

NOTAE NUMISMATICAE

ZAPISKI NUMIZMATYCZNE



Tom XIX

MUZEUM NARODOWE W KRAKOWIE
SEKCJA NUMIZMATYCZNA
KOMISJI ARCHEOLOGICZNEJ PAN
ODDZIAŁ W KRAKOWIE

Kraków 2024

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Lech Kokociński. Photo by Piotr Idem
Lech Kokociński. Fot. Piotr Idem

Szanowni Państwo,

oddajemy w Państwa ręce tom XIX *Notae Numismaticae – Zapisków Numizmatycznych*. Zgodnie z przyjętymi przez nas zasadami wszystkie teksty publikujemy w językach kongresowych, z angielskimi i polskimi abstraktami. Zawartość obecnego tomu oraz tomy archiwalne są zamieszczone w formie plików PDF na stronie internetowej Muzeum Narodowego w Krakowie (<https://mnk.pl/notae-numismaticae-zapiski-numizmatyczne-1>). Na stronie dostępne są ponadto wszelkie informacje ogólne o czasopiśmie oraz instrukcje dla autorów i recenzentów.

Bieżący Tom naszego czasopisma chcielibyśmy zadedykować Panu Mecenasowi Lechowi Kokocińskiemu, obchodzącemu w 2024 roku swoje 80-te urodziny. Lech Kokociński (ur. 1944), prawnik, sędzia i wieloletni pracownik Ministerstwa Kultury i Sztuki, z numizmatyką związany jest w zasadzie od zawsze. Przede wszystkim należy do grona najwybitniejszych kolekcjonerów numizmatów drugiej połowy XX i pierwszych dziesięcioleci XXI wieku. Jego zainteresowania kolekcjonerskie nie ograniczały się przy tym do wąskiego zakresu, lecz obejmowały szerokie spektrum obiektów: od monet antycznych poczynawszy, poprzez pieniądź papierowy, medale, aż po fałszerstwa monet i banknotów. Ważną część jego zbiorów stanowią starodruki i rękopisy numizmatyczne oraz inne obiekty o charakterze bibliofilskim, szczególnie *Lwowiana*. Mecenas Kokociński przez całe życie aktywnie włączał się w animowanie ruchu numizmatycznego. Od 1962 roku był członkiem Polskiego Towarzystwa Archeologicznego, od 1984 roku przewodniczył Sekcji Numizmatycznej Polskiego Towarzystwa Archeologicznego i Numizmatycznego, a w 1987 roku został Prezesem tej organizacji. W 1991 roku należał do założycieli Polskiego Towarzystwa Numizmatycznego i był jego pierwszym Prezesem, a następnie Prezesem Honorowym. Bliskie związki mecenasa Kokocińskiego z Gabinetem Numizmatycznym Muzeum Narodowego w Krakowie sięgają XX wieku. Jest członkiem Towarzystwa Przyjaciół Muzeum im. Emeryka Hutten-Czapskiego (od 1996 r.), a w latach 2011–2015 pełnił funkcję członka Rady Muzeum Narodowego w Krakowie. Wszedł też w skład Komitetu Honorowego projektu *Europejskie Centrum Numizmatyki Polskiej*, w ramach realizacji którego udało się otworzyć Muzeum im. Emeryka Hutten-Czapskiego w obecnym kształcie. Przede wszystkim jednak jest jednym z najważniejszych i najbardziej hojnych darczyńców na rzecz Muzeum. Wzbogacił zbiory Gabinetu Numizmatycznego o niemal 11 000 obiektów, w tym monety antyczne, bezprecedensową kolekcję pieniądza fałszywego, pieniądź papierowy i medale. Dodatkowo ofiarował do biblioteki Muzeum ponad 1000 pozycji różnych publikacji, starodruków i znakomite archiwalia związane z życiem i działalnością wybitnych numizmatyków czy towarzystw numizmatycznych, jak np. Związku Numizmatyków Lwowskich czy Towarzystwa Numizmatycznego w Krakowie. Z okazji Jubileuszu życzymy Lechowi Kokocińskiemu, naszemu Drogiemu Przyjacielowi, co najmniej 100 lat!

Redakcja

Dear Readers,

We are delighted to present you with volume 19 of *Notae Numismaticae – Zapiski Numizmatyczne*. As is our policy, we publish all texts in the congress languages, with English and Polish abstracts. The contents of current volume and archive numbers are available as PDF files on the website of the National Museum in Krakow (<https://mnk.pl/notae-numismaticae-zapiski-numizmatyczne-1>). The website also provides all general information about the journal, along with guidelines for authors and reviewers.

We would like to dedicate the current volume of our journal to Mr Lech Kokociński, who celebrated his 80th birthday in 2024. Lech Kokociński (born in 1944), lawyer, judge and long-time employee of the Ministry of Culture and Art, has been involved in numismatics for practically all his life. Above all, he is one of the most outstanding numismatic collectors of the second half of the 20th century and the first decades of the 21st century. His collecting interests were not limited to a narrow range, but covered a wide spectrum of objects, starting with the ancient coins, through paper money and medals, to counterfeits of coins and banknotes. An important part of his collection consists of antique prints and numismatic manuscripts as well as other bibliophile objects, especially *Lvoviana*. Throughout his life, Kokociński has actively participated in promoting the numismatic movement. He was a member of the Polish Archaeological Society from 1962, chaired the Numismatic Section of the Polish Archaeological and Numismatic Society from 1984 and became its president in 1987. In 1991, he was one of the founders and first president of the Polish Numismatic Society, later becoming Honorary President. The close relationship between Mr Kokociński and the Numismatic Department of the National Museum in Krakow dates back to the 20th century. He is a member of the Emeryk Hutten-Czapski Museum Friends Society (since 1996), and in the years between 2011–2015 he was a member of the Council of the National Museum in Krakow. He also became a member of the Honorary *European Center of Polish Numismatics* project, which led to the opening of the Emeryk Hutten-Czapski Museum its present form. Above all, however, he is one of the most important and generous donors to the Museum. He enriched the collection of the Numismatic Cabinet with almost 11,000 objects, including ancient coins, an unprecedented collection of counterfeit money, paper money and medals. In addition, he donated more than 1,000 items to the museum library, including various publications, antique books, and valuable archive material related to the life and work of prominent numismatists or numismatic societies, such as the Union of Lviv Numismatists and the Numismatic Society in Krakow. On the occasion of this milestone birthday, we wish Lech Kokociński, our dear friend, at least 100 years!

The Editors

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A New Find of an Axe-like Iron Bar from Kroczyce, Zawiercie County, Silesian Voivodeship

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ABSTRACT: The article presents the discovery of an axe-like iron bar, found a few years ago in a limestone rock located northeast of Kroczyce, Silesian Voivodeship. In terms of form, this artefact corresponds to axe-like iron bars referred to in the literature as the Lesser Poland or Vistulan type. Similar artefacts are known from only a few sites in Poland, with their largest concentration recorded in Lesser Poland, where they are dated to the period from the 9th to the mid-10th century. Aside from a single find from Radymno, the distribution range of axe-like iron bars is limited to an area within a 65-kilometer radius of Krakow, which likely served as a central hub and distribution point. Determining the precise function of these iron objects is challenging – it is assumed that, in addition to their economic significance, they also held considerable symbolic value.

KEY WORDS: axe-like iron bars, Vistulans, Early Middle Ages, Lesser Poland

ABSTRAKT: *Nowe znalezisko grzywny siekieropodobnej z Kroczyce, powiat zawierciański, województwo śląskie*

W artykule przedstawiono znalezisko grzywny siekieropodobnej odkrytej kilka lat temu w wapiennej skale położonej na północny wschód od Kroczyce, woj. śląskie. Zabytek ten, pod względem formy, nawiązuje do grzywien określanych w literaturze

jako typ małopolski lub wiślański. Podobne artefakty są znane z zaledwie kilku stanowisk na terenie Polski, a ich największe skupienie odnotowano w Małopolsce, gdzie datuje się je na okres od IX do połowy X wieku. Poza pojedynczym znaleziskiem z Radymna, zasięg występowania grzywn siekieropodobnych ogranicza się do obszaru o promieniu 65 km od Krakowa, który zapewne pełnił funkcję miejsca centralnego i punktu dystrybucji. Określenie jednoznacznej funkcji tych żelaznych przedmiotów jest trudne – przypuszcza się, że oprócz znaczenia ekonomicznego posiadały one również istotną wartość symboliczną.

SŁOWA KLUCZOWE: grzywny siekieropodobne, Wiślanie, wczesne średniowiecze, Małopolska

INTRODUCTION

During field surveys conducted as part of the Polish Archaeological Record (Archeologiczne Zdjęcie Polski) area 91-52 in the vicinity of the Kroczyce Rocks (Skały Kroczyckie), we received information about the discovery of an axe-like iron bar. It was reportedly uncovered several decades ago. Based on the information provided with the find, it was located within a crevice of a distinctive limestone rock formation northeast of Kroczyce (Map 1A and 1B). The blade of the axe-like bar was oriented inward into the rock, with only part of the butt visible from the outside (Figs. 1–2). A renewed inspection of the rock and its surroundings by the authors of this paper did not yield any new discoveries.

DESCRIPTION OF THE AXE-LIKE IRON BAR

The iron-forged axe-like bar takes the form of a highly oblong axe, with a slightly rounded blade and a socket fitted with a small cap and small-sized lugs. Its elongated, massive neck, with a rectangular cross-section, gradually narrows into a similarly extended, subtly shaped, leaf-like blade section. The axe-like bar has the following dimensions: overall length – 34.7 cm; blade height – 5.1 cm; blade thickness – 0.5 to 3.8 cm; neck height – 1.9 cm; neck thickness – 3.0 cm; cap height – 4.3 cm; socket height – 4.0 cm; socket width – 3.5 cm; haft hole – 2.3 to 2.5 cm; weight – 1,188 g (Figs. 3–4).

The distinctive shape of the discussed axe-like iron bar allows it to be classified among the Lesser Poland axe-like bars, also known as Vistulan bars, Type A, Variant 3, Group B in the division by E. Zaitz,¹ and type IB according to the classification by D. Bialeková and V. Turčan.² These are distinct from the Great Moravian type and the Piotrawin type.³

¹ ZAITZ 1988; IDEM 1990: 147–153, Fig. 6.11.

² BIALEKOVÁ and TURČAN 2007: 155, Fig. 9.

³ ROZMUS, SZMONIEWSKI and TRONCIK 2006: 109, Fig. 6.

A BRIEF OVERVIEW OF FUNCTION AND CHRONOLOGY OF THE AXE-LIKE IRON BARS IN CENTRAL EUROPE

Early medieval axe-like iron bars are primarily known from Central Europe, particularly from the territories of western Slovakia, Moravia, and southern Poland – mainly the Upper Vistula River basin. Beyond this area, examples have been found in Bohemia, Hungary, and as far south as Slovenia.⁴ They are being discovered as single items, hoards, or grave goods.⁵ Their chronology spans from the late 8th to the end of the 10th century, with their peak use occurring during the 9th century and the first half of the 10th century.⁶ In Poland, axe-like bars are primarily discovered either as solitary finds or as part of hoards, with their chronology largely attributed to the 9th century⁷ or, based on Great Moravian analogies, dated to between the early 9th and mid-10th centuries.⁸

The issue of axe-like iron bars from Central Europe is the subject of ongoing scholarly debates. Their role in the early medieval economy is interpreted in various ways. They have been attributed functions such as agricultural tools,⁹ utilitarian objects with magical properties,¹⁰ grave goods,¹¹ semi-finished products used in tool manufacturing,¹² and semi-finished goods that also served as currency.¹³ It is probable that the axe-like iron bar originated from transforming an axe into a metal ingot, serving both as a raw material and a form of currency.¹⁴

In light of recent interpretations, axe-like iron bars discovered south of the Carpathians in the territory of the Great Moravian State are considered a regional variant of so-called *primitive money* – a pre-monetary form of currency that could serve both as a medium of exchange and as tokens. The value of an axe-like iron bar must have been at least equal to, if not greater than, the value of the iron raw material from which it was made.¹⁵ Their prototype in pre-Christian rituals is believed to have been semi-finished axe products, which gradually evolved into massive and elongated axe-like iron bars. In later stages, driven by the need to conserve iron, the length and weight of these bars were reduced, eventually leading to the creation of miniature forms. These semi-finished axes not only served practical pur-

⁴ SZMONIEWSKI 2010; HÁJNIK 2019, with further references.

⁵ HÁJNIK 2019: 114–118.

⁶ POLEK 1994: 85; ADAMCZYK 2004: 215; HÁJNIK 2019: 119–120.

⁷ ZAITZ 1990: 145, 171–173; LIWOCH 2013: 149.

⁸ POLESKI 1992: 37; IDEM 2019: 231.

⁹ HRUBÝ 1955: 276–278.

¹⁰ NOVOTNÝ 1973: 275–280.

¹¹ SEJBAL 1960: 73–82.

¹² PIASKOWSKI 1964: 133–140; IDEM 1980: 299–300.

¹³ SEJBAL 1960: 73–82; PLEINER 1961: 405–446; ADAMCZYK 2004.

¹⁴ ADAMCZYK 2004: 220.

¹⁵ HLAVICA and BÁRTA 2021: 12, 19.

poses as tools or weapons but also held religious significance, functioning as votive objects, ritual offerings, or grave goods. The evolution of axe-like iron bars brought a transformation in their use. Larger and medium-sized axe-like iron bars were associated with social exchange, serving as gifts, bride wealth or bride tokens, and weregild (blood money). On the other hand, smaller and miniature axe-like iron bars were linked to commercial exchange, being used as elements of transactions and payments. As their size and the value of their iron material diminished, the value of these axe-like iron bars was likely determined arbitrarily by the issuing authority. They became substitutes for money, functioning as tokens within the Great Moravian economy.¹⁶

AXE-LIKE IRON BARS IN LESSER POLAND

In Lesser Poland, apart from the lost small axe-like bar of the Great Moravian type from Stradów and the hoard from Piotrawin, a significant standardization of these objects is observed throughout their period of use, with a marked dominance of the Lesser Poland/Vistulan type. Their distribution is limited to the upper Vistula River basin (Maps 2 and 3). In terms of quantity, the largest find originates from the Okół region of Krakow. This hoard, consisting of 4,212 axe-like iron bars with a total weight of approximately 3,630 kg, was intended to be deposited at the beginning of the second half of the 9th century.¹⁷ On the early medieval settlement at Brzesko, site 16–17, Brzesko County, a trough-shaped feature revealed a hoard of 38 axe-like iron bars dated to the 9th century and the first half of the 10th century.¹⁸ Another intriguing hoard comprises 40 intentionally cut axe-like bar butts discovered in the Szklarka Valley, northwest of Krakow, with a similar chronology.¹⁹

Consequently, their interpretation appears somewhat different in the case of specimens found south of the Carpathians. In this context, their function should be linked to the sphere of social exchange and viewed as a type of gift- a semi-raw material of considerable symbolic and material value.²⁰ Assuming that the hoard from Okół region of Krakow was not a form of tribute prepared for the rulers of Great Moravia,²¹ but rather a hoard accumulated by a single ruler, a member of the local tribal elite,²² or even by an entire tribe, its perception takes on a different significance. The production of standardized axe-like iron bars was carried out under the strict supervision of a central authority in the region's main administrative center. This

¹⁶ HLAVICA, KOURIL and MIKULEC 2022: 327–331, Figs. 1 and 2.

¹⁷ ZAITZ 1990: 171.

¹⁸ SZMONIEWSKI et AL. 2024.

¹⁹ SZMONIEWSKI and ROZMUS 2022.

²⁰ *Ibidem*.

²¹ ZAITZ 1990: 172–174.

²² POLESKI 2013; SZMONIEWSKI and ROZMUS 2022.

process likely involved various smithing workshops located along the upper Vistula River. Subsequently, near Krakow, in areas rich in bog iron ore (e.g., the Rudawa River Valley) and forests that supplied the charcoal necessary for smelting, the delivered material was processed and subjected to further refinement.²³ Axe-like bars were prepared and processed here to achieve the appropriate shape and weight. They were then transported to a central location, which was the then-contemporary Krakow, where they were accumulated in a single place. Minor leaders from settlements and hillforts subordinate to the central authority brought their valuable local products to the central place and offered them as tribute to the ruling leader there. In return, they would receive something in exchange – in the case at hand, an axe-like iron bar or several axe-like iron bars. Of course, it cannot be excluded that the gifting of axe-like bars was a form of reward or distinction and not directly linked to exchange. Additionally, it cannot be ruled out that they were traded as raw iron material, as P. Urbańczyk suggests, with axe-like iron bars, along with iron bowls and blades, representing a traditional form of raw material used in the sale of iron.²⁴

The scale of the value of the hoard from the Okół region of Krakow is highlighted by calculations made by R. Pleiner. According to his estimates, the iron from this hoard could have been used to produce 5,300 sword blades, 4,600 coulters, or as many as 23,000 knives.²⁵ Thus, the received axe-like iron bars, in addition to their prestige and symbolic value as gifts from the ruler, also had tangible material significance. They could be processed into essential iron tools or objects as needed or used in further exchange.

An examination of the distribution map of Lesser Poland-type axe-like iron bars along the upper Vistula River reveals that, apart from a single find from Radymno,²⁶ their presence is confined to an area within a 65-kilometer radius of Krakow as the central place²⁷ (Map 2). This distribution largely overlaps with the territory of the Vistulan's community (Map 3).²⁸

CONCLUSIONS

The discovery of the axe-like iron bar from Kroczyce is located just a few kilometers from the hillfort at Kostkowiec – Góra Słupsko, which has been dated to the 9th–10th centuries based on pottery finds.²⁹ Notably, this hillfort is the northernmost

²³ Cf. SZMONIEWSKI and ROZMUS 2022: 62–63 with further references.

²⁴ URBAŃCZYK 2001: 52.

²⁵ PLEINER 1989: 86.

²⁶ KOPERSKI 1980: 99–110.

²⁷ SZMONIEWSKI and ROZMUS 2022.

²⁸ The Vistulans were a West Slavic tribe that inhabited the Upper Vistula River basin during the early Middle Ages, cf. LIWOCH and SZMONIEWSKI (forthcoming).

²⁹ Cf. KRAJCARZ et AL. 2014: 26, Fig. 5; LIWOCH and SZMONIEWSKI 2024: 21, Figs. 13–16.

site associated with Lesser Poland-type axe-like bars.³⁰ The unusual location of the artefact's discovery, embedded in a limestone rock, may suggest some form of magical practice, though its exact purpose remains unclear. This find represents a significant addition to the map of Lesser Poland axe-like iron bars. In the absence of precise dating markers, as with other finds in the region, it is tentatively dated to the 9th–early 10th century.

REFERENCES

- ADAMCZYK, J. 2004. *Placidla w Europie Środkowej i Wschodniej w średniowieczu. Formy, funkcjonowanie, ewolucja*, Warszawa.
- BIALEKOVÁ, D. and TURČAN, V. 2007. "Nový typ slovanských sekerovitých hrívien a ich metalografická analýza", *Ve službách archeologie* 2: 151–158.
- HÁJNIK, J. 2019. "Včasnostredoveké sekerovité hrivny z územia strednej Európy", *Musaica Archaeologica* 2: 111–172.
- HLAVICA, M. and BÁRTA, P. 2021. "The evolution of early medieval Moravian axe-shaped currency bars through the perspective of an archaeological experiment", *Přehled výzkumů* 62 (2): 11–21.
- HLAVICA, M., KOUŘIL, P. and MIKULEC, R. 2022. "Moravian Iron Money. Model of the 9th-Century Axe-Shaped Bars' Genesis and Its Testing with the Assemblage from Staré Zámky near Brno-Líšeň", *Slovenská archeológia* 70 (2): 327–350. DOI: 10.31577/slovarch.2022.70.14
- HRUBÝ, V. 1955. *Staré Město. Velkomoravské pohřebiště „Na Valách”*, Monumenta Archaeologica 3, Praha.
- KOPERSKI, A. 1980. "Zespół zabytków archeologicznych z Radymna w zbiorach Muzeum Okręgowego w Przemyślu", *Materiały i Studia Muzealne* 3: 95–118.
- KRAJCARZ, M., WOJENKA, M., KRAJCARZ, M.T. and CYREK, K. 2014. "Wyniki badań wykopaliskowych w Jaskini nad Bramą Słupską w Kostkowicach oraz w Jaskini Deszczowej w Kroczycach, województwo śląskie". In: G. GLANC-ZAGAJA and V. JANÁK (eds.), *Badania archeologiczne na Górnym Śląsku i ziemiach pogranicznych w latach 2011–2012 / Archeologické výzkumy v Horním Slezsku a na jeho pomezí v letech 2011–2012*, Katowice: 22–29.
- LIWOCH, R. 2013. "Grzywna siekierowata z Modlnicy", *Materiały Archeologiczne* 39: 149–154.
- LIWOCH, R. and SZMONIEWSKI, B.Sz. 2024. "Pivnichni hrady vislyan", *Fortetsya: zbirnyk zapovidnyka "Tustan"* 6: 10–33.
- LIWOCH, R. and SZMONIEWSKI, B.Sz. "On the northern boundaries of the Vistulans", *Pontica* (forthcoming).
- NOVOTNÝ, B.F. 1973. "Depots von Opfersymbolen als Widerspiegelung eines heidnischen bäuerlichen Kultes in Großmähren und im wikingischen Skandinavien". In: J. HERRMANN and K.-H. OTTO (eds.), *Berichte über den II. Internationalen Kongress für Slawische Archäologie, Berlin, 24.–28. August 1970*, vol. 2, Berlin: 275–280. DOI: 10.1515/9783112535202-044
- PIASKOWSKI, J. 1964. "Metaloznawcze badania przedmiotów żelaznych z Wyżnego Kubina i Pobedima (Slowacja)", *Acta Archaeologica Carpathica* 6: 133–140.
- PIASKOWSKI, J. 1980. "Jeszcze o wczesnośredniowiecznych siekieropodobnych grzywnach z Małopolski, Moraw i Słowacji", *Z Otchłani Wieków* 46 (4): 299–300.
- PLEINER, R. 1961. "Slovenské sekerovité hrivny", *Slovenská Archeológia* 9: 405–450.

³⁰ ZAGÓRSKA-TELEGA and BOCHNAK 2001; ROZMUS, SZMONIEWSKI and TRONCIK 2006.

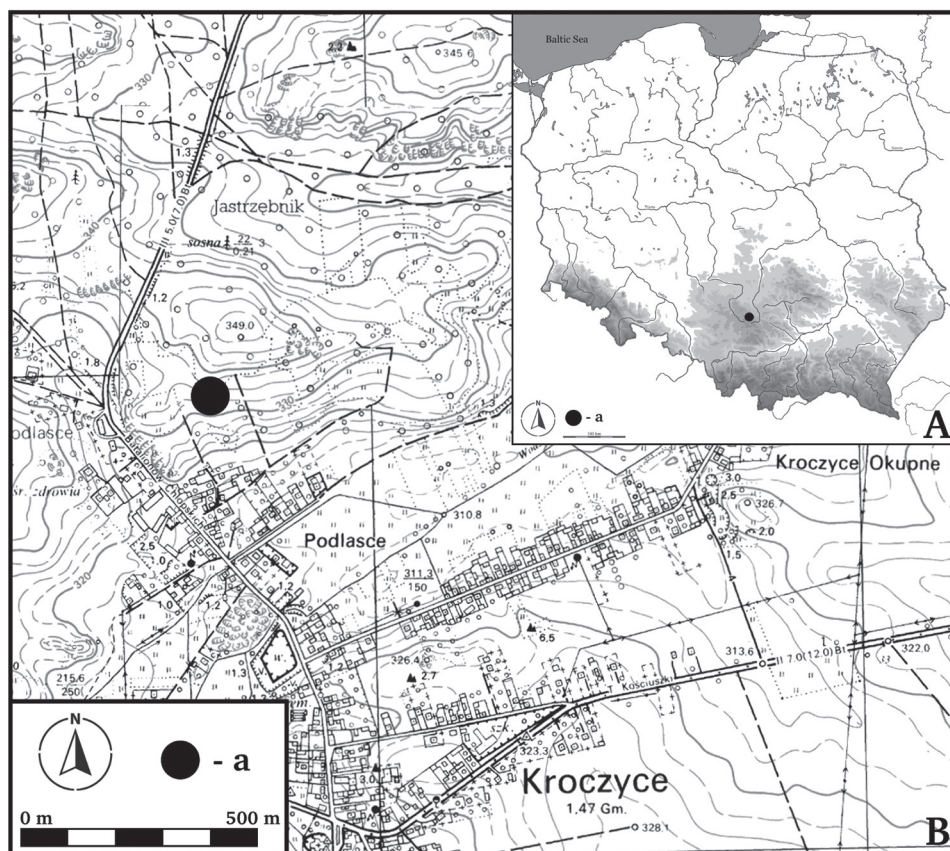
- PLEINER, R. 1989. "K otázce funkce a rozšíření sekerovitých hriven", *Slovenská numizmatika* 10: 81–88.
- POLEK, K. 1994. *Podstawy gospodarcze Państwa Wielkomorawskiego*, Kraków.
- POLESKI, J. 1992. *Podstawy i metody datowania okresu wczesnośredniowiecznego w Małopolsce*, Prace Archeologiczne 52, Zeszyty Naukowe Uniwersytetu Jagiellońskiego 1031, Kraków.
- POLESKI, J. 2013. *Małopolska w VI-X wieku. Studium archeologiczne*, Kraków.
- POLESKI, J. 2019. "Zawada Lanckorońska, Zamczysko i Mieścisko, gm. Zakliczyn". In: J. POLESKI (ed.), *Wczesnośredniowieczne grodziska w Polsce*, vol. 4: powiaty bocheński, brzeski, gorlicki, myślenicki, olkuski, oświęcimski, tarnowski, województwo małopolskie, Wrocław: 187–234.
- ROZMUS, D., SZMONIEWSKI, B.Sz. and TRONCIK, A. 2006. "Early Medieval Assemblage of Iron Artifacts from 'Góra Słupsko' Hillfort, Site 2 at Kostkowice, Zawiercie District, Śląskie Voivodeship", *Acta Archaeologica Carpathica* 41: 101–113.
- SZMONIEWSKI, B.Sz. 2010. "Axe-like Iron Bars in the Early Middle Ages from Central and Northern Europe. Some Comments". In: A. MÁGUREANU and E. GÁLL (eds.), *Între stepă și imperiu. Zwischen der Steppe und dem Reich. Between the Steppe and the Empire. Studii în onoarea lui Radu Harhoiu. Archäologische Studien für Radu Harhoiu zum 65. Geburtstag. Archeological Studies in honour of Radu Harhoiu at 65th Anniversary*, București: 289–295.
- SZMONIEWSKI, B.Sz. and ROZMUS, D. 2022. "The early medieval assemblage of iron axe-like bars fragments found in the valley of the Szklarka stream near Cracow in Poland", *Prinosi kŭm bŭlgarskata arkheologiya / Contribution to Bulgarian Archaeology* 12: 49–68. DOI: 10.53250/cba12.49-68
- SZMONIEWSKI, B.Sz., LASOTA-KUŚ, A., LACH, A. and OKOŃSKI, M. 2024. "New deposit of the early medieval Axe-Like Iron Bars from settlement at Brzesko, site 16-17, Lesser Poland Voivodeship", *Sprawozdania Archeologiczne* 76 (2): 341–367. DOI: 10.23858/SA76.2024.2.3852
- SEJBAL, J. 1960. "K počátkům peněžní směny ve Velkomoravské Říši", *Časopis Moravského muzea v Brně* 45: 73–82.
- URBAŃCZYK, P. 2001. *Rok 1000. Milenijná podrož transkontynentalna*, Człowiek–Symbol–Historia, Warszawa.
- ZAGÓRSKA-TELEGA, J. and BOCHNAK, T. 2001. "Ein Depot mit frühmittelalterlichen axtförmigen Eisenbarren aus Kostkowice, Fst. 2, Gde. Kroczyce, Woiw. Śląskie", *Acta Archaeologica Carpathica* 36: 39–47.
- ZAITS, E. 1988. "Frühmittelalterliche axtförmige Eisenbarren aus Klempen", *Slovenská Archeológia* 36 (2): 261–276.
- ZAITS, E. 1990. "Wczesnośredniowieczne grzywny siekieropodobne z Małopolski", *Materiały Archeologiczne* 25: 142–178.

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MAP 1	Location of discovery of the axe-like iron bar. A – General location in Poland; B – detailed location within the Kroczyce Commune, Zawiercie County, Silesian Voivodeship; a – exact place of discovery Drawing: B.Sz. Szmoniewski
PLATE 1	Figs. 1–2. A and B. Kroczyce Commune. A limestone rock where the axe-like iron bar was found Photo: B.Sz. Szmoniewski
PLATE 2	Fig. 3. Kroczyce Commune. The axe-like iron bar Drawing: I. Ściana Fig. 4. Kroczyce Commune. The axe-like iron bar Photo: B.Sz. Szmoniewski
MAP 2	Distribution of Iron axe-shaped bars from Poland: 1 – Kroczyce, Zawiercie County; 2 – Kostkowice, Góra Słupsko, Zawiercie; 3 – Krakow-Nowa Huta – Mogiła, Krakow County; 4 – Krakow, suburbium Okół, Krakow County; 5 – Modlnica, Krakow County; 6 – Szklarka Stream valley, Krakow County; 7 – Brzesko, Brzesko County; 8 – Zawada Lanckorońska, Tarnów County; 9 – Stradów, Kazimierza County; 10 – Radymno, Jarosław County; 11 – Piotrawin, Lublin County (a – Lesser Poland/Vistulan type; b – Great Moravian type; c – Piotrawin type) Drawing: B.Sz. Szmoniewski after SZMONIEWSKI and ROZMUS 2022; SZMONIEWSKI et AL. 2024
MAP 3	Distribution of Iron axe-like bars in Lesser Poland (Numbers as MAP 2). Types of the axe-like iron bars: a–f – Lesser Poland/Vistulan type; g – Great Moravian and e – the assemblage of intentionally cut axe-like iron bars of Lesser Poland/Vistulan. Statistical overview of the axe-like iron bars: a, g – 1 pc; b – 2 pcs; c – more than 5 pcs; d and e – more than 35 pcs; f – 4,212 pcs Drawing: B.Sz. Szmoniewski after SZMONIEWSKI and ROZMUS 2022; SZMONIEWSKI et AL. 2024



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Figs. 1–2

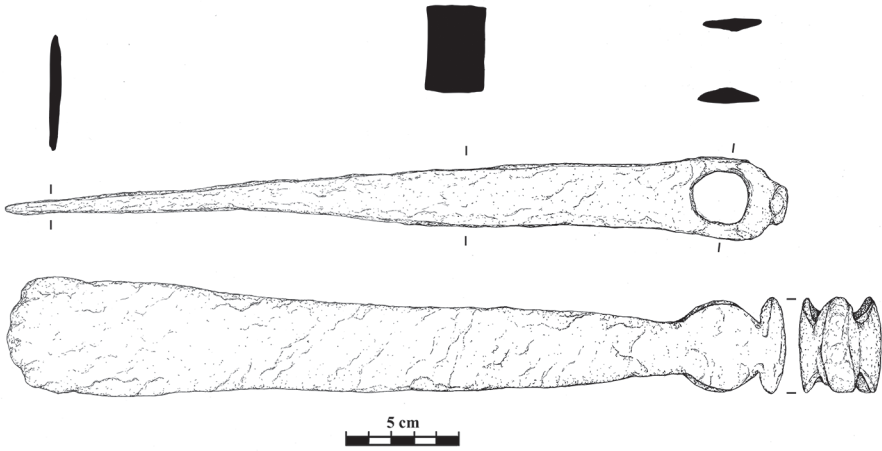
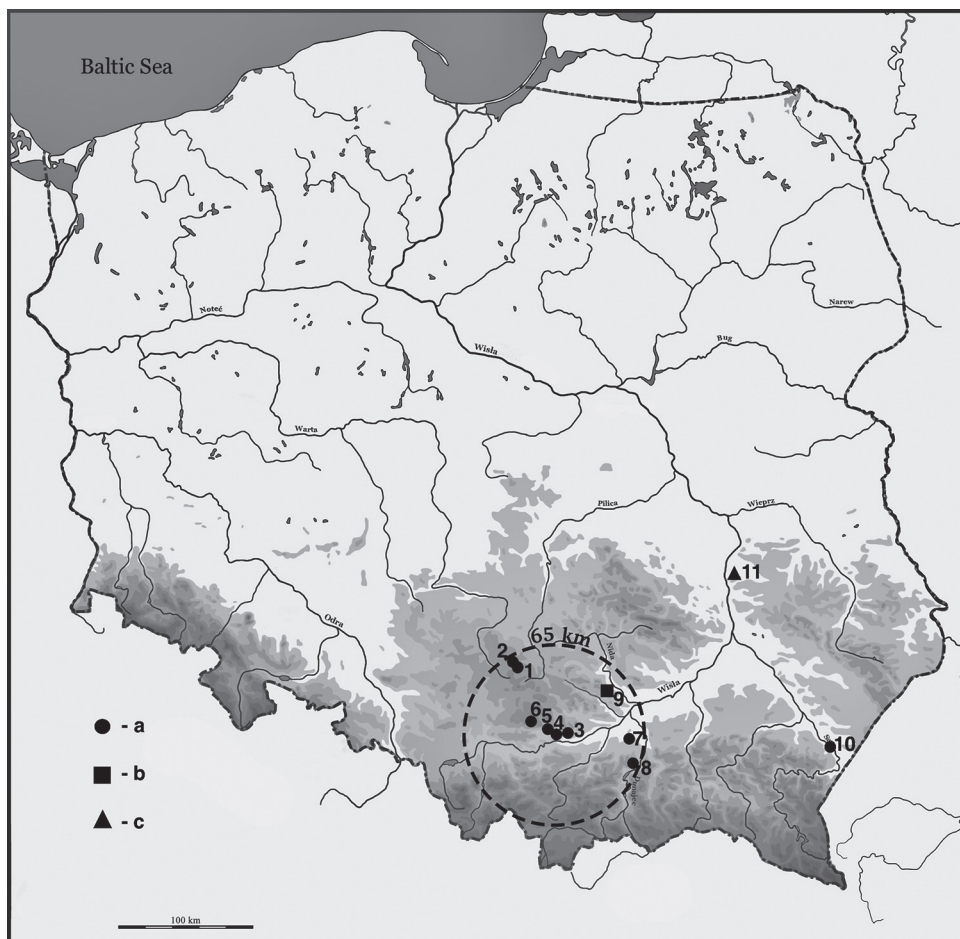


Fig. 3

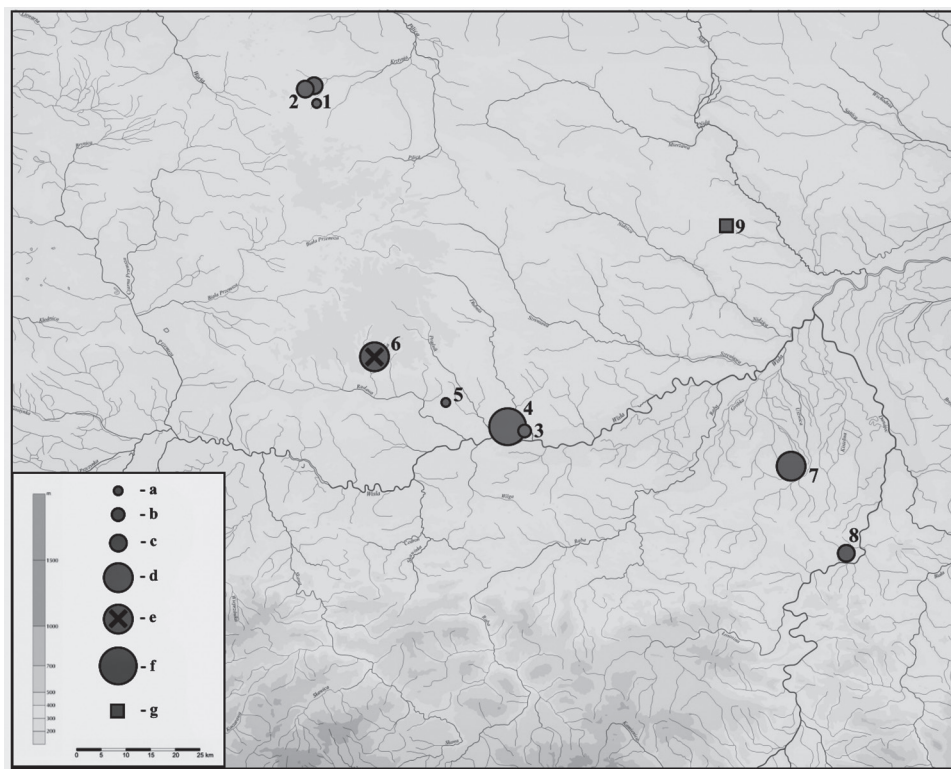


Fig. 4



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