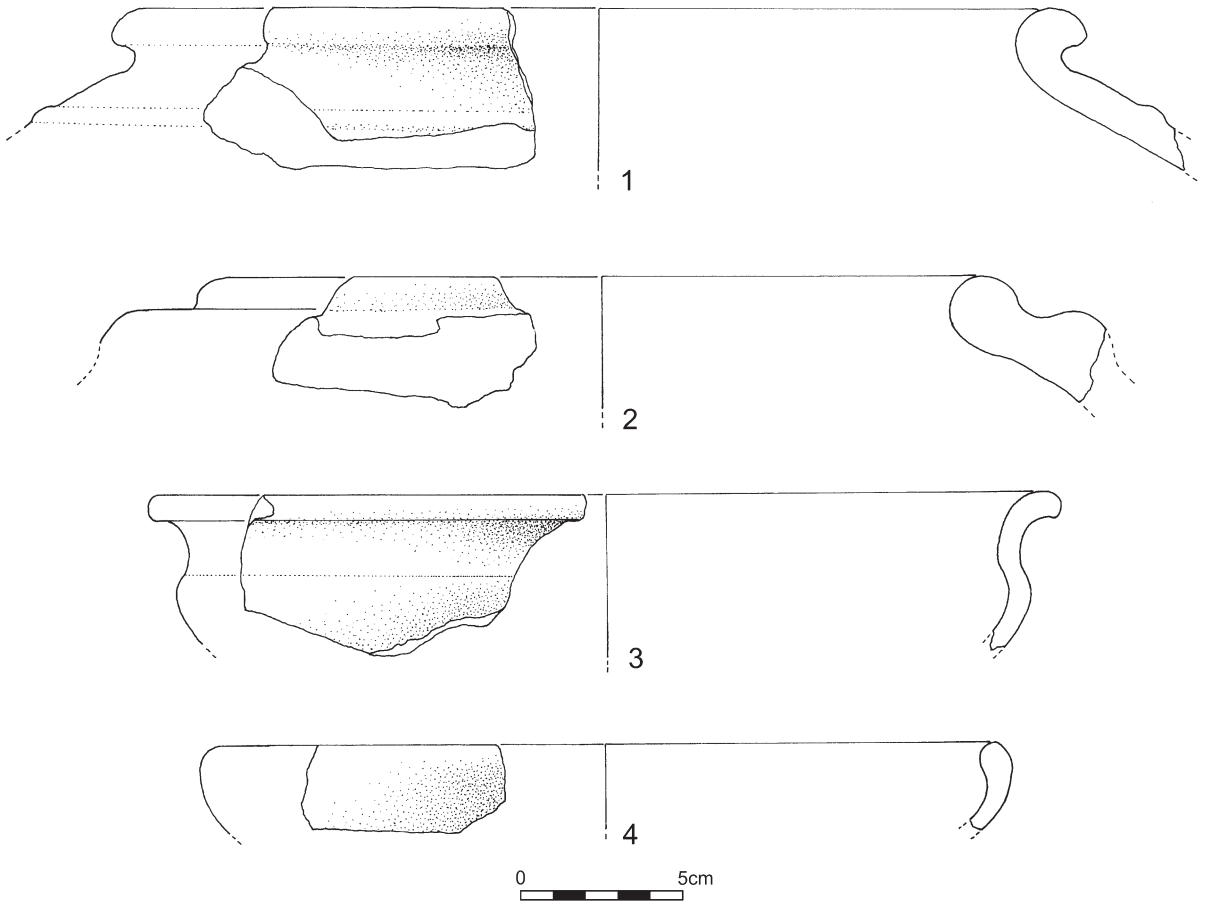

Fig. 5. Fragments of pottery vessels.

wave-lines or vertical lines organised in a metope ornament. One of the characteristic wheel-turned forms is a large storage pots with round body and horizontal, profiled rim (*dolium*). Other wheel-made forms include kantharoi and jugs with profiled strap handles with round body and conical neck. Kantharoi decorated with grooving or burnishing are a form that can be considered as particularly characteristic for the culture of the Scordisci.[24] The so-called situla-shaped pots with dense vertical combed decoration are another characteristic form. Some of these pots have traces of incised decoration. The most common type of hand-made vessels are pots with round body and a wide horizontal groove below the rim of narrow rectangular cross-section. This group also includes undecorated pots with S-profiled body and bowls with a round body.

The preliminary analysis of pottery vessels indicates that the settlement belongs to the Late La Tène, just as did the previously published finds from the fortified settlement at Dirov Brijeg.[25] All the described shapes, decorative techniques and motifs have their best parallels in other fortified and lowland settlements of the Scordisci in eastern Slavonia and western Syrmia.[26]

For a chronological determination of the settlement and a definition of its position in the communication network, the crucial role is played by the finds of metal and glass objects, which enable us to date the settlement to the Late La Tène, with the beginning probably toward the end of the later phase of the Middle La Tène. Only a single fragment of an Early La Tène bronze fibula of the Dux type was found until now, leaving the problem of the continuity of the settlement into the early phase of the Middle La Tène and then into the Late La Tène still open.

Among the metal finds, pieces of costume and jewellery can be recognised, fragments of bronze vessels and coins, as well as horse gear, while weapons and tools

24. Dizdar 2001a, 66–69, Pls. 6/1 and 11/4.

25. Dizdar 2001a, 99–105.

26. Majnarić-Pandžić 1996a. – Dalić 1998. – Dizdar 2001a.

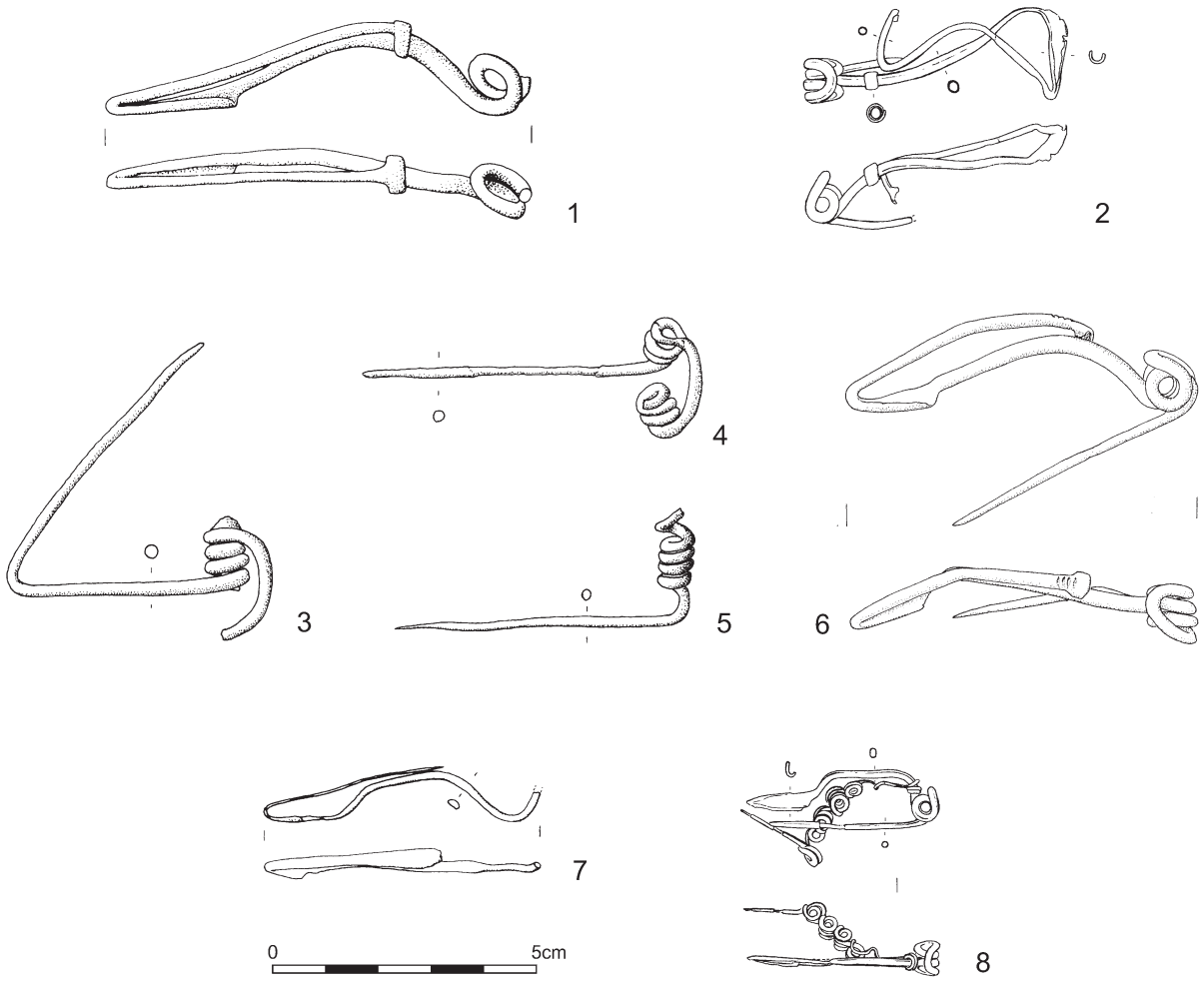

Fig. 6. Bronze wire fibulae of the Middle La Tène construction (1–6), with bent foot in the shape of spear-like plate (7: *Lanzenfibeln*) and with springs on the end of the bent foot (8: *fibules à "crête"*).

are very scarce. The most numerous finds are different types of bronze fibulae, especially plain wire fibulae of Middle La Tène construction with low hemispherical bow of round cross-section and short bent foot (Fig. 6/1–6). Fibulae have a spring with four coils connected with an external chord. This type of fibula is the most common type at the sites of the Scordisci at the beginning of the Late La Tène period. This is corroborated by finds from Vukovar,[27] Sotin,[28] Orolik,[29] Novo Selo,[30] Dalj,[31] Zbjeg,[32] Gomolava,[33] Saraorci,[34] Dautovac,[35] in the valley of the Mlava River[36] and Rapanović Polje in northeastern Bosnia.[37] Sometimes only the pin and a part of the spring with six coils and external chord are preserved (Fig. 6/3–5), suggesting that the finds from Blato could be ascribed to the late phase of the Middle La Tène (LT C2).

Another variant of plain bronze wire fibulae of Middle La Tène construction consists of fibulae decorated with grooves on the end of the foot, below the attachment with the bow (Fig. 6/6). Parallels are also documented in Late La Tène settlements of the Scordisci, for instance

27. Majnarić-Pandžić 1970, Pl. LI/11.
28. Ilkić 1999, Pls. XXI/11 and XXII/1.
29. Majnarić-Pandžić 1970, 57, Fig. 2. – Dizdar 2001a, 109, Pl. 2/5 with an internal chord.
30. Majnarić-Pandžić 1970, Pl. XXII/5.
31. Majnarić-Pandžić 1970, Pls. III/6 and IV/6, 8.
32. Majnarić-Pandžić 1970, Pl. XXII/4.
33. Jovanović, Jovanović 1988, Pl. XLI/8.
34. Popović 2001, Pl. 1/17.
35. Popović 2003a, Pl. 1/2.
36. Stojić 2000, 61, Pl. I/46–48.
37. Kosorić 1982, Pl. IV/32.

in Vinkovci-Ervenica,[38] Sotin,[39] Gomolava,[40] Brestovik,[41] Ritopek[42] or in Grave 14 in Pécs-Hőrőmű.[43] Very similar are bronze fibulae from the bank of the Danube near Zemun, with hemispherical bows and springs consisting of a larger number of coils connected with external chords.[44]

This is the most numerous group of bronze fibulae, according to parallels from the other sites of the Scordisci and in the wider area of southern Pannonia, suggesting that intensive habitation of the site in Blato started at the beginning of the Late La Tène. It is interesting that the best parallels are known from other settlements of the Scordisci, while contemporary graves, for instance in Karaburma and Rospi Ćuprija, or in destroyed cemeteries, contain other types of Late La Tène fibulae (Karaburma 39, Jarak etc.). Also, for the time being there are no grave assemblages in the territory of the Scordisci and neighbouring areas that could allow a possible subdivision of the LT D1 phase, as has been done in other regions where similar plain wire fibulae are dated to the LT D1a.[45]

Another type of plain wire bronze fibulae is represented by a similar fibula with bent foot in the shape of a narrow triangular or spear-like plate (*Lanzenfibeln*; Fig. 6/7). The fibula has a hemispherical bow of round cross-section and a spring with four coils connected with an external chord. Similar fibulae were defined as group III and appeared at the sites of the Scordisci during the Late La Tène period.[46]

Contemporary with these are bronze fibulae with loops (*fibules à "crête"*) or springs (Pestrup fibula or *Spiralfußfibeln*) (Fig. 6/8) on the end of the bent foot and a spring with four or more coils connected with an external chord. Sometimes the only preserved portion of the foot is the end with two coils around the bow of round cross-section. A fibula with six loops on the end of the foot was discovered in Dautovac.[47] Two similar fibulae with a large number of coils are known from Zemun and Orešac.[48] Bronze fibulae with loops or springs from Blato, like a group of contemporary plain wire fibulae with many parallels at Late La Tène sites of the Scordisci, suggest that they were produced locally and worn by local inhabitants.

Bronze fibulae of a Middle La Tène construction with different profiles on the bent foot, which, based on the shape and position, can be divided into several types, belong to a different group. The first type is characterised by fibulae with a bow of band cross-section, which thickens towards the spring and with narrow ribbon relief arranged into two groups on the foot – one before the connection with the bow and another at the middle of the foot. The spring was composed of a large number of coils, which were probably connected by an external chord (Fig. 7/1). Based on the shape of the bow and the characteristic relief on the bent foot, the closest parallels are bronze fibulae of the Picugi type, which was dispersed in the southeastern Alpine region and along the eastern Adriatic coast and its hinterland.[49] The fibulae from Blato might be some local Late La Tène variant of the Picugi type, bearing witness to the contacts with areas to the west. Another indicator of influence from this direction is represented by a bronze fibula with a hemispherical bow of band cross section that thickens towards the spring and with four ribbon reliefs at the end of the high foot (Fig. 7/2). The fibula can be ascribed to a variant of the Podzemelj type, which appears in the largest numbers at sites in the Kupa valley and in Carniola.[50]

To the same group of bronze fibulae of Middle La Tène construction with a moulded profile on the bent foot belong fibulae with a hemispherical bow with band cross-section that thickens towards the spring composed of a large number of coils with an external chord. The foot was decorated with a moulded profile arranged into two groups – one of semicircular cross-section before the connection with the bow and another, oval, at the middle of the foot (Fig. 7/3). The closest parallel is known from Dalj,[51] and from unknown sites in Syrmia[52] and Kostolac.[53] Other parallels are recorded at sites in southern Bosnia and Herzegovina such as Rakitno,[54] Gorica[55] and Vir near Posušje.[56] All the mentioned finds lack any precise stratigraphical data, so the finds from Blato suggest that this type of fibula can be dated to LT D1. A group of similar fibulae from Late La Tène sites in southeastern Europe might be of help for dating. The best known are

38. Majnarić-Pandžić 1970, 66, Fig. 5/4.
39. Ilkić 1999, Pl. XXI/9, 10.
40. Jovanović, Jovanović 1988, Pl. XLI/11, 12.
41. Todorović 1971, Pl. LXII/16.
42. Todorović 1971, Pl. LXIV/2.
43. Maráz 2008, Fig. 12/3.
44. Todorović 1971, Pls. LXIII/2, 7, 10 and LXV/10.
45. Miron 1991. – Rieckhoff 1995.
46. Popović 1994, 57–62, Figs. 5–6.
47. Popović 2003a, 147–149, Pl. 1/1.
48. Popović 2003a, Fig. 1/4, 5.
49. Guštin 1987, 51–53, Fig. 12. – Guštin 1991, 38–39, Fig. 20.
50. Božič 2001, 188–190, Figs. 21–25.
51. Majnarić-Pandžić 1970, Pl. VI/2.
52. Todorović 1974, Fig. 97.
53. Jacanović 1987, Pl. 3.
54. Radimský 1893, 176, Fig. 16.
55. Radimsky 1895, 295, Fig. 29. – Truhelka 1902, 20, Fig. 27.
56. Čurčić 1909, 98, Pl. XVIII/14.

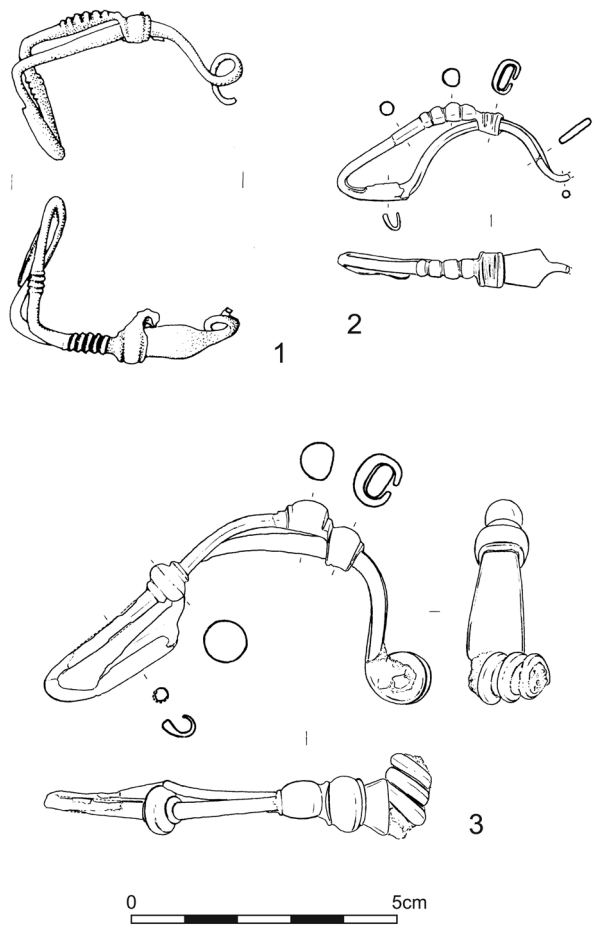

Fig. 7. Bronze fibulae of the Picugi type (1), of the Podzemelj type (2) and of the Rakitno type (3).

bronze or silver fibulae of the Jarak type, dated to LT D1, which have a much wider bow, although the shape of the moulded profile is similar.[57] Contacts between southern Pannonia and the western Balkans are corroborated by the find of a long bronze fibula with short decorated foot from Sotin[58] with the best parallels in finds from Donja Dolina,[59] Breza,[60] Debelo Brdo,[61] Gorica,[62] Vir near Posušje[63] and Gostilj.[64]

Among the metal finds, probably the most prominent are bronze fibulae of the Vinkovci type (Fig. 8/1–3), which also support the dating of the settlement to LT D1.[65] Fibulae of this type have low triangular or leaf-shaped bows and unperforated rectangular or trapezoidal foots, which are bent in the lower part to function as the catch plate. Fibulae have a spring with four coils connected with an internal or external chord. Three different variants can be recognised based on the decoration of the bow – (1) with undecorated bow; (2) with engraved lines along the edges of the bow; (3) with concentric circle motifs. At the end of the bow there are two, three or two groups of perpendicular grooves. Since Vinkovci type fibulae are particularly numerous at the sites in Vinkovci and neighbourhood (Markušica, Sotin, etc.), it is supposed that they were produced in workshops situated in fortified settlements, which is further supported by the number of variants of this type.[66] Similar fibulae are known from other sites of the Scordisci, like Imrijevci, Gomolava or Zemun.[67] The north westernmost site with finds of this type of fibula is the Oberleiserberg.[68] Vinkovci type fibulae are similar in shape and certain type of decoration to the second group of the Nauheim fibula (Nauheim II.1) with a trapezoidal foot that is most often perforated, although there are fibulae with an unperforated foot. This type is distributed in the northern Adriatic and the southeastern Alpine region, where it is dated to LT D1b.[69]

A very important find is a single find of an iron Nauheim I fibula with elongated triangular bow and frame-shaped foot. The bow is decorated with engraved lines along the edges (Fig. 8/4). This is the first find of this type of fibula in southern Pannonia, pointing to two possible communication routes – one with the northern Adriatic region, and the other, more plausible, with the area north of the Alps.[70]

A small group of cast bronze fibulae was also discovered at Blato. Based on the shape of the bow and perforated foot, a fibula of the Szalacska type (Fig. 9/1)[71] can be recognised, as well as a fibula of the Oberleiserberg type (Fig. 9/2),[72] which additionally strengthens the dating of the settlement to LT D1. These fibulae also confirm the existence of contacts with the neighbouring area of Transdanubia and central Europe. To the same group of cast fibulae belong somewhat younger fibulae of the

57. Sladić 1991. – Sladić 2006. – Hoard Szarad-Regőly: Hunyady 1944, Pl. 2.
58. Majnarić-Pandžić 1970, Pl. XXXVIII/1.
59. Truhelka 1904, Pl. XXXVIII/24.
60. Paškvalin 2008, Pl. 16/1.
61. Fiala 1899, 132, Fig. 13.
62. Truhelka 1902, 20–21, Figs. 29–30.
63. Marić 1962, 65–66, Pl. II/4, 5. – Marić 1963, 75, Pl. I/17.
64. Basler 1969, Pls. V/21/6, IX/37/5, 6, X/39/1,2, XI/45/1 and XXI/103/3, 4.
65. Dizdar 2001a, 110. – Dizdar 2003. – Majnarić-Pandžić 2009.
66. Dizdar 2003.
67. Dizdar 2003.
68. Karwowski 2009, Fig. 8. – See also the paper by M. Karwowski in this volume.
69. Božič 2008, 50–65.
70. Demetz 1999, 78–79, 86.
71. Lazar 1996, 280, Pl. 1/8.
72. Karwowski, Militký 2011, 133–135, Figs. 3 and 4.

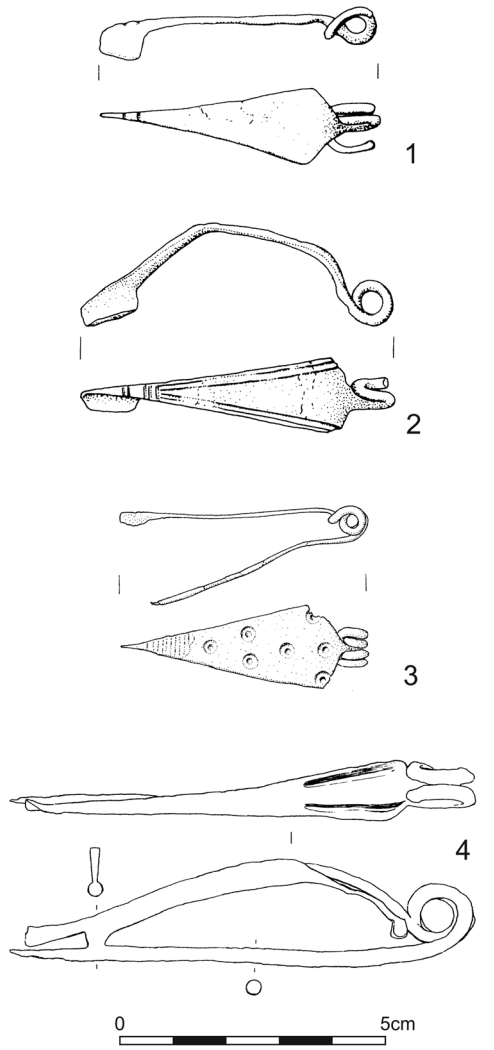

Fig. 8. Bronze fibulae of the Vinkovci type (1–3) and iron fibula of the Nauheim I type (4).

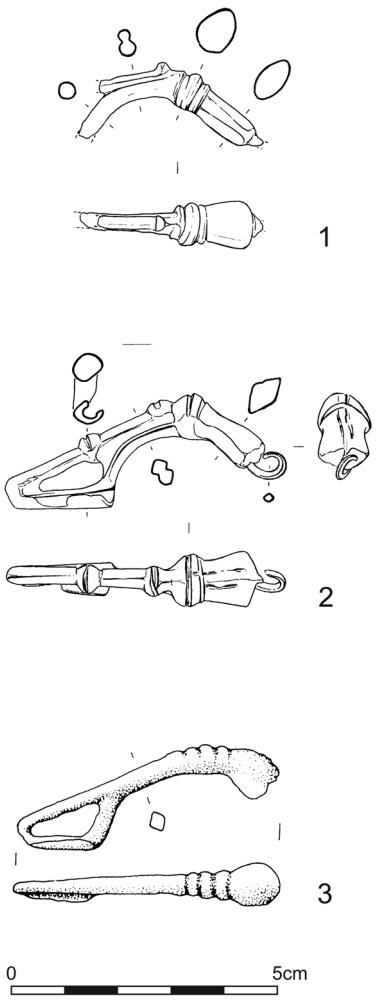

Fig. 9. Bronze fibulae of the Szalacska type (1), of the Oberleiserberg type (2) and of the Almgren 65 type (3).

Almgren 65 type (Fig. 9/3),[73] which appears in the second quarter of the 1st century BC with peak use during Caesar's time.[74] D. Božič dates it to LT D1b.[75] The latest finds of fibulae from the settlement are bronze fibulae of the Jezerine type (Fig. 10). The bow turns into a spring, which is composed of four coils connected with an internal chord (type IIc).[76] Very interesting are small fibulae of the Jezerine type with analogies in Sotin or Gomolava, which might point to a production in local workshops.[77]

Finds of fragments from glass objects, such as bracelets or beads, are also important for a definition of the chronological position of the settlement (Fig. 11/1–3). Fragments of a cobalt-blue glass bracelet of type 6b/2 can be dated to the late phase of the Middle La Tène,[78] but the most numerous are fragments of a cobalt-blue bracelet with a D-shaped cross-section of type 3a or series 38, which can be dated to LT D1.[79] Other finds dating to that period are blue glass ring beads with radial decoration[80] and oval blue glass beads decorated with a white-blue circle motif or a horizontal and wavy line.[81]

73. Dizdar 2001a, Pl. 4/12.
74. Demetz 1999, 37.
75. Božič 2008, 145.
76. Demetz 1999, 100–101.
77. Dizdar 2003.
78. Karwowski 2004, 21–22. – Dizdar 2006, 84–85.
79. Dizdar 2006, 76–77.
80. Gebhard 1989, 177, Pl. 51/772–779. – Zepezauer 1993, 51–52, Pl. 3/7–11. – Karwowski 2004, 44.
81. Gebhard 1989, Pl. 48/714–718. – Zepezauer 1993, 80, Pl. 10/10–14, 25–28.

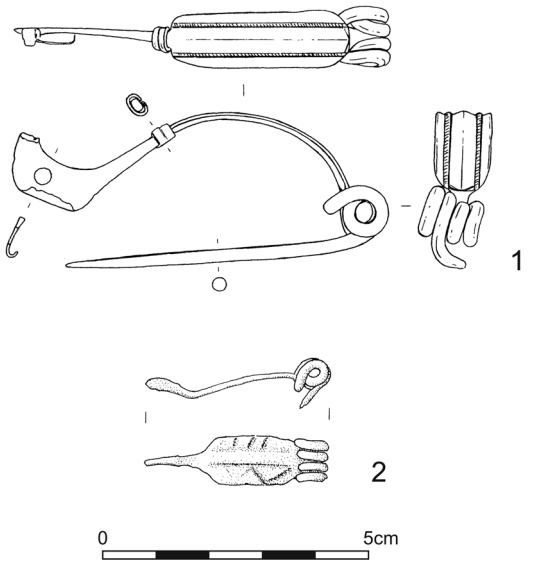

Fig. 10. Bronze fibulae of the Jezerine type.

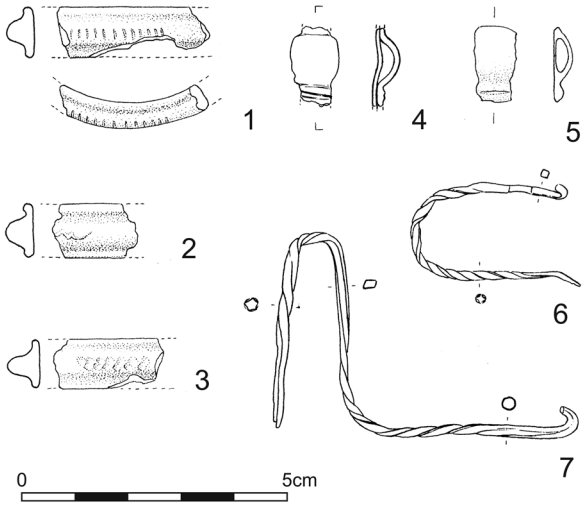

Fig. 11. Fragments of glass bracelets (1–3), fragments of bronze astragal belts (4–5: segments) and bronze pins with curved head and twisted body (6–7).

Fragments of bronze astragal belts (clasps and segments), which are characteristic for the Middle and Late La Tène female costume of the Scordisci, were found on the surface of the site (Fig. 11/4–5).[82] Based on the shape of the segments we can recognise belts of the Osijek and Beograd types,[83] which are also numerous in Sotin[84] or Gradina on Bosut.[85] Interesting are fragments of the narrow segments with undecorated ribs between the more rectangular loops, which belong to the Dunaszekcső type,[86] with analogies in Novi Banovci[87] and Sotin.[88]

The site also yielded bronze pendants of different shapes: foot and basket (Fig. 12), with good analogies at central European sites (Velem Szentvid),[89] but also in the wider area of the La Tène culture, where they are dated from Late Hallstatt to the Late La Tène period.[90] The same direction of the contacts with central European sites is suggested by the finds of bronze pins with curved head and twisted body (Fig. 11/6–7),[91] which are dated to the

Fig. 12. Bronze pendants.

Middle-Late La Tène.[92] The oldest finds are from Novo Mesto-Kapiteljska Njiva, where Grave 436 from LT C1 yielded two iron pins with twisted body; one has the head in the shape of a horse, while the other has spherical head.[93] Similar are bronze pins from the Magdalensberg, although they are a little bit smaller, with bent head that is sometimes zoomorphic, while the body is flat or twisted.[94] This direction of contacts is also suggested by the segments of horn chains from Grave 1 in Sotin[95] and a belt clasp from Grave 3 from the same site.[96]

82. Božič 1981a, 52–54.
83. Božič 1981b, 47–52, Fig. 3.
84. Ilkić 1999, Pl. XX/3, 5–6, 8–9, 11–12.
85. Popović 2003b, 313, Pl. IV/12–14.
86. Božič 1981a, 50, Fig. 3/17–20.
87. Božič 1981b, Fig. 3/20.
88. Ilkić 1999, Pl. XX/7, 10, 13.
89. Miske 1908, Pls. XXXVII/65, XXXVIII/37 and XLV/66.
90. Feugère 1998. – Warneke 1999, 135–136. – Čižmař 2002, 207–210, Fig. 6–7. – Čižmař 2005a, Figs. 2–3. – Čižmař 2008, Fig. 1.
91. Zachar, Rexa 1988, 45, Fig. 14/3.
92. Čižmař 2010, 383–384, Fig. 1.
93. Križ 2001, 59, 119.
94. Gostenčnik 2001, 574–576, Fig. 1. – Gostenčnik 2009, 36–37, Fig. 5.
95. Majnarić-Pandžić 1972–1973, 64, Pl. 1/8: as a chain belt. – Andrzejowski 1991. – Łuczkiewicz 2010.
96. Majnarić-Pandžić 1972–1973, 67, Pl. IV/9. – Pescheck 1989. – Bockius, Łuczkiewicz 2004.

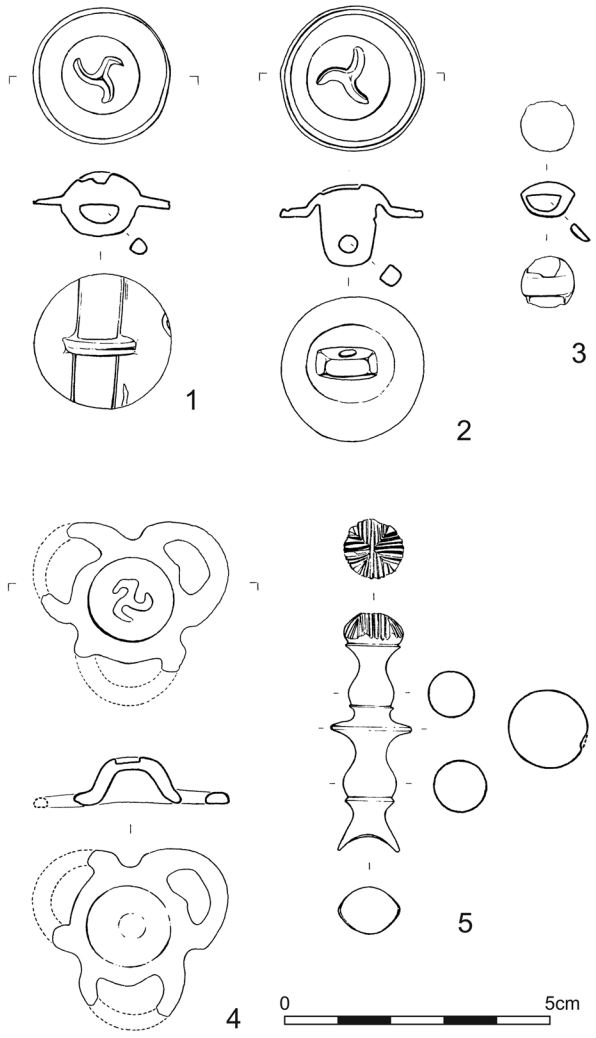

Fig. 13. Bronze finds of horse gear: buttons of various types (1–3), trefoil-shaped strap separators (4) and rein ring of the Hoppstädten type (5).

The area of the settlement at Blato yielded only a few fragments of weapons and tools. The weapons include fragments of spears with elongated blade of rhombic cross section,[97] while the fragments of knife blades could be used as tools.

The settlement yielded numerous finds of horse gear, which cannot be considered as standard inventory for a Scordisci settlement. The most prominent finds are bronze buttons of various types (Fig. 13/1–4), with good analogies in the finds from a Late La Tène sanctuary of the Scordisci in Osijek[98] or Veliki Vetren.[99] There is an abundance of larger buttons that are often decorated on top with a triskele or some other motif and which can be divided into several variants with regard to decoration and the construction of the lower part through which the belt passed.[100] Other types included bronze trefoil-shaped strap separators, the top of which is decorated with a triskele motif filled with red enamel.[101] The best analogies for buttons and separators are finds from the sanctuary of Scordisci in Osijek and the hoard from Veliki Vetren from LT D1,[102] as well as from sites of the Padea-Panagjurski Kolonii group from the second half of the 2nd century BC and the beginning of the 1st century BC.[103] Small bronze buttons of spherical shape with a loop at the bottom also belong to the horse gear. A double button from Grave 92 at Karaburma[104] is probably a *pars pro toto*, and together with a zoomorphic buckle can be considered as parts of a horse gear, suggesting that this warrior was a horseman.[105] One of the most important finds is a bronze rein ring of the Hoppstädten type (Fig. 13/5), as this is the south easternmost specimen found so far. This type of horse gear is dated to LT D2, based on a grave from Hoppstädten-Weiersbach,[106] although it can also appear during LT D1, as is the case, for instance, in the Oberleiserberg.[107]

Numerous finds of horse gear from Blato can be associated with a warrior class, which is corroborated by a number of analogous finds documented at Late La Tène sites of the Scordisci, which exhibit the recognisable role the warrior-horsemen played within the community. The warrior elite occupied the most prominent position in the Late La Tène period, and their burials are recognised by the presence of weaponry, horse gear or wagon elements, as well as the rich offerings consisting of ceramic and bronze vessels.[108]

Fragmentary finds of bronze vessels are also associated with the Late La Tène warrior elite of the Scordisci. Bronze vessels belonging to wine-drinking assemblages appeared in cemeteries and settlements of the Scordisci during the LT D1 phase.[109] In eastern Slavonia, bronze

97. Dizdar 2001a, 113, Pl. 5/1.
98. Filipović 2010. – Dizdar in press.
99. Stojić 2003.
100. Božič 1993, 139–140, Figs. 2 and 5. – Božič 2001, 184, Fig. 5. – Čižmář 2002, 216, Fig. 21.
101. Božič 1993, 140–141, Figs. 3 and 6. – Božič 2001, 184–185, Fig. 8. – Schönfelder 2002, 268–269, Fig. 169. – Čizmař 2002, 216, Fig. 20.
102. Dizdar in press. – Stojić 2003.
103. Zirra 1981. – Frey 1984. – Rustoiu, Sîrbu, Ferencz 2001–2002, 113–114, Fig. 8. – Łuczkiewicz, Schönfelder 2011.
104. Todorović 1972, Pl. XXIX/20.
105. Rustoiu 2005, 30, Fig. 2.
106. Schönfelder 2002, 239–240, Fig. 149.
107. Karwowski 2009, Fig. 6.
108. Egri, Rustoiu 2008. – Dizdar 2012.
109. Popović 1992. – Dizdar, Radman-Livaja 2004. – Dizdar, Tonc 2014.

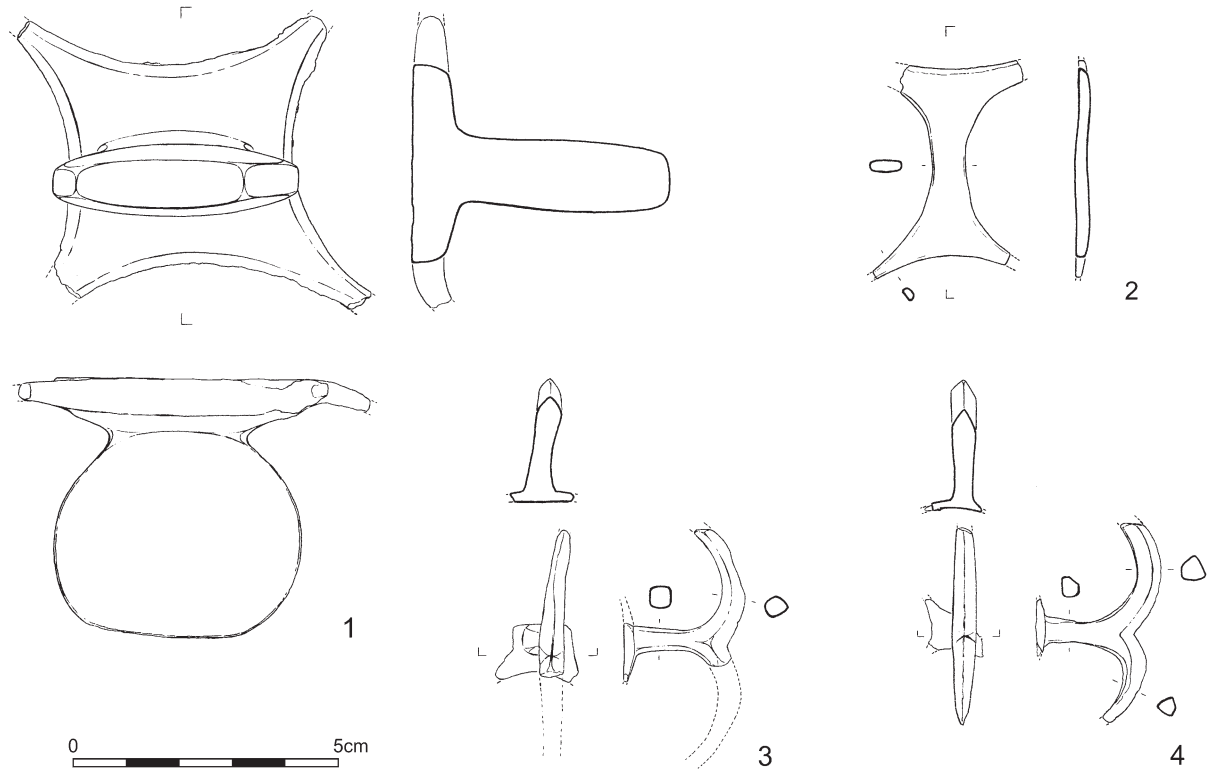

Fig. 14. Fragments of bronze vessels (strainers and a tripod).

vessels were found only at the most prominent sites like Dalj, Vinkovci or Orolik,[110] while in Sotin, the cremation graves discovered at the beginning of the 20th century yielded weapons and imported bronze vessels.[111]

Surface finds from the settlement in Blato included fragments of strainers, pans, ladles and a tripod (Fig. 14). The most numerous are handles of bronze strainers (*doigtiers* and *pouciers*). It is supposed that they were produced in Italic or Campanian workshops, but due to their wide distribution it is not out of the question that they were also being produced in Celtic settlements.[112] Further, a bronze handle of a strainer (*doigtier*) was found in Dalj[113] and some other sites of the Scordisci,[114] where the most frequent are *simpula* (ladles) of the Pescate type.[115] Their cast handle is divided into two or three segments and ends in a small stylised animal head. A receptacle was found in the fortified settlement of Dirov Brijeg,[116] a handle of a *simpulum* of type A was found in Grave I in Sotin,[117] while the fortified settlement Gradina in Orolik yielded a fragment of a handle.[118] *Simpula* were also found in graves at Karaburma,[119] in Grave 1 in Ajmana and Grave 18 in Konopište.[120] All those graves can be dated to the Beograd 3a phase (LT D1),[121] with possible production in Campanian and Etrurian workshops.[122] A unique find is a foot of a tripod of the Tassinari S1100 type,[123] very similar to a find in Grave 113 at Karaburma.[124]

Bronze vessels, as part of *symposium* sets during feasts, were found together with ceramic vessels of local origin in graves of prominent warriors of the Scordisci, kantharoi in particular. They could have been acquired by

110. Dizdar, Radman-Livaja 2004.
111. Majnarić-Pandžić 1972–1973. – Majnarić-Pandžić 1996b.
112. Guillaumet 1977, 238–245. – Guillaumet 1991, 92–93.
113. Dizdar, Radman-Livaja 2004, 50, Pl. 2/2.
114. Popović 1992, 61–62.
115. Popović 1992, 65.
116. Dizdar, Radman-Livaja 2004, Pl. 2/1.
117. Majnarić-Pandžić 1972–1973, 63, Pl. 2/1c. – Dizdar, Radman-Livaja 2004, Pl. 2/5.
118. Dizdar 2001a, 115, Pl. 7/8.
119. Todorović 1972.
120. Popović 1992, 64–66.
121. Božič 1981a, 319–321.
122. Castoldi, Feugère 1991, 67–68. – Castoldi 2003, 212.
123. Božič 2002, 419–422.
124. Todorović 1972, Pl. XXXIV/4.

the local elites by means of trade controlled by warrior elite, or as gifts to prominent members of the community. According to Strabo (4.6.10; 5.1.8; 7.5.2), bronze vessels were arriving with wine and olive oil from northern Italy and were traded with the tribes settled along the Danube (the Scordisci) for cattle, slaves and leather. Those vessels arrived via a caravan route leading from Aquileia to *Nauportus* (Vrhnika), where the goods were loaded onto ships and transported by the Ljubljanica and Sava rivers through *Segestica* all the way to the Danube region.[125]

Intensive trade and exchange contacts have also been corroborated by the finds of various bronze and silver coins collected on the surface of the settlement in Blato. It is possible to recognise coins that can be attributed to the different emissions of the Scordisci, mostly of the Syrmian type.[126] Drachms of the Greek cities of Apollonia and Dyrrhachium are particularly important for understanding chronology and interactions. These probably arrived in the Danubian region from the beginning of the 1st century BC via several possible directions from the eastern Adriatic coast. This is supported by the hoards from Dalj and Vukovar (one of the hoards from Vukovar also contained Roman Republican denarii minted between 111 and 79 BC).[127] The suggestion that the appearance of the drachms of Apollonia and Dyrrhachium in southern Pannonia should be dated not earlier than the mid-1st century BC[128] is partly refuted by the finds from Blato, where the dominant finds are those from the LT D1 phase, while finds from LT D2 are scarce. However, a very interesting theory links the appearance of those coins in large numbers in southern Pannonia with possible mercenary activities of the Scordisci during the 1st century BC.[129] On the other hand, a single find of a gold stater of the Vindelician type from an unknown find-spot in Vinkovci confirms the existence of contacts between eastern Slavonia and the area north of the Danube.[130]

The settlement network of the Scordisci in Vinkovci, with a number of other sites in the vicinity, indicates a densely populated area of eastern Slavonia during the Late La Tène period, when the inhabitants of those settlements played an important role in the trade and exchange network. In addition, the increasing number of many different categories of finds bears witness to important social and economic transformations that started occurring during the mid of the 2nd century BC which correspond with the appearance of fortified settlements.

A preliminary analysis of the finds from Blato and their chronological classification make it possible to date the settlement from the later phase of the Middle La Tène (LT C2) to the end of the Late La Tène LT D2 (Beograd 3b). However, settlement activity was most intensive during the second half of the 2nd century and the beginning of the 1st century BC (LT D1 or Beograd 3a). There is only slight evidence for continuity into LT D2 based on the metal finds, when the settlement probably lost its previous prominent position and its contacts with other, more distant regions. The same decline in imported prestige goods is also visible in other neighbouring regions.

In the light of the discovery of numerous fragments of fibulae, coins and horse gear, Blato can be considered as an atypical lowland settlement without analogies at present in the territory of the Scordisci. It is more likely that the finds can be interpreted as connected with certain intensive commercial and industrial activities like somewhat older settlements in central Europe, such as Němčice or Roseldorf.[131] This is a completely new idea contrasting with the previous understanding of the Late La Tène settlement network of the Scordisci, in which the central position in trade and exchange, based on the previously collected finds, is occupied by the fortified settlements like Gomolava, Privlaka and others.[132] Obviously, these fortified settlements played a prominent role in the settlement network of the Scordisci, but the existence of contemporary lowland settlements like Blato, with a large number of finds from distant regions, is a confirmation that this network was even more complex.

Based on the collected finds, the settlement in Blato participated in the exchange and trade network (Fig. 15) with northern Italy (bronze vessels, Almgren 65 fibula), the southeastern Alpine region (Picugi, Podzemelj type fibula), central Europe (Szalacska, Oberleis, Nauheim I fibula, pendants, horse gear, bronze pins, glass finds, stater) and the southern Adriatic coast (Rakitno fibula, drachms). It is interesting that contacts with the Lower Danube area, especially with the Dacians, still cannot be well recognised, although the existence of some contacts is confirmed by the finds of plastically decorated bowls from the settlements of Lijeva Bara in Vukovar and Gomolava,[133] as well as by certain other categories of

125. Dizdar, Radman-Livaja 2004.
126. Popović 1987.
127. Popović 1978, 18–21. – Popović 1987, 102–104. – Torbagyi 1993.
128. Ujes-Morgan 2012, 373.
129. Ujes-Morgan 2012, 374–375.
130. Majnarić-Pandžić 1997.
131. Salač 2011.
132. Majnarić-Pandžić 1984. – Jovanović, Jovanović 1988. – Dizdar 2001a.
133. Gabler 2005, 157.

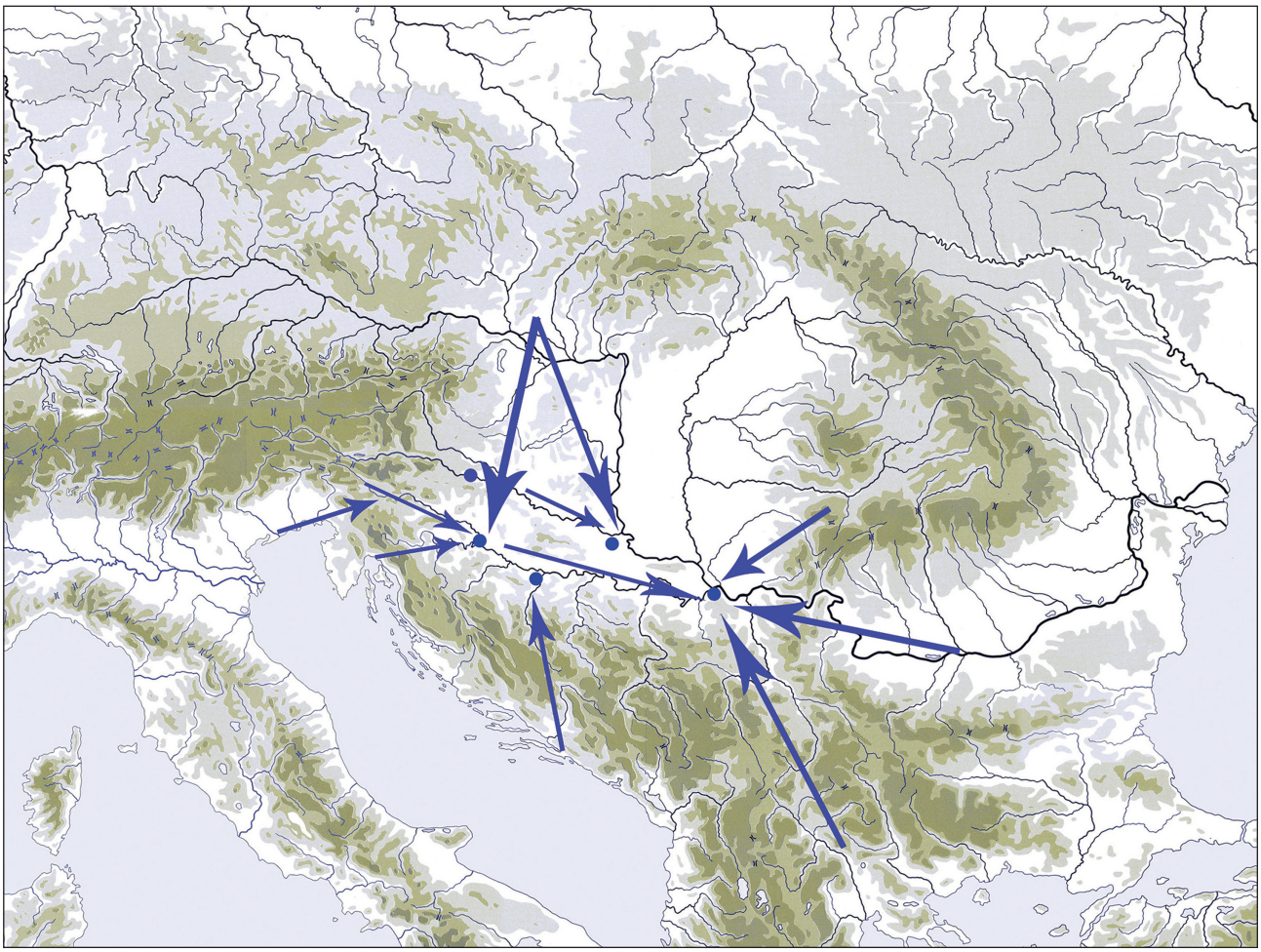

Fig. 15. Settlement in Blato participated in the exchange and trade network with northern Italy, the southeastern Alpine region, central Europe, the southern Adriatic coast and the Lower Danube area.

finds.[134] Many of the finds from Blato that have been mentioned as imports are a good example of contacts with distant regions during the Late La Tène period. Testimony to contacts in the opposite direction is provided by a Vinkovci type fibula from the Oberleiserberg[135] or by certain other finds from Slovakian and Moravian sites, which are considered as a legacy of the Scordisci (fragments of astragal belts, kantharoi).[136] Those contacts can already be observed from the Early and Middle La Tène, as corroborated by finds of glass amphora beads in central Europe,[137] or sapropelite rings and glass bracelets in eastern Slavonian and Symian sites of the Scordisci (Osijek, Ilok, Gomolava).[138]

In addition to prestigious objects, such as bronze vessels and horse gear intended for the elites, dress accessories and jewellery items were owned by a wide array of social classes, and can perhaps be considered as evidence of the movement of individuals and small groups (merchants), while the numerous finds of Vinkovci type fibulae, used at Scordisci sites as a substitute for the group of fibulae of the Nauheim II type, might provide evidence of the possible transfer of ideas.

For a more comprehensive understanding of the site and collected finds it is necessary to undertake trial excavations on a larger scale that would provide the basis for an explanation of these exceptional and hitherto undocumented finds in the territory of the Scordisci in southern Pannonia.

134. Majnarić-Pandžić 2008.
135. Karwowski 2009, 118, Fig. 8. – See also the paper by M. Karwowski in this volume.
136. Čizmář 2005a. – Čizmář 2005b.
137. Popović 1997. – Schönfelder 2007. – Rustoiu 2011.
138. Venclová 2002.

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Contacts between the Boii and the Scordisci: The Case of the Oberleiserberg Type Fibulae

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Abstract: A small group of Late La Tène cast fibulae originates from the area of southeastern Pannonia. With the exception of the find from the site of Blato, near Vinkovci, which belongs to the Oberleiserberg type, the fibulae from Dalj, Novi Jankovci and Novi Banovci can be described as copies of the same type produced in local workshops. In addition to a reinterpretation of the form, in the case of southeastern Pannonian specimens we can also witness a transfer of technology, since two-part cast fibulae consist of a specific combination of two alloys, tin-bronze and leaded bronze. The communication between Lower Austria, settled during the Late La Tène period by communities known as the Boii, and southeastern Pannonia is additionally corroborated by several finds from the Oberleiserberg settlement, such as fibulae of the Vinkovci type or coins of the Syrmian type, which represent characteristic objects of the Scordiscan material culture.

Keywords: Late La Tène period, southeastern Pannonia, cast fibulae, Oberleiserberg type, communication networks, local production.

Zusammenfassung: Eine kleine Gruppe von gegossenen Spätlatène-Fibeln stammt aus dem Gebiet des südöstlichen Pannonien. Mit Ausnahme des Fundes von Blato in der Nähe von Vinkovci, der dem Typ Oberleiserberg angehört, können die Fibeln aus Dalj, Novi Jankovci und Novi Banovci als Kopien des gleichen Typs aus lokalen Werkstätten beschrieben werden. Zusätzlich zu einer Neuinterpretation der Form sind wir im Fall der südöstlichen pannonischen Exemplare auch Zeugen eines Technologietransfers, da zweiteilige gegossene Fibeln aus einer speziellen Kombination zweier Legierungen, nämlich Zinn-Bronze und Blei-Bronze, bestehen. Die Kommunikation zwischen Niederösterreich, welches in der späten Latènezeit von Gemeinschaften besiedelt wurde, die als Boier bekannt sind, und dem südöstlichen Pannonien wird zusätzlich durch mehrere Funde der Siedlung vom Oberleiserberg, wie Fibeln des Vinkovci Typs oder Münzen des Syrmischen Typs, die charakteristische Objekte der materiellen Kultur der Skordisker darstellen, bestätigt.

Stichwörter: Spätlatènezeit, Südost-Pannonien, gegossene Fibeln, Typ Oberleiserberg, Kommunikationsnetzwerke, Lokalproduktion.

Introduction

Cast fibulae of the "pseudo-Middle La Tène" construction are a characteristic part of attire in the western Carpathian Basin in the Late La Tène period. Many finds are known from the area of today's Slovenia, Austria and western Hungary, which have been classified as several different types based on their morphological characteristics.[1] Generally, the construction of all these fibulae, regardless of the type, mimics Middle La Tène forms with the bow and the inverted foot cast together to form the closed frame of triangular or trapezoidal shape. A knob, or "false collar" (*Pseudofußklammer*), is placed at the end of the foot, imitating the constructional element which tied the foot to the bow in Middle La Tène fibulae. The foot is decorated with smooth or ribbed knobs, and the spring is composed of several coils connected by an external chord.

Late La Tène cast fibulae are rare and usually appear as stray finds in southeastern Pannonia on sites like Dalj, Novi Banovci, Novi Jankovci and Sotin (Fig. 1).[2] However, recent excavations at the Blato site near Vinkovci have yielded several cast fibulae, amongst them a Szalacska

1. Miske 1908, 50–51. – Dizdar, Božič 2010, 145–160. – Karwowski, Militký 2011, 134–135.

2. Brunšmid 1902, 72, Fig. 32. – Majnarić-Pandžić 1970, 20, Pls. IV/7 and XXII/6. – Ilkić 1999, 77, Pl. XXI/5. – Drnić 2012, 225–238.

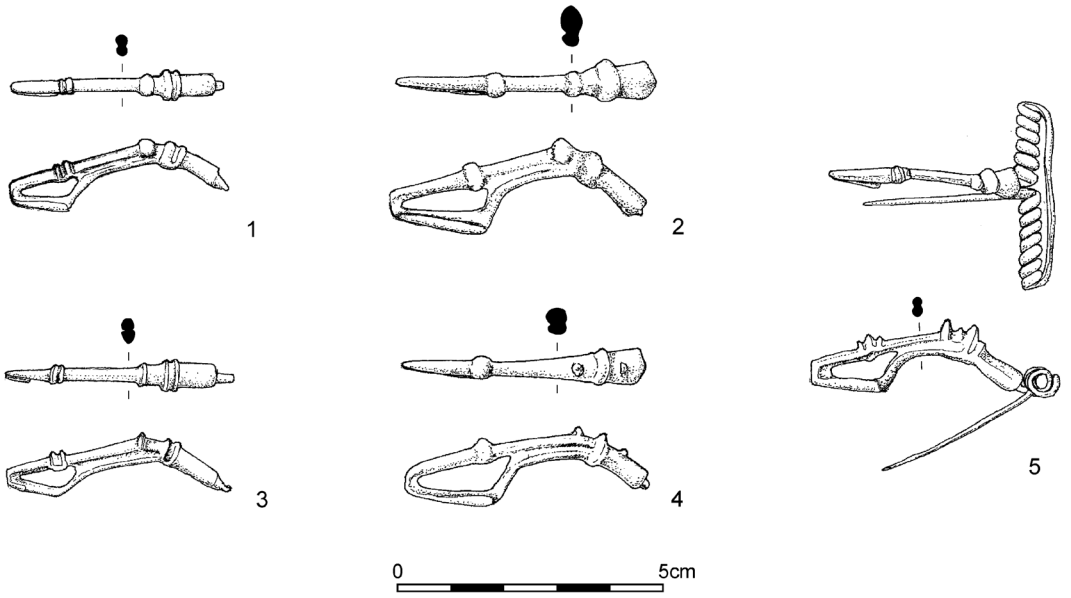

Fig. 1. Late La Tène cast fibulae from southeastern Pannonia. – 1–3. Novi Banovci – 4. Dalj. – 5. Novi Jankovci (after Drnić 2012).

type[3] and an Oberleiserberg type fibula. The latter type was named after a site in Lower Austria that yielded over three hundred fibulae, twenty-eight of them cast from a copper alloy (Fig. 2).[4] Based on the archaeological context and the stylistic characteristics of the finds, this type can be dated to the phase LT D1,[5] just like other types of Late La Tène cast fibulae.

Considering the range of finds, primarily metal objects like horse gear, fibulae and Late Republican bronze vessels, the open settlement at Blato can be considered a distribution and production centre in a network of long-distance trade and exchange connections with the most intensive activity in LT D1 period.[6] These kinds of settlements are well known in the territories of the La Tène culture and date from the first half of the 3rd century to the 1st century BC.[7] At special central sites of the Němčice-Roseldorf type, numerous finds of extraordinary and high quality have been made.[8]

Cast fibulae of the pseudo-Middle La Tène construction were very popular in the phase LT D1 in the western part of the Carpathian Basin. One can assume that a certain number of these objects, including those of the Oberleiserberg type, were made at the eponymous site, but they could have just as easily been produced at workshops in other settlements and imported into southeastern Pannonia. For example, a large number of Late La Tène cast fibulae were found at the oppidum Velem Szentvid, and several finds were attributed to the Oberleiserberg type,[9] which points to the possibility that these items were produced at the site or that this site might have been a distribution point for fibulae made at the Oberleiserberg settlement and possibly in some other, as yet undiscovered, production centre. The relatively small number of these fibulae from southeastern Pannonia, points to the fact that they were not a part of the indigenous attire of the Scordisci, but rather of foreign influence.

Discussion

Apart from the aforementioned fibula from Blato (Fig. 6/1), which, based on its morphological characteristics can be classified as of Oberleiserberg type, several other specimens from southeastern Pannonia display certain features characteristic of this type, which suggests a possible copying of original items in local workshops. For example, two fibulae from Novi Banovci (Fig. 1/1, 3) closely resemble the Oberleiserberg ones. However, the finds differ in certain details. The heads of the original fibulae are significantly wider than the bows, while in those from Novi Banovci, the head and the bow are of equal width. The third fibula from Novi Banovci (Fig. 1/2) diverges even further from the original model. It is generally coarser than the other two finds, and its false collar is coarsely made, making this fibula bigger

3. This term was suggested by D. Božič and used by M. Dizdar (see his article in this volume).
4. Karwowski 2009, 118. – Karwowski, Militký 2011, 134.
5. Karwowski, Militký 2011, 135.
6. See M. Dizdar's article in this volume.
7. Moore et al. 2014. – Wendling 2014.
8. Salač 2011, 63–64.
9. Miske 1908, Pls. XL/25,30 and XLII/50.

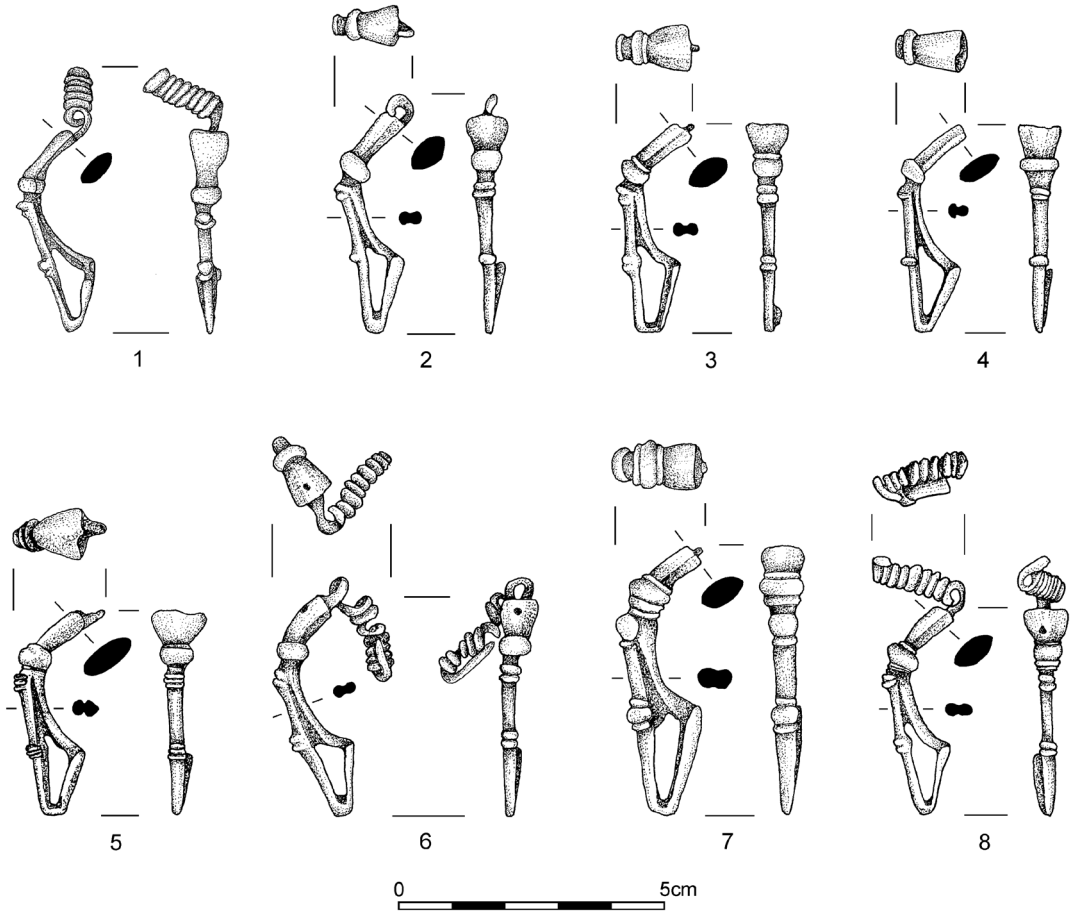

Fig. 2. Fibulae of the Oberleiserberg type (after Kern 1996, Karwowski 2009, Karwowski, Militký 2011).

and heavier than the first two, which might point to a different style of wearing. The fibula from Dalj (Fig. 1/4) also greatly diverges from the original model. Its bow is shaped like those on fibulae from Novi Banovci, but its foot is slightly curved and its second knob appears degenerated. Another small knob on the other side of the false collar forms a feature unidentified in other Late La Tène cast fibulae. The find from Novi Jankovci (Fig. 1/5) exhibits a somewhat different shape of bow and a ribbed false collar unlike anything found at the eponymous site.

The finds from southeastern Pannonia are not unique in that it has already been noted that foreign objects were copied in local workshops. This process often changes the features of the original model, and does so for many different reasons. It can be a question of appealing to the tastes of the users, the technological abilities of the local population, or the individual skill of the craftsman making the object. Several finds from Blato speak in favour of this latter proposition. A coarse copy of an Almgren 65 type fibula[10] was found, as well as copy of the later Jezerine fibula type[11] (Fig. 3/1, 2). Copies of fibulae of the Jezerine type were also found on other southeast Pannonian sites which, along with other original objects, bears witness to the popularity of these items in the 1st century BC.[12] A similar case has been noted at the site of Piatra-Craivii in neighbouring Dacia, in the context of the Padea-Panagjurski Kolonii group, where an iron hybrid form of the Jezerine fibula was found.[13] Furthermore, fibulae of the Vinkovci type, characteristic of the western Scordiscian area, were produced as a variant of the Nauheim fibula type which has been adjusted to suit the taste of the local population.[14]

The way Late La Tène cast fibulae were made is also quite interesting. The bow and the foot of the fibulae were cast in a mould like the one found at the Szalacska site in

10. Dizdar 2001, 111, Pl. 4/12.

11. Dizdar 2003, 343, Pl. 1/11.

12. Demetz 1999, 102, 248, 250–251, Map 29. – Ilkić 1999, 40–41, Pl. XXIII/1–2, 4–5, 8–9. – Dizdar 2001, 110–111, Pl. 76. – Drnić 2013, 45–68.

13. Rustoiu, Gheorghiu 2010, 447–457.

14. Dizdar 2003, 342–343. – Majnarić-Pandžić 2009, 238–240, Figs. 1–4.

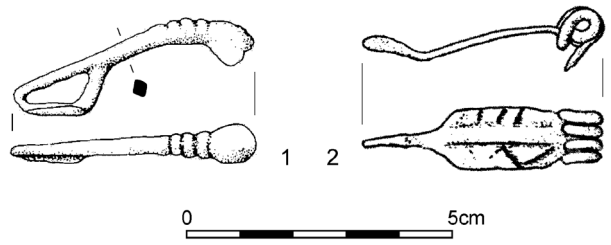

Fig. 3. Copies of Almgren 65 (1) and Jezerine type (2) fibulae from the La Tène settlement at Blato near Vinkovci (after Dizdar 2001 and Dizdar 2003).

Fig. 4. The head of the fibula from Novi Banovci with inserted wire (Photo: I. Krajcar).

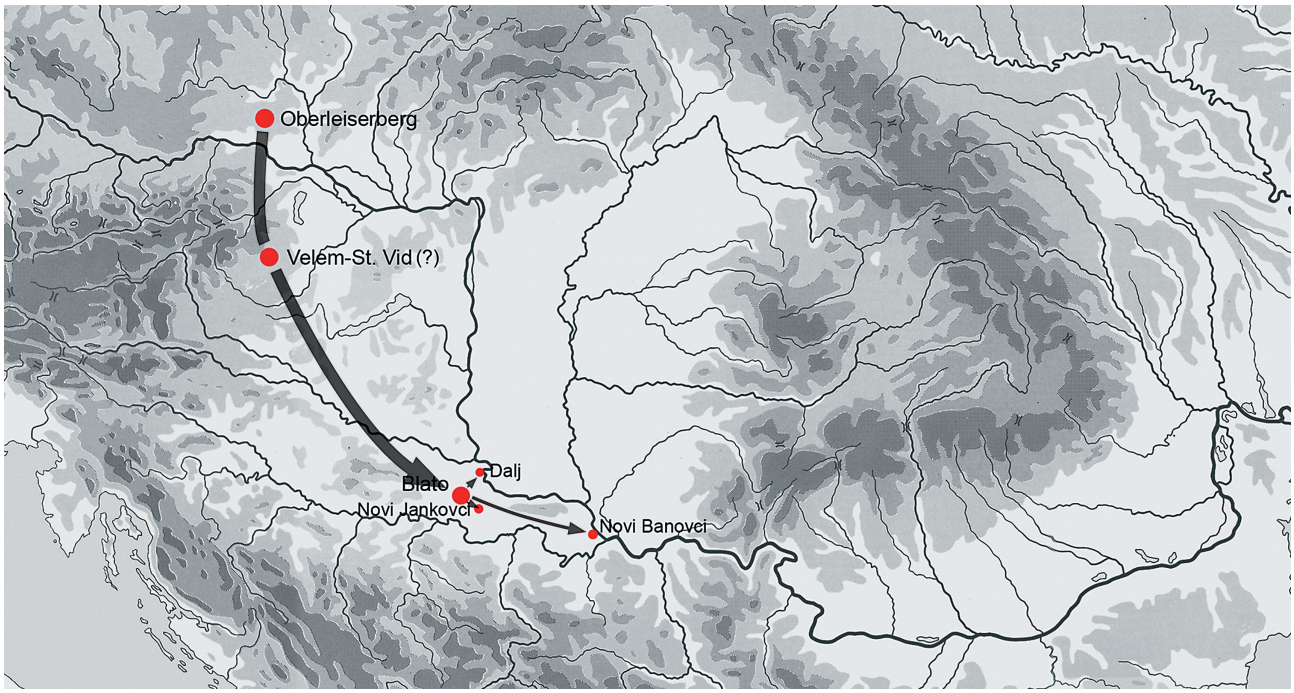

Fig. 5. Possible direction of influence for Late La Tène cast fibulae.

Hungary.[15] The spring was made of wires with different cross-sections and inserted into the head. These elements were made of different copper alloys and the difference can often be observed with the naked eye. The lead alloy used for the bows is darker, and the springs have a vivid green patina, as can be seen on some items from the Oberleiserberg.[16] The same technology was used to make other types of Late La Tène fibulae. For example, the bow and foot of the fibula resembling the Magdalenska gora type from the site of Kiškorija-Sjever near Virovitica (the eastern border of the Mokronog group) were made of a copper, tin and lead alloy, while lead was absent from the wire of the spring.[17] The finds from Dalj, Novi Banovci and Novi Jankovci, were produced in the same way (Fig. 4), as shown by SEM-EDX analyses. A high percentage of lead was found, between 8 and 19 %, in the bodies of the fibulae, while the only preserved spring from Novi Banovci did not contain lead, but only tin and copper.[18]

Conclusion

From these findings, it is possible to suggest a model that explains the existence of Late La Tène cast fibulae in southeastern Pannonia. Because of their popularity in the western part of the Carpathian Basin, a certain number of these objects reached the Scordiscian area, as shown by the finds from the site of Blato, where the region's production and distribution centre was located (Fig. 5).

15. Darnay 1906, 420, Fig. 11.
16. Karwowski, Militký 2011, 134, Fig. 3.
17. Dizdar, Božić 2010, 147–148.
18. Mödlinger, Drnić, Piccardo 2012, 1343–1349, Pl. 2.

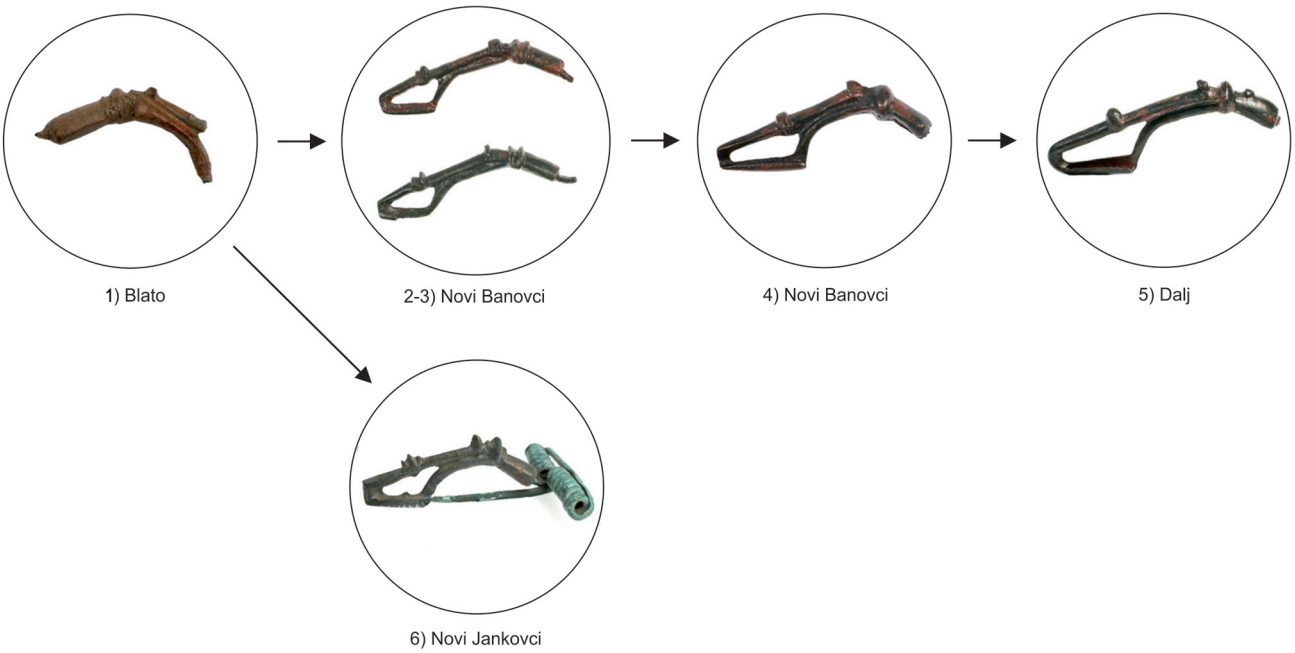

Fig. 6. A model of copying and reinterpreting cast fibulae of the Oberleiserberg type in southeastern Pannonian workshops (Photos: M. Dizdar and I. Krajcar).

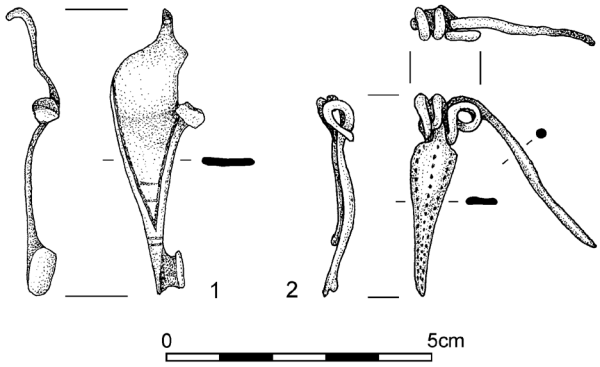

Fig. 7. Two fibulae of the Vinkovci type from the Oberleiserberg (after Karwowski 2009).

Whether it was due to trade or some other mechanism like individual mobility (a well-known La Tène phenomenon), is yet to be determined. These fibulae served as a basis for local copies which diverged from the originals, in some cases more, in others less (Fig. 6). This process is also attested in other copied types of Late La Tène fibulae, for example the Almgren 65, and Jezerine types, which were found in Blato and were most likely also produced in other Scordiscian workshops.

Apart from reinterpreting the popular form of attire, a new technology was accepted which differed from the one used in the production process in metal workshops of southeastern Pannonia thus far. The addition of lead increased the viscosity of the alloy, which made casting easier. The pin and the spring, in contrast, were made of copper and tin, a better combination when one considers the essential characteristics of these elements – properties of hardness and elasticity – which were additionally increased by smithing.

Communication did not flow exclusively from the north to the east; several finds from the La Tène settlement on the Oberleiserberg, primarily two fibulae of the Vinkovci type (Fig. 7),[19] a few coins of the Syrmian type and a characteristic knife with a curved blade[20] document this fact. Key points in the communication networks were regional trade and exchange as well as production centres. Some of them, such as the oppidum of Velem Szentvid or the open settlement at Blato, are already known, others are still waiting to be discovered. Although not numerous, these finds testify to the dynamic, albeit insufficiently known, relations between the populations known to us as the Scordisci and the Boii from ancient sources (the latter inhabiting the settlement at the Oberleiserberg).

(Translated by Ana Đukić)

19. Kern 1996, 388, Fig. 7. – Karwowski 2009, Fig. 8.
20. See M. Karwowski's article in this volume.

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Bronze Fibulae of the Zvonimirovo Type among the Taurisci and Boii

Dragan Božič

Abstract: The author of this contribution suggests combining two groups of bronze fibulae of Middle La Tène construction under the name "fibulae of the Zvonimirovo type". For the typologically most closely related variants a, b and c1, closed grave groups from Zvonimirovo provide us with a date of LT C2. Variant c2, however, seems to date to LT D1.

Keywords: La Tène period, Taurisci, Boii, fibulae, typology.

Zusammenfassung: Der Verfasser dieses Beitrags schlägt die Vereinigung zweier Gruppen von Bronzefibeln vom Mittellatèneschema unter der Bezeichnung „Fibeln vom Typ Zvonimirovo" vor. Während uns die sicheren Grabverbände aus Zvonimirovo für die typologisch aufs Engste verwandten Varianten a, b und c1 eine Datierung in die Stufe LT C2 liefern, scheint Variante c2 eher in die Stufe LT D1 zu datieren.

Stichwörter: Latènezeit, Taurisker, Boier, Fibeln, Typologie.

History of Research

The cemetery of Golek pri Vinici in the Kolpa Valley

The first illustrations of fibulae of the Zvonimirovo type (Fig. 1) appeared in the auction catalogue of the Mecklenburg collection, which was printed in New York in 1934.[1] It is a small selection of fibulae which had come to light in graves of a very large flat grave cemetery containing nearly 350 burials. The cemetery had been excavated by the Duchess of Mecklenburg in 1906 and 1907 at a location named Stražni dol in the vicinity of the village of Golek pri Vinici in Bela krajina.[2] Emil Vogt (of the Swiss National Museum in Zurich), who penned a chapter on the Golek pri Vinici cemetery – generally abbreviated to Vinica cemetery – for this catalogue, did not pay particular attention to the fibulae of the Zvonimirovo type.[3] The cemetery of Golek pri Vinici is the eponymous site of the Vinica group, one of four Late Iron Age culture groups in Slovenia.[4]

The cemetery of Valična vas in the Krka Valley

Biba Teržan was the first to consider the fibulae of the Zvonimirovo type as a specific group of bronze fibulae of Middle La Tène construction; however, she only defined – in accordance with the state of research and publication of the time – the form that is characterised by rhomboidal expansion of the head (Fig. 1/c). She undertook this as part of her 1971 diploma thesis on the Hallstatt and La Tène cemetery of Valična vas in the upper Krka Valley in Dolenjska, which was published in abridged form in 1975.[5] These fibulae are, in her opinion, characteristic of the site of Vinica and show Vinica's influence on the La Tène culture of Dolenjska, an opinion that I shared in 2001.[6] In the La Tène period the area of Dolenjska belonged to the Mokronog group, which is usually attributed to the Taurisci.[7]

Teržan divided the group of fibulae with a rhomboidal bow below the spring into two variants: a typologically older variant of Early La Tène construction which occurs at Vinica only, and a later variant of Middle La Tène construction known, in addition to Vinica, at Lika in Croatia, in Dolenjska (Lower Carniola) and Gorenjska (Upper Carniola) in Slovenia and even in Carinthia in Austria (Fig. 1/c1). The only specimen assigned by her

1. Mahr 1934, Pls. 16/83, 18/99 and 20/115, 116.
2. Dular 1985, 106–107 and Fig. 103. – Polizzotti Greis 2005, 25–28.
3. Vogt 1934.
4. Božič 1999, 191 and Fig. 1; 201–202.
5. Teržan 1975, 687, Note 92; 696, Pl. 5/5 and Map 2.
6. Božič 2001, 190, 197 left column.
7. Božič 1987, 855. – Božič 1999, 192.

to the older variant, and which had been published by Stane Gabrovec as early as 1966 (Fig. 1/c2),[8] however clearly exhibits a remnant of a collar attaching the foot to the bow (*Fußklammer*); hence it is also of Middle La Tène construction.

The cemetery of Zvonimirovo in the Croatian Drava region

Significant insights into the fibulae of the Zvonimirovo type are owed to Marko Dizdar (Zagreb) who led the excavations of the cemetery of Veliko polje near Zvonimirovo in the vicinity of Suhopolje in the Middle Drava Valley in northern Croatia. By 2013 the excavations, which have been ongoing almost without interruption since 1992, had uncovered 101 graves; all, bar one, belong to the LT C2 phase.[9] Dizdar's two excavation reports of 2006 drew attention, in discussions of the female grave LT 67, to a larger bronze fibula of Middle La Tène construction, which has a large, decorated knob, flattened on the underside, and a ribbed collar, decorated with a V-pattern, on the bent-back foot.[10] The bow widens towards the spring, the latter consisting of eight coils and an external cord. Similar fibulae, both complete and fragmented, have been found in other female graves at Zvonimirovo (Fig. 1/b).

Dizdar considers that another bronze fibula from an uncertain grave in Brstje near Ptuj in the Slovenian Drava Valley belongs to the same form (Fig. 1/a). He mentions that I dated this grave on two occasions to the Mokronog IIa phase, which corresponds to LT C1 in central Europe,[11] whereas the Zvonimirovo graves containing this type of fibulae are dated to LT C2. Because several specimens were present in closed grave groups at Zvonimirovo, Dizdar called this kind of Middle La Tène bronze fibulae "fibula of the Zvonimirovo type".[12] In his opinion the presence of this type of fibulae confirms the supposition of connections between the sites of the Mokronog group in the Slovenian and in the central Croatian Drava regions.

A female grave (LT 68), excavated at Zvonimirovo in 2007, contained three bronze fibulae of Middle La Tène construction, of which one was of the Zvonimirovo type (as defined by Dizdar) and one of a type defined by Teržan as fibula with a rhomboidal head plate (Fig. 1/c).[13] Dizdar reports that both forms occur in the southeastern Alpine zone, especially among the Taurisci, and that Zvonimirovo lies at the easternmost margin of the distribution of both types. The excavations in Zvonimirovo in the following years have yielded further specimens of the two types.[14] Dizdar considered both types in some greater depth in two papers, first in a discussion of the three-part iron chain belts of the Zvonimirovo LT 6 type,[15] and then in an overview of the La Tène culture in central Croatia.[16] With respect to the group of fibulae with decorated rhomboidal or, as correctly described by him, oval heads, Dizdar reiterated Teržan's (in my opinion erroneous) view that two variants exist, i.e. fibulae of Early La Tène and Middle La Tène construction.[17] Indeed he too had not noticed that the fibula from Golek pri Vinici (Fig. 1/c2), thought by Teržan to represent an early variant, actually possessed the usual collar. We shall see that this fibula belongs to variant c2, which in fact postdates the other three variants. *Contra* Teržan's opinion that the fibulae with rhomboidal head plates are characteristic of the Vinica group, he states that these fibulae are a feature not only of the Vinica group but also of the Mokronog group, both part of the southeastern Alpine area.

A fibula from the Adriatic coast

In her dissertation submitted in 2010 to the University of Ljubljana Martina Blečić Kavur identifies an unpublished fibula with a rhomboidal head from the cemetery of Sarazinovo near Bakar on the northern coast of the Kvarner gulf as belonging to the (in my view non-existent) variant I, i.e. the variant characterised by having the foot not connected to the bow (Fig. 1/c2).[18] Yet the Bakar fibula and the other specimens cited by Blečić Kavur (from Golek pri Vinici and Valična vas) and considered representative of "variant I" all have a foot clamp. Blečić Kavur's distribution map[19] too makes a (to my mind erroneous) distinction between the earlier (square symbol) and later (circle) forms. In her opinion, only some fibulae from Golek pri Vinici and the fibula from Bakar should belong to the earlier form. Nonetheless Blečić Kavur explicitly and correctly states in her catalogue entry that the Bakar fibula is a bronze fibula of Middle La Tène construction (!) with rhomboidal

8. Gabrovec 1966b, Pl. 16/5.
9. Dizdar 2013, 18, 369.
10. Dizdar 2006, 106. – Dizdar 2007b, 36–37 and Fig. 3.
11. Božič 1987, 872, 874, phase Mokronog II A and Fig. 44/10. – Božič 1999, 196–197, Mokronog IIa.
12. Dizdar 2007b, 37.
13. Dizdar 2007a, 129 with figure. – Dizdar 2008, 44–45 and Fig. 2.
14. Dizdar 2009a, 51–52.
15. Dizdar 2009b, 281–283, 297 and Figs. 2–3.
16. Dizdar 2011, 112–113, Figs. 3/3, 7/4 and 8/3.
17. Dizdar 2009b, 283 and Note 23. – Dizdar 2011, 112 right column.
18. Blečić Kavur 2010, 327–328, Figs. 246–247; 577, List 59; 449 and Pl. 20/313.
19. Blečić Kavur 2010, 328, Fig. 247.

expansion of the bow. She does not mention the fibulae with rhomboidal heads from the Zvonimirovo graves, nor Dizdar's remarks concerning them, probably because he did not illustrate any, though he provided clear descriptions in his papers.

A monograph about Zvonimirovo

The most recent treatment of Zvonimirovo type fibulae can be found in Dizdar's volume devoted to part of the graves in the cemetery of Veliko polje near Zvonimirovo, which was published in Zagreb at the end of 2013.[20] In this case too, the author attributed to the Zvonimirovo type only the fibulae that have a wire bow or a bow slightly widened below the spring, but not those with rhomboidal or oval head plates. As mentioned earlier, he first assigned only a few fibulae from Zvonimirovo and the fibula from Brstje (Fig. 1/a) to the Zvonimirovo type. Having presumably become acquainted with this author's communication to the conference "Boii – Taurisci" held in Oberleis-Klement in June 2012, Dizdar refers in his 2013 book for the first time to some specimens of fibulae mentioned in my communication: those from Graz-Straßgang in Styria, Zohor in Slovakia and Magdalensberg in Carinthia. Infelicitously (in my view) he believes that this form can be subdivided into three variants according to the cross section of the bow (circular, oval or strap-shaped). Although he mentions my classification into variants a, b, and c in a footnote,[21] he introduces a new term: "bronze fibulae of the Zvonimirovo LT 5 type". On quite unconvincing grounds he attributes both the fibulae of my variant a (Fig. 1/a) which have a wire bow (Magdalensberg, Graz and Brstje) and those of my variant b (Fig. 1/b) which have a slightly widened undecorated upper bow (Zvonimirovo and Zohor) to this new type.

Typological classification (Fig. 1)

It seems reasonable to me to assign to the Zvonimirovo type not only the fibulae which Dizdar first called Zvonimirovo type fibulae and later Zvonimirovo LT5 type – represented by several specimens from Zvonimirovo (e.g. from Graves LT 5, LT 67 and LT 68), by the fibula from Zohor in Slovakia and the fibula from Brstje near Ptuj in Slovenia – but also the fibulae that Teržan called fibulae of Middle La Tène construction with rhomboidal expansion of the bow. Both groups have very similar foot knobs and collars. The shape of the bow suggests a subdivision into three variants (a, b and c). Variant c can be further subdivided into variants c1 and c2.

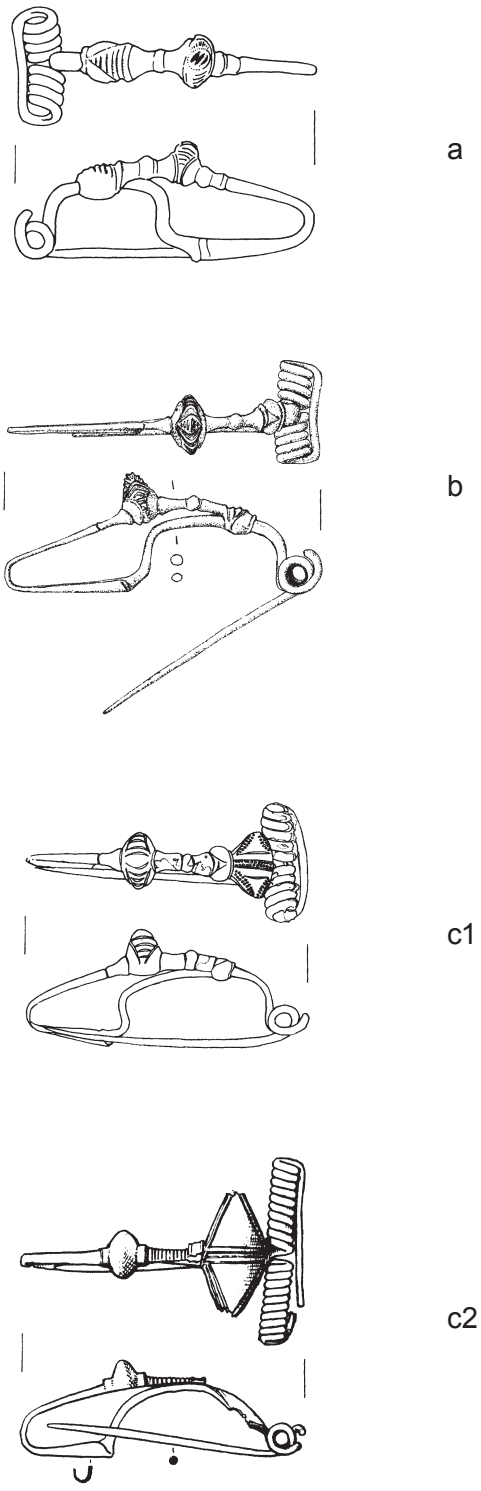

Fig. 1. Typological classification of the fibulae of the Zvonimirovo type. – a: Brstje (after Guštin 1977). – b: Zvonimirovo grave LT 5 (after Dizdar 2013). – c1: Unknown site (after Gabrovec 1966a). – c2: Golek pri Vinici (after Gabrovec 1966b).

20. Dizdar 2013, 241–245 and Figs. 85–86, Map 23 (map legend on p. 478); 373 and Fig. 148; 399–402, Pls. 11/4 and 13/3.

21. Dizdar 2013, 242, Note 122.

Variants a, b and c1 have a large, massive knob, semi-oval in cross section, located on the bent-back foot. Each of its lateral surfaces is mostly decorated with a ladder motif that tapers concavely downwards or more rarely retains its width; on the crest in particular there is an oval or rhomboidal field, either cross-hatched or left empty. Among the many fibulae from Golek pri Vinici in particular, the decoration of the knob can be more ornate and can deviate from this description.[22] The collar is predominantly large and has convex edges. In most cases a cross-hatched triangle oriented towards the spring is located between two transverse ribs. There is usually a wide bulge between the knob and the collar.

By contrast the fibulae of variant c2 have a smaller, lower, undecorated knob, flattened at the base, which is often framed by two transverse ribs. In a few cases the bridge between the knob and the collar exhibits dense transverse incisions. The collar is small, undecorated and has only two transverse ribs.

The spring of Zvonimirovo type fibulae can be short (with 8 to 10 coils) or long.

Variant a
Fibulae of this variant have an undecorated wire bow. The spring usually consists of 8 coils but can exceptionally be longer.

Variant b
Fibulae of this variant have an undecorated bow that widens slightly below the spring. The spring usually consists of 8 coils, rarely 10.

Variant c
Fibulae of this variant have a rhomboidal or oval head plate, decorated in a variety of ways. The spring can be short or long.

Dating

The uncertain female grave of Brstje near Ptuj
Grave 1 at Brstje near Ptuj,[23] presented by Mitja Guštin in 1977 as one grave group, was assigned by me to the Mokronog IIa phase, i.e. LT C1 on two occasions,[24] and this has been repeatedly cited by Dizdar.[25] However, neither Guštin, nor Dizdar, nor I have thoroughly checked the circumstances of discovery. The grave group presented by Guštin is not secure. Indeed Stanko Pahič reports that several cremation burials were found when a gravel quarry near Brstje was extended in 1959 and that the majority of the finds that were handed to the museum in Ptuj (a bronze fibula which I identify as belonging to the Zvonimirovo type, variant a [Fig. 1/a], a richly decorated bronze chain belt and a fragment of a further chain belt,[26] a solid bronze bracelet with a knob, fragments of a sword blade and of a spearhead, and an iron button) are merely presumed to have been found together at a depth of 1.5 m, while two finger rings made of blue glass were found nearby.[27] It is therefore far from certain that the weapons and all bronze items of personal adornment belonged to the same grave group. In 1977 Guštin has nevertheless attributed all the bronze jewellery and even the two glass finger rings (which, according the meagre and uncertain information available, were not found with the other artefacts) to a single female grave (Grave 1). It is in this guise that the grave appears in Dizdar's 2013 volume: "Grave from Brstje".[28]

Taking the information about the circumstances of discovery and the current state of knowledge into consideration, I believe that the solid bronze bracelet is unlikely to have come from the same grave as the fibula. The former is older and appears in female graves of LT C1.[29] But the bronze chain belt and the fibula could certainly have belonged to the same burial. The Brstje chain belt consists of 19 rings, 12 profiled rod-shaped links, three decorated rectangular plate links and a terminal element on one end, and two connecting links, an intermediate hook and a terminal hook (both hooks ending in an animal head) at the other; all these four elements have in their centre a rectangle, split diagonally, and filled with red enamel. The belt resembles closely the chain belts found in two southern Bavarian graves, Grave 37 at Manching-Steinbichl and Grave 2 at München-Moosach.[30] The completely preserved Manching belt

22. E.g. Mahr 1934, Pls. 16/83, 18/99 and 20/115. – Gabrovec 1966b, Pl. 31/7, 8. – Dobiat 1982, Pl. 7/3.
23. Guštin 1977, 71, Stopnja 3, Fig. 2/Phase 3; 79, Phase 3; 83 and Pl. 15.
24. Božič 1987, 872, phase Mokronog II A. – Božič 1999, 196, Mokronog IIa.
25. E.g. Dizdar 2006, 106. – Dizdar 2009b, 282, 283 and Fig. 3; 297. – Dizdar 2013, 242, Note 123 and Fig. 86.
26. Pahič 1966, 288, Note 86 and Pl. 1/6.
27. Pahič 1966, 305–306, No. 2 and Pl. 1.
28. Dizdar 2013, 242 and Fig. 86.
29. Božič 1999, 197, Mokronog IIa: "solid bronze bracelets with knob". – Lubšina Tušek, Kavur 2011, 36–37: "massive bronze bracelets with a single knob." Bracelets that do not have a knob but merely a thickening, are even older, i.e. LT B2 (Lubšina Tušek, Kavur 2011, 36, Grave 4, No. 10 and Fig. 5/10).
30. Krämer 1985, 88, Grave 37, bronze chain belt and Pl. 23/1; 119, Grave 2, bronze chain belt and Pl. 56/5.

only has profiled rod-shaped links in addition to the terminal element, and at the other end a succession of an intermediate hook, a connecting link, and a terminal hook. The terminal element and the connecting link are cruciform, and the hooks have a cruciform upper part. All these four elements contain, in the centre of the cross, a diagonally split square filled with red enamel. The presence of a bronze fibula of the Mötschwil type, a glass bracelet of Gebhard's series 25 and another of series 20 suggests a date of LT C2 for both southern Bavarian graves.[31]

Zvonimirovo

The date suggested by the southern Bavarian graves perfectly corresponds to the date for the fibulae of variants b and c1 of the Zvonimirovo type (Fig. 1) found at the cemetery of Zvonimirovo. This cemetery's 101 graves can all, bar one, be dated to the LT C2 phase (Figs. 2–3).[32] The graves of Mihovo and Golek pri Vinici must be left out of the argument because it is uncertain whether they are closed assemblages. We can conclude that variants a, b and c1 can be dated to the later part of the Middle La Tène, i.e. LT C2.

A more recent variant

It is likely that the fibulae of variant c2 (Fig. 1) are more recent, most probably dating to LT D1, and this for two reasons. The fibula from the cemetery of Strmec above Bela Cerkev belongs to a group of finds which, among others, contained a shield boss of the Mokronog-Arquà Petrarca type[33] and a pair of bronze fibulae with enamelled plates;[34] the greatest probability is that it dates to LT D1. Moreover some fibulae of variant c2 from Golek pri Vinici possess a low knob framed by two transverse ribs and a bridge between the knob and the clamp decorated with dense transverse incisions (Fig. 1/c2),[35] which closely resemble the features on some fibulae of the Ribić variant of the Kastav type.[36] Two graves in the Una Valley in Bosnia date the Ribić variant into the Late La Tène period.[37]

31. Gebhard 1989, 16–17, Series 20 and Series 25, 52, Grave 37, 54–55, München-Moosach and Note 178.
32. Dizdar 2013, 18 and Note 4.
33. Božič 1999, 198, Mokronog IIIa.
34. Božič 1992, 1–11, Pls. 1 and 2/1–3. – Pavlin 2007, 760–761 and Fig. 3/2, 3.
35. Graves 136, 210 and 278. – Gabrovec 1966b, Pl. 16/5.
36. Marić 1968, Pl. 13/22, 23, 25. – Guštin 1987, 50–51.
37. Marić 1968, Pls. 4/6 and 13/41.

Distribution (Fig. 4)

Taurisci

The fibulae of the Zvonimirovo type are relatively frequent in two Tauriscan cemeteries, at Mihovo at the foot of the Gorjanci Mountain and in Zvonimirovo in the Croatian Drava Valley, one of the easternmost sites of the La Tène Mokronog group, usually attributed to the Celtic Taurisci. Two specimens, found in the largest cemetery of this group, at Kapiteljska njiva near Novo Mesto, which so far has yielded over 700 cremation burials, have been published to date. Individual specimens are also known from two further cemeteries of the Mokronog group, at Valična vas in the Krka Valley and Brstje in the Drava Valley.

Norici and Boii

The fibulae from Klagenfurt / Celovec and Magdalensberg show that fibulae of the Zvonimirovo type are also known in the region occupied by the Norici in present-day Carinthia.

The well-preserved fibula from Zohor in Slovakia is the northernmost specimen known to date; it most probably indicates that contacts existed between the Boii and the Taurisci in the LT C2 phase. Such contacts continued into the LT D1 phase, as attested by the presence of a typically Tauriscan cast bronze fibulae of the Magdalenska gora type at the oppidum of Staré Hradisko in Moravia.[38]

Colapiani

As mentioned, Teržan thought in 1971 that the fibulae of variant c of the Zvonimirovo type, which she called "fibulae of Middle La Tène construction with rhomboidal expansion of the bow" were typical of the Vinica group,[39] understandably so in the light of the state of research of the time. Thanks to the 1934 auction catalogue and Gabrovec's paper of 1966 several examples were known to have come from the cemetery of Golek pri Vinici in the Kolpa Valley, which lies at the foot of the unexplored Iron Age settlement on the Šlemine hill – presumably a central place of the Colapiani.[40] From all the other sites, only one specimen apiece was known. The Tauriscan cemetery of Mihovo, which has also yielded several specimens of variant c, was largely unknown at the time. Today we have a good insight into the fibulae from Golek pri Vinici, thanks to the drawings of grave goods from this site, long kept in the library of the Institute of Archaeology in Ljubljana. In addition,

38. Dizdar, Božič 2010, 148, Fig. 4/8a; 158, variant 8.
39. Teržan 1975, 687, Pl. 5/5; 696, Note 92.
40. Dular 1985, 107–108 and Fig. 104.

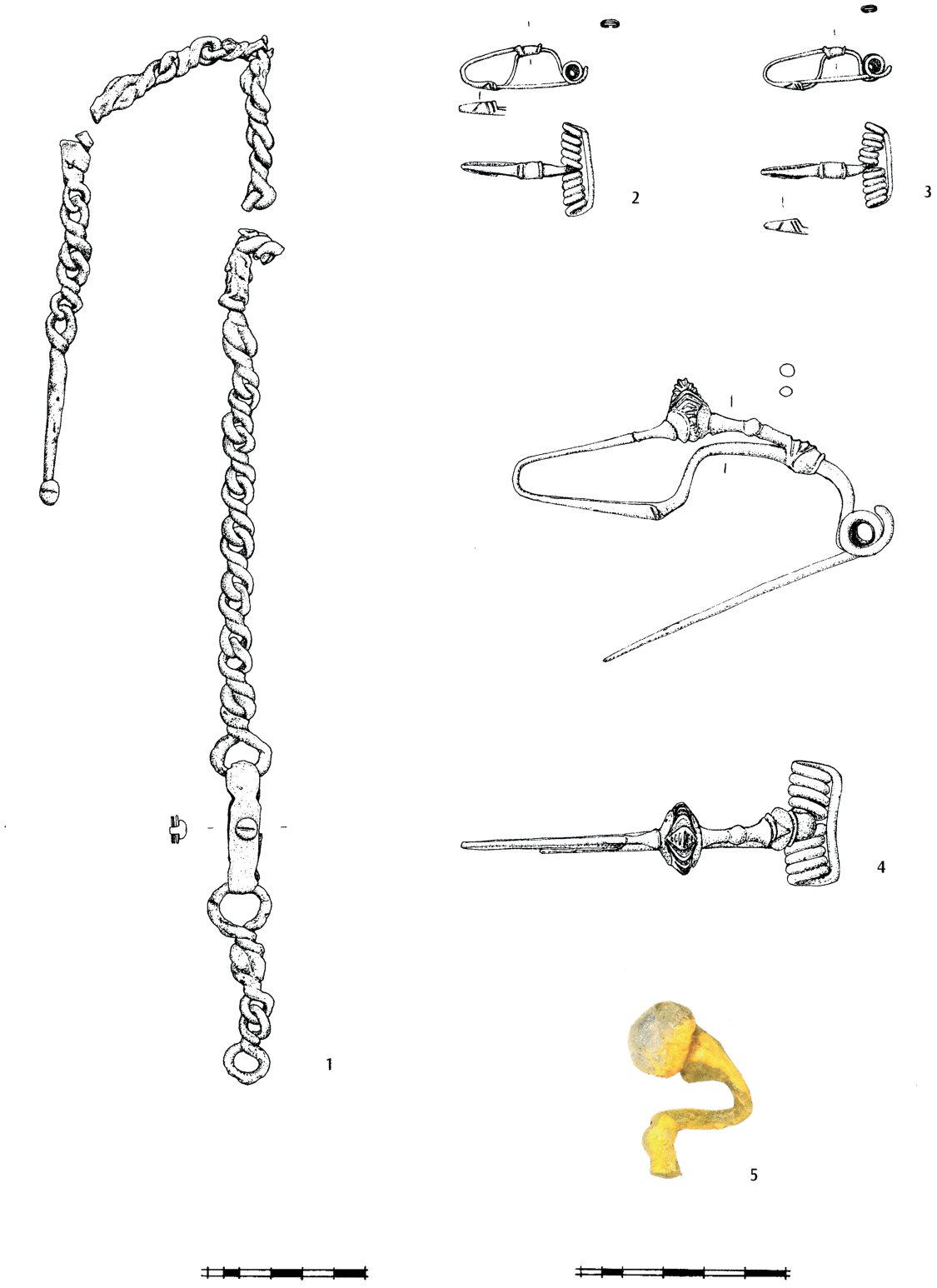

Fig. 2. Grave LT 5, Zvonimirovo in northern Croatia, part 1 (after Dizdar 2013).

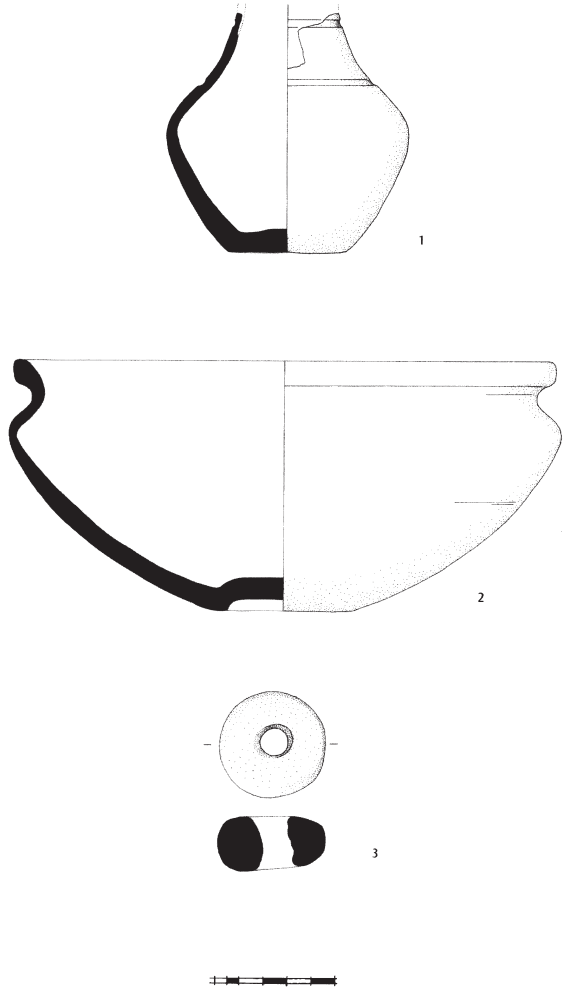

Fig. 3. Grave LT 5, Zvonimirovo in northern Croatia, part 2 (after Dizdar 2013).

the descriptions and photographs of the finds from the cemetery located at Stražni dol near Golek pri Vinici are available on the website of the Peabody Museum of Archaeology and Ethnology at Harvard University.[41] The number of fibulae of the Zvonimirovo type found at that site is considerably larger than previously recorded, and all variants are represented. Surely this is owed to the large number of graves discovered in this location.

In my opinion the fibulae of the Zvonimirovo type are Celtic fibulae which were particularly prized by the population of Golek pri Vinici and, as the minute variations in the many examples found on the site show, were manufactured there. The numerous examples of the Gemeinlebarn variant of the Mötschwil type[42] and the

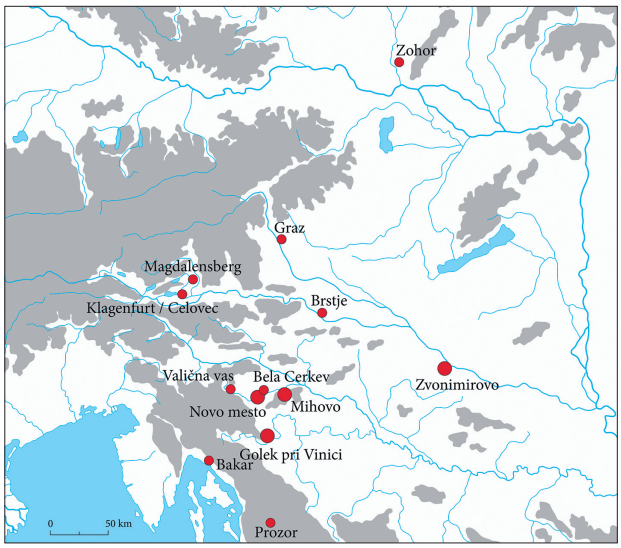

Fig. 4. Distribution of bronze fibulae of the Zvonimirovo type. Large circle: several specimens.

Valična vas type[43] indicate that Celtic fibulae for costumes were a dominant trait at Golek pri Vinici during LT C2. This would also explain the almost total absence of Zvonimirovo type fibulae among the Japodes in Lika in Croatia and in the Una Valley in Bosnia. The Celtic fibulae of the Gemeinlebarn variant of the Mötschwil type and those of the Valična vas type did however reach the region occupied by the Colapiani, but not that of the Japodes.

The distribution of the later variant c2 of the Zvonimirovo type, dated to LT D1, is confined to the Krka Valley (Bela Cerkev), the Kolpa Valley (Golek pri Vinici) and the Adriatic coast (Bakar). The late date suggested for this variant is supported by the fact that it is absent from Zvonimirovo whose burials end at the end of LT C2.

Conclusion

Fibulae of the Zvonimirovo type, Gemeinlebarn variant of the Mötschwil type and the Valična vas type

The three older variants of Zvonimirovo type bronze fibulae (a, b, and c1), which all have a large decorated knob but a differentially-shaped bow (Fig. 1), represent an element of the female attire of the Taurisci in the LT C2 phase. Isolated specimens have come to light in the region occupied by the Norici in Carinthia, and even one specimen has come from the area occupied by the Boii in Slovakia. Such fibulae were also adopted under Tauriscan influence as part of the traditional women's attire of the Colapiani; there they appear to have been produced locally and are even more richly ornamented than those

41. Peabody Museum Collections Online (http://pmem.unix.fas.harvard.edu:8080/peabody/), Quick search: Vinica (last access 29.01.2016).

42. Božič 1993, 198–199, Group A, No. 5 and Group B, No. 12.

43. Graves 40, 131, 195, etc.

Fig. 5. Bronze fibula of the Ljubljana type from Vrtičnik above Tupaliče in Gorenjska. Length: 4.5 cm (Gorenjski muzej in Kranj, Inv. no. A 2893).

of the Taurisci. The fourth variant (c2), assigned to LT D1, seems to have developed among the Colapiani in part under the influence of fibulae of the Ribić variant of the Kastav type that is typical of the Japodes[44] and Liburni.[45]

Two further forms of bronze fibulae prized among Tauriscan women of the LT C2 phase have a similar distribution, ranging from the area occupied by the Boii to that of the Colapiani: they are the fibulae of the Gemeinlebarn variant of the Mötschwil type[46] and fibulae of the Valična vas type.[47]

Fibulae of Middle La Tène construction of the Ljubljana type

The fibulae of Middle La Tène construction of the Ljubljana type (Fig. 5)[48] are a further form of fibula, but they can only be attributed to the LT C2 phase on typological grounds. They usually have two parallel lines running along the head, and deep grooves radially arranged along the edges. They appear to be typical of the western Tauriscan region. The term Ljubljana type is justified by the fact that most examples of this type, unpublished so far, have been found in Ljubljana: one such fibula came to light in Dvorišče SAZU (Academy Courtyard) on the left bank of the Ljubljanica and several others on the site of Tribuna in the Prule area on the right bank of the river. Only a few bronze fibulae of the Ljubljana type have been found outside the area occupied by the Taurisci: at Gurina in the upper Gail Valley in Carinthia,[49] in Linz on the Danube[50] and even on the oppidum of Třísov[51] in the territory of the Boii in Bohemia.

The above mentioned fibulae found in the territory of the Boii, which are most likely to have originated in the south, are testimony, at least in part, of an export of goods from the area occupied by the Taurisci towards the north, into the regions bordering the Danube and further north, or they represent the influence exerted by Tauriscan forms on workshops in the Danube zone and beyond.

44. Guštin 1987, 50–51 and Fig. 11/Ribić variant.
45. Batović, Batović 2013, Pl. 18/49–55; Pl. 19/56.
46. Božič 1993, 196–200, 203 and Fig. 4/2–4. – Neugebauer 1993, 105, figure bottom right. – Čižmář 2001, 299, No. 8 and Fig. 1/8 (Břeclav-Pohansko). – Čižmář 2002, 214, 223 and Fig. 12/1; Fig. 13.
47. Wallner 1991, 217, Fig. 621 (Roseldorf). – Lazar 1996, 279–280, Pl. 1/1–4. – Jandrasits 1999, 738, Fig. 416 (Roseldorf). – Čižmář, Kolníková 2006, 262, Fig. 1/7. – Cunja, Mlinar 2010, 47–48, 112, Cat. no. 113.
48. Danielisová, Militký 2014, 45, Note 3; 65 and Fig. 2a/4.
49. Jablonka 2001, 116, fibula with triangular flat bow and Pl. 81/18 (in my view the identification and dating are incorrect).
50. Trebsche 2001, 24, 61, bronze fragment and Fig. 7/61.
51. Danielisová, Militký 2014, 43, 45, 65, Tabs. 1/4 and 2/4, Figs. 2a/4 and 4/Ljubljana.

List
Fibulae of the Zvonimirovo type (Figs. 1 and 4)

Variant a

1. Brstje
   Mikl 1960, 327. – Pahič 1966, 306, No. 1, Pl. 1/7. – Guštin 1977, 83, Pl. 15/1.
2. Golek pri Vinici, Graves 116 and 163
   Gabrovec 1966b, Pl. 15/7.
3. Graz-Straßgang
   Kramer 1994, 29, Note 89; 62, No. 83, Pl. 61/2.
4. Magdalensberg
   Sedlmayer 2009, 13, No. 2.2; 180, Fig. 118/2; 232, Pl. 1/2.

Variant b

1. Golek pri Vinici, Graves 23 and 77
2. Novo Mesto-Kapiteljska njiva, Grave 183
   Križ 2005, 78, Pl. 52/Grave 183/2.
3. Zohor
   Elschek 2011a, 12 and figure. – Elschek 2011b, 85 and Fig. 23/6.
4. Zvonimirovo, Graves LT 5, LT 6, LT 67 and LT 68
   Dizdar 2007a, 129 and figure. – Dizdar 2007b, 36, Fig. 3. – Dizdar 2008, 44, Fig. 2. – Dizdar 2009b, 282, Fig. 2. – Dizdar 2011, 112, Figs. 3/3, 7/4 and 8/3. – Dizdar 2013, 399–400, No. 2, Pl. 11/4; 402, No. 3, Pl. 13/3.

Variant c1

1. Golek pri Vinici, Graves 5, 10, 24, 35, 60, 98a, 132, 136, 174, 196, 219, 251 and 252
   Mahr 1934, 96, Lot 83, Grave 174, Pl. 16; 101, Lot 99, Grave 251, Pl. 18; 107, Lot 115, single find, Pl. 20; 107, Lot 116, single find, Pl. 20. – Gabrovec 1966b, Pls. 16/3 and 31/7, 8. – Dobiat 1982, Pl. 7/3, 4, 8.
2. Klagenfurt/Celovec – Dr.-Richard-Canaval-Gasse
   Dolenz 1957, 46–47, No. 5, Fig. 3.
3. Mihovo, Graves 1655/44, 1657/38, 1657/40, 1657/55, 1657B/72 and 1663/location of sword 7
   Windl 1975, 267 (fibulae with rhomboidal sheet bows and strongly profiled feet), Pls. 6/17, 36/11, 37/2, 41/12, 54/7 and 76/15.
4. Novo Mesto-Kandija
   Knez 1966, 399, Pl. 7/1.
5. Novo Mesto-Kapiteljska njiva, Grave 567
   Križ 2001, 136, No. 372.
6. Prozor in Lika
   Todorović 1968, Pl. 59/7.
7. Valična vas
   Gabrovec 1966b, Pl. 25/9. – Teržan 1975, 667, No. 46, Pl. 5/5.
8. Zvonimirovo, Grave LT 68
   Dizdar 2008, 44.
9. Unknown site
   Gabrovec 1966a, 103, No. 5, Note 51, Pl. 11/3.

Variant c2

1. Bakar-Sarazinovo
   Blečić Kavur 2010, 327–328, 448–449, No. 313, Fig. 246/2, Pl. 20/313 (attributed to the non-existent variant I of fibulae with rhomboidal expansions of the bow).
2. Bela Cerkev-Strmec
   Stare 1973, 43, No. 971, Pl. 54/3.
3. Golek pri Vinici, Graves 130, 133, 136, 210 and 278.
   Gabrovec 1966b, Pl. 16/5, 6.

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Boii

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

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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.

Zusammenfassung: Eine Analyse der Funde vom Oberleiserberg, Niederösterreich, zeigt die Beziehungen und Kontakte des Donauraumes mit den durch die Stämme der Taurisker und Skordisker bewohnten Gebieten auf. Einige dieser Funde stellen Importe dar, andere weisen auf die Verbreitung von Ideen und auf überregionale stilistische Einflüsse hin. Kein anderer Fundort der Latènekultur nördlich der Donau weist eine solche reiche Ansammlung von Funden auf, die auf enge Kontakte mit dem keltischen Süden hinweisen.

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.[1] Another theme addressed in the publications was that of cross-regional connections, also with the lands to the south and southeast of the Oberleiserberg.[2] 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-

1. Kern 1996. – Karwowski 2007a. – Karwowski 2009. – Karwowski 2012a. – Kern, Karwowski, Militký 2012.

2. Karwowski 2007b. – Karwowski, Militký 2011. – Karwowski 2012b. – Karwowski, Militký 2014. – Karwowski in press. See also Drnić 2012 and I. Drinić's article in this volume.

Fig. 1. The view of the Oberleiserberg from the west, from the locality Klement (Photo: O. Harl)

Pandžić and has to do with a noticeable concentration of these forms in the region around the town of Vinkovci in eastern Slavonia.[3] 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.[4]

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-sharped, 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

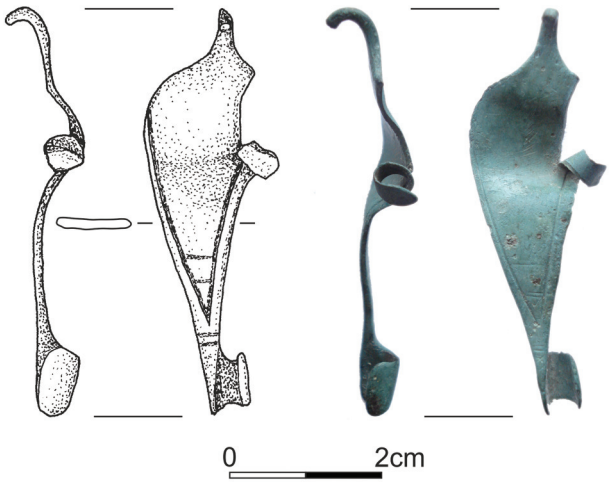

Fig. 2. The Vinkovci type fibula from the Oberleiserberg (Photo: M. Karwowski, drawing: E. Smagur).

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.

3. Majnarić-Pandžić 2009, 238.
4. Dizdar 2001a, 110. – Dizdar 2003.

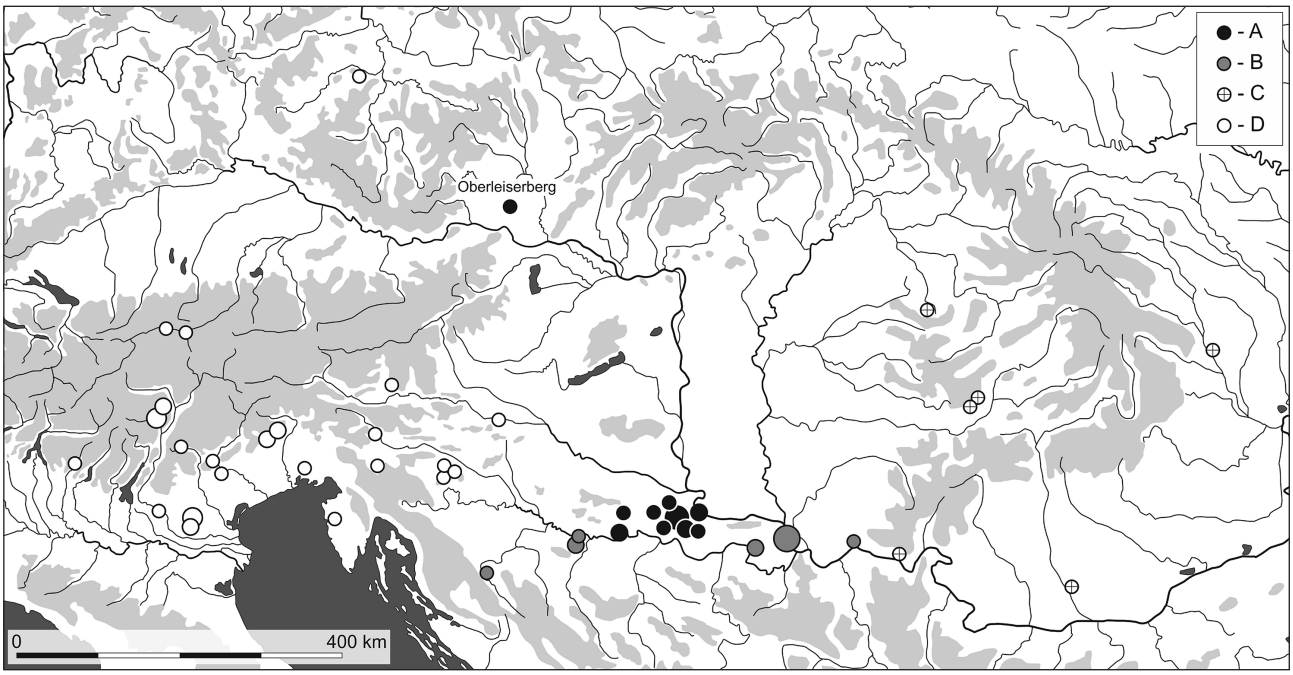

Fig. 3. Map of the distribution of Vinkovci type fibulae (A), other morphologically related fibulae (B), Rustoiu type 8b (C) and Nauheim type variant I.1 (D) (Graphics: M. Karwowski).

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 Mikanovci,[12] from Markušica[13] and from Orolik-Oraši.[14] Three of these brooches, two

5. Demetz 1999, 83. – See also Božič 1993, 141–143. – Striewe 1996, 65–66. – Božič 2008, 58–65.
6. Demetz 1999, 244–245, Map 25. – Božič 2008, 58–65.
7. Božič 1993, 143. – Božič 2008, 58–65.
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.
9. Dizdar 2003, 338–339, 344, Pl. 1/1–8. – Majnarić-Pandžić 2009, 238, Fig. 1/1–8.
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.
12. Dizdar 2003, 345, Pl. 1/9.
13. Dizdar 2003, 339.
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-Vrućak, 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 Imrijevci in the eastern area of the Požega Valley[16] and two more, both variant 3, from a destroyed grave at Zbjeg 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 Scordiscian 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-Zmajevac in eastern Slavonia[18] and from 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, namely, having a short spring and an external chord.[20] A whole series of brooches of this design is known from a complex of sites lying on the bank of the Danube at its confluence with the Sava – in Zemun, in the northern district of today's Belgrade.[21] 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-Vrućak. 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 fibula finds is a unique gilt specimen,[31] and another, made of iron[32] – 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 Laminci[33] 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-

15. Dizdar 2003, 339. – Majnarić-Pandžić 2009, Fig. 1/11.
16. Dizdar, Potrebica 2002, 117, Pl. 7/4. – Dizdar, Potrebica 2005, 62, Fig. 3. – Majnarić-Pandžić 2009, Fig. 3/1.
17. Majnarić-Pandžić 2009, 238–240, Fig. 2/1.
18. Majnarić-Pandžić 1973, 64, Pl. 1/3.
19. Jovanović, Jovanović 1988, 84, 173, Pl. 42/4.
20. Jovanović, Jovanović 1988, 85, 173, Pl. 42/7.
21. Ercegović 1961, 125–126. – Todorović 1968, 22. – Guštin 1984, 354. – Majnarić-Pandžić 2012.
22. Todorović 1968, 153–155, Pls. 53/3, 6–8, 18, 27, 54/3, 6–8 and 55/2, 4, 6, 25. – Todorović 1971, 144–148, Pls. 66/3–5, 7, 11, 67/1–6, 8–10, 14 and 68/1.
23. Todorović 1971, Pl. 67/3.
24. Todorović 1971, Pl. 67/7.
25. Demetz 1999, 83. – Božič 2008, 58–65. – Cf. also e.g. Sedlmayer 2009, 64, Pl. 2/23, Tab. 37.
26. Todorović 1971, Pls. 66/3, 7 and 67/2, 4, 9.
27. Todorović 1971, Pl. LXVII/6.
28. Gumă, 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.
34. Marić 1963, 78, Pl. 2/1. – Marić 1964, 50, Pl. 20/13. – Z. Marić (Marić 1963, 78. – Marić 1964, 50), M. Guštin (Guštin 1984, 341, Footnote 122) and K. Striewe (Striewe 1996, 281) classify this specimen as Nauheim type.
35. Marić 1971, Pl. 23/5.

called legionary fibulae dating to the Early Roman period.[36] Specimens of this fibula variant, with an expanded, flat bow, are known from a series of finds recorded in southern and southeastern Pannonia.[37] However, Late La Tène and Early Roman brooches of a similar design are known from a broad area covered by the Roman provinces.[38] 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.[39] Their likely centre of production was the fortified settlement at Dirov Brijeg, on the river Bosut, in the western district of Vinkovci.[40]

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.[41] 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.[42]

Still not fully resolved is the matter of the chronology 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.[43] 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).[44] 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.[45] 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.[46] In La Tène culture, similar belts were rather an item of personal adornment and parts of women's costume.[47]

In the typological classification of La Tène astragal belts developed by Božič, they are distinguished into three main types: Osijek, Beograd and Dunaszekcső.[48] However, these individual types can only be unambiguously

36. Dizdar 2003, 341–342.

37. Kovrig 1937, 28, 68, Pl. 12/129. – Koščević 1980, 26, 54, Pls. 25/205–206 and 41/82. – Dautova-Ruševljan 1987, 60–61, Pls. 44/3, 46/1, 15 and 47/4, 9.

38. Feugère 1985, 200–203, Pls. 27–28. – Riha 1994, 60–61, Pl. 4. – Gaspar 2007, 27–28, 89–93, Pls. 10–13. – Leifeld 2007, 79–81, Fig. 10. – Sedlmayer 2009, 234, Pl. 2/26–28. – See also Kropotov 2010, 59–62, Fig. 27.

39. Dizdar 2003, 344.

40. See also Dimitrijević 1979, 144–146, Fig. 4, Map 2. – Dizdar 2001b, 22–25, Figs. 5–8.

41. Popović 1994, 57–63, 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).

45. E.g. Márton 1933, 70–78, Pl. XV. – Todorović 1964. – Božič 1982. – Jovanović 1998. – Arsenijević 1998. – Čižmář 2005, 131–132, Fig. 4.

46. Brunšmid 1902, 73.

47. Todorović 1964, 47. – Božič 1982, 52–54.

48. Božič 1982, 49–52.

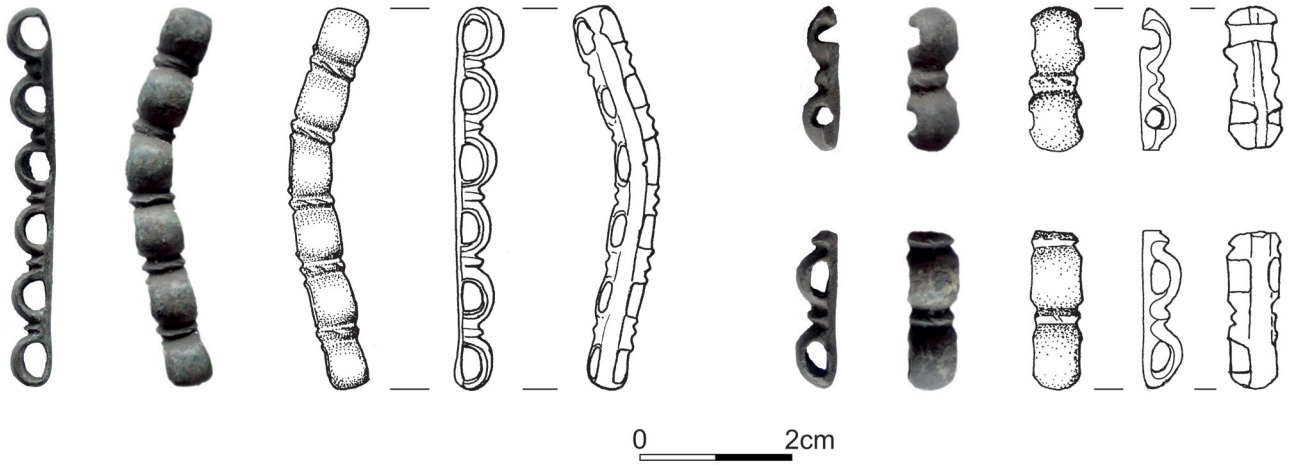

Fig. 4. Segments of an astragal belt from the Oberleiserberg (Photo: M. Karwowski; drawing: J. Hritzová).

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 Božič, 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.

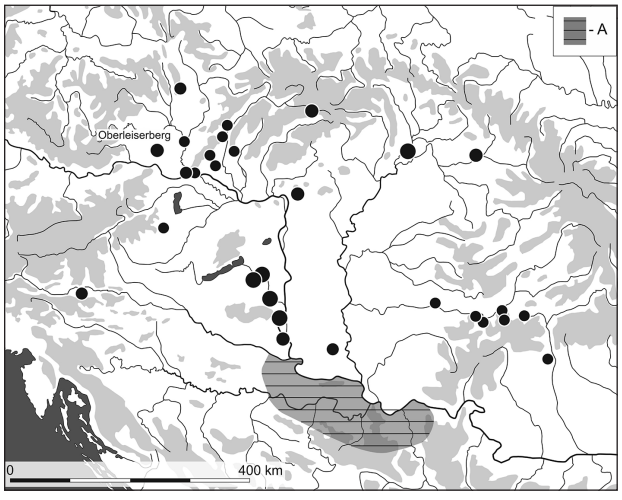

Fig. 5. Map of the distribution of astragal belts to the north of the zone of their highest frequency (A) (Graphics: M. Karwowski).

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.[49] 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.[50] 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

49. Božič 1982, 48–49. – Jovanović 1998, 69.

50. Todorović 1964, Pl. II. – Božič 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 Regöly[54] and Szárazd[55] 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 unconfirmed but possibly Late La Tène finds of astragal belts from Hungary is a fragment from the hilltop settlement in Velem Szentvid in western Transdanubia[57] and a few elements discovered in two graves in the cemetery at Kosd in the northern area of central Hungary.[58]

The most geographically isolated finds of astragal belts in the territory settled by southeastern Celts would be two segments of the Dunaszekcső type recorded in the hilltop settlement on Gracarca at Sankt Kanzian in Carinthia.[59] This is also the only such find from the territory settled by the Celtic Norici, the only one from the Alpine region, and at the same time, the westernmost site to have yielded an astragal belt.

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 Devín and at Bratislava, which have also yielded finds of segments belonging to astragal belts. Two complete specimens from Devín are of the Dunaszekcső type,[61] and some damaged segments, from Devín[62] 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 Nitra[64] 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 Bohuslavice 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. Rustoiu has listed seven sites on the territory of

51. Jovanović 1998, 54, Footnote 65, Pl. VII/14, 15.
52. Maráz 1983, 107–108, Pl. III/1, 2, 4. – Jovanović 1998, 45–46.
53. Márton 1933, Pl. XV/3, 4, 7, 9. – Jerem 1973, 78. – Jovanović 1998, Pl. XI/4, 5.
54. Márton 1933, Pl. XV/5, 6. – Jerem 1973, 78–79. – Kemenczei 2012, 325, 328, 329, Figs. 7/8–10, 12, 14, 19–22 and 8/7, 9.
55. Kemenczei 2012, 324, 332, Figs. 6/5–6, 18, 7/2 and 8/8.
56. Jerem 1973, 79, Footnote 40.
57. Miske 1908, Pl. XLV/36.
58. Kemenczei 2012, 346. – See also Márton 1933, 75–76. – Jerem 1973, 79, Footnote 40.
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. Placha 1997, Fig. 112/3.
63. Bazovský, Gregor 2009, Fig. 5/1.
64. Březinová, Samuel 2007, 31, Fig. 42.
65. Pieta 1982, 48.
66. Pieta 2010, Fig. 118/7.
67. Bazovský, 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.[69] Five of these sites are in the mountainous region of Transylvania: Căpâlna, Costeşti, Crişeni, Sebeș and Sibiu;[70] one is from the Romanian Banat: Pecica, or the ancient Dacian *Ziridava*,[71] and one in Oltenia: Ocniţa.[72] All the belt finds from Dacian territory may be classified as the Dunaszekcső type and most are dated by their context in the 1st century BC.[73]

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,[74] in the Celto-Dacian sacrificial site at Zemplín-Kertalja in eastern Slovakia,[75] and a settlement centre of the Púchov culture at Liptovská Mara in northern Slovakia.[76] A very finely preserved belt find from Zemplín was reconstructed.[77] 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 Dunaszekcső type. As to the specimens from Malaya Kopana and from Liptovská Mara, a few segments each, only one may be attributed to the Dunaszekcső type and comes from the Dacian settlement.[78] 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).[79] 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,[80] 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.[81]

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.[82] 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,[83] appears to be well confirmed by their context of discovery.

69. Rustoiu 1996, 201, Fig. 71.
70. Rustoiu 1996, Fig. 73/10, 11, 13, 15.
71. Rustoiu 1996, Fig. 73/12.
72. Rustoiu 1996, Fig. 73/14.
73. Rustoiu 1996, 115–116.
74. Kotigoroško 1991, Fig. 7/53, 54.
75. Miroššayová, Čaplovič 1991, 119, Pl. I/16, 17.
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 1995, 101, Fig. 67.
78. Kotigoroško 1991, Fig. 7/54.
79. See also Kern 1996, Fig. 8.
80. See Challet 1992, 133, Fig. 92.
81. This fact was noted earlier by D. Božič (Božič 1993, 140).
82. Božič 1993, 139–140, 144, Figs. 1/1, 2 and 5. – Čižmař 2002, 216, Fig. 21. – Schönfelder 2002, 268, Figs. 168 and 170, Table 46. – D. Božič has noted that double eyes of this sort are seen on bosses of a larger diameter, between 2.4 and 3 cm (Božič 1993, 140).
83. E.g. Deimel 1987, 92, 299. – van Endert 1991, 74. – Challet 1992, 134. – Božič 1993, 140.

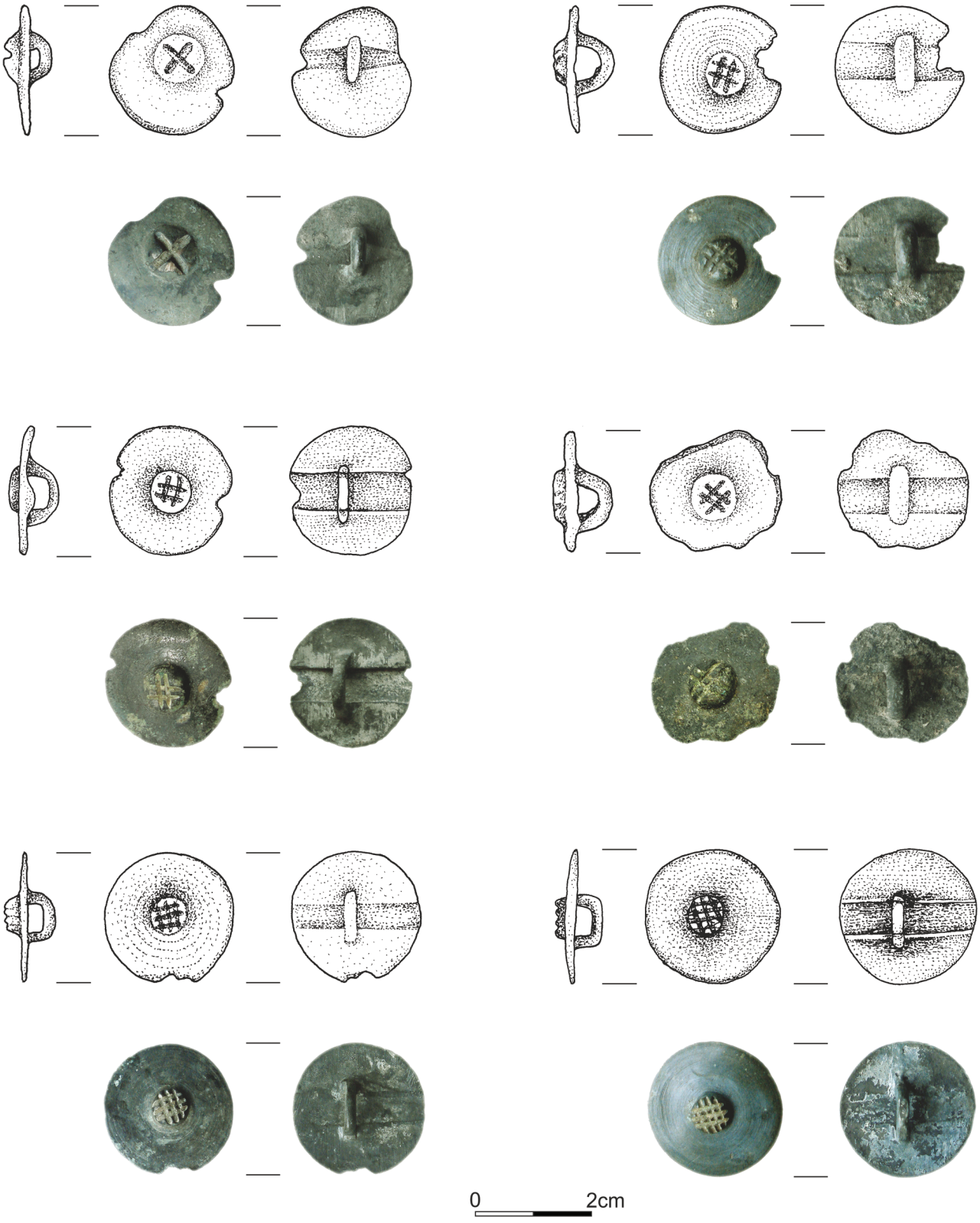

Fig. 6. Bronze bosses from the Oberleiserberg (Photo: M. Karwowski; drawing: E. Smagur).

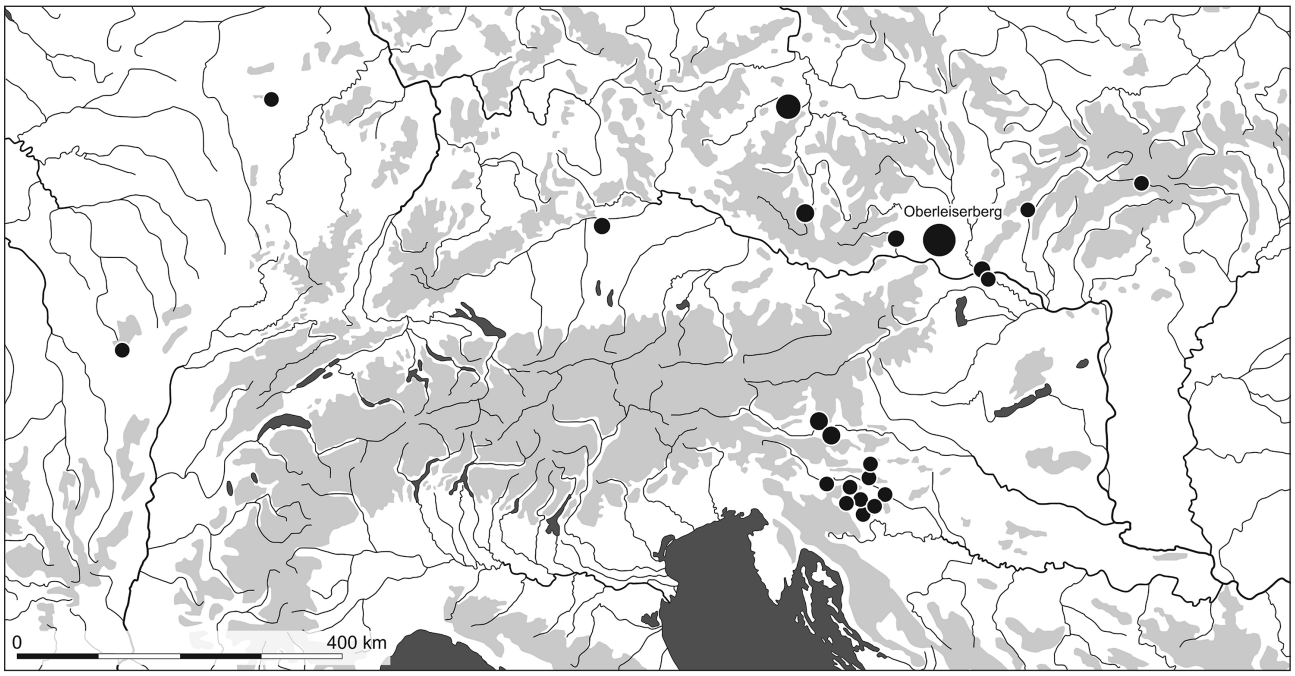

Fig. 7. Map of distribution of bronze bosses decorated with a central knob with a design of intersecting incised lines (Graphics: M. Karwowski).

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.[84] 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[85] 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,[86] and a specimen not included by Božič from the cemetery at Bela Cerkev-Vinji Vrh,[87] 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,[88] and a few more from the settlement on Gracarca at Sankt Kanzian.[89]

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[90] and from the oppidum at Bratislava,[91] and one specimen each from the oppidum at Trenčianske Bohuslavice in western Slovakia[92] and from the settlement at Bratislava-Rusovce on the southern bank of the Danube.[93]

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[94] and a few more from Třísov in southern Bohemia.[95]

84. Božič 1993, 144, List 1.

85. This specimen was either discovered inside the hilltop settlement in an unspecified context, or in the cemetery in that locality (Guštin, Cunja, Predovnik 1993, 12).

86. Also: Božič 2008, Pls. 20/14 and 31/4.

87. Stare 1973, 42, Pl. 52/17.

88. Kenner 1961, 144, Fig. 81/8. – Deimel 1987, 298–299, Pl. 79/1–3.

89. Božič 1993, 144. – Schönfelder 2002, 269.

90. Author's archive.

91. Vrtel 2012, Fig. 260.

92. Pieta 2010, Figs. 16/1 and 113/6.

93. Bazovský, Čambal 2012, Fig. 300/11.

94. Pič 1903, Pl. 10/12, 15, 19–22. – Filip 1956, Pl. CXXV/16. – Challet 1992, 133, Pl. 92/3.

95. I am indebted for this information to J. Militký and A. Danielisová.

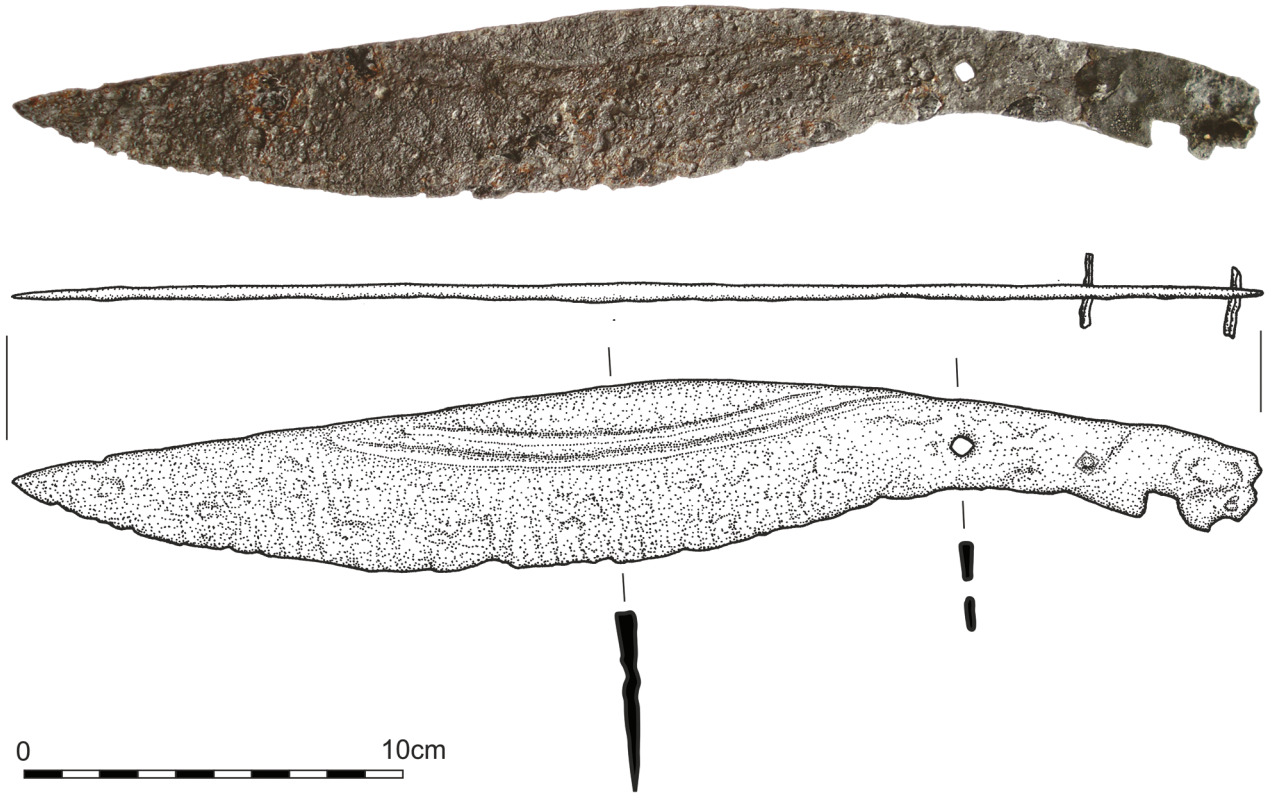

Fig. 8. The iron curved knife from Oberleiserberg (Photo: M. Karwowski; drawing: E. Smagur).

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 Bavaria[96] and one specimen each from two other oppida: the Titelberg in Luxembourg[97] 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-

96. van Endert 1991, 131, Pl. 22/383. – Challet 1992, 133, Fig. 92/2. – Sievers 1992, 190, Fig. 89/16.
97. Challet 1992, 133, Fig. 92/1.
98. Božič 1993, 144.
99. Pieta 1982, 60, Pls. XII/18 and XXVIII/7. – Pieta 1996, Pl. III/1.
100. Božič 1993, 140.
101. Božič 1993, Fig. 5. – See also Miske 1908, 58, Pls. XXXVI/43, XXXVII/44 and XLVI/51. – Meduna 1961, 9, Pl. 7/20. – Meduna 1970, 37, Pl. 4/10.

preserved knife (Fig. 8).[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.[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, *sicae*, were known in the northern region of the Balkans as early as the 5th century BC, as confirmed both by classical written sources and the iconographic record.[104] In this area they were one of the weapons of the Thracian population and later, became popular in the Dacian environment. A typical *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-Panagjurski Kolonii group.[105] These burials cover in their range northwestern Bulgaria, western and southern Muntenia, much of Oltenia, the Iron Gates region and southwestern Transylvania.[106]

Fighting knives are known from weapon graves of the Padea-Panagjurski 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.[107] Type III are knives with a visibly tapering hilt plate,[108] and type IV are forms with a broad, flat hilt.[109] Next to the grooves, present on both faces of the blade, a typological feature, many of these knives have decoration on the blade.[110]

As Rustoiu notes, the northward migration of warriors associated with the Padea-Panagjurski Kolonii group resulted in the adoption of knives, reminiscent in the design of the *sica*, in the Dacian environment.[111] Their finds are recorded in the Dacian environment in many burials dating to the 1st century BC,[112] quite a few of these forms are encountered also in fortified settlements.[113] This settlement context leads to the surmise that the owners of *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.[114]

Whereas the *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.[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.[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 *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.[117] Others surfaced in cemeteries of Lower Carniola: two at Bela Cerkev-Vinji Vrh[118] and, one each, at Novo Mesto-Okrajno Glavarstvo[119] and at Podzemelj.[120]

102. See also Stuppner 2006, 19, Fig. 37.
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.
104. Rustoiu 2007, 67.
105. Rustoiu 2007, 67–68.
106. Woźniak 1973. – Woźniak 1974, 74–138.
107. Woźniak 1974, 94–99.
108. Woźniak 1974, 96–97, Fig. 9/8, 14, 15.
109. Woźniak 1974, 97–98, Fig. 9/10, 13.
110. Woźniak 1974, 99–102, Fig. 10.
111. Rustoiu 2007, 70.
112. Rustoiu 2002a, 47–55, Fig. 38.
113. Rustoiu 2002b, 74.
114. Rustoiu 2007, 70–73.
115. Rustoiu 2007, 70, Fig. 5.
116. Balen-Letunić 2006, 65, Map 1.
117. Božič 1999, 199. – Balen-Letunić 2006, 65. – Gaspari, Trampuž Orel, Turk 2009, 254, No. 37/b–c; 255 and figure.
118. Stare 1973, 42, Pls. 50/8 and 51/9. – Balen-Letunić 2006, 65.
119. Božič 2008, 168, Pl. 20/2.
120. Gabrovec 1966, 177, Pl. 22/1. – Božič 2001, 187, Fig. 17.

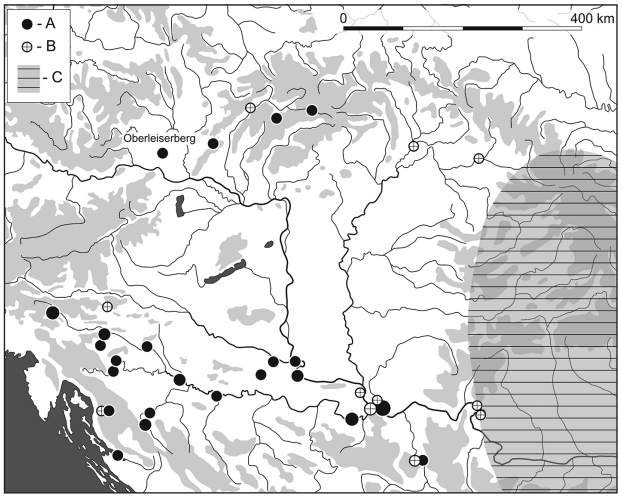

Fig. 9. Map of distribution of finds of iron curved knives reminiscent of types IV (A) and III (B) to the west of the zone of their highest frequency (C) (Graphics: M. Karwowski).

A group of four more knives stylistically reminiscent of type IV comes from central Croatia: three of them from Sisak[121] and one from Zagreb.[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.[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,[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,[125] and two more, from the cemetery at Pritoka-Jezerine,[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.[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.[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.[129] Further comparable specimens derive from cemeteries in eastern Slavonia: at Osijek,[130] Dalj[131] and two at Sotin.[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.[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.[134]

Finds of knives stylistically reminiscent of the *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,[135] and one more – type III – from the cemetery at Novi Banovci.[136] A series of knives of the *sica* type is recorded in the cemetery at Belgrade-Karaburma. We can list here both specimens reminiscent stylistically of type IV,[137] but also of type III.[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.[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.[140]

The easternmost finds of *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.[141]

121. Balen-Letunić 2006, 65, 69, Pl. 1/1–2.
122. Majnarić-Pandzić 1970, 67, Pl. XXI/3. – Balen-Letunić 2006, 69, Pl. 2/2.
123. Gaspari, Krempuš, Brišnik 2004, 269, Pl. 2/4.
124. Gabrovec 1966, 179, Pl. 20/1.
125. Marić 1971, Pl. 10/27.
126. Radimský 1895, 133, 156, Figs. 358 and 470.
127. Drechsler-Bižić 1973, 41, Pls. XXXIV/3 and XXXV/1. – Balen-Letunić 2006, 69, Pl. 2/1.
128. Stipčević 1960, 88–90, Figs. 1–2.
129. Dizdar, Potrebica 2005, 60, Fig. 2.
130. Majnarić-Pandžić 1970, 87, Pl. XXI/3.
131. Majnarić-Pandžić 1970, 89, Pl. XXIV/10.
132. Majnarić-Pandžić 1970, 94, Pl. XXXVI/8. – Majnarić-Pandžić 1973, 58, Pl. IV/2.
133. Truhelka 1901, 27–28, Pl. VI/1.
134. Dizdar, Potrebica 2005, 62, Map 1.
135. Majnarić-Pandzić 1970, 83, 85, Pls. XIII/13 and XVI/1, 5, 8.
136. Majnarić-Pandžić 1970, 90, Pl. XXVIII/5.
137. E.g. Todorović 1972, 32, 35, Pls. XXX/97/14 and XXXIV/112/6.
138. E.g. Todorović 1972, 19, 20, 26, Pls. XI/28/1, XIII/32/1 and XXI/60/14.
139. Todorović 1968, 153, Pl. LII/10. – Majnarić-Pandžić 1970, 98, Pl. XLVI/6.
140. Stojić 2003, 41, 91, Figs. 147, 148 and 311.
141. Popović 1991, 173, Figs. 3/2, 3 and 4/8.

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,[142] 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 Košeca-Nozdrovice.[143] 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[144] and at Liptovská Mara,[145] 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,[146] and one from a Dacian hill-fort Malaya Kopana in Carpathian Ukraine.[147] 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 provenance 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.[148] 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 Iapodes. 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.

142. Paulík, Tomčíková 2005, 90, Abb. 7/1, Taf. IV/2
143. Nešporová 2001, 141, Fig. 101/2.
144. Pieta 2010, Fig. 27/9 and 69/1.
145. Pieta 2010, Fig. 69/3.
146. Pieta 2005 Pl. XI/4. – Pieta 2010, Figs. 69/9 and 127/21.
147. Kotigoroško 1991, 126, Fig. 6/19.
148. See Karwowski 2008, 486–488.

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

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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.

Zusammenfassung: In diesem Beitrag werden Fragen der Beziehungen und Kontakte der Boier mit den von den Stämmen der Taurisker und Noriker bewohnten Gebieten beleuchtet. Durch die Vermittlung von Münzen ist es relativ zuverlässig möglich, die Fernkontakte zwischen den einzelnen Fundstellen und Regionen zu verfolgen. Es zeigt sich, dass der Importbeginn noch vor der Oppidazeit liegt, der Großteil der tauriskischen und norischen Münzen jedoch in den Oppidahorizont fällt.

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 Norici[5] and is located mainly in Carinthia. There the Norican kingdom (*regnum Noricum*[6]) 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 again[7] who defined their typology. Two important centres with abundant finds of coins are known from western Noricum – Gurina[8] and the Magdalensberg.[9]

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

1. Gorini 2005. – Kos 2007. – Kos 2012.
2. Kos 1977.
3. Göbl 1973.
4. For a summary of the site, see Lazar, Kos 2012.
5. In fact several Celtic tribes – the Alauni, Ambisoutes, Saevates, Laianci, Ambilici and Ambitravi – occupied the area.
6. E.g. Krmnicek 2010, 15–17. – Dobesch 2012.
7. Göbl 1973.
8. For a summary of the site, see Gleirscher 2012.
9. For a summary of the site, see Dolenz, Piccottini 2012. – For the coin finds, see Bannert, Piccottini 1972. – Jablonka 2001. – Krmnicek 2010.

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.[10] 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.[11] 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.[12] The demise of Boian power on the Middle Danube enabled, at least theoretically, the Norici to extend their power into that region.[13] 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[14] have been recorded in the area occupied by that most important of Celtic oppida[15] 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.[16]

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
Provenance: area of oppidum, 2004.
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
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.

10. For an overview, see for example Dobesch 2012.
11. E.g. Hainzmann 2012.
12. Dobesch 1994. – Dobesch 1995.
13. Kolníková 1996, 51.
14. For the coinage, see Píč 1903, 9–31. – Koblitz 1918. – Paulsen 1933. – Hartmann 1985. – Dembski 1998. – Militký 2004. – Militký 2010a. – Smejtek, Lutovský, Militký 2013, 343–345, No. 1–3.
15. For the site, see Píč 1903. – Rybová, Drda 1994. – Waldhauser 2001, 464–465. – Venclová 2008, 30–46. – Venclová, Valentová 2012. – Valentová 2013. – For glass manufacture, see Venclová 1990.
16. The Western Norican tetradrachm COPO (Píč 1903, 11–12, Fig. 2/3) does not come from Stradonice but from Gurina (Göbl 1973, 119, No. C3/3, Pl. 4/C3/3. – Dembski 1998, 88, No. 792, Pl. 41/792).

993, Pl. 40/20. – Militký 2012a, 52, Fig. 29/17.
This coin: Píč 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; 9.4/87.4 mm
Provenance: area of oppidum, around 1877–1881.
Current location: Národní Muzeum Prague, Inv. no. H1-235.476 (coll. Š. Berger).

1.6 AR obol
Ref.: Kos 1977, as Pl. 19/25–26. – Kostial 2003, 65, as No. 295.
0.574 g; 9.3/9.4 mm
Provenance: area of oppidum, around 2005.
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 ? / ?)
Ref.: Göbl 1973, Pl. 2–3: group B2 Var.
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 87/2003:1.

1.9 AR obol, **Magdalensberg** type, group Göbl (1973) **IAa**
Ref.: Paulsen 1933, Pl. 26/607. – Göbl 1973, Pl. 47/IAa. – Kostial 1997, 60, No. 241.
This coin: Píč 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, Pl. 47/IAd. – Kostial 1997, 61, No. 245–246.
This coin: Píč 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. 47/IAd. – Kostial 1997, 61, No. 245–246.
This coin: Koblitz 1918, 100, No. 28. – Paulsen 1933, 66, 153, Pl. 26/602. – Göbl 1973, 140, No. EE1, Pl. 45/EE1. – Drda, Rybová 1998, 183, Fig. 17.
0.75 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) **IAd**
Ref.: Paulsen 1933, Pl. 26/606. – Göbl 1973, Pl. 47/IAd. – Kostial 1997, 61, No. 245–246.
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. H5-27.327 (coll. E. Mikš / K. Buchtela).

1.13 AR obol, **Magdalensberg** type, group Göbl (1973) **IAf**
Ref.: Paulsen 1933, Pl. 26/605. – Göbl 1973, Pl. 47/IAf.
This coin: Paulsen 1933, 67, 153, Pl. 26/605. – Dembski 1998, Pl. 44/828 (but cited as coming from Gurina). – Göbl 1973, 140, No. If, Pl. 47/IAf. – Drda, Rybová 1998, 183, Fig. 20.
0.67 g; 11 mm
Provenance: area of oppidum, second half of 19th century.
Current location: Kunsthistorisches Museum Vienna, Inv. no. 39.269 (formerly Inv. no. 5.240).

1.14 AR obol, **Magdalensberg** type, group Göbl (1973) **IIh**
Ref.: Göbl 1973, Pl. 47/IIh. – Dembski 1998, 90, No. 851. – Kostial 2003, 64, No. 285.
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) **IIh**
Ref.: Paulsen 1933, Pl. 26/599. – Göbl 1973, Pl. 47/IAd. – Kostial 1997, 61, No. 245–246.
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 (?)[17]
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**
Ref.: Paulsen 1933, Pl. 26/608. – Göbl 1973, Pl. 44/M1. – Mackensen 1973, 87, Pl. 7/1a–b. – Brandt 2002, 97, No. 237, Pl. 12/237.
This coin: Píč 1903, Pl. II/78 (reverse only). – Paulsen 1933, 67, 153, No. 608, Pl. 26/608. – Göbl 1973, 139, No. M1, Pl. 44/M1. – Mackensen 1973, 87, Pl. 7/1a–b. – Mackensen 1975, 272, No. 62, Pl. 4/62. – Drda, Rybová 1998, 183, Fig. 18.
0,65 g; 8,5 mm
Provenance: area of oppidum, before 1903.
Current location: private collection, today unknown.

TŘÍSOV (District of Český Krumlov)

2. Settlement finds (2 items)

Only a small assemblage of coins is known today from the area of the Celtic oppidum of Třísov in southern Bohemia;[18] it comes from the excavations published by J. Břeň.[19] Metal-detector surveys have been carried out on the site since 2007[20] and these have yielded a total of some 150 coins.[21] Two obols from western Noricum are present in the assemblage from Třísov. The first was found in archaeological excavations in 1977, the second was recovered in a metal-detector survey in 2013.

Western Noricum, Norici

2.1 AR obol, **Magdalensberg** type, group Göbl (1973) **IAf**
Ref.: Göbl 1973, Pl. 47/IAf.
This coin: Militký 1995, 38, No. 12/4; Pl. I/18. – Militký 2005, 46, No. 77/5.
0.594 g; 10.7/10.0 mm
Provenance: Excavations 1977 – Sondage A, from the cleaning of a feature (a hearth) with pale orange clay over the base of the hearth.
Current location: Národní Muzeum Prague, Inv. no. H1-235.412.

2.2 AR obol, **Magdalensberg** type, group Göbl (1973) **M1**
Ref.: Paulsen 1933, Pl. 26/608. – Göbl 1973, Pl. 44/M1. – Mackensen 1973, 87, Pl. 7/1a–b. – Brandt 2002, 97, No. 237, Pl. 12/237.
0.419 g; 9.3/8.9 mm
Provenance: southern part of the oppidum, terrace 8; archaeological metal-detector survey, 18.04.2013.
Current location: Southern Bohemian Museum České Budějovice, Inv. no. Mi 27.053.

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 pres-

17. Koblitz 1918 refers to the Píč type (1903), Pl. II/75, 78, Dessewffy type (1910), Tab. XIX/481 and Forrer type (1908/1968), Fig. 136.

18. For the site, see for example Břeň 1956. – Břeň 1966. – Břeň 1984. – Břeň 1987. – Karasová 2002. – Hlava 2008. – Hlava 2009.

19. Militký 1995, 38, No. 12. – Militký 2005, 46, No. 77.

20. Danielisová, Militký 2014.

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

22. See Fiala 1891, 8, No. 42–43. – Koblitz 1918, 98, No. 41–42. – Paulsen 1933, 57, 58, 153, Pl. 26/600, 603. – Radoměrský 1955, 69, No. 137. – Drda, Rybová 1998, 183, No. 23–24. – Waldhauser 2001, 534, No. 1. – Smejtek, Lutovský, Militký 2013, 401, No. 1.

ent but have not survived. The Zbiroh hoard is the only hoard in Bohemia containing Norican issues.

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**)
Ref.: Göbl 1973, 129, No. 5/36–40, Pl. 26/36–40.
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 Nakléřov (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**)
Ref.: Göbl 1973, 122, No. F/27–30a, Pl. 11/27–30.
No details available.

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 Nakléřov (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**)
Ref.: Göbl 1973, 120–121, No. Ec/13–27, Pls. 7/13–18 and 8/19–27.
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 Zbečno 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** type[25]
Ref.: Göbl 1973, as Pls. 25–29.
This coin: Koblitz 1918, 100, No. 100.
9.40 g; 24 mm

23. See Koblitz 1918, 98, No. 68. – Radoměrský 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: "*Celtiberian 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.

24. See Koblitz 1918, 100, No. 100. – Radoměrský 1955, 68, No. 135. – Pink 1939/1974, 114, No. 395.

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 Hanou[26] (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
Ref.: Göbl 1973, 138, No. B2, Pl. 44/B2. – Kos 2013, 354–356, as No. 1–12.
This coin: Kolníková 2012a, 55–56, No. 943, Fig. 63/943.
0.693 g.
Current location: private collection, Ev. no. PS 361/2014:1.

Eastern Noricum, Taurisci

8.2 AR obol, **Varaždin** type
Ref.: Göbl 1973, 140, No. GG1, Pl. 45:GG1. – Allen 1987, 67, No. 171, Pl. X:171. – Dembski 1998, 93, No. 944, Pl. 52:944. – Ziegaus 2010, 220, No. 580.
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
Provenance: outer enclosure (?), around 2000.
Current location: private collection (R. Maleček), Ev. no. PS 243/2011/1.

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.

26. Čižmář, Kolníková 2006. – Kolníková 2006. – Čižmář, Kolníková, Noeske 2008. – Kolníková 2012a. – Militký 2012b.

27. See Meduna 1970a. – Meduna 1970b. – Čižmář 1993. – Čižmář 1995. – Čižmář 2002a. – Čižmář 2002b.

28. Paulsen 1933. – Meduna 1970b, Pl. 58. – Lehrberger et al. 1997, 299–302, Pls. 54–59.

29. Dr. B. Komoróczy kindly gave permission to publish this coin and this is gratefully acknowledged.

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 Virteju-Bucureşti and Inoteşti-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**)
Ref.: Göbl 1973, 134, No. 10/35–38, Pl. 37/35–38.
Ex.: Dessewffy 1910, No. 1145. – Göbl 1973, 134, No. c/39.
10.11 g.

MORAVIA – no precise location

14. Settlement finds? (2 items)

Two obols of the Norici belong to a private collection, found somewhere in southern (?) Moravia.[34] Their exact location is unknown and it is not known whether the two coins came from the same site.

Western Noricum, Norici

14.1 AR obol, **Magdalensberg** type, group Göbl (1973) **IAc**
Ref.: Göbl 1973, Pl. 47/IAc
0.60 g.

14.2 AR obol, **Magdalensberg** type, group Göbl (1973) **IIb**
Ref.: Göbl 1973, Pl. 47/IIb.
0.60 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 Norican issues.

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.

33. Blanchet 1902, 160. – Forrer 1908/1968, 150–151, Figs. 287, 287a und 288. – Dessewffy 1910, No. 1145. – Paulsen 1933, 111, note 153. – Radoměrský 1955, 74, No. 160. – Castelin 1978, No. 1326. – Kolníková 1998, 28, No. XIIIg–h. – Smejtek, Lutovský, Militký 2013, 134, No. 2.

34. These finds were made by private metal-detectorists.

Tab. 1. Finds of coins of the Taurisci from Bohemia and Moravia.

	Cat. no.	Site	Denomination	Type	Göbl 1973	Type of find
1	8.2	Němčice nad Hanou	AR obol	Varaždin	GG1	Settlement find
2	4.1	Plzeň	AR tetradrachm	Gjurgjevac	60 / 128	Single find
3	7.1	Zbečno-Sýkořice	AR tetradrachm	Gjurgjevac	?	Single find
4	9.1	Malé Hradisko	AE/AR tetradrachm (*subaeratus*)	Gjurgjevac	-	Settlement find
5	11.1	Klentnice	AE tetradrachm (*subaeratus*)	Gjurgjevac	-	
6	1.2	Stradonice	AE/AR tetradrachm (*subaeratus*)	*Frontalgesicht*	78? / 148?	Settlement find
7	13.1	Jevíčko	AR tetradrachm	*Augentyp-Stamm*	84F / 172B	Hoard find?
8	1.1	Stradonice	AR tetradrachm	Samobor C	96 / 191	Settlement find
9	10.1	Poštorná	AR tetradrachm	Samobor C	102 / 202	Settlement find
10	1.3	Stradonice	AR obol	*Frontalgesicht*	HH/1	Settlement find
11	1.4	Stradonice	AR obol	*Frontalgesicht*	HH/2	Settlement find
12	1.5	Stradonice	AR obol		-	Settlement find
13	1.6	Stradonice	AR obol		-	Settlement find

Tab. 2. Finds of coins from western Noricum from Bohemia and Moravia.

	Cat. no.	Site	Denomination	Type	Göbl 1973	Type of find
1	8.1	Němčice nad Hanou	AR obol	*Kugelreiter*	B2	Settlement find
2	1.7	Stradonice	AR tetradrachm	*Tinco-Stufe*	2J? / 23?	Settlement find?
3	1.8	Stradonice	AR tetradrachm	*Tinco-Stufe*	-	Settlement find?
4	6.1	Knínice	AR tetradrachm	ADNAMATI	9a / 50	Single find
5	5.1	Knínice	AR tetradrachm	NEMET	10a / 53	Single find
6	9.2	Malé Hradisko	AE tetradrachm (*subaeratus*)	Unpublished (?)	-	Settlement find
7	1.9	Stradonice	AR obol	Magdalensberg	IAa	Settlement find
8	3.1	Zbiroh	AR obol	Magdalensberg	IAc	Hoard find
9	2.1	Třísov	AR obol	Magdalensberg	IAc	Settlement find
10	14.1	Moravia	AR obol	Magdalensberg	IAc	?
11	1.10	Stradonice	AR obol	Magdalensberg	IAd	Settlement find
12	1.11	Stradonice	AR obol	Magdalensberg	IAd	Settlement find
13	1.12	Stradonice	AR obol	Magdalensberg	IAd	Settlement find
14	1.13	Stradonice	AR obol	Magdalensberg	IAf	Settlement find
15	12.1	Polkovice	AR obol	Magdalensberg	IAf	Settlement find
16	14.2	Moravia	AR obol	Magdalensberg	IIb	?
17	3.2	Zbiroh	AR obol	Magdalensberg	IIc	Hoard find
18	1.14	Stradonice	AR obol	Magdalensberg	IIh	Settlement find
19	1.15	Stradonice	AR obol	Magdalensberg	IIh	Settlement find
20	1.16	Stradonice	AR obol	Magdalensberg	?	Settlement find
21	2.2	Třísov	AR obol	Magdalensberg	M1	Settlement find
22	1.17	Stradonice	AR obol	Magdalensberg	M1	Settlement find

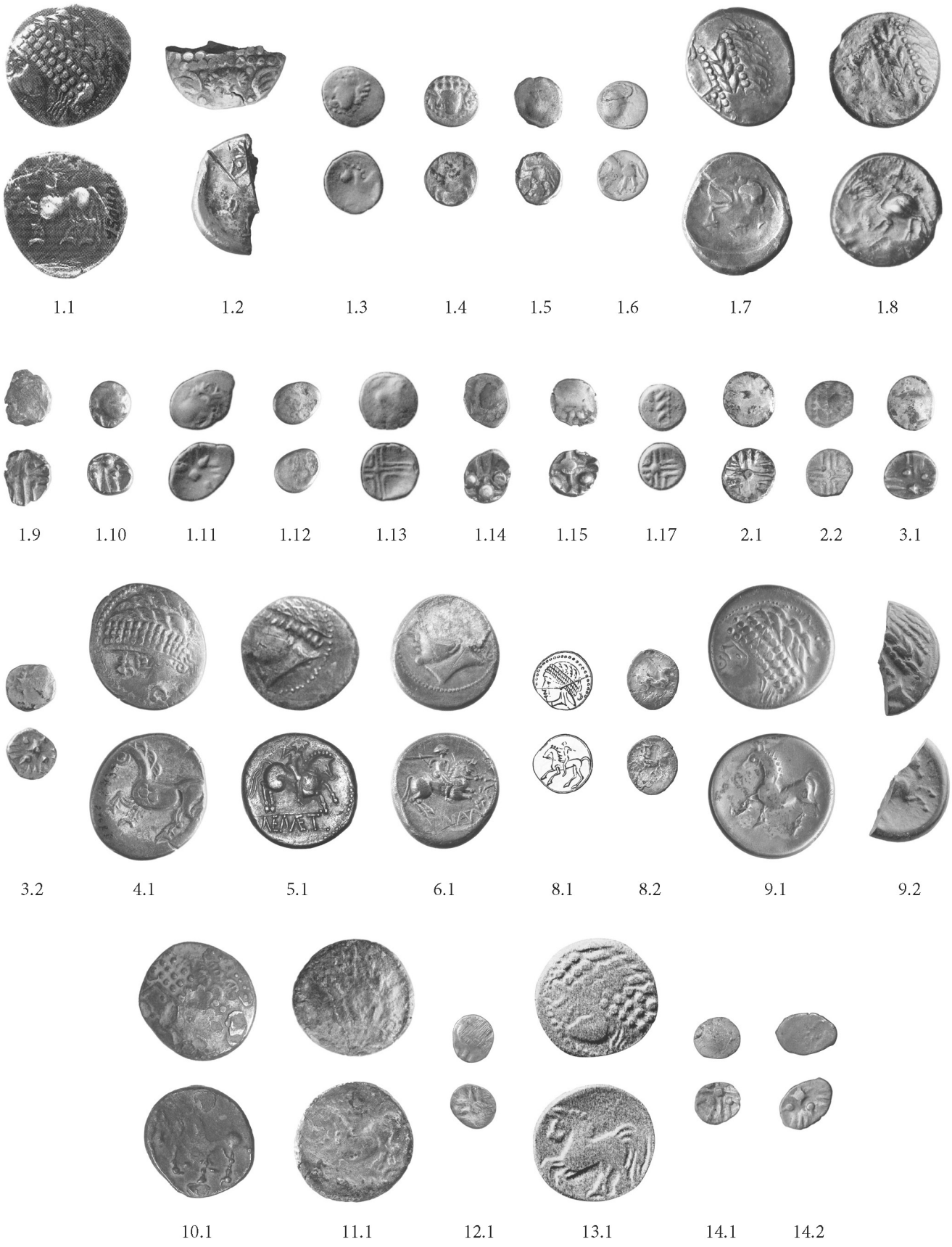

Fig. 1. Coins of the Taurisci and Norici from the Czech Republic (the numbering follows that of the catalogue).

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.[35] First, we should mention the so far unpublished obol bearing a horse motif on both sides of the coin (Varaždin type),[36] 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.[37] 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.[38] The tetradrachms of this type were struck with a number of different dies.[39] 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-Sýkořice (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.[40] 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[41] and their distribution was mapped by Michael Mackensen.[42] 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[43] 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.[44] 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 tetradrachms of the same type.[45] 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.[46] It is only in 2011 that three more examples have been published: they were found on the Oberleiserberg,[47] 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,[48] in line with the tetradrachms, 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.[49] The area in which these coins originated is not known, but the fact that only one obol of this type was found at Celje[50] suggests that they were minted elsewhere.

35. Drda, Ryboá 1998, 182–184.
36. Göbl 1973, Pl. 45/GG1.
37. Mackensen 1975, 263, Fig. 4. – Kos 1977, 46, Map 6.
38. Kos, Mirnik 2009.
39. Göbl 1973, 102–104, 128–130.
40. Kos, Mirnik 2009, 311.
41. Göbl 1973, 104–105, 130–131.
42. Mackensen 1975, 264, Fig. 5.
43. Gorini 2004.
44. Gorini 2004, 58, Fig. 1. – Militký 2011, 1200–1201.
45. Göbl 1973, 140.
46. Kos 1977, 112, No. 993, Pl. 40/20.
47. Militký 2011, 1200–1201.
48. Gorini 2004, 59.
49. Militký 2011, 1200–1201.
50. Kos 1977, 112, No. 993, Pl. 40/20.

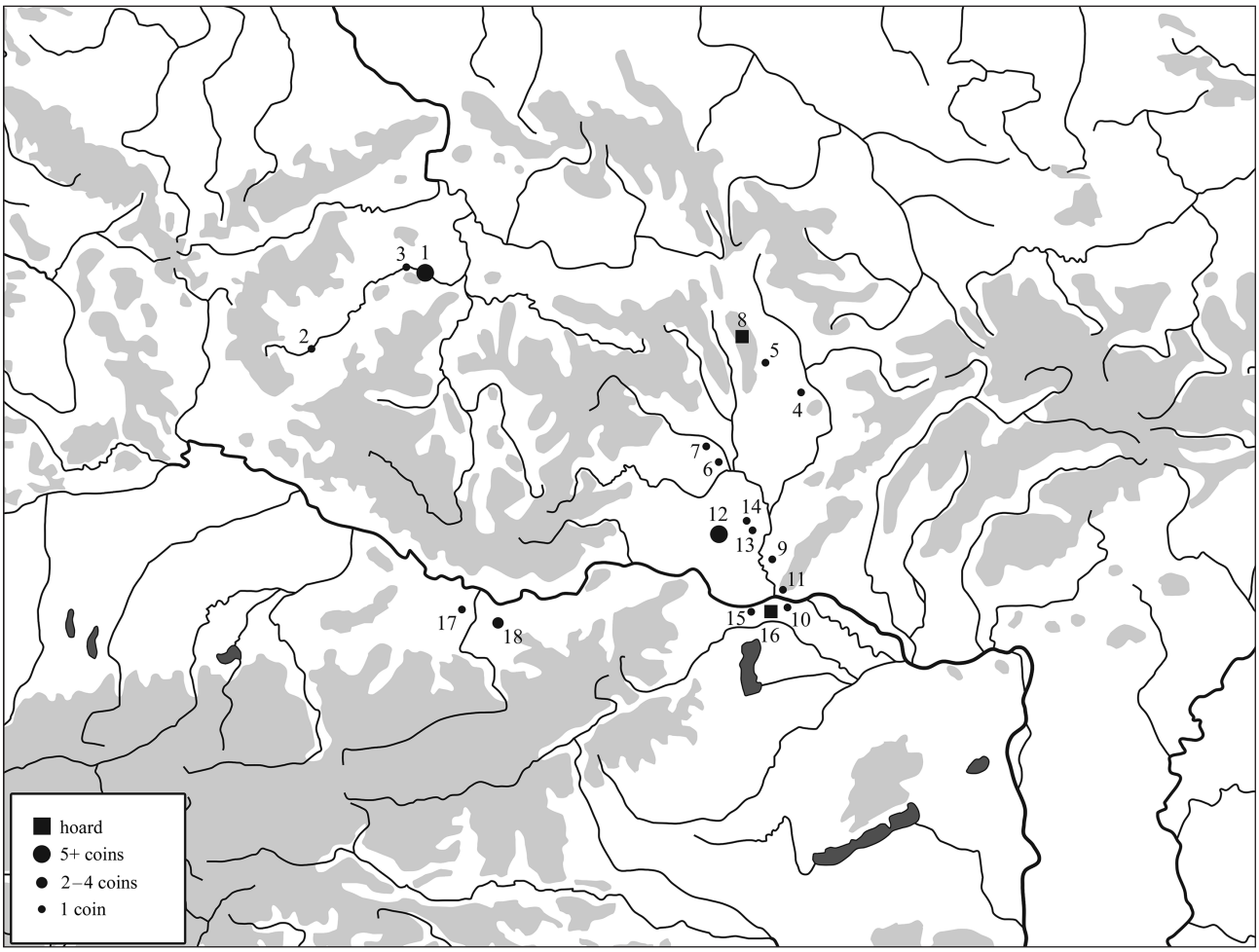

Fig. 2. Distribution of coins of the Taurisci in the Czech Republic and neighbouring regions. – 1. Stradonice. – 2. Plzeň. – 3. Zbečno-Sýkořice. – 4. Němčice nad Hanou. – 5. Malé Hradisko. – 6. Poštorná. – 7. Klentnice. – 8. Jevíčko. – 9. Zohor. – 10. Bratislava-Rusovce. – 11. Devín. – 12. Oberleiserberg. – 13. Drösing. – 14. Ringelsdorf-Niederabdorf. – 15. Carnuntum. – 16. Braunsberg. – 17. Traun. – 18. Neubau.

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 1st 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 1st 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

51. Göbl 1973, 107–109, 133–134.
52. Mackensen 1975, 265, Fig. 6. – Kos 1977, 40–41, Map 3.
53. Göbl 1973, 112, 137.
54. Göbl 1973, 113, 138.
55. Kos 1977, 42–43, Map 4.
56. Göbl 1973, Pl. 46/JJ–KK. – Kos 1977, 22–33.

Celje hoard with actual types of Tauriscan tetradrachms.[57] A very large group of obols has been defined as belonging to the Karlstein variety (*Karlsteiner Art*[58]). This numismatic designation seems no longer appropriate today. The coins of the Karlstein type clearly belong to the Boii[59] 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,[60] which, however, are undoubtedly older (La Tène C2). Mackensen's[61] and Kos's[62] 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,[63] but are also known from a series of other sites. At the same time the Celje assemblage[64] also attests to the massive import of western Norican obols of the Magdalensberg type.[65] The two obols of the Taurisci from Stradonice belong to types that have so far not been identified,[66] and whose exact provenance is unknown.

Issues of the Taurisci are also known from neighbouring regions: at least 35 coins, mostly single finds, are recorded (see Tab. 3). Slovakia appears to have had a light smattering of imports of Tauriscan coins (Tab. 3/1–3). A few single finds of tetradrachms of the Gjurgjevac type are recorded at Zohor[67] and Bratislava-Rusovce.[68] A tetradrachm of the *Frontalgesicht* type is known from Devín:[69] 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,[70] was recovered from the area of the Ringelsdorf-Niederabdorf 12 settlement, a tetradrachm of *Frontalgesicht* type[71] was found on the settlement of Drösing 18, and an obol of the Taurisci came from Carnuntum.[72] 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.[73] 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.[74] The Oberleiserberg yielded a most interesting assemblage of 160 coins which has disappeared and which has never been published in its entirety.[75] 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 didrachms.[76] 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.

57. Kos 1977, 104–106, Nos. 739–761.
58. Kos 1977, 98–104, Nos. 461–738.
59. E.g. most recently Militký 2013, 108.
60. Dembski 1991. – Jandrasits 2005. – Kolníková 2006, 28–39. – Kolníková 2012a, 26–50.
61. Mackensen 1975, 262, Fig. 3.
62. Kos 1977, 51, Map 8.
63. Kos 1977, 98–104, Nos. 461–738.
64. Kos 1977, 88–98, Nos. 40–460.
65. The obols of the Taurisci occur in much smaller numbers in the assemblage from the Magdalensberg (Krmnicek 2010, 327–340, Nos. 668–744).
66. Kos 1977, 102, as Nos. 635–636.
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.
70. Jedlička 2004, 82, 141, No. 7.2.1.
71. Jedlička 2004, 88.
72. Humer 2006, 51, No. 182.
73. Ruske 2011, 62, No. V3.
74. For a summary of the site, see Kern, Karwowski, Militký 2012.
75. Militký 2011. – Militký 2012a. The coin collection from this site is being prepared for publication by the author.
76. Militký 2011, 1200–1201.

Tab. 3. Finds of coins of the Taurisci from Slovakia, Lower and Upper Austria.

	Site	Denomination	Type	Type of find	References
1	Zohor, Slovakia	AR tetradrachm	Gjurgjevac	Single find	Elschek, Kolníková 1996, 213–214, Fig. 1/2
2	Bratislava-Rusovce, Slovakia	AR tetradrachm	Gjurgjevac	Single find	Bazovský, Kolníková 2011, No. IV/5
3	Devín, Slovakia	AR tetradrachm	*Frontalgesicht*	Settlement find	Kolníková 1996, No. 10, Fig. 2/3
4	Oberleiserberg, Lower Austria	AE/AR tetradrachm (*subaeratus*)	Gjurgjevac	Settlement find	Militký 2011, Pl. II/15
5	Oberleiserberg, Lower Austria	AE/AR tetradrachm (*subaeratus*)	Gjurgjevac	Settlement find	-
6	Oberleiserberg, Lower Austria	AR tetradrachm	*Frontalgesicht*	Settlement find	Militký 2011, Pl. II/16
7–13	Oberleiserberg, Lower Austria	AR tetradrachm	*Frontalgesicht*	Settlement find	-
14	Oberleiserberg, Lower Austria	AR obol	*Frontalgesicht*	Settlement find	Militký 2011, Pl. II/17
15–16	Oberleiserberg, Lower Austria	AR obol	*Frontalgesicht*	Settlement find	-
17	Oberleiserberg, Lower Austria	AR tetradrachm	*Brezelohr* / group A	Settlement find	Militký 2011, Pl. II/18
18–19	Oberleiserberg, Lower Austria	AR tetradrachm	*Brezelohr* / group A	Settlement find	-
20	Oberleiserberg, Lower Austria	AR obol		Settlement find	Militký 2011, Pl. II/19
21–28	Oberleiserberg, Lower Austria	AR obol		Settlement find	-
29	Drösing, Lower Austria	AR tetradrachm	*Frontalgesicht*	Settlement find	Jedlička 2004, 88
30	Ringelsdorf-Niederabdorf, Lower Austria	AR tetradrachm	*Brezelohr* / group A	Settlement find	Jedlička 2004, No. 7.2.1
31	Carnuntum, Lower Austria	AR obol		Settlement find?	Humer 2006, No. 182
32	Braunsberg, Lower Austria	AR tetradrachm	*Frontalgesicht* + further tetradrachm types	Hoard find	Ruske 2011, No. V3
33	Traun, Upper Austria	AR tetradrachm	*Frontalgesicht*	Single find	Prokisch 1999, No. B 34
34	Neubau, Upper Austria	AR obol		Settlement find	Prokisch 2004, No. A 211
35	Neubau, Upper Austria	AR obol		Settlement find	Prokisch 2004, No. A 212

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.[77] These coins imitate on the obverse the tetradrachms of the *Frontalgesicht* type,[78] 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.[79] These coins have a head with laurel wreath facing left. Their stylish representations link them directly to the Norican tetradrachms of the *Tinco-Stufe*.[80] Göbl[81] even presumed that they had been struck with the same – but worn – die[82] and he defined the whole group as group B3.[83] 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

77. Castelin 1972, 44, Fig. 3. – Göbl 1973, 104–105, Pl. 31/24–25. – Göbl 1983. – Göbl 1987. – Göbl 1994, 41. – Gorini 2004. – Karwowski, Militký 2011, 131–133. – Militký 2011, 1199–1201. – Militký 2012a, 51.

78. Göbl 1973, Pls. 30–31.

79. Göbl 1969, 65–66, Fig. 2. – Castelin 1972, 44–45, Figs. 2 and 4. – Göbl 1973, 118, Pl. 3/B3a. – Göbl 1983. – Göbl 1987. – Göbl 1992. – Göbl 1994. – Militký 2011, 1199–1201. – Militký 2012a, 51.

80. Göbl 1973, Pls. 2/B2/1–3 and 3/B2/4–9.

81. Göbl 1994, 41.

82. Compare with: Göbl 1973, Pl. 3/B2/8.

83. Göbl 1973, Pl. 3/B3.

obverse of a drachm in the Tótfalu hoard[84] 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.[85] 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.[86] 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 group[87] were minted on the Oberleiserberg remains to be answered. This is quite likely from a typological perspective but they have not so far been found there. It will be necessary to consider the local types Oberleiserberg 1 and 3 in a broader context, that is, as a currency system on the border between the "gold" world of the Boii and the "silver" world of the Eastern Celts. The adoption of motifs derived from coins of the Taurisci, together with the massive influx of Tauriscan coins, points to a very strong current of influence in this region. Conversely it is striking that only three obols from the western Norican area are known from the region. This suggests that there was clearly less contact with western Noricum, for reasons so far unknown but reflecting a real situation that is not known from any other sources. The imported coins of the Taurisci and their influence on the local coinage clearly speak for close contacts. We can realistically suggest that a smaller community of Taurisci was settled permanently in the region, alongside the indigenous Boian population.

The evidence for coins of the Taurisci imported into Upper Austria (Tab. 3/33–35) must be taken into consideration to complete the overview of finds in the Austrian Danube area. The central place of Neubau has yielded two obols[88] and a tetradrachm of the *Frontalgesicht* type is known from the area of the Traun; the latter is a restruck coin of the Velem type.[89] It seems clear that imports of coins of the Taurisci were not frequent in this region.

The Coins of the Norici in the Czech Republic, Slovakia and the Danube Region of Austria

Today 22 coins from western Noricum have been recorded as having been found in the Czech Republic (Tab. 2; Fig. 3); only five of these were recovered in Moravia. With the exception of a few individual mentions,[90] these coins have not been the subject of any detailed study.

The obol of the *Kugelreiter* type from the area of the trade and production centre of Němčice nad Hanou (Cat no. 8.1)[91] must first be considered among the issues of the Norici. Recently a full study has been dedicated to this coinage,[92] taking 12 occurrences into account. This type of coin appears to be concentrated in Alpine regions.[93] The dies used on the exemplar from Němčice cannot be identified from the published drawing.[94] The *Kugelreiter* type obols were struck at the same time as the tetradrachms and are dated to the middle of the 2nd century BC.[95] 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 "Nakléřovská 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[96] 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,[97] Magdalensberg 1965,[98] *Teurnia* (=St. Peter in Holz)[99] or Moggio.[100] The second of the two Knínice coins is a tetradrachm inscribed NEMET (Cat. no. 5.1). This type was also examined by Göbl,[101] 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,[102] Gerlitzen,[103] Magdalensberg 1965,[104] Magdalensberg 1976[105] and

84. Paulsen 1933, Pl. 43/980–984.
85. Paulsen 1933, Pl. 43/980–983.
86. Göbl 1973, Pl. 23:4/1–10.
87. Paulsen 1933, Pl. 43/979–985. – Göbl 1973, Pl. 3/B3/2L-h.
88. Prokisch 2004, 26–27, Nos. A 211–212.
89. Prokisch 1999, 46, No. B 35.
90. Drda, Ryová 1998, 182–184.
91. Göbl 1973, Pl. 44/B2.
92. Kos 2013.
93. Kos 2013, 365, Fig. 5.
94. Kolníková 2012a, Fig. 63/943.
95. Kos 2013, 365.
96. Göbl 1973, 91–92, 120–121, Pls. 7–10.
97. Ruske 2011, 63, No. V6.
98. Ruske 2011, 67, No. V14.
99. Ruske 2011, 70, No. V25.
100. Luschin 1904.
101. Göbl 1973, 92–93, 122–123, Pls. 10–13.
102. Ruske 2011, 63, No. V5.
103. Ruske 2011, 63, No. V6.
104. Ruske 2011, 67, No. V14.
105. Ruske 2011, 67, No. V15.

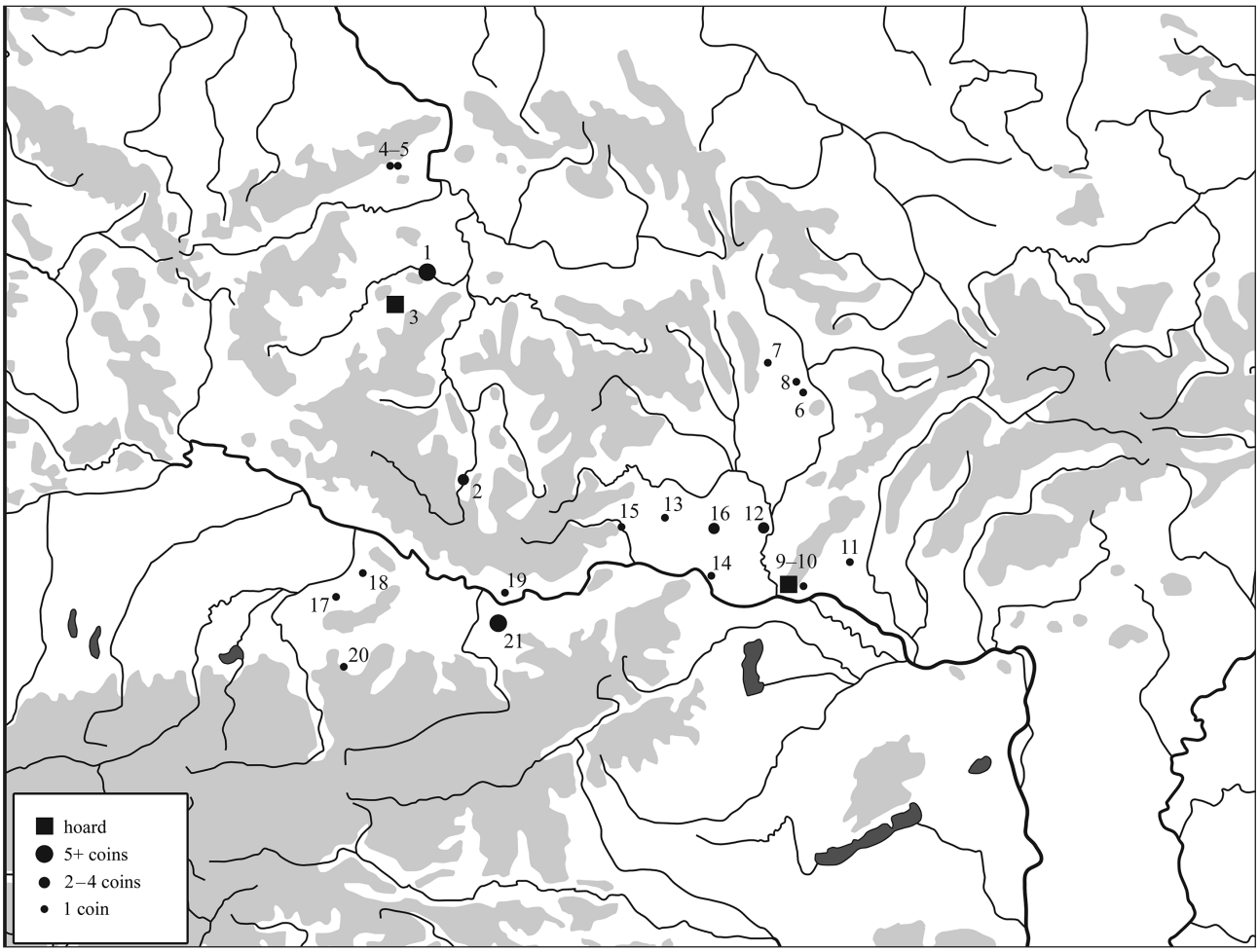

Fig. 3. Distribution of coins of the Norici in the Czech Republic and neighbouring regions. – 1. Stradonice. – 2. Třísov. – 3. Zbiroh. – 4–5. Knínice. – 6. Němčice nad Hanou. – 7. Malé Hradisko. – 8. Polkovice. – 9–10. Bratislava. – 11. Blatné. – 12. Drösing. – 13. Roseldorf. – 14. Vienna. – 15. Thunau. – 16. Oberleiserberg. – 17. Aigertsham. – 18. Minaberg. – 19. Mauthausen. – 20. Brandenberg. – 21. Neubau.

Teurnia (=St. Peter in Holz).[106] 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.[107]

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,[108] whose description is far from clear. Finds of Tauriscan and Norican obols, which were apparently used in votive deposits, are known from several Alpine passes.[109] 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.[110] Miloš Čižmář and Jiří Militký[111] have

106. Ruske 2011, 70, No. V25.

107. For a summary of the coinage, see Krmnicek 2010.

108. Sklenář 2011, 320, No. 739/1.

109. E.g. Dembski 2001. – Lippert, Dembski 2013.

110. Simon, Hauswald 1995.

111. Čižmář 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 Tène 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[112] classification. Surely they represent what is left of an important deposit of imported Norican coins in Bohemia. As to who buried this hoard, the question remains open. Such coins were indeed not circulating in Bohemia and hence the hypothesis that the deposit was made by a member of the Norici who spent some time in Bohemia is not unreasonable. The find is the northernmost example of a hoard containing this type of coin in Europe.

Among Norican coins, the largest quantity (11 coins) has been recovered from the oppidum of Stradonice and all are single finds. There are two tetradrachms of *Tinco-Stufe* B2 (Nos. 1.7–1.8), most probably found by metal-detectorists in the area of the oppidum around the year 2003 (currently in a private collection). Unfortunately it is not possible to ascertain their relationship to the oppidum and thus their connection with Stradonice must remain uncertain. Göbl[113] is examining this group of tetradrachms, as is Alexander Ruske[114] in the context of a publication of a hoard of unknown provenance. The area where these tetradrachms were struck is so far unknown; they have mainly been found in the deposits of Malta,[115] surroundings of Villach[116] or Zollfeld.[117] If the two tetradrachms are really from the oppidum of Stradonice, then they constitute an exception in Bohemia. In this respect it is worth recalling that the Norican COPO tetradrachm allegedly from Stradonice[118] was actually found in Gurina.[119] Further coins of the Norici found on the oppidum of Stradonice consist of obols of the Magdalensberg type. The Stradonice collection, typologically assessed by Göbl,[120] contains variants IAa (Cat. no. 1.9), IAd (Cat. nos. 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.[121] These coins were struck, among others, on the oppidum of Magdalensberg, where they occur in large concentrations (in hoards and as single finds).[122] They have also been recovered in the hoards of Gurina[123] and Eis,[124] as well as in large quantities on Alpine passes.[125] The distribution of these obols has been mapped by Mackensen[126] and Kos,[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,[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.[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[130]) 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.[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[132] variant. Both Třísov coins suggest that the inhabitants of this site established contacts

112. Göbl 1973, Pl. 47.
113. Göbl 1973, 84–85, 117–118, Pls. 2–3.
114. Ruske 2007.
115. Ruske 2011, 67, No. V16.
116. Ruske 2011, 71, No. V26.
117. Ruske 2011, 71, No. V28.
118. Píč 1903, 11–12, Fig. 273.
119. Göbl 1973, 119, No. C3/3, Pl. 4/C3/3. – Dembski 1998, 88, No. 792, Pl. 41/792.
120. Göbl 1973, Pl. 47.
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.
122. Krmnicek 2010, Nos. 56–559. – Ruske 2011, 66–67, Nos. V12–15.
123. Ruske 2011, 72, No. F1.
124. Ruske 2011, 63, No. V5.
125. Dembski 2001. – Lippert, Dembski 2013.
126. Mackensen 1975, 262, Fig. 3.
127. Kos 1977, 51, Map 8.
128. Kos 1977, 88–97, Nos. 40–460.
129. Kolníková 1996, 34. – Gorini 2009, 122.
130. Paulsen 1933, Pl. 26/608. – Göbl 1973, Pl. 44/M1.
131. Göbl 1973.
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 COPPO type.[134] The most important find of Norican coins in the area of the oppidum is that of a disturbed hoard, located on the southern slope of its acropolis, i.e. the site of the present-day castle hill. The hoard contained 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.[135] 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.[136] Although the Norican coins from Bratislava represent the majority of coins found on sites north of the Danube,[137] they are few,[138] given that hardly any losses of individual coins (small obols) are documented.[139] 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* type[144] 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

133. For the site, see for example Pieta, Zachar 1993. – Čambal 2004. – Pieta 2008, 111. – Šedivý, Štefanovičová 2012, 161–190.
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. Militký 2013, 108.
139. Kolníková 2012b, 214–215.
140. For the sake of objectivity, let us note that the area occupied by the oppidum is built over today. It is thus not possible to survey its surface with metal detectors today. The range of coins available is therefore unlikely to be fully realistic (Kolníková 2012b, 214–215).
141. Dobesch 1994. – Dobesch 1995. – Pieta 2008, 45, 50.
142. Gorini 2009, 122.
143. Krmnicek 2010, 96–98.
144. Kos 2013.
145. Danielisová, Militký 2014, 58–62.
146. Kos 1977, 88–113.

Tab. 4. Finds of coins of the Norici from Slovakia, Lower and Upper Austria.

	Site	Denomination	Type	Type of find	References
1	Bratislava, Slovakia	AR tetradrachm	ADNAMATI	Hoard	Kolníková 1996, No. 39
2–14	Bratislava, Slovakia	AR obol	Eis	Hoard	Kolníková 1996, No. 1–13
15–39	Bratislava, Slovakia	AR obol	Magdalensberg	Hoard	Kolníková 1996, No. 14–38
40	Bratislava, Slovakia	AR tetradrachm	COPPO	Settlement find	Kolníková 1996, Fig. 2/1
41	Blatné, Slovakia	AR obol	Magdalensberg	Settlement find	–
42	Drösing, Lower Austria	AR tetradrachm	ADNAMATI	Settlement find	Jedlička 2004, 91
43	Drösing, Lower Austria	AR tetradrachm	NEMET	Settlement find	Jedlička 2004, 91, No. 7.2.6
44	Roseldorf, Lower Austria	AR tetradrachm	ADNAMATI	Single find	Dembski 1972, 49
45	Vienna	AR tetradrachm	COPO	Single find	Ruske 2011, No. F2
46	Thunau, Lower Austria	AR tetradrachm	*Tinco-Stufe* B2	Settlement find	Göbl 1987, Pl. 35:WN B2a
47	Oberleiserberg, Lower Austria	AR obol	Magdalensberg	Settlement find	Militký 2011, Pl. II/20
48	Oberleiserberg, Lower Austria	AR obol	Magdalensberg	Settlement find	–
49	Oberleiserberg, Lower Austria	AR obol	S(VICCA)	Settlement find	–
50	Aigertsham, Upper Austria	AR tetradrachm	*Kugelreiter*	Single find	Prokisch 1999, No. B 33
51	Minaberg, Upper Austria	AR tetradrachm	*Kugelreiter*	Single find	Prokisch 1999, No. B 34
52	Mauthausen, Upper Austria	AR tetradrachm	ATTA	Single find	Prokisch 2010, No. B 56
53	Brandenberg, Upper Austria	AR obol	Eis	Single find	Prokisch 2010, No. B 57
54	Neubau, Upper Austria	AR tetradrachm	*Kugelreiter*	Settlement find	Prokisch 1999, No. A 83
55	Neubau, Upper Austria	AR tetradrachm	*Kugelreiter*	Settlement find	Prokisch 2011, No. A 537
56	Neubau, Upper Austria	AR tetradrachm	*Kugelreiter*	Settlement find	Prokisch 2011, No. A 538
57	Neubau, Upper Austria	AR tetradrachm	TINCO	Settlement find	Prokisch 1993, No. A 44
58	Neubau, Upper Austria	AR obol	*Kugelreiter*	Settlement find	Prokisch 2011, No. A 539
59	Neubau, Upper Austria	AR obol	Magdalensberg	Settlement find	Prokisch 1993, No. A 45
60	Neubau, Upper Austria	AR obol	Magdalensberg	Settlement find	Prokisch 2004, No. A 210

of the question at Bratislava (at least from a numismatic perspective).[147] Moreover, it is interesting that no Norican coins are known from southwestern Slovakia; one would expect their presence to increase during a putative Norican incursion. So far only one obol has been recorded, on the site of Blatné.[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,[149] an ADNAMATI tetradrachm is known from Roseldorf[150] and a COPO one from Vienna.[151] A fragment of a tetradrachm of *Tinco-Stufe* B2 stems from the settlement of Thunau.[152] Surprisingly the oppidum of Oberleiserberg has yielded only two obols of the Magdalensberg type[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[154] which imitate western Norican coins – especially of the NEMET and ATTA type.[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

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.

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

149. Jedlička 2004, 91, 152, No. 7.2.6.

150. Dembski 1972, 49.

151. Ruske 2011, 73, No. F2.

152. Göbl 1987, 248–249, Pl. 35/WN B2a.

153. Militký 2011, 1200.

154. Dembski 1992. – Dembski 1996. – Kostial 2003, 47, No. 153. – Jedlička 2004, 146–147.

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).

Site	Taurisci		Norici		
	Tetradrachm	Obol	Tetradrachm	Obol	Total
Němčice nad Hanou (Cat. no. 8)	-	1	-	1	1 / 1
Stradonice (Cat. no. 1)	2	4	2?	9	6 / 11
Třísov (Cat. no. 2)	-	-	-	2	0 / 2
Staré Hradisko (Cat. no. 9)	1	-	1	-	1 / 1
Bratislava	-	-	1+(1)	(38)	0 / 1+(39)
Oberleiserberg	13	12	-	3	25 / 3
Drösing	-	-	2	-	0 / 2
Thunau	-	-	1	-	0 / 1
Neubau		2	4	3	2 / 7
Manching	-	-	1	-	0 / 1

to a close connection with the Oberleiserberg, where intensive reciprocal contacts with the area occupied by the Taurisci are documented.

A clear concentration of coins of the Norici is present in Upper Austria (Tab. 4/50–60; Fig. 3). Two tetradrachms of the *Kugelreiter* type are recorded from the sites of Aigertsham und Minaberg.[156] A tetradrachm of the ATTA type is known from Mauthausen,[157] and an obol of the Eis type was recovered in Brandenberg.[158] A relatively large number of western Norican coins comes from the central settlement of Neubau.[159] There three tetradrachms and an obol of the *Kugelreiter* type,[160] a TINCO tetradrachm[161] and two obols of the Magdalensberg type[162] have so far been found. The coins of the *Kugelreiter* type are an important element, providing evidence of relatively intensive contacts with Noricum already in the period preceding that of the oppida (i.e. La Tène C2). The finds of coins of the Norici in Upper Austria are also significant for Bohemia, given that the former is one of the regions from where such coins could have moved on to Bohemia.

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

156. Prokisch 1999, 45–46, No. B 33–34.
157. Prokisch 2010, 32–33, No. B 56.
158. Prokisch 2010, 32–33, No. B 57.
159. For the site, see Moser 2001.
160. Prokisch 1999, 44, No. A 83. – Prokisch 2011, 35, Nos. A 537–539.
161. Prokisch 1993, 28, No. A 44.
162. Prokisch 1993, 28, No. A 45. – Prokisch 2004, 26, No. A 210.
163. Čižmář, Kolníková 2006. – Kolníková 2006. – Čižmář, Kolníková, Noeske 2008. – Kolníková 2012a. – Militký 2012b.

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 Norican 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 the Drösing type, which clearly imitates Norican prototypes, was struck. It is also striking that coins minted in Bratislava are completely absent from the Oberleiserberg, especially the drachms of the Simmering type,[164] which are otherwise known from settlements in the Marchfeld,[165] the area of Vienna, and also Upper Austria.[166] Such a state of affairs is surely no coincidence and must reflect entirely different contacts, which are otherwise not provable. Bratislava was in contact with the Norici, and the Oberleiserberg with the Taurisci; the latter may, together with the Boii, have had a permanent foothold on the site. Most significantly, from a numismatic perspective, Bratislava was not in communication with the Oberleiserberg. Such a conclusion clearly goes beyond the usual remit of archaeological interpretation. In this context it is evident that the oppidum of Stradonice, i.e. the main centre of power, production and trade, kept up relations with both the Tauriscan and Norican regions. The concentration of finds of coins from these regions is significant, even though it is the furthest point in the area under study. On the other hand it is worth noting that coins of the Norici and Taurisci hardly occur in southern Bavaria, apart from a western Norican tetradrachm found at Manching.[167] It therefore appears that the Taurisci and Norici were in regular contact with different parts of the area occupied by the Boii during the period of the oppida; the latter was however surely not as unified as the interpretation of the archaeological sources appears to suggest. The coinage from the regions occupied by the Taurisci and Norici contributes to a better understanding of this situation.

164. See Göbl 1994, Pl. 8/23–33 for this type.
165. Jedlička 2004, 69, 84, 86, 90.
166. Prokisch 2010, 32, Nos. B 52–55.
167. Kellner 1990, 127, No. 793.

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A Typological Study of the La Tène *Knotenringe* in the Territory of the Boii

Monika Dębiec, Maciej Karwowski

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.

Zusammenfassung: In der östlichen Latènekultur sind sogenannte „Knotenringe" sehr charakteristisch für die Oppidazeit. Ein signifikanter Anstieg ihrer Entdeckungen in den letzten Jahren in der Zone der boischen Münzprägung ermöglicht ihre genaue typologische Verteilung. Die Knotenringe sind ein Beispiel des Transfers von Ideen entlang des Korridors der Bernsteinstraße. Ihre Funktion bleibt unbekannt.

Schlüsselwörter: Knotenringe, Typologie, Boier, Oppidazeit, Latènekultur.

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 Čižmář 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). Čižmář 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-

1. Déchelette 1914, 970, Fig. 404.

2. Glodariu 1984, 64.

3. Rustoiu 1996, 106–107.

4. Čižmář 2002, 205–206.

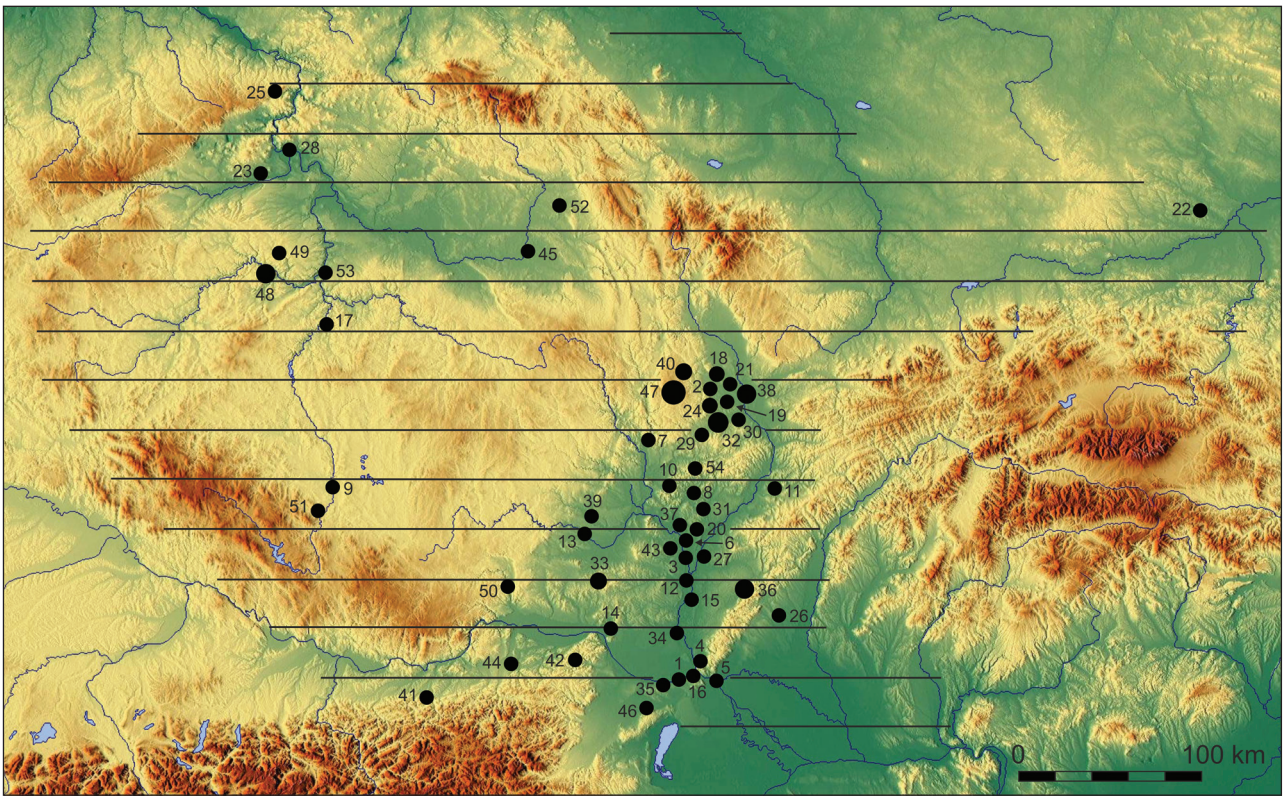

Fig. 1. Distribution of the *Knotenringe* discussed in this study and found within the zone of Boian coinage (finds outside this zone have not been mapped) – 1. Bad Deutsch-Altenburg. – 2. Bedihošť. – 3. Bernhardsthal. – 4. Bratislava-Devín. – 5. Bratislava-Rusovce. – 6. Břeclav. – 7. Brno-Obřany. – 8. Čejč. – 9. České Budějovice. – 10. Diváky. – 11. Dolní Němčí. – 12. Drösing. – 13. Dyjákovice. – 14. Enzersfeld im Weinviertel. – 15. Gajary. – 16. Hainburg an der Donau-Braunsberg. – 17. Hrazany. – 18. Hrubčice. – 19. Hruška. – 20. Hrušky. – 21. Ivaň. – 22. Jakuszowice. – 23. Klapý-Hazmburk. – 24. Klenovice na Hané. – 25. Krásný Les. – 26. Krížovany nad Dudváhom. – 27. Kúty. – 28. Litoměřice. – 29. Medlovice. – 30. Měrovice nad Hanou. – 31. Mutěnice. – 32. Němčice nad Hanou. – 33. Oberleiserberg. – 34. Oberweiden. – 35. Petronell-Carnuntum. – 36. Plavecké Podhradie-Pohanská. – 37. Podivín. – 38. Polkovice. – 39. Pravice. – 40. Ptení. – 41. Purgstall an der Erlauf. – 42. Purkersdorf. – 43. Reinthal. – 44. Sankt Pölten. – 45. Sezemice nad Loučnou. – 46. Sommerein. – 47. Staré Hradisko. – 48. Stradonice. – 49. Svárov. – 50. Thunau am Kamp. – 51. Třísov. – 52. Výrava. – 53. Závist. – 54. Ždánice (Graphics: M. Karwowski, after Orszak 2011; map groundwork: Free Software Foundation).

tained rings which stylistically resemble the *Knotenringe* and which are dated to the period of Roman influence.[5] 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".[6] 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.[7]

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

5. Leube 1975, 28.

6. E.g. Militký 2008, 122. – Militký, Karwowski 2013, 19–26.

7. The typological scheme presented here has its origins in an MA dissertation "Knotenringi z terenów środkowoeuropejskich Bojów" ("*Knotenringe* of the Central European Boian Region") by Monika Orszak (now Monika Dębiec) submitted in 2011 to the Institute of Archaeology of the University of Rzeszów in Poland, supervised by Prof. Dr Michał Parczewski and Dr Maciej Karwowski (Orszak 2011). The data consists of finds published up to 2008 and of records of numerous unpublished finds.

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 Pohanská in Plavecké Podhradie in western Slovakia, each with six examples (respectively Nos. 30–35 and 20–25). At the oppidum of Pohanská 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 Krížovany nad Dudváhom 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 Klapý (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 Hrubčice (No. 43) and a grave at Ždánice (No. 58); in western Slovakia on the oppidum of Pohanská 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 Ždánice (No. 58). Two *Knotenringe*, from

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, Karwowski 2014, 670.

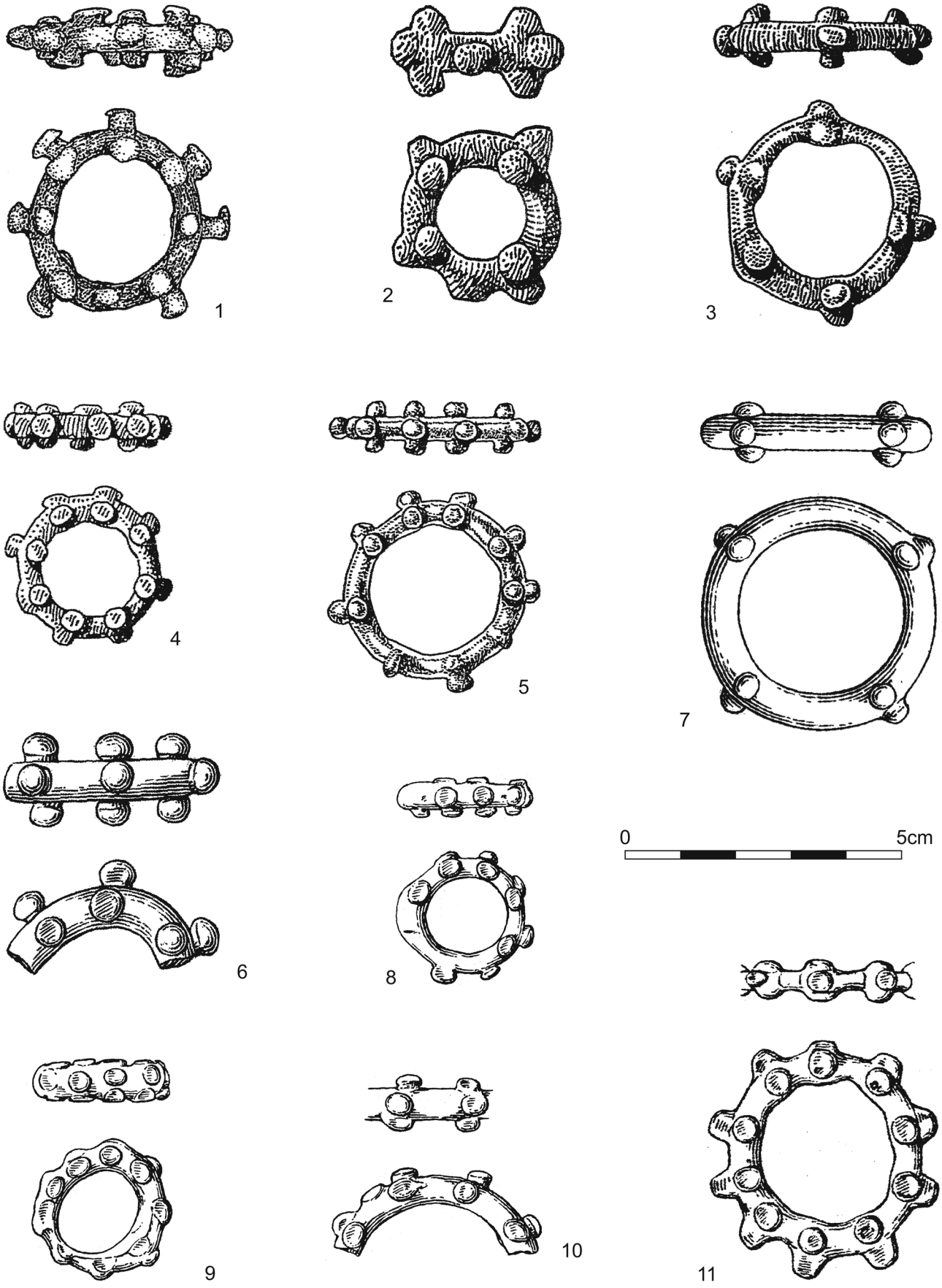

Fig. 2. *Knotenringe* of Type IA (the finds numbers correspond to those of the finds list) (after Grünewald 1980. – Turetschek 1984. – Jedlička 1995. – Jedlička 1997. – Čižmář 2008. – Allerbauer, Jedlička 2001. – Archive of M. Čižmář).

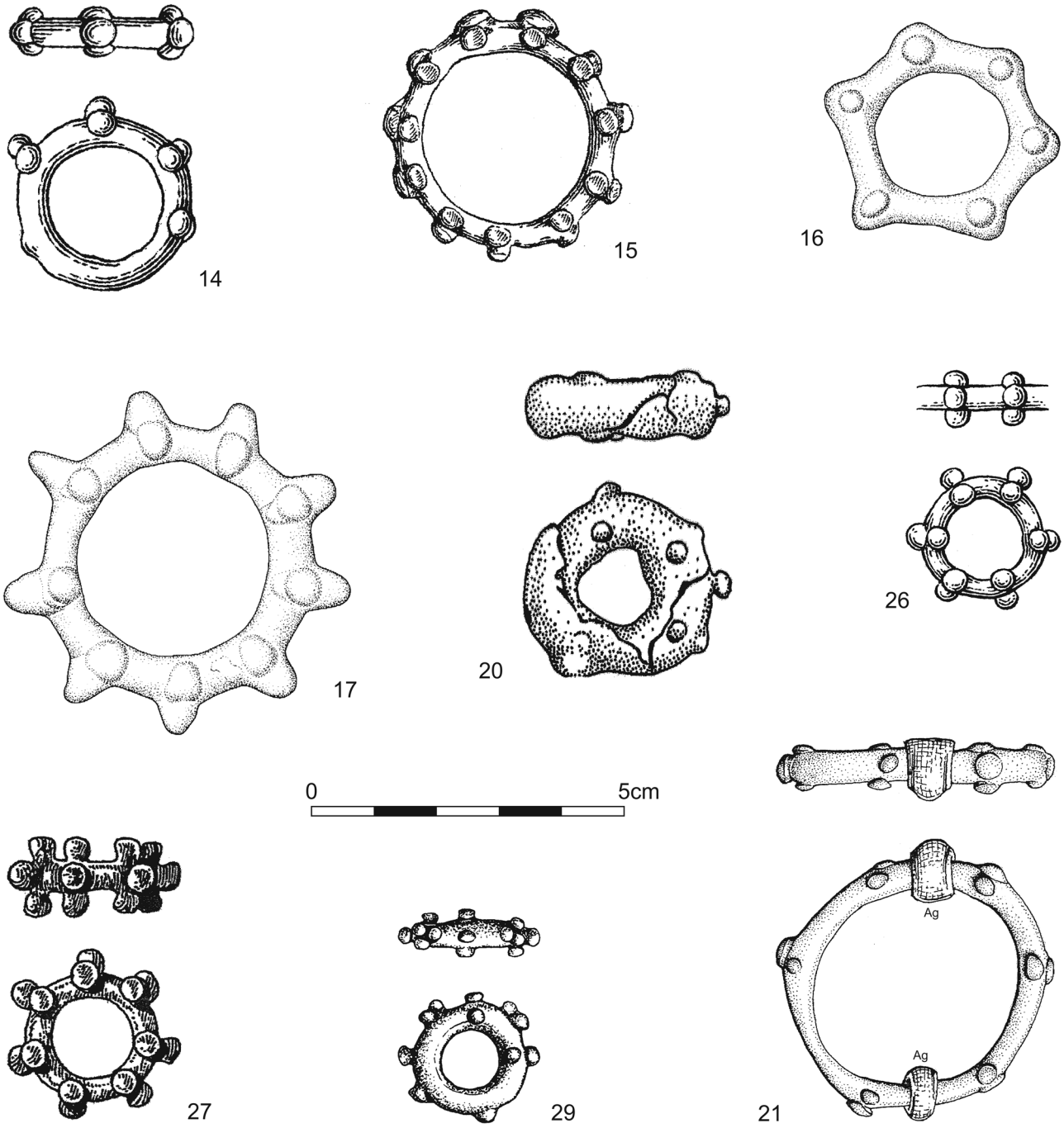

Fig. 3. *Knotenringe* of Type IA (the finds numbers correspond to those of the finds list) (after Zachar 1977. – Adler, Nowak 1988. – Pieta 2010. – Čižmář 2002. – Čižmář, Kolníková 2006. – Mangel, Jílek 2012. – Archive of M. Čižmář and M. Karwowski).

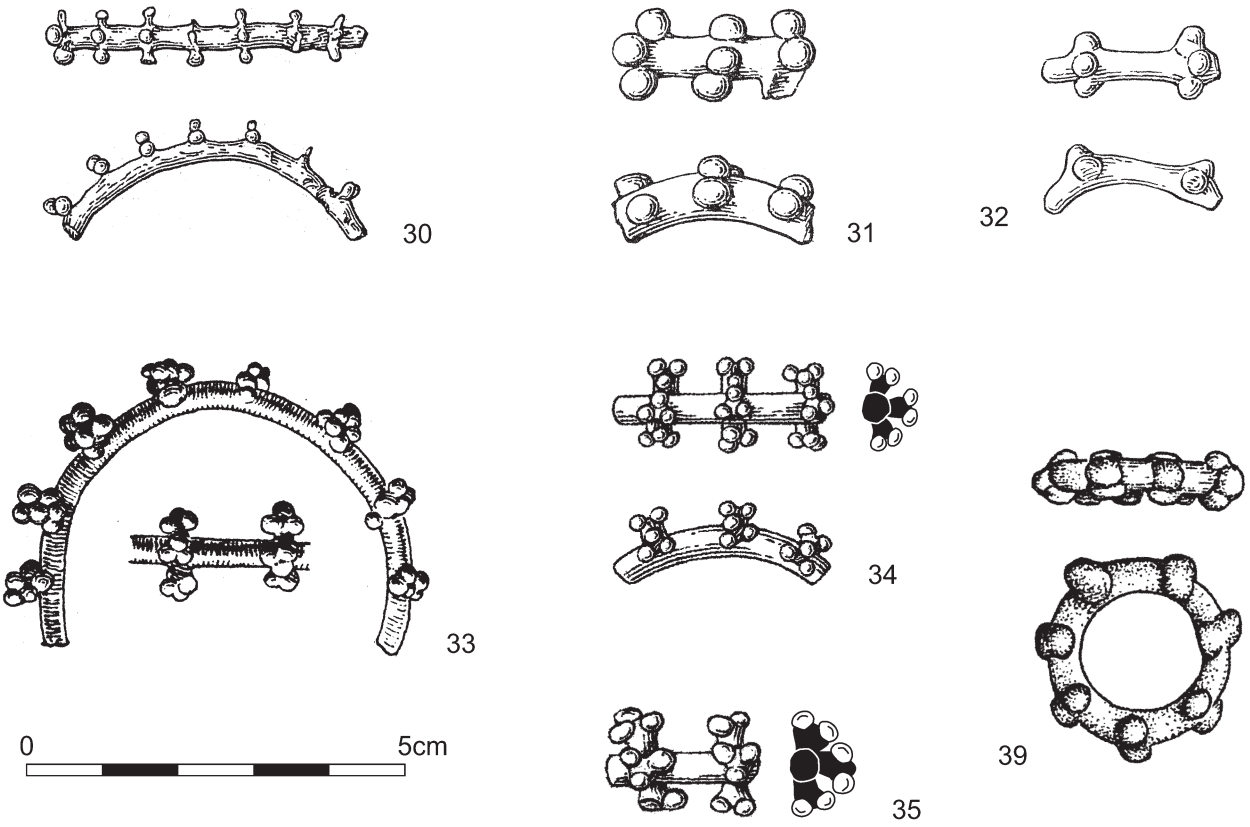

Fig. 4. *Knotenringe* of Type IA (the finds numbers correspond to those of the finds list) (after Meduna 1961. – Meduna 1970a. – Hlava 2009. – Archive of M. Čižmář).

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

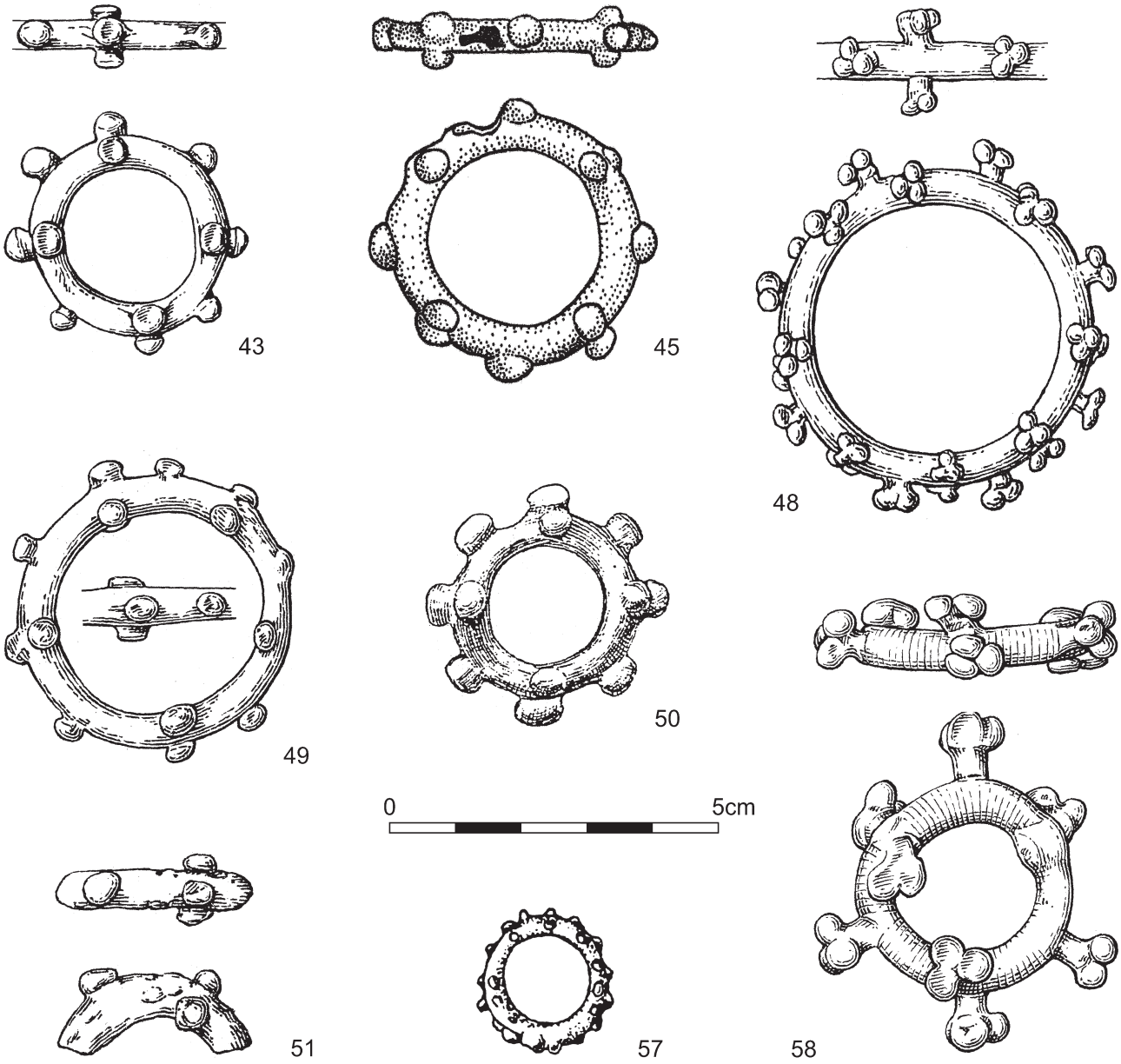

Fig. 5. *Knotenringe* of Type IB (the finds numbers correspond to those of the finds list) (after Meduna 1961. – Zachar 1977. – Čižmář 2002. – Čižmářová 2004. – Mangel, Jílek 2012. – Archive of M. Čižmář).

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 Bedihošť (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 Pohanská in Plavecké Podhradie (No. 78) and the hoard of Krížovany 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

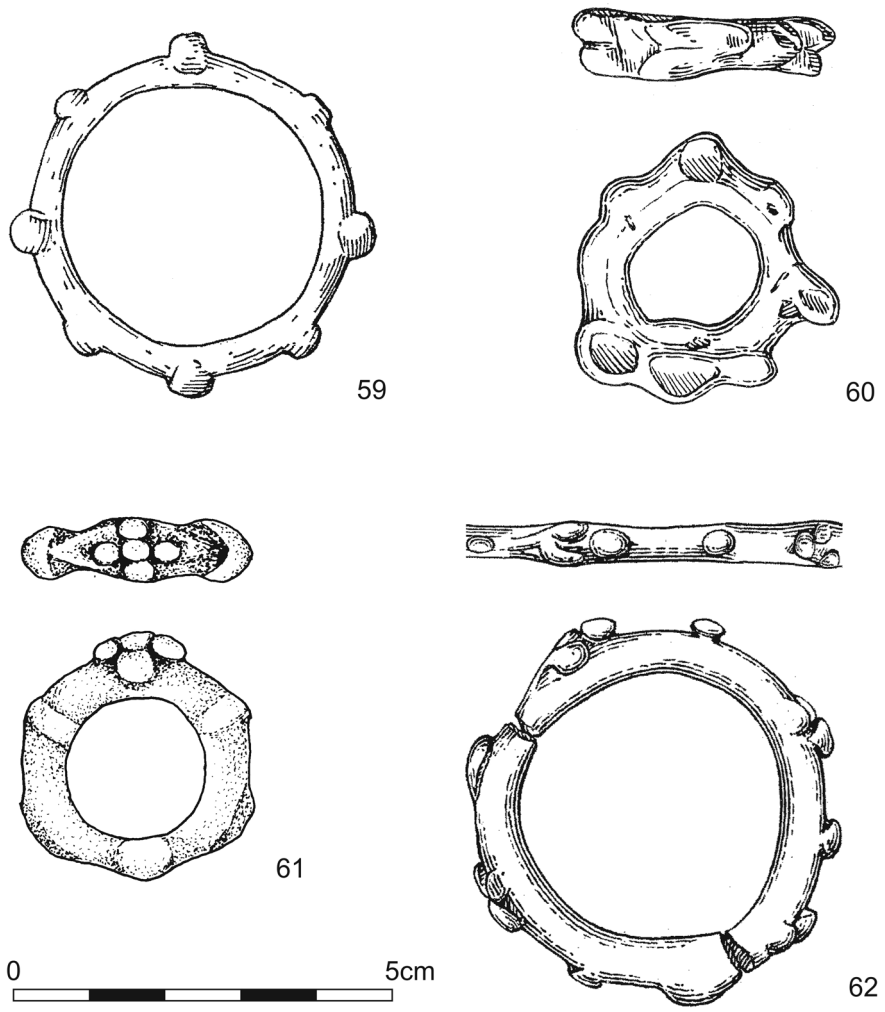

Fig. 6. *Knotenringe* of Type IC (the finds numbers correspond to those of the finds list) (after Meduna 1961. – Jílek, Mangel 2009. – Archive of M. Čižmář and M. Karwowski).

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 Hrubčice (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 Třísov (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 Břeclav (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-

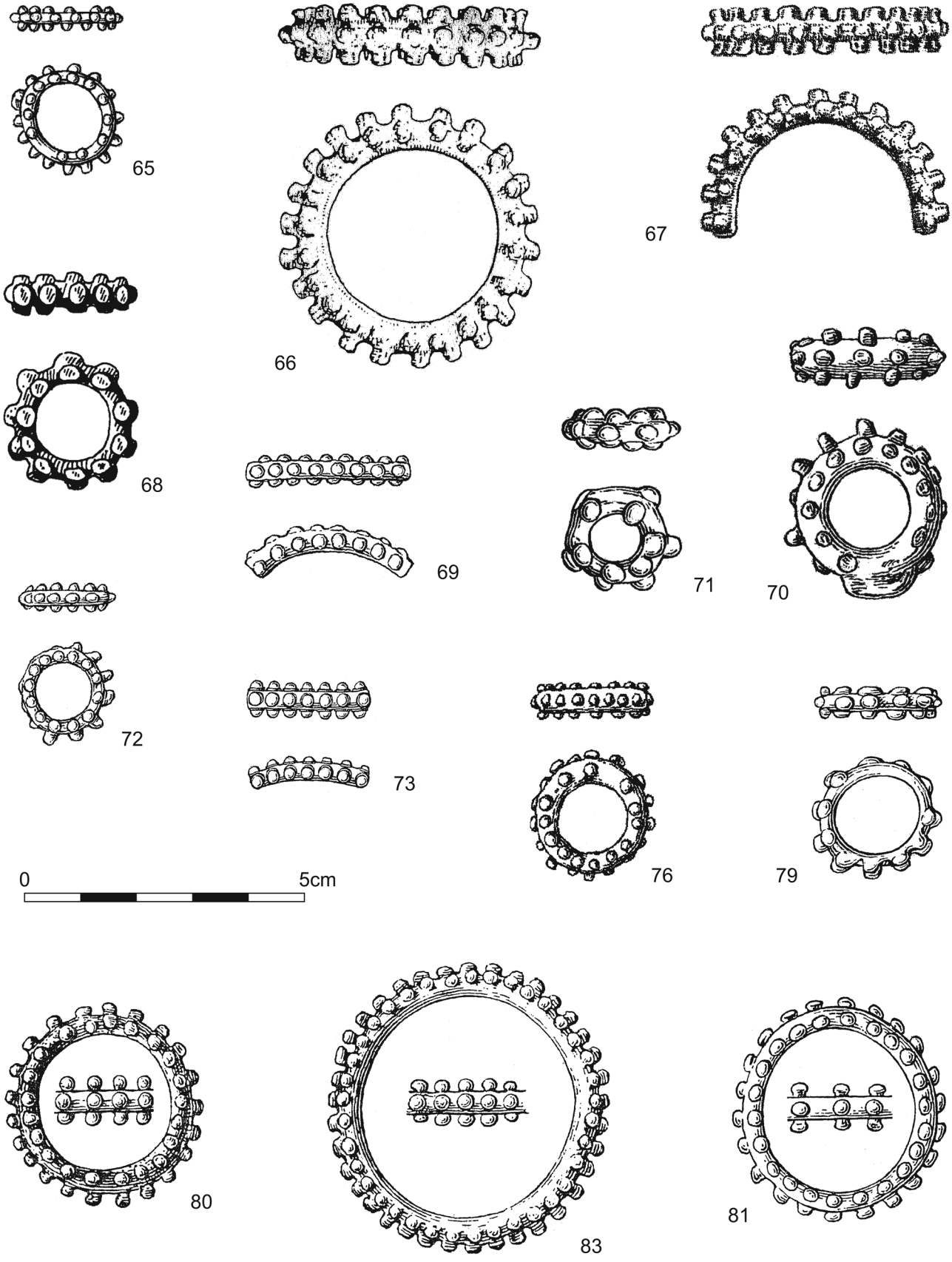

Fig. 7. *Knotenringe* of Type IIA (the finds numbers correspond to those of the finds list) (after Pieta, Zachar 1993. – Karl, Karl 1997. – Čižmář 2002. – Čižmář et al. 2008. – Archive of M. Čižmář).

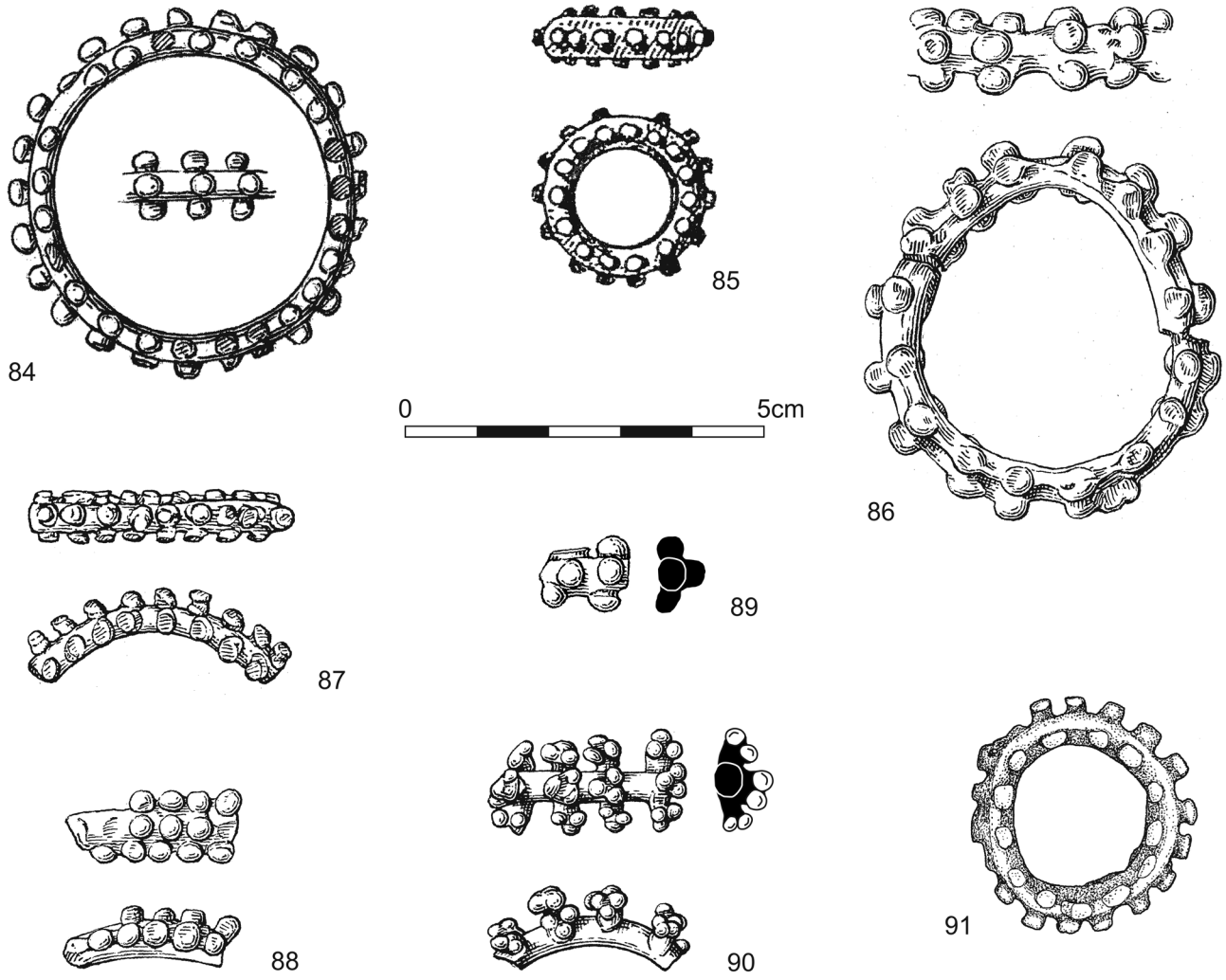

Fig. 8. *Knotenringe* of Type IIA (the finds numbers correspond to those of the finds list) (after Čižmář 1985. – Rausch 1992. – Archive of M. Čižmář and M. Karwowski).

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

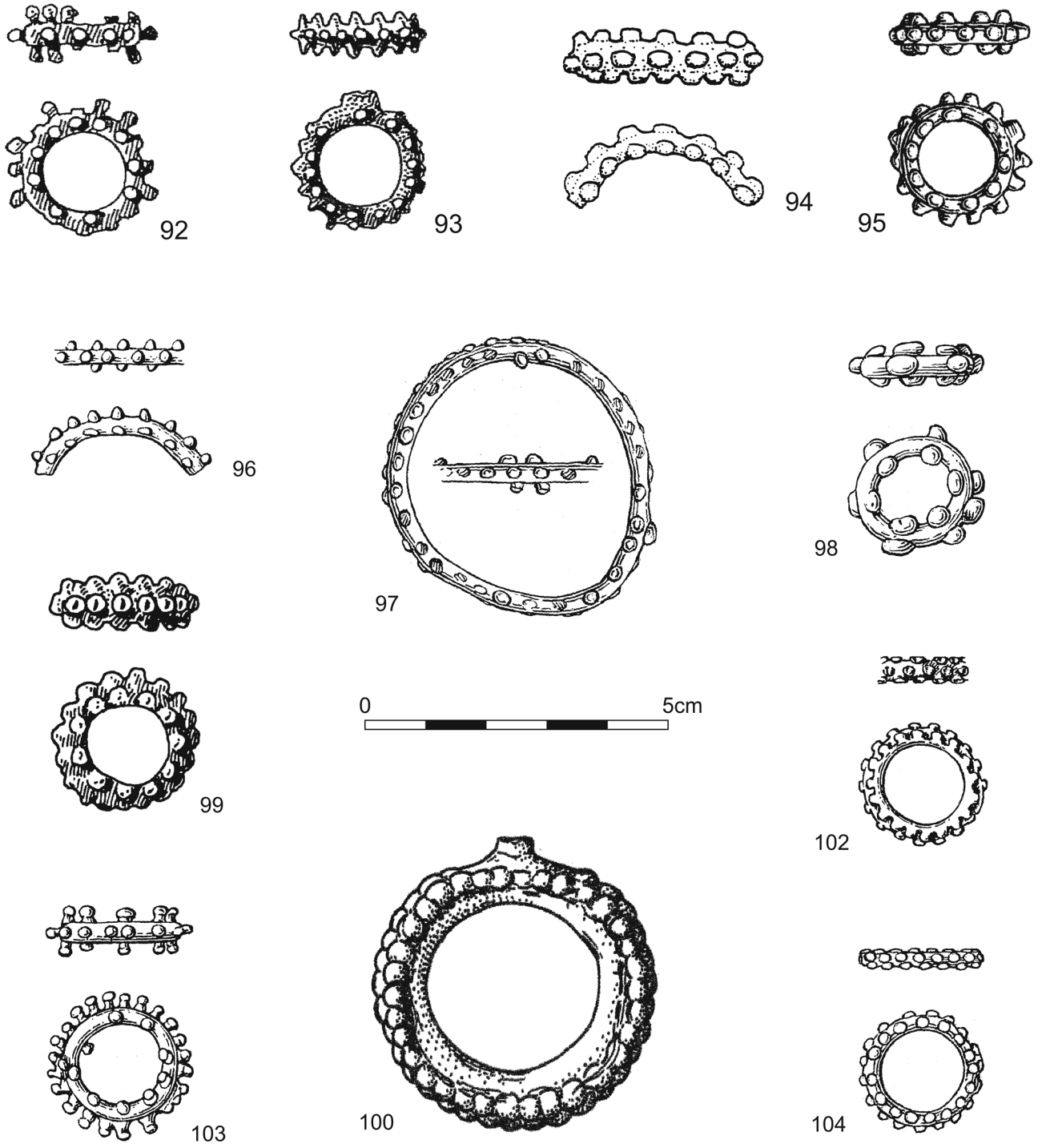

Fig. 9. *Knotenringe* of Type IIB (the finds numbers correspond to those of the finds list) (after Adler 1995. – Urban 1995. – Karl, Karl 1997. – Bazovský 2002. – Čižmář et al. 2009. – Archive of M. Čižmář).

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.

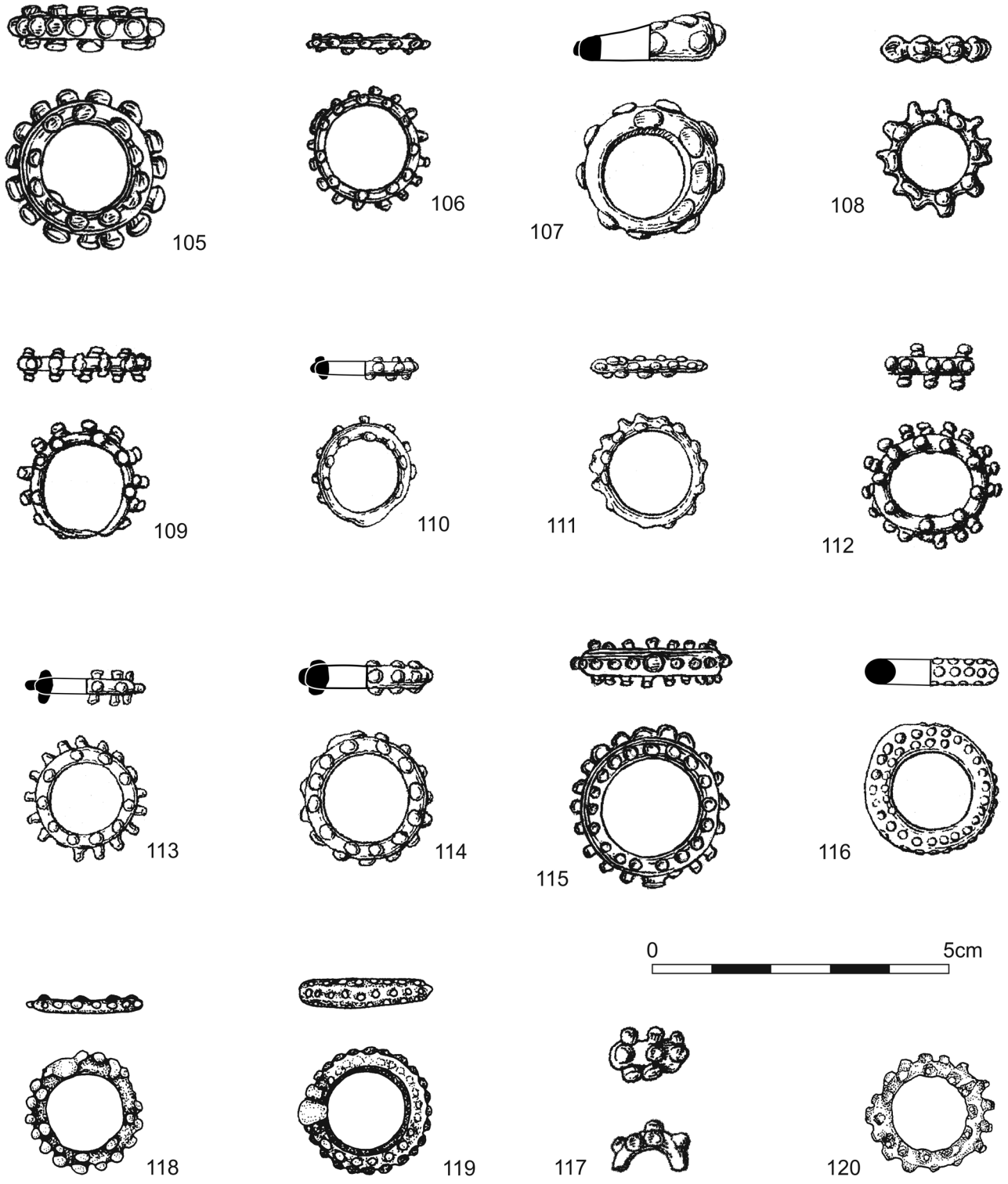

Fig. 10. *Knotenringe* of Type IIB (the finds numbers correspond to those of the finds list) (after Archive of M. Čižmář and M. Karwowski).

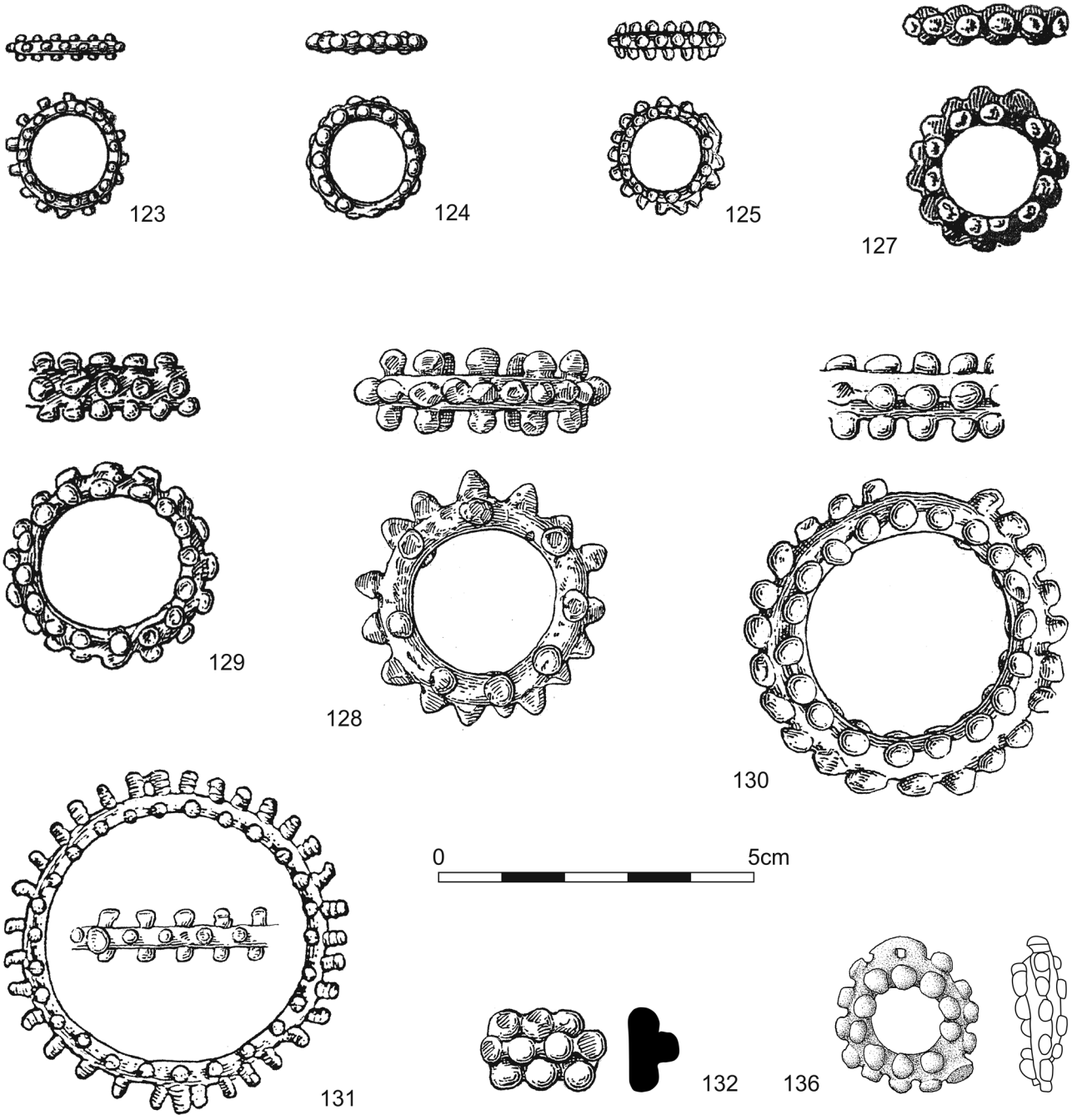

Fig. 11. *Knotenringe* of Type IIB (the finds numbers correspond to those of the finds list) (after Schutzbier 1988. – Meduna 1965. – Karwowski 2006. – Archive of M. Čižmář).

Fig. 12. Unusual gold *Knotenring* of Type IIB from Petronell-Carnuntum in Lower Austria (No. 121) (after Humer 2006).

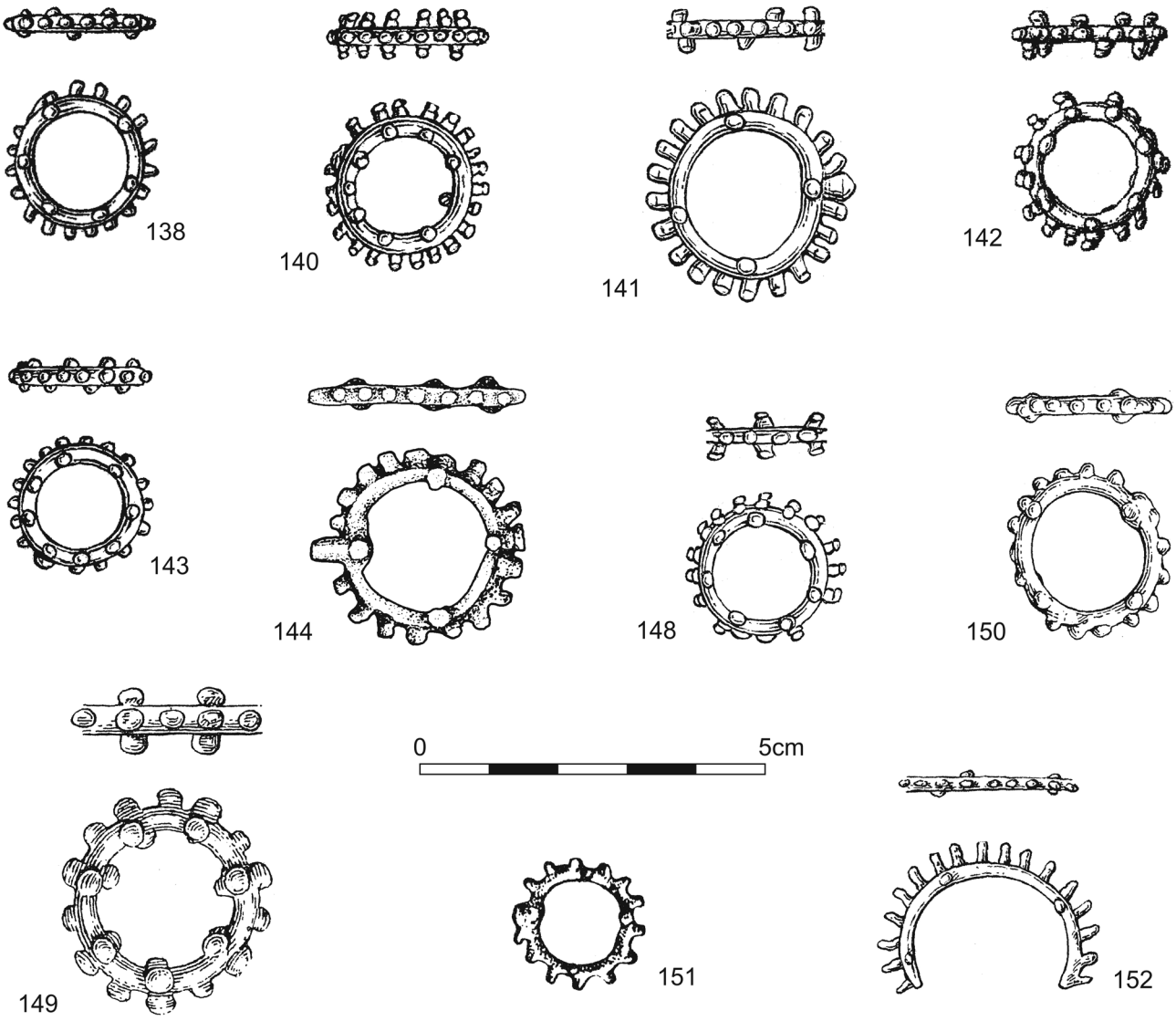

Fig. 13. *Knotenringe* of Type IIC (the finds numbers correspond to those of the finds list) (after Meduna 1970b. – Čižmář 2002. – Karwowski 2009. – Archive of M. Čižmář).

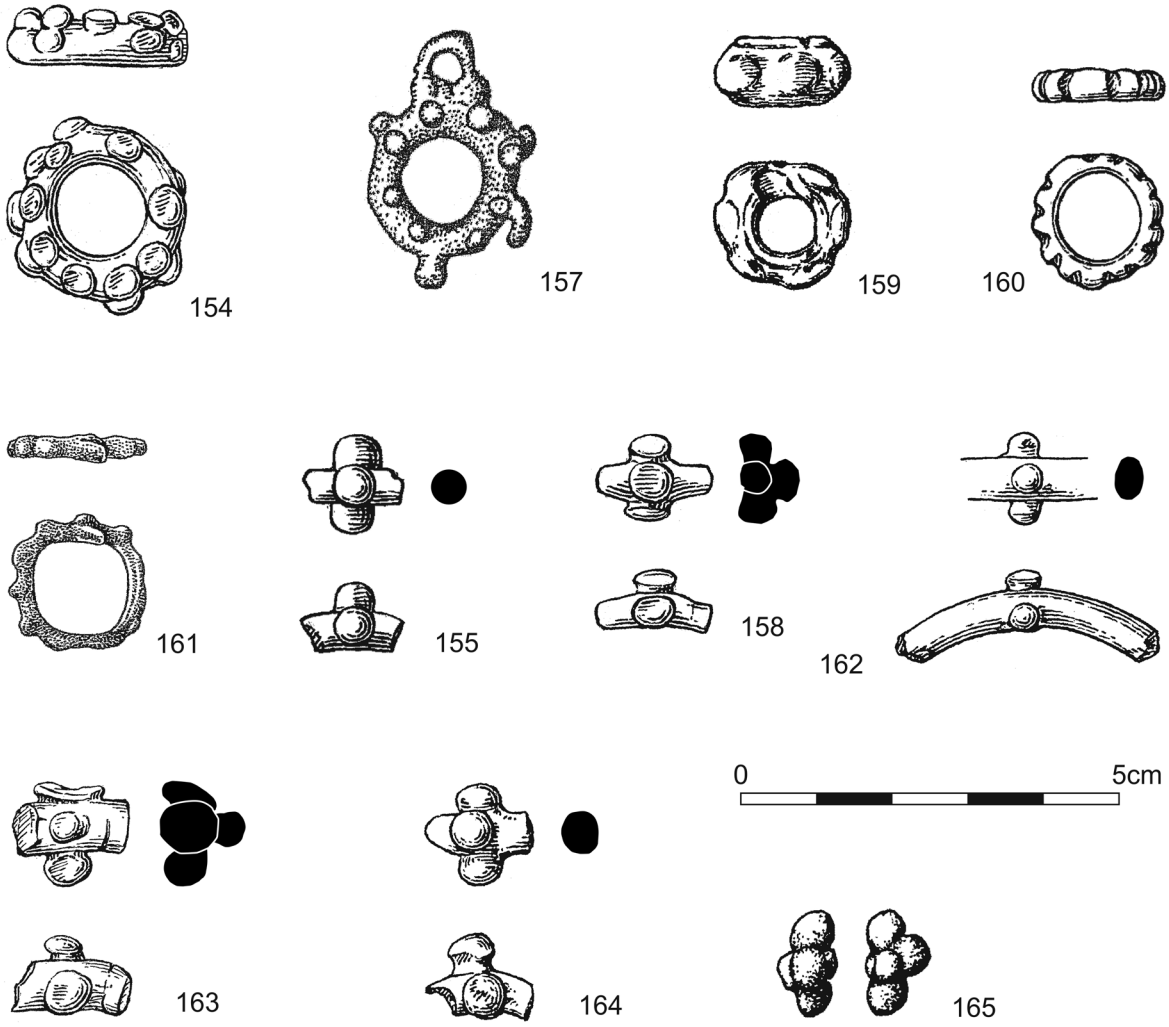

Fig. 14. *Knotenringe* of undefined type (the finds numbers correspond to those of the finds list) (after Meduna 1961. – Zachar 1976. – Motyková, Drda, Ryová 1990. – Jedlička 1998. – Archive of M. Čižmář).

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 sides 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[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.[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.[12] The animals represented on these small, carefully made rings, suggest that the function of these rings is linked to the symbolic realm.[13]

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.[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 *c.* 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.[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[16] but also from Late La Tène settlements and oppida.[17] Several such rings were found in the hoard discovered on the oppidum of Pohanská in Plavecké Podhradie[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-

10. Dannheimer 1975, 60–65.

11. Tappert 2000.

12. Dannheimer 1975, 61. – Tappert 2000, 173.

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 (Pič 1903, Pl. XI/13. – Dannheimer 1975, 63, Fig. 3/3) and Třísov (Hlava 2009, 119–120, Fig. 1/15); in Moravia in the hoard of Ptení (Čižmář 2002, 203, Fig. 3/1) and on the large open settlement of Klenovice na Hané (Archive of M. Čižmář); 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 (Humer 2006, 46, Fig. 51); in western Slovakia at the hilltop settlement of Devín in Bratislava (Pieta 2010, Fig. 88/1 and 136/14) and in two deposits on the oppidum of Pohanská in Plavecké Podhradie (Pieta 2010, 228, Fig. F23/2) and Krížovany nad Dudváhom (Kraskovská 1943, 234, Pl. I/20. – Zachar 1987, 152, Fig. 197).

14. Božič 1998, 143–144. – Čižmař 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 Čejč and from an unknown context in Podivín in Moravia (Archive of M. Čižmář), 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 (Pič 1903, Pl. XI/12). Given that they also have knots on the outer side, these rings are typologically related to Type IA (Oberleiserberg, Stradonice) or IIC (Čejč, Podivín).

15. Balke 1999, 63–65. – Bujna 2005, 71, Fig. 55.

16. E.g. Trugly 1996, 173, Fig. 142/2. – Čižmařová 2004, 185, figure on p. 185.

17. E.g. Pič 1903, Pl. XI/15, 20. – Stuppner 1984, 269, Fig. 383. – Stuppner 1990, 200, Fig. 473. – Plachá 1997, 150, Fig. 112/2. – Pieta 2010, 338, Fig. F23.

18. Pieta 2010, 338, Fig. F23.

Fig. 15. Four *Knotenringe*, part of the deposit on the oppidum of Pohanská in Plavecké Podhradie in western Slovakia (the finds numbers correspond to those of the finds list) (after Pieta 2010).

ern Europe, especially in Transylvania, Dobruja and Moldova, as well as on the northern coast of the Black Sea.[19] This is attested by numerous finds from these regions dated to the 4th and 3rd centuries BC.[20] Further, moulds for manufacturing *Knotenringe* have been recorded in the Greek colonies of Olbia and Tyras on the Black Sea.[21] 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,[22] but also at the Púchov culture hillfort of Obírka in Loučka in the area of the Moravian Gate.[23] Type IC is the least less well represented group in our collection, but parallels for this type are more frequent in southeastern Europe.[24]

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.[25] This is suggested by quite numerous finds from these regions.[26] 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.[27]

19. Čižmář 2002, 205.
20. Glodariu 1984, 70–71. – Moscalu 1990, 148–151.
21. Furmanska 1958, 48, Fig. 2/1–2; Pl. IV/5. – Samojlova 1988, Fig. 16/1.
22. Glodariu 1984, Fig. 1/9. – Moscalu 1990, Fig. 1/18 and 2/11, 16, 17.
23. Čižmař, Salaš 2009, Fig. 7/11.
24. Glodariu 1984, 64–67, Fig. 1/1-4. – Moscalu 1990, 150–151, Figs. 1/8 and 2/1, 7. – See also Warneke 1999, 83–85.
25. Čižmář 2002, 205.
26. Božič 1993, 190–193. – Guštin, Cunja, Predovnik 1993, 18–20.
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 Němčice 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 Velem 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 Egglfing[33] and Berching-Pollanten[34] 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 Loučka[35] and Požaha in Jičina.[36] A further example comes from the Púchov culture settlement centre of Liptovská Mara[37] 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 *Knotenring* 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. Guštin[41] and D. Božič[42] 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. Meduna[43] 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 scheme[44] 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 Dębiec, Karwowski 2014.
29. Čižmař, Kolníková 2006, 267, 279.
30. Čižmář 2002, 205–206. It should be noted that the great concentration of *Knotenringe* observed in Moravia is largely owed to the more advanced state of research on many sites, itself linked to the use of metal-detectors.
31. Miske 1908, Pls. XL/54–63, XLV/2–4, 15 and XLVI/4, 7–9, 12–15.
32. van Endert 1991, 118; Pl. 5/128–130.
33. Uenze 2000, 4, Fig. 11/17.
34. Schäfer 2010, 67–68, Fig. 46/2517.
35. Čižmař, Salaš 2009, Fig. 7/10–11.
36. Pieta 1982, 59, Pl. XIII/17, 21. – Čižmař 1996, 177, Fig. 3/9–11.
37. Pieta 1982, 59, Pl. XIII/16.
38. Balke 1999, 75–76, Fig. 10.
39. Brandt 2001, 107–108.
40. Domański 1975, 31, 131, Pl. XXXVI/f.
41. Guštin 1977, 72–74, Pl. 19/8. – Guštin 1984, 333–335, Fig. 25/8.
42. Božič 1987, 876–78, Fig. 46/10, Pl. LXXXVIII/8. – See also Božič 1993, 192–193, Fig. 3. – Božič 2008, 50-54, Fig. 23/10–13.
43. Meduna 1996, 102–103.
44. Glodariu 1984, 67–69, Fig. 6.
45. See for example Pietrzak 1987, 18–19, Pl. LXIV. – Wierzbicki 1991, 49–51, Figs. 3/2 and 3/3.

corresponds to LT D1 or possibly the end of LT C2.[46] However, let us note that Type IA rings are also known from burials of LT D2 date.[47] *Knotenringe* of Type IA and IB have also been found in burials of the Mokronog group, dated to LT D1.[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.[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.[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.[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[52] and northern Poland.[53] Parallels for these rings, used as decorative elements in a necklace, are also known among several burials of the Roman period.[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.[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.[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.[57] The second is the hoard of Križovany nad Dudváhom,[58] which contained a series of bronze objects, including three *Knotenringe* of Type IA (Nos. 12 and 13) and IIA (No. 74).

46. Dąbrowska 1988, 62.
47. See for example Bokiniec 2005, 17–18, 144, Pls. XV and CLIX/1963.
48. See for example Guštin 1977, 83, Pl. 19. – Dular 1991, 88, Pl. 51/13–31.
49. See Pieta 2006, 139.
50. See for example Glodariu 1984, 70, Fig. 7. – Droberjar 1999, 97. – Pieta 2006, 139.
51. Militký, Karwowski 2013, 29–30.
52. E.g. Dular 1991, 88, Pl. 51/13–31.
53. E.g. Pietrzak 1987, 18–19, Pl. LXIV/42. – Wierzbicki 1991, 49–51, Fig. 3/3.
54. E.g. Keller 1984, 64–67, Pl. 4/7, 5/3 and 7/5. – Skorupka 2001, 78, 101–102, Pls. 85/7 and 119/9.
55. Dembski 1995, 72. – Jedlička 2004, 92–95.
56. Meduna 1996, 98–102, Figs. 2–3. – Čižmář 2002, 200–204, Figs. 1–4.
57. Pieta 2010, 338, Fig. F23.
58. Kraskovská 1943, 233–234, Pl. I/19–26. – Pieta 2010, 338.

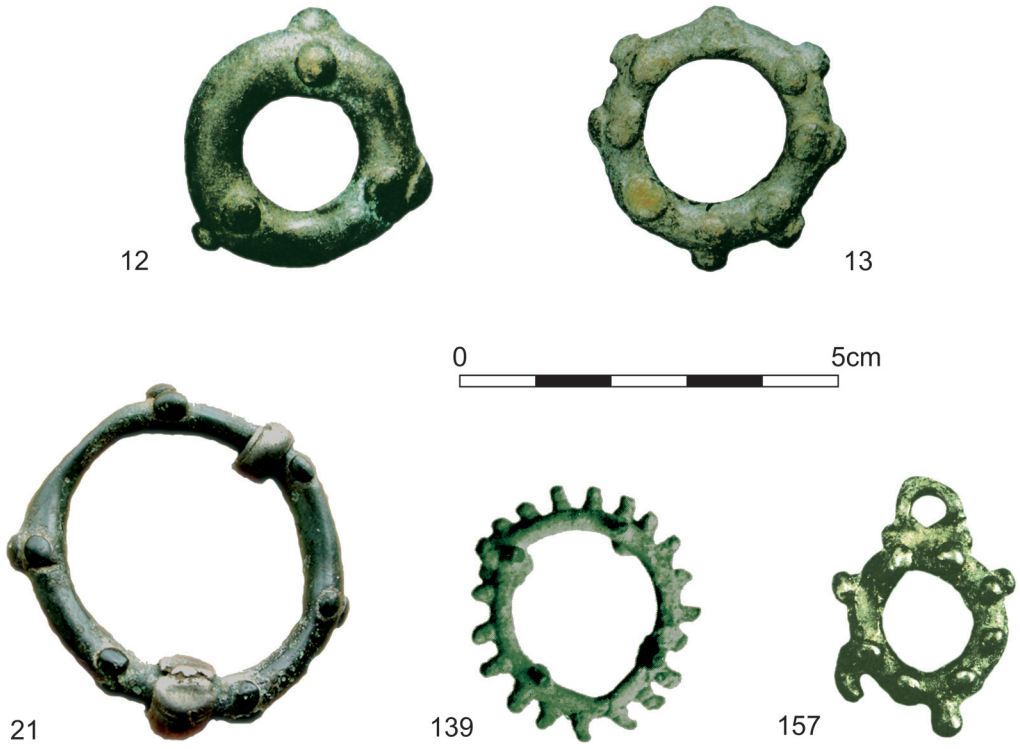

Fig. 16. *Knotenringe* of various types from Slovakian sites: from the deposit of Krížovany nad Dudváhom (Nos. 12–13), the oppidum of Pohanská in Plavecké Podhradie (No. 21), the settlement in Kúty (No. 157), and from an undefined context in Gajary (No. 139) (the finds numbers correspond to those of the finds list) (after Filip 1956. – Zachar 1987. – Pieta 2010).

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 Hradisko 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-Regöly[62] 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 Nakléřov 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).

59. Urban 1998, 803–804, Fig. 2/3–6, 8–18 and Fig. 4.
60. Urban 1998, Fig. 2/6, 13.
61. Urban 1998, 799–806.
62. Hunyady 1942, Pls. XXXVI/4–13 and XXVII/15, 20–23.
63. Čižmář 2008, 233.
64. Božič 1993, 190.
65. Tappert 2000, 197.

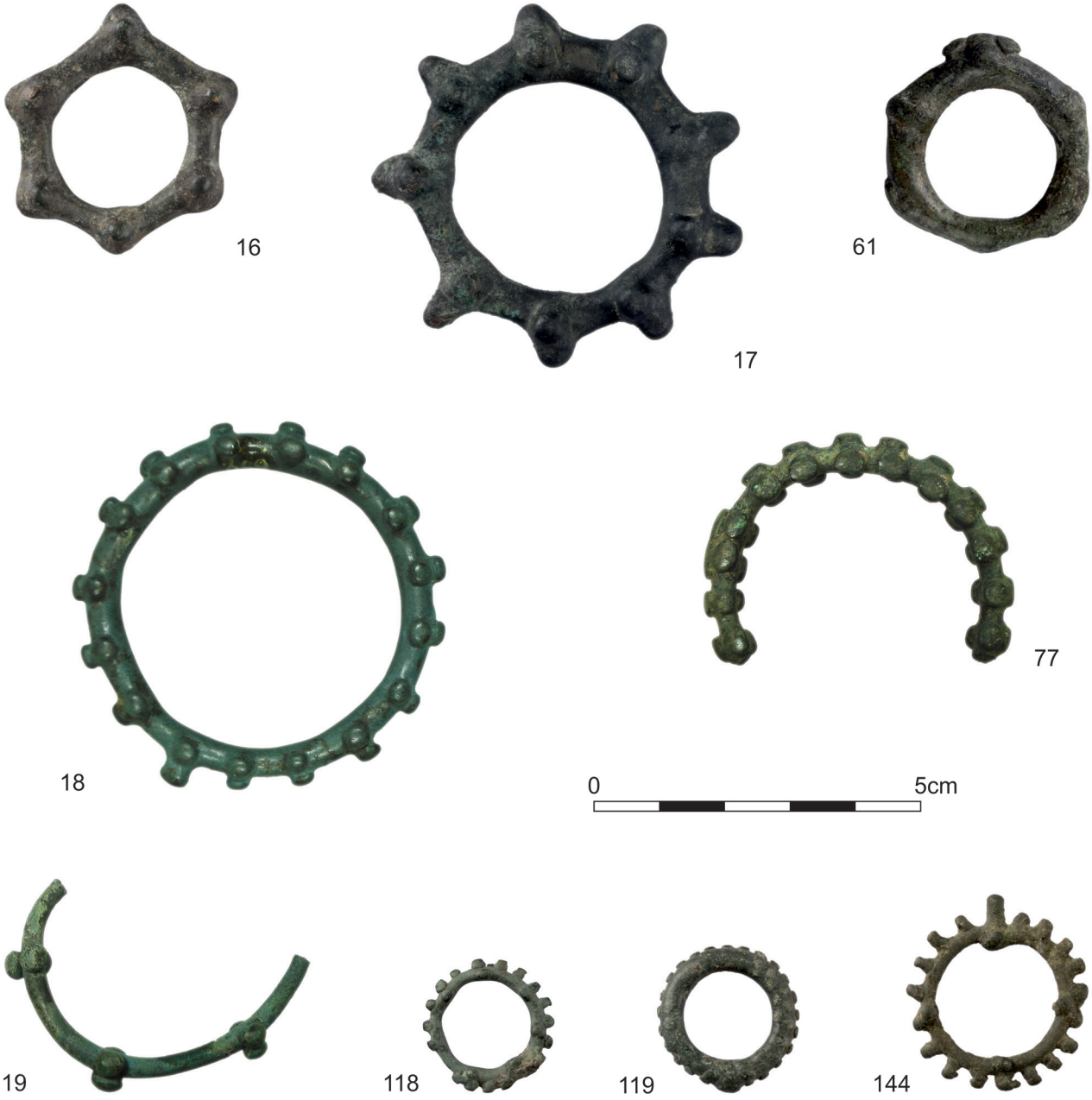

Fig. 17. *Knotenringe* of various types from the hilltop settlement on the Oberleiserberg in Lower Austria (the finds numbers correspond to those of the finds list) (Archive of M. Karwowski).

Bernhardsthal (District of Mistelbach, Lower Austria)
2. Fig. 2/2 (Allerbauer, 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. Čižmář, Brno).

Klenovice na Hané (District of Prostějov, Moravia)
7. Fig. 2/7 (Archive of M. Čižmář, Brno).
8. Fig. 2/8 (Archive of M. Čižmář, Brno).
9. Fig. 2/9 (Archive of M. Čižmář, Brno).
10. Fig. 2/10 (Archive of M. Čižmář, Brno).

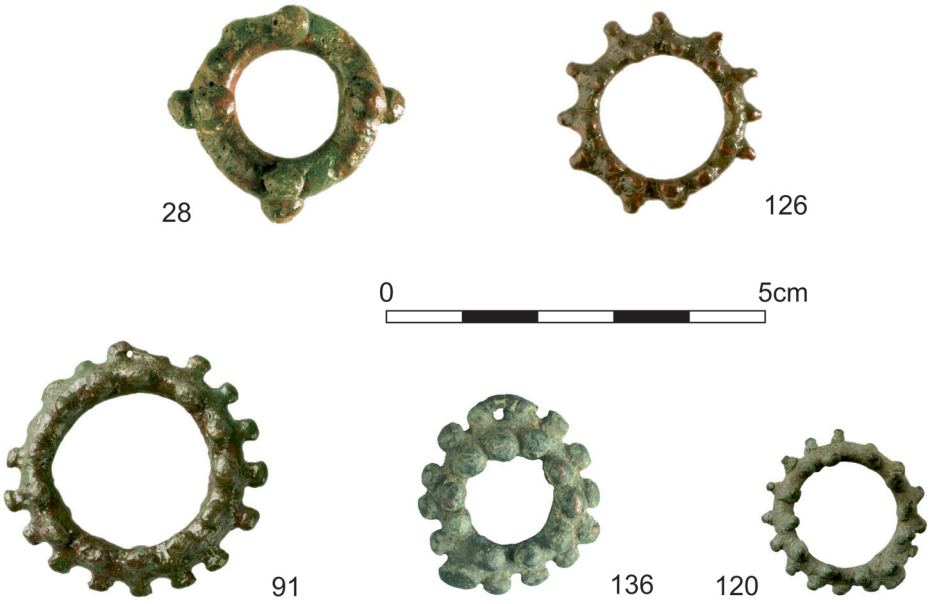

Fig. 18. *Knotenringe* of various types from Lower Austrian sites: from a lowland and hilltop settlement in Thunau am Kamp (Nos. 91 and 136) and the settlements of Oberweiden (No. 120) and Sankt Pölten (Nos. 28 and 126) (the finds numbers correspond to those of the finds list) (after Humer 2006. – Archive of M. Karwowski).

Krásný Les (District of Ústí nad Labem, Bohemia)
11. Fig. 2/11 (Čižmář 2008, 230, 233, Fig. 3/2).

Krížovany 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).
19. Fig. 17/19 (Mitscha-Märheim, Nischer-Falkenhof 1929, 400–401, Pl. VI/16. – Archive of M. Karwowski, Vienna).

Plavecké Podhradie-Pohanská (District of Malacky, Slovakia)
20. Fig. 3/20 (Paulík 1976, 174, Fig. 44/2. – Zachar 1977, 38, Fig. 1/7).
21. Fig. 3/21 and 16/21 (Pieta 2010, Fig. 136/4 and F21/3).
22. Not illustrated (Pieta 2010, 338, Fig. F23/2).
23. Fig. 15/23 (Pieta 2010, 338, Fig. F23/1).
24. Fig. 15/24 (Pieta 2010, 338, Fig. F23/1).
25. Not illustrated (Pieta 2010, 338, Fig. F23/2).

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

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

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

Sezemice nad Loučnou (District of Pardubice, Bohemia)
29. Fig. 3/29 (Mangel, Jílek 2012, 84, Fig. 2/9).

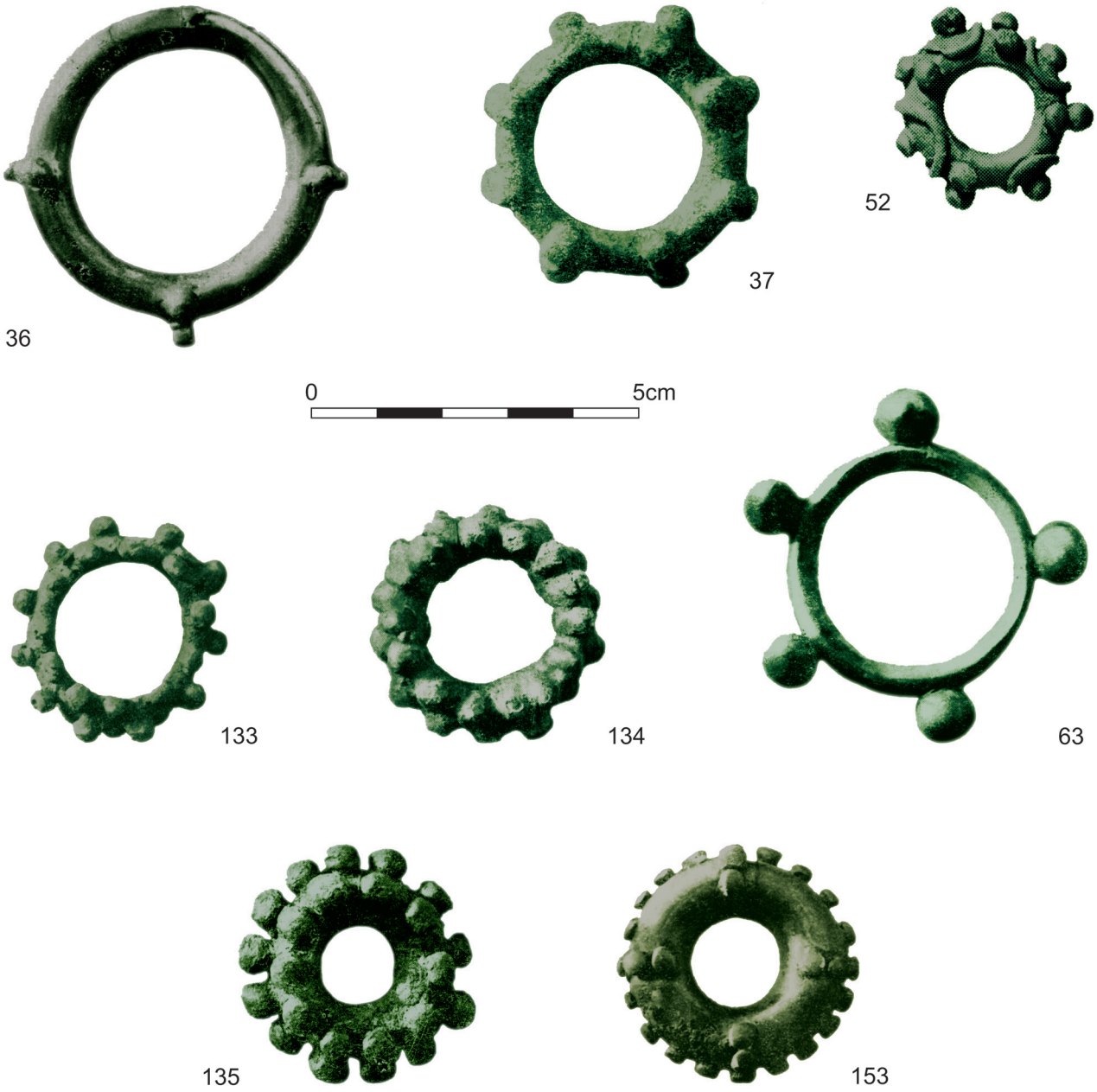

Fig. 19. *Knotenringe* of various types from the oppidum of Stradonice in Bohemia (the finds numbers correspond to those of the finds list) (after Pič 1903. – Filip 1956).

Staré Hradisko (District of Prostějov, Moravia)

30. Fig. 4/30 (Dębiec, Karwowski 2014, No. 1. – Archive of M. Čižmář, 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. Čižmář, Brno).
33. Fig. 4/33 (Meduna 1961, 7, Pl. 10/19. – Dębiec, Karwowski 2014, No. 4).
34. Fig. 4/34 (Dębiec, Karwowski 2014, No. 5. – Archive of M. Čižmář, Brno).
35. Fig. 4/35 (Dębiec, Karwowski 2014, No. 6. – Archive of M. Čižmář, Brno).

Stradonice (District of Beroun, Bohemia)

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).

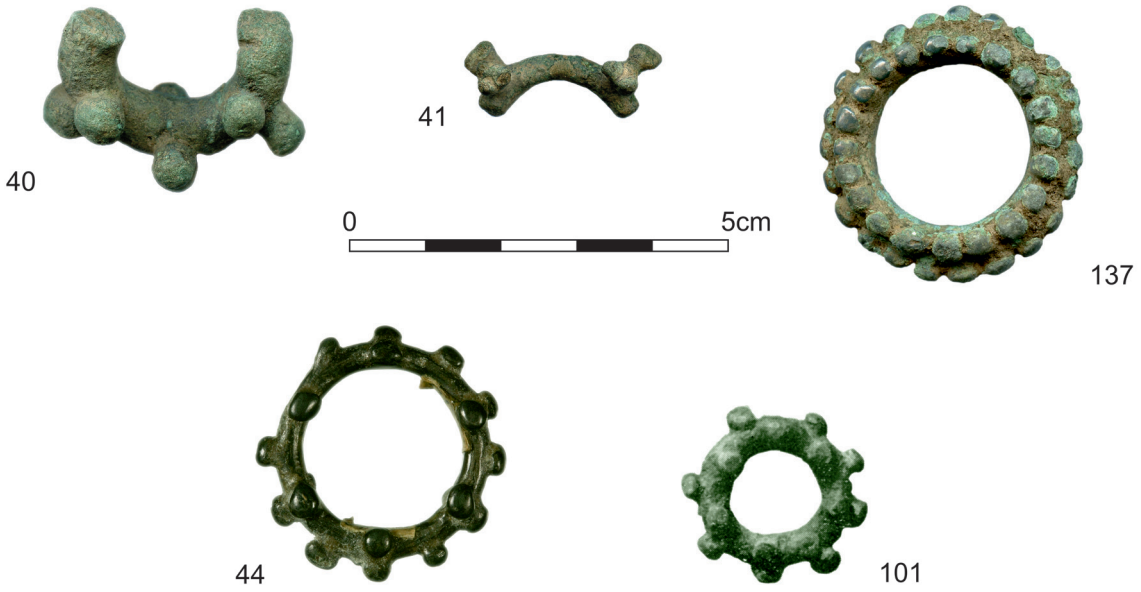

Fig. 20. *Knotenringe* of various types from Bohemian sites: from the oppida of Třísov (Nos. 40, 41 and 137) and Hrazany (No. 101) and the hillfort of Hazmburk in Klapý (No. 44) (the finds numbers correspond to those of the finds list) (after Jansová 1965. – Archive of J. Militký and Regionální muzeum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

Třísov (District of Český Krumlov, Bohemia)
39. Fig. 4/39 (Hlava 2009, 110, Fig. 1/14).
40. Fig. 20/40 (Archive J. Militký, Prague).
41. Fig. 20/41 (Archive J. Militký, Prague).

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. Čižmář, 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. – Čižmář 2002, 200, Fig. 2/1)
47. Not illustrated (Schulz 1891, 880, Fig. 4c. – Čižmář 2002, 200, Fig. 2/3).
48. Fig. 5/48 (Čižmář 2002, 203, Fig. 3/7).

Staré Hradisko (District of Prostějov, Moravia)
49. Fig. 5/49 (Lipka, Sněтina 1912, 88, Pl. IV/10. – Meduna 1961, 7, Pl. 10/18. – Dębiec, Karwowski 2014, No. 7).
50. Fig. 5/50 (Lipka, Sněтina 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. Čižmář, 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 (Pič 1903, Pl. XI/8).
54. Not illustrated (Pič 1903, Pl. XI/18).
55. Not illustrated (Pič 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 (Čižmářová 2004, 350, figure on p. 351).

Knotenringe of Type IC

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

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

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

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

Hrubčice (District of Prostějov, Moravia)
69. Fig. 7/69 (Archive of M. Čižmář, Brno).

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

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

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

Krížovany nad Dudváhom (District of Trnava, Slovakia)
74. Not illustrated (Kraskovská 1943, 234, Pl. I/23. – Filip 1956, 418–419, Pl. CIV/14).

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

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

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

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

Ptení (District of Prostějov, Moravia)
80. Fig. 7/80 (Meduna 1996, 102, Fig. 2/3. – Čižmář 2002, 202, Fig. 3/6).
81. Fig. 7/81 (Čižmář 2002, 203, Fig. 3/5).
82. Not illustrated (Schulz 1891, 880, Fig. 4b. – Čižmář 2002, 200, Fig. 2/4).
83. Fig. 7/ 83 (Červinka 1914, Fig. 7/2. – Meduna 1996, 102, Fig. 2/6. – Čižmář 2002, 202, Fig. 3/8).
84. Fig. 8/84 (Archive of M. Čižmář, 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 (Dębiec, Karwowski 2014, No. 11. – Archive of M. Čižmář, Brno).
87. Fig. 8/87 (Čižmář 1985, Fig. 29/10. – Dębiec, Karwowski 2014, No. 12).
88. Fig. 8/88 (Dębiec, Karwowski 2014, No. 13. – Archive of M. Čižmář, Brno).
89. Fig. 8/89 (Dębiec, Karwowski 2014, No. 14. – Archive of M. Čižmář, Brno).
90. Fig. 8/90 (Lipka, Snětina 1912, 88, Pl. IV/1. – Dębiec, Karwowski 2014, No. 15. – Archive of M. Čižmář, 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).

Břeclav (Břeclav, Moravia)
95. Fig. 9/95 (Archive of M. Čižmář, Brno).

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

Diváky (District of Břeclav, Moravia)
97. Fig. 9/97 (Archive of M. Čižmář, Brno).

Dolní Němčí (District of Uherské Hradiště, Moravia)
98. Fig. 9/98 (Čižmář et al. 2009, 145, Fig. 7/11).

Enzersfeld im Weinviertel (District of Korneuburg, Lower Austria)
99. Fig. 9/99 (Karl, Karl 1997, 497, Fig. 528).

Hainburg an der Donau-Braunsberg (District of Bruck an der Leitha, Lower Austria)
100. Fig. 9/100 (Urban 1995, 157, Fig. 106/716. – Humer 2006, 33, Fig. 28/114).

Hrazany (District of Příbram, Bohemia)
101. Fig. 20/101 (Jansová 1965, Fig. 22/3).

Hrubčice (District of Prostějov, Moravia)
102. Fig. 9/102 (Archive of M. Čižmář, Brno).
103. Fig. 9/103 (Archive of M. Čižmář, Brno).
104. Fig. 9/104 (Archive of M. Čižmář, Brno).

Měrovice nad Hanou (District of Přerov, Moravia)
105. Fig. 10/105 (Archive of M. Čižmář, Brno).

Mutěnice (District of Hodonín, Moravia)
106. Fig. 10/106 (Archive of M. Čižmář, Brno).

Němčice nad Hanou (District of Prostějov, Moravia)
107. Fig. 10/107 (Archive of M. Čižmář, Brno).
108. Fig. 10/108 (Archive of M. Čižmář, Brno).
109. Fig. 10/109 (Archive of M. Čižmář, Brno).
110. Fig. 10/110 (Archive of M. Čižmář, Brno).
111. Fig. 10/111 (Archive of M. Čižmář, Brno).
112. Fig. 10/112 (Archive of M. Čižmář, Brno).
113. Fig. 10/113 (Archive of M. Čižmář, Brno).
114. Fig. 10/114 (Čižmář, Kolníková 2006, 264, Fig. 2/14. – Čižmář, Kolníková, Noeske 2008, 660 Fig. 3/14. – Archive of M. Čižmář, Brno).
115. Fig. 10/115 (Archive of M. Čižmář, Brno).
116. Fig. 10/116 (Archive of M. Čižmář, Brno).
117. Fig. 10/117 (Archive of M. Čižmář, 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).

Petronell-Carnuntum (District of Bruck an der Leitha, Lower Austria)
121. Fig. 12 (Humer 2006, 46, Fig. 52).

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

Podivín (District of Břeclav, Moravia)
123. Fig. 11/123 (Archive of M. Čižmář, Brno).

Polkovice (District of Přerov, Moravia)
124. Fig. 11/124 (Archive of M. Čižmář, Brno).

Pravice (District of Znojmo, Moravia)
125. Fig. 11/125 (Archive of M. Čižmář, Brno).

Sankt Pölten (St. Pölten, Lower Austria)
126. Fig. 18/126 (Humer 2006, 45, Fig. 50).

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

Staré Hradisko (District of Prostějov, Moravia)
128. Fig. 11/128 (Dębiec, Karwowski 2014, No. 16. – Archive of M. Čižmář, Brno).
129. Fig. 11.129 (Dębiec, Karwowski 2014, No. 17. – Archive of M. Čižmář, Brno).
130. Fig. 11/130 (Skutil 1947, 113, Fig. 62. – Meduna 1970a, 12. – Dębiec, Karwowski 2014, No. 18. – Archive of M. Čižmář, 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 (Pič 1903, Pl. XI/19).
134. Fig. 19/134 (Pič 1903, Pl. XI/21).
135. Fig. 19/135 (Pič 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).

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

Ptení (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).
150. Fig. 13/150 (Schulz 1891, 880, Fig. 4d. – Meduna 1996, 100, Fig. 2/4. – Čižmář 2002, 202, Fig. 3/2).

Staré Hradisko (District of Prostějov, Moravia)
151. Fig. 13/151 (Meduna 1970b, Fig. 7/2. – Dębiec, Karwowski 2014, No. 21).
152. Fig. 13/152 (Dębiec, Karwowski 2014, No. 22. – Archive of M. Čižmář, Brno).

Stradonice (District of Beroun, Bohemia)
153. Fig. 19/153 (Pič 1903, Pl. XI/5).

Typologically undefined Knotenringe

Čejč (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, Sněтina 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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The Pottery with Thickened Club Rim at the End of the Late La Tène Period in the Middle Danube Region (Mineralogical and Petrographic Characteristics)

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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.

Zusammenfassung: Im Oppidum von Bratislava und seinem Hinterland sind Töpfe mit sogenanntem kolbenförmig verdicktem Rand eine typische Gefäßform der letzten Phase der Spätlatènezeit. Außerhalb dieser Region kommen diese Gefäßtypen auch in der Steiermark sowie in Niederösterreich (Oberleiserberg) vor. Das weist auf mögliche geopolitische Zusammenhänge hin.

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.[2] 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.[3]

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.

2. Točík 1959, 841–842. – Pieta 1982b. – Březinová, Katkin 2004, 155–156. – Bednár, Březinová, Ptáčková 2005, 115–116. – Březinová 2006, 9–10. – Luštíková 2007. – Pieta 2008.

3. Točík 1959, 841–842. – Březinová 2010, 113–114 with further references.

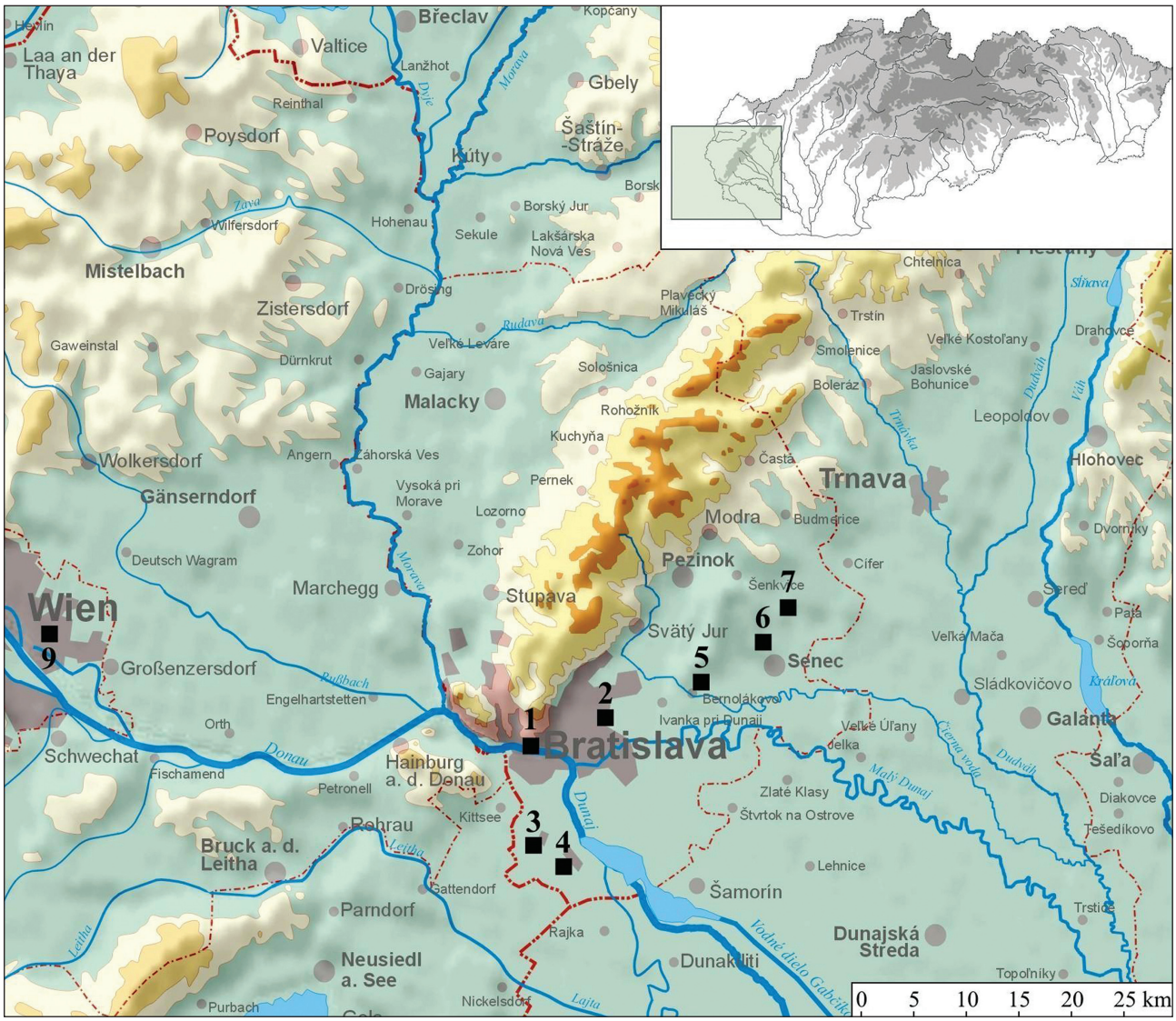

Fig. 1. Distribution of pottery with thickened club-shaped rim in southwestern Slovakia in the region of Bratislava and in neighbouring Lower Austria. – Slovakia: – 1. Bratislava, Old Town sites: Bratislava Castle, Vydrica, Mudroňova Street, Old Town, Námestie Slobody. – 2. Bratislava-Vajnory, site of Probstové. – 3. Bratislava-Jarovce, site of Kilometrák. – 4. Bratislava-Rusovce, site of Za parkom kaštieľa, Ilýrska Street, Ľanoviská. – 5. Bernolákovo. – 6. Senec-Svätý Martin. – 7. Blatné, site of Čihákovský mlyn. – Lower Austria: – 8. Oberleiserberg. – 9. Vienna-Aspern.

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 Ulicá 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.
6. Čambal 2004, 58, Pl. XXIX.
7. Čambal, Kovár, Hanuš 2012.
8. Jansák 1955, 195–221.

of the Karlstein type, a fragment of an iron fibula with spoon-shaped bow, and part of a so-called astragal belt.[9] Further sherds of pottery of the same type have been found in various locations in the old town of Bratislava.[10]

Similar vessels have been recorded in the vicinity and surroundings of the oppidum (up to 25 km from the centre of Bratislava),[11] for example in Senec-Svätý Martin, feature 3/78 (Fig. 3/1–8),[12] in Blatné (Fig. 3/9, 10),[13] in Bernolákovo (Fig. 3/11) and in Bratislava-Vajnory (Fig. 3/12).[14] 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 kaštieľ" (behind the castle park) (Fig. 4/1, 2, 5, 6),[15] in Ilýrska ulica (Fig. 4/3, 4) and at a location named "Ľanoviská" (Fig. 4/10–15).[16] A further fragment comes from Bratislava-Jarovce (Fig. 4/16).[17]

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).[18]

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 Köflach (Fig. 6/6–10), Lebing (Fig. 6/11) and Frauenberg near Leibnitz (Fig. 6/1–5) have been published.[19] Wolfgang Artner considers these vessels to be one of the main types of phase LT D2[20] and he has suggested that the pottery with thickened club rim in the region occupied by the Taurisci represents "Norican ware".[21]

Further finds have been recorded at Dietenberg near Voitsberg (Austria)[22] and in the surroundings of Stari Grad near Podbočje and Cvinger near Stična in Slovenian Lower Carniola (Dolenjska).[23] Parallels for our vessel type are also known from Lower Austria, in Vienna (Wien-Aspern[24]) and the Oberleiserberg (Fig. 3/14–19).[25] A few examples have been recovered on the Magdalensberg.[26] But they are completely absent from the fortified sites of the Middle Danube valley, such as the Braunsberg near Hainburg,[27] the Leopoldsberg,[28] Schwarzenbach,[29] Thunau am Kamp,[30] Velem Szentvid, or Budapest Gellérthegy-Tabán.[31] They are also missing from the assemblages from the fortified sites of Kulm bei Weiz, Poštela and Meljski Hrib near Maribor[32] in the southeastern Alpine region.

The club-rimmed pottery is associated with "Dacian pottery"[33] 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.[34]

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

9. Kolníková 1996. – Bazovský, Gregor 2009, 131–132.
10. Polla 1979, Fig. 33/7, 8. – Zachar 1981, 49, Figs. 8/16 and 15/5. – Zachar 1982, 42, Fig. B/1. – Zachar, Rexa 1988, 64, 66; Fig. 15/13. – Pieta, Zachar 1993, Figs. 89/1 and 92/1. – Musilová, Lesák 1996, Pl. IV/11–13. – Resutík 2007, 109, Pls. 1/1, 2, 5; 2/8, 11; 7/1–4.
11. Čambal 2011, 106.
12. Čambal, Mináč, Zachar 2010, 141–145.
13. Bartík et al. 2009, 23, Fig. 3/1–18.
14. Studeníková, Zachar 1980, 198–199.
15. Bazovský 2004, 107.
16. Bazovský 2002a, 32, Pl. I. – Bazovský 2004, 96, Fig. 1/D.
17. Bazovský 1996, 25, Fig. 3/7–9. – Bazovský 2002b.
18. Bednár, Březinová, Ptáčková 2005, 144, 146. – Březinová 2009, 57.
19. Artner 1998–1999. – Groh et al. 2009, 348. – Tiefengraber 2009, 269–270, with further references.
20. Artner 1998–1999, 234.
21. Artner 1998–1999, 229. – Tiefengraber 2009, 260.
22. Kramer 1994, Pl. 45/ 9, 10.
23. Tiefengraber 2009, 260.
24. Unpublished finds, information from P. C. Ramsl.
25. Kern 1996, 385–393. – Karwowski, Militký 2011, 131–136. – Unpublished finds, M. Karwowski.
26. Schindler-Kaudelka, Zabehlicky-Scheffenegger 1995, 181, Fig. 5/59–61.
27. Urban 1995.
28. Urban 1999.
29. Tiefengraber 2009, 260.
30. Karwowski 2006.
31. Bónis 1969.
32. Tiefengraber 2009, 260.
33. Musilová, Lesák 1996, 98.
34. Dobiáš 1964, 30. – Dobesch 1995, 18.

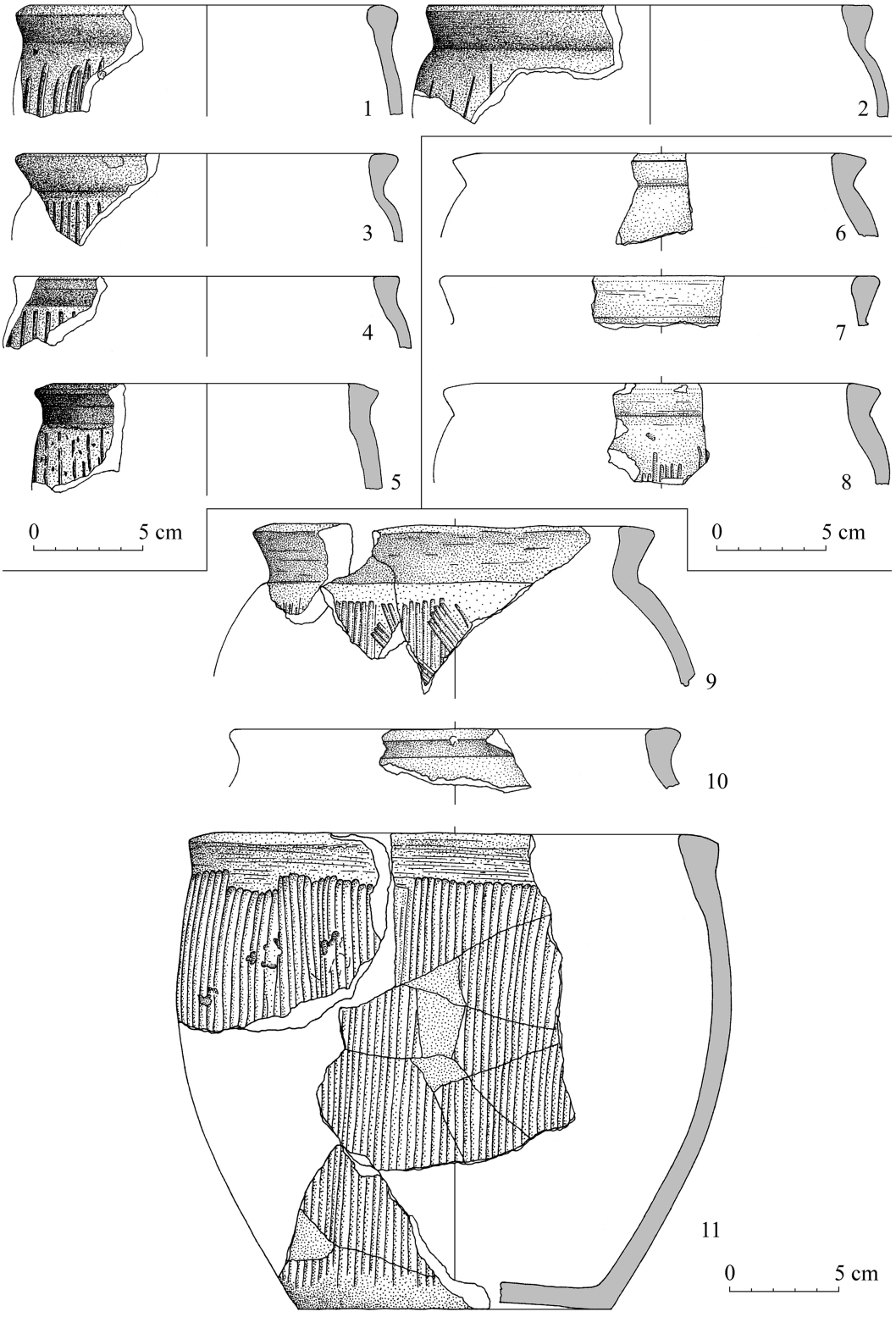

Fig. 2. Pottery with thickened club-shaped rim. – 1–5. Bratislava Castle (after Čambal 2004, modified). – 6–8. Námestie Slobody (Data: Čambal). – 9–11. Outer Bailey Lane Vydrica (after Čambal, Kovár, Hanuš 2012).

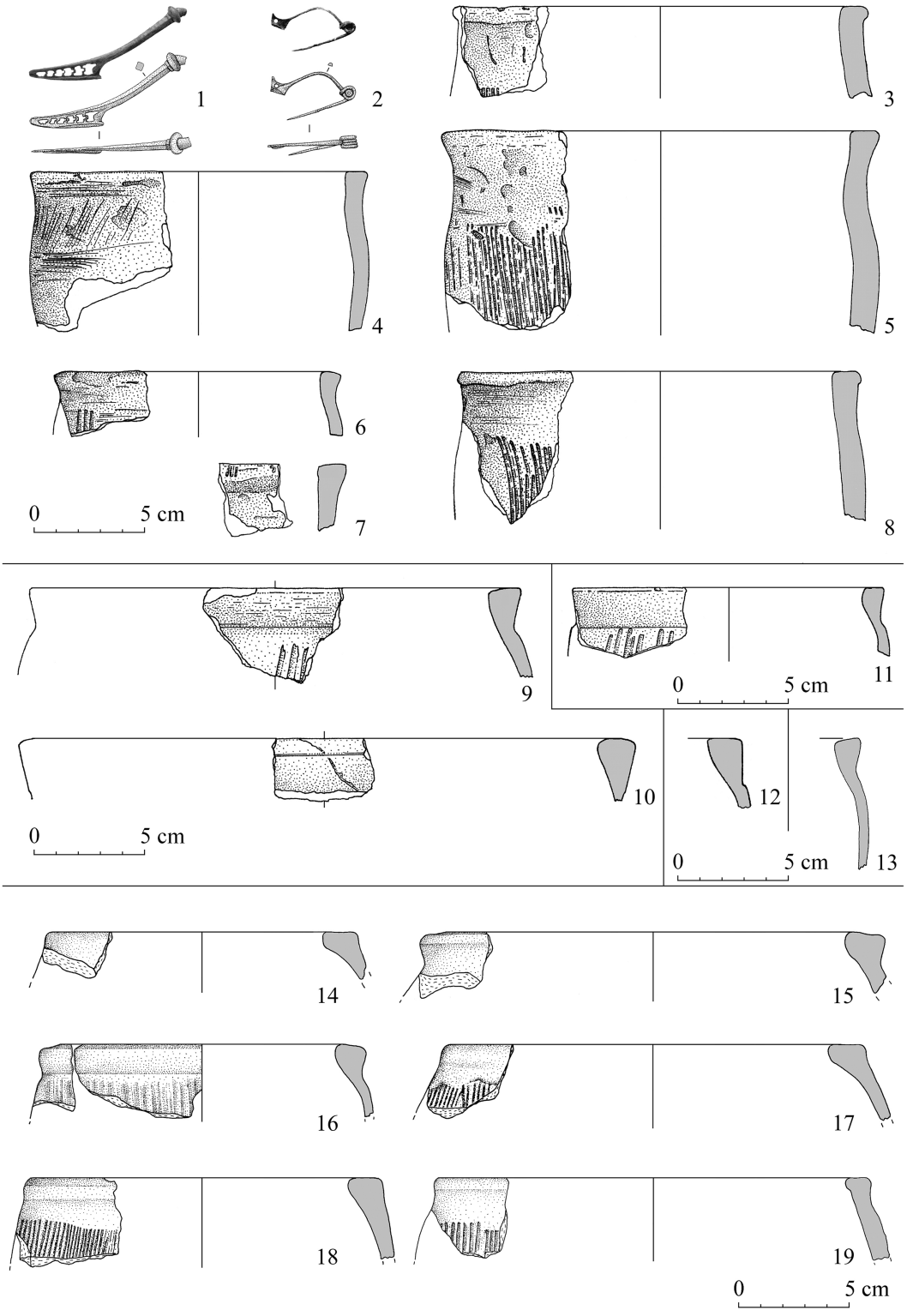

Fig. 3. – 1. Fibula of the Almgren 18a2 type. – 2. Fibula of the Gorica type. – 3–8. Pottery with thickened club-shaped rim from Senec-Svätý Martin (after Čambal, Miná č, Zachar 2010). – 9–10. Blatné, site of Čihákovský mlyn (Data: Čambal). – 11. Bernolákovo (Data: Čambal). – 12. Bratislava-Vajnory, feature 3/79 (after Studeníková, Zachar 1980, modified). – 13. Nitra Castle (after Bednár, Březinová, Ptáčková 2005, modified). – 14–19. Oberleiserberg, Lower Austria (Data: Karwowski).

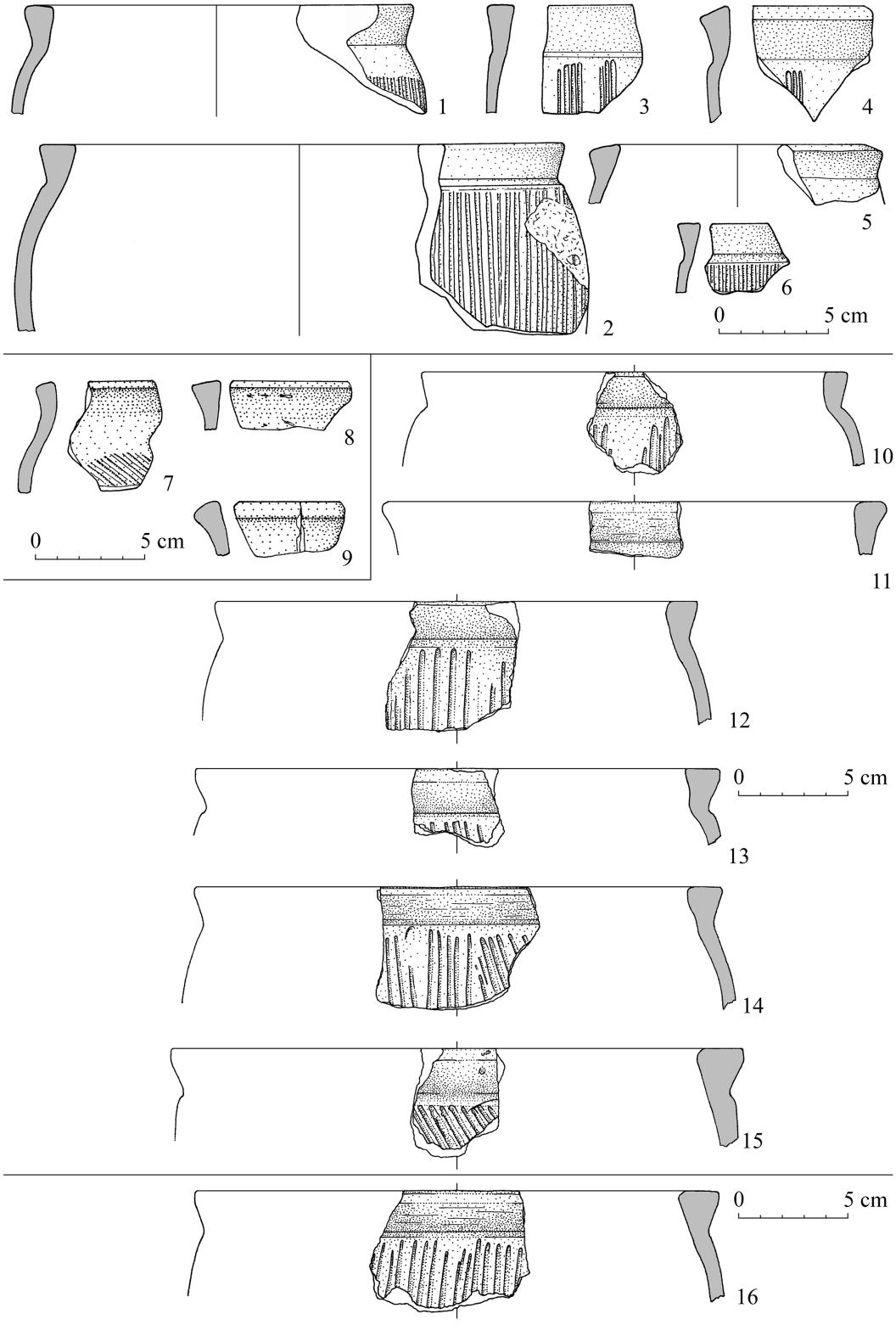

Fig. 4. Pottery with thickened club-shaped rim. – 1, 2, 6. Bratislava-Rusovce, site of Za parkom kaštieľa feature No. 54/98 (after Bazovský 2004, modified). – 3–4. Bratislava-Rusovce, Ilýrska Street, feature No. 24/03 (after Bazovský 2004, modified). – 5. Bratislava-Rusovce, site of Za parkom kaštieľa feature No. 21/98. – 7–9. Bratislava, Mudroňova Street, feature No. 1 (after Bazovský, Gregor 2009, modified). – 10–15. Site of Ľanoviská in the district of Rusovce (Data: Bazovský). – 16. – rim from Bratislava-Jarovce, site of Kilometrák (Data: Bazovský).

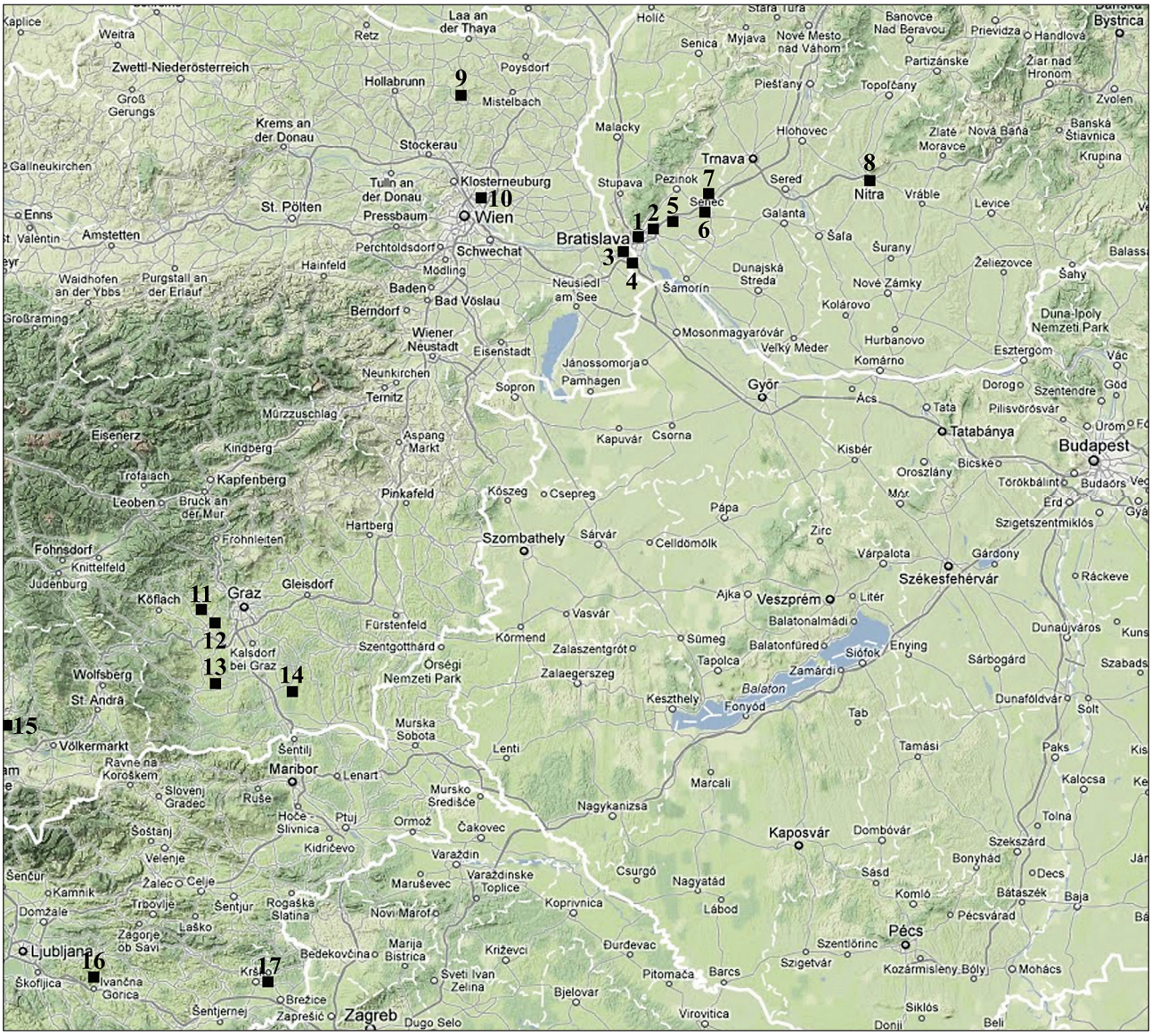

Fig. 5. Distribution of pottery with thickened club-shaped rim in the Middle Danube region, in southwestern Slovakia, Lower Austria, Styria and Slovenian Lower Carniola. – Slovakia – 1. Bratislava, Old Town sites: Bratislava Castle, Vydrica, Mudroňova Street, Old Town, Námestie Slobody. – 2. Bratislava-Vajnory. – 3. Bratislava-Jarovce. – 4. Bratislava-Rusovce. – 5. Bernolákovo. – 6. Senec-Svätý Martin. – 7. Blatné. – 8. Nitra. – Lower Austria – 9. Oberleiserberg. – 10. Vienna-Aspern. – Austrian Styria – 11. Södingberg near Köflach. – 12. Dietenberg near Voitsberg. – 13. Lebing. – 14. Frauenberg near Leibnitz. – 15. Magdalensberg. – Lower Carniola (Slovenia) – 16. Cvinger near Stična. – 17. Stari Grad near Podbočje.

of the oppidum of Bratislava.[35] Pots of this type often occur together with fibulae of the Jezerine, Gorica, Alésia and Almgren 18 types, and Norican coins of the Karlstein type.[36] Currently it seems that pottery with thickened club rim is found exclusively in southwestern Slovakia, in Bratislava and within an area up to 25 km east of the town. The sites of Bratislava-Vajnory, Bernolákovo, Senec-Svätý Martin and Blatné are located in this zone, south of the Little Carpathians (Malé Karpaty Mountains). So far no finds of club-rimmed pottery are known from the region between the Little Carpathians and the Marches (the so-called Záhorie region);[37] neither do they occur in Moravia[38] or in the Púchov culture area of northern Slovakia.[39]

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

35. Zachar, Rexa 1988, 64, 66, Fig. 15/13. – Urban 1996 , 198, 199, Figs. 1/4 and 3.
36. Čambal et al. 2014, with further references.
37. Paulík 1976. – Zachar 1976, 41–45. – Zachar 1977, 44–56.
38. Meduna 1980a. – Meduna 1980b. – Čižmář 1993.
39. Pieta 1982a.

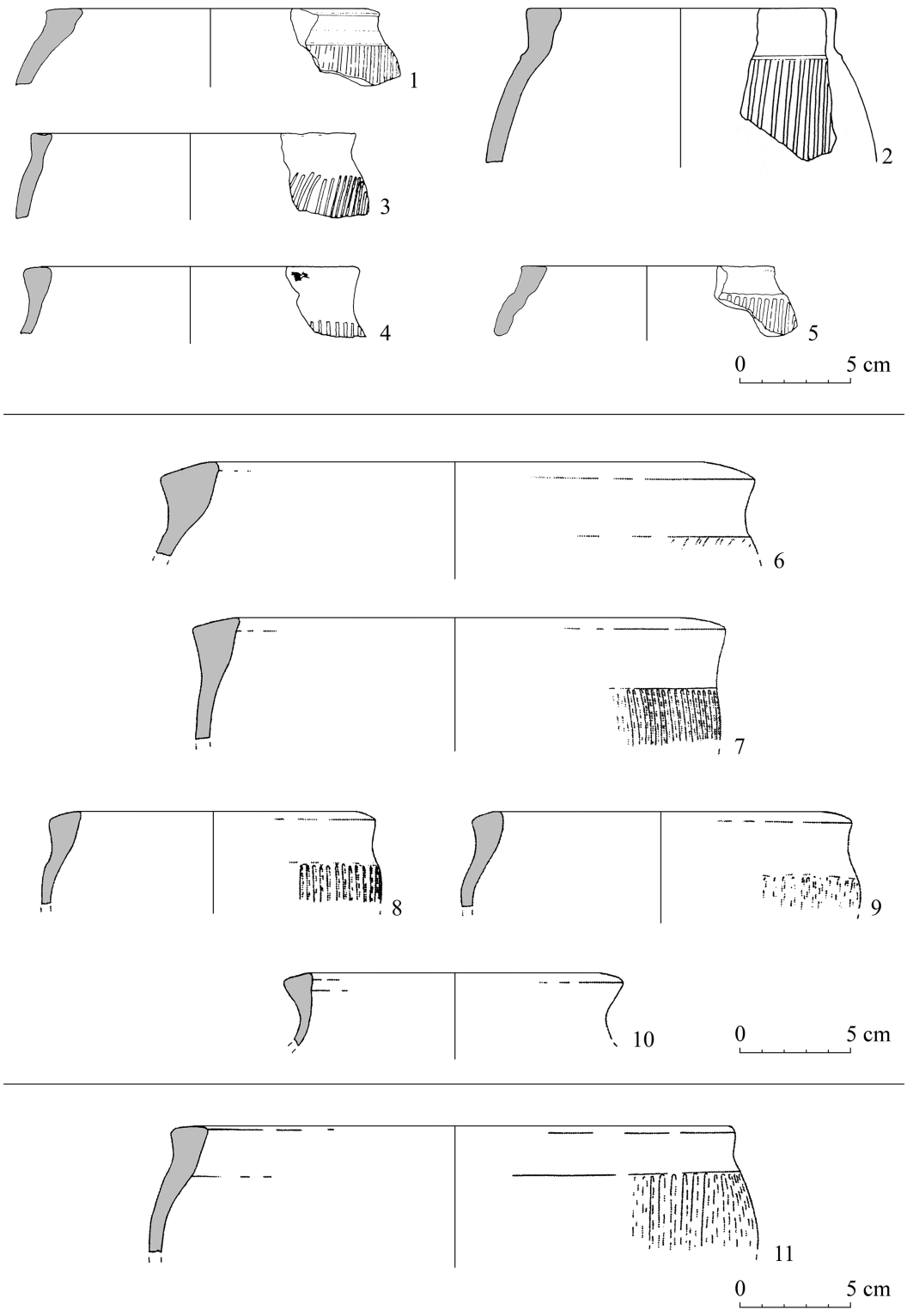

Fig. 6. Pottery with thickened club-shaped rim from Styria. – 1–5. Frauenberg near Leibnitz (after Artner 1998–1999, modified). – 6–10. Södingberg near Köflach (after Tiefengraber 2009, modified). – 11. Lebing (after Tiefengraber 2009, modified).

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.[40] The fortified circuit inside the later medieval castle of Devín survived even longer.[41] It was even taken to be Carnuntum I, mentioned in AD 6 in connexion with the expedition of Tiberius against Maroboduus.[42] 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 Norican power.[43] 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[44] 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).

40. Urban 1999, Fig. 183/4. – Varsik 1999, 629.
41. Pieta, Zachar 1993. – Pieta 1996, 190. – Pieta, Plachá 1999, 179–205.
42. Urban 1999, 229.
43. Lesák, Vrtel, Kováč 2011, 32, 33. – Musilová 2011, 202–203, Figs. 3, 4 and 12.
44. Zachar 1982, 45.

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, Vydrica and Námestie 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.[45] 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.[46] 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.[47] 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.[48]

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

45. Cambel, Vilinovič 1987. – Petrík et al. 2001.
46. Marko, Uher 1992.
47. Ozdín, Uher, Bačík 2007. – Uher, Kohút 2009.
48. Pristaš et al. 1992.

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 Ruscove 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 fluvio-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 mucronate (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

49. Pristaš et al. 1992.
50. Pristaš et al. 1992.
51. Pristaš et al. 1992. – Maglay et al. 2005.
52. Ivanička et al. 1998. – Bakoš, Ferenc, Žitňan 2009.
53. Ivanička et al. 1998.
54. Schnabel 2002. – Kohler-Schneider, Heiss 2010.

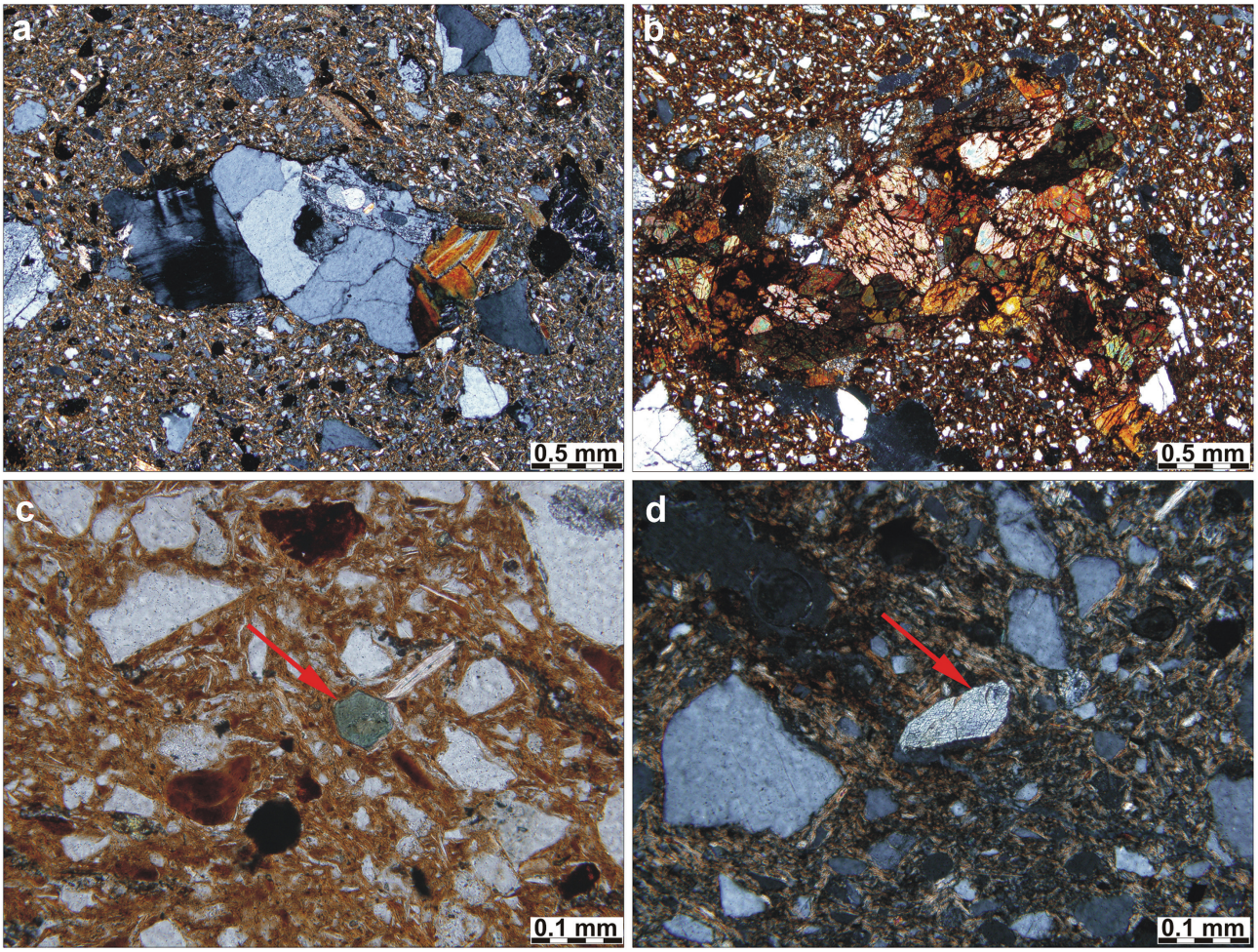

Fig. 7. Characteristic fragments of minerals and rocks of group BA. – a: Fragment of granitic rock (crossed polarisers). – b: Fragment of diorite (crossed polarisers). – c: Fragment of tourmaline (plane polarised light). – d: Fragment of amphibole (plane polarised light).

(stony, clayey) sediments are the most recent, Holocene sediments.[55]

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,[56] 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.[57] 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.

55. Riedl 1960. – Schnabel 2002. – Kohler-Schneider, Heiss 2010.

56. Ionescu, Ghergari 2002.

57. Bagnasco et al. 2001.

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

Sample	9	10	11	12	24	21	17	22	7	18	28
Locality	BA Castle	BA Castle	BA Castle	BA Castle	BA Castle	Mudroňova	Vydrica	Vydrica	N. Slobody	N. Slobody	N. Slobody
Group	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA
Matrix	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic
Structure	Oriented	Oriented	Oriented	Oriented	Oriented	Oriented	Oriented	Oriented	Oriented	Oriented	Oriented
Granulometry	Semi-fine	Semi-fine	Coarse	Coarse	Semi-fine	Coarse	Semi-fine	Coarse	Semi-fine	Semi-fine	Coarse
Quartz	+	+	+	+	+	+	+	+	+	+	+
K-feldspars	+	+	Microline/ Perthite	+	Microline	Weathered	+	+	Perthite	+	+
Plagioclases	+	+	+	+	+	+	+	+	+	+	+
Muscovite	+	+	+	+	+	+	–	+	+	+	+
Biotite	+	+	–	+	+	+	+	–	+	+	+
Calcite	–	–	Micritic	–	–	–	–	–	–	–	–
Pyroxene	–	–	–	–	–	–	Clinopyrox-enes	–	–	Clinopyrox-enes	Clinopyrox-enes
Amphibole	+	+	–	–	+	+	+	+	+	+	+
Epidote	–	+	–	–	–	–	+	–	–	–	–
Zircon	+	+	+	+	–	–	–	–	–	–	+
Garnet	+	–	–	+	+	+	+	–	–	–	+
Tourmaline	–	–	–	–	–	–	+	–	–	+	+
Granitic rocks	+	+	+	+	–	–	+	+	+	–	+
Diorite	–	–	–	–	–	–	–	–	+	–	–
Phyllite	–	–	–	–	–	–	–	–	–	–	–
Siltstone	–	–	–	+	–	+	–	–	–	–	–
Sandstone	–	–	–	–	–	+	+	–	–	+	+

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

Sample	3	4	5	6	8	13	14	15	19
Locality	Rusovce	Rusovce	Rusovce	Rusovce	Rusovce	Rusovce	Rusovce	Rusovce	Jarovce
Group	BA	BA	BA	BA	BA	BA	BA	BA	BA
Matrix	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic
Structure	Chaotic	Oriented	Oriented	Chaotic	Oriented	Oriented	Oriented	Weakly oriented	Chaotic
Granulometry	Coarse	Coarse	Coarse	Coarse	Coarse	Coarse	Coarse	Coarse	Coarse
Quartz	+	+	+	+	+	+	+	+	+
K-feldspars	+	+	Perthite	Weathered	Perthite	Perthite	Perthite	+	+
Plagioclases	Weathered	+	+	+	+	+	+	+	+
Muscovite	+	+	+	+	+	+	+	+	+
Biotite	+	–	+	–	+	+	+	+	+
Calcite	–	–	Micritic	–	Secondary	Micritic	Micritic	–	–
Pyroxene	–	–	–	Orthopyroxenes/Clinopyroxenes	–	–		–	–
Amphibole	–	+	–	–	+	+	+	+	+
Epidote	–	–	–	–	+	–	–	–	–
Zircon	–	–	–	–	–	–	+	–	–
Garnet	–	+	–	–	–	–	–	–	–
Rutile	–	–	–	–	–	–	–	–	–
Granitic rocks	+	–	–	–	+	+	–	–	–
Phyllite	–	+	–	–	+	–	–	–	–
Siltstone	–	–	–	–	–	+	–	–	–
Sandstone	–	+	+	+	+	–	+	+	+

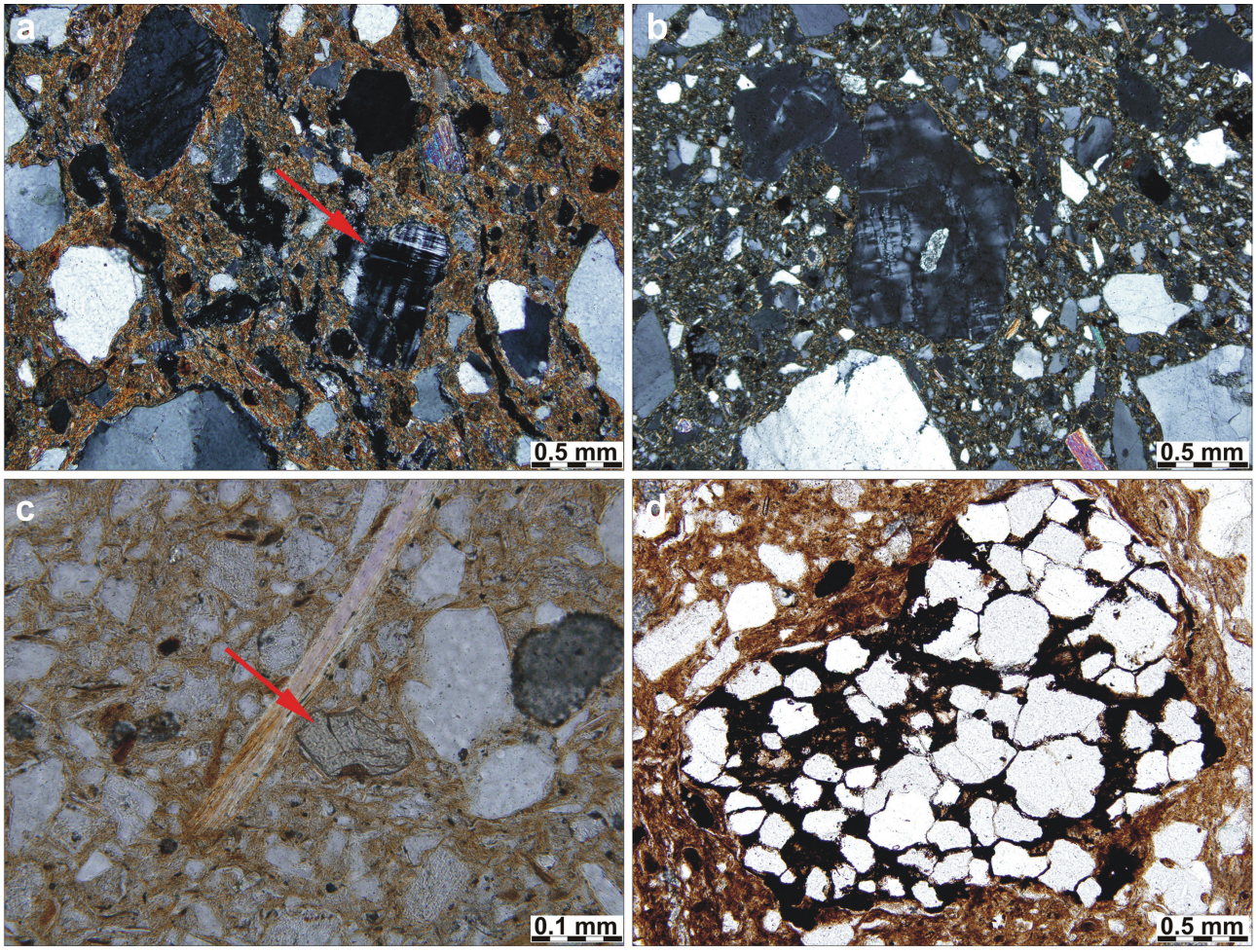

Fig. 8. Characteristic fragments of minerals and rocks of group SC. – a: Fragment of microline (crossed polarisers). – b: Fragment of perthitic feldspar (crossed polarisers). – c: Fragment of amphibole with strong pleochroism (plane polarised light). d: Fragment of sandstone with iron-rich matrix (plane polarised light).

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 Hlboká cesta and Okánikova ulica.[58] 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.[59] 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.

58. Ozdín, Uher, Bačík 2007.
59. Vrtel 2012.

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

Sample	20	23	2	25	26	27
Locality	Bernolákovo	Bernolákovo	Senec	Senec	Senec	Senec
Group	SC	SC	SC	SC	SC	SC
Matrix	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Anisotropic	Isotropic
Structure	Oriented	Oriented	Chaotic	Weakly oriented	Chaotic	Fluidal
Granulometry	Coarse	Semi-fine	Coarse	Coarse	Coarse	Semi-fine
Quartz	+	+	+	+	+	+
K-feldspars	Microcline	+	Microcline	+	+	+
Plagioclases	+	–	+	+	+	+
Muscovite	+	+	+	–	–	+
Biotite	+	+	–	+	+	–
Calcite	–	–	–	Micritic	Micritic	–
Pyroxene	–	–	Clinopyroxenes	–	–	–
Amphibole	+	–	–	+	+	–
Epidote	–	+	–	–	–	–
Zircon	–	–	+	–	–	–
Garnet	+	+	+	–	–	–
Granitic rocks	–	–	+	–	–	–
Silicite	–	–	–	–	–	+
Quartz arenite	+	+	–	–	+	–

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.

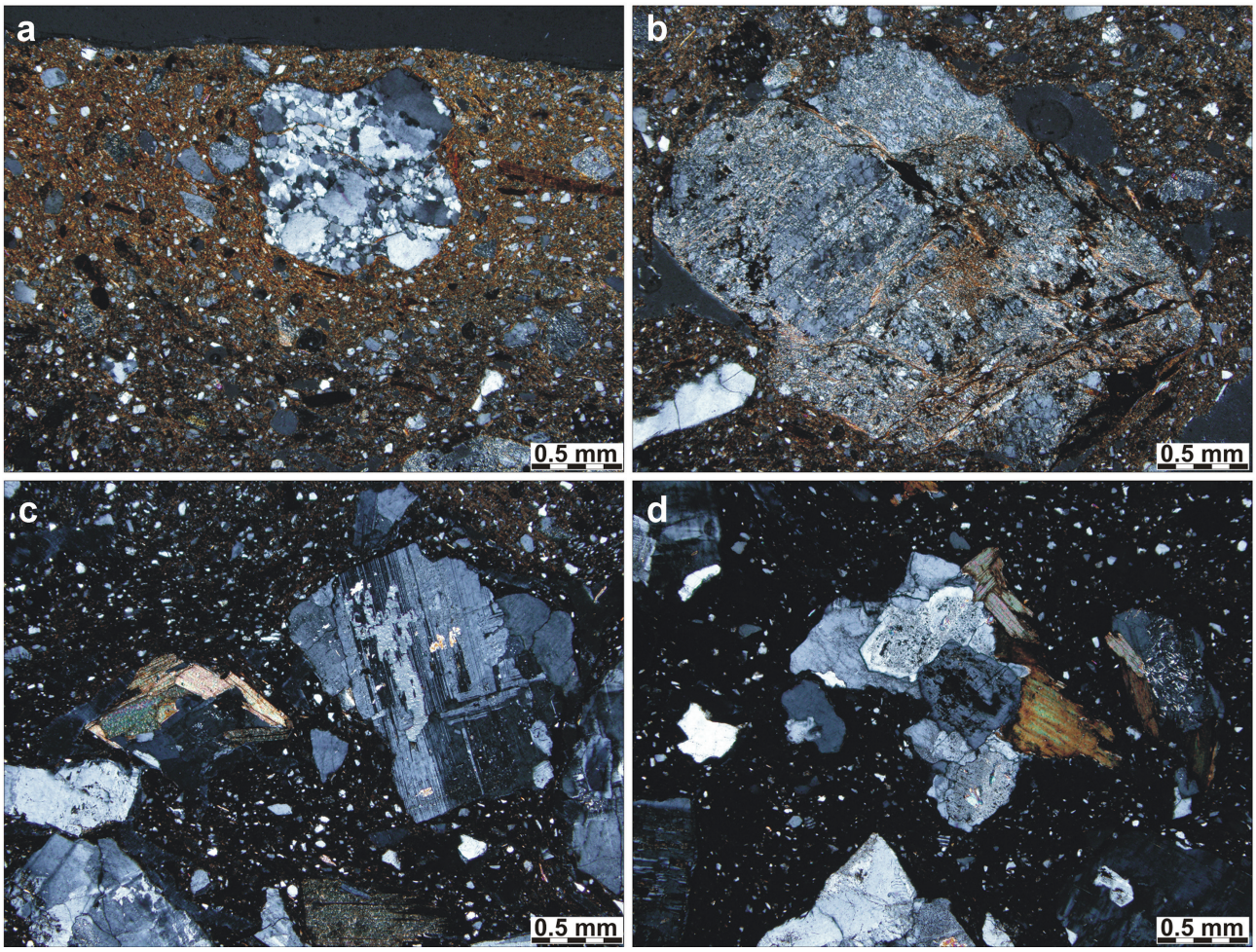

Fig. 9. Characteristic fragments of minerals and rocks of group NR. – a: Fragment of gravel sandstone (crossed polarisers). – b: Badly weathered feldspar (crossed polarisers). – c: Fragments of plagioclases and biotites (crossed polarisers). – d: Fragment of granitic rock (crossed polarisers).

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,

60. Ionescu et al. 2007.

Tab. 4. Overview of the mineralogical and petrographic composition of the pottery of groups NR (site: Nitra) and OB (site: Oberleiserberg).

Sample	1	16	29	30	31	32	33
Locality	Nitra-Galéria	Nitra-Galéria	Nitra-Galéria	Nitra-Galéria	Oberleiser-berg	Oberleiser-berg	Oberleiser-berg
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	Orthopyrox-enes	–	–	–	Orthopyrox-enes	–	–
Amphibole	+	–	+	+	–	–	+
Epidote	+	–	+	–	–	–	–
Garnet	–	–	–	–	–	+	+
Titanite	–	+	–	+	–	–	–
Sillimanite	–	–	–	–	+	+	+
Granitic rocks	–	+	–	+	–	–	–
Mica schists	–	–	–	–	+	+	+
Phyllite	–	–	–	+	–	–	–
Silicite	–	–	–	+	–	+	–
Sandstone	+	–	+	+	+	+	+

diorite or radiolarites. 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)[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.[62] The clay used, whose optical character corresponds to clay with predominant illite,[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 feldspar (mostly microline) and heavy minerals – amphiboles with green pleochroism, epi-

61. Cambel, Vilinovič 1987. – Petrík et al. 2001. – Ozdín, Uher, Bačík 2007.

62. Divileková, Gregor 2009.

63. Ionescu et al. 2007.

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.[64] 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,[65] 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.[66] 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 arenites 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.[67]

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)[68], 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

64. Maglay et al. 2005, 147.
65. Ivanička et al. 1998, 34–35.
66. Gregor, Březinová 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 mucronite 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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General East-Celtic Topics

Along the "Bastarnian" Route? An Imitation Tetradrachm of Philip II from Eastern Poland

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Abstract: A silver coin was discovered in Hrebenne, Poland (on the Ukrainian border). The size and weight, and especially the legend point to a Geto-Dacian imitation of a stater of Philip II of Macedon (359–336 BC) of the Huşi-Vovrieşti type. Such coins only occasionally appear north of the Carpathians. They were minted from the end of the 3rd to the middle of the 2nd century BC. The pottery from the pits of the archaeological site of Hrebenne suggests that it was occupied from the transition of LT C1/C2 to LT D1.

Keywords: Poland, Bastarnae, coins, transregional relationships.

Zusammenfassung: Hier wird eine in Hrebenne, Polen (ukrainische Grenze) geborgene, so genannte „Pseudo"-Mittellatène-Silbermünze präsentiert. Sowohl die Abmessung als auch das Gewicht und vor allem die Legende deuten mit hoher Wahrscheinlichkeit auf eine geto-dakische Nachahmung eines Staters Philipps II. aus Makedonien (359–336 v. Chr.) vom Typ Huşi-Vovrieşti. Solche Münzen tauchen nur selten nördlich der Karpaten auf. Sie wurden vom Ende des 3. bis in die Mitte des 2. Jhs. v. Chr. geprägt. Die Keramik aus den Gruben des Fundorts von Hrebenne verweist auf eine Zeitspanne der Besiedlung vom Übergang LT C1/C2 bis LT D1.

Schlüsselwörter: Polen, Bastarnen, Münzen, überregionale Beziehungen.

Large-scale excavations were undertaken in spring 2005 in advance of development of the Polish-Ukrainian border crossing at Hrebenne in the district of Tomaszów Lubelski. Site 18, a multiperiod settlement with occupation ranging from the Neolithic to the Migration period, included evidence of a large settlement of the earlier pre-Roman Iron Age.[1] We shall leave aside whether the assemblages found there should be attributed to the so-called "Czerniczyn group" or whether they should be ascribed to the Jastorf culture[2] and concentrate instead on the interesting find of a silver coin. Contradictions in the sparse excavation records make it impossible to identify exactly which feature the coin came from, but a thorough analysis of the numerous excavation plans allows us to narrow its provenance down to one of six pits (features 443, 602, 605, 680, 685 or 1258, all pits with occupation material). The pottery found in these pits belongs to the transition from the earlier to the later pre-Roman Iron Age on stylistic grounds, while a few sherds of the early Przeworsk culture belong to the transition La Tène C1/C2 to the beginning of La Tène D1.

The silver coin[3] (Fig. 1), which is 24 mm in diameter, 2 mm thick and weighs 13.59 g, is poorly preserved (especially on the reverse) and much worn. Its obverse features the head of a man looking right, while the reverse shows a – somewhat unclear – horse, also facing right. The poor state of preservation of the coin does not permit us to identify whether this was originally a representation of a horse and rider. Both sides of the coin have deep grooves, most probably cuts made when testing the coins.

The dimensions and the weight, but especially the legend, indicate conclusively that this coin is a stater of Philip II of Macedon (359–336 BC). The head on the obverse is a representation of Zeus, executed with some artistic skill. It shows a man in the prime of life, with medium long, lightly curled hair wearing a stylised laurel wreath. His beard and crescent-shaped ear are also

1. Unpublished excavations; summary report by Kokowski 2006a.

2. For a definition of the Czerniczyn group, see Czopek 1999. – Kokowski 2009, 182–183. – For a discussion of the cultural affiliation of eastern Polish assemblages, see Dąbrowska 1988, 196–200. – Mazurek, Mazurek 1997. – Grygiel 2004, 38–45. – Łuczkiewicz 2014 (with references).

3. Interim publication by Kokowski 2006b. – Brief mention in Florkiewicz 2009, 106–107, 113.

Fig. 1. Silver coin from Site 18, Hrebenne, Poland.

stylised. By contrast, the eye and pupil, the nose and the lips are represented in detail. Nevertheless it is obvious that the coin departs from the original in its wilder design and the fact that the legend is incomplete.

The wild interpretation of the design is even clearer on the reverse. The mandatory accessory marks are missing entirely. The horse is represented extremely schematically and is very clearly different from the artistic execution of the Macedonian prototypes. The unclear die makes it difficult to establish whether the intention was to depict just a horse, or a "victorious rider" (i.e. a rider holding a palm branch), or a "royal rider" (i.e. a rider with raised hand).[4]

Tetradrachms of Philip II of Macedon continued to be issued long after the king's death in 336 BC; posthumous issues are known up to 315 BC and even as late as 295/294 BC;[5] after 314 BC Amphipolis started minting coins. Imitations of tetradrachms came into circulation almost at the same time as the official issues,[6] as impressively attested by two such imitations in the Rejanci hoard (Bulgaria) dated to 316/315 BC.[7] The hoard of Metschika (Bulgaria), which contains early, good-quality imitations as well as original coins of Philip II and his son Alexander the Great, belongs to this early horizon. The Scărişoara hoard (Romania), dated by a drachm from Histria, should be mentioned in this context.[8] Imitations have been found in the hoard of Chişineu-Criş (Romania), which also contained issues of Alexander the Great (336–323 BC), Lysimachos (323/305–281 BC) and Seleukos I (312–281 BC).[9] Last but not least, a die used for early imitations has been found in northern Bulgaria, in a context dated to the beginning of the 3rd century BC.[10]

It is assumed that it is the return of Celtic and Dacian mercenaries, employed in the Mediterranean zone and paid in Macedonian gold staters, that provided the stimulus for producing local issues.[11]

The earliest imitations can hardly be distinguished from their prototypes.[12] The legend and the ancillary markings were nearly perfectly reproduced. The diameter of 24–25 mm and the more or less standard weight of 12–14 g[13] correspond to that of the original. One might almost advance that original Greek (Macedonian) dies were used to make the imitations. Slightly later imitations are characterised by a somewhat broader laurel wreath and a stylised representation of the head. The nose is often reduced to two points. But it is mainly the arrangement of the letters of the legend that shows clear differences; sometimes some letters are missing altogether. Such coins often bear marks of having been tested for their composition. Whether this constitutes evidence for an early date – and hence points to an early date for our Polish find – remains debatable.

The main zone of circulation or distribution of early imitations has largely been considered to be the Lower Danube area: the coins are mainly found in Dacia, Wallachia, the Banat and Moldavia, and much more rarely south of the Danube, in Illyria and Pannonia.[14] This distribution implies that Dacian tribes were particularly influent in the propagation of this coinage, although after the arrival of the Celts the latter also took an active part in the minting of coins.

The stylistic attributes of the Hrebenne coin suggest (despite its worn state) that it most probably belongs to the morphologically heterogeneous Huşi-Vovrieşti type.[15] The dies for these coins, which belong to the second minting phase (i.e. the first independent Geto-Dacian issues) and which are dated from the end of the 3rd century BC to the middle of the 2nd century BC, are reminiscent of the original. But the die is already well worn, resulting in a loss of detail in the design. The weight of 13.59 g, within the usual range 13–14 g, is also in agreement with such an identification; only a quarter of

4. Dembski 1998, 41.
5. Le Rider 1977, 442–443. – Ziegaus 1994, 49–51.
6. Preda 1970, 68. – Preda 1973, 28. – Preda 1980, 127–128. – Mikołajczyk 1982, 5–6. – Ziegaus 1994, 49–51. – Mielczarek 2003, 303.
7. Le Rider 1977, 442–443, Pls. 52, 138–139.
8. For Metschika, Scărişoara, see Preda 1973, 29–47, 441–442. – Note that the silver coins from Histria also continued to circulate after they stopped being issued: Banari 2003, 307.
9. Dembski 1998, 41.
10. Preda 1980, 127–128.
11. Nick 2006, 99 is in favour of Celtic mercenaries only.
12. Preda 1973, 29–47, 441–442. – Ziegaus 1994, 49–51. – Dembski 1998, 41.
13. Preda 1973, 43.
14. Preda 1973, 34–42. – Preda 1980, 127–128. – Ziegaus 1994, 49–51. – Suciu 2005, 169–170.
15. Preda 1973, 111–131.

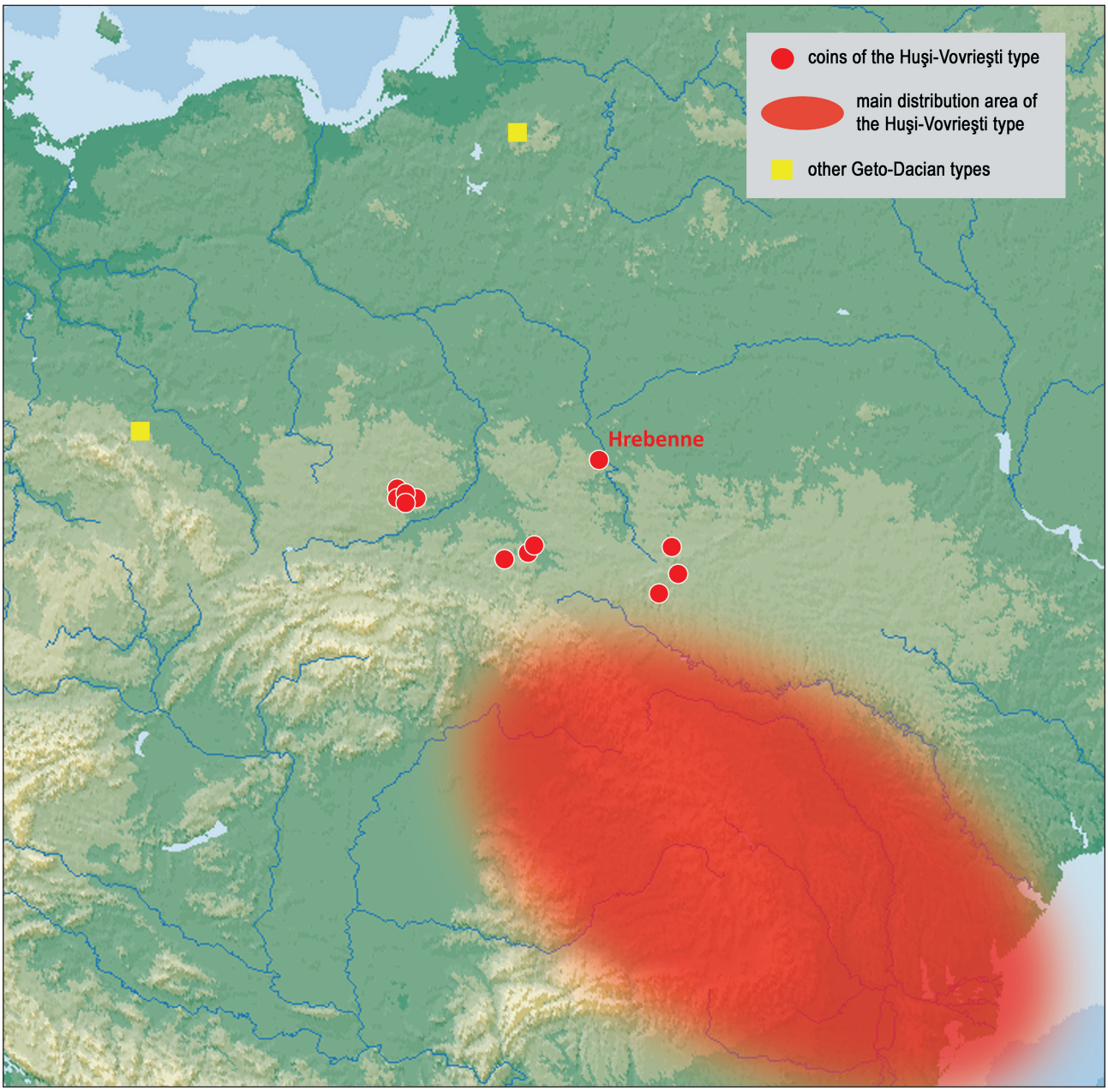

Fig. 2. Distribution map of imitation Macedonian coins in Poland and western Ukraine (after Mikołajczyk 1984, 54, Fig. 1. – Rudnicki 2003, 19, Fig. 10. – Florkiewicz 2009, 106, Fig. 2; with additions).

coins of this type was somewhat lighter, at 11–12 g.[16] The type is distributed in the eastern Carpathians (northern and eastern Dacia) and corresponds approximately to the area occupied by the Bastarnian Poieneşti-Lukaševka culture in Moldavia.[17] It is however impossible to state unequivocally whether such an ethno-cultural attribution corresponds to the reality.

The few imitation Macedonian coins found in Poland are concentrated in the southeast (Fig. 2). But the most recent distribution map and catalogue need to be treated with caution because the "southern Poland" provenance given for a number of coins is questionable. Many coins are old purchases, originally bought in good faith. The actual location of the finds was however in quite different provinces of the former

16. Rudnicki 2003, 20. – Florkiewicz 2009, 107. – See also Dimitrov 2005, 137–141 (hoards of Byala and Aydemir, Bulgaria).

17. Preda 1973, 111–131, 444–445. – Dembski 1998, 41. – Părpăuță 2006, 72–77. – Florkiewicz 2009, 105–107. – For the Poieneşti-Lukaševka culture, see Babeş 1993.

Austro-Hungarian monarchy.[18] Out of the 27 known coins, less than half (eleven coins maximum) have a secure provenance.[19] All bar two of the securely provenanced coins belong to the Huşi-Vovrieşti type. There is a wider range of other Geto-Dacian types among the items of dubious provenance (from Crişeni-Berchieş, Sighet, Larissa, Ocniţa-Cărbuneşti, Adîncata-Manaştirea, Virteju-Bucureşti, Anionoasa-Dobreşti, Răduleşti-Hunedoara and Toc-Chereluş). Moreover, most pieces are single finds.

It appears therefore that the influx of Macedonian imitations consists mostly of coins of the Huşi-Vovrieşti type and that it is largely confined to southern Poland. At least three finds of coins from Volhynia and neighbouring western Ukraine support this interpretation.[20]

What are the underlying causes of the spread of imitation staters of Philip II towards the north? The view that the initial impulse for the distribution of Greek and Macedonian influence in central European *Barbaricum* is due to the Celts has been put forward on a number of occasions.[21] Yet an unequivocal "ethno-cultural attribution" of the La Tène material found over the Balkans is hardly, or only very rarely, possible.[22] The decisive role played by the Celts is thus not a tenable thesis, and other ethno-cultural groups may have acted as intermediaries. The coin assemblages recovered in Hungary, Slovakia, Bohemia and Poland are good grounds for interpreting them as powerful evidence for contacts between the Geto-Dacian zone and central European regions.[23] This also applies to the imitations staters of Philip II (over 100) recovered in the fortified settlement of Galis Lovacka[24] in transcarpathian Ukraine, a site sometimes described as an oppidum. The presence of other Greek coins in the north is also taken to be a convincing argument for contacts with the Geto-Dacian zone.[25] Moreover, the fact that Geto-Dacian elements keep recurring in local assemblages north of the Carpathians is not to be overlooked. These consist mainly of finds of pottery and its imitations, as well as jewellery.[26] Some weapons in the north of *Barbaricum*, though not themselves Dacian, may conceivably have been of Dacian inspiration.[27]

The distribution of Huşi-Vovrieşti type coins is however sufficiently significant to consider an alternative mechanism for its spread. The finds are closely linked to the courses of the rivers Pruth and Seret and thus a relationship with the Poieneşti-Lukaševka culture and the so-called Bastarnian Route may enter into the equation.[28]

The "Bastarnian Route" is defined as a communication route that linked the western Baltic regions to the northern Black Sea areas along the rivers Pruth and Seret (i.e. the zone occupied by the Poieneşti-Lukaševka culture) in the pre-Roman Iron Age.[29] Incidentally this axis continued to exist without interruption in the Roman imperial period, although in a different cultural guise.[30] In the pre-Roman Iron Age the route is reflected in the distribution of several groups of finds; they have been comprehensively discussed on dozens of occasions, on the basis of the distribution of the so-called "crown torcs" (*Kronenhalsringe*), fire-dogs and certain types of Jastorf fibulae.[31] In all these cases the Przeworsk culture appears to fulfil the role of intermediary. The spread of the so-called bowls with "hanging perforated lugs" is linked to this.[32] These vessels originally belong to the material vocabulary of the Jastorf cultural sphere but were quickly adopted in the regions located between the Oder and the Bug. Such finds occur in assemblages of the Przeworsk culture but are also associated with Jastorf-influenced material. The distribution of clay spoons, which encompasses the regions occupied by the Jastorf, Przeworsk and Poieneşti-Lukaševka cultures, is a good fit for this configuration.[33]

18. A comprehensive overview can be found in Florkiewicz 2009, 102–104, 106, Fig. 2.

19. See Florkiewicz 2009, 114–117: Cat. nos. 3 (Krzywólka), 7 (Hrebenne), 8 (Kruhel Mały), 9–10 (Medyka), 11–15 (Pełczyska), 18 (Działoszyn), 21 (Przemyśl–Zasanie).

20. See distribution maps in Mikołajczyk 1982, 12–16, Fig. 1. – Mikołajczyk 1984, 54, Fig. 1. – Rudnicki 2003, 19, Fig. 10.

21. E.g. Preda 1973, 453–454. – Nick 2006, 99. – A brief summary of this discussion can be found in Florkiewicz 2009, 111–112.

22. See Łuczkiewicz, Schönfelder 2010, 200, based on the example of the Padea-Panagjurski Kolonii group.

23. Preda 1973, 442. – Kolníkova 1997, 44–46. – Florkiewicz 2009, 101.

24. J. Kobal, *pers. comm.* 22.03.2012 on the occasion of an invited lecture at the University of Rzeszów.

25. E.g. Mikołajczyk 1984, 58. – Mielczarek 2003, 301–304. – Florkiewicz 2009, 111.

26. Florkiewicz, Bochnak 2006. – Rudnicki, Miłek 2011, especially 126, Fig. 2.

27. See Łuczkiewicz 1998, 260–265, Figs. 7–10. – Bockius, Łuczkiewicz 2004, 91–92, Map 31.

28. Mikołajczyk 1982, 19–20, Fig. 2 already evoked this. – See also Woźniak, Poleska 1999, 386. – Rudnicki 2003, 22. – Florkiewicz 2009, 113–114.

29. See for example Babeş 1993, 154–180. – Dąbrowska 1994, 87, map in Fig. 8.

30. See for example relevant distribution maps of various types of glass vessels and fibulae in Khrapunov, Stylegar 2011, especially 52, Fig. 6; 140, Fig. 4; 148, Fig. 13 and 150, Fig. 15.

31. Babeş 1993, 77, Fig. 1; 95, Fig. 25 and 108, Fig. 28. – Babeş, Coman 2005, 139–148. – Nowakowska, Maciałowicz 2006, especially 334, Fig. 7.1.

32. A comprehensive overview is given in Maciałowicz 2004. – See also Łuczkiewicz 2014, 325–326, Fig. 13.

33. Michałowski 2004, 124, Fig. 1, 148–155.

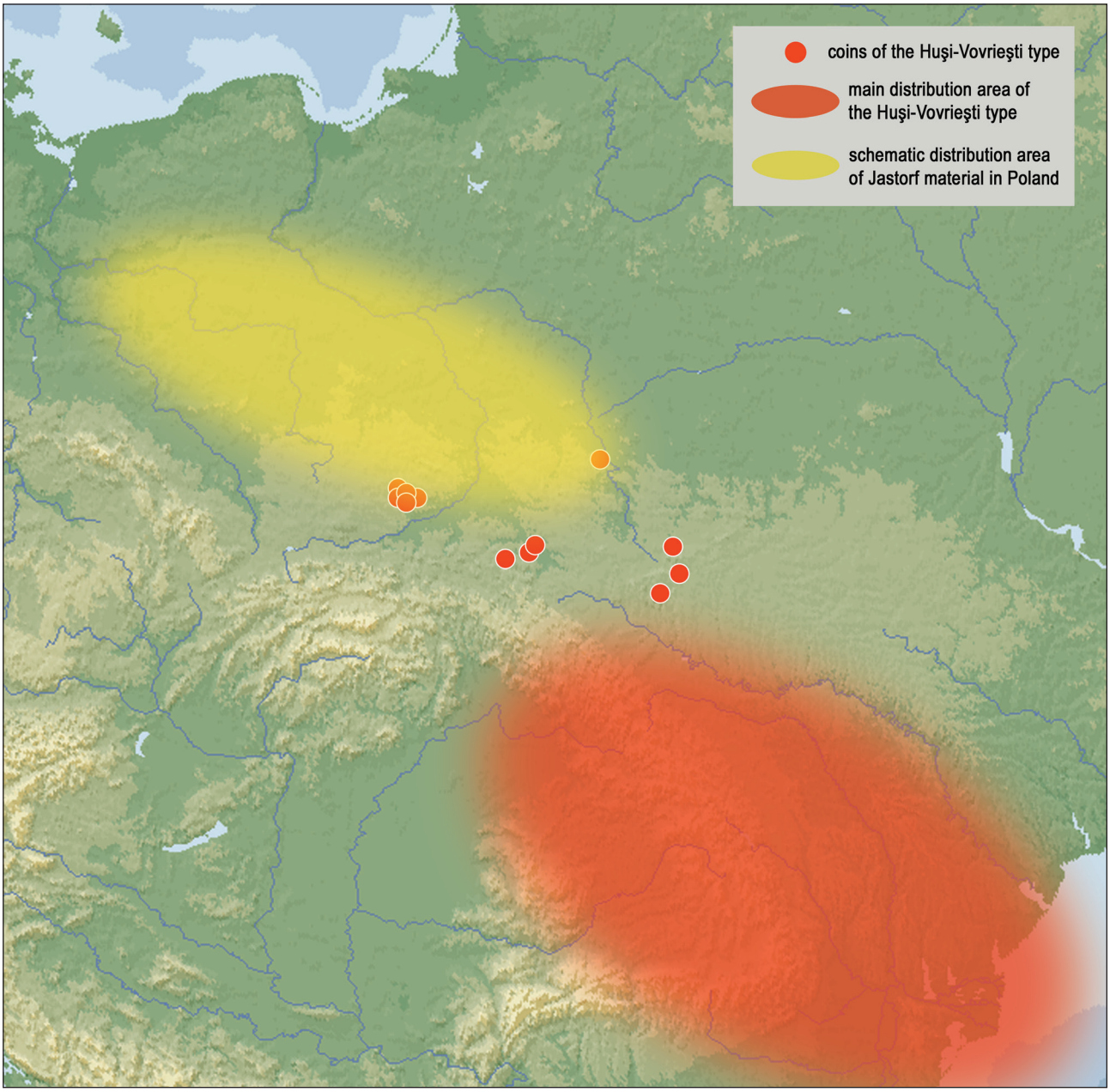

Fig. 3. Cultural environment of the Hrebenne coin.

The Hrebenne find is particulaly important in this context. First, it is directly located on the putative communication route. Second, it lies within a culture group (Fig. 3) whose pottery shows clear links with both the Jastorf cultural sphere and the Poieneşti-Lukaševka culture in the southeast. It remains open to question whether our find is associated with a largely local group, the so-called Czerniczyn group with Jastorf-influenced pottery, or whether it should be considered a small component of a much larger context which saw a shift of the Jastorf culture south eastwards.[34] The presence of Huşi-Vovrieşti type coins in neighbouring Volhynia is an aspect not to be neglected in this discussion.

The context of our coin provides some dating evidence, since the pits in which it was found contained pottery ranging from LT C1/C2 to LT D1.

It is tempting to associate the presence of the Hrebenne coin with Bastarnian mobility, assuming that it is possible to connect the archaeologically documented drift of Jastorf material towards the southeast with the historically documented move of the Bastarnians.[35]

34. See footnote 2.

35. Babeş 1993, 168–180. – Bockius, Łuczkiewicz 2004, 1–3, 111 are much more cautious.

By way of qualification, let us note that the Bastarnians cannot be considered to be the people issuing the coins, and this despite the eloquent distribution of the Huşi-Vovrieşti type. The circulation of these coins, especially in the regions east of the Carpathians, should not be attributed to the Bastarnians but rather to the Geto-Dacians.[36] The Geto-Dacians already had multiple geo-political and trading contacts in this area, well before the arrival of the Bastarnians. The arrival of a new ethno-political power must have severely disrupted the political and social stability of the Carpathian zone and it had an impact on neighbouring regions. The coinage discussed nevertheless suggests that relations continued to be directed towards the outside world.

Such a scenario may also be applicable to the north and may explain the presence of five Huşi-Vovrieşti type coins on the settlement of Pełczyska.[37] Assuming that the concentrations of finds in the Poieneşti-Lukaševka culture represents strong cultural and trading contacts with the Geto-Dacian world, then the Bastarnians cannot be considered to have been the intermediaries, and this on geographical grounds too. Rather, it may reflect approaches from the south and contacts with the Dacians, and perhaps also relations with the Púchov culture, at least in southern Poland.

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The Celtic Treasure of Óhuta (County of Borsod-Abaúj-Zemplén, Hungary)

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Abstract: The treasure of Óhuta (now Miskolc Bükkszentlászló, Hungary), which was discovered in 1846, contained at least three different types of coins and two gold artefacts: tetradrachms with boss obverse (*Buckelavers*); a celtic Audoleon type tetradrachm; a drachm with the head of Pallas Athene; a spiral gold ring and a chain, all dating to the 1st century BC.

Keywords: Hungary, La Tène culture, treasure, coins.

Zusammenfassung: Der 1846 in Óhuta (heute Miskolc Bükkszentlászló, Ungarn) entdeckte Schatzfund bestand aus mindestens drei verschiedenen Münztypen sowie zwei Goldartefakten. Tetradrachmen mit Buckelavers, eine keltische Tetradrachme Typ Audoleon, eine Drachme mit Pallaskopf und ein spiralförmiger Goldring sowie ein Kettchen datieren in das 1. Jh. v. Chr.

Schlüsselwörter: Ungarn, Latènekultur, Schatzfund, Münzen.

Introduction

Since its discovery in 1846 the Celtic treasure of Óhuta (Fig. 1) – now Miskolc Bükkszentlászló, County of Borsod-Abaúj-Zemplén[1] – has been split into several collections for bureaucratic reasons. Although the coins have been mentioned or published in many studies and essays, there has so far not been a critical study and analysis of the whole assemblage, despite it being the largest find in the county of Borsod-Abaúj-Zemplén and even though its coins and gold artefacts are of great importance to Late La Tène research in the Carpathian Basin.

The published literature contains contradictory statements and errors concerning the circumstances of discovery, although Gabriel Seidl, keeper of the Royal and Imperial Cabinet of Coins and Antiquities in Vienna (*Wiener k. k. Münz- und Antikencabinett*) immediately published a short report in the monarchy's chronicle of discoveries. It runs as follows: "O Hutta (Borsod County), 1846. – In April 1846 a treasure consisting of a gold finger ring weighing 4 ducats, a gold chain weighing 7/8 ducat and 35 barbarian silver coins, of a total value of 49 fl. 43 fr. C. M was found."[2] Unfortunately later researchers have overlooked these few lines and this has resulted in contradictory indications concerning the date of the discovery and its contents. First, the discovery was erroneously dated to 1849,[3] but this was corrected by Karl Pink.[4] Only the coins were mentioned, and 376 coins were supposed to have been found.[5] This figure comes from the catalogue of the Windisch-Grätz collection published in 1900. Two tetradrachms are mentioned there; they were probably bought at auction for the collection. A photograph also appears in the catalogue alongside the detailed descriptions.[6] A footnote contains the following observation: "found in the 1840s, consisted of 376 items."[7] Unfortunately the series of errors about the composition of the find was compounded by Pink, even though he published the first photographs of the coins held in the Vienna Coin Cabinet.[8] He attributed to the treasure such coins as a tetradrachm of Serbian "rider with helmet

1. Hellebrandt 1992, 37.

2. Seidl 1847, 969: „O Hutta (Borsoder Komitat). 1846. – Daselbst wurde im April 1846 ein Schatz, bestehend aus einem goldenen Fingerringe im Gewichte von 4 Dukaten, einem 7/8 Dukaten schweren Goldkettchen und 35 barbarischen Silbermünzen, zusammen im Schätzungswerthe von 49 fl. 43 fr. C. M., gefunden."

3. Gohl 1904a, 4. – Leszih 1908, 98.

4. Pink 1939, 86.

5. Gohl 1904a, 4. – Leszih 1908, 98. – Pink 1939, 86. – Dembski 1998, 243. – Kolníková 2004, 37–38. – Kolníková, Kolník 2004, 15. One contribution mentions 367 pieces, which could have been a typographic error: see Ringer 1996, 71.

6. Fiala 1900, 205 and Pl. III/2282.

7. Fiala 1900, 205.

8. Pink 1939.

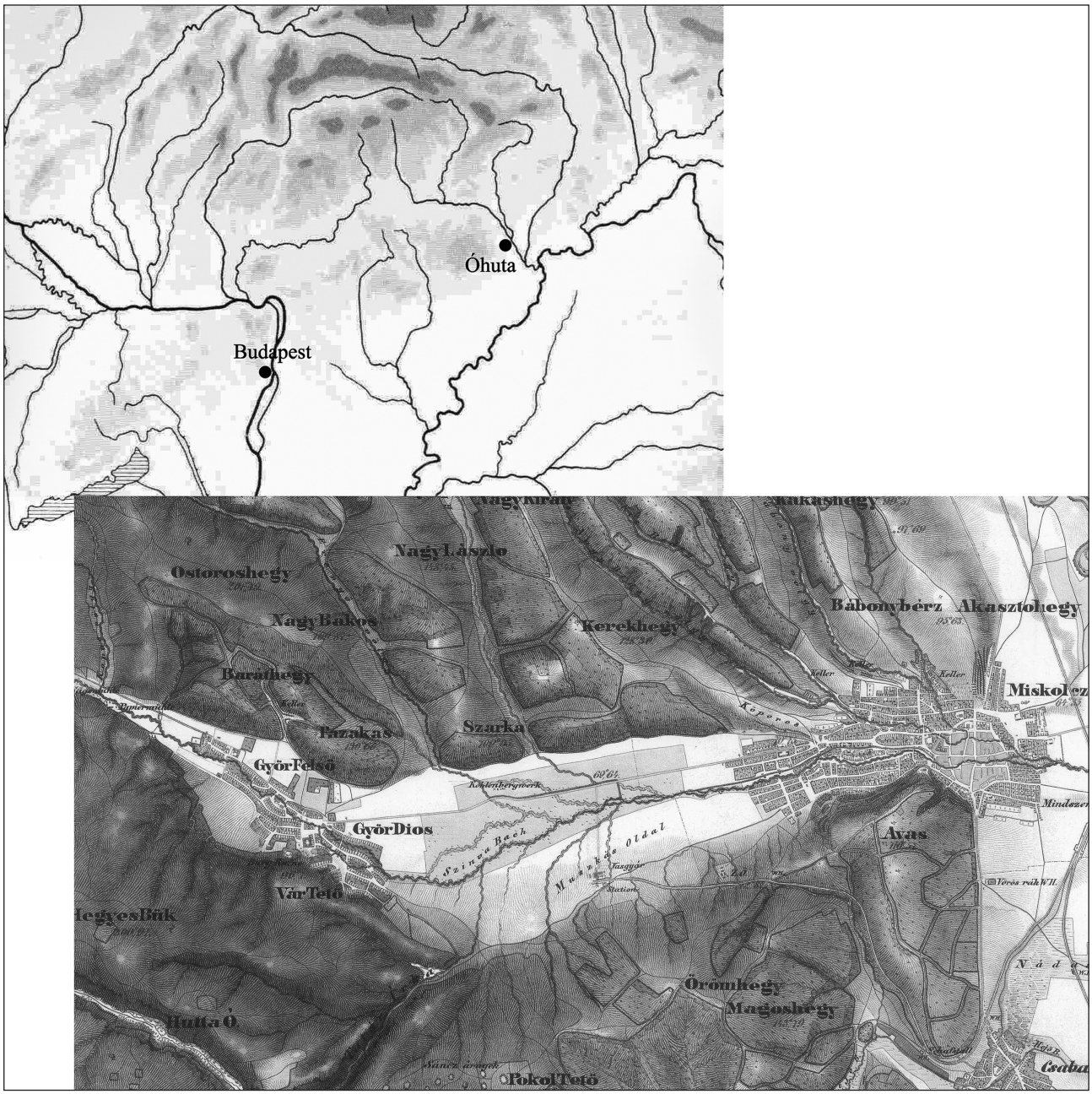

Fig. 1. Location of Óhuta in the Carpathian Basin; second military survey map.

strap" (*Helmschleifreiter*) type, two coins presented by Dessewffy, and a coin published by Leszih, which clearly do not belong to the Óhuta assemblage.[9] The errors made by Karl Pink were accepted uncritically,[10] although Günther Dembski had published the items from Óhuta in his catalogue of the Celtic coins held in the Kunsthistorisches Museum (Art History Museum) in Vienna.[11] The two gold artefacts found with the coins ended up, according to G. Seidl, in the Royal and Imperial Cabinet of Coins and Antiquities in Vienna; they were described by Joseph Arneth among the precious items kept in the cabinet as "no. 281: ring made of three loops and small chain made of four links. 4 14/16 ducats in gold. Found in Hungary in Borsod County at O-Hutta. 1846."[12] Today they are no longer kept in the collections of the Kunsthistorisches Museum; because they date to the Iron Age, they were

9. Pink 1939, 62, 87, 142.
10. Kolníková 2004, 38. – Kolníková, Kolník 2004, 17.
11. Dembski 1998, 243.
12. Arneth 1850, 40, No. 281: „Nr. 281 Ring aus drei Reifen und Kettchen aus vier Gliedern. 4 14/16 Ducaten in Gold. Gefunden in Ungarn im Borsoder Komitate zu O-Hutta. 1846."

transferred in the first half of the 20th century to the Naturhistorisches Museum (Natural History Museum).[13]

Sources

In addition to the indications given by G. Seidl, a few sources concerning the discovery at Óhuta, which have so far not been consulted, are available. We have officialdom to thank for it. Most records, notices and reports of treasure found in Hungary are kept in the archives of the Hungarian Chamber and the office of Grand Chamberlain (*Kammerale and Oberstkämmeramt*). Unfortunately some documents kept in the Hungarian National Archive were in part discarded in the 19th century. There are however some records of the Óhuta find that have survived in the archive of the Palatine of Hungary, Archduke Joseph, curated by the Hungarian National Museum. The coin administration of Pest sent the finds to the National Museum in November 1846 so that it could choose the items it wanted for its collection.[14] According to the account of the curator János Érdy/Lutzenbacher, the museum wanted to keep the finger ring, the gold chain and three coins.[15] Érdy states that these coins were a coin with laurel-wreathed head, a coin with horse and boss obverse (*Buckelavers*), and a slightly smaller coin with a head on the obverse and an animal on the reverse.[16] At the same time the *Hofkammer* followed its legally-binding procedures; a report dated Mai 1847 has survived. There it was noted that the Hungarian National Museum and the University of Pest could select the pieces that would be of use to them. The finds nevertheless went to Vienna, and through the *Oberstkämmeramt*, to the Royal and Imperial Cabinet of Coins and Antiquities,[17] where their value was assessed. The head of the cabinet, Joseph Arneth, recommended that two gold artefacts and eight coins be purchased for 32 fr C. M., and these were indeed bought. The other items were released for further disposal, whereby – on the indication of Arneth – "fair consideration would be given, according to the wishes of the University of Pest and the Hungarian National Museum, to their wish to retain the pieces withdrawn by them."[18] Although the National Museum had the right of preemption of treasures found on Hungarian soil, the most important finds ended up in the Royal and Imperial Cabinet of Coins and Antiquities in Vienna.[19] A report of the National Museum indicates that the *Hofkammer* wanted to leave only one coin with boss obverse (*Buckelavers*) to the museum.[20] The later records are missing but it is highly likely that the tetradrachm became part of the collections of the National Museum as a piece that was not inventoried. Unfortunately there are no indications about the items bought by the University of Pest.

The rest of the finds were auctioned off by the *Hofkammer* and that is how the two tetradrachms could have ended up in the Windisch-Grätz collection.[21] In his book on the Celtic coins of the Kunsthistorisches Museum Günther Dembski published only six coins with Óhuta given as the provenance.[22] This might have been a consequence of the inventory of the Coin Cabinet carried out in the 1870s, when possibly only the labels in the coin boxes were catalogued. Fortunately there is a further important source of information about the Celtic coins in the Kunsthistorisches Museum that had so far not been consulted. The coins were examined in 1873 by Joseph Hampel, keeper at the Hungarian National Museum. He described and drew most pieces in his notebook, where he noted the old accession numbers (Fig. 2).[23] For the Óhuta finds only the drachm with Pallas Athene was drawn, the other were just briefly noted. Hampel's list refers to a tetradrachm, an imitation of a tetradrachm of Philip II, the other coins being of *Buckelavers* type (Hampel also illustrated the dots above the horse). The records and the notes made by Hampel allow us to count the tetradrachm of "rider with helmet strap" (*Helmschleifreiter*) type published by Pink among the Óhuta finds.[24]

13. Inv. nos. 80998 and 80999.
14. Hungarian National Archive (Budapest) Archive of Palatine Joseph N 30, records 2406/1846.
15. Hungarian National Archive (Budapest) Archive of Palatine Joseph N 30 records, 2406/1846, transcript of letter N 31, records 1105/1847.
16. Hungarian National Archive (Budapest) Archive of Palatine Joseph N 30 records 2406/1846, transcript of letter N 31, records 1105/1847.
17. *Haus-, Hof- und Staatsarchiv* (now Austrian State Archives), Vienna, *Hofkammerarchiv*, *Ungarische Kamerale* Kt. 1011 (1847–1848), records 13304/381.
18. Haus-, Hof- und Staatsarchiv (now Austrian State Archives), Vienna, Oberstkämmeramt B 54/1 Kt. 330 (1847), records 1555: „auf den Wunsch der Pesther Universität und des ungarischen National-Museums, die von denselben ausgeschiedenen Stücke zurückbehalten zu dürfen, billige Rücksicht genommen werden wolle."
19. Hungarian National Archive (Budapest) Archive of Palatine Joseph N 31, records 1105/1847.
20. Hungarian National Archive (Budapest) Archive of Palatine Joseph N 31, records 1105/1847.
21. Fiala 1900, 205 and Pl. III/2282.
22. Dembski 1998, 243.
23. Hungarian National Library (Budapest) Duod. Hung. 54, fascicule 13, 66.
24. Pink 1939, 62, 142.

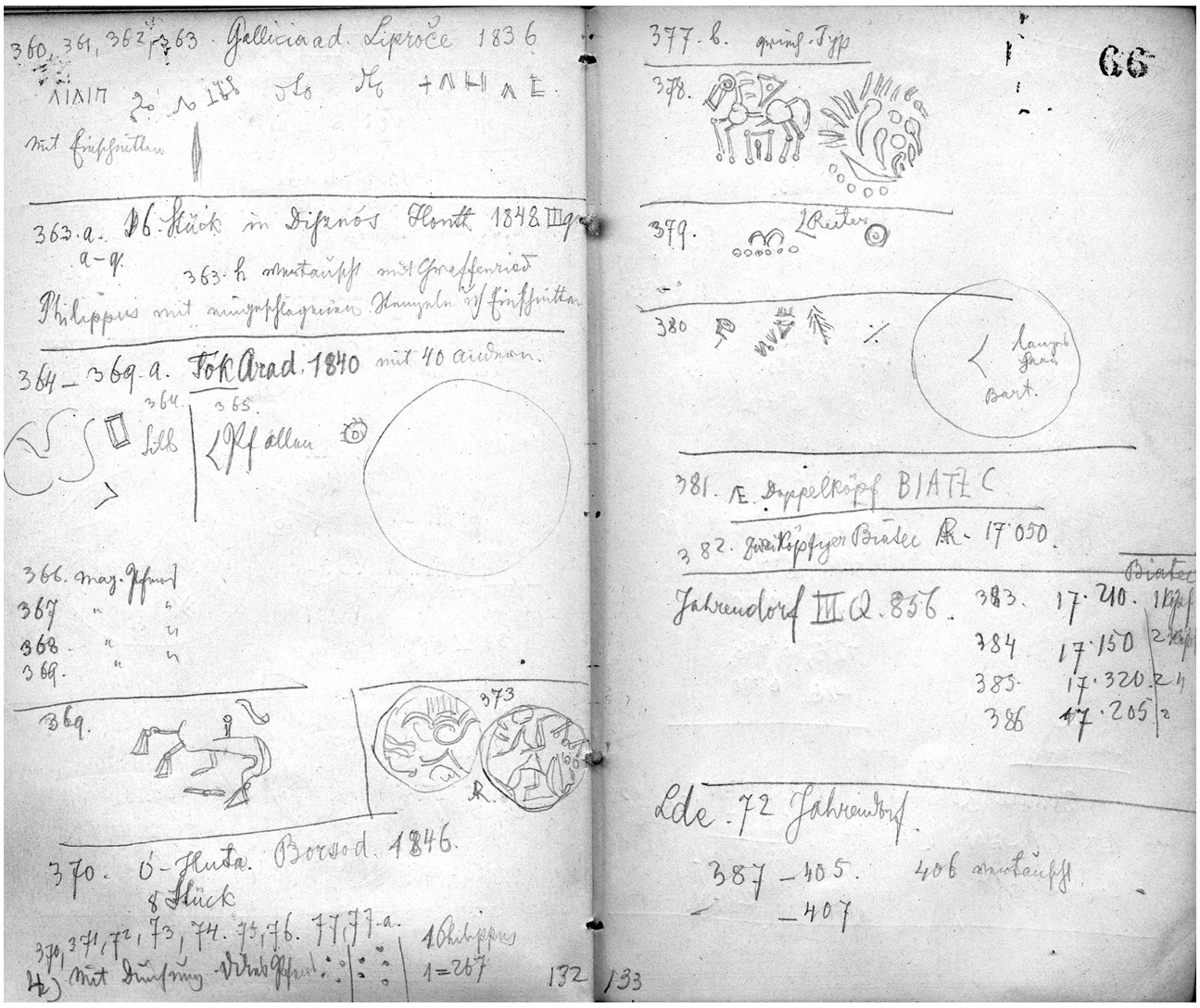

Fig. 2. Note on the Óhuta coins in Joseph Hampel's notebook (Hungarian National Library, Budapest).

Catalogue

I have followed the indications provided by Dembski[25] while compiling this catalogue. Although he only published six coins from Óhuta, a further coin – the tetradrachm No. 3 – may belong to Óhuta, on the basis of its identity. A coin of *Buckelavers* type, among finds that come from sites of unknown provenance, could also have belonged to the assemblage. The items that ended up in the Windisch-Grätz collection are described according to the indications given by Eduard Fiala.[26]

1. Obverse: with boss (*Buckelavers)*, boss has flat edges.
Reverse: stylised horse with legs ending in isosceles triangles. The rider is represented by five dots. The coin is struck very lightly.
Weight: 11.73 g. Inv. no.: Vienna Kunsthistorisches Museum (hereafter KHM) Coin Cabinet 27.068[27] (Fig. 3/1).

2. As No. 1.
Weight: 11.52 g. Inv. no.: KHM Coin Cabinet 27.071[28] (Fig. 3/2).

3. Obverse: as No. 1.
Reverse: stylised horse with legs ending in isosceles triangles. The coin is struck very lightly.

25. Dembski 1998.
26. Fiala 1900, 205 and Pl. III/2282.
27. Dembski 1998, 108, No. 1288.
28. Dembski 1998, 108, No. 1289.

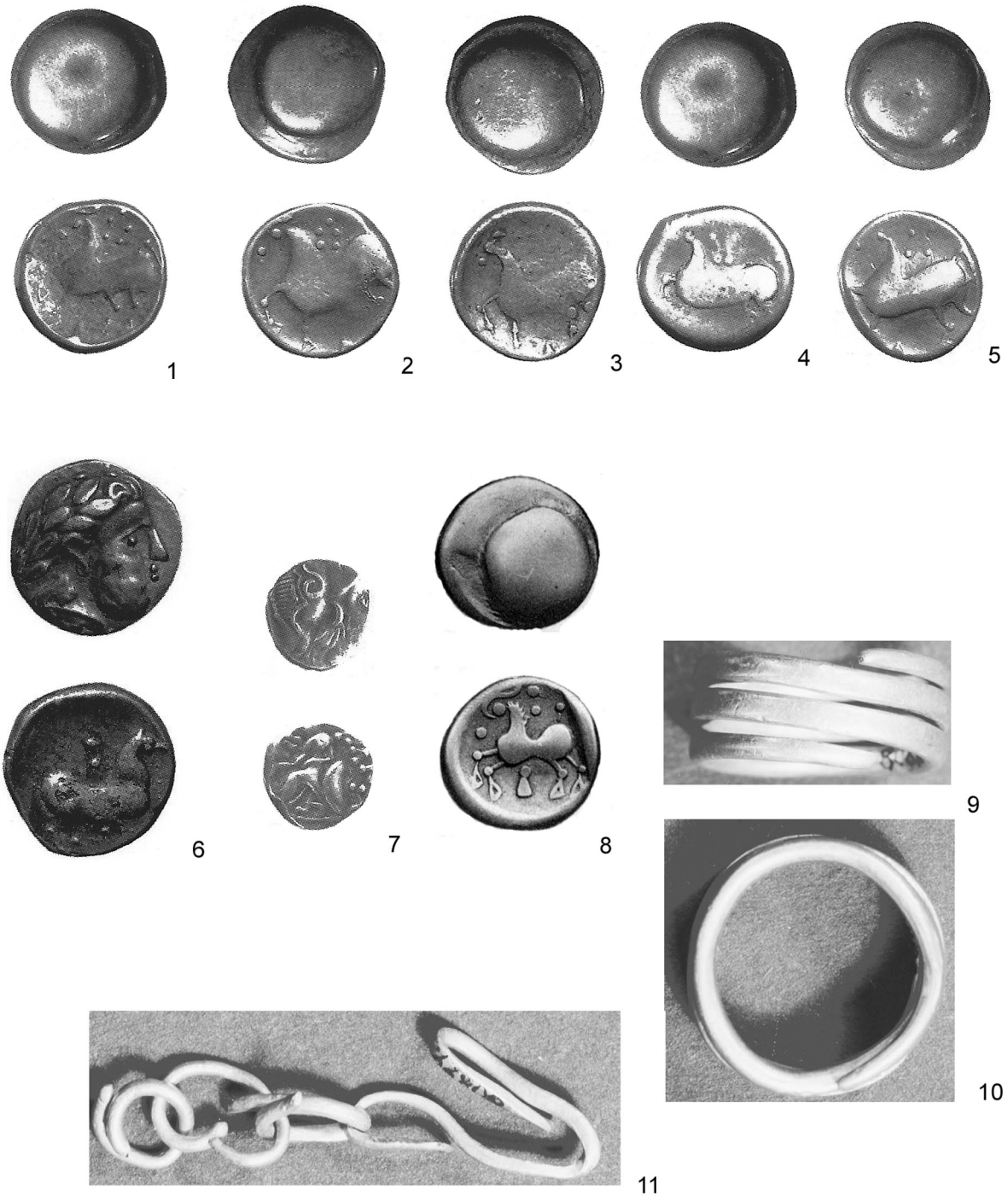

Fig. 3. – 1–7. The coins in the collection of the Kunsthistorisches Museum, Vienna (Dembski 1998). – 8. Tetradrachm in the Windisch-Grätz collection (Fiala 1900, Pl. III/2882). – 9–10. Spiral ring. – 11. Gold chain (Nos. 9–11: Naturhistorisches Museum, Vienna).

Weight: 11.15 g. Inv. no.: KHM Coin Cabinet 26.879[29] (Fig. 3/3).

4. Obverse: as No. 3.
Reverse: stylised horse with legs ending in isosceles triangles. The rider is much stylised. The coin is struck very lightly.
Weight: 11.31 g. Inv. no.: KHM Coin Cabinet 27.070[30] (Fig. 3/4).

5. As No. 1, but the rider is represented by four dots.
Weight: 11.04 g. Inv. no.: KHM Coin Cabinet 27.067[31] (Fig. 3/5).

6. Obverse: bearded head of Zeus looking right with turban-like laurel wreath, long locks at the nape of the neck, pelleted edge. Ear in the shape of a paragraph symbol and lips represented by dots.
Reverse: rider, looking right, represented by two dots; no legend.
Weight: 11.52 g. Inv. no.: KHM Coin Cabinet 27.066[32] (Fig. 3/6).

7. Obverse: helmeted head of Pallas Athene.
Reverse: Pallas Athene sitting, left, legend partly surviving.
Weight: 4.27 g. Inv. no.: KHM Coin Cabinet 27.069[33] (Fig. 3/7).

8. As No. 5.
Weight: 10.3 g?[34] (Fig. 3/8).

9. Obverse: boss with flat edge.
Reverse: illegible.
Weight: 11 g?[35]

10. Gold spiral ring made of gold wire with pointed ends.
Weight: 14 g. Former Inv. no.: KHM VII B 205; current Inv. no.: Vienna Naturhistorisches Museum (NHM) 80898 (Fig. 3/9, 10).

11. Gold chain consisting of four links. Three are made of wire circular in section, whose ends are cut. The fourth link is longer and made of a wire hammered flat whose ends end in a point and are bent back. It is highly likely that the links did not belong to a longer chain but were joined together at a later stage.
Weight: 3 g. Former Inv. no.: KHM VII B 205, current Inv. no.: NHM 80899 (Fig. 3/11).

29. Dembski 1998, 108, No. 1290.
30. Dembski 1998, 108, No. 1295.
31. Dembski 1998, 108, No. 1296.
32. Dembski 1998, 109, No. 1326.
33. Dembski 1998, 116, No. 1493.
34. Fiala 1900, 205 and Pl. III/2882.
35. Fiala 1900, 205.

Analysis

The Óhuta treasure is unique among the Celtic assemblages from Hungary in terms of its composition: it contains at least three different types of coins as well as gold objects. The majority of the coins that have survived or have been described belong to a type with boss obverse (*Buckelavers*). This type is characterised by a smooth concave (bossed) obverse and a reverse featuring a stylised rider. It was Ödön Gohl who first studied this type of coin in the context of Hoard I at Vel'ký Bysterec which he examined in 1879.[36] Different types were present in that hoard, including shell-shaped staters and a small silver coin which ended up in the collection assembled by Miklós Kubinyi. In addition to eleven gold and sixteen silver coins, there was also gold jewellery.[37] The boss-shaped obverse of this type of coin has several parallels in Celtic coinage; in addition to Gaulish issues the boss-like shape of the obverse is also characteristic of Boian gold coinage.[38] Éva Kolniková was the first to propose a typological classification of these coins by size, weight and imagery.[39] Coins with a weight of 12–10 g and sharp contours on the reverse belong to the earliest types. The quality of the representations and the weight deteriorated during the 1st century BC. The Óhuta find plays an important part in understanding the distribution of the type. Indeed it was proposed in the first half of the 20th century to situate the mint and spread of this coinage in northern Hungary (in the counties of Nógrád and Borsod-Abaúj-Zemplén).[40] Taking the current distribution into consideration, the main concentration of this coinage is located in the northwestern and northern areas of Slovakia, especially in the valleys of the rivers Waag and Hernád and in the central area of the Púchov culture (Fig. 4).[41]

As Gohl has noted, the coins under consideration are also found in the west, in Bohemia, for example at Jevíčko and Stradonice.[42] In the east they are distributed in the western Ukrainian part of the Carpathian Basin and the central part of Borsod County. Their presence in these regions should be seen as representing trade and economic links rather than ethnic connections. The number of boss obverse (*Buckelavers*) coins found in hoards rarely exceeds 100 pieces, and they are associated with other types as well

36. Gohl 1900.
37. Gohl 1900, 225. – Kolníková 2003, 235.
38. Pink 1939, 86–88.
39. Kolníková 2004.
40. Gohl 1904a, 5. – Pink 1939, 86, 131.
41. Kolníková 2003, 231–238. – Kolníková, Kolník 2004, 33. – Pieta 2010, 269–270.
42. Gohl 1904a, 5.

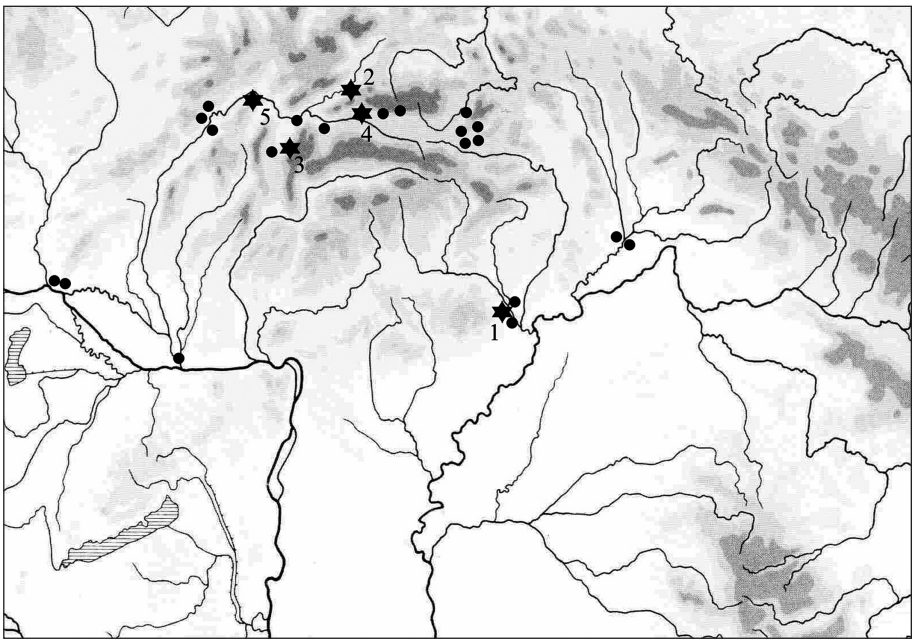

Fig. 4. Distribution of boss obverse (*Buckelavers*) type coins in the Carpathian Basin (after Kolniková 2004 with additions by the author). – 1. Óhuta. – 2. Vel'ký Bysterec. – 3. Folkušová. – 4. Likavka. – 5. Žilina-Rochovica.

as other items, such as jewellery. At Folkušová 74 out of the 77 tetradrachms were of *Buckelavers* type,[43] while at Vel'ký Bysterec I the assemblage contained, in addition to the boss obverse coins, shell-shaped staters, a small drachm of the Zemplin type, and gold jewellery.[44] The second hoard discovered at Vel'ký Bysterec in 1985 was also mixed. In addition to 7 tetradrachms of *Buckelavers* type, 21 silver coins of the Spiš type, a coin of the Zemplin type, and a denarius of Augustus were recovered.[45] At Likavka the assemblage contained in a pottery vessel consisted of 11 coins of *Buckelavers* type and a piece of silver wire.[46] A hoard was discovered in 1999, inserted into the Iron Age rampart of Rochovica in the vicinity of Žilina. It consisted of 60 tetradrachms of *Buckelavers* type and four tetradrachms of the Divinka type, found together with two bronze fibulae of the Almgren 67 type.[47] The Rochovica find plays an important part in the dating of the type of coin under consideration. It was first dated to the end of the 2nd century BC, owing to the association of a drachm with the head of Pallas Athene with boss obverse coins at Óhuta.[48] But the Almgren 67 fibula at Rochovica, a type of fibula current in La Tène D2 and Eggers B1a,[49] suggests that the coinage largely belongs to the 1st century BC.[50]

The distribution pattern led Gohl to propose that the coins could have been issued by the Cotini.[51] There is no doubt that the majority of the coins were found in the centre of the area occupied by the Púchov culture, which has been associated with the Cotini, known to Tacitus as having emerged from Germania.[52] A few isolated finds are also known from the County of Borsod-Abaúj-Zemplén in Hungary.[53] Several Celtic coins were recovered from the Iron Age fortification of Nagysánc in Óhuta.[54] Unfortunately, since we do not have any indications as to the exact location of the treasure found in 1846, it is impossible to ascertain whether it was deposited within or without the fortified site.[55]

The published tetradrachms of Óhuta kept in the Kunsthistorisches Museum and in the Windisch-Grätz collection differ in several aspects that are significant for the dating of the coins. A photograph in the catalogue of the collection assembled by Prince Ernst zu Windisch-Grätz suggests that one of the coins was an early type,[56] because of the sharp outlines on its reverse and its weight

43. Kolníková 2003, 235.
44. Kolníková 2003, 235. – Kolníková, Kolník 2004, 10–11.
45. Kolníková 2003, 235. – Kolníková, Kolník 2004, 10–13.
46. Kolníková 2003, 236. – Kolníková, Kolník 2004, 15.
47. Kolníková, Kolník 2004.
48. Kolníková 2004, 38.
49. Kolníková, Kolník 2004, 1–10.
50. Kolníková, Kolník 2004, 33.
51. Gohl 1900, 229. – Gohl 1904a, 4. – cf. Pink 1939, 86.
52. Kolníková 2003, 231–238. – Kolníková, Kolník 2004, 33. – Pieta 2010, 269–270.
53. Leszih 1904, 15.
54. Leszih 1904, 15. – Hellebrandt 1992, 37–49.
55. Leszih 1904, 15. – Hellebrandt 1992, 37–49.
56. Fiala 1900, 205 and Pl. III/2882.

of 10.3 g. The other coins are more worn, and many are missing the four or five dots that should appear above the back of the horse. But their weight suggests that they too belong to the early type, i.e. they were struck towards the end of the 2nd century BC and the first half of the 1st century BC.[57]

The Óhuta assemblage in the Royal and Imperial Cabinet of Coins and Antiquities in Vienna contains a tetradrachm that is not of *Buckelavers* type; it is a tetradrachm with a bearded head of Zeus looking right, his ear in the shape of a paragraph symbol, and wearing a turban-like laurel wreath on the obverse. The reverse has a simplified representation of a rider, where the rider is represented by just two dots. This image corresponds to the later variant of the Audoleon type of coin. As for the prototype for the image on the obverse, Pink considered it to be of the Hont type.[58] He thought that the design on the reverse could refer to the Paeonian king Audoleon, which is supported by the inscription ΑΥΔΩΛΕΟΝΤΟΣ that appears on earlier issues and by the representation of the horse.[59] The main concentration of Audoleon type coins is located in the Hungarian counties of Nógrád and Heves.[60] The dating of the early issues is given by the vessel in which the finds from Egyházasdengeleg were contained, which suggests that Audoleon type coins were current in the middle third of the 3rd century BC.[61] The many variants indicate that the type was minted over long periods, which is also attested by the fact that the imagery becomes increasingly illegible and the weight decreases.[62] The inscriptions are missing from the later pieces and the representation of the head gradually deteriorates. The lines of dots and the ear in the shape of a paragraph symbol are characteristic elements of the Óhuta example, as is the image of the rider reduced to two dots.[63] Similar coins occur as isolated finds in the areas of the County of Borsod-Abaúj-Zemplén,[64] in Óhuta[65] and Miskolc.[66]

The Royal and Imperial Cabinet of Coins and Antiquities in Vienna also kept a drachm, in addition to the tetradrachms described. This drachm has a head of Pallas Athene looking right on the obverse and an image of Pallas Athene sitting and looking left on the reverse. This coin belongs to a series of drachms characterised by mixed imagery on the obverse and reverse.[67] Drachms and tetradrachms of Alexander the Great, Philip III, Archidaeus and imitations with indistinct or blurred representations and/or inscriptions are widely spread over southern Romania and northern Bulgaria.[68] Examples with a reverse similar to that of Óhuta are also known with a representation of the head of Lysimachus.[69] Pink published several such coins with a sitting Zeus on the reverse,[70] although they were found in Pecica in Romania and in the northern Hungarian Szajkó Valley.[71] Drachms with Pallas Athene were minted in Thracian regions located between the Danube and the Balkans from the second half or end of the 2nd century BC onwards. They must have reached Óhuta from such Thracian regions.[72]

Two gold artefacts – a spiral ring and a piece of chain consisting of four links – belong to the Óhuta assemblage. These were overlooked by both archaeologists and numismatists. To date, it is only at Vel'ký Bysterec I that gold jewellery is otherwise known to be present in coin hoards.[73] The gold objects are all the more remarkable that they document a Celtic "hunger for gold" which is well known from ancient written sources but rarely documented archaeologically,[74] if we except a few richly furnished princely graves. Gold jewellery is rare even among the Eastern Celts, even though gold shell-shaped staters started being minted in the course of the 1st century BC.[75]

Parallels for the spiral ring are known among both the Celts and the Germani. Such spiral rings are characterised by a round wire and flattened or pointed ends. Although some rings appear as early as in Eggers' period A,[76] the type becomes common among the Germani in the 3rd century BC. The majority of finds have been recovered in northern Europe.[77] Spiral rings still occur in the Iron Age during La Tène C (2nd century BC). They are concentrated in Switzerland, mostly between Bern and Lake Thun;[78] they accompany rich female burials, for example in the "Thalacker" female burial at Horgen near Zurich.[79] A further ring is known from Manching, found

57. Pink 1939, 88. – Kolníková 2004.
58. Torbágyi 1997, 9.
59. Pink 1939, 93. – Torbágyi 1997, 8–9.
60. Pink 1939, 94. – Torbágyi 1997, 9.
61. Szabó 1983, 53–54. – Torbágyi 1997, 9.
62. Torbágyi 1997, 9.
63. Pink 1939, 94.
64. Torbágyi 1997, 9.
65. Leszih 1908, 98, Fig. 3.
66. Leszih 1908, 98.
67. Preda 1973, 325–343.
68. Pink 1939, 116–119. – Preda 1973, 328–332 and 448.
69. Pink 1939, 116–118.
70. Pink 1939, 119. – Preda 1973, 328–331.
71. Pink 1939, 119.
72. Preda 1973, 328 and 448. – Kolníková, Kolník 2004, 17 and 33.
73. Kolníková 2003, 235. – Kolníková, Kolník 2004, 10–11.
74. Szabó 1999, 103–105.
75. Szabó 1999, 105.
76. Beckmann 1969, 42–43.
77. Beckmann 1969, 42–43.
78. Furger, Müller 1991, 128. – Müller 1991, 76.
79. Furger, Müller 1991, 123 and 128.

in what may have been a mass grave.[80] The high copper and silver content of this ring distinguishes it from other gold rings with a high gold content.[81] So far no Iron Age spiral gold rings have been recorded in the Carpathian Basin, although spiral bronze bracelets have been found, for example in the fortification of Nagysánc in Óhuta.[82] The gold finger ring may have been used as currency or for barter or exchange against coins. The possibility that such rings were used as ring money has been considered, but the examples examined by Beckmann are characterised by ends that have been cut off.[83]

The four-link chain may have had a similar purpose, although there have so far been no similar finds in the Iron Age assemblages of the Carpathian Basin.[84] It is possible that the individual links, which consist of small round or flat pieces of wire, were only linked together just before being sent to Vienna. A gold ring weighing 6.6 g found in the Gyertyán Valley some 15 km from Óhuta is similar to one of the round-wire links; Gohl assumed that it had been used as ring money.[85]

The Óhuta treasure differs from other such finds in that it contained gold "ring money" in addition to 35 coins of various types. It most probably represents the buried possessions of a trader or craftsman. Although no records of the precise location of this treasure survive, the Iron Age fortification of Nagysánc – which, like the Slovakian fortified sites of the time, could have been a trading and production centre[86] – provides a context for the Óhuta treasure.[87] Excavation campaigns at Nagysánc in 1930 and 1958 uncovered the remains of a late Celtic settlement,[88] and its assemblages included a tetradrachm of *Buckelavers* type.[89]

The coin types represented at Óhuta lie outside their main zones of distribution.[90] The drachm with the head of Pallas Athene originated in Thrace, and this suggests that its owner perhaps had contacts with the southeast. The growth of a coin-based economy in the Late Iron Age appears to go hand in hand with trade in raw materials.[91] It is possible that the gold ring money was used in exchange for goods. The coin types considered here circulated in the 1st century BC,[92] and hence the treasure must be dated to La Tène D.[93] Whether the treasure was deposited as a consequence of Dacian incursions or the advance of people belonging to the Przeworsk culture into the northeastern Carpathian Basin[94] cannot be answered. The analysis of the Óhuta find presented here nevertheless adds to our understanding of Late Iron Age contacts in the Carpathian Basin.

80. Lange 1983, 526 and Pl. 62, B 114.
81. Lange 1983, 247.
82. Hellebrandt 1992, 72–73, Pl. 5.
83. Beckmann 1969, 43.
84. Pieta 2010, 168.
85. Gohl 1904a, Figs. 6 and 12. – Gohl 1904b, 45. – Leszih 1908, 99.
86. Kolníková 2003.
87. Hellebrandt 1992, 37–49 and 56. – Ringer 1996, 71.
88. Hellebrandt 1992, 37–49.
89. Hellebrandt 1992, 49.
90. Kolníková, Kolník 2004, 52. – Pieta 2010, 50 and Map 19/A.
91. Pieta 2010, 262–263.
92. Kolníková 2004, 38.
93. Kolníková, Kolník 2004, 17–19 and 33.
94. Pieta 2010, 51.

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The Sunken-Featured Buildings of the Middle La Tène Period: Problems and Reconstructions

Lőrinc Timár

Abstract: This contribution discusses a typical form of La Tène architecture, buildings with sunken floors (pithouses). They were spread all over the Carpathian Basin, not only in the Early Iron Age, but also in the Middle Ages and in modern times. The interpretation of their remains from the Middle La Tène period remains problematic. The function of the sunken-featured buildings and their internal organisation within the structure of the settlement are closely linked.

Keywords: La Tène period, settlements, architecture, sunken-featured buildings, *Grubenhäuser*.

Zusammenfassung: In diesem Beitrag wird über die typische latènezeitliche Architekturform der Grubenhütten diskutiert. Sie waren im ganzen Karpatenbecken nicht nur in der jüngeren Eisenzeit, sondern auch im Mittelalter und in der Neuzeit verbreitet. Die Interpretation ihrer Überreste aus der mittleren Latènezeit ist immer noch problematisch, die Funktion und ihre interne Organisation innerhalb der Struktur der Siedlung sind eng miteinander verbunden.

Schlüsselwörter: Latènezeit, Siedlungen, Architektur, eingetiefte Bauten, *Grubenhäuser*.

Sunken-featured buildings are often encountered at Iron-Age sites, but they also appear in nearly all archaeological periods. Although they seem to have had a very simple structure, understanding their remains is far from easy. The nature of the archaeological evidence is rather unusual. Generally, none of their structural parts survive, and only negative imprints are recovered; there are only a few cases where some parts of the superstructure are preserved. Wooden and stone constructions partially survive in Slovenia,[1] and a number of timber frame building members have stayed intact in the wet conditions at Liptovská Mara in northern Slovakia.[2] Remains of very complex constructions came to light in Dürrnberg-Ramsautal,[3] where Horizons 2b, 3a and 3b can be related to La Tène B2/C1. The most important of all surviving remains is Building 1-01 at Roseldorf, Lower Austria, where the lower part of a wooden plank wall was preserved in situ.[4]

The study of this building type (often referred to as pithouse or *Grubenhaus*) can only lead to meaningful results, if its context is considered in a broader perspective and comparative data from other historic periods and regions are used. The present paper deals with general problems concerning Middle La Tène architecture (3rd – 2nd centuries BC) and regional differences in settlement structures.[5]

The first category of problems relates to the settlement structure. There are relatively few publications showing plans of entire settlements. Due to the lack of funds, older research projects provided little opportunity to excavate large surface areas. In recent years, however, rescue excavations for motorway constructions have revealed huge sites in Hungary. Unfortunately, only a very small part of them has been published so far, and most of what is known about them is limited to excavation reports.[6]

According to previous interpretations, the sunken-featured buildings were simple huts with roofs resting on the ground (Fig. 1). If we accept this view, we must suppose that these buildings were used for storage and some special activities only, and that the population which used them was living in other types of houses. However, it is evident that settlement patterns in Hungary differ

1. Češnar 2007.

2. Pieta 2008, 91, Fig. 39.

3. Lobisser 2005, 23.

4. Holzer 2009, 18, Fig. A-11–A-14.

5. This paper is presented here with the help of the OTKA Hungarian Research Fund.

6. E.g. Belényesy, Honti, Kiss 2007.

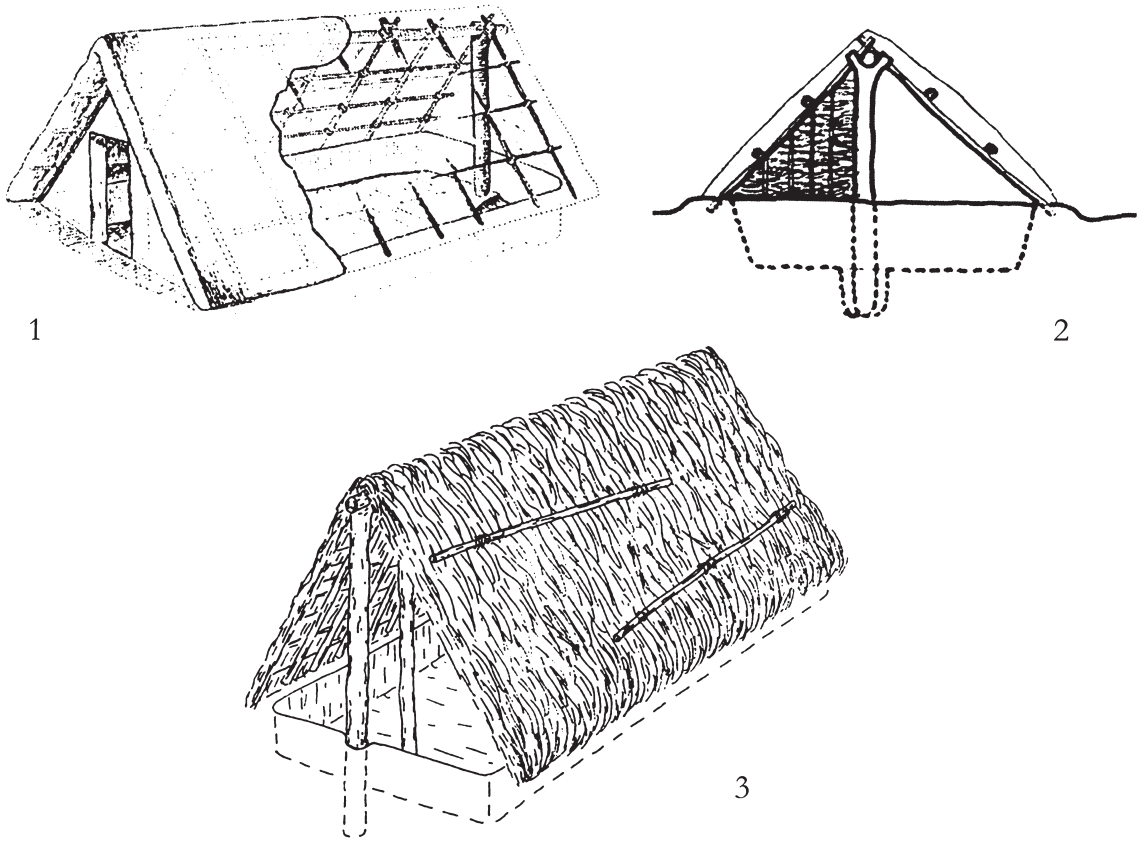

Fig. 1. Typical reconstructions of sunken-featured buildings. – 1. Acsa (after Patay 1959). – 2. Lébény (after Pusztai 1967). – 3. Szelevény (after Cseh 2003).

from other regions and that only a few traces of surface buildings exist. If we assume that the sunken-featured buildings were destined to fulfil subordinate functions only, we cannot imagine what kind of structure these settlements had. Therefore, the understanding of the remains is very important.

If one compares the site plans from Slovakia, Austria and Hungary, the differences become apparent. The organisation of settlements, the disposition of the buildings, is not the same. The most obvious difference is in the proportion of postholes, which indicate surface buildings (timber-framed), and large pits indicating sunken-featured buildings. Figure 2 shows three settlements of the same size: Michelndorf in Austria, Nitra in Slovakia, and Sajópetri in northeastern Hungary. On the plan of Michelndorf there are many postholes. It seems very likely that there was a kind of orthogonal order in settlement structure, as suggested for some settlements, notably Göttlesbrunn.[7] This cannot be said for the La Tène settlements in Hungary.

Nitra and Sajópetri obviously lack surface buildings. In eastern Austria, the numerous postholes in the settlement plans are easily attributed to wooden-framed houses.[8] In Hungary, the lack of surface buildings and the dominance of pithouses appear to be a special feature of the Carpathian Basin (although there are few complete settlement plans published).

Figure 3 shows the details of the central zones of Prellenkirchen in Austria and Sajópetri, Hungary. At the latter site, there were only a couple of postholes which could be associated with a surface building (Feature no. 98.17), so the rest of the pits belonged either to sunken-featured houses or simple storage pits. We also have to note that there is no trace of an orthogonal system in Sajópetri; the buildings were apparently arranged in loose groups, similar to Nitra, Ordacsehi (Fig. 4) or Polgár.[9] On the contrary, in Prellenkirchen there are many postholes which could have belonged to surface buildings.

7. Karl 1996, 99, Fig. 45.

8. E.g. Karl 1996, 95. – Ramsl 1998, 15, Figs. 5, 6 and 7. – Kalser 2008, 33, Fig. 41.

9. Szabó et al. 2008, 185, Fig. 2.

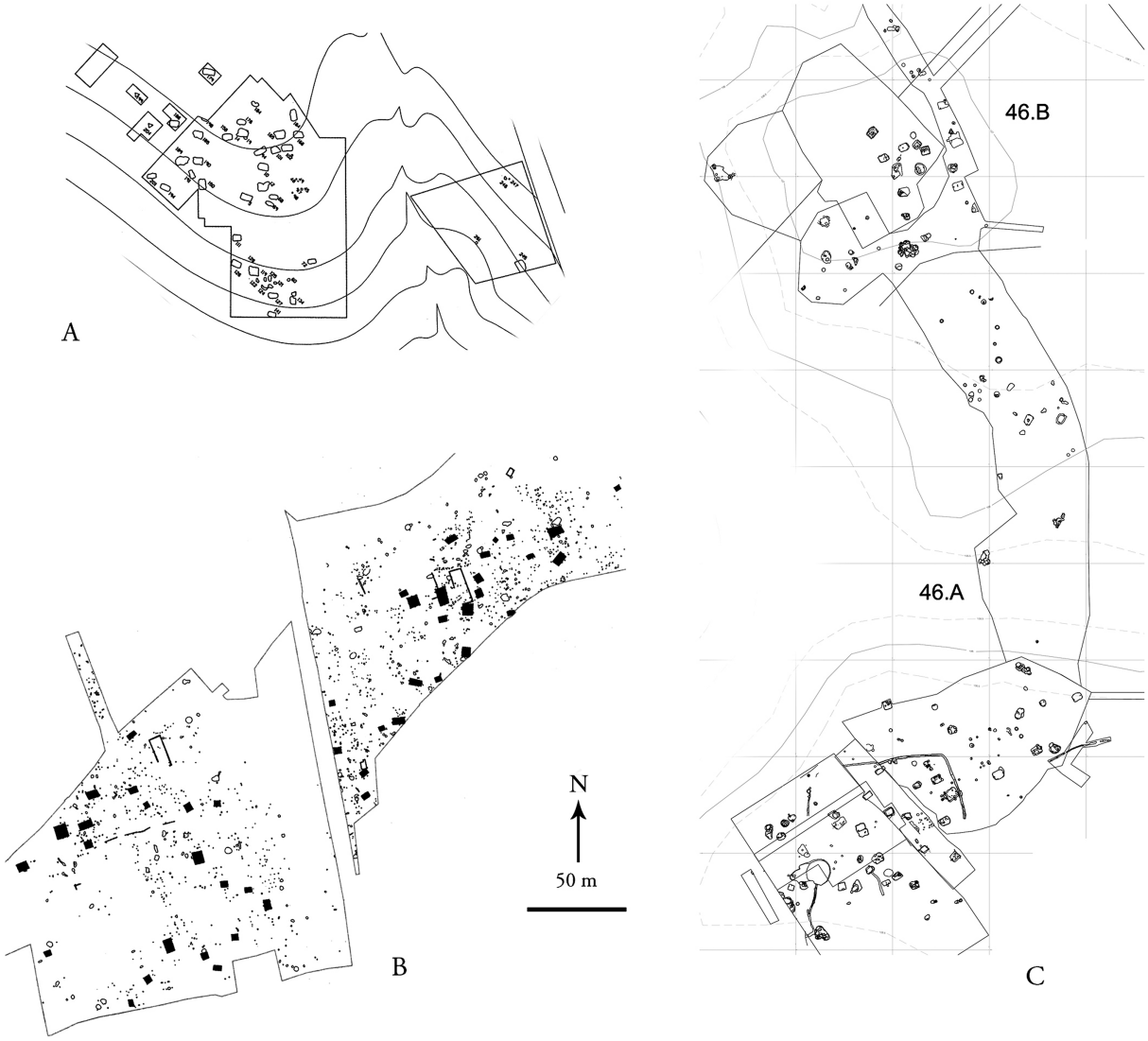

Fig. 2. The comparison of (A) Nitra (after Březinová 2002), (B) Michelndorf (after Kalser 2008) and (C) Sajópetri (after Szabó 2007). All plans to the same scale and orientation (north to the top).

It would be too simple an explanation to assume that surface buildings – even though there is no trace of them – existed along with pithouses. If we suppose that one settlement unit of a couple of buildings housed an extended family (which can be derived from the fact that the settlements have only a few groups of buildings), there should have been a rather large surface building. From the vernacular architecture of modern times we know of some building types which have no foundation except large flat stones,[10] but those buildings do not seem widespread; and compared to the simpler sunken-featured buildings their structure is very complex. In Sajópetri, only building 98.14 was a surface building[11] out of a total of 41 buildings. We do not know how many buildings were in use at the same time nor do we have data on the demography of the settlement. We know, however, that about 90 graves were found in the cemetery (Sajópetri – Homoki Szőlőskertek) that belonged to the settlement.[12] It seems to be certain that there were no surface buildings that could house 20–30 people, but the pithouses could have easily accommodated such a number of inhabitants.

10. Timár 2007, 203.

11. Timár et al. 2007, 86.

12. Preliminary report: Szabó, Guillaumet, Vitali 2005. – Szabó, Guillaumet, Vitali 2006.

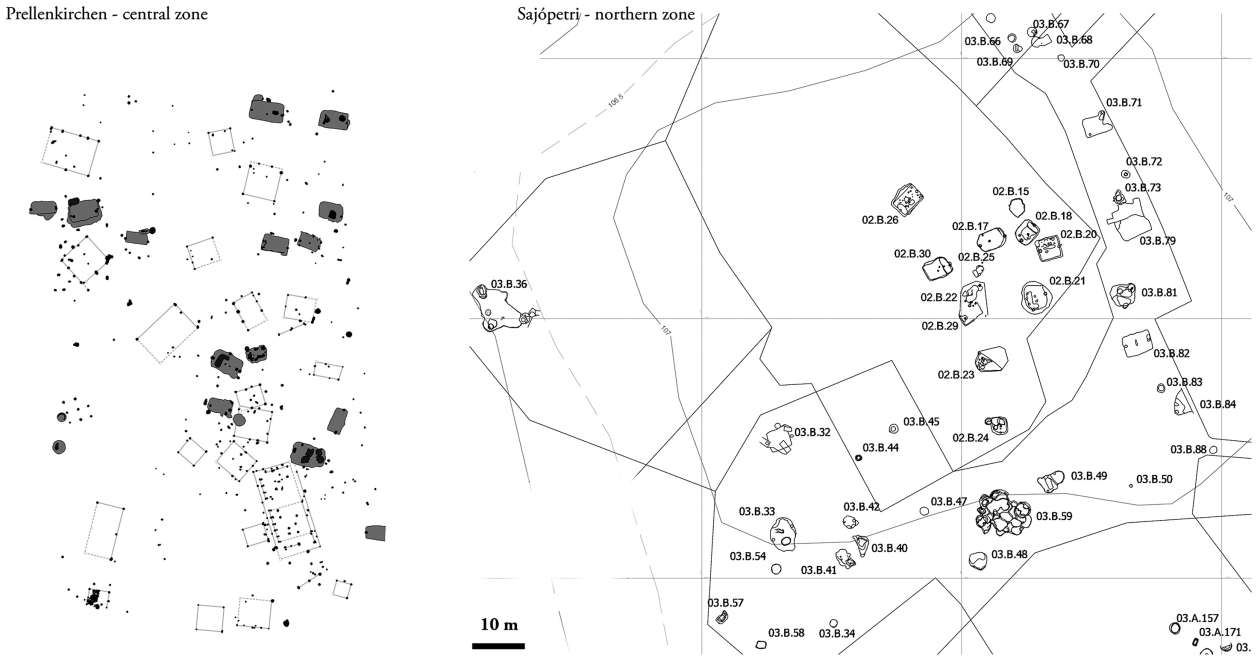

Fig. 3. The central zones of Prellenkirchen (after Karwowski 2010,) and Sajópetri (after Szabó 2007).

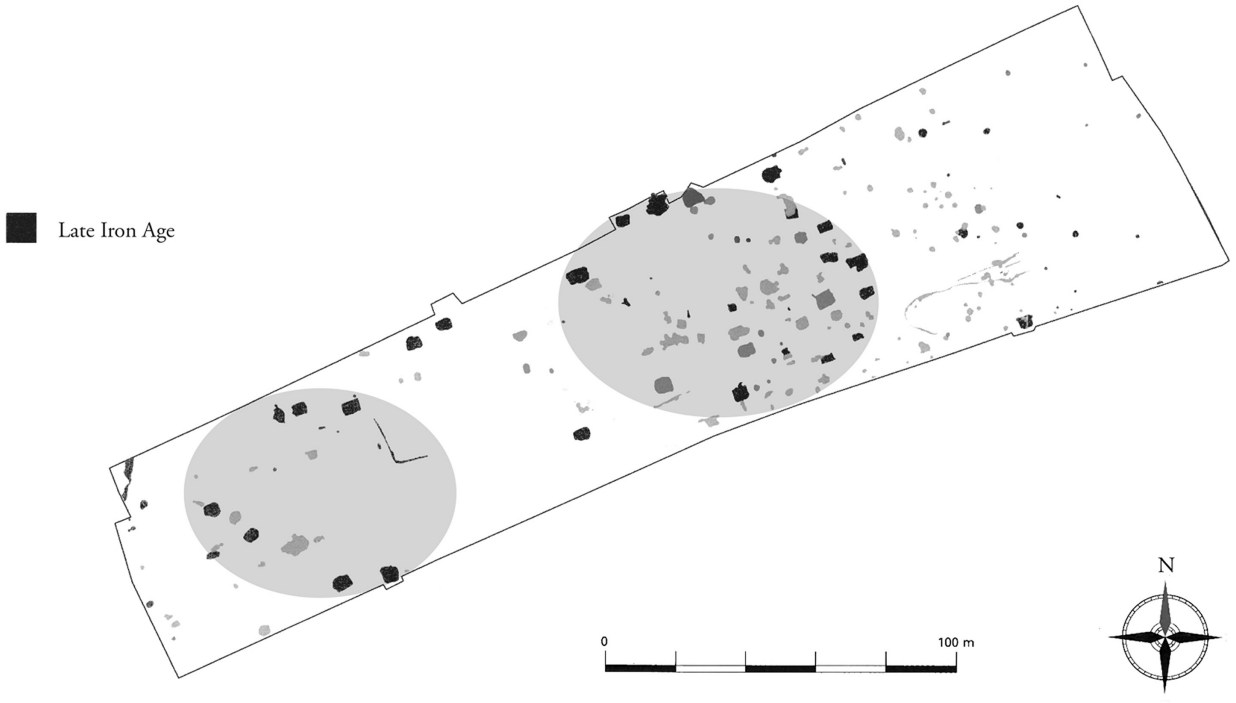

Fig. 4. Ordacsehi at Lake Balaton, building groups (after Gallina, Molnár, Somogyi 2007).

It seems to be right to assume that the groups of buildings formed a functional unit (*Siedlungseinheit*),[13] although we do not know how many of them belonged to a household because we do not know the function(s) of the buildings. Obviously the buildings had different functions to some extent,[14] which should be reflected in the layout of their floor plans and in their structural details.

The pits of the sunken-featured houses were studied in the past,[15] but the suggested categories were based on very obscure criteria. Apparently, the system established by Jiří Meduna groups the archaeological phenomena only, and these groups do not refer to the supposed structure of the houses. It is also problematic that the details of the pithouses do not always survive, and therefore the existence or non-existence of a corner posthole does not seem to be a decisive factor. Jiří Waldhauser's proposed functional classification[16] is too rigid and does not accept working in the living quarters, which is still a common behaviour in preindustrial societies.

A far more reliable method is to analyse the pits and their patterns and draw lessons from the results. All that is needed is a larger number of site plans and archaeological data, processed to the same standards, in order to allow comparison. Hopefully, the number of full site publications will increase in the near future.

The logical consequence of the previous paragraph is that we must try to identify functions and building types, as well as find a link between them. At this point we come to the problem of understanding the remains. In the older literature, as shown in Figure 1, sunken-featured buildings are reconstructed as a very simple gable roof placed over the hollow in the ground, with the roof members resting on the ground.[17] This building type seems to be a reflection of the so-called shepherd's hut in the vernacular architecture. After some consideration it should become clear that this extremely simple building-type does not seem to be a permanent dwelling, for many reasons. There are structural, geometrical and ergonomic problems.

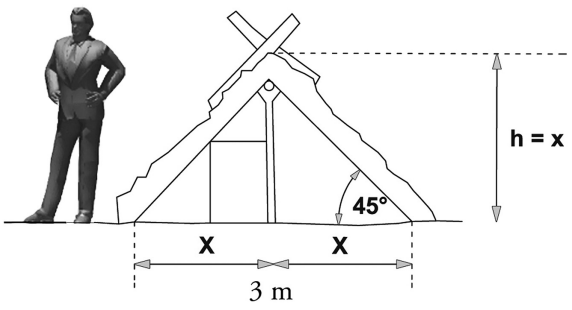

Fig. 5. The principal problems: the proportions of a typical sunken-featured building.

The most serious weakness of the older reconstructions is related to the height of the pithouses. The surviving pits are usually 3 m wide and 5 m long. Even if we tried to reconstruct them with a relatively steep roof, there will be a problem with the size of the door and the ceiling height inside the house. Figure 5 illustrates this problem: the ridge height would be about 1.5 m in this case, but it would be impossible to imagine any opening on the gable which is larger than 50 × 100 cm. Therefore, we have to reject this type of reconstruction.[18] Some scholars suggest that the pits were only the internal parts of larger buildings[19] and that the houses were some metres larger in all directions than the hollow in the ground. Although this concept has followers and some of its versions are quite logical, we have seen absolutely no proof that such houses existed in the La Tène period. We have to note that some houses were so close to each other in Sajópetri that there is no way their structure could have extended beyond the edge of their pits.

In some case the structural details show clearly that the limit of the pit in the ground corresponds to a wall (see below). Whenever there was the opportunity to observe floor levels on the bottom of the pits, the outline of the floor clearly followed the side of the pit. This has one very important consequence: the pithouses had rounded corners. According to the reconstructions by some scholars the sunken-featured buildings were log cabins placed into the pits.[20] These ideas have to be rejected in our case, as the shape of rectangular cabins with corners at right angles would not fit to the rounded corners of the pits.

13. For further details and suggestions, see Karl 1996, 95–97.

14. Some activities, such as living and storage or working, could have been done in the same building, as Iron Age houses seem not to be dedicated to one function only (Timár 2009).

15. Meduna 1980, 46–61. – Horváth 1987. – Waldhauser 1993, 347–348. – Rybová, Drda 1994, 36–51. – Karl 1996, 52, Fig. 10.

16. Waldhauser 1993, 257. – We have to note that the Celts were probably not too aware of separating working areas from living areas, see also Karl 1996, 68–69.

17. Timár 2007.

18. For more information on this problem, see Timár 2009. – Timár 2011.

19. Sedlačkova 1990, 37. – Waldhauser 1993, 356, Fig. 170/2–3. – For medieval buildings: Sabján 1999.

20. E.g. Karl 1996, 70, Fig. 14. – Tankó 2004, 106, Fig. 2/4.

Antique Sources and Archaeological Parallels

When we try to find a new way for the understanding of the remains, first of all we have to examine written sources from Antiquity. Unfortunately, only a few of them refer to Celtic buildings: we have Caesar's descriptions of the Celtic settlement types and the house urns of the Latobicus tribe.[21] The house urns represent a number of building models within a span of many centuries, and many of them are well detailed.[22] With proper precautions, we can use them as a structural reference.[23]

There are, however, many other depictions and texts which provide us with more information on such small-scale houses. The observations of Strabo, Tacitus and Vitruvius[24] give us some details about buildings similar to the sunken-featured houses of the La Tène period, and the depictions – mainly from the Roman Age – show interesting structures. Among the many examples, we have to mention the column of Trajan and the mosaic of the *domus Laberii*.[25] The latter example shows the African landscape of its time, with a shepherd's hut in the foreground. It should be quite clear to the trained eye that this building is a shelter only, built by the shepherds who had to stay in the fields. It has no gable walls and seems to be a temporary construction.

The pithouses and simple dwellings in the vernacular architecture of the 19th century are significantly different and there is the same problem with using them; they are only structural parallels, and cannot provide a direct reference.[26]

The Analysis of the Archaeological Evidence

What is the best way, then, to understand the remains? As was mentioned beforehand, the sunken-featured buildings are negative archaeological structures only; they are nothing but the imprints of their superstructure. It seems to be a common problem that they are hard to find in humus layers, especially on rescue excavations, during which the surface is scraped and the humus removed, and the traces of the buildings appear as dark stains on the surface. In the case of Ráckeresztúr[27] in Fejér County, Hungary, a new method was introduced. The position of the buildings could be seen on the aerial photos, which made it possible to start the excavation from the surface at the exact position over the remains. If one had started

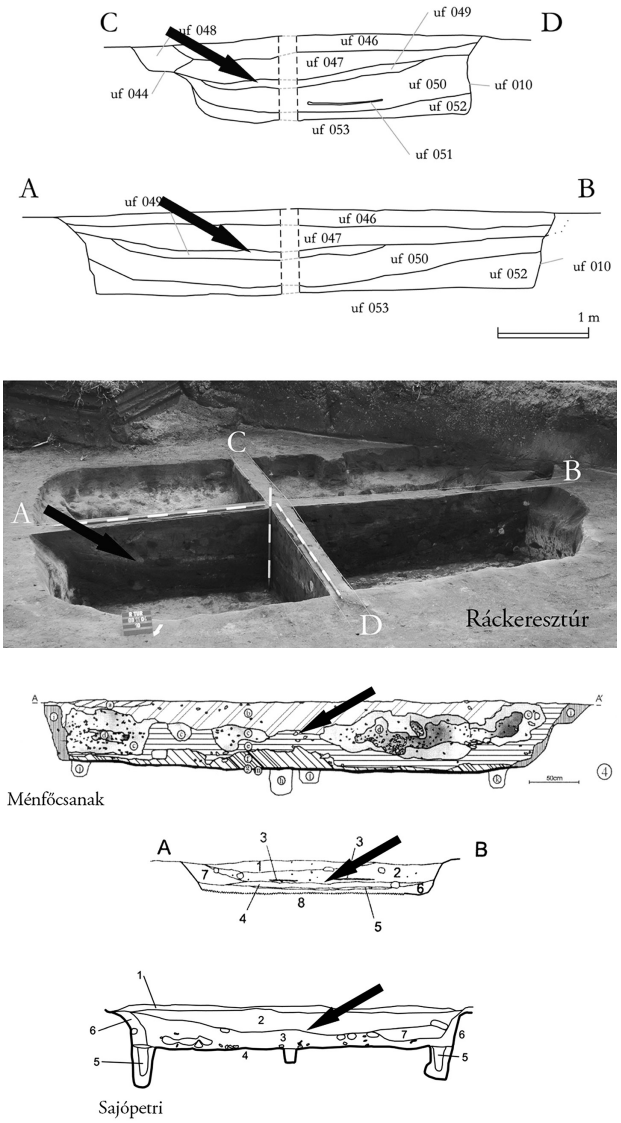

Fig. 6. Stratigraphy of the sunken-featured buildings: Ráckeresztúr No. 10, Ménfőcsanak-Szeles No. 31 (after Tankó 2004) and Sajópetri (Structures 02.A.93 and 98.7).

with surface scraping, there would have been no chance to record the longitudinal bank on the southern side of the pit. Usually there is no possibility to record the sections of such archaeological structures, but in this case, the section wall had a considerable height and showed many interesting details. In the middle of the backfill, there was a thin yellow layer visible, dividing the contents of the pit into an upper and lower group of layers. Fortunately, there are some parallels showing the same phenomenon (Fig. 6).

We believe that this thin yellow layer results from the degradation of the pit's sides, and that the layers under this are the remains of the structural parts of the house, whilst the layers above it are likely sediments from outside

21. Petru 1971.
22. See Behn 1924. – Sabatini 2007.
23. Timár 2010, 265–267.
24. Vitruvius II, 1. – Strabo IV, 4, 3. – Tacitus, Germania XVI.
25. Ben Abed 2006, 98, Fig. 5/10.
26. Timár 2007.
27. An excavation of Zoltán Czajlik, see Timár 2010.

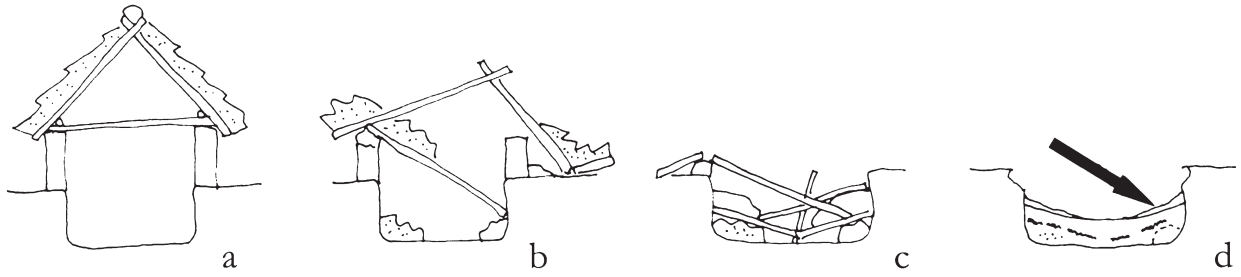

Fig. 7. The process of degradation. – a: Abandoned building. – b: Collapsed roof. – c: Collapsed superstructure. – d: The collapse of the pit's sides, which is indicated by the thin yellow layer in the middle of the section.

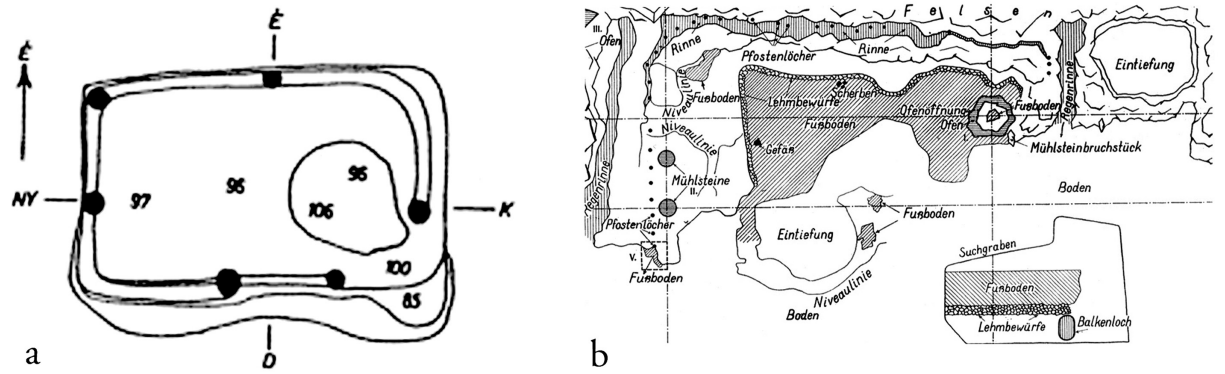

Fig. 8. Visible wall structures: Balatonmagyaród-Homoki dűlő (after Horváth 1987) and Gellérthegy No. 16 (after Bónis 1969).

the pit. Figure 7 shows the process of degradation. After the collapse of such a building, the roof members do not remain in an oblique position. Their disarray resembles a pile of Mikado pick-up sticks, which makes recording impossible as their material is mainly decomposed.[28]

Structural Types

In order to reconstruct the superstructure, an attempt has to be made to understand the load-bearing structure of the buildings. According to Olivier Buchsenschutz, the art of the house urns clearly reflects three principal structural systems. As the sunken-featured buildings of La Tène B/C show no grid of postholes, it is very likely that they belonged to Buchenschutz's third type,[29] in which the roof is supported by the surrounding wall. As mentioned above, there is strong archaeological evidence for this structure, thus we have to accept it. In this building type there is no standardised location for the entrance, which could explain why the entrance is found in the corner of some sunken-featured buildings in those few instances where traces of the wall construction are visible. In a Late Iron Age building on Budapest-Gellérthegy, the holes of a wattle-and-daub wall's vertical stakes were cut into the bedrock (Fig. 8/b), resembling the wall structure shown in Figure 9. Similar traces were observed at Balatonmagyaród, where the wattle wall was associated with a trench (Fig. 8/a). The entrance is in the corner and the corners are filleted, which means the superstructure was no log cabin with real corners.

A clean functional separation is impossible, as the buildings could have had many functions at the same time.[30] Activities like making shale (sapropelite) or bone objects could have taken place in any type of building, as these do not need any special installations. It is there-

28. For more details, see Timár 2011.
29. Buchsenschutz 2005, 56, Fig. 4.
30. For a very complex functional typology, see Waldhauser 1993, 257.

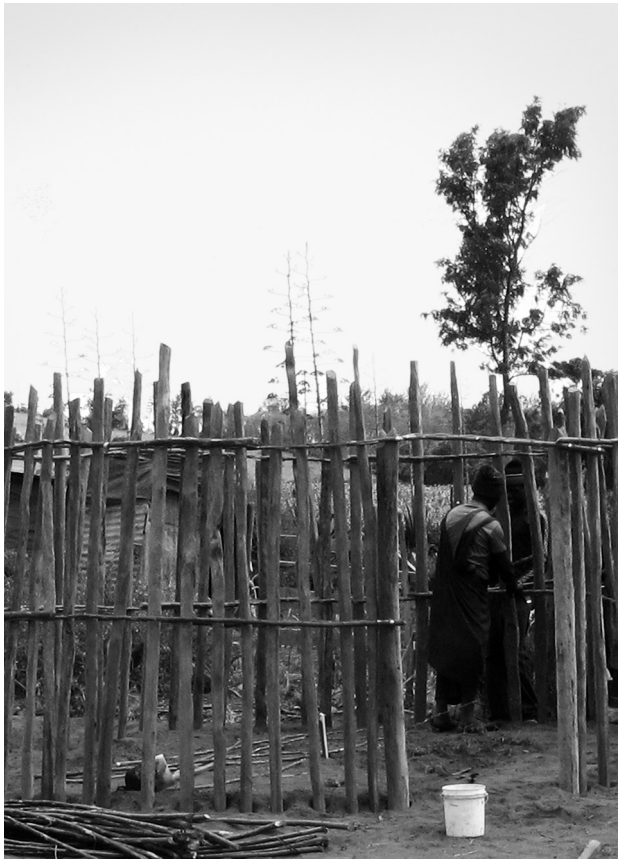

Fig. 9. Wall of vertical stakes under construction in Tanzania (Photo: Péter Timár).

fore no surprise that the traces of such activities may come from dwellings with no special features,[31] rendering complex classifications useless (see above). However, other activities, such as the working of glass, ceramics or metals, require a furnace.

The Question of Residential Function

Some scientists believe that such sunken-featured houses were too small for habitation.[32] This brings us back to the problem of function: in order to identify a dwelling, one must pay attention to the size of the building. Since all we can rely on is the floor plan, it should provide sufficient space for four members of a nuclear family. As we have enough data on the body heights of the inhabitants of Sajópetri, we can speculate how four people and a set of grave finds fit into the smallest pit contour.[33] If the buildings had proper walls, even the smallest ones could have provided shelter for a nuclear family and its household items. Our example shown here is based on the finds of Sajópetri (Fig. 10).

The Workshop Type and its Reconstruction

As mentioned earlier, context is the key to understanding the function. A special building type was identified in Sajópetri, which showed some evidence for having functioned as a workshop.[34] This building has many parallels in the Carpathian Basin (Fig. 11), some of which also had traces of craft activities. The most prominent feature of these structures is the longitudinal bank along their southern side. The interpretation of this bank is uncertain, but we can assume that it was a structure for sitting, and it seems very likely that it was also located close to the entrance. Although some types of craftsmanship do not require direct light (for example blacksmithing, because the glowing colours are visible in dim, low-light conditions only), we believe that the southern side of this building type was partially open.

Weights for vertical looms are known from at least two houses, one of which was excavated at Polgár (Fig. 11/2).[35] A Hallstatt period urn from Sopron shows the use of such a vertical loom (Fig. 12), which means the ceiling height of such a house should have allowed people to stand upright inside. Therefore, the workshop type almost certainly had walls above ground level. Looms and textiles are sensitive to rain and, although we have no information on the established working practices, their use was presumably limited to particular times when no other activity could be performed.

When attempting to picture all possible roof shapes of such a building, not too many possibilities open up; and many of them are impractical.[36] In the workshop from Sajópetri (02.A.93) there were traces of ironworking and three pottery kilns were attached to its corner. Ironworking would not be possible without being able to stand upright inside the house, which serves as another proof that those buildings had real walls. There are only six possible roof variants for such a building, and the use of computer simulations allows us to reconstruct them based on the geometry of the hollow in the ground. We find this method very practical, as there is no danger of drawing something that is not based on archaeological evidence. The only problem is whether we should reconstruct all similar buildings in the same manner.

Fortunately, there exists a way for evaluating our reconstructions. We have already mentioned the depictions from Classical Antiquity, ancient texts and the hut urns. Even if they belong in different periods or parts of Europe, we do not believe they represent something totally different from the Late Iron Age houses. With

31. E.g. Guillaumet 1996, 42.
32. Romsauer 1993, 15.
33. Timár 2010, 271.
34. Timár 2007.
35. Szabó et al. 2008, 187–188.
36. See Timár 2011.

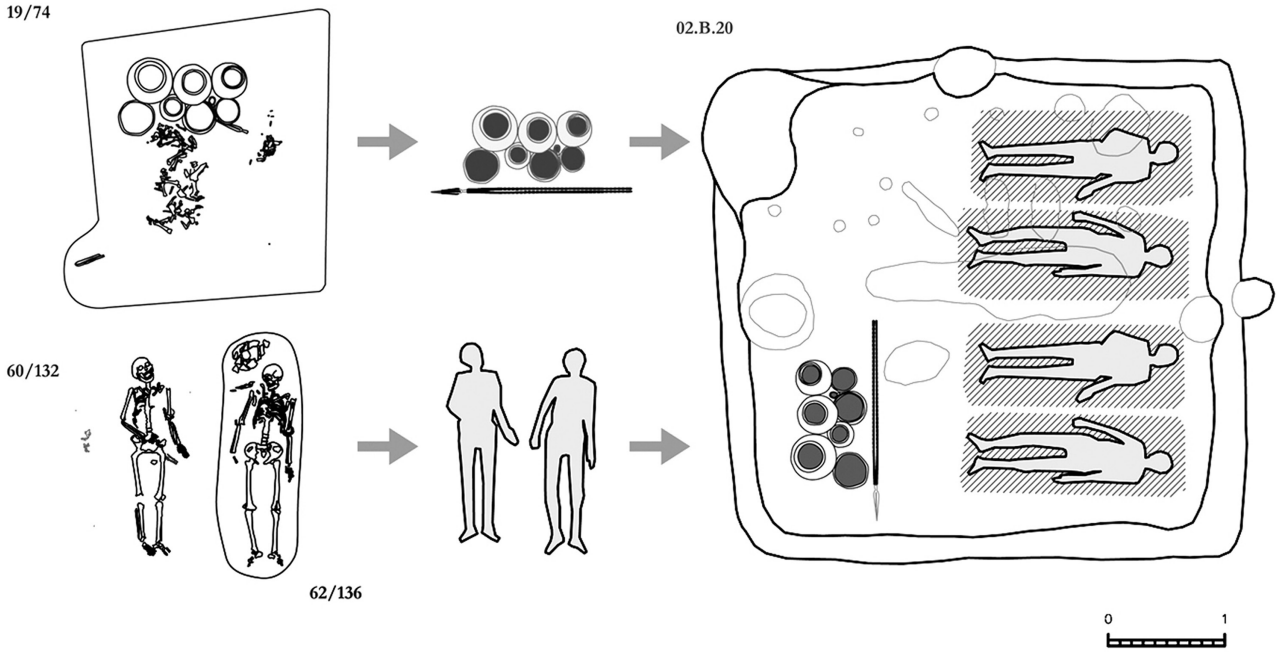

Fig. 10. House and graves from Sajópetri.

some caution, we can use them as structural references, as shown in the example below.

When attempting to reconstruct the building at Rákeresztúr we set the interior height to approx. 180 cm in accordance with the depiction on the urn from Sopron. Though a gable roof would be the most likely construction, there is a problem with this interpretation: it looks structurally unsound because the ridge walls are curved (Fig. 13). The urn of Königsaue in Germany (from the 7th century BC) shows a more credible solution: a steep hipped roof with soft edges (Fig. 14). This type of roof can easily be made with thin members, its ridge supported by two posts in the axis of the building. There is no need for tie beams inside, because the thin roof members are placed densely and the forces are low and well distributed. We believe that the structure of such a house was similar to the one shown in Figure 15.

We should now return to the problem of the settlement structure. We were able to identify a building type, but the function of the remaining structures is still obscure. As mentioned above, the settlement layout could provide the key to the understanding of the units, but this again raises other problems.

Obviously, the Celts of Liptovská Mara would have faced great difficulties had they attempted to build a lowland-type sunken-featured house; equally, there were no stones at Sajópetri for constructing a mountain-type house. Houses were built using available resources. But can we also suppose that the people who built them led the same way of life? The answer to that question is not easy.

A logical explanation would be that the Celtic tribes adapted to different environmental conditions, more or less like Native Americans, who had specific buildings adapted to their customary ways of life and climate: tipis for the inhabitants of the Plains, wigwams and longhouses for the tribes of the Eastern Woodlands and mud-brick Pueblo houses for the people of the Southwest.[37] There is only one major problem with this idea: even if there were "lowlanders" and "highlanders" in La Tène period central Europe, this is not reflected in the finds, which are quite uniform. This problem should be further explored in the future. In the somewhat unlikely case that we will one day be able to make a distinction between the settlements of the Taurisci and those of other tribes, then we will have the opportunity to study their houses in this context. Currently, all what we can do is investigate the settlements and prepare detailed statistics of the sunken-featured buildings.

37. We have to note that Native American building constructions can also be used as parallels. They are well studied (some types of them since the 16th century) and a number of very good photographs exist. – For more details, see Nabokov, Easton 1989.

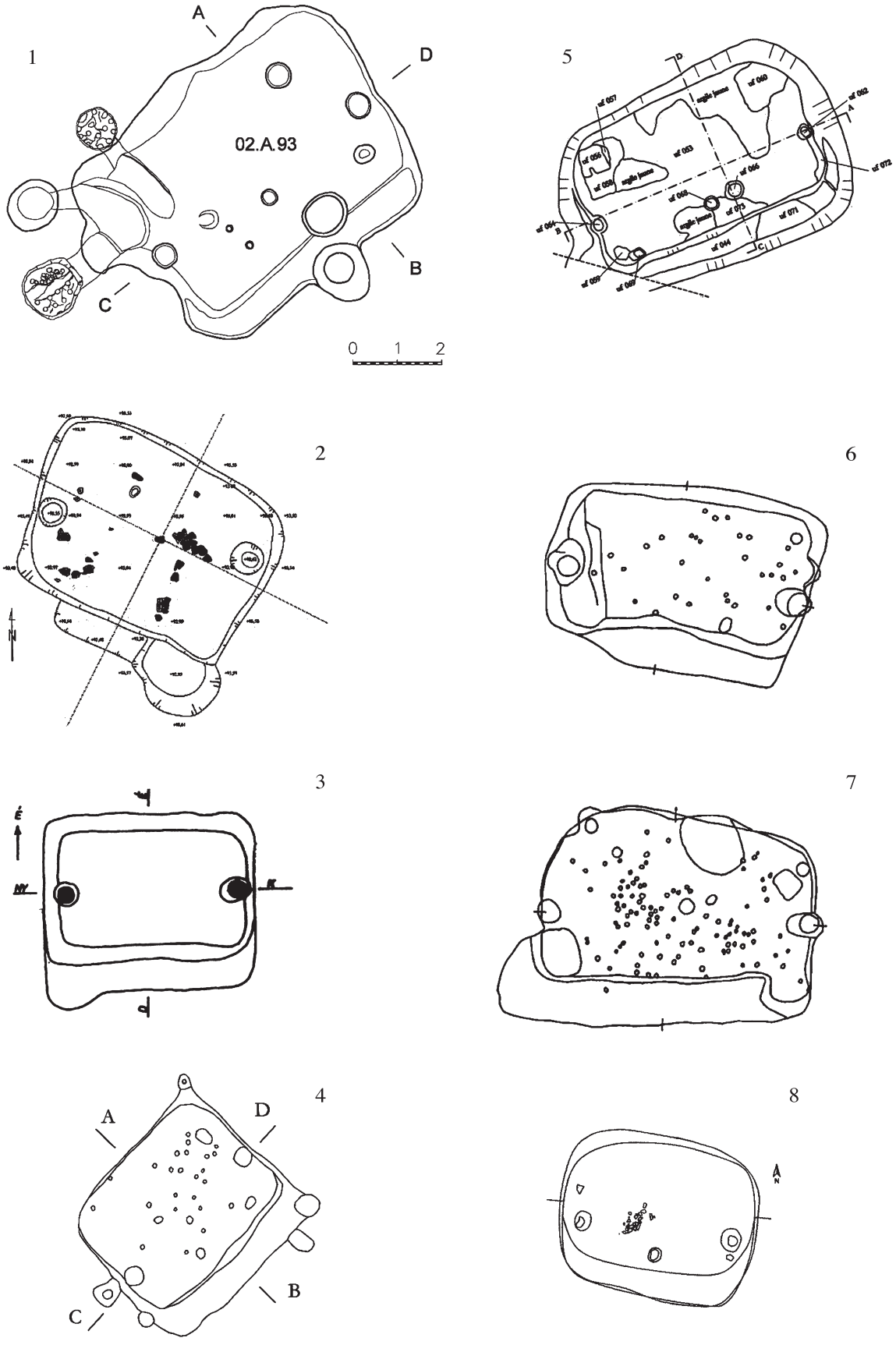

Fig. 11. Buildings of the workshop-type. – 1. Sajópetri 02.A.93. – 2. Polgár nr. 1/site 100. – 3. Balatonmagyaród-Kányavár No. 4 (after Horváth 1987). – 4. Sajópetri 98.7. – 5. Ráckeresztúr-Malontai út No. 10. – 6. Nitra-Sindolka 186/85 (after Březinová 2002). – 7. Nitra-Sindolka 14/68-85 (after Březinová 2002). – 8. Prekmurje Kotare-baza (after Kerman 2011). All plans to the same scale.

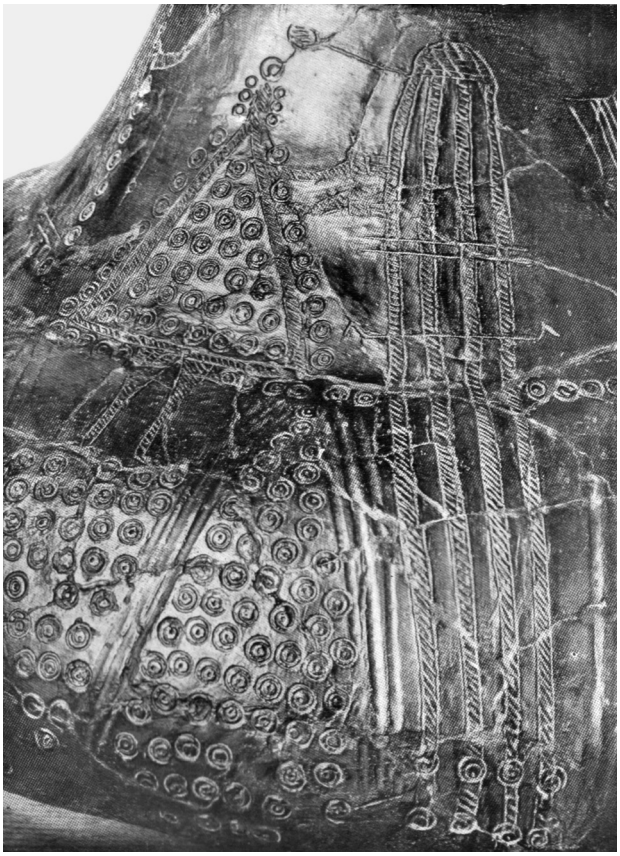

Fig. 12. Hallstatt period depiction of weaving (after Gallus 1934).

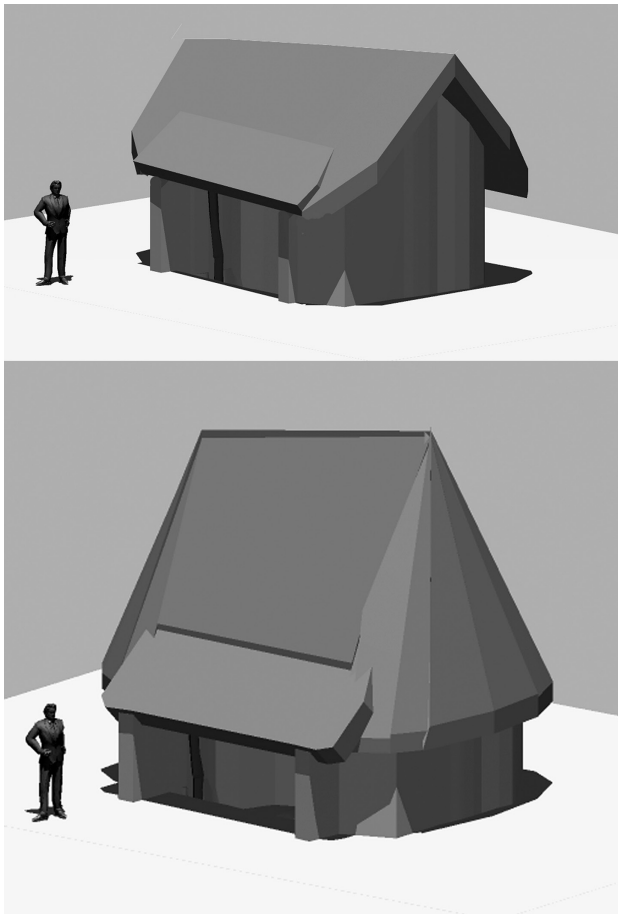

Fig. 13. Reconstruction of the house at Ráckeresztúr with gable roof (top) and hipped roof (bottom).

Fig. 14. The urn from Königsaue, Germany (after Behn 1924).

Fig. 15. Interior of an African house, Tanzania (Photo: Péter Timár).

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Middle Danube-Region Interactions with the Romans

A Sunken-Floored Building with Decorated Hearth on the Celtic Oppidum in Bratislava

Igor Bazovský

Abstract: During construction of an underground carpark on Alexander Dubček Square in Bratislava in 2011, part of a subterranean structure with an ornate hearth of the 1st century BC was discovered. The clay hearth was decorated with an incised ornament in the form of a four-pointed star. Decorated hearths have been around since the Early Bronze Age, spread across an area ranging from England to the Ukraine.

Keywords: Slovakia, La Tène period, oppidum, Bratislava, decorated hearth.

Zusammenfassung: Im Jahr 2011 wurde beim Bau einer unterirdischen Großgarage auf dem Alexander-Dubček-Platz in Bratislava ein Teil eines eingetieften Baues mit unikat verzierter Feuerstelle aus dem 1. Jh. v. Chr. entdeckt. In die Tonplatte selbst war ein Ornament in Form eines vierzackigen Sterns eingeritzt. Verzierte Herdplatten gibt es bereits seit der älteren Bronzezeit. Sie sind von England bis in die Ukraine verbreitet.

Schlüsselwörter: Slowakei, Latènezeit, Oppidum, Bratislava, verzierte Feuerstelle.

Over the last few years a number of new finds have drawn attention to the importance of the oppidum on Bratislava's Castle Hill.[1] The spectacular discovery of Roman masonry remains of the 1st century BC has so far not been matched north of the Danube. The significance of the oppidum in Bratislava is also owed to its prime location. It lies on the eastern edge of the Bratislava Gap, also known as the Devín Gap, Hainburg Gap or Hungarian Gap (*Porta Hungarica*): this is where the Danube leaves the Carpathians to enter the Carpathian Basin. Bratislava's Castle Hill constitutes the easternmost outlier of the Carpathians, rising directly above the Danube.

In 2011 colleagues at the Slovak National Museum (Archaeological Museum) had the opportunity to investigate the remains of a sunken-floored building (or sunken-featured building) with a unique decorated hearth on a building site located to the west of the castle area. The complex was discovered during construction of an underground carpark on Alexander Dubček Square, some 180 m west of the Roman masonry remains, and it is dated to the 1st century BC (Fig. 1).

The Sunken-Floored Building with Decorated Hearth

The rectangular sunken-floored building was cut into a small terrace on a slope inclined towards the northeast. Only part of this structure could be examined. As one side of the feature was 5.5 m long, it is assumed that this was quite a large structure, compared to similar contemporary dwellings (Fig. 2). The building was sunk into the granite bedrock to a depth of 70 cm. There were no traces of the postholes that would be expected to support the roof structure. Small, slight scoops may perhaps represent attempts at cutting postholes into the hard bedrock. The building may have been of a different construction (perhaps a kind of log-cabin?). The floor was made of two layers of clay. A unique feature, consisting of a fixed clay sole built *in situ* from material brought in, was found at floor level, approximately in the centre of the building (Fig. 3). Its surface was carefully smoothed and a four-pointed star design was executed, probably by fingers pressing into the still soft clay. Fires were then lit on this sole. Its centre is thoroughly burnt but its edges remained unburnt and did not survive. The hearth was probably square, some 100 × 100 cm in plan. The hearth was renewed, as the traces of fire under the unburnt layer of clay indicate (see Figs. 2–3). This, together with the two floor layers, suggests that the building remained in use for some time.

1. Musilová, Lesák, Resutík 2012.

Fig. 1. Bratislava, Staré mesto (Map 44-24-02). The arrow points to the site.

The hearth was probably not just used as a source of warmth and for cooking. Fire has long had a purifying function. Decorated clay hearths could have had a deeper religious meaning and may have been linked to the worship of house gods, as suggested by similar finds elsewhere.[2] In this context, the presence of soles with a white coating at the Late Hallstatt/Early La Tène settlements of Želenice and Radovesice in Bohemia are worth noting.[3] Jiří Waldhauser considers that this kind of finish did not fulfil a practical purpose.[4]

Decorated hearths are known from the Early Bronze Age onwards, from England to Ukraine. An origin in the Mediterranean, where the designs are far more intricate than in the north, has been sought.[5] Hearth soles with a simple quadrangular design are known from Late La Tène contexts, for example on the oppidum of Závist in Bohemia or the lowland settlement of Bořitov in Moravia. The Závist hearth (80 × 60 cm) was found in the centre of Building 13, which was probably built above ground in the manner of a log-cabin.[6] The Bořitov hearth[7] (70 × 65 cm) was also located in the centre of the building, in this case the sunken-featured building (*Grubenhaus*) No. 2/72. A similar position must be assumed for the Bratislava example. The fact that decorated hearths are found on Late La Tène settlements that were important trading centres is an aspect worthy of note.

The renewal of the hearth and floor suggests that the sunken-floored building was used for some time. Its occupants probably left the building of their own volition. There were no indications of it having burnt down, and there were no traces of furnishings or artefacts left in the house. The sunken feature was filled with a compact layer of soil shortly after it was abandoned; this layer contained very few finds. Occupation later continued on the surface. After the original fill of the sunken feature had settled, a very dark layer, rich in finds and dated to the second half of the 1st century BC, filled the upper part of the feature. A pit also cut the backfill of the sunken-featured

2. Makiewicz 1987, 205. – Podborský 2006, 371.
3. Waldhauser 1977, 4. – Waldhauser 1993, 215.
4. Waldhauser 2012, 444.
5. Makiewicz 1987, 205.
6. Motyková, Drda, Rybová 1990, 321, Fig. 23.
7. Ludikovský 1973, 40, Pl. 28.

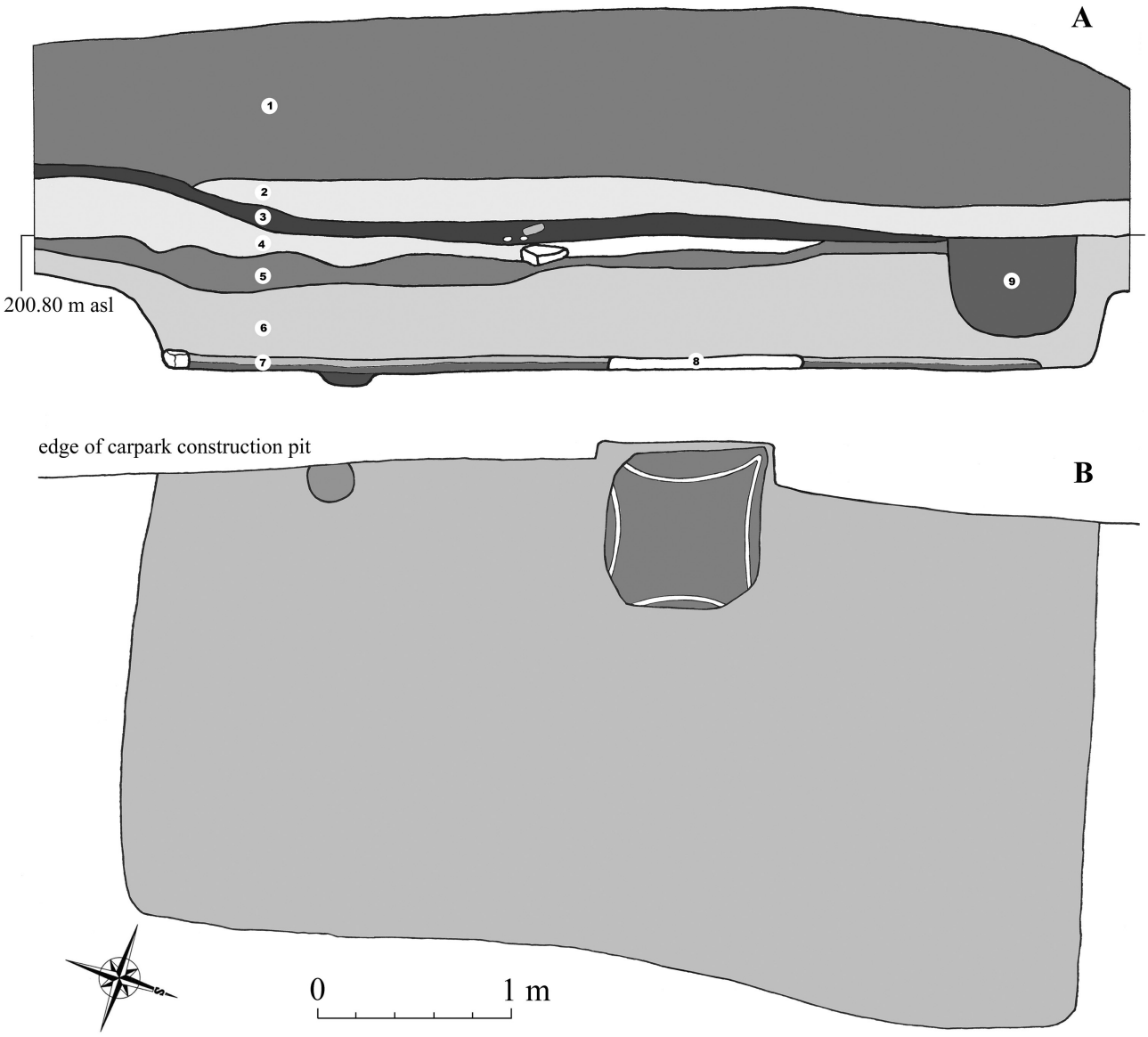

Fig. 2. Bratislava, Alexander Dubček Square. Sunken-featured building with decorated hearth. – A: Section showing brown-grey clay and gravel (1), gravelly pale yellow clay with small stones (2 and 4), black clay with burnt fragments (3), dark brown clay with fragments of charcoal (5), light brown-grey clay (6), clay floor (7), hearth (8), pit (9). – B: Plan of the sunken-featured building with decorated hearth and slight depression.

building and it is also dated to the end of the La Tène phase of occupation.

The Finds

As mentioned above, nearly all the finds were recovered in the upper dark layer attributed to the later period of occupation of the settlement. Since the finds have been published elsewhere, they will only be briefly mentioned here.[8]

The small finds

Two small silver coins with horse imagery and a fragment of a bronze fibula with openwork catchplate are relevant for the dating of the dark layer. The small concave coins (8 mm in diameter) are of the Karlstein type (Fig. 4/1–2). Eva Kolníková suggests that the low weight (0.20 g–0.35 g) of the Bratislava finds indicates local production and a date at the beginning of the third quarter of the 1st century BC.[9] The presence of clay casting trays

8. Bazovský 2014.

9. Kolníková 1996, 37. – Kolníková 2010, 73.

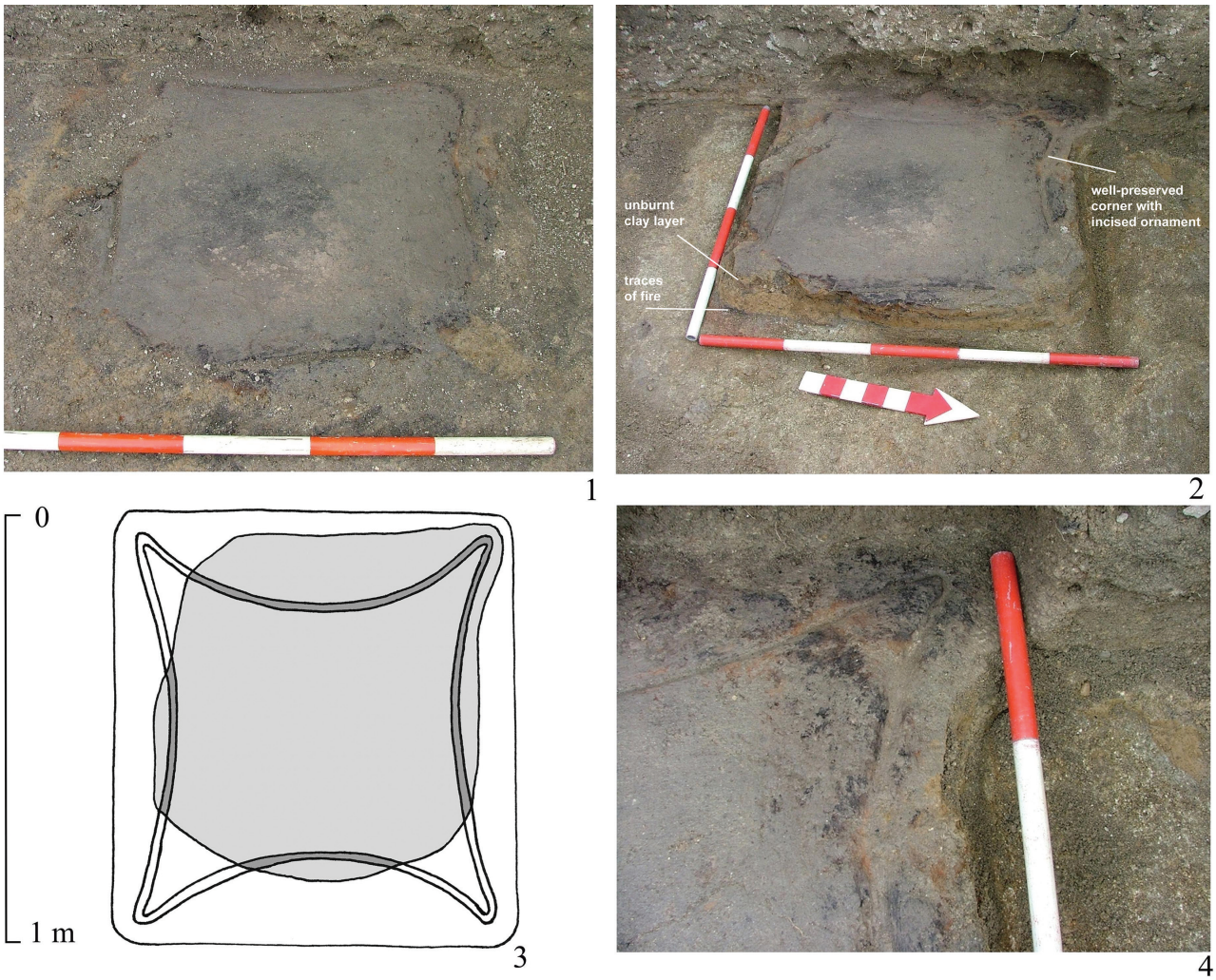

Fig. 3. Bratislava, Alexander Dubček Square. Decorated hearth and reconstruction. Note the traces of an earlier hearth under the unburnt clay layer.

(the so-called *Tüpfelplatten* or pellet trays) in several locations on the oppidum[10] provides indirect evidence that coins were struck locally. The fibula fragment is probably of the Almgren 18 type, which is dated to the second half of the 1st century BC (Fig. 4/3).[11] A bronze latch key formed part of the usual domestic equipment (Fig. 4/5). A part-finished small, square antler plaque has one side decorated with two concentric circles (Fig. 4/6). Two similar finds recovered on the oppidum have been interpreted as gaming pieces.[12] Finally, a bronze fibula of Middle La Tène construction was found in a secondary context (Fig. 4/4).

10. Bazovský, Gregor 2009, 135, Figs. 1/1 and 4.
11. Demetz 1999, 122.
12. Pieta, Zachar 1993, 175, Fig. 100/5. – Vrtel 2012, 175, Fig. 268.

The pottery

Although the pottery has been the subject of a preliminary study, it has since been possible to reconstruct some vessels, either completely or partly. Besides the usual wheel-turned pottery (Fig. 5–7, 8/2, 5) there are also handmade pots which may be of Dacian inspiration (Fig. 8/1, 6).[13] Sherds of amphorae (for transporting wine?) are important evidence for trade with the Roman Empire. Textile production is attested by several spindle whorls made out of pottery sherds (Fig. 8/3, 4) and a loom weight (Fig. 8/7).

Animal bones

The animal bones constitute the second largest assemblage after the pottery and consist mainly of domestic pigs

13. Čambal et al. 2009.

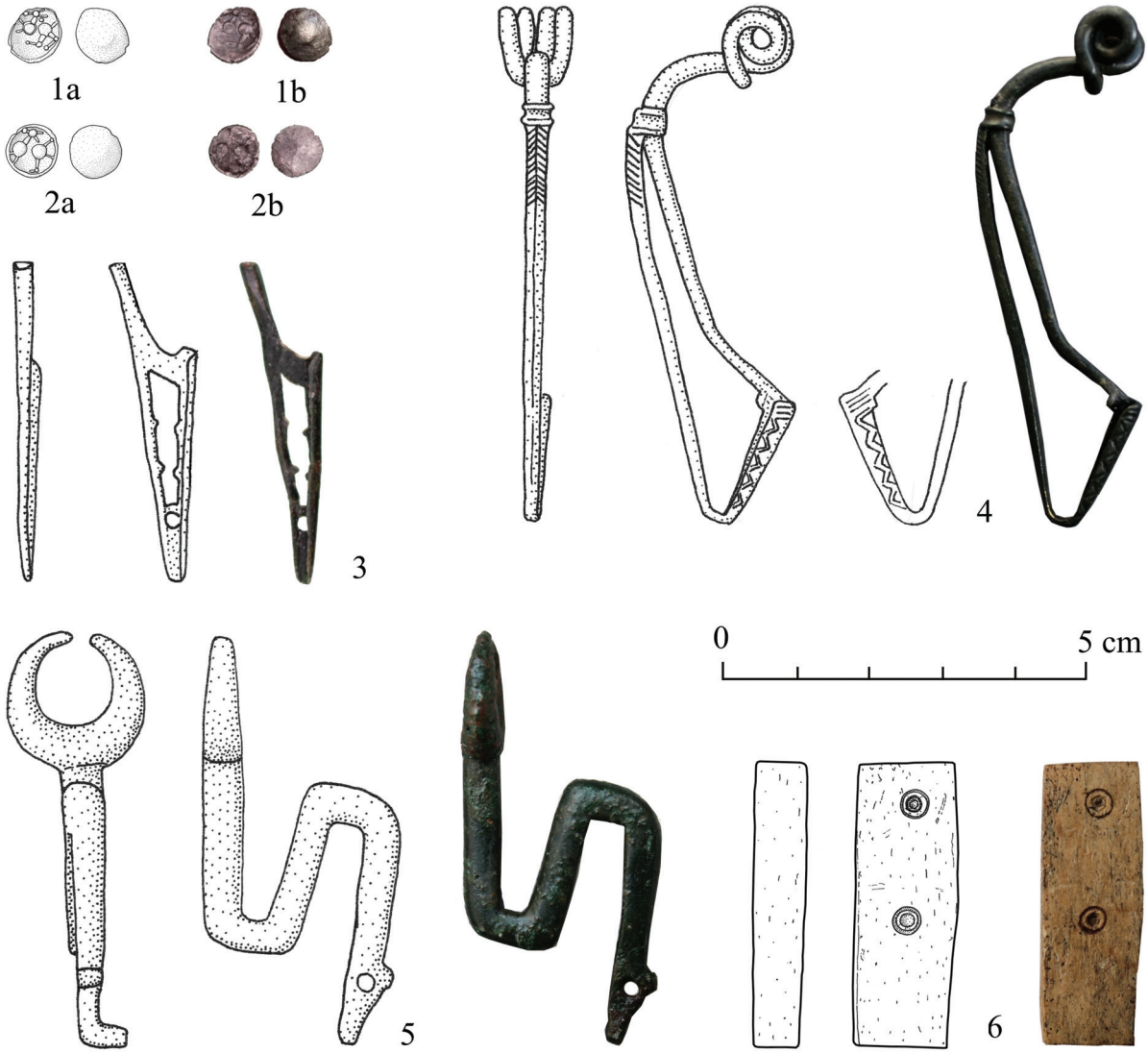

Fig. 4. Bratislava, Alexander Dubček Square. Small finds from the upper fill of the sunken-featured building. – 1–2. Silver coins. – 3. Bronze fibula. – 4. Fibula found in a secondary context. – 5. Bronze key. – 6. Bone plaque.

and cattle. Sheep/goat and horse are rarer. The faunal assemblage has not yet been analysed.

The Pit

A pit, which cut the backfill of the sunken-featured building, belongs to the end phase of the La Tène occupation of the settlement (Fig. 2). A coarse pottery vessel from its fill indicates that ceramic production changed (Fig. 8/8).

Conclusions

We do not know the actual dimensions of the sunken-featured building with decorated hearth since only about half (13.5 m²) could be examined and the absence of postholes renders the identification of the way it was built uncertain. Nevertheless the fact that the floor and hearth were renewed suggests long-term use. The decorated sole of the hearth constitutes a first in Slovakia. Parallels in other countries suggest that it was probably related to cult practices. The sunken part of the dwelling was backfilled with pale clay after it had been cleared. No datable finds were recovered from the floor of the building or its backfill. The majority of the finds came from the upper dark layer, dated by the presence of two coins of the Karlstein type and an Almgren 18 (?) fibula to the second half of the 1st century BC. This layer formed sometime after the deliberate backfill of the building and must therefore be somewhat later. The Roman amphora sherds are important evidence for contacts between the oppidum and the Roman Empire, as also attested in the castle excavation areas. A pit cutting the backfilled sunken-featured building is the latest feature of the La Tène occupation. Its fill yielded a sherd of a coarsely made vessel.

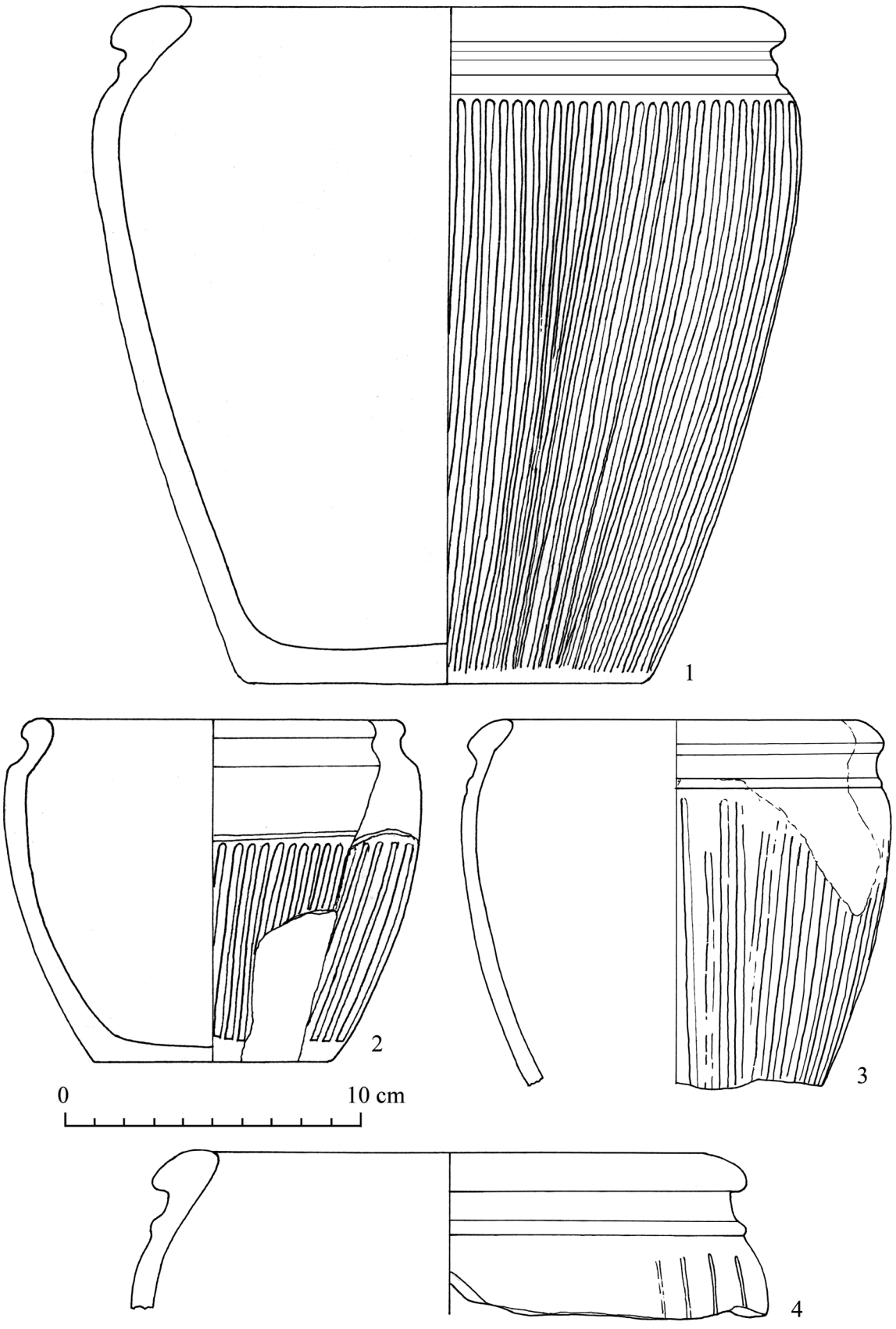

Fig. 5. Bratislava, Alexander Dubček Square. Pottery from the upper fill of the sunken-featured building.

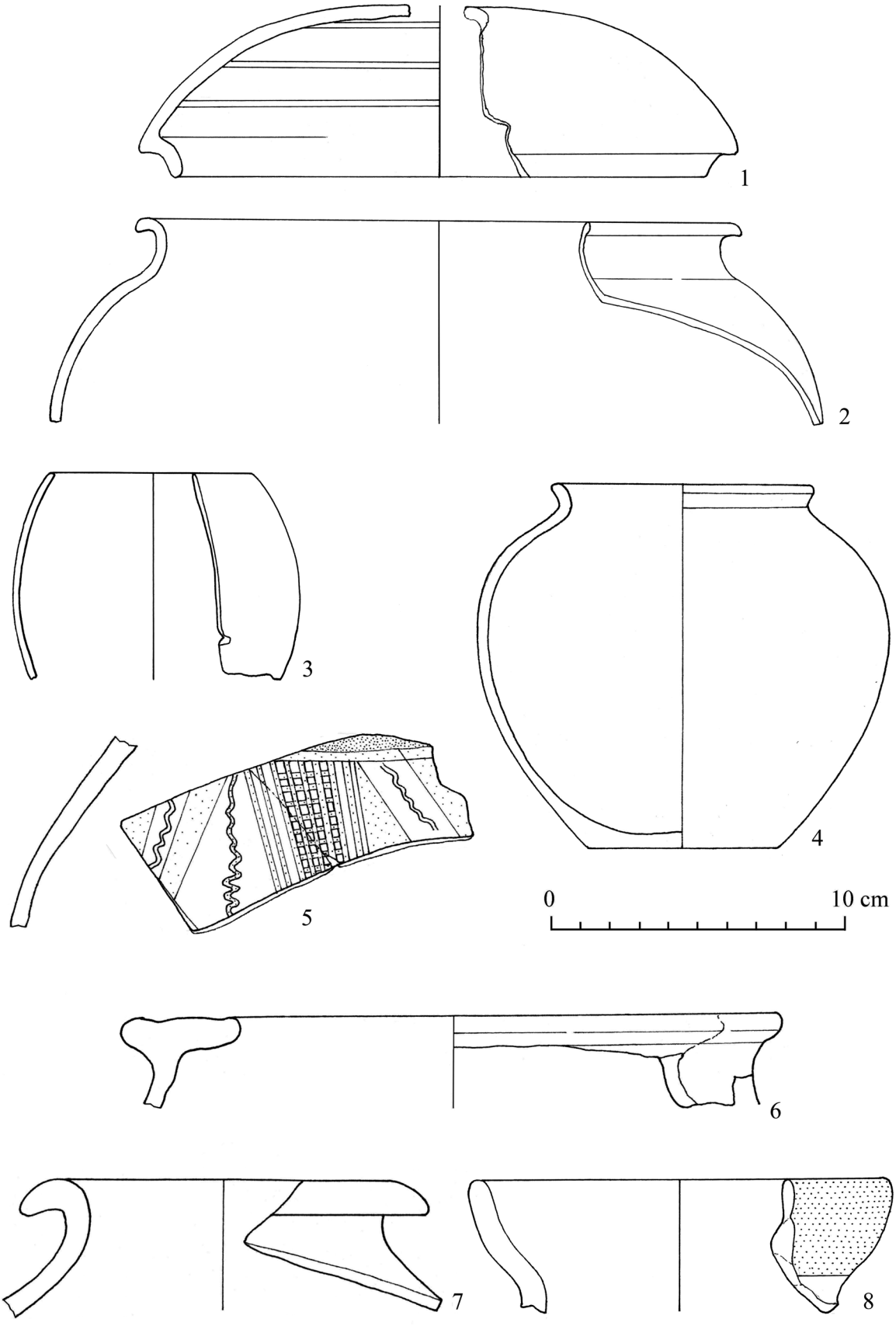

Fig. 6. Bratislava, Alexander Dubček Square. Pottery from the upper fill of the sunken-featured building.

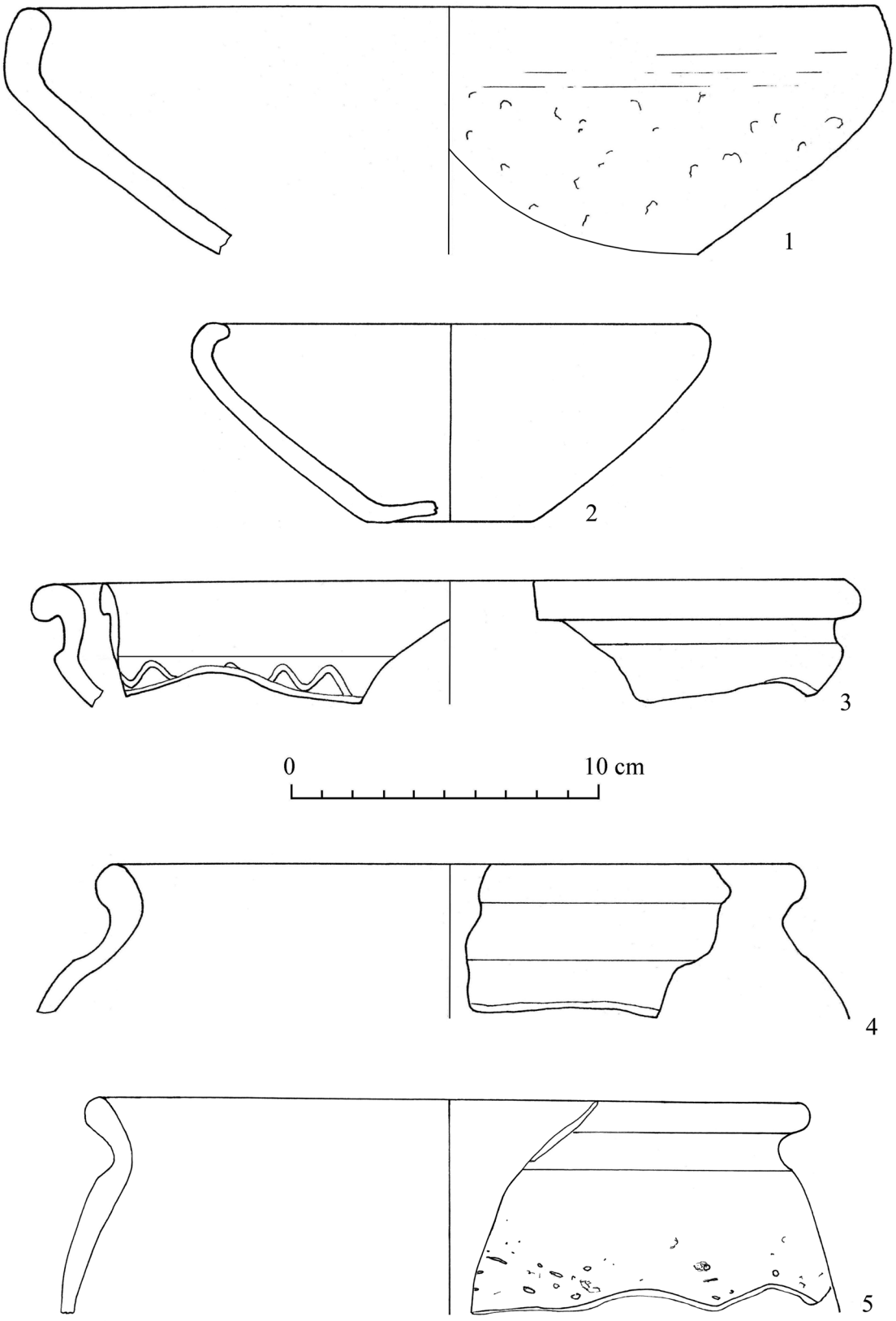

Fig. 7. Bratislava, Alexander Dubček Square. Pottery from the upper fill of the sunken-featured building.

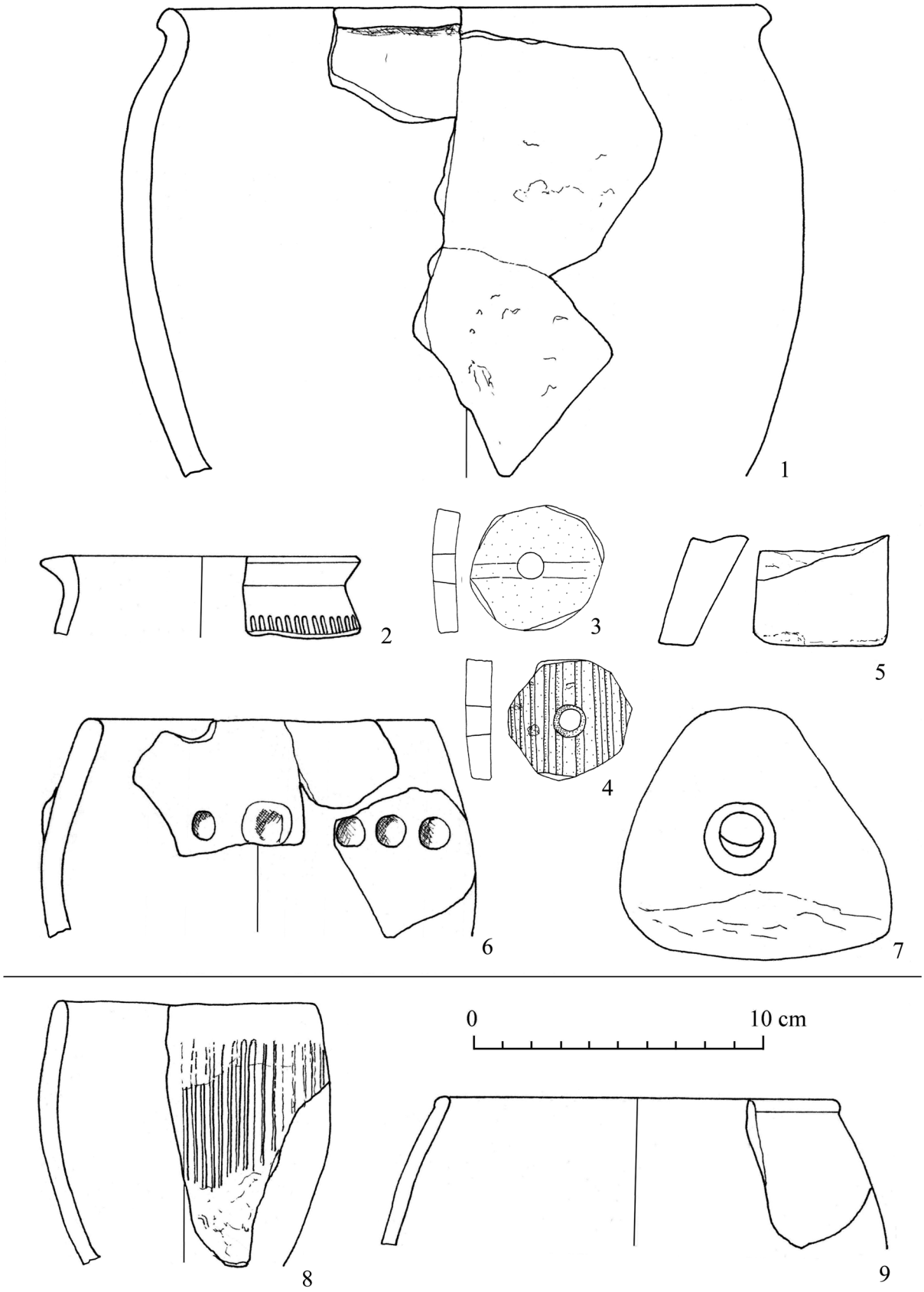

Fig. 8. Bratislava, Alexander Dubček Square. Pottery from the upper fill of the sunken-featured building (Nos. 1–7) and from the fill of the later pit (Nos. 8–9).

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Structural Analysis of the Celto-Roman Masonry Building on Bratislava's Castle Hill – A Preliminary Study

Margaréta Musilová

Abstract: This article reports on research conducted at Bratislava Castle. Remains of Roman style masonry and architecture dated to the 1st century BC were found for the first time in this region. A building complex with Roman pavement and mosaic in *opus signinum* indicates that there were intensive contacts with the Roman Empire. The discovery of a deposit of Celtic gold and silver coins under the floor of the *domus* is indicative of the supra-regional political and economic importance of the site.

Keywords: Late La Tène period, Bratislava Castle, architecture, Romans.

Zusammenfassung: In diesem Beitrag wird über Forschungen auf der Burg Bratislava berichtet. Erstmals wurden in dieser Region Architekturreste des 1. Jhs. v. Chr. nachgewiesen, denen römische Bauweisen zugrunde liegen. Ein Gebäudekomplex mit römischem Pflaster und Mosaik in *opus signinum* verweist auf den intensiven Kontakt ins Römische Imperium. Ein Münzschatz mit keltischen Gold- und Silbermünzen unter dem Boden der *domus* belegt die überregionale politische und wirtschaftliche Bedeutung des Fundortes.

Schlüsselwörter: Spätlatènezeit, Burgberg Bratislava, Architektur, Römer.

Extensive development and restoration work from 2008–2010 in the area of Bratislava Castle in Slovakia has provided the opportunity to excavate and record sites and assemblages that are crucial for our understanding of the Late La Tène period.[1] The archaeological investigations were carried out by the Municipal Monument Preservation Institute of Bratislava.[2] The last major building works in the Bratislava Castle precinct date back to between 1956 and 1968.

The building works of 2008–2010 concentrated on the Castle palace itself. In place of the amphitheatre that stood in the northern part of the castle precinct, a Baroque garden with a riding school, which had been abandoned after the great fire of 1811, were to be reconstructed. A carpark (Zámocká entrance) was to be erected below the garden. This development was the occasion for excavations in the area of the so-called northern terrace (Fig. 1). The author of this article directed the excavations in the area of the former Baroque winter riding school. Apart from the remains of the Baroque building, evidence of earlier occupation – mainly of the High and Early Middle Ages as well as the Prehistoric Ages – was expected. The discovery of buildings of the Late La Tène period, probably of the first half of the 1st century BC, built using Roman techniques, and the find of a deposit of Celtic gold and silver coins were the greatest surprise of the campaign.

Bratislava's Castle Hill is located in a prime strategic position at an altitude of 212 m mean sea level above the Baltic Sea (Fig. 2). The present-day castle terrace offers excellent, far-reaching views in all directions. The ford over the Danube and crossing of the Amber Route with the east–west axis of the Danube was eminently suitable for siting a Celtic centre of power. It has long been known that more than 2000 years ago a Celtic hillfort – an oppidum – occupied a surface close to 98 hectares (a figure obtained by recent research) in the area of the present-day Old Town.[3] Numerous pottery kilns and remains of pottery production, metalworking and minting, as well as evidence for the defences, including an earthen rampart,

1. This article, completed thanks to the support of the American Academy in Rome, is based on results obtained up to 2012. Later findings could not be included.

2. Musilová et al. 2010, 2–13. – Bárta et al. 2011, 136. – Musilová 2011a, 28–41. – Musilová 2011b, 187–206. – Musilová 2012d, 123–142.

3. Vrtel 2012, 164.

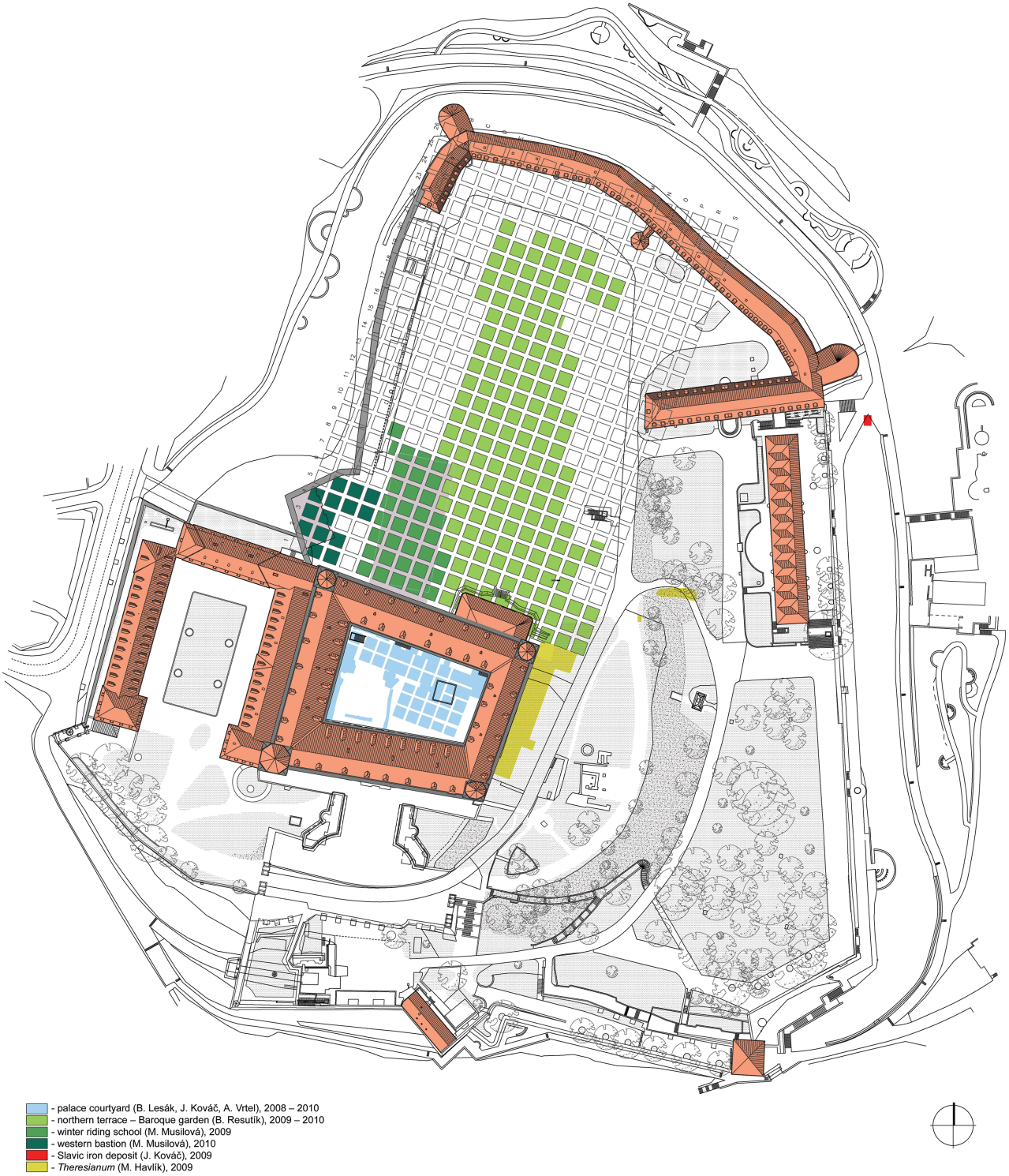

Fig. 1. Plan of Bratislava Castle and of the excavations of 2008–2010 (Drawing: B. Gabura, M. Šabík and H. Ondrušková).

Fig. 2. Aerial photograph of Bratislava Castle from the west (Photograph: P. Chromek; © Foundation for the Protection of the Cultural Heritage, Slovakia).

V-shape ditches and a *Zangentor* type gate,[4] indicate that the site was an important Celtic centre on the Danube, so far little recognised by the research community.

The Baroque winter riding school was built in 1767, as part of the reconstruction of the castle precinct by Maria Theresa for the Hungarian royal city governor Albert of Saxony-Teschen and his wife Maria Christina of Habsburg-Lorraine. The riding school lies on the northern castle terrace, west of the Baroque garden. The southern half of the riding school (18.5 × 43.5 m) was erected over the backfilled medieval moat and hence no unusual discoveries were expected. Its northern half was built over a backfilled and levelled medieval quarry, whose location is known from plans of the period.[5]

The 18th-century building works probably encountered the buildings erected in antiquity.[6] The riding school was rebuilt for the use by a General Seminary under Emperor Joseph II. After his death the castle was occupied by the military. During the Napoleonic Wars a devastating fire broke out on Mai 28, 1811 and lasted three days: it quickly spread to the bailey and the quarter known as *Schlossgrund*. The fire is thought to have been caused by the negligence of the troops. The parts of the castle not touched by the fire continued to be used as barracks and prison buildings right up to the end of World War II. In 1946 the barracks were closed and the castle precinct opened to the public. After World War II a large amphitheatre was built on the northern Theresian garden side. This landscaping and building activity largely destroyed and changed the configuration of the terrain. After a few years the amphitheatre was removed because it was no longer considered suitable for the castle precinct. Further landscaping and levelling operations were carried out, including making up the ground with soil taken from various parts of Bratislava. The excavations which took place during the first large-scale renovation of the castle from 1958 to 1968 did not include the northern terrace.[7]

4. Janšák 1955, 195–221. – Ondrouch 1958, 127. – Filip 1960, 97, 108, 115–116. – Vallašek 1973, 12–15. – Novotný 1976, 204–211. – Zachar, Rexa 1988, 28–91. – Baxa et al. 1990, 38. – Maruniaková 1990. – Pieta, Zachar 1993, 148–209. – Musilová, Lesák 1994. – Lesák, Musilová, Hoššo 1995. – Musilová, Lesák 1995a. – Musilová, Lesák 1996, 87–105. – Lesák 2002, 111–118. – Čambal 2004. – Čambal et al. 2006, 123–160. – Vrtel 2006, 184–189. – Pieta 2008. – Bazovský, Gregor 2009, 131–152. – Lesák, Vrtel 2009, 43–48. – Vrtel 2011, 265–277. – See also I. Bazovský's contribution in this volume.

5. Pieroni 1642. – Sicha 1683.

6. Marquart 1765.

7. Polla, Štefanovičová 1959. – Polla, Štefanovičová 1962, 814–823. – Musilová et al. 2010, 2–13.

Fig. 3. Bratislava Castle – Winter riding school. Plan of the riding school with historic building analysis and the sondages S1/09 and S2/09 (Drawing: M. Šabík and B. Gabura from data provided by M. Musilová and M. Matejka).

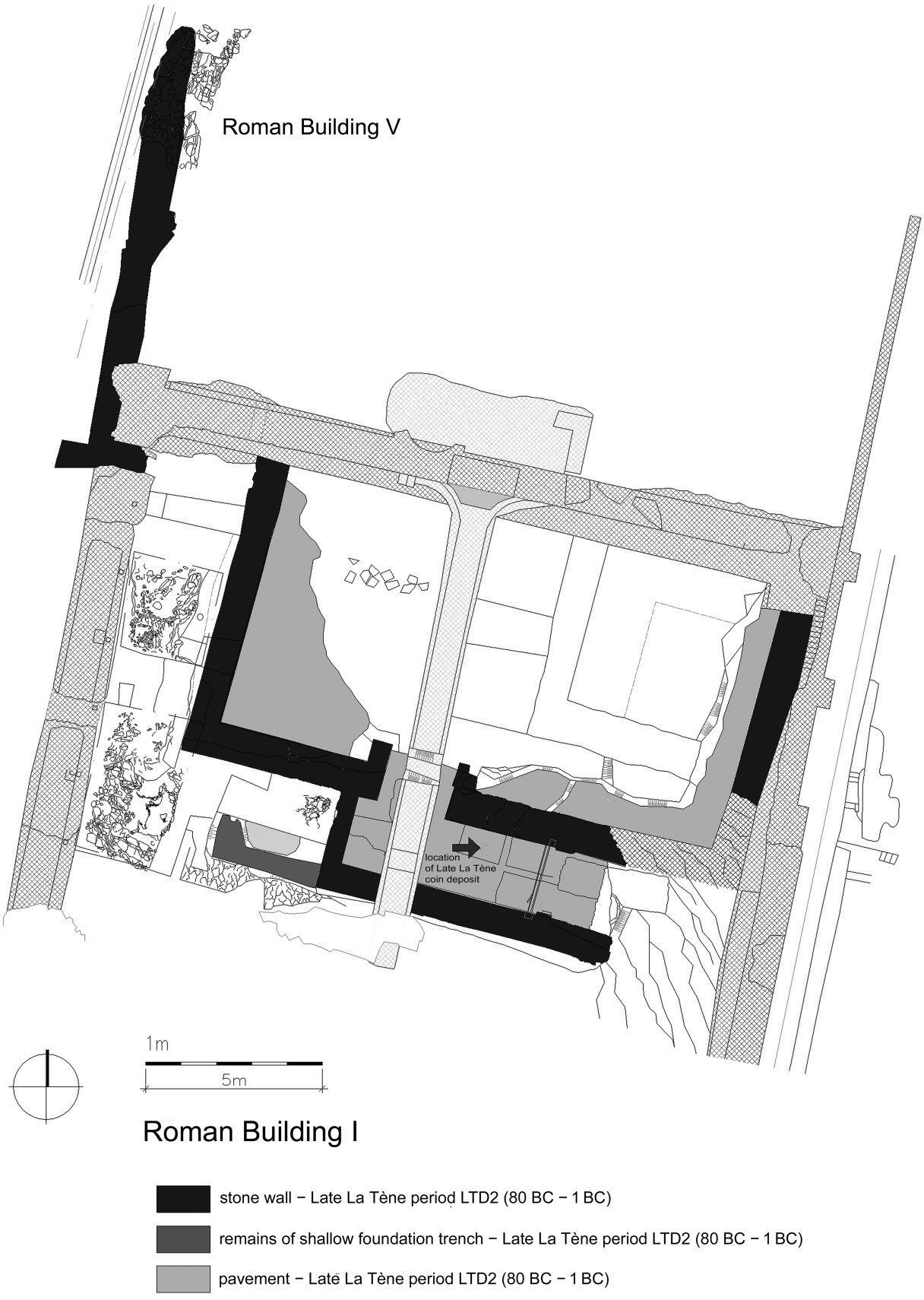

Fig. 4. Bratislava Castle – Winter riding school. Plan of the riding school, detail (Graphics: M. Musilová and M. Šabík from measurements by B. Gabura).

The Archaeological Excavations of 2008–2010

The archaeological investigations of the winter riding school took place in two stages. The first campaign was carried out between October and December 2008 and directed by archaeologists Branislav Lesák and Jozef Kováč, and art historian Miroslav Matejka. The second excavation campaign, directed by Margaréta Musilová, began in April 2009 and lasted until January 2010.[8] Immediately after the start of the excavations a historic layer – the surface of the interior of the riding school covered with a layer of ashy sand dating to the period immediately after the 1811 fire – was found. Two test trenches designed to identify the various building phases were laid out immediately against the walls of the riding school. The first trench (S1/2009) was located where the northern wall of the riding school is met by a central partition wall; the second (S2/2009) was dug at the point of contact between the central partition wall and an accumulation of rubble, which was probably the hard-core for a military road ramp of the 19th century (Fig. 3).

In S2/2009, under a burnt layer (dated to 1811) and the foundation layer of the riding school (second half of the 18th century), a layer (204.37/31–204.419 m above Baltic sea level) with masonry made of granite rubble and limestone ashlar with well-preserved wall plaster and mortar floor was recorded. This was named "Structure 1/ Roman Building I" (Fig. 4). As it had been intended to remove the entire masonry of the Baroque riding school over an area of *c.* 900 m², it was essential to excavate and record Structure 1 as precisely as possible.

The exterior face of the wall of Structure 1 consists of granite stones laid in rows and mortared with a gravel and lime mortar. The inside of the wall was filled with Roman concrete (Fig. 5). The corners feature limestone ashlar on which traces of working, probably made by sharp chisels, can be observed. Such tools are mainly known from Roman sites.[9] The surviving masonry varies in width, being 30, 60 and 90 cm wide.[10] The walls that had a width of 90–100 cm probably bore the weight of two storeys. The interior face of the walls had a mortar rendering (Fig. 6). Two kinds of poured mortar floor were found on the extensive surface of the building, which must have comprised at least two rooms. A type with small river gravel (0.3 to 1.5 mm in diameter, with one exception of 5 mm) was incorporated into a lime mortar some 10 cm thick applied directly to the bedrock (Fig. 7/a–c). The river sand and gravel used in the mortar corresponds to the Danube sediments.[11] For structural reasons the mortar must have been quite solid because mortar mixed with gravel tends to subside. Mineralogical and petrographic analyses have established that traces of La Tène pottery were present in the mortar.[12] Chemical analyses of the binding material identified hydraulic phases but no pozzolanic or latent hydraulic material. The identification of the hydraulic phases seems to reflect impurities (clay minerals, dolomites) occurring naturally in the limestone.[13]

The second type of floor was found in the corridor or antechamber. It was not applied to the bedrock but onto a layer of clay. The mortar floor consisted of two layers. The upper layer contained small black and white angular broken stones, which lay on top of a gravelly mortar bed (Fig. 8/a–b). This typically Roman technique is widespread.[14]

In addition to the two kinds of floor in the interior of the building, a further prestigious variant of a floor of *terrazzo* type was found in a secondary context outside the outer wall of the riding school (northwestern corner, in Pit no. 11/2009) (Fig. 9/a–b). This kind of floor requires a mixture of coarse and fine sand, mortar, ground-up tiles, gravel and *terracotta*. White worked stone fragments and even tesserae cut from white and grey-white limestone from the area of Devín were added to this mixture.[15] After the surfaces had been plastered, linseed oil, wax or tar was applied and polished for so long that the final surface was as smooth as marble. Such a material was much loved in Roman architecture and, because it was simple to produce, was frequently used.[16]

The discovered building was oriented north–south and comprised a corridor (antechamber) with entrance on its eastern side, sheltered from the prevailing wind; it served to catch draughts and protect the building from the cold. Parallels for such an arrangement have been found on the Magdalensberg in Austria.[17] The high threshold prevented water from coming in. This sill was removed in the 18th century when the riding school was transformed and levelled. The entrance of the building, i.e. the antechamber, was built in at least two phases. Presumably the building was entered via wooden steps and a massive timber portal.

8. Musilová 2012a.
9. Pivko 2009, 1. – Pivko 2012, 192.
10. A Roman foot measures 29.667 cm.
11. Gregor, Pivko 2010, 3–4.
12. Gregor, Pivko 2010, 3–4.
13. M. Gregor – communication in Oberleisberg-Klement on June 15–16, 2012.
14. Dolenz 2009, 1.
15. Dolenz 2009, 1–2. – Pivko 2009, 1–2. – Pivko 2012, 180–181.
16. Dolenz 2009, 1–2.
17. I am grateful to Dr H. Dolenz (Magdalensberg) for this information. – Schütz 2003, 69–77.

Fig. 5. Bratislava Castle – Winter riding school. View of the exterior wall of the Roman Building I from the west (Photograph: M. Musilová; © MÚOP, Bratislava).

Fig. 6. Bratislava Castle – Winter riding school. The interior wall rendering of the corridor of the Roman Building I. View from the west (Photograph: M. Musilová; © MÚOP, Bratislava).

Fig. 7. Bratislava Castle – Winter riding school. Mortar floor of simple type in the large room of the Roman Building I. – a: View of the eastern wall with the floor directly on the bedrock. – b–c: Detail of the mortar floor (Photograph: M. Musilová; © MÚOP, Bratislava).

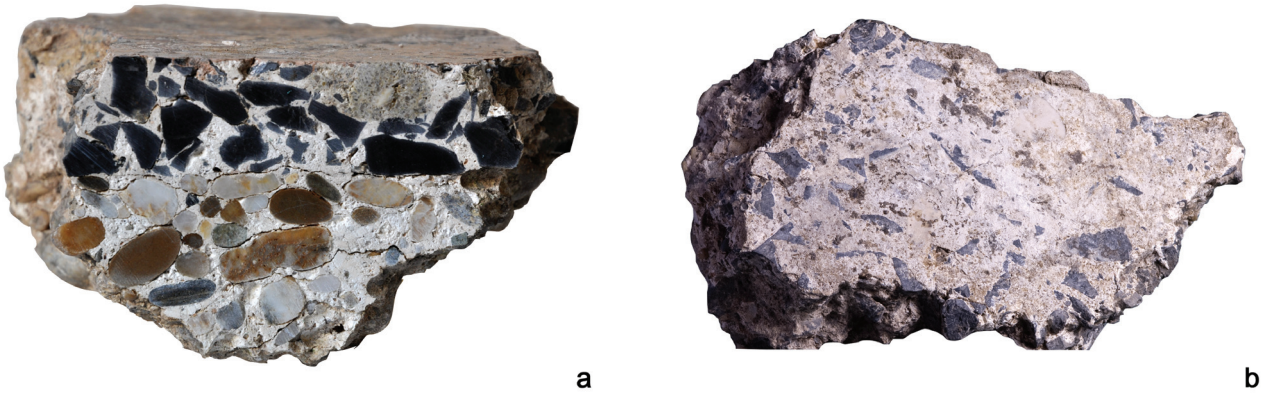

Fig. 8. Bratislava Castle – Winter riding school. Second type of floor in the corridor of the Roman Building I. – a: Section through the poured mortar floor with angular stones. – b: Surface (Photograph: L. Lovíšková; © MÚOP, Bratislava).

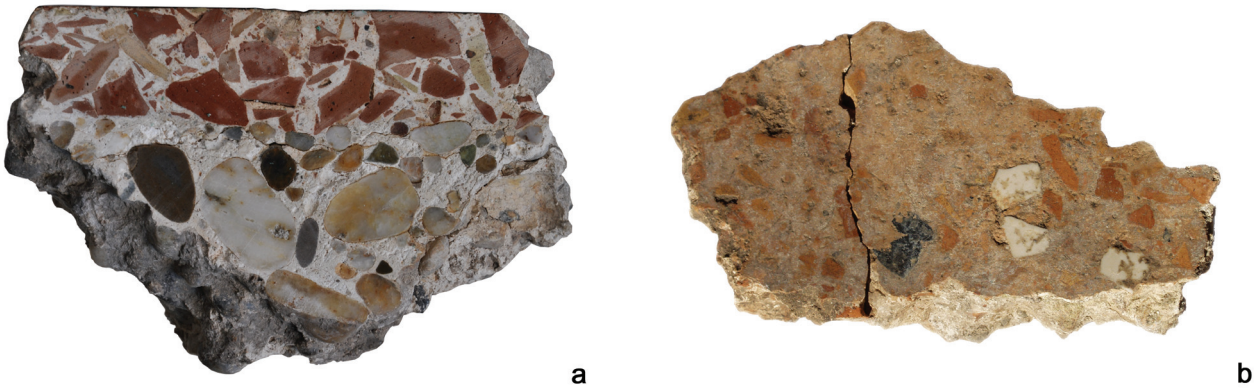

Fig. 9. Bratislava Castle – Winter riding school. Fragments of the third type of floor (*terrazzo* type). – a: Section. – b: Surface (Photograph: P. Horanský; © MÚOP, Bratislava).

The 1.9 m wide and 7.75 m long antechamber preceded a large room of around 107 m² built against its right corner (Fig. 10). A step led down into the main room; some of its worked stone blocks were found. The underside of a 57 cm wide block of fine-grained granite (outcrops are known on Castle Hill) was chiselled. An upper stone block (57–57.5 × 26.5 × 20 cm) was made of sandstone from the region of Devínska Kobyla in Slovakia, which belongs to the Leitha group of limestone (*Leithakalk*).[18] A hole with a diameter of 7.5 cm perforated its upper surface. The block probably served as a sill for a rotating door (Fig. 11).

The purpose of the large room, whose floor was not heated, is not yet clear. Only the southern, eastern and western outer walls are documented, the northern wall having been destroyed by a medieval quarry. The building techniques and the plan indicate that it is a prestigious house built in Roman style.

An earlier building phase was identified west of the wall of Structure 1/Roman Building I. A shallow foundation trench cut the rock in an east–west direction, suggesting that Structure 1 had been a transformation of an earlier complex. A yellow clay floor abutted this earlier foundation (Fig. 12).

The Coin Deposit

In the stratified level corresponding to the backfill of Structure 1 (its destruction phase) sherds of Late La Tène pottery were recovered right up to the top of its masonry walls. Unusually there were also large quantities of sherds of Roman wine amphorae, produced in central and northern Italy and Adriatic regions in the second third of the 1st century BC.[19] So far 662 amphora sherds have been

18. Pivko 2009, 1–2.

19. Identified by Dr Ján Kysela, Charles University Prague, 2013, 204–206. – Kysela, Olmer 2014, 167–188.

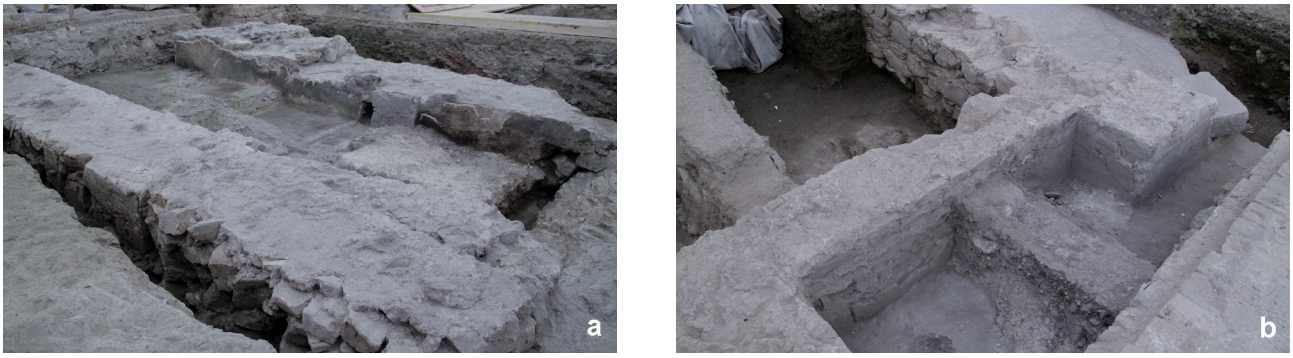

Fig. 10. Bratislava Castle – Winter riding school. Roman Building I. – a: View of the corridor from the east. – b: View of the corridor, western corner (Photograph: M. Musilová; © MÚOP, Bratislava).

Fig. 11. Bratislava Castle – Winter riding school. Roman Building I: threshold stone in secondary context (Photograph: M. Musilová; © MÚOP, Bratislava).

examined.[20] The majority comes from the Adriatic coast: they are of Lamboglia 2 or Dressel 6A type. Amphorae produced in Campania and Etruria account for 7 % of the assemblage (types Dressel IC, Dressel 2–4). Dressel IC amphorae stopped being manufactured before the middle of the 1st century BC,[21] while Lamboglia 2 amphorae are dated to the second third to third quarter of the 1st century BC but continued to circulate as late as pre-Augustan times.[22]

The pottery assemblage from the disuse phase of Structure 1 contained no later sherds, which suggests that it went out of use sometime around the turn of the era. The later stratified layers sealing the complex yielded sherds of Slavic and modern pottery.

Two Celtic silver coins were recovered from the backfill layers of Structure 1/Roman Building I and this led us to be especially careful in the excavation of the archaeological layers underneath. Attention was paid to the floor of the antechamber, where a metal-detector sweep allowed us to locate a large quantity of precious metal. It was nevertheless a great surprise to recover a

20. Identified by Dr Ján Kysela. – Kysela, Olmer 2014, 167–188.
21. Zabehlicky 2009.
22. Identified by Dr Ján Kysela. – Kysela, Olmer 2014, 167–188.

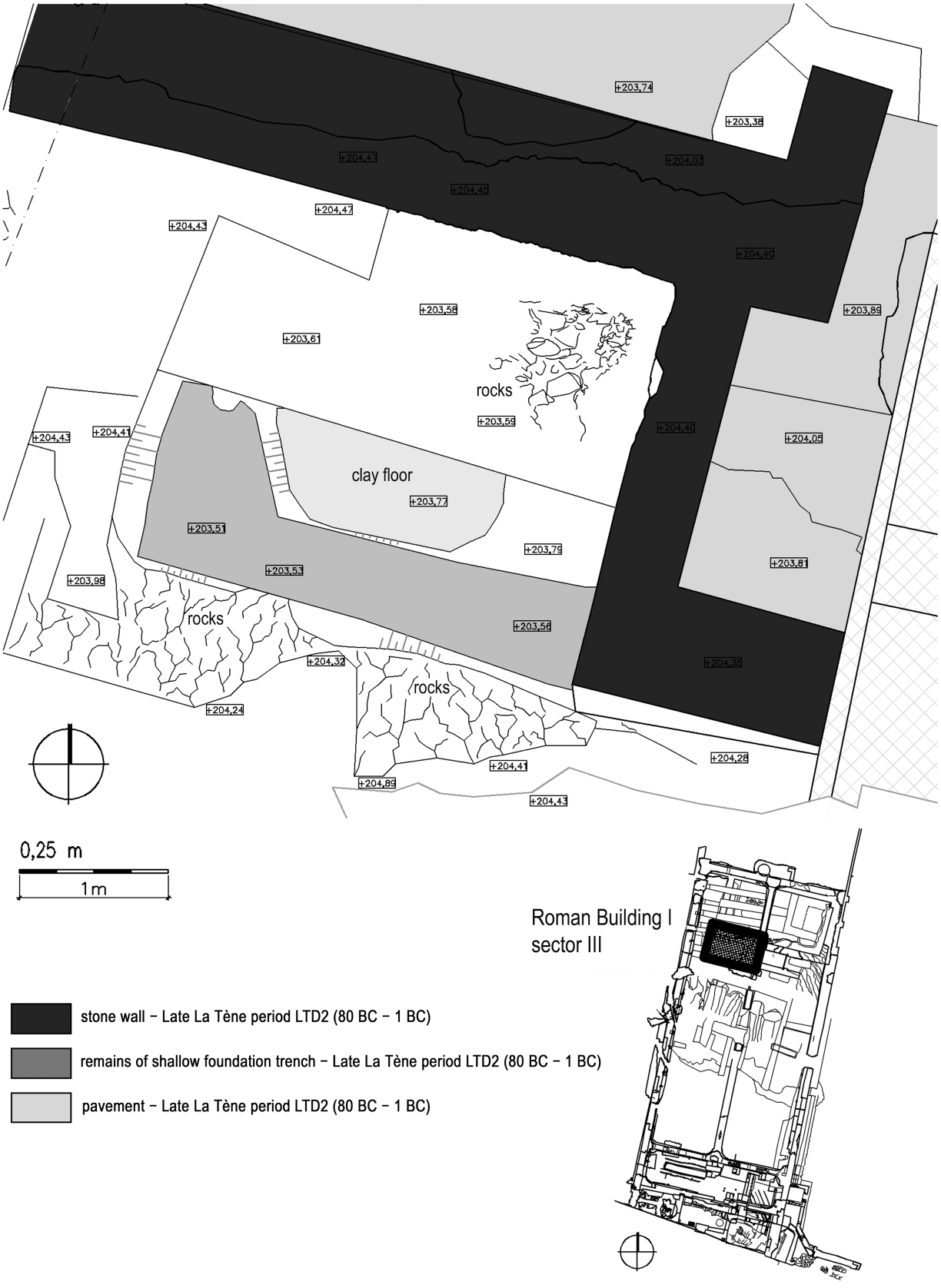

Fig. 12. Bratislava Castle – Winter riding school. Roman Building I: foundation ditch with clay floor abutting it (Plan: M. Musilová and M. Šabík from measurements by B. Gabura).

Fig. 13. Bratislava Castle – Winter riding school. Celtic coin deposit from the Roman Building I, 2009 (Photograph: L. Lovíšková; © MÚOP, Bratislava).

Fig. 14. Bratislava Castle – Winter riding school. Roman Building I: bronze seal box (Photograph: M. Musilová; © MÚOP, Bratislava).

first coin from the mortar-like deposit, a gold shell-shaped stater inscribed BIATEC. More and more coins followed, and they literally had to be chiselled out of the mortar. Altogether 15 gold staters, 4 tetradrachms of Bratislava type and 3 drachms of Simmering type were recovered. All were produced from dies typical of the Boian rulers of the oppidum (Fig. 13).[23]

Fragments of a glass vessel[24] were also found in the mortar layer among the coins – a rare find – as well as a bronze ovate seal box (Fig. 14),[25] which is known in this particular guise from the 1st century BC to the 1st century AD. They are distributed north of the Alps and have been recovered on Late La Tène oppida, in Augustan forts but also occur in the Mediterranean zone, for example at Corinth and Delos.[26] The Alésia type, found on the pseudo-sanctuary of Cybele in Lyon and dated to Late Republican times (44–30 BC) is identical to our find.[27] Seal boxes are known from sanctuaries and temples and are interpreted as evidence of petitions addressed to the gods.[28] The chemical analysis of the glass vessel indicates that it is Hellenistic and is most likely to have come from the Mediterranean area.[29] As reconstructed, it could perhaps be a bowl, a type that was current between 125 and 69 BC. Presumably this glass vessel counted as luxury ware, present or loot brought to the oppidum. At the time the value of glass was comparable to that of gold and silver.[30]

Such a precious assemblage – 15 gold and 7 silver coins – has so far never been found in archaeological excavations in Bratislava. The shell-shaped gold staters are present in unusually high numbers (15). Such staters were minted by the Boii in the territory of present-day Bohemia and Moravia. They differ from the Bratislava exemplars in that they are heavier and are not inscribed. The Celtic rulers of Bratislava began to strike coins based on these prototypes but with inscriptions.[31]

A motif reminiscent of a protecting hand can be identified on nine coins. The inscription reads BIATEC.[32]

23. Musilová, Kolníková 2009, 58–61. – Bárta et al. 2011, 136. – Kolníková 2012, 205–215.

24. Cílová 2010, 10. – Součková-Daňková 2011. – Musilová 2012c, 363–374.

25. I am grateful to Dr J. Rajtár und Prof. Dr D. Božič for the identification.

26. Čižmář 1990, 597–600. – Božič 1998, 141–156. – Čižmář 2005, 51. – Mosser 2006, 55–57. – Furger, Wartmann, Riha 2009, 49–52.

27. Desbat, Maza 2008, 242, 244–45, Fig. 5/55.

28. Mosser 2006, 55.

29. I am grateful to Dr L. Mandruzzato who identified the glass as Hellenistic and referred me to the literature on the subject. – Cílová 2010, 10.

30. Nenna 1998, 84–85. – Arveiller-Dulong, Nenna 2000, 19–20, 177–178.

31. I would like to thank Dr Eva Kolníková for the numismatic analysis of the celtic coins from the hoard.

32. Kupido 1866, 98–106. – Paulsen 1933, 113–115. – Staters with this inscription have been discovered in the past, first in 1855 during

Four staters bear a NONNOS inscription, and these are the first instance of such a type. As it had been assumed that only Biatec minted gold on the oppidum of Bratislava, the finds from the riding school are a ground-breaking discovery. Now we know that Nonnos also struck gold coins.[33] The coin assemblage also contains two uninscribed staters with star symbols. The spectroscopic analysis indicates that the staters consisted of almost pure gold with very little silver or copper.[34] Their weight ranges between 6.4 and 6.5 g.

The staters were associated with four tetradrachms inscribed with BIATEC and NONNOS. Because there are no coins bearing the names of other Celtic rulers, we conclude that the coin deposit was assembled at the time Biatec and Nonnos were ruling. Inscribed tetradrachms are frequent in the assemblages found in present-day Bratislava and its wider environs. The Bratislava Castle deposit shows that the coins in circulation on the oppidum were not restricted to staters and tetradrachms, but also included smaller denominations like the three silver drachms found there.[35]

The coins were found in a mortar layer deposited on the *terrazzo* floor, apparently an unfinished rendering or a collapsed ceiling. This raises the question whether they represent an offering at the time of building. Roman building offerings, in the form of vessels, jewellery or animal offerings, were quite frequent and could also be substituted by coins. They were a plea that the building work would be successful or a way of expressing gratitude for its successful outcome, as attested by numerous coin offerings deposited under *opus signinum* or mosaic floors.[36] The mortar layer may however have been a redeposited part of a rendering applied to the wall or ceiling which covered coins that had originally been placed in a niche.

The large number of gold coins suggests that the deposits had an exceptional value. How they came to be embedded in the mortar remains unclear. The building itself shows evidence of at least two phases, and the mortar containing the coins belongs to its declining years.

A further three structures arranged similarly and built in the same technique were found on the eastern slope of the northern garden terrace. One of these buildings had walls that had survived to a height of 1 m, like the building with wall plaster and *terrazzo* floor on the site of the riding school. A destruction layer with ash and the remains of a collapsed roof was also recorded. The buildings were probably terraced into the hillside and comprised at least two storeys. A cast bronze house bell and several inscribed wine amphorae are significant imports found on floor of House II.[37]

A floor of *opus signinum* or rather *opus caementitium* type (Feature 7/08) was found in the inner palace courtyard of the castle, in its northeastern corner and in the eastern souterrain. It was decorated with a mosaic, which is typical of *opus signinum*, showing a motif of small flowers and a border with a swastika pattern (Fig. 15/a–c). Parallels for this type of floor range from the Magdalensberg in Austria to Rome, Pompeii, Herculaneum, Paestum, Morgantina, Soluntum und Monte Iato in Italy (2nd century BC – 1st century AD).[38] Apart from the pavement several robber trenches of the original foundations were recorded, making it possible to identify the plan of the buildings, built in at least two phases. Details are published in the excavation report.[39]

Summary

The high-status inhabitants of the oppidum of Bratislava appear to have adopted elements of Roman architecture. They erected monumental buildings in Roman style on the oppidum's acropolis (Fig. 16).[40] The archaeological investigations on Castle Hill have uncovered evidence of extensive Late Republican and Early Augustan building activity. The sophisticated building techniques applied in the *domus* located under the winter riding school and the houses uncovered in the southeastern corner of the Baroque garden on the northern terrace – Roman Buildings II, III and IV[41] – are comparable to those of the major Celtic oppida of Bibracte (France), the Magdalensberg

fieldwork at Deutsch Jahrndorf (Austria) in a pottery vessel. So far they have not been found in Slovakia. I am grateful to Dr M. Torbágyi of the Nemzeti Múzeum in Budapest for information about this report and for the opportunity to see the coins. – Dembski 1998.

33. Musilová, Kolníková 2009, 60–61. – Kolníková 2012, 205–215. – Musilová 2012b, 197–200.

34. Hložek 2011.

35. Musilová, Kolníková 2009, 60–61. – Kolníková 2012, 205–215. – Musilová 2012b, 197–200.

36. Donderer 1984, 179–181. – Krmniček 2010, 147–148.

37. Excavation of Roman houses II, III and IV continued during season 2013/2014. Many other significant imports such as republican coins, amber, ingot, etc. were discovered. – Musilová et al. 2010, 2–13. – Resutík 2010. – Resutík 2012, 201–205. – Kysela, Olmer 2014, 167–188. – Resutík 2014, 153–166.

38. Morricone Matini 1971. – Donderer 1986. – Tsakirgis 1990. – De Franceschini 1991. – Coarelli 1995. – Wolf 2003, 121. – De Franceschini 2005. – Rinaldi 2005. – Vassal 2006, 245.

39. Lesák 2012, 201–202. – Lesák, Kováč, Vrtel 2012, 146–147. – Lesák, Musilová, Resutík 2013, 49–70.

40. Borhy 2009. – Dolenz 2009. – Musilová, Groh, Sedlmayer 2009. – Musilová 2011a, 28–41. – Musilová 2011b, 187–206. – Musilová 2012d, 123–142.

41. Resutík 2010. – The excavation of these buildings was suspended in 2010.

Fig. 15. – a: *Opus signinum* floor (Feature 7/2008). – b: Meander pattern. – c: Flower motif. Bratislava Castle palace courtyard (Photograph: B. Lesák, J. Kováč; © MÚOP, Bratislava).

(Austria) or La Vispesa (Spain).[42] The *opus signinum* floor found under the Bratislava Castle palace courtyard[43] is similar to several examples of *opus caementitium* in Italy, Greece and France.[44] The quality of the buildings and finds known so far indicates that there were good connections with Italy and the Mediterranean area, and suggests that the wealthy oppidum at Bratislava played a central political and economic role on the Amber Route.

In sum, the buildings and assemblages recovered can be considered to form a discrete, prestigious architectural ensemble influenced by Roman architectural concepts. This means that we are dealing with public buildings built around a square. The excavated buildings were part of a Late Republican or Early Augustan acropolis and their purpose is likely to have been of a sacred or administrative nature. Domestic buildings and structures with an economic function would have been sited lower down. More precise dating is needed to ascertain the significance and purpose our buildings fulfilled.

Dating

There are two alternatives to consider:

The buildings could belong to a Late La Tène horizon dating to between 70/60 BC and 40 BC. The traces of fire and layers of burning on the rendering and plaster could be interpreted as having resulted from the catastrophic defeat of the Boii around 50 BC by the Dacians under Burebista.

If no burning layers materialise, then:

The buildings were erected only after this event, i.e. in the 40s BC, after the demise of Boian power. Or the bellicose events of 50 BC did not touch the acropolis. So far no traces of burning have been identified on the buildings.[45] The power hiatus created by the demise of the Boian and Dacian powers was used by the Romans, or rather by the Norici under Roman administration, with the consent of the Norici and with the participation and compliance of what was left of the Boian population. The Bratislava Arx Boiorum may have been the Carnuntum referred to in the historic account of Velleius Paterculus,[46] which reports that in AD 6 Tiberius, *the son*

42. Thiedig, Wappis 2003, 33–128. – Wolf 2003. – Musilová, Groh, Sedlmayer 2009, 1–3.

43. Musilová et al. 2010, 2–13. – Lesák, Kováč, Vrtel 2012, 146–147.

44. I am grateful to Dr Susanne Zabehlicky and Dr Heinrich Zabehlicky for identification in 2009. – Morricone Matini 1971. – Donderer 1986. – Tsakirgis 1990. – De Franceschini 1991. – Thiedig, Wappis 2003, 33–128. – Wolf 2003. – De Franceschini 2005. – Rinaldi 2005. – Zabehlicky 2009, 1.

45. New excavations in the years 2013–2014 made by the Municipal Monuments Preservation Institute and the private archaeological company VIA MAGNA s.r.o. brought to light new evidence of Celto-Roman structures on the northern terrace. The results were presented in 2014 at the Danube Limes Brand conference "Bratislavský hrad, dejiny, výskuma obnova", see Footnote 48.

46. This opinion was expressed on the occasion of a visit to the excavation in 2009 and by the archaeological commission of Prof. Werner Jobst, Dr Stefan Groh and Dr Heimo Dolenz.

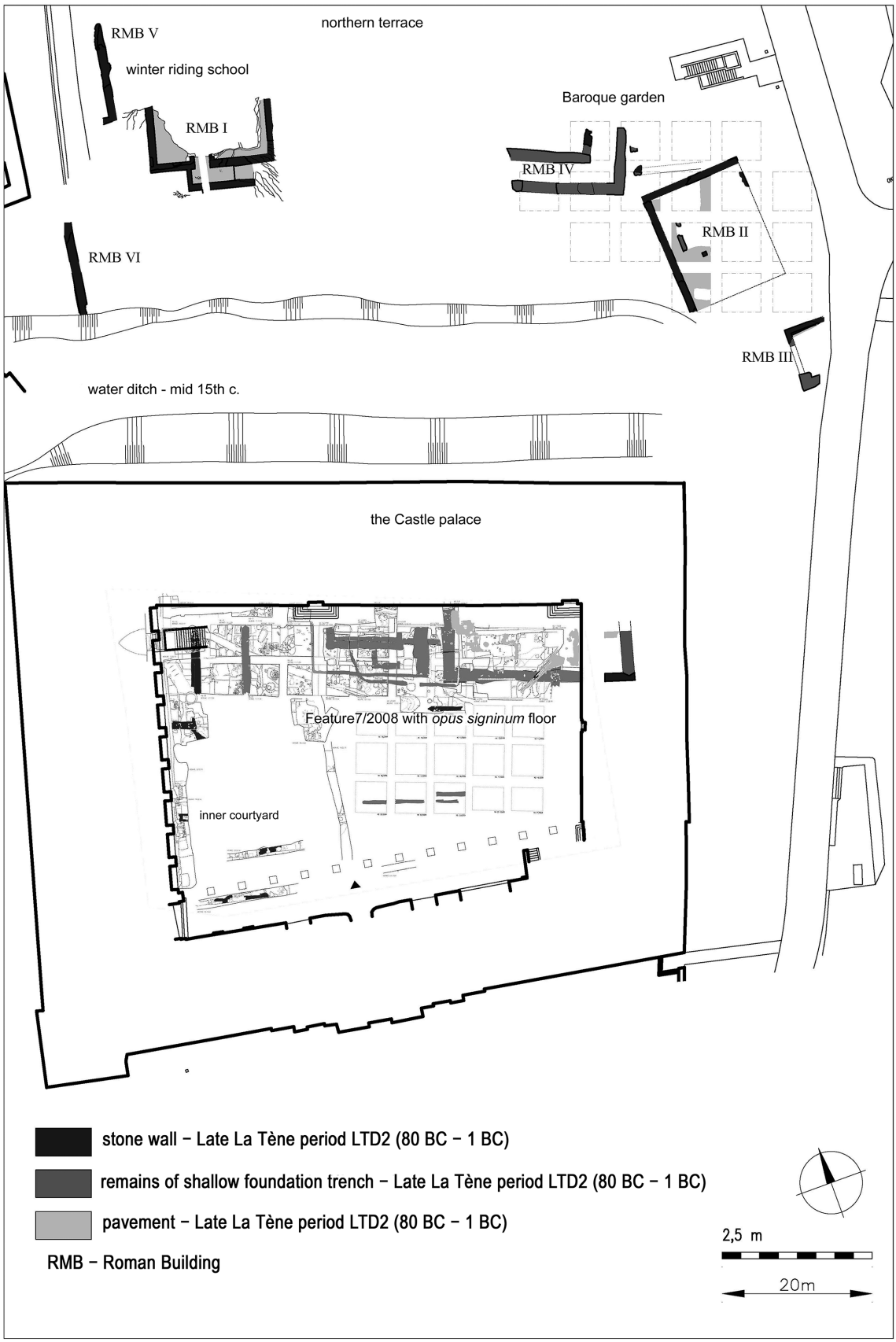

Fig. 16. Plan of the castle precinct with buildings of so-called Roman type (Drawing: M. Šabík).

of Augustus, led his army, that was serving in Illyricum from its seat Carnuntum (in) Noricum in combat against the Marcomanni.[47]

Basically the structures – the Roman Building I and the other masonry buildings (Roman Buildings II, III and IV) – belong to the Late La Tène period, i.e. to between 80 BC and the turn of the era. This dating is based on the current state of research, the stratigraphy, the analysis of the finds, parallels at an international level and a discussion of the site in the context of a commission assembled on August 26, 2009. We hope that the examination of the finds and the results of analyses from the natural sciences will provide more precise dating elements in the near future.[48]

Structure 1, although it has been dubbed "Roman Building I", does not date to the period of Roman presence on the Danube (1st – 4th century AD). It was defined as such because it was probably built by a Roman master builder using Roman building techniques for the upper levels of Celtic society occupying the Late La Tène oppidum on Bratislava's Castle Hill.

All these findings are indicative of a period in which the interests of the Celts coincided with the economic and political ambitions of the Romans. Did the Celtic rulers commission such buildings from Roman master builders? The Celtic Boii built a massive oppidum with an acropolis on Castle Hill in present-day Bratislava and surroundings. They had military power, controlled strategic trade routes running from north to south (the Amber Route) and minted gold and silver coins. Were conditions on the oppidum similar to those on the Magdalensberg in Carinthia, where the Norici developed the site following a peace treaty with the Roman Imperium? The quality of the buildings and the finds so far analysed indicate intensive contacts with Italy and the Mediterranean; the importance and wealth of the Bratislava oppidum as a centre of power and trade on the Amber Route must be emphasised. It was certainly an Arx Boiorum; but whether it was the "Celtic Carnuntum" remains a hypothesis. The most recent research by Hungarian and Austrian archaeologists indicates that the Roman military, or rather the Romans' advance troops, were present in Augustan to Tiberian times on the putative line of the Amber Route in Strebersdorf (Burgenland)[49] leading towards the Danube crossing at Devín,[50] or most probably at Bratislava (Pressburg),[51] i.e. in locations where Roman buildings and finds of pre-Augustan and Augustan times have been recorded. Current knowledge excludes the oppidum on the Braunsberg as a candidate for the old Carnuntum because it was abandoned around the middle of the 1st century BC.[52] The Roman site of Carnuntum near Petronell also does not come into the equation because, according to the evidence currently available, it was not founded until the middle of the 1st century AD, i.e. under Claudius. In the context of the establishment of the client *regnum Vannium*, the Roman army and what was left of the Boian population withdrew to the right bank of the Danube. This is where, in a sheltered position west of the confluence of the Morava with the Danube in the area between present-day Bad Deutsch-Altenburg and Petronell, the legionary fortress and town of new Carnuntum was established, using the old name of the Boii's central place.[53]

The members of an international archaeological commission have confirmed the dating of the Bratislava Castle site and have identified the masonry building with mortar floor as a find of exceptional value, contributing not only to our knowledge of the history of Bratislava and its castle but demonstrating international significance. It has the potential to change our views of the evolution and history of the Middle Danube region in the 1st century BC right up to the turn of the era and beyond.

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47. Velleius Paterculus 2nd book, chapt. 109, 88.

48. The structures – Roman buildings I–IV and others (V–VII) found in 2013–2014 – could be dated to 50/40–30/20 BC. This information was presented at the DLB conference "Bratislavský hrad, dejiny, výskuma obnova" (Bratislava castle, history, research and renovation) held from September 22–23, 2014 in Bratislava. For the conference proceedings see Musilová, Barta, Herucová 2014.

49. Groh 2009, 59–64.

50. Pieta, Plachá 1999.

51. Strobel 2008, 370.

52. Urban 2011, 66.

53. Strobel 2008, 370–373. – Strobel 2009, 501.

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Maroboduus and the Consolidation of Roman Authority in the Middle Danube Region

Michael Erdrich

Fragen eines lesenden Arbeiters
Bertold Brecht, Moscow 1936

Abstract: The idea that Maroboduus seized power over the tribe of the Marcomanni voluntarily and without Roman influence and that his migration to Bohemia soon afterwards was not controlled by Rome appears questionable for various reasons, especially in the light of the exceedingly successful Roman offensives against Germanic tribes in this period.

Keywords: Middle Danube region, Marcomanni, Maroboduus, Germanic tribes, securing Roman hegemony.

Zusammenfassung: Die Vorstellung, dass Marbod aus freien Stücken und ohne römische Einflussnahme die Herrschaft über den Stamm der Markomannen übernahm und seine wenig später erfolgte Abwanderung nach Böhmen nicht von Rom gesteuert war, erscheint vor allem vor dem Hintergrund der im fraglichen Zeitraum überaus erfolgreich verlaufenden römischen Angriffskriege gegen germanische Stämme fragwürdig.

Schlüsselwörter: Mittlerer Donauraum, Markomannen, Marbod, germanische Stämme, Sicherung römischer Hegemonie.

Introduction

The reorganisation of the tribal landscape in the western and central European *Barbaricum*, which had been conquered by Rome through military force or political coercion, became a routine measure for consolidating power over these territories surely earlier than the dying days of the Roman Republic. The history of Caesar's Gallic Wars and of the Augustan offensives against the Germanic tribes is indicative of this strategy, sometimes carried out with (to modern eyes) drastic measures, inherent to the Roman expansion policy. Even after the end of the Gallic Wars Rome intervened in a multitude of ways in the political and social structures of the societies it conquered and in doing so created the conditions for the integration of the reconfigured tribal landscape and its new political, ideological and economic elites into the Roman world.

A comparison between the tribal landscape of north-eastern Gaul and the lower German Rhineland during and shortly after Caesar's Gallic Wars on the one hand, and the situation at the end of the reign of Augustus on the other shows a dramatically modified situation (Figs. 1–2).[1]

Some tribes, like that of the Eburones, were largely exterminated during the Gallic Wars on the orders of Caesar,[2] and the Aduatuci were replaced by the Tungri. The Batavi or Batavians, according to historic sources an offshoot of the Chatti, settled in Betuwe in the present-day Low Countries[3] as a consequence of a relocation organised by Rome. Given that the Late Iron Age and Early Imperial occupation of Dutch Betuwe does not show any evidence of a hiatus in settlement development, and since so far no finds which could be directly linked to the area of origin of the Batavi (which is historically documented as located in Hesse, Germany) have turned up, it may be that the resettled community was more of an eponymous elite.[4] This group had been put together at the time in accordance with a Roman perspective, probably even without regard for its actual ethnic background, and labelled "Batavi".[5] Set up by Rome to act as the new leaders of the communities settling in Late Iron Age Betuwe the Batavi established a new identity. After the

1. Kunow 1987, 27–109, especially 27–45, Figs. 13 and 22. – Joachim 2007, 48–58.

2. Eck 2004, 41–45. Eck casts reasonable and well-argued doubts on the oft-cited large-scale extermination of the Eburones by Ceasar, a thesis based on an account by Caesar himself.

3. For the Batavi, see Roymans 2004. – Roymans 2009, 85–98. – Willems, van Enckevort 2009.

4. Wenskus 1961.

5. Whether we are always dealing with actual "ethnic" "Batavi" among these peoples is open to question. The attribution to a tribe by the Roman authorities was decisive: see van Driel-Murray, 2003, 200–217.

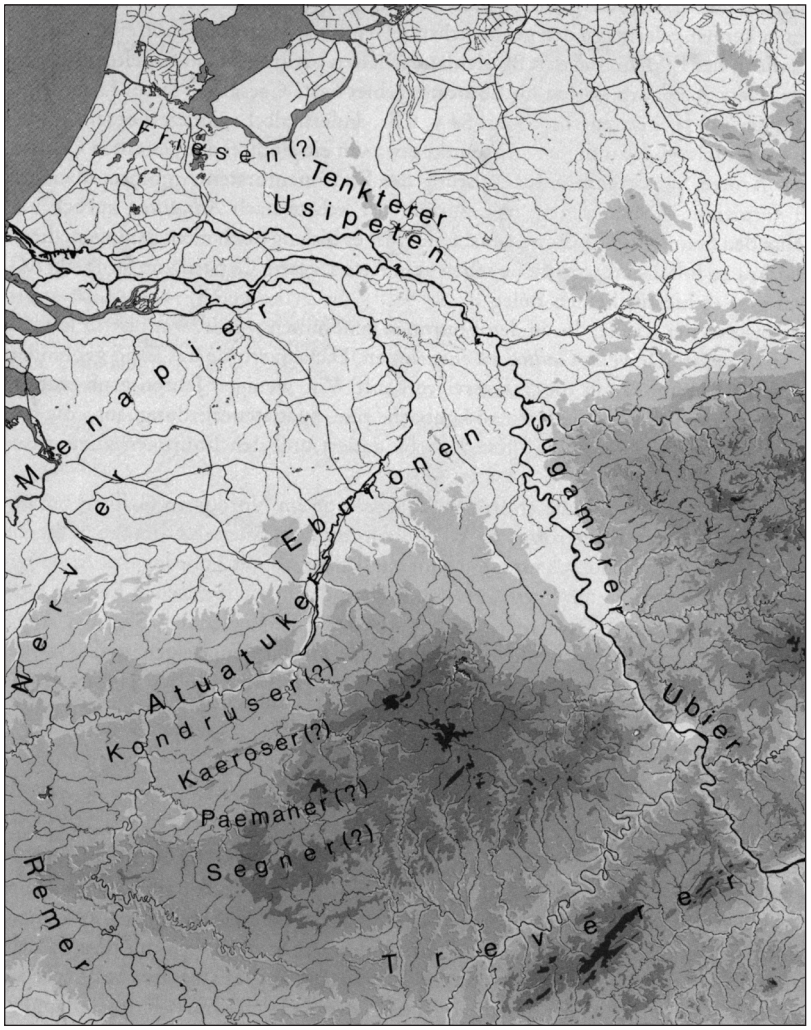

Fig. 1. Areas occupied by indigenous tribes in the Rhineland in Ceasarian times (after Horn 1988, Fig. 13; Landschaftsverband LVR-Amt für Bodendenkmalpflege im Rheinland/LVR-LandesMuseum Bonn).

foundation of the province of Germania Inferior in the 80s of the first century AD this region – newly-formed according to Roman preferences – obtained the administrative status of a *civitas*, which gave to the population living there additional confirmation and promotion of their new collective identity. The Ubii were also relocated from present-day Hesse to the Cologne Lowland,[6] and their later history there is more or less analogous to that of the Batavi. The deportation, ordered by Tiberius during the Augustan offensive of 8 BC, of a few thousand Sugambri constitutes a further example. Members of other Germanic tribes such as the Marsi, which the Romans for – from a present point of view – incomprehensible reasons counted among the deported Sugambri, were probably also affected by this measure.[7] Even when no written sources or archaeological testimonies are available, other groups may have been the victims of resettlement or genocide, in particular some parts of the communities belonging to the Elbe-Germani occupying Westphalia. Indeed Elbe-Germanic and Suebian warrior groups were considered – at least from the time of Caesar's conflict with Ariovist – the main adversaries of Rome's interests. The affected populations were driven out of the areas they occupied on the right bank of the Rhine and resettled on the left bank. The historic sources refer to a (surely exaggerated) total population of 40,000 people. The Oppidum Batavorum (Nijmegen, Netherlands)[8] and the Oppidum

6. Eck 2004, 46–62.

7. The resettlement of the Sugambri has been thoroughly examined from different perspectives by Johannes Heinrichs. He rightly emphasises that the resettlement could only have taken place with the agreement and the active participation of the Sugambric *nobilitas*, for purely organisational reasons alone. It is also likely that there was a strong element of control on part of the Roman military. This cooperative *nobilitas* is higly likely to have been the newly-established ruling class set up by Rome after the surrender of the Sugambri. – Heinrichs 2001, 54–92.

8. Willems, van Enckevort 2009.

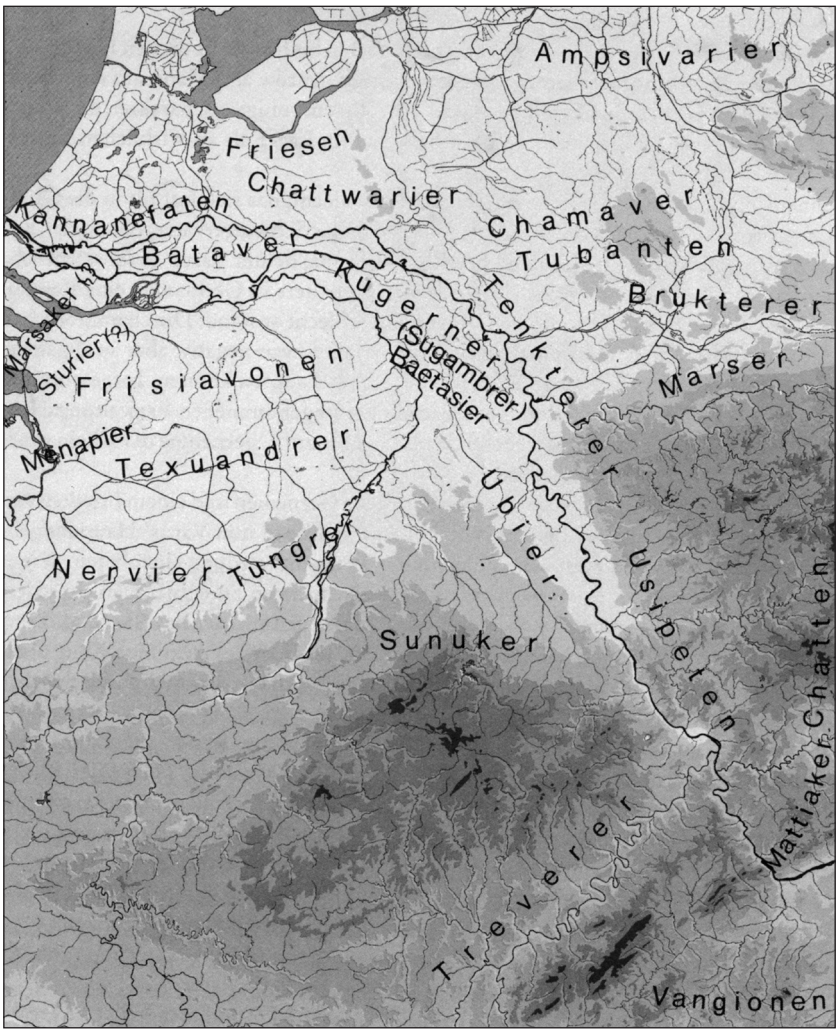

Fig. 2. Areas occupied by indigenous tribes in the Rhineland in the 1st century AD (after Horn 1988, Fig. 22; LVR-Amt für Bodendenkmalpflege im Rheinland/LVR-Landes-Museum Bonn).

Ubiorum (Cologne, Germany)[9] are examples of fully planned central places of Roman type that began to be established in the last decade BC in the territories occupied by the resettled Batavi and Ubii.[10]

The fact that there is a hiatus of two to three years between the resettlement of the Sugambri and the return of Maroboduus to "Germania" and his departure for Bohemia shortly afterwards does not mean that these two events were not part of the same programme. The aim of such a programme was to secure power over the conquered regions and their foreland in the short or medium term. The Roman staff in charge of planning would have known from a sober analysis of the situation in 8 BC that the offensives were to continue and that further military success and territorial expansion lay ahead. The consolidation of control over so far occupied or yet to be occupied territories and their occupants would have been discussed, designed and, finally, implemented.

Roman acquiescence in or even instigation of or an actual instruction to Maroboduus to depart to Bohemia with his followers has recently been vehemently disputed because it does not fit the wording in the writings of ancient historians and geographers.[11] A comparison with well-documented processes of ethnic re-orderings in the Lower Rhine area however prompts us to re-open the debate and to consider a thesis that goes against the grain of the historic record and all its problems.

Geographic Context and Research Questions

For quite diverse reasons there is considerable uncertainty in historical as well as archaeological research about how Rome enforced its claims to power in the regions it controlled directly, or at least in the immediate sphere

9. Eck 2004.

10. Morscheiser-Niebergall 2009.

11. Kehne 2001a, 258–262, especially 259.

of interest of the Empire in the Middle Danube region (Fig. 3) after its successful campaigns in the Alps and the probably largely peaceful annexation of the *regnum Noricum* (15 BC). We are on solid, archaeologically-documented ground once (beginning in the Claudian period) forts were built on the southern banks of the Danube River to control the frontier by military means. From then on an increasingly tight chain of military camps secured the interests of the Empire. The official transformation of the former *regnum Noricum* into a regular province may have occurred at the same time. Since archaeologically-documented military garrisons or other sites yielding weapons or equipment of the Roman army dating to the time of the conquest of the *regnum Noricum* are missing, we are not even able to ascertain whether any significant numbers of Roman troops were present in the areas affected – for example in the Vienna or Tulln basins. The altogether quite confusing situation is not made any clearer by the successful (from a Roman point of view) campaigns against the Germanic tribes. The fact that these campaigns were largely initiated in Gaul or in the northwestern parts of the Alps and had no measurable effect on our region plays a not negligible part. Despite its wealth of strategic resources the entire eastern Alpine region did not play a role as a deployment zone or supply area for troops,[12] even after the integration of the *regnum Noricum* into the Roman Empire. This raises questions about how far Rome's dominion extended and how effectively it was protected.

South of the Danube, our study area comprises primarily the basin of Vienna between the Vienna Woods (*Wienerwald*) in the west and the Leitha Mountains in the east, whose northern foothills join the southern spur of the Little Carpathians on the Danube near Bad Deutsch-Altenburg opposite Bratislava. North of the Danube the region under study encompasses Bohemia and Moravia, the eastern part of Lower Austria and the neighbouring lowlands of the Morava as far as the Little Carpathians to the east. Formally the basin of Tulln to the west of the Vienna Woods and large parts of present-day Upper Austria can also be included.

In 1997, Verena Gassner and Sonja Jilek equated the historically-recorded *deserta Boiorum* established after the defeat of the Boii by the Dacians with the area south of the Danube described above and the Burgenland. They surmised that these regions still belonged to the sphere of influence of the *regnum Noricum*.[13] We can assume at least, on the basis of the multiple political and economic contacts between the *regnum Noricum* and the Roman Republic, that Rome was well informed about military events and ethnic transformations on the periphery of the friendly Norican kingdom. This raises the question whether these peripheral regions automatically entered the sphere of interest of Rome after the incorporation of the *regnum Noricum* into the Roman Empire in 15 BC or shortly afterwards or, if not, what their status was.[14] The same of course also applies to the parts of the *deserta Boiorum* located north of the Danube. In his account of the early history of the Romans and Germanic people on the Middle Danube, Alois Stuppner,[15] like Gassner and Jilek, tacitly assumes that the annexation of the *regnum Noricum* moved the frontiers of the Roman Empire forwards to the Danube.[16] This may also have been the Roman perception. But how this translated into reality escapes us. The situation only becomes very clear – both to the ancient inhabitants on either side of the Danube and to modern research – when a chain of permanently garrisoned military camps was established on the southern bank of the Danube under Claudius. However, if we compare the situation on the Middle Danube with the conditions on the Middle and Lower Rhine after the end of Caesar's Gallic Wars – where no troops were stationed on the frontier for several decades – the lack of consolidation of power becomes obvious. Germanic warrior groups used the power vacuum for assaults on the Gaulish and Germanic tribes that had been conquered and subjugated by Rome and crossed the Rhine unopposed. Perhaps the absence of the Roman military encouraged Germanic bands of warriors to attack ter-

12. This could mean that Roman knowledge of the regions and people north of the eastern Prealps was not sufficient at the time to organise large military operations. On the other hand, intelligence may have been so good that it was clear that it would not be possible to supply large contingents stationed on the Middle Danube or military formations operating from there either from the land itself or through existing supply routes from northern Italy. In contrast to the more developed Gaul, the eastern Alpine zone lacked the infrastructure and social conditions necessary for success.

13. Gassner, Jilek 1997, 26–44, especially 26–27.

14. Archaeological and historical research, as well as popular perception, keeps emphasising the "peaceful", even amicable character of the annexation of the independent *regnum Noricum*. But what does "peaceful" actually mean when an independent kingdom is being annexed and Roman troops armed to the teeth are fighting and murdering only a few marching days away? Hence, doubts must remain as to the use of the expression "peaceful annexation", doubts already voiced by Gassner, Jilek 1997, 59.

15. Stuppner 1997, 113–127, especially 113–115.

16. This opinion ultimately goes back to a remark made by Augustus in his progress report. He mentions that he had conquered the Pannonian peoples and thus moved the frontier of Roman Illyria as far as the Danube: see Augustus, *Res Gestae* 30.

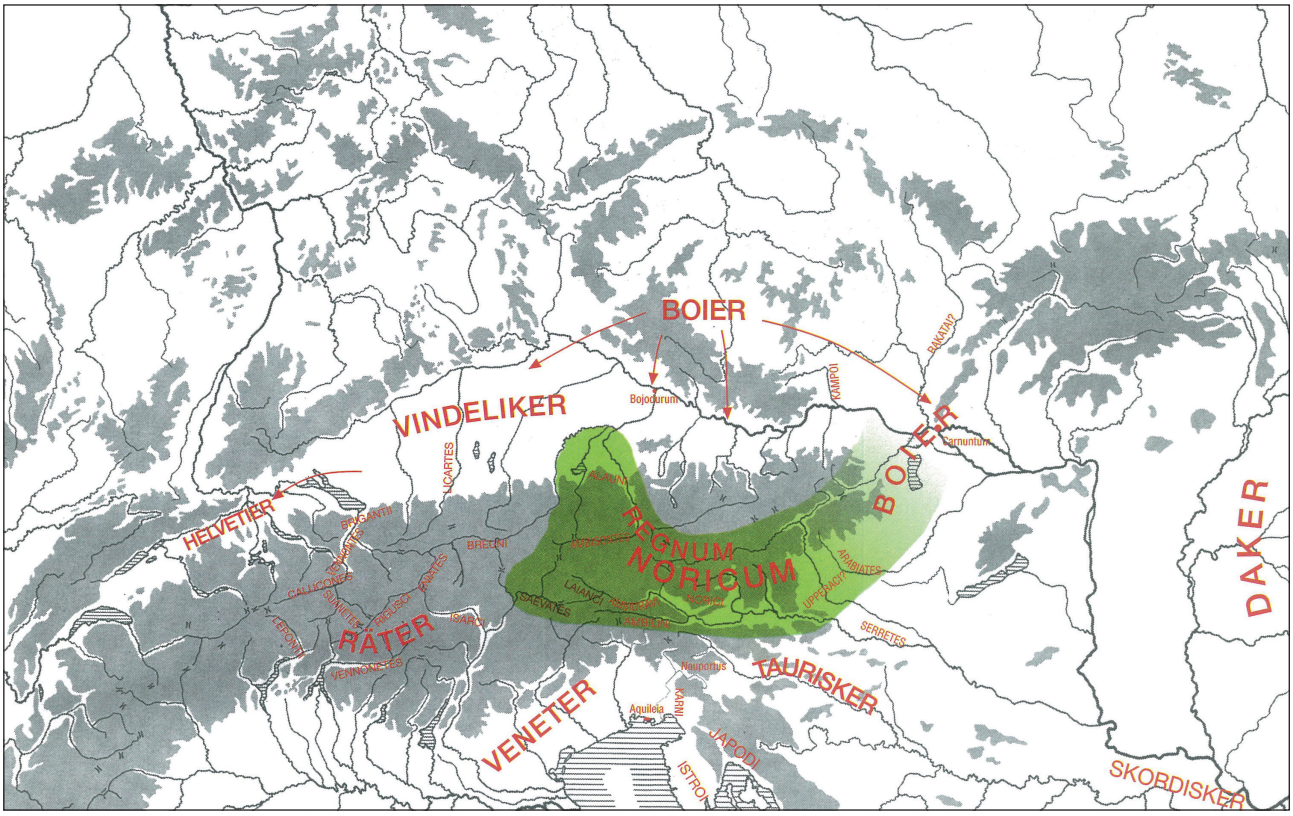

Fig. 3. The *regnum Noricum* and neighbouring tribes in the eastern Alpine and Danube region (Urban 2000, 365).

ritories that were only nominally Roman and what was surely considered to be a militarily unsecured region in the eyes of Germanic warrior bands from the right bank of the Rhine. It is not excluded that Germanic warriors had stayed in the territory of the Treveri even before the uprising of the latter and possibly also took part in some form or another in that revolt. The surprising defeat of Lollius and the loss of half a legion in 16 BC at the hands of a federation of Sugambric warriors in the Roman Rhineland illustrate impressively the military strength and organisation of the attacking Germanic warrior bands. We can assume that contingents of warriors belonging to Elbe-Germanic and Suebian tribes also participated in these operations, given the strong presence of these tribal groups in Westphalia.

In his study of the archaeology of the Late pre-Roman Iron Age and Early Imperial period in Westphalia Georg Eggenstein discusses an archaeological horizon characterised by Elbe-Germanic materials clearly identifiable on settlements but not in burials of the time. The fact that these Elbe-Germanic finds are always associated with indigenous wares is worth noting. To date no sites with only Elbe-Germanic assemblages have been recorded. After a balanced consideration of the opinions previously expressed, Eggenstein concludes that the Elbe-Germanic horizon in Westphalia and in neighbouring regions is the result of the "immigration of Elbe-Germanic communites", in which the migrants favoured already settled areas and mixed with the indigenous population.[17] The strength of the Elbe-Germanic influence on the indigenous tribes of Westphalia is illustrated by a map (Fig. 4) showing the presence of Elbe-Germanic pottery in Westphalia and the left bank of the Rhineland. Eggenstein believes that there was no potential for conflict in the region because the Elbe-Germanic pottery always occurs together with local pottery on indigenous settlements. Christoph Reichmann on the other hand would not exclude the possibility that the Elbe-Germanic immigrants – which he describes as an "outsider group" – carried out raids from the Lower Rhine into the area of the left Rhine river bank.[18] In this

17. Eggenstein 2002, especially 179–183. – Bemmann (2007, 97–105, especially map 64) accepts Eggenstein's position that there are no indications of conflict between indigenous and newly-arrived populations without further comment. – See also Frank, Keller 2007, 316–324. – For the western expansion of the Przeworsk culture, see Bockius, Łuckiewicz 2004, 332–335. – Łuckiewicz 2007, 336–338.

18. Reichmann 1979, 186–217, especially 201, 210.

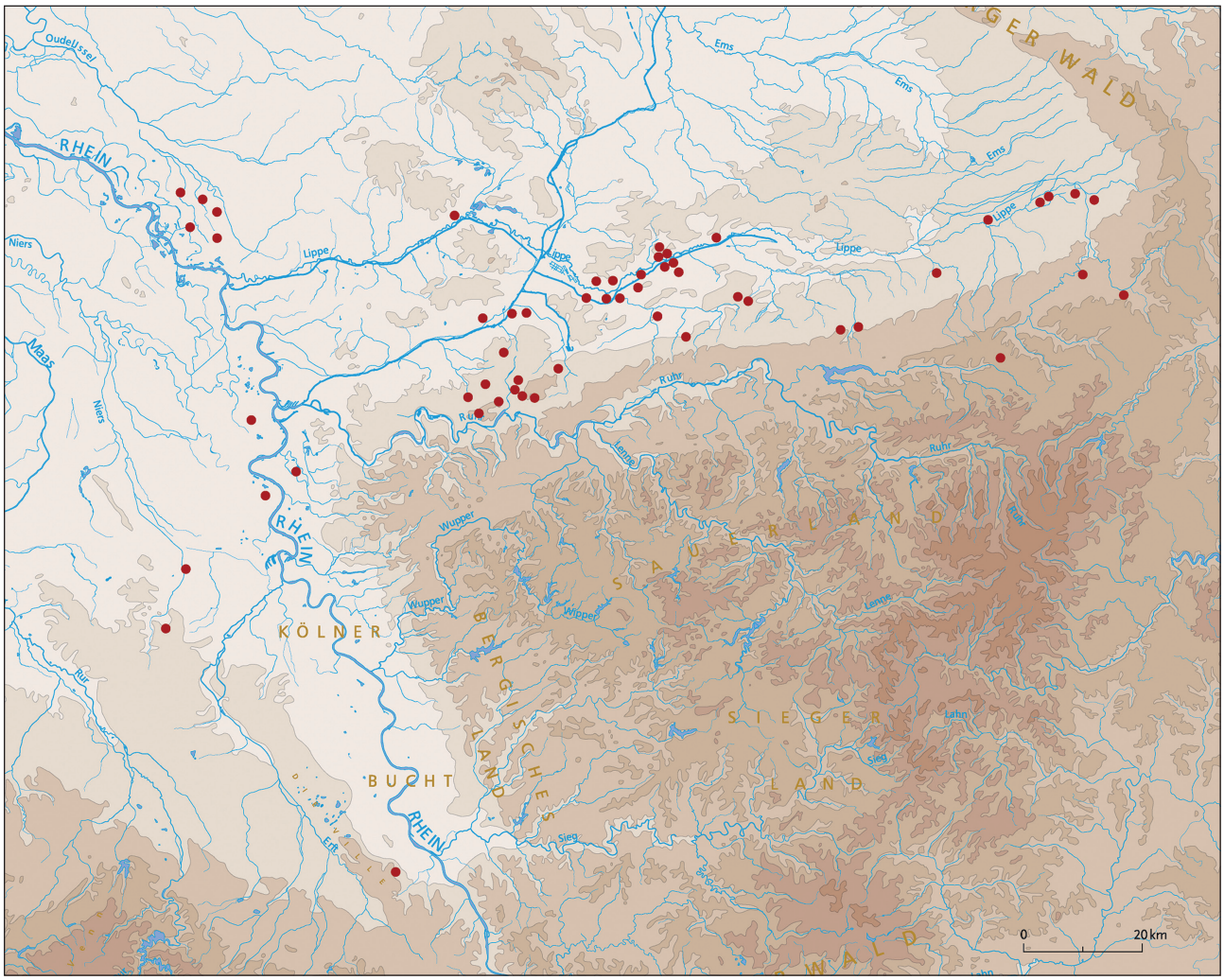

Fig. 4. Map of sites with pottery of Elbe-Germanic type in Westphalia and the Rhineland (after Bemmann 2007, Fig. 64; graphics: Christoph Duntze, LVR-LandesMuseum Bonn).

case subordination to the indigenous population would appear rather unlikely.

Against this background the question arises of how Rome secured its claim to power over the regions of the *regnum Noricum*, which was incorporated around or soon after 15 BC. The uncontrolled infiltration of Elbe-Germanic and eastern Germanic groups in southern German areas but especially in the regions to the north of the Middle Danube could have represented a potentially dangerous situation for the newly-integrated Noricum and its strategic assets such as iron and gold.[19] This is comparable to the danger posed by the increasing presence of foreign groups in Westphalia and the Main region for the economically very important and rich Gaul.

The problem of consolidating power is exacerbated by the (in Roman eyes) successful campaigns of Drusus and his successor Tiberius. Since there is no archaeological evidence available, the writings of ancient authors do not provide sufficient grounds to draw up a reliable map of the tribes and their territories conquered by Drusus and Tiberius. Overall it looks as though the northern German lowlands and the Mittelgebirge region adjoining it to the south as far as the Weser and the Main were conquered. Any statement about the situation between the northern fringes of the Alps and the Danube and the areas to the north of the Danube is pure speculation. We cannot even say with any degree of certainty if and what role the (Middle) Danube played during the wars in the Alps or in the Germanic wars under Augustus. The location of Rome's "northern frontier" after the integration of the *regnum Noricum* is unknown. Was it the Danube or some unknown "line" north or south of the great European river whose middle course was to become the northern frontier of the Empire more than 60 years later? We

19. Straube 1996. – Cech 2008.

should avoid projecting later systems of the balance of power onto the very dynamic situation during the times of the Augustan offensives.

We must also accept that during these offensives situations arose that forced Roman officers and officials to take decisions whose influence went far beyond the actual events. The full significance of such decisions was however not always recognised by the ancient authors or was not deemed important enough to warrant a mention. The testimonies of our ancient "informants" concentrate on the decisions and actions at the highest level of command, i.e. the members of the imperial family and its close entourage.

Remarks on the Results of Research on the Written Sources Referring to Maroboduus

There is no doubt that Maroboduus, of the tribe of the Marcomanni, played a key role in the political and military development of the Middle Danube region in Augustan and Tiberian times. Many scholars have dealt with his biography,[20] most recently Peter Kehne and Gerhard Dobesch. Despite different perspectives on some aspects, both follow surprisingly closely the wording of the ancient authors in their reconstructions of Maroboduus' life and actions. At this point let us recall that the written sources at our disposal are in no way independent or value-free testimonies, but narratives influenced by personal motivations, intentions or knowledge of historic events, processes and people. None of these accounts would stand up to scrutiny in a modern-day court.

Despite the relative amount of detail contained in the written sources about Maroboduus, serious doubts remain about these accounts and the actual course of the events they report. Here I would like to concentrate on certain questions that relate to our concerns, namely in what capacity Maroboduus came into direct personal contact with Roman officials. His relationship with the emperor Augustus is also closely linked to this question. The core of the problem is whether Maroboduus went to Bohemia as a "private person" as the ancient written sources tell us, or whether he was sent there by the Romans. The answer to this question influences our judgment of his position in the political and military structures of the Middle Danube area and neighbouring regions.

Modern historians indicate that Maroboduus was born in 30 BC or shortly thereafter, the son of a member of the Marcomannic *nobilitas* living at that time either in Main-Hesse or Main-Franconia. According to the written sources he went to Rome at some point and stayed there for an undetermined period. The reasons for his stay in the Empire's capital are not given but it is possible, among others, that he was taken hostage after a defeat and subsequent bilateral agreements, or that he served in the imperial guard or in another military unit. Maybe he was simply a prisoner of war. Presumably he did not fall into the hands of Rome by his own choice.[21] The earliest possible time for these events would be the beginning of the Augustan offensive against Germanic tribes, but it is more likely that Maroboduus' captivity dates to the defeat of a Marcomannic army by Drusus in 10 or 9 BC.[22] Gerhard Dobesch supposes that he returned to Germania in 7 or 6 BC.[23]

Close contacts with Augustus are as difficult to substantiate as the education Maroboduus is supposed to have received. Both are quite unlikely.[24] The Marcomanni were one among many Germanic tribes, far away from Rome and at that time of no political or military importance. Augustus, the sole ruler of the Roman Empire, surely had better things to do than to look personally after a young member of the Marcomannic nobility. Moreover, Augustus suffered and had to deal with some personal setbacks:[25] Augustus probably never acknowledged Maroboduus in the manner that a literal reading of the few contemporary sources would suggest. The gifts and other good deeds allegedly bestowed are inventions of the ancient authors designed to reinforce Maroboduus' negative image. They are stylistic devices to justify morally and ideologically Rome's conduct in dismantling Maroboduus' empire. The emperor was not always in Rome during the relevant years, and when he was, the young Marcomannic tribesman must have meant very little to him.

Like many other young men from the upper social strata of subjugated nations or from populations contractually bound to Rome, Maroboduus probably stayed

20. Recent overviews can be found in: Kehne 2001a, 258–262. – Kehne 2001b, 290–302. – Dobesch 2009, 7–52. – Kehne 2009, 53. Since the sources have not changed, there is little point in reiterating the opinions expressed to date and evaluating anew the arguments advanced with different degrees of emphasis. Both authors provide extensive bibliographies.

21. Wolters 1990, 180–181. – Kehne 2001a, 258. – See Dobesch 2009, 13–14.

22. See also Dobesch 2009, 14, 16.

23. Dobesch 2009, 15. – The 15–20-year old Maroboduus thus had a maximum of four years in which he not only mastered an astonishing anount of learning and acquired remarkable skills, but also found entry into the highest circles of the Empire. – Kehne cannot give precise indications about the timing of his return in his short biography of Maroboduus.

24. See also Kehne 2001a, 258.

25. Christ 1988, 91.

in Rome at first against his will as human collateral in a negotiated agreement.[26] The "Rome" of the ancient authors can also stand in for Lugdunum or another large military garrison to serve the purpose of these authors and to enhance the potential for moral outrage. Presumably Maroboduus did receive military training, and it is possible that he commanded, like other Germanic leaders in the service of Rome, a Germanic or Marcomannic unit, thereby gaining insights into the civil administration of the Imperium and especially the organisational structure of the Roman army.

I believe it rather unlikely that it was even possible for a high-ranking Roman commander in the Germanic theatre of war or the emperor in Rome himself to reflect meaningfully on the reorganisation of the Germanic tribal landscape after a successful conquest or make decisions about staffing. Such matters were decided as and when the situation arose, and only then were decisions about personnel made. Who was to know at the time of the (supposed) hostage taking of a relatively unimportant Germanic youth what a bright star he would become in a few years time? It was not Augustus who personally drew up the list of hostages to be secured but an officer on the spot, based on information gathered about individuals that were available. Is it likely that young noblemen from any number of Germanic tribes that had just been subjugated and forced to surrender to the Roman army were brought to Rome and then educated together with the sons of major and important kingdoms in the east of the Empire, receiving tuition that included fluent Latin and a thorough knowledge of Greek and Roman literature? Would these "young savages" from Europe's *Barbaricum* be groomed as inspired interlocutors at the highest social level in a completely uncertain future?[27] Is this a realistic scenario? Rather not.

In reality Maroboduus was far from having the status of a potential "friendly king" at the beginning of his stay in "Rome". If we accept that he entered the Empire as a hostage, then he was just one of many similar young Germanic men who were used to guarantee compliance with the terms of treaty in the aftermath of military defeat or voluntary submission.

On the other hand, after the successful campaigns under Drusus,[28] which Tiberius concluded after Drusus' death, the Romans must have soon considered the new order in the conquered territories and pondered over the consolidation of its periphery. If the suggestion outlined above, i.e. that the offensive carried out from the Rhine was intended to conquer all Germanic tribal territories between the Rhine and the Weser holds reasonably true, then different regions were affected. First any claims over the subjugated tribes and their territories had to be consolidated. If the ethnic reorganisation of regions conquered by the military formed part of Augustus' policy of consolidation, the resettlement and deportation from the right bank of the Rhine and Westphalia of the Sugambri, and (as the case may be) of other Germanic groups, fits this scenario. This would have removed a potentially serious danger of uprisings in the northern periphery of Gaul. The situation in the south and in the entire area to the north of the Alps up to the Danube and beyond is less easy to assess. But we can assume that the Roman military staff in charge of planning in the Germanic theatre of war had a good knowledge of the topography and settlement of the eastern and southern regions, whose tribes had already been conquered. Add to this information on the structure of the population on the periphery of the *regnum Noricum*, which by then had been incorporated into the Empire. We should not forget that the Norican gold and iron resources were already accessible and were of great economic value. The indigenous population had an excellent knowledge of metal extraction and metalworking techniques; it was probably well organised and used to dealing with the Romans.
If there was an ethnic reorganisation of the regions conquered in the northwest, why should the south and the east be overlooked? There the still extant Celtic traditions played, in my opinion, a rather secondary role, even in the conflict-fuelled time of military occupation. The conquered regions and, when possible, their peripheries had to come under permanent Roman control, no matter what the ethnic or cultural affiliation of their inhabitants were.

Maroboduus' Arrival in Germania

Maroboduus returned to Germania with Rome's approval, according to Peter Kehne. However, he considers it "highly doubtful" that the Romans also gave their blessing to "a power takeover among the Marcomanni who had been defeated by Drusus in 8 BC and forced to total

26. Like other "hostages" Maroboduus may have been considered an investment that was cheap to maintain but represented a useful asset for the future.

27. Dobesch (2009, 8–10) qualifies his remarks by noting that his account of the Cheruscan nobles in Rome cannot be transferred directly to Maroboduus but his subsequent statements on the education of "Cherusci of the high nobility" come close.

28. After all, these campaigns resulted in the surrender of the Marcomanni, in the wake of which Maroboduus was probably taken hostage.

surrender by Tiberius".[29] How could this have happened in practical terms? A hostage leaves his assigned place of residence with the approval of the Roman authorities and meets – after an absence of several years (can this really take place without Roman acquiescence?) – the politically and militarily much weakened leaders of the Marcomanni. And these leaders, which no doubt must have been appointed by the Roman authorities after the surrender, entrust the fate of their severely battered tribe to a young man who had spent the last few years away from his own community and had never occupied any position of responsibility in his tribe. Was the fact that he was a member of the nobility sufficient? Apparently a mandate from a "private person"[30] was sufficient. This seems barely possible without the Roman authorities' approval or instigation.[31]

As soon as he had taken command as the new leader of the Marcomanni Maroboduus let it be known that it was his firm intention to leave the area occupied by the Romans behind and seek new settlement areas in Bohemia with the rest of his tribe. As Gerhard Dobesch rightly remarks, it is an "extremely naïve modern notion" to imagine that Barbarian tribes "could just set off".[32] How would Maroboduus supply his tribe on its journey? What did he imagine his reception in Bohemia – which the archaeological evidence indicates was far from unoccupied, a fact that Maroboduus surely knew – would be, and how did he organise the march? Where did the horses and carts come from, and is it likely that a large group of people would just slip out of a zone occupied by the Romans unnoticed?[33] And did Maroboduus think that Rome would tolerate profound political and military change on the periphery of the *regnum Noricum* that it had annexed just a few years earlier? These are all questions thrown up by the testimony of the ancient written sources and the modern historians who followed them.

A key argument used by modern historians is Strabo's unequivocal statement that Maroboduus arrived in Bohemia as a "private person", to cite Peter Kehne. My reading, contrary to the wording of the written sources, is that Maroboduus was acting on behalf of the Romans ever since he left "Rome" for Germania. The contradiction may not be as stark as would first appear. We know – and not just from the Late Republican period and the wars on the Iberian Peninsula – of a long line of military commanders consistently of senatorial lineage who wielded the power to command (*imperium*) without legal authority from the Senate. Their actions were nevertheless carried out with the understanding and "blessing" of the Senate,[34] albeit not officially expressed or sanctioned. Officially, no one knew. In this connection the historian Erich S. Gruen wrote: "Spain provided the site for most of the long-term promagistracies, as might be expected. Much hard fighting was required in the subjugation of the territory. And the Roman government was not to be hamstrung by any abstract principles about annual commands."[35] Is it conceivable that Roman commanders would have taken decisions on the spot and for pragmatic reasons, in close consultation with the Senate or without, about the military and political control of the conquered region and its periphery? This includes the issue of human resources. Could it not have been put to the hostage Maroboduus: "Cooperate! It is not to your disadvantage. Officially we cannot commission you but you have our blessing."?

The following remarks do not corroborate the written sources and even contradict them: Maroboduus is sent to Bohemia on Rome's orders – either officially or without mandate – with a retinue probably numerically quite moderate. Upon arrival he is expected to reorganise what is, from the Roman viewpoint, a confusing situation that is potencially dangerous for the further integration of the former *regnum Noricum*.

Maroboduus' Seat

We start from the premise that Maroboduus went to Bohemia on Roman orders. It is quite unlikely that he acquired a permanent seat on his arrival in Bohemia.[36] He must at first have been mobile, until he was in a position to consolidate his claims to power over Bohemia and what remained of its Celtic population and immigrant Germanic groups.[37] But soon afterwards he must have

29. Kehne 2001a, 258: "Herrschaftsübernahme bei den von Drusus 10 v. Chr. vernichtend geschlagenen und 8 v. Chr. von Tiberius zur allgemeinen Dedition gezwungenen Markomannen."

30. According to Kehne, who follows Strabo's (7, 1, 4) wording closely: Kehne 2001a, 258. – Kehne 2009, 54.

31. Dobesch 2009, 15 at least leaves open the possibility that Maroboduus acted with Romes's acquiescence.

32. Dobesch 2009, 14.

33. Kehne (2001a, 259) emphasises the wording of the ancient written sources, which unambiguously refer to "individual intitiative, migration, flight, occupation, hiding, hideouts".

34. I am grateful to S. Schipporeit (Vienna) for drawing my attention to this group of *privati*.

35. Gruen 1974, 538, see also 534–543.

36. Droberjar 2009, 94. – Kehne 2009, 56 and Note 35. – Salač 2009, 123.

37. How did Maroboddus come to take control of the remaining Celtic population and Germanic immigrants without legitimation and without pressure? Merely by the strength of his personality? Most probably not. The archaeological evidence suggests that Maroboduus' incoming group was quite small, and this also makes sense when considering the journey from the Roman occupied zone to

sought to establish a permanent base that had to meet a number of criteria. Power depends on good lines of communication and accessibility. A centre of power in the vicinity of locations like Lovosice, the region of Kadaň, Kolín or Prague-Bubeneč – all Bohemian prehistoric central places as recently proposed by Vladimir Salač[38] – appears unlikely in view of Maroboduus' aims, as reported in historic documents. His dominion, or perhaps better the region under his direct or indirect control, is supposed to have extended beyond the narrow confines of Bohemia and to include large areas of the central European *Barbaricum*.

From the perspective of a Maroboduus depending on Rome, his seat had to meet some further requirements. The line of communication "with Rome" had to be direct and controllable by the contracting authority, i.e. Rome. The traditional central places of Bohemia were unsuited to such a purpose because at that time the routes of advance were uncontrollable and obscure from a Roman viewpoint.

Rome's knowledge of the topography and traditional communication networks of the Middle Danube region relied primarily on information provided by the Norici and to a lesser extent on its own reconnaissance. The question is whether these old, historically-accrued lines of communication were able to meet the needs of a completely changed geopolitical situation. With the annexation of the *regnum Noricum* the immediate influence of Rome had reached the Danube. The simultaneous offensives against the Germanic tribes led, despite military success, to the recognition that military operations needed routes and that these first had to be laboriously cut through thick forest.[39] In Gaul the tight network of existing routes of communication between the oppida had facilitated the subjugation of the tribes and their subsequent integration into the Roman Empire. This was not the case in Bohemia. The links with northern Italy were good and well-established. With the prospect of further expansion, but surely also with the consolidation of what had been achieved so far in mind, the Romans had to expand their network further north because there the existing lines of communication were not suited to the new challenges. If the Roman campaigns against the Germanic tribes had been successful, "in Germania" a network of long-distance-roads would have been built rapidly, at first mainly serving military objectives but later increasingly economic purposes.[40] Seen against this background, Maroboduus' seat had to be able to respond urgently to these Roman requirements and would therefore not have to tie in with traditional, indigenous structures.

A location with respect to the *regnum Noricum*, which had been annexed only a few years previously, constitutes a further aspect that would have influenced the choice (corresponding to Roman expectations) of a central place in a region under Marcomannic dominion. At the time of the establishment of "Maroboduus' empire" the territory of the *regnum Noricum* was neither conjoined to the regions and settlement areas of northwestern Germany and the western Mittelgebirge – now occupied by Roman troops – nor was it contiguous with Bohemia, which is usually equated with the core area of Maroboduus' dominion. On the contrary, the regions located between the east of the main Alpine chain and the Danube (mainly the basins of Vienna and Tulln, favourable to settlement) and especially the areas north of the Danube and in the western Burgenland belonged to a grey area: on the periphery of the zone of interest and influence of the *regnum Noricum* and now within the zone of interest and influence of the Empire. The west of this zone was close to already conquered territories, and to the east the Pannonian Lowlands were already under Roman control. At the time of the establishment of "Maroboduus' empire" the region under consideration posed a security problem. Given the enormous numbers of troops that would have been needed to consolidate the already conquered territories of "Germania" and continue the offensive campaigns, in my opinion, was an illusion: hence the idea of indirect control by a dependant ruler for a limited period.

The new central place therefore had to meet multiple criteria. We can assume with some certainty that at the beginning of the power consolidation phase this seat had to be easily accessible, whenever possible, from the existing Roman road network. The area of Bratislava-Devín fits these requirements perfectly. It is located at the intersection of the Amber Route with the Danube, and at Devín the lines of communication open up towards

Bohemia. So how can a young man without any real legitimation acquire a dominant position in Bohemia at the turn of the era?

38. Salač 2009, 123.

39. An unconventional but very attractive suggestion was made Gerhard Dobesch in this context (Dobesch 2009, 43). He asks, whether it would have been part of the duties of the troops attacking from Marktbreit to build a solid and durable road towards the east. This hypothetical road building project, perhaps merely invented by Dobesch, would fit exactly a situation in which a campaign was largely over and successful from a Roman viewpoint. It would be a clear and visible sign of Rome's reorganisation of the conquered areas.

40. Let us recall that Agrippa built long-distance roads leading to the Rhine in preparation of the Germanic wars in Gaul. His task was made easier by the fact that he could use already existing routes.

the north, the west and the east (Fig. 5).[41] Moreover, the location of the old central places, unsuited to the new infrastructure's objectives, would not have been corresponded to Maroboduus' desire or demand for close economic contacts with the Roman Empire. If Roman merchants were to settle permanently in the new king's seat of power, they had to have reliable supply routes. From Devín routes towards northern Italy either already existed or could easily be developed. And let us not forget that Devín was accessible not just by traders but by Roman troops.

The excavations carried out over a very limited area and in difficult circumstances in the central castle yard of Bratislava-Devín have yielded a number of Roman finds, which cannot be dated more precisely than to the Augustan period, i.e. the years around the turn of the era and thereafter. Sherds of stamped *terra sigillata*, including several plates, bowls and cups, are well represented in the assemblage and provide a sound basis for dating. Sherds of Augustan finewares and amphorae are also present. The range of metal finds recovered is dominated by elements of Roman military equipment such as buckles and *cingulum* appliques or fittings. Five Aucissa type fibulae, coins and an iron tent peg also fit in this spectrum. The assemblage indicates, as the excavators rightly note, that Roman soldiers were present.[42] In my opinion the identification of stone foundations measuring barely 4.5 × 3.5 m with an "Augustan tower" is unlikely: a side wall curving towards the interior and ending for no visible reason is puzzling.[43] In this context, let us recall a (to my mind less than convincing) remark by Thomas Fischer: he would like to see in the Augustan assemblages and sites of Bratislava-Devín a "fortified and separate headquarters of Tiberius' army". The Roman units would have camped at the foot of the Castle Hill. The site of Kops Plateau in Nijmegen cited by Fischer as a parallel however differs from the site of Devín in many respects.[44] If Fischer's suggestion should prove to be correct, then one of the questions arising concerns the relations between the (remaining) Celtic population still occupying the oppidum and the high-ranking Roman officers. How, for example, was their security handled?

The evidence for "*negotiatores* components", i.e. traces of the presence of (Roman?) traders in Devín is proving elusive.[45] A few traces of artisan activity, iron artefacts and fragments of amber are insufficient.

From a Roman perspective Bratislava's Castle Hill is not eligible as a seat for a Marcomannic king dependent on Rome because it had previously been an emporium of the *regnum Noricum* and was therefore "contaminated". The seat of the new "strong man" in the Middle Danube region was not to stand in the shadow of a power vanquished by Rome; instead it had to symbolise new power balance.

The Roman Finds of the Early Imperial Period in Bohemia[46]

A rapid survey of the Late Iron Age and Early Imperial metal vessels found in Bohemia prompts a few reflections.[47] As a starting point we must bear in mind that here, as in other parts of the western and central European *Barbaricum*, Late Iron Age and Early Imperial "Roman imports" are practically always restricted to a few forms within a much larger spectrum of containers made from non-ferrous metals available in the Empire.

The period under consideration spans several decades, a period in which an entirely independent Celtic kingdom (though politically and economically closely associated with Rome) existed between the territories of the Late Republic and Bohemia. It is only with the annexation of the *regnum Noricum* that Rome's claims to power expanded towards regions to the north of the Alps (here I deliberately avoid the term "frontier"). This means that all "Roman finds" produced before around 15 BC and which in one form or another found their way to Bohemia could have been acquired during the time of the *regnum Noricum*. I consider this to be a more likely scenario than the acquisition of goods in the Roman Empire south of the Alps. Hence for this period we should refer more correctly to "relations with the entire pre-Roman Norican-Pannonian zone". The quite frequent presence of later Norican-Pannonian belt sets and other elements of dress in Bohemia, Moravia and the territory of present-day Slovakia supports the suggestion that contacts actually targeted this region.

41. Madejski 2013, 48–52, especially map on p. 58.
42. Pieta, Vlachá 1999, 179–205. – Pieta 2010, 54–6.
43. Pieta, Vlachá 1999, 190–191, Fig. 1/4 and Fig. 6.
44. Enckevort, Zee 1999. – Fischer 2009, 488–489, Note 7. – Enckevort 2014.
45. Pieta 2010, 54.
46. Just as I completed the manuscript of this paper, a dissertation on the Roman non-ferrous metal vessels from Moravia and parts of Lower Austria north of the Danube was published (Jilek 2012). It was unfortunately not possible to read this work thoroughly in the time available, but a rapid skim of the assemblages immediately shows that they barely differ from the vessels found in Bohemia.
47. Karasová 1998. Although for various reasons possibly not all metal vessels found in Bohemia have been listed, I take the catalogued pieces to be quantitatively and qualitatively representative. – Salač 2009, 120–121.

Fig. 5. Putative routes of communication from the Baltic to the Roman Empire ("Amber Route"). – Orange: certain. – Yellow: reconstructed (after Quast, Erdrich 2013, 48).

Although Zuzana Karasová complies with the recommendations of the CRFB project (Corpus of Roman Finds in the European *Barbaricum*)[48] in the catalogue section of her overview of bronze vessels from Bohemia, she does not always present the dating of the finds individually and by context.[49] The dates provided, in particular those of Augustan-Tiberian times or first half of the 1st century AD that are of interest to us here, are generally confined to the date of the context, which by nature is derived from associated Germanic finds. At a subliminal level and probably unconsciously an impression is created that the production of rather long-lived forms of vessels such as situlae of E18 and E19 type or cauldrons with iron rim of types E7 and E8 but also pans and basins belong to the time span of the context which is given by the associated Germanic finds. Problems of circulation and hoarding are thus suppressed.[50]

The two Late Iron Age bronze cauldrons with iron rim from Dobřichov-Pičhora suggest links with the western Celtic-Gaulish zone, that is, their origin is different from that of the remaining Bohemian metal containers.

The types present among the non-ferrous metal vessels found in burials in Bohemia is, as already mentioned, but a small selection of the range of types then available within the Empire, and in terms of function they are confined to eating and drinking sets. As to their value, the situlae, pans, bowls and basins belong to the standard "Roman" household equipment, and hence could hardly have represented "gifts or bribery binding [their recipients] to Rome".[51] The buckets of E38 type that accompany various Augustan-Tiberian burials are purely and simply cooking pots. The occasional occurrence of vessels like E125 type jugs, which are quite rare in *Barbaricum*, does not change this assessment. It hardly fits the model of relations of trade and exchange, whichever way they were handled and regulated, that the historic sources suggest and that the archaeologists have adopted. The permanent presence of Roman traders in Maroboduus' seat that the historic sources refer to would have yielded a qualitatively and quantitatively quite different, measurable archaeological assemblage. A reference to the Augustan town of Waldgirmes in Hesse or to the Magdalensberg in Carinthia should be sufficient to illustrate our point. Finally, Roman luxury ware was made of precious metal.

Rather than "luxury ware" the non-ferrous metal vessels circulating in Bohemia in the period under consideration should be seen as personal belongings. If we compare the range of forms recovered in Bohemia with those found in the more or less contemporary burials of the Lower Elbe,[52] some surprising correspondences emerge. Here too situlae, pans, bowls and basins are dominant, and cooking cauldrons of types E4–E8 as well as cooking pots of type E38 are also common. This raises the question of whether there was a milieu within the "Roman sphere" in which on the one hand there were young Germanic men or warriors (in view of the repeated association of Germanic weapons and Roman vessels made from non-ferrous metals), and where on the other hand a correspondingly reduced range of metal vessels was used. Certainly during the Early Roman period, one will find parallels in a military environment.

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48. Karasová 1998, 7.

49. Rubric 3d is labelled "Dating of the object according to the whole assemblage and its researcher, sometimes with our remarks, when possible, and with presumed time of manufacture": Karasová 1998, 65.

50. The princely burial of Mušov is an impressive illustration of this phenomenon. Interestingly, it also yielded a cauldron with iron rim: see Erdrich 2008.

51. Salač 2009, 120.

52. Laux 1995, 81–95. – Erdrich 2002.

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Epilogue

Conference Programme and Participant List

FWF-Projekt P 22615 „Die keltische Höhensiedlung am Oberleiserberg“
Institut für Ur- und Frühgeschichte der Universität Wien
in Zusammenarbeit mit der
Prähistorischen Kommission der Österreichischen Akademie der Wissenschaften
„Boier – Taurisker“
Oberleis-Klement, 14.–15. Juni 2012
(Schüttkasten Klement)

Donnerstag, 14. Juni
10.00–10.30 – Eintreffen
Herwig Friesinger (Wien): Begrüßung und Einführung.

10.30–12.30 – Vormittags-Session:
Mitja Guštin (Piran): Materielle Ähnlichkeiten zwischen Norditalien und Mitteleuropa in der Frühlatènezeit.
Boris Kavur (Koper): The End of the Early La Tène Period in Styria: A View to the East.
Marko Dizdar (Zagreb): Late La Tène Settlements in the Vinkovci Region – Centers of Trade and Exchange.
Boštjan Laharnar (Ljubljana): Notranjska (SW Slovenia) in Late Prehistory and the Early Roman Period.

12.30–14.00 – Mittagspause

14.00–16.00 – Nachmittags-Session I:
Maciej Karwowski (Wien/Rzeszów): Tauriskische und skordiskische Importe auf dem Oberleiserberg.
Jiří Militký (Praha): Import von norischen und tauriskischen Münzen in das Gebiet der Boier.
Ivan Čižmář (Brno) / **Hana Čižmářová** (Brno): Ein Beleg für die Verbindung der mährischen Kelten mit dem Taurisker Gebiet.
Bernward Ziegaus (München): Der boische Goldschatz von Manching.

16.00–16.30 – Kaffeepause

16.30–18.30 – Nachmittags-Session II:
Dragan Božič (Ljubljana): Bronzene Fibeln vom Typ Zvonimirovo bei den Tauriskern und bei den Boiern.
Ivan Drnić (Zagreb): Late La Tène Cast Fibulae of the Oberleiserberg Type from South-East Pannonia.
Radoslav Čambal (Bratislava) / **Miloš Gregor** (Bratislava): Problematik von Töpfen mit kolbenförmig verdicktem Rand aus der Schlussfolgerung der Spätlatènezeit im Mitteldonaugebiet.
Igor Bazovský (Bratislava): Ein eingetiefter Bau mit verzierter Feuerstelle aus dem Oppidum in Bratislava.

19.00 – Abendessen und Empfang

Freitag, 15. Juni
09.00–11.00 – Besuch der Fundstelle Oberleiserberg (Führung Alois Stuppner und Maciej Karwowski)

11.00–12.30 – Vormittags-Session:
Piotr Łuczkiewicz (Lublin): An der „bastarnischen Route“ – eine Nachahmung der Tetradrachme von Philipp II. aus Ostpolen.
Andrzej Maciałowicz (Warszawa) / **Marcin Rudnicki** (Warszawa): Central European Echoes of the Cimbri Migration in Archaeological and Historical Sources.
Marcin Rudnicki (Warszawa) / **Andrzej Maciałowicz** (Warszawa): Lugii – Boii – Taurisci: New Data and Hypotheses on Amber Route Connections in the Late La Tène Period.

12.30–14.00 – Mittagspause

14.00–16.00 – Nachmittags-Session I:
Lőrinc Timár (Budapest): Settlement Structure and Sunken-Featured Buildings.
Margaréta Musilová (Bratislava) / **Branislav Resutík** (Bratislava): Bauanalysen der Kelto-römischen Steinbauten auf der Burg von Bratislava.
Ortolf Harl (Wien): Die Taurisker als Herren des Ostalpenraums im 2. Jh. v. Chr.
Michael Erdrich (Wien): Wo saß Marbod?

16.00–16.30 – Kaffeepause

16.30 – Abschlussdiskussion und Ende der Tagung

Teilnehmer/innen

1. Kristina Adler-Wölfl (Wien)
2. Igor Bazovský (Bratislava)
3. Dragan Božič (Ljubljana)
4. Radoslav Čambal (Bratislava)
5. Ivan Čižmář (Brno)
6. Hana Čižmářová (Brno)
7. Marko Dizdar (Zagreb)
8. Ivan Drnić (Zagreb)
9. Eduard Droberjar (Hradec Králové)
10. Michael Erdrich (Wien)
11. Mitja Guštin (Piran)
12. Ortolf Harl (Wien)
13. Veronika Holzer (Wien)
14. Maciej Karwowski (Wien/Rzeszów)
15. Boris Kavur (Koper)
16. Anton Kern (Wien)
17. Boštjan Laharnar (Ljubljana)
18. Piotr Łuczkiewicz (Lublin)
29. Andrzej Maciałowicz (Warszawa)
20. Jiří Militký (Praha)
21. Margaréta Musilová (Bratislava)
22. Monika Orszak (Rzeszów)
23. Karol Pieta (Nitra)
24. Darja Pirkmajer (Celje)
25. Johann Prügl (Ernstbrunn)
26. Peter C. Ramsl (Wien/Nitra)
27. Branislav Resutík (Bratislava)
28. Marcin Rudnicki (Warszawa)
29. Gerit Schwenzer (Wien)
30. Aneta Skrzypczak (Wien)
31. Alois Stuppner (Wien)
32. Károly Tankó (Budapest)
33. Georg Tiefengraber (Graz)
34. Lőrinc Timár (Budapest)
35. Peter Trebsche (Asparn)
36. Gerhard Trnka (Wien)
37. Claudia Uhlemayr (Wien)
38. Natalie Venclová (Praha)
39. Andrej Vrtel (Bratislava)
40. Bernward Ziegaus (München)

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This volume is the result of a conference, which was held from June 14 to 15, 2012 at the event centre Schüttkasten in Klement, Lower Austria. The conference was attended by around 40 researchers from eight countries: Austria, Slovakia, the Czech Republic, Poland, Slovenia, Croatia, Hungary and Germany. The thematic focus of the conference contributions was the nature of contacts and relations between the settlement areas of the La Tène culture, which are associated with the Celtic tribes of the Boii and Taurisci on the basis of numismatic and written sources. The Taurisci are historically and archaeologically well documented and generally acknowledged; the term “Boii”, however, has always sparked fierce debate. “Boii” is here understood as a technical term for a specific territory (Bohemia, Moravia, southern Poland, northeastern Austria and southwestern Slovakia), which is connected by the gold-based “Boii” monetary system.

Fourteen written contributions were obtained for this volume. The paradigm shifts in Iron Age archaeology and the veritable explosion of new archaeological materials and find contexts (coins, fibulae, *Knotenringe*, architecture and settlement features) have found their expression in this volume. New insights into the relationship between the area of Boii coinage and settlement areas of the Norici, Taurisci and Scordisci are presented.

Dieser Band ist das Ergebnis einer Konferenz, die vom 14. bis 15. Juni 2012 im Veranstaltungszentrum Schüttkasten in Klement, Niederösterreich, stattfand. An der Tagung nahmen rund 40 Forscher aus acht Ländern – Österreich, der Slowakei, der Tschechischen Republik, Polen, Slowenien, Kroatien, Ungarn und Deutschland – teil. Den thematischen Schwerpunkt der zwanzig präsentierten Beiträge bildete der Verlauf der Hauptkontakte und Beziehungen zwischen den Siedlungsgebieten der Latènekultur, die aufgrund der numismatischen und schriftlichen Quellen mit den keltischen Stämmen der Boier und Taurisker in Verbindung gebracht werden. Während die Taurisker historisch und archäologisch gut belegt und allgemein anerkannt sind, wird über den Begriff „Boier“ seit jeher heftig diskutiert. „Boier“ wird hier als Terminus technicus für ein bestimmtes Gebiet (Böhmen, Mähren, Südpolen, Nordostösterreich und Südwestslowakei) verstanden, welches mit einem auf Gold gestützten „boischen“ Münzsystem verbunden ist.

Für diesen Band konnten 14 Beiträge gewonnen werden. Eingang fand die Darstellung der Paradigmenwechsel und die wahre Explosion von neuen Fund- und Befundkategorien (Münzen, Fibeln, Knotenringe, Architektur und Siedlungsbefunde). So kann hier eine neue Sicht auf die Beziehungen zwischen dem Raum des boischen Münzsystems, Norikern, Tauriskern und Skordiskern geboten werden.

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