NOVENSIA 33

NOVENSIA 33

Studia i materiały pod redakcją naukową

Piotra Dyczka

NOVENSIA 33





Ośrodek Badań nad Antykiem Europy Południowo-Wschodniej Projekt okładki / Cover design Anna Adamczyk & Janusz Recław Opracowanie graficzne / Graphic design Anna Adamczyk

Redaktor naczelny / Chief editor Piotr Dyczek

Komitet redakcyjny / Editorial board Tat'âna Egorova Evgeniâ Genčeva Rebecca Jones Florian Matei-Popescu Oliva Menozzi Ewdoksja Papuci-Władyka Luan Përzhita Joaquín Ruiz de Arbulo Bayona Andreas Thiel

Sekretarz redakcji / Editorial secretary Bartosz Wojciechowski

Niniejszy numer zawiera artykuły w wersji pierwotnej / Volume contains original articles.

© Publication under the Creative Commons Attribution 3.0 PL (CC BY 3.0 PL) license (full text available at: http://creativecommons.org/licenses/by/3.0/pl/legalcode).

Numer finansowany z programu "Inicjatywa Doskonałości — Uczelnia Badawcza" Uniwersytetu Warszawskiego oraz programu "Rozwój Czasopism Naukowych" Ministerstwa Nauki i Szkolnictwa Wyższego.

Ośrodek Badań nad Antykiem Europy Południowo-Wschodniej 00–927 Warszawa ul. Krakowskie Przedmieście 32 novae@uw.edu.pl

Warszawa 2023

ISSN 0860-5777 e-ISSN 2720-2941

Wydanie I

Druk: Hussar Books

SPIS TREŚCI / CONTENTS

Zofia Kaczmarek	
Centers of Romanness. The collegia in Virunum and their role in integrat-	
ing the population of the provinces	7
Karolina Trusz	
Fish and fishing in the daily life of the inhabitatants of the Southern Cost of Anatolia	35
Mateusz Żmudziński	
A possible branch of the Silk Road in the Roman Danube provinces	45
С. М. Ильяшенко, М. Матера, П. Лех	
Исследования в Западном городском районе Танаиса в 2018-2019 гг.	
(раскоп XXV)	57
Vadzim Belâvec, Katarzyna Czarnecka	
First find of an imported Roman key from the territory of Belarus	123
Krzysztof Narloch	
Bronze nails from Risan (Montenegro)	133
Oświadczenie o etyce wydawniczej i niewłaściwych praktykach	177
Informacje i wskazówki dla autorów	178
Publication ethics and malpractice statement	183
Guidelines for authors	184

Vadzim Belâvec Katarzyna Czarnecka

FIRST FIND OF AN IMPORTED ROMAN KEY FROM THE TERRITORY OF BELARUS

Abstract: In 2020 a small key found by detectorists somewhere in the Brest district, was donated to the Minsk City History Museum in Minsk, Belarus. The ring-keys, made of copper alloy, represent type were popular in the whole Roman Empire, dated widely, but mostly to the third century AD. They were used to open locks in chests or small caskets. Most probably the key could be connected with the Wielbark culture, occupying the area of Brest at that time and would be first finding of the imported key from the Wielbark culture. It could be imported from the Black Sea area, as a result of intensive contacts with the Cherniakhiv culture.

Key words: Roman imports, ring-key, Wielbark culture in Belarus

In the spring of 2020, a unique small key on a ring was donated to the Minsk City History Museum (Музей гісторыі горада Мінска) in Minsk, by an amateur collector Alâksej Żuraŭskij, who had been cooperating with this institution for many years. According to the information provided to the museum, this key was accidentally discovered in the first half of the 2010s, in the south-west of Belarus, probably near the city of Brest. In July 2020 the curator of the archaeological collection of the Museum, Ûladzimir Kalasoŭskij, asked Vadzim Belâvec¹ to identify this find, who recognized it as an import from the Roman Empire, took photos and made drawings of it.

The key is made of copper alloy, probably brass, but no metallographic analysis was made. It consists of a ring, diameter 2.2 cm, very short shaft and perpendicular bit with close set teeth arranged in two rows [Fig. 1]. The artefact operated as a slide key, by inserting the key into an L-shaped keyhole and then pushing it upwards. Tumblers fitted into corresponding holes in the metal deadbolt, and could only be moved by a key that matched them. The teeth of the key passed through an opening in the deadbolt, lifting the tumblers (*pessuli*), that held the deadbolt in place and were pressed down by a springing band above them. As a result deadbolt was freed and could be moved, what allow opening [Fig. 2]. Such locks were used mostly in chests and caskets, rarely in gates or doors.²

Keys of this type, made as often in bronze, as in iron, were very popular in the whole Roman Empire, representing type 2:7 according William H. Manning,³ type IV according Dorottya Gáspár,⁴ type 04-04 according to Jean-Paul Guillaumet and Gérard Laude.⁵ Most of them

¹ At the time assistant professor of the Historical Faculty of the Belarusian State University in Minsk.

Schütz 2003, p. 120; Guillaumet, Laude 2009, p. 40;
 Busuladžić 2018, p. 121; Czarnecka 2020, p. 41.

³ Manning 1985, p. 93.

⁴ Gáspár 1986, p. 48.

⁵ Guillaumet, Laude 2009, pp. 40–41.



Fig. 1. Roman ring-key, copper alloy. The Minsk City History Museum collection (photo and drawing by V. Belâvec)

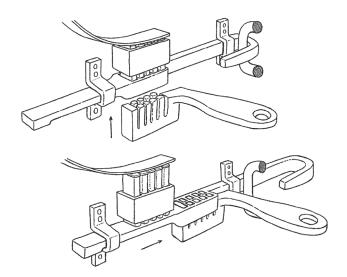


Fig. 2. Scheme of operation of the lock opened with a ring-key (after Guillamet, Laude 2009)

were provided with rectangular or trapezoid handle with circular openings.⁶ Less popular were ring-keys (*Ringschlüssel*) (type 24, according Christian Beckmann,⁷ type 5d according to Henri Guiraud,⁸ type II/1 according to Branko Milovanović and Nikola Mrđić⁹). The diameter of rings varies between 1,5 and 2 cm. In spite of their form and dimension, it is not quite clear if they could have been worn on finger.¹⁰ It could be possible (even if not comfortable) in the case of items with a bit set next to the ring, but artefacts with the bit set perpendicularly to the ring were neither practical nor aesthetic enough to be treated as a piece of jewellery.¹¹ They were just keys only with smaller handle [Fig. 3].

⁶ A fairly detailed analysis of these differences, highlighting variants of the shape of the handle, the "ear" at the end, cross-section, etc., was carried out by Notburg Marie, M. Schütz (SCHÜTZ 2003, p. 97).

⁷ Beckmann 1969, p. 40.

⁸ Guiraud 1989, p. 192.

 $^{^9\,}$ Milovanović, Mrđić 2016, p. 251.

¹⁰ Busuladžić 2018, p. 125; Daňova 2021b, p. 221

¹¹ However these finds were included among other into various typologies of Roman finger rings, e.g. Beckmann 1969, p. 40; Giraud 1989, p. 192.

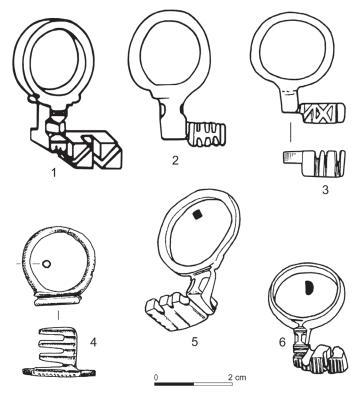


Fig. 3. Roman ring-keys. Bronze.

1 — Saalburg (Bad Homburg distr., DE
[after Jacobi 1987]);

2 — Viminacium (Belgrad, SRB
[after Milovanović, Mrðić 2016]);

3 — Tanais (Танаис; Mâsnikovskij distr., RU
[after Arsen'eva, Bezuglov, Toločko 2001]);

4 — Tilurium (Bacau distr., HR [after Ivčević 2014]);

5,6 — Siscia (Sisačko-moslavačka distr., HR
[after Koščević 1991])

Ring-keys of this type, made mostly of copper alloy ("bronze"), are known from all provinces of the Empire, from Britannia, Gallia and Helvetia to Pannonia, Moesia, Dalmatia and Dacia. 12 They served as an utensil of everyday use and were found both in civilian (cities) as well as military (forts) context, in settlements and cemeteries. 13

Since they were in widespread use, their dating is rather speculative, based mostly on the general chronology of the site, where they were found.¹⁴ According to H. Giraud they were dated in Gaul from the first to the fifth centuries.¹⁵ Finds from eastern provinces like Moesia, Dalmatia were dated from the second to the fourth century, particularly the late second and first half of the third centuries.¹⁶

¹² Guiraud 1989, p. 192, fig. 35; Busuladžić 2018, p. 125.

¹³ Koščević 1991, p. 41; Milovanović, Mrdić 2016, p. 256; Daňova 2021a, pp. 42–43.

¹⁴ E.g. ring keys from Roman forts in Saalburg and Zugmantel, first half of the third century (BECKMANN 1969,

p. 40) or fort in Iža, distr. Komarno, in Slovakia were dated to the period of the 70s of the second century (Daňova 2021b, p. 226).

¹⁵ Giraud 1989, pp. 191, 193.

¹⁶ Koščević 1991, p. 41; Milovanović, Mrđić 2016, p. 125.

Among many kinds of imports from the Roman Empire keys are extremely rare in the whole Barbaricum. Just a few specimens are known from the territory of the Przeworsk culture, and none from the Wielbark culture area.¹⁷ More finds are registered in the territory of the Cherniakhiv culture.¹⁸ It is hard to date the presented ring-key from the Belarus, however imported Roman keys found in the Barbaricum are known mostly from the phases B₂–C₃.¹⁹ That's why the cultural attribution of the ring-key from Belarus needs a discussion.

Considering the imprecise information about the place of discovery of the analysed find, in attempt to determine its cultural context, we should first try to analyze the cultural situation of the region from which it may come. The lands located in the centrum south-west of Belarus is referred to as Western Polesie. In the centre of this region lays the Zaharodskaja plain, located in the interfluve of Muchavec (the right tributary of the Bug), Pripyat and its left tributary — Jasel'da. This region is very poorly explored in terms of archaeological research and is still a blank spot on the archaeological map of the Iron Age Belarus. No regular, large-scale, field researches were conducted here, but during the last decade exploratory work provided data on the presence of traces of settlement from the Roman period, belonging to the cultures of the Eastern European forest zone: the post-Zarubincy horizon and the Kyiv culture.²⁰ However, the discussed ring-key can hardly be considered a find typical for a population indigenous to the lands of Belarus, one of the cultures of the Eastern European forest zone. In the younger Roman period, imports from the Empire rarely reached this area and were essentially limited to glass beads.²¹ There is no reason to presume that caskets with locks and, accordingly, fitting keys to open them — neither locally produced nor imported — were used in this cultural circle. As the only known exception can served a copper alloy casket handle, which comes from semi-dugout no. 2, explored in 1960 on the open settlement of the Kyiv culture, in Abidnâ [Fig. 4: 4; Map 1: 4].²² This object did not contain precise chronological indicators and its chronology can be determined only in the general framework of the use of the settlement, which dates back to the third century AD, not excluding the end of the second and the beginning of the fourth century.²³ An unambiguous interpretation of this find, however, brings some difficulties: almost identical-looking objects served as handles for caskets, 24 but also handles for bronze vessels, namely Eggers 75–78, especially E.72, 25 or handles for carrying and hanging helmets.²⁶ Therefore the find from Abidnâ can't be treated as an undoubted detail of a Roman casket. The traces of melting visible on this artefact suggest that it could, most likely, be treated as a material for recycling — an object made of copper alloy, intended for melting.²⁷

In our opinion the discussed Roman key should be associated with the settlement of the Wielbark culture. At present over 30 sites of the Wielbark culture are known from Belarus. They occur in two regions: on Pabužža (in the Bug river basin) and Prypiat Polesie (in the middle Pripyat basin). In Polesie, sites of the Wielbark culture occur mostly in the middle course of the Pripyat

¹⁷ CZARNECKA 2020, p. 198. An imported Roman key was found, as a loose find, in Ulów, distr. Tomaszów (Niezabitowska-Wiśniewska 2007, fig. 12). The necropolis in Ulów was used in phase C₃ by the people of the Wielbark culture, and the younger phase of use, from the Migration Period, is associated with the "late Germans" (Niezabitowska-Wiśniewska 2007, p. 10). Unfortunately, it is not known with which phase of use the key find should be associated.

¹⁸ Mylaševs'kyj 2016, pp. 77–79, fig. 9.

¹⁹ Kokowski 1997, p. 41.

²⁰ Belevec 2012, pp. 288–289; 2013. Further in the text, due to differences in transliteration, the author's name also appears in two other versions: Belâvec / Bieljavec.

²¹ Belâvec 2009, pp. 173–174.

²² Ровог', Іг'ûтік 2001, р. 103, fig. 2, fig. 22: 2.

²³ Ровог', Іг'ûтік 2001, р. 112.

 ²⁴ Gáspár 1986, pls. CČLXXXVI, CCLXXXVII, CCC–CCCV; Deimel 1987, pls. 92: 1–6, 9, 10–11, 93: 1, 3–6).
 ²⁵ e.g.: Gáspár 1986, pls. CCLXXXVI, CCLXXXVII, CCC–CCCV; Deimel 1987, pls. 92: 1–6, 9, 10–11, 93: 1, 3–6).

²⁶ Allason-Jones, Miket 1984, pp. 411–413, 416, 421–427. ²⁷ Beljavec 2009, p. 177. This hypothesis is reinforced by the discovery of traces of the bronze casting in the form of a fragmented crucible (Pobol', Il'ÛTIK 2001, p. 112, fig. 22: 7).

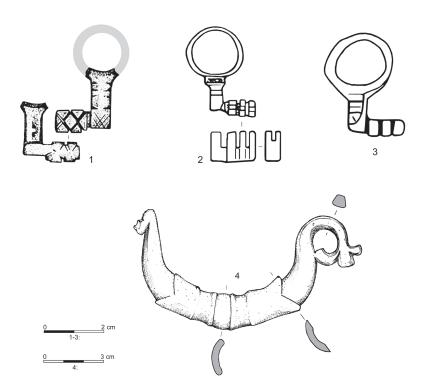


Fig. 4. Imported Roman ring-keys and casket handle (?) from the sites in the Eastern Europe.

- 1 Dănceni (Ialoveni Raionul, MD [after Mylaševs'kyj 2017]);
- 2 Medžibìž (Меджибіж; Hmel'nyckyj distr., UA [after Mylaševs'күл 2017]);
- 3 Malopolovec'ke (Малополове́цьке; Fastiv distr., UA [after Mylaševs'куј 2017]);
 - 4 Abidnâ (Абідня = Адаменка; Bychaŭ distr., BY [drawing by V. Belâvec])

in the interfluve of its right tributaries — the Styr and Garyn' rivers. Despite the fact that since the 1950s extensive excavations have been carried out on a number of sites with Wielbark culture materials, so far only single graves and traces of settlement objects have been discovered. The lack of large, representative sites leads to the recognition of this region as a peripheral zone of the Wielbark culture. Most of the well-recognized and investigated sites of the Wielbark culture in Belarus are concentrated in the eastern part of the Bug Plain. Among them are two best explored cemeteries of this culture in Belarus (and Eastern Europe as well): the Brest-Tryšyn cemetery (Брэст-Трышын; city of Brest, Brest dist., BY) and Pâtrovičy³0 (Пятровічы; Žabinka dist., BY). This region constitutes the eastern outskirts of the settlement zone of the Wielbark culture in eastern Mazovia and Podlasie, what matches the information about the probable place of finding of the discussed key — near the city of Brest [Map 1: c].

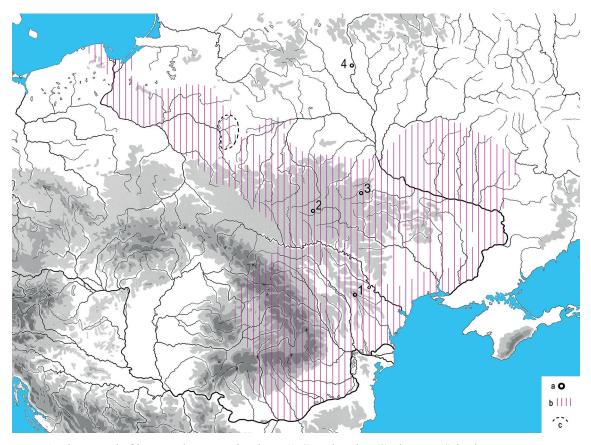
The presented above dating of the ring-keys in the Empire and imported keys in Barbaricum, mainly to the younger period of Roman influence, also agree with the chronological framework of the Wielbark culture sites in the lands of south-western Belarus. The first settlement groups of the Wielbark culture enter the lands of Belarusian Pabužža in the B_2/C_1 phase, during the Marcomannic Wars (around 166–180 AD), or immediately after their end.³¹

²⁸ Belevec 2007a, pp. 330–334; Belâvec 2007c.

²⁹ Kuharenko 1980: Belevec 2007b.

³⁰ Belâvec 2006; Belevec 2007a, pp. 310–330.

³¹ On dating sites of the Wielbark culture in Belarus: Belevec 2007a; 2016a, pp. 392–396; 2017a; 2018.



Map 1. The spread of imported Roman ring-keys (1–3) and casket (?) element (4) in the Eastern Europe 1 – Dănceni (Ialoveni distr., MD);

2 – Medžybiž (Меджибіж; Hmel'nyckyj distr., UA);

3 – Malopolovec'ke (Малополове́цьке; Fastiv distr., UA);

4 – Abidnâ (Абідня = Адаменка; Byhaŭ distr., BY)

a – mentioned sites;

 b – approximate range of the Gothic circle cultures in the late Roman Period and beginning of the Migration Period

c – range of sites of the Wielbark culture on the Byelorussian Pabužža

As was mentioned above, imported Roman keys are known from the Cherniakhiv culture sites [Fig. 4: 1–3]. Finds from cemeteries in Ružyčanka (Ружичанка; Hmel'nyckyj distr., UA) and Dančeny (Ialoveni distr., MD), are dated by Oleksandr Mylaševs'kyj to the half of the third century.³² Unfortunately the ring-key from the settlement in Malopolovec'ke (Малополовецьке; Fastiv distr., UA) in the Kyiv region is a loose find.³³ Without context is also ring-key from Medžy-biž (Меджибіж; Hmel'nyckyj distr., UA).³⁴ Most probably they were imported, among many other goods, from the ancient cities on the Black sea coast. Ring-key was found in grave 34 on the cemetery in the city of Tanais (Танаис; Mâsnikovskij distr., RU) on the river Don estuary [Fig. 3: 2]. Grave is dated to the second half of the second century to the first half of the third century.³⁵ Another ring-key with teeth set perpendicularly to the ring, which can be treated as exact analogy

³² Mylaševs'kyj 2016, p. 79.

³³ Magomedov 2016, p. 960, pl. 6: 4.

³⁴ Mylaševs'kyj 2016, p. 88, fig. 9: 8. There are more finds from the Ukraine, mostly from detectorists, with

only general information concerning the place where they were found (BAŽAN 2012, pp. 77–79).

 $^{^{35}}$ Arsen'eva, Bezuglov, Toločko 2001, p. 132, fig. 48: 611.

to the find from Belarus, were found by detectorist near the estuary of the Dniester River, in the vicinity of ancient towns Tyras and Nikonion.³⁶

The ring-key from Belarus could has been imported directly from the Black Sea region or, not directly, from the territory of the southern cultures of the Gothic circle. That is most probable because the materials obtained at the sites of this region provide us with evidence of stable contacts and various ties throughout the younger Roman period and the beginning of the Migration Period.

During phase B_2/C_1-C_{1a} , the expansion of the population of the Wielbark culture spreads to the south-east. At the beginning of the third century, its settlement structures were established in the lands of Ukrainian Volhynia.³⁷ Already in this period, manifestations of ties with the broadly defined lands north of the Black Sea are visible on Pabužža, however, difficult to explain precisely. Evidence of such contacts can be seen in some elements of the funeral rite recorded in the cemetery in Pâtrovičy.³⁸

A significant intensification of "southern" ties undoubtedly took place at the developed stage of the younger Roman period — during phases $C_{1b}-C_2$. At that time, during the "Scythian Wars" (around 238–280 AD), the process of formation of the Cherniakhiv culture took place in the lands of present-day Ukraine.³⁹ In the east of the Bug Plain, contacts with the early horizon of the Cherniakhiv culture can be observed — single wheel made vessels and some characteristic details of costume, such as brooches of the "Gorodnica" type, close to types A.210 and A.211, boar/pig tusks and axe-shaped pendants are recorded at the Wielbark culture sites.⁴⁰

Summing up the observations presented above regarding the zones of dissemination and the dating of the sites of the Wielbark culture in Belarus, it should be assumed that the Roman ringkey from the collection of the Minsk City History Museum is most likely related to the settlement of this cultural unit. In that case it is the first imported Roman key discovered so far in Belarus. Some elements of the caskets (lock plates, spring bolt or key) have been found in the context of the Wielbark culture at the already mentioned sites located in the east of the Bug Plain. They were registered in three graves: no. 7 and 41 in the Brest-Tryšyn cemetery, and grave no. 36 in Pâtrovičy cemeteries, hut these are typical locally made artefacts, locks of type Siemiance, highly popular in the whole Barbaricum. Imported Roman keys are very rare and most probably has different meaning, as they are found without any traces of the casket lock — most probably they had changed their function from the practical, utilitarian to the symbolic or magical (amulets?).

Imported keys are more common closer to limes — in Czech and Slovakia and — in the Cherniakhiv culture area. The find of a key coming most probably from the Black Sea coast could be another testimony to the bonds that connected the Wielbark culture settlement, the inhabited lands in the east of the Bug Plain, with the southern lands of the Gothic cultures circle.

The discussed key is a unique phenomenon not only in the scale of our knowledge of the material culture of the Wielbark settlement of this region, but also of the entire Wielbark culture: so far imported Roman keys have not been recorded in its materials. This find allow us to make some reflection on the role played by the Wielbark culture settlement located in the east of the Bug Plain in the functioning of the cultures of the Gothic circle. From the perspective of the whole range of the Wielbark culture in the younger Roman period, this region was a seemingly insignificant, remote south-eastern periphery of this community. However, it was located in the middle of the

³⁶ https://www.forumancientcoinp.com/numiswiki/view-asp?key=roman%20keys (accessed 22.04.2023)

³⁷ Вакан 1981, р. 93; Ŝukin 1981, pp. 151–160; 2005, p. 132, fig. 54; Gej 1993, pp. 147–148; Кокоwski 1995, pp. 27–29.

³⁸ Belevec 2022, pp. 257–262.

³⁹ SZCZUKIN 1981, pp. 151–160; 2005, p. 132, fig. 54; MAGO-MEDOV 2001, pp. 134–139; more literature in: BARAN 2004.

⁴⁰ Kukharenko 1980, pp. 11, 30, pl. XI/27: b, d; Belâvec 2006, pp. 95–96, map 2: V, map 4; Belêvec 2016b.

⁴¹ Kukharenko 1980, pl. VII: 76, pl. XV: 41; Belevec 2007a, fig. 8: 12,13.

⁴² Czarnecka 2020, pp. 49–79.

communication route, which in the Roman period connected the population of the entire Gothic cultural circle between the Black Sea and the southern coast of the Baltic Sea.

Bibliography

Dionography		
Allason-Jones, Miket 1984	L. Allason-Jones, R. V. Miket, <i>The catalogue of small finds from South Shields Roman Fort</i> , Newcastle upon Tyne.	
Arsen'eva, Bezuglov, Toločko 2001 T. M. Arsen'eva, S. I. Bezuglov, I. V. Toločko, <i>Nekropol' Tanaisa</i> . **Raskopki 1981–1995 gg. [Necropolis of Tanais. Excavations of 1981–1995], Moscow.		
Baran 1981	V. D. BARAN, Černâhìvska kul'tura. Za mterialamì Verhn'ogo Dnìstra i Zahìdnogo Bugu [Chernyakhiv culture. According to the materials of Upper Dniester and Western Bug], Kyiv.	
Baran 2004	V. D. Baran, "Černâhìvska kul'tura – polietnične utvorennâ na teritoriï Pivdenno-Shìdnoï Evropi" [Chernyakhiv culture – polyethnic formation on the territory of South-Eastern Europe], [in:] <i>Arheologia davnìh slov'ân: doslìdžènnâ ì materiali</i> , ed. D. Kozak, Kyiv, pp. 93–102.	
Bažan 2012	I. A. Bažan, <i>Ojum</i> [= Korpus slučajnyh arheologičeskih nahodok 4.1] [Oium. Corpus of random archaeological finds], Moscow.	
Beckmann 1969	CH. BECKMANN, "Metallfingerringe der römischen Kaiserzeit im freien Germanien", <i>Saalburg Jahrbuch</i> 26, pp. 5–106.	
Belâvec 2006	V. Belâvec, "Papârèdniâ vynìkì vyvučènnâ gruntovaga mogìl'nìka vel'barskaj kul'tury Pâtrovìčy (Belaâ Gara)" [Preliminary results of the study of the Wielbark culture cemetery of Pâtrovičy (Belaâ Gara)], Гістарычна-археалагічыны зборнік 23, pp. 79–101.	
Belevec 2007a	V. Belevec, "K izučeniû pamâtnikov vel'barskoj kultury v Belarusi" [Towards the study of the Wielbark culture sites in Belarus], [in:] <i>Nowe materialy i interpretacje: stan dyskusji na temat kultury wielbarskiej</i> , eds. M. Fudziński, H. Paner, Gdańsk, pp. 293–344.	
Belevec 2007b	V. Belevec, "Mogil'nik Brest-Trišin: 30 let po okončanii raskopok" [Brest-Tryšyn cemetery: 30 years after the completion of excavations], <i>Acta Archaeologica Albaruthenica</i> 1, pp. 49–85.	
Belâvec 2007c	V. Belâvec, "Pomnîkî vel'barskaj kul'tury ŭ Turava-Pînskîm Palessî: problemy vyvučennâ" [Sites of the Wielbark culture in Turaŭ-Pinsk Palessie: study problems], <i>Гістарычна-археалагічыны зборнік</i> 22, pp. 124–143.	
BIELJAVEC 2009	V. Bieljavec, "Die römischen Importe des südlichen Weissrusland. Eine Untersuchung vor dem Hintergrund der kulturellen Entwicklungen des 1–4 Jahrhunderts", <i>Jahrbuch des Römisch–Germanischen Zentralmuseums</i> 56, pp. 159–186.	
Belevec 2012	V. Belevec, "Problema vydeleniâ pamâtnikov pozdnezarubinieckogo kruga v Pripâtskom Poles'e" [The problem of identifying sites of the late Zarubintsy circle in the Pripyat Palessie region], [in:] Lesnaâ i lesostepnaâ zony Vostočnoj Evropy v èpohu rimskih vliânij i Velikogo pereseleniâ narodov 3, ed. A. N. Naumov, Tula, pp. 281–305.	
Belâvec 2013	V. Belâvec, "Razvedkì 2011 g. u Bârozaŭskìm raëne" [Excavations of 2011 in the Biaroza district], <i>Матэрыялы па археалогіі Беларусі</i> 24, pp. 243–250.	
Belâvec 2016a	V. Belávec, "Nasel'nìctva vel'barskaj kul'tury ŭ gìstoryka-kul'turnym razvicci zâmel' Belarusi rubâžu II/III – pačatku V st. n.è." [The population of the Wielbark culture in the historical and cultural development of the lands of Belarus at the turn of the II/III – the beginning of the	

Belevec 2016b

Belâvec 2018

Belevec 2022

Busuladžić 2018

Czarnecka 2020

Daňová 2021a Daňová 2021b

Deimel 1987 Gáspár 1986

GEJ 1993

Guiraud 1989

Guillaumet, Laude 2009

Ivčević 2014

JACOBI 1897

Kokowski 1995

Kokowski 1997

fifth century AD], [in:] *Slavâne na territorii Belarusi v dogosudarst-vennyj period*, Vol. 1., eds. O. Levko, B. Belevec, Minsk, pp. 384–450. V. Belevec, "O nahodkah toporovidnyh podvesok pozdnerimskogo vremeni na territorii Belarusi" [About finds of axe-shaped pendants of the late Roman period on the territory of Belarus], *OIUM* 5, pp. 59–67.

V. Belâvec, "Novyâ znahodkì fibul typu Grudèk-47: da pytannâ ab finale pomnikaŭ vel'barskaj kul'tury na tèrytoryì Belarusì" [New finds of Gródek-47 type fibulae: to the question of the end of the Wielbark culture sites on the territory of Belarus], [in:] Этнокультурные процессы на территории Беларуси в І — начале ІІ тыс. н.э. Материалы международной конференции, посвящённой 90-летию Э. М. Загорульского. Минск, 6—7 декабря 2018 г., ed. А. А. Едопечснепко et alii., Minsk, pp. 48—59.

V. Belevec, "Pogrebeniâ z netipičnymi elementami obrâdnosti na mogil'nike vel'barskoj kul'tury Petroviči v Belaruskom Pobuž'e" [Burials with atypical elements of burial rites at the Wielbark culture cemetery of Petroviči in the Belarusian Bug region], [in:] *Stratum plus* 4 (2022). *Archaeology and Cultural Anthropology. Black and White Magic in Antiquity*, ed. M. Kazanski, Saint Petersburg, Kishinev, Odessa, Bucharest, pp. 251–264.

A. Busuladžić, "Metalwork from Roman doors — examples in Bosnia and Herzegovina", *Jahrbuch, Centar za balkanološka ispitivanja Zentrum für Balkanforschungen* 47, Sarajevo, pp. 117–175.

K. Czarnecka, *Zamki i klucze kultury przeworskiej. Działanie, zasto-sowanie, znaczenie symboliczne* [Locks and keys of the Przeworsk culture. Functioning, application, symbolic meaning], Warsaw.

M. Daňová, *Prsteň na hranici svetov* [Ring on the Edge of Worlds], Trnava. M. Daňová, "Rings and Gems from the Roman Fort in Iža. Prstene a gemy z rímskeho vojenského tábora v Iži", *Archaeologica Slovaca Monographiae Fontes*, Vol. XXXI, Nitra, Trnava.

M. Deimel, *Die Bronzekleinfunde vom Magdalensberg*, Klagenfurt. D. Gáspár, "Römische Kästchen aus Pannonien, I–II, Antaeus", *Mitteilungen des Archäologischen Instituts der Ungarischen Akademie der*

Wissenschaften 15, Budapest.

O. Gej, "Černâhovskaâ kul'tura: hronologiâ" [Chernyakhov culture:

chronology], [in:] Славяне и их соседи в конце I тысячелетия до μ .э. — первой половине I тысячелетия μ .э. [= Археология СССР VI], eds. I. P. Rusanova, E. A. SymonoviČ, Moscow, pp. 146–155.

H. Guiraud, "Bagues et anneaux à l'époque romaine en Gaule", *Gallia* 46, pp. 173–211.

J.-P. GUILLAUMET, G. LAUDE, L'art de la serrurerie gallo-romaine. L'exemple de l'agglomération de Vertault (France, Côte-d'Or), Dijon. S. Ivčević, Metalni nalazi, Tilurium III, Istraživanja 2002–2006 [Metal finds, Tilurium III, Research 2002–2006], Zagreb, pp. 147–225.

L. Jacobi, Das Römerkastell Saalburg bei Homburg vor der Höhe, Homburg.

A. Kokowski, *Grupa masłomęcka: z badań nad przemianami kultury Gotów w młodszym okresie rzymskim* [The Masłomęcz group: from research on the changes in the culture of the Goths in the earlier Roman period], Lublin.

A. Kokowski, Schlossbeschläge und Schlüssel im Barbaricum in der römischen Kaiserzeit und der frühen Völkerwanderungszeit. Klassifizierung, Verbreitung, Chronologie [= Klasyfikacja Zabytków Archeologicznych 2], Lublin.

ŜUKIN 2005

Koščević 1991 R. Koščević, Antička bronca iz Siska. Umjetničkoobrtna metalna produkcija iz razdoblja rimskog carstwa [Ancient bronze from Siska. Artistic metal production from the period of the Roman Empire], Zagreb. J. V. Kuharenko, Mogil'nik Brest-Trišin [Brest-Tryshyn cemetery], Kuharenko 1980 Moscow. MAGOMEDOV 2001 B. V. Magomedov, Černâhovskaâ kul'tura: problema ètnosa [Chernyakhov culture: the problem of the ethnos] [= Monumenta Studia Gothica 1], Lublin. Magomedov 2016 B. V. MAGOMEDOV, "Das Fundspektrum römischer Metallsachgüter in der Černjachov-Kultur auf dem Gebiet der Ukraine", [in:] Archäologie zwischen Römern und Barbaren. Zur Datierung und Verbreitung römischer Metallarbeiten des 2. und 3. Jahrhunderts n. Chr. im Reich und im Barbaricum – ausgewählte Beispiele (Gefäße, Fibeln, Bestandteile militärischer Ausrüstung, Kleingerät, Münzen), Internationales Kolloquium, Frankfurt am Main, 19-22 März 2009, eds. H.-U. Voss, N. Müller-Scheessel, Bonn, pp. 955–964. Manning 1985 W. H. Manning, Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum, London. B. MILOVANOVIĆ, N. MRĐIĆ, "Prsten-ključevi iz Viminacijuma" [Ring-keys Milovanović, Mrđić 2016 from Viminacium], Glasnik Srpskog arheološkog društva 32, pp. 243–263. Milaševs'kij 2016 O. S. MILAŠEVS'KIJ, "Zamki, klûčì ta detali skrin'ok u černahivs'kij kul'turi" [Locks, keys and details of caskets in Chernyakhiv culture], OIUM 5, pp. 69-88. Niezabitowska-Wiśniewska 2007 B. Niezabitowska-Wiśniewska, "Ulów — tajemnica starożytnego Roztocza" [Ulów — the mystery of the ancient Roztocze], Siódma wystawa Instytutu Archeologii Uniwersytetu Marii Curie-Skłodowskiej w Muzeum UMCS, Lublin. Ровог', Il'ûtik 2001 L. D. Pobol', A. V. Il'ûтік, "Žiliŝa vtoroj četverti I tys. n.è. iż poseleniâ Abidnâ (po materialam raskopok 1960 g.)" [Dwellings of the second quarter of the first millennium AD from the settlement of Abidnya (based on excavations in 1960)], Матэрыялы па археалогіі Беларусі 3, pp. 102-153. **SCHÜTZ 2003** N. M. Schütz, "Eisenfunde aus der Stadt auf dem Magdalensberg II", Archäologische Forschungen zu den Grabungen auf dem Magdalensberg 14 [= Kärntner Museumsschriften 77], Klagenfurt. Szczukin 1981 M. B. Szczukin, "Zabytki wielbarskie a kultura czerniachowska" [Wielbark artifacts and the Cherniakhiv culture] [in:] Problemy kultury wiel-

Gothic Road: Goths, Rome and Cherniakhiv Culture], Saint Petersburg.

barskiej: materiały z sympozjum naukowego, Słupsk, 20–22. IX. 1979 r.,

M. B. Ŝukin, Gotskij put': goty, Rim i černáhowskaá kul'tura [The

ed. T. Malinowski, Słupsk, pp. 135–161.

Vadzim Belâvec Faculty of Archaeology University of Warsaw v.beliavets@uw.edu.pl https://orcid.org/0000-0002-4912-7665

Katarzyna Czarnecka State Museum of Archaeology in Warsaw kczarnecka@pma.pl https://orcid.org/0000-0003-0529-8603