

NOTAE NUMISMATICAE

ZAPISKI NUMIZMATYCZNE



Tom XVII

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

Kraków 2022

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Szanowni Państwo,

oddajemy w Państwa ręce tom XVII *Notae Numismaticae – Zapisków Numizmatycznych*. Zgodnie z przyjętymi przez nas zasadami wszystkie teksty publikujemy w językach kongresowych, z angielskimi i polskimi abstraktami. Zawartość całego 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.

Rok 2022 był wyjątkowy dla całego środowiska numizmatyków w Polsce. Pierwszy raz w historii naszego kraju, a ujmując rzecz szerzej – w krajach Europy Środkowo-Wschodniej – odbył się XVI Międzynarodowy Kongres Numizmatyczny, najważniejsze spotkanie numizmatyków z całego świata, organizowane co sześć lat pod auspicjami International Numismatic Council. Wybór Polski, jako miejsca organizacji Kongresu traktujemy jako wielkie wyróżnienie. Głównym organizatorem tego wydarzenia był Uniwersytet Warszawski, a w przygotowaniach uczestniczyły również Muzeum Narodowe w Warszawie, Zamek Królewski w Warszawie, Polskie Towarzystwo Numizmatyczne, Narodowy Bank Polski oraz Muzeum Narodowe w Krakowie. W tym ostatnim przypadku szczególnie zaangażowani w prace nad XVI INC byli pracownicy Gabinetu Numizmatycznego. Całością działań kierował profesor Aleksander Bursche z Wydziału Archeologii Uniwersytetu Warszawskiego, pomysłodawca organizacji Kongresu w Polsce, którego wspierał Komitet Organizacyjny reprezentujący wszystkie najważniejsze polskie ośrodki numizmatyczne. Obrady kongresowe — które zgromadziły ponad 600 uczestników, czy to na miejscu w Warszawie, czy też w mniej licznych przypadkach, dzięki transmisji na żywo, w miejscach ich zamieszkania — uzupełniały liczne wydarzenia towarzyszące: wystawy, koncerty i spotkania.

Muzeum Narodowe w Krakowie przygotowało z tej okazji specjalną wystawę: „Medal prywatnie. Medale w I Rzeczypospolitej (od XVI do XVIII wieku)”, której kuratorem była Agnieszka Smołucha-Sładkowska. Jednocześnie we współpracy z Uniwersytetem Jagiellońskim, krakowskim oddziałem Polskiego Towarzystwa Numizmatycznego, Królewską Biblioteką w Brukseli i Królewskim Towarzystwem Numizmatycznym w Belgii zorganizowano poprzedzającą właściwe obrady Kongresu międzynarodową sesję „Joachim Lelewel and Numismatics in the Nineteenth Century”. W ramach kongresu tradycyjnie opracowany został również Survey of Numismatic Research za lata 2014–2020, w prace nad którym aktywnie zaangażowani byli pracownicy Gabinetu Numizmatycznego: Jarosław Bodzek, Dorota Malarczyk i Barbara Zając. Co więcej, Gabinet Numizmatyczny Muzeum Narodowego w Krakowie był silnie reprezentowany w obradach Kongresu, w czasie których wymienione powyżej osoby wygłosiły referaty. Kongres zakończył się wielkim sukcesem i stanowił znakomitą wizytówkę polskiej numizmatyki.

Redakcja

Dear Readers,

It is with great pleasure that we present volume 17 of *Notae Numismaticae – Zapiski Numizmatyczne* to you. In accordance with the principles that we have adopted, our texts are published in the conference languages with English and Polish abstracts. The whole of the present volume can be found as PDF's on the website of the National Museum in Krakow (<https://mnk.pl/notae-numismaticae-zapiski-numizmatyczne-1>), as are previously published volumes of the journal. The website also contains general information about the journal as well as information for prospective authors and reviewers.

2022 was a special year for the entire numismatic community in Poland. It saw the XVI International Numismatic Congress being held in Warsaw, marking the first time that this most important meeting of numismatists from all over the world, organised every six years under the auspices of the International Numismatic Council, had been held in our country, or more generally in a country from Central and Eastern Europe. The choice of Poland as the venue for the Congress was a great honour. The main organiser of the event was the University of Warsaw, and also involved in its organisation were the National Museum in Warsaw, the Royal Castle in Warsaw, the Polish Numismatic Society, the National Bank of Poland, and the National Museum in Krakow. In this last case, the staff of the Museum's Numismatic Cabinet were particularly active in the work on the INC 2022. In charge of all activities was Professor Aleksander Bursche of the Faculty of Archaeology at the University of Warsaw, who was the driving force behind the organisation of the Congress in Poland, and who was supported in his role by the Organising Committee, representing all major Polish numismatic centres. The congress proceedings, which attracted more than 600 participants, either on-site in Warsaw or, in lesser numbers, thanks to live streaming, were complemented by a wide range of accompanying events, including exhibitions, concerts, and meetings.

The National Museum in Krakow organised a special exhibition for the occasion: "Private medal. Private medals in the 1st Republic of Poland (from the 16th to the 18th century)", curated by Agnieszka Smołucha-Sładkowska. At the same time, an international session on "Joachim Lelewel and Numismatics in the Nineteenth Century", preceding the Congress proper, was organised in cooperation with the Jagiellonian University, the Krakow Branch of the Polish Numismatic Society, the Royal Library of Brussels, and the Royal Numismatic Society of Belgium. As part of the Congress, the Survey of Numismatic Research for the years 2014–2020 was traditionally produced, with Jarosław Bodzek, Dorota Malarczyk and Barbara Zajac of the Numismatic Cabinet actively involved in its preparation. The Numismatic Cabinet of the National Museum in Krakow was also strongly represented in the proceedings of the Congress, where the abovementioned staff delivered papers. The congress was a great success and a real showcase for Poland.

The Editors

ŁUKASZ BUL
Independent Researcher

The Development of Krakow Type Staters

ABSTRACT: The paper discusses the coins derived from shell staters and referred to collectively as the Krakow type. A die study with an emphasis on the analysis of iconography, conducted on a corpus consisting of twenty-nine specimens, allows three typologically distinct stages to be distinguished in the development of the series. The identification of prototypes employed at each stage enables the origins of all discussed types to be reconstructed and provides a new *terminus post quem* for the series. A brief summary of the available metrological and metallurgical data is also given, as well as known findspots, which, in the case of several previously unpublished specimens, shed new light on the distribution of the last issues.

KEY WORDS: Krakow type staters, Celtic numismatics, Celtic coin finds, iconography

ABSTRAKT: *Ewolucja staterów typu krakowskiego*

W artykule omawiane są monety wywodzące się ze staterów muszlowych, określane wspólnym mianem „typu krakowskiego”. Analiza stempli z naciskiem na ikonografię, przeprowadzona na korpusie liczącym 29 egzemplarzy, pozwala na wyróżnienie w rozwoju serii trzech odrębnych typologicznie etapów. Identyfikacja prototypów wykorzystanych na każdym etapie umożliwia rekonstrukcję pochodzenia omawianych typów i wyznacza nowy *terminus post quem* dla całej serii. Podane jest również krótkie podsumowanie dostępnych danych metrologicznych i metalurgicznych, a także znanych miejsc znalezienia monet, które w przypadku kilku wcześniej niepublikowanych egzemplarzy rzucają nowe światło na zasięg dystrybucji ostatnich emisji.

SŁOWA KLUCZOWE: statery typu krakowskiego, numizmatyka celtycka, znaleziska monet celtyckich, ikonografia

INTRODUCTION

1868 saw the first known attempt to determine what was depicted on a “Krakow type” stater, although it received its designation as such over a hundred years later. In an article about shell staters, P.Ch. Robert identified the reverse¹ of a coin from the collection of Félicien de Saulcy² as a ship and attributed the stater to the Belgic tribe of the Menapii.³ In a paper published in 1976, K. Castelin defined the Krakow type, comprising five staters, among which was the specimen described earlier by P.Ch. Robert. Four further coins, considered to be typologically related predecessors of the Krakow type, were also discussed. K. Castelin deemed the Krakow type staters to be late copies of shell staters, minted in the environs of Krakow. He rejected the interpretation of the reverse design as a ship and inferred that it had developed from die flaws, at some point considered to be deliberate and intentionally incorporated into the new design. The coins were divided based on their metal content into gold, pale gold and silver.⁴ More than three and a half decades later, a comprehensive study conducted by M. Rudnicki yielded a corpus, which by then numbered 17 specimens, and led to a new attempt at classification.⁵ The author upheld K. Castelin’s theory about the evolution of the design from die flaws, while pointing out its subsequent barbarisation⁶ and the analogies of individual motifs among Celtic figural art,⁷ shell staters and so-called “rainbow cups” (*Regenbogenschüsselchen*), attributed to the Vindelici.⁸ The interpretation of the reverse design as a ship was categorically rejected.⁹ Regarding typology, M. Rudnicki not only proposed including the staters originally identified as such by K. Castelin as belonging to the Krakow type, but also three of the four coins that the latter considered to be their typological predecessors. The author chose to use the umbrella term of the Krakow type, even though, as he himself noted, it included “a number of types and varieties linked together in a single developmental sequence”.¹⁰ He divided the type into two groups, each further divided into several variants, separate for obverses and reverses. In a later study devoted to iconography, M. Andrałójć and M. Andrałójć rejected the typology of M. Rudnicki, recognising the Krakow type as defined by K. Castelin.¹¹ They pointed

¹ The author confused the reverse with the obverse (ROBERT 1868: 425; RUDNICKI 2012: 5).

² Cat. 3.9, currently in the collection of Bibliothèque nationale de France (BN 8744).

³ ROBERT 1868: 424, no. 2; 425.

⁴ CASTELIN 1976: 260–267. See also IDEM 1970.

⁵ RUDNICKI 2012. The study also includes an exhaustive history of research until 2012 (*Ibidem*: 4–17).

⁶ *Ibidem*: 20–21.

⁷ *Ibidem*: 20.

⁸ *Ibidem*: 28–33.

⁹ *Ibidem*: 35.

¹⁰ *Ibidem*: 21.

¹¹ ANDRAŁOJĆ and ANDRAŁOJĆ 2014: 69.

out several prototypes, most notably the Danubian imitation of a coin from Histiaia, with a nymph seated on the stern of a galley, and speculated on the interpretation of the images thought to be depicted on the staters.¹²

Since the publication of the article by M. Rudnicki, which listed 17 coins, only two further finds attributed to the Krakow type have been published,¹³ but extensive searches in auction archives and other sources have increased the number of known staters to 29. This considerably larger corpus helped to conduct a die study with an emphasis on the analysis of iconography, permitting three typologically distinct stages to be distinguished in the development of the Krakow type series. While M. Rudnicki's conclusion that all issues formed a single developmental sequence is undoubtedly correct, classifying them as a single type, even with the caveat given, cannot be sustained. Nevertheless, the argument for maintaining the widely recognised name remains valid, hence the compromise in designating the consecutive types as the Early Krakow type, Classic Krakow type¹⁴ and Late Krakow type. No subdivision of the three basic types is provided, except to assign the dies, as this is not considered necessary for such a small series.¹⁵ The attribution of the coins to individual dies at different stages of die wear paints a much more accurate picture. Of course, given the uncertainty that comes with frequently recut dies,¹⁶ the presumed use of transfer dies and the insufficient quality of some of the available images, it is impossible to avoid errors, although cases where die determination is uncertain have been highlighted. The typology is predominantly based on the development of reverses due to the largely undiagnostic nature¹⁷ of the obverses of the Early Krakow and the Late Krakow types. The analysis of iconography follows the view expressed by J. Sills, who in turn was guided in this regard by D.F. Allen,¹⁸ that a study of the origins and development of types and individual motifs "should be neutral and avoid over-interpretation".¹⁹ Prototypes, themes, and parallels for the analysed motifs are discussed but attempts to interpret the alleged religious symbolism behind the images depicted on the staters²⁰ are regarded as highly speculative and will not

¹² *Ibidem*: 87ff.

¹³ DULEBA and WYSOCKI 2017; BOCHNAK 2020. The latter also mentions the coin sold by Nomos, Cat. 2.2 (BOCHNAK 2020: 40).

¹⁴ The term was already used by M. Rudnicki, who referred to his II: A variety as a "classic" one (RUDNICKI 2012: 24ff).

¹⁵ I would like to take this opportunity to express my sincere gratitude to Dr John Sills, who agreed to offer a second opinion on typology and took the time to discuss some of the uncertain die attributions.

¹⁶ RUDNICKI 2012: 22.

¹⁷ *Ibidem*: 23, although the author evaluates the diagnostic value specifically in the aspect of territorial and chronological attribution.

¹⁸ ALLEN 1980: 148–149.

¹⁹ SILLS 2017: 3, concerning British Iron Age series.

²⁰ ANDRAŁOJC and ANDRAŁOJC 2014: 87ff.

be reviewed. To complement the information concerning the development of the series, an outline of the available metrological and metallurgical data is provided, followed by the known findspots.

EARLY KRAKOW TYPE

In a short catalogue description of the stater held in the Bibliothèque nationale de France (BnF 9445, Cat. 1.2), the reverse was described by E. Muret and A. Chabouillet as a degenerated depiction of a ship of the Menapii.²¹ K. Castelin expressed the view that the coins, which include Cat. 1.1, 1.2 and 1.4, are imitations of Boii shell staters, with different “fillings”, a new feature in the centre of the “shell”, on the reverse.²² This addition to the design seen in earlier issues was assumed to have originated due to die flaws. While considering the origin of the reverse design problematic, M. Rudnicki noted that shell staters with rays and a grain-shaped motif are prototypes of the coins belonging to Group I of Krakow type staters according to his classification,²³ which corresponds to the Early Krakow type. He also tried to find a direct predecessor of the group in a stater found in the Stradonice oppidum,²⁴ and concluded that it might have shared the reverse die with the coins of group I.²⁵ M. Andrałójć and M. Andrałójć argued that the prototypes of the reverse were Danubian imitations of the tetrobols from Histiaia, depicting a nymph seated on the stern of a galley,²⁶ Danubian imitations of Macedonian coins, depicting the prow of a ship,²⁷ and quarter staters of the “au bateau” series from Gallia Belgica.²⁸

E. Muret and A. Chabouillet’s interpretation is partially correct. The reverse of the Early Krakow type certainly depicts a ship, although the association with the Menapii should be treated as erroneous. The die flaw origin of features in the centre of the reverse provides the correct explanation when it comes to the shell stater shown in K. Castelin’s article in Fig. a),²⁹ which does not belong to the Early Krakow type. However, in the case of the coins that belong to the type, the new features which are not present on earlier shell staters appeared by design rather than by chance. The Early Krakow type originated with the incorporation of a classical theme into a shell stater. The primary prototype, as stated by M. Rudnicki, was a shell stater, with the distinctive features on the reverse – a crescent with rays

²¹ MURET and CHABOUILLET 1889: 219.

²² CASTELIN 1976: 262–263.

²³ RUDNICKI 2012: 25.

²⁴ PAULSEN 1933: pl. 16, no. 341; RUDNICKI 2012: 26, 27, Fig. 7; MILITKÝ 2015: 196–197, no. 56.

²⁵ RUDNICKI 2012: 41.

²⁶ ANDRAŁOJĆ and ANDRAŁOJĆ 2014: 69–70.

²⁷ *Ibidem*: 82.

²⁸ *Ibidem*: 70ff.

²⁹ CASTELIN 1976: 263.

emanating from the recessed centre, above, and the “grain” motif, above the right end of the crescent. The secondary prototype was a Republican denarius issued by Sextus Pompeius (RRC 483/2)³⁰ with a ship on the reverse. All new elements of the reverse of the Early Krakow type,³¹ absent on earlier shell staters, can be traced to the corresponding details on the reverse of the Roman coin, with only one counterpart being uncertain. The stern terminating in an aplustre on the denarius (Pl. 6, Fig. 4.1) has its equivalent in the forked left end of the crescent on the stater. The helmsman steering rudder (Pl. 6, Fig. 4.2) is shown as a triangle. The six-rayed star in the upper left of the denarius (Pl. 6, Fig. 4.3) corresponds to the four-rayed one on the stater. Oars (Pl. 6, Fig. 4.4) are depicted as hook-shaped elements below the crescent. Sail (Pl. 6, Fig. 4.5) is shown as a centrally positioned rectangular feature. A hortator (Pl. 6, Fig. 4.7) stands on the prow, immediately to the right of sail. The distinctive crescent shape known from shell staters becomes a galley. The “zigzag” at the top of the crescent (Pl. 6, Fig. 4.6) may represent rowers but its interpretation is uncertain. Its shape points to another analogy which is the ropes³² attached to the sides, present on many depictions of ships and boats from antiquity, such as the Althiburos mosaic.³³ Another explanation which cannot be ruled out is railings.³⁴ The coin serving as a prototype was most probably worn before it reached “barbaricum”, which, along with the general trend towards simplification of all features, explains the plain form of the sail. It should also be noted that the sail on some of the coins of this type is less inflated by the wind and more rectangular in shape than on the denarius shown in Fig. 4.

The use of a shell stater as the primary prototype is widely accepted.³⁵ The choice was most likely dictated by pragmatic considerations, with shell series constituting the predominant supra-regional gold issues, minted in several centres in the area immediately to the south of the Carpathians and the Sudetes, including the Bratislava oppidum.³⁶ The identification of the denarius RRC 483/2 as the secondary prototype, in the light of disparate opinions on the matter, requires further analysis. The assumption that the Paulsen 341 specimen and staters of the Early Krakow type share the same reverse die is highly improbable for practical reasons. The features above the left part of the crescent on the stater from Stradonice, missing from the coins of the Early Krakow type, are of such high relief that the die would have to be

³⁰ CRAWFORD 1974: Pl. XVII, no. 24.

³¹ Present on coins struck with relatively new dies: Cat 1.1 and 1.2.

³² The ropes most likely served as lifelines, such as those present on modern lifeboats.

³³ Cf. GAUCKLER 1905: Figs. 9–18, 20–25.

³⁴ Cf. BASCH 1987: Figs. 998–1002, 1101.

³⁵ CASTELIN 1976: 262–263; RUDNICKI 2012: 25; KOLNÍKOVÁ 2019: 35.

³⁶ KOLNÍKOVÁ 2019: 34–36.

almost completely ground down before being recut for them to have disappeared.³⁷ None of the prototypes proposed earlier shows sufficient similarity of the details, both in their form and position, to the reverse of the Early Krakow type in its original, undamaged form. The attempt to identify the imitation of the coin from Hestiaia as the prototype for all three Krakow types, including the Early Krakow one treated as two separate subtypes,³⁸ not only ignores changes in iconography but also, especially in the case of the Early Krakow type, the progressive die wear. The ability to assign the new motifs on the reverse of the stater to the corresponding ones on the reverse of the denarius is the strongest argument for the identification of the prototype but not the only one. As will be shown below, the reverses of the Classic Krakow and Late Krakow types also depict a ship. Further examples can also be provided among other Celtic staters and their fractions, which were most probably issued north of the Carpathians and the Sudetes: the 1/8 stater of the Pełczyska type,³⁹ a unique coin kept in the National Museum in Warsaw⁴⁰ and an unpublished stater of a new type.⁴¹ There also exists a coin in the collection of the Historical Museum in Frankfurt, depicting a ship on the reverse and considered to be a Celtic imitation of the very same denarius, RRC 483/2.⁴² The Early Krakow type is not a solitary case of incorporation of a classical theme into a shell stater either. A stater held in the collection of Bibliothèque nationale de France in Paris (BnF 8743),⁴³ utilises one of the most common images of the ancient world, the biga (Fig. 5). Given the execution of the copied image and the ubiquity of the subject, the exact prototype cannot be identified with a high enough degree of certainty, but the denarius issued by L. Flaminius Chilo (RRC 302/1)⁴⁴ serves as a good example. Again, the new elements on the reverse of the stater can be linked with the corresponding details on the reverse of the denarius: the mantle (Pl. 7, Fig. 5.1), the horses' hind legs (Pl. 7, Fig. 5.2), Victoria driving a chariot (Pl. 7, Fig. 5.3), the body of the right horse (Pl. 7, Fig. 5.4), the horses' heads (Pl. 7, Fig. 5.5–6) and the horses' forelegs (Pl. 7, Fig. 5.7–8). A substantial influx of Republican denarii into the lands of present-day Poland towards the end of the La Tène period,⁴⁵ and the widespread use

³⁷ I would like to thank Dr Jiří Militký for sharing the high-resolution images of the coin.

³⁸ ANDRAŁOJĆ and ANDRAŁOJĆ 2014: 100–102.

³⁹ RUDNICKI 2003; ANDRAŁOJĆ and ANDRAŁOJĆ 2012: 45ff.

⁴⁰ KRZYŻANOWSKA 1966: 173; ANDRAŁOJĆ and ANDRAŁOJĆ 2014: 70ff.

⁴¹ BUL forthcoming. Of all coins discussed in ANDRAŁOJĆ and ANDRAŁOJĆ 2014 only the listed types are recognised as definitely representing a ship.

⁴² FÖRSCHNER 1983: 60, no. 146.

⁴³ ROBERT 1868: 424, no. 1, 425; MURET and CHABOUILLET 1889: 201, no. 8743, DE LA TOUR 1892: Pl. XXXV, no. 8743.

⁴⁴ CRAWFORD 1974: Pl. XLI, no. 1.

⁴⁵ Cf. DYMOWSKI 2015; IDEM 2016.

of Roman prototypes in both the issues of the nearest neighbours and the rest of Iron Age Europe⁴⁶ lend further support in favour of the identification of the secondary prototype given above.

The determination of the denarius RRC 483/2 as the secondary prototype of the reverse provides the new *terminus post quem* for the absolute chronology of all Krakow types. The date of the issue, 42 BC,⁴⁷ places the beginnings of the Early Krakow type firmly in phase D2 of the La Tène period.

Two obverse dies and one reverse die are known for the Early Krakow type. Three of the five known staters (Cat. 1.1, 1.2 and 1.3) were struck with the same die pair, EK O1-R1,⁴⁸ with the reverse die of the stater found in the environs of Sochaczew (Cat. 1.3) showing multiple signs of deterioration. At some point, the obverse die was replaced and the crescent area of the very deteriorated reverse die recut, rendering the original depiction of a ship on the reverse completely unrecognisable. The remaining two coins (Cat. 1.4 and 1.5) have been struck with the combination of the new obverse and recut reverse dies, EK O2-R1.1, heavily deteriorated in the case of the stater found on Straník Mountain (Cat. 1.5).⁴⁹

The weight of the Early Krakow type staters remains relatively constant between 6.62 g and 6.89 g, with the average being 6.76 g. However, their metal composition paints a different picture. Metallurgical analysis was conducted on three coins (Cat. 1.3, 1.4 and 1.5). The gold content drops from 70% to 45.5% between the first two analysed staters (Cat. 1.3 and 1.4) indicating rapid debasement. The fineness of 76% for the youngest known coin (Cat. 1.5) poses a conundrum. One possible explanation for this anomaly could be the replenishment of previously depleted resources at the disposal of the issuing authority but it is difficult to draw conclusions from such a small sample size.

The three known findspots are spread over a large area, with one coin found in Croatia (Cat. 1.1), one in Poland (Cat. 1.3) and one in Slovakia (Cat. 1.5). As has been noted before,⁵⁰ it attests to their use in long-distance contacts. Only in one case has the context of a find been recorded. The coin found on Straník Mountain, near

⁴⁶ Cf. GÖBL 1994: 13–21; KOLNÍKOVÁ 2005; RÖTTGER 2015; TORBÁGYI and VIDA 2020; SCHEERS 1969; HENIG 1972.

⁴⁷ ESTIOT 2006.

⁴⁸ The first two letters denote the type, the first number is the obverse die, the second number following the dash is the reverse die. Letter B in place of either number indicates a blank die. The number following the decimal separator, as in R1.1, stands for a recut die.

⁴⁹ The tentative attribution of the stater from Straník Mountain as Paulsen 401–402 (ČAMBAL and BUDAJ 2016: 13) is incorrect as is its attribution to the group of shell staters designated as the Velký Bysterec type (KOLNÍKOVÁ 2019: 34, footnote 3).

⁵⁰ RUDNICKI 2012: 49–54, concerning all coins under the umbrella term of the Krakow type, which corresponds to all three types described here.

Žilina in Slovakia, was part of a hoard which, in addition to the stater, consisted of 13 tetradrachms of the Veľký Bysterec type.⁵¹

CLASSIC KRAKOW TYPE

The first published specimen of the Classic Krakow type was a coin found in 1935 in the Grzegórzki district of Krakow and subsequently purchased by the National Museum in Krakow (Cat. 2.1).⁵² The stater was later assigned to the “Krakow type”, introduced by K. Castelin,⁵³ who considered the reverse design to be derived from die flaws, at some point deemed deliberate and replicated in the new type. M. Rudnicki pointed out the similarities between the individual obverse motifs and the corresponding ones on the staters defined here as the Early Krakow type, earlier shell staters, and the staters attributed to the Vindelici.⁵⁴ He developed K. Castelin’s die flaw origin theory further, concluding that the prototype of the reverse was a stater, belonging to Group I in his classification, struck with deteriorated dies.⁵⁵ As for the iconography of the reverse, he declared the design indecipherable⁵⁶ and confined himself to recognising in one of the motifs an analogy to Celtic figural art in the form of a bird’s head.⁵⁷ He also strongly rejected the identification of the reverse as a representation of a ship.⁵⁸ The die flaw origin of the reverse design was, in turn, completely dismissed by M. Andrałojć and M. Andrałojć.⁵⁹ As in the case of the Early Krakow type, they asserted that the secondary prototype for both the obverse and reverse was a Danubian imitation of a coin from Euboea, depicting the head of the nymph Histiaia on the obverse and Histiaia seated on the stern of a galley on the reverse.⁶⁰

The derivation of the design from die flaws cannot be denied. The matching features on the obverses and reverses of the coins of the Early Krakow type struck with deteriorated dies and coins of the Classic Krakow type are too numerous and too similar to be ignored.⁶¹ Additionally, examples of the incorporation of die flaws into the design can be found among other Celtic issues.⁶² M. Rudnicki wondered

⁵¹ ČAMBAL and BUDAJ 2016: 11.

⁵² PIOTROWICZ 1935: 151–152.

⁵³ CASTELIN 1976: 265.

⁵⁴ RUDNICKI 2012: 28–33.

⁵⁵ *Ibidem*: 35.

⁵⁶ *Ibidem*: 35.

⁵⁷ *Ibidem*: 20.

⁵⁸ *Ibidem*: 35.

⁵⁹ ANDRAŁOJĆ and ANDRAŁOJĆ 2014: 69.

⁶⁰ *Ibidem*: 65ff.

⁶¹ RUDNICKI 2012: 24–25, 28, 34–35.

⁶² Cf. SILLS 2017: 191, where the branch-like die flaw is discussed as a likely origin of the Dobunnic tree.

“whether the die engraver tried to interpret the meaning of the existing shape by giving it a final form, or whether he created it himself by using the existing possibilities to create a new figure.”⁶³ The latter is most likely. As with the Early Krakow type, a familiar coin was presumably chosen as the primary prototype for practical reasons, such as being recognisable to the issuer and the recipients. In all probability, the die engraver knew that the reverse was originally meant to depict a ship but chose a new secondary prototype which would fit with the “existing possibilities” of a coin of the Early Krakow type in a similar stage of deterioration as exhibited by the stater kept in the Swiss National Museum in Zürich (Cat. 1.4). A very plausible candidate for that prototype is the Danubian imitation of a tetrobol from Histiaia, depicting a nymph seated on a stern of a galley, as proposed by M. Andrałójć and M. Andrałójć. Three elements in particular should be noted which point to the choice of this specific prototype. The first is the pellet depicting the eye of the nymph, above the H-shaped element top right of the crescent, absent on the primary prototype.⁶⁴ The second is presence of the double pellets at the left tip of the crescent, also absent on the damaged Early Type reverse die, which represent one of the motifs located in the same place on the coins from Histiaia and their imitations, usually a star or a wing. The third is the H-shaped element, which, while present on the primary prototype, has been substantially enlarged to ensure a closer semblance to the hand of the nymph holding stylis on the secondary prototype.⁶⁵ The adaptation of the existing design with the aid of a new secondary prototype, possibly by means of a reworked transfer die, constitutes a highly likely explanation for the origin of the Classic Krakow type, especially when it comes to the reverse. Likewise, the obverse is adapted from the existing design, best represented by the coin found in the environs of Sochaczew (Cat. 1.3), as noted by M. Rudnicki.⁶⁶ The new details outlining the central convex bulge probably depict a human head, although the style of execution points to the tradition known from shell staters and quarter staters attributed to the Vindelici⁶⁷ as the source of inspiration, rather than an imitation of the coin from Histiaia.⁶⁸ The interpretation of the three-rayed motif is uncertain, although it clearly derives from the corresponding, usually five-rayed motif present on shell staters. The diversity of similar motifs indicates that they meant different things for different issuers. It would be difficult to avoid interpreting

⁶³ RUDNICKI 2012: 35.

⁶⁴ ANDRAŁOJĆ and ANDRAŁOJĆ 2014: 66.

⁶⁵ *Ibidem*: 66.

⁶⁶ RUDNICKI 2012: 28.

⁶⁷ *Ibidem*: 31–33, notwithstanding the interpretation of the examples given as representing the head of a bird.

⁶⁸ ANDRAŁOJĆ and ANDRAŁOJĆ 2014: 65ff.

the motif on the inscribed Biatec staters (Paulsen 695–701)⁶⁹ as a hand, while on most of the uninscribed shell staters it appears to be an astral symbol, and has been interpreted as such.⁷⁰ A rare variant of the motif, which can be seen on a coin excavated in Bratislava Castle⁷¹ has been tentatively described as a lunisolar symbol showing different phases of the moon.⁷² M. Dessewffy lists a coin,⁷³ on which the motif is depicted twice, very suggestively evoking the image of the rising or setting sun. Another theme that M. Rudnicki drew attention to⁷⁴ should also be recalled, namely the “three-pointed flower”, listed by H.-J. Kellner as type V E.⁷⁵ On 30 May 2020 Leu Numismatik sold a quarter stater of an unpublished type, which seems to depict a similar theme but in much more detail.⁷⁶ Finally, a motif on the obverse of a stater held in the collection of Münzkabinett der Staatlichen Museen zu Berlin can be mentioned, described as a hand or a lyre.⁷⁷

Three die pairs are known for the Classic Krakow type. Four of the six known staters have been made with the same pair of dies, CK O1-R1 (Cat. 2.1–2.4). The remaining coins (Cat. 2.5 and 2.6) were struck with dies CK O2-R2 and CK O3-R3, respectively, the designation of the reverse die of the latter being uncertain, as it is equally likely that it was struck with a very deteriorated reverse die 1.⁷⁸

The weight of the Classic Krakow type staters ranges from 6.5 g to 7.42 g. While in the light of the available data the weight of the stater held in the National University Library of Strasbourg (Cat. 2.5) can be considered atypical, an analogy showing a very similar weight discrepancy can be found among the shell series. J. Militký lists 3 staters from the Stradonice oppidum,⁷⁹ attributed to Paulsen 380–381,⁸⁰ with an average weight of 6.6 g. A coin of the same type is known, with the same die flaws on the reverse, which weighs 7.29 g.⁸¹ The alloy composition is only known for one specimen (Cat. 2.2) and consists of 61.2% gold, 35.5% silver and 2.9% copper.⁸²

⁶⁹ PAULSEN 1933: pl. 29.

⁷⁰ KOLNÍKOVÁ 2019: 35.

⁷¹ MUSILOVÁ, KOLNÍKOVÁ and HLOŽEK 2015: 263, Fig. 15, no.14. The coin is a variant of Paulsen 694 (PAULSEN 1933: Pl. 28).

⁷² *Ibidem*: 257.

⁷³ DESSEWFFY 1910: Pl. XX, no. 489.

⁷⁴ RUDNICKI 2012: 30.

⁷⁵ KELLNER 1990: Typenübersicht 3.

⁷⁶ <https://leunumismatik.com/en/lot/21/21> (accessed on 25 January 2022).

⁷⁷ <https://ikmk.smb.museum/object?id=18204959> (accessed on 20 February 2022).

⁷⁸ RUDNICKI 2012: 63.

⁷⁹ MILITKÝ 2015: 202–203, nos. 76–78.

⁸⁰ PAULSEN 1933: Pl. 18.

⁸¹ KOSTUR and GÁŠPÁR 2018: 151, no. 137.1.

⁸² Mean values calculated from 4 readings, 2 from the obverse and 2 from the reverse. Analysis conducted with Thermo Scientific Niton XL2 100G XRF Analyzer.

Only two findspots have been recorded, the first being Krakow and the second in the environs of Krakow.

LATE KRAKOW TYPE

Coins of the Late Krakow type constitute the most numerous group of all the issues described here, so it is unsurprising that they were the first to be published.⁸³ It was in the case of one of these staters, now held in the collection of the Bibliothèque nationale de France in Paris (Cat. 3.9), that the ship was first mentioned as an interpretation of the reverse.⁸⁴ E. Muret and A. Chabouillet upheld this interpretation,⁸⁵ while A. Blanchet described the coin as a deformed “*Regenbogenschüsselchen*”.⁸⁶ K. Castelin classified the stater, together with other known specimens of the type in question, as the Krakow type.⁸⁷ Both K. Castelin and M. Rudnicki dismissed the interpretation of the reverse as a ship.⁸⁸ M. Rudnicki regarded the coins of the type as a barbarised rendition of the “classic” variety, which had lost its “symbolic meaning”. He identified three reverse variants and attempted to arrange them in chronological order.⁸⁹ M. Andrałójć and M. Andrałójć proposed the imitation of the coin from Histiaia as one of the two prototypes, the other being a shell stater.⁹⁰

The Late Krakow type developed in a process remarkably similar to that which led to the emergence of the Classic Krakow type. The reverse design, derived primarily from the Classic Krakow type, was largely retained, but the principal theme of the ship was rendered in a slightly different way. The head of Histiaia disappeared, while new details were added, some of them borrowed from the available secondary prototype, different from those chosen for previous types. The three pellets, arranged horizontally top left of the crescent (Pl. 7, Fig. 6.2), represent crew members and were borrowed from the denarius of C. Fonteius (RRC 290/1).⁹¹ It should be noted that a coin of this type was found in Lesser Poland⁹² where the mint(s) issuing Krakow type series were located.⁹³ The two pellets at each end of the crescent depict the volute at the end of the stem (Pl. 7, Fig. 6.1) and the

⁸³ ŻEBRAWSKI 1847: Pl. V, no. 77; ROBERT 1868: 424–425.

⁸⁴ ROBERT 1868: 425.

⁸⁵ MURET and CHABOUILLET 1889: 201.

⁸⁶ BLANCHET 1905: 475.

⁸⁷ CASTELIN 1976: 264–265.

⁸⁸ *Ibidem*: 265; RUDNICKI 2012: 5–6.

⁸⁹ RUDNICKI 2012: 25–37.

⁹⁰ ANDRAŁOJĆ and ANDRAŁOJĆ 2014: 101.

⁹¹ CRAWFORD 1974: Pl. XL, no. 5.

⁹² DYMOWSKI 2016: 251 (135/28).

⁹³ WOŹNIAK 1967: 210; CASTELIN 1976: 266; WOŹNIAK 1978: 101–111; IDEM 1984: 280–283; RUDNICKI 2012: 7ff.

circular ornament (Pl. 7, Fig. 6.9) from which the aplustre (Pl. 7, Fig. 6.8) emerges. The inverted T-shaped motif, adjoining the aplustre (Pl. 7, Fig. 6.7), in all probability represents a helmsman and was also copied from the same denarius. An alternative explanation for this feature was proposed by P.-M. Duval, who described it as a small inclined spare mast, but as he himself noted, it would normally be located at the front of a ship.⁹⁴ The addition of the vertical line (Pl. 7, Fig. 6.5) connecting the tip of the central sickle-shaped element (Pl. 7, Fig. 6.3) to the crescent depicting the ship's hull allows the sickle-shaped element to be identified as a billowing sail while the vertical line represents a mast. Although the sickle-shaped element was also interpreted as a cabin,⁹⁵ such a prominent, centrally positioned feature is more likely to depict a sail. The two pellets under the sail (Pl. 7, Fig. 6.4) could represent a sailor standing on the deck. An intaglio is known that shows a crew member manning a sail in the same location.⁹⁶ The diagonal line (Pl. 7, Fig. 6.6) at least on some dies resembles a brace. Stays and braces can be seen on other depictions of ships from this period, for example on an as from Ilercavonia,⁹⁷ an intaglio or tessera held in the Musée d'Art et d'Histoire in Geneva,⁹⁸ or another intaglio held in The British Museum in London.⁹⁹ The small pellets in various places on different dies might have served as privy marks. The individual motifs for which no prototype has been indicated other than the primary one are likely to be an original creation, adapting the elements copied from the Classic Krakow type, although additional, unknown sources of inspiration cannot be excluded.¹⁰⁰ The obverses bear either a very worn three-rayed motif borrowed from the Classic Krakow type or are completely blank.

In the case of the Late Krakow type, the shortcomings of the previously proposed division into variants¹⁰¹ and their assumed chronological order become most evident, mainly due to the significant increase in new finds. While the reverse variants 2 and 3, as proposed by M. Rudnicki, each represents a separate die, variant 4 encompasses 3 different dies with dissimilarities between two of them (LK R1 and LK R5) no less obvious than between any of them and the remaining variants. For three of the reverse dies, a sufficient number of specimens are now known to be able to conclude, based on metrological data and perceived alloy fineness,¹⁰² that

⁹⁴ DUVAL 1949: 93.

⁹⁵ *Ibidem*: 93.

⁹⁶ GRASER 1867: Pl. II, no. 78 [XX].

⁹⁷ <https://www.sixbid-coin-archive.com/#/en/single/133652301> (accessed on 20 January 2022).

⁹⁸ <https://collections.geneve.ch/mah/oeuvre/pate-de-verre-imitant-une-intaille-tessere/mf-3111> [(accessed on 20 January 2022)].

⁹⁹ https://www.britishmuseum.org/collection/object/G_1814-0704-2669 (accessed on 20 January 2022).

¹⁰⁰ Cf. HENIG 1972.

¹⁰¹ RUDNICKI 2012: 22ff.

¹⁰² Assessed on the basis of the alloy colour only, due to the lack of more reliable data.

they were used in parallel. Variant 2, corresponding to the LK R2 reverse die, was considered early, while there exists a specimen struck with the same die, which is one of the two lightest coins known for the type (Cat. 3.7). On the other hand, variant 4 was considered late but there is a stater struck with the same die, LK R1, as two of the coins attributed to this variant (Cat. 3.2 and 3.3), which is the heaviest specimen of the type, with a weight of 6.3 g approaching that of the Classic Krakow type (Cat. 3.1).

The type currently comprises seven reverse dies. The reverse die LK R1 is known from three uniface staters (Cat. 3.1–3.3). The depiction of the sail on this die is closest to the sickle-shaped motif of the Classic Krakow type among all of the Late Krakow dies. Both the stem and the bar of the inverted T-shaped motif adjoining the aplustre are relatively thin with both ends of the bar rounded. The three conjoined pellets representing crew members are less pronounced than on the other dies. Two of the three known coins (Cat. 3.2 and 3.3) exhibit significant die deterioration, very advanced in the case of the stater catalogued as Cat. 3.3. The reverse die LK R2 is known from four coins (Cat. 3.4–3.7), two of which (Cat. 3.4 and 3.6) have been struck with the die pair LK O1-R2. When it comes to the remaining two staters, the obverse die cannot be determined for the coin catalogued as Cat. 3.5 due to the only available photo being out of focus and in the case of Cat. 3.7 the obverse is blank. The inverted T-shaped motif on the reverse die LK R2 has its top arm connected to the aplustre with a thin line. There are also two small pellets on either side of the motif's stem. Another pellet appears between the two vertically arranged pellets under the sail and the mast. A further two pellets are located between the crew members and the mast. The stater catalogued as Cat. 3.5 has a die flaw adjacent to the right edge of the sail, absent on other specimens. Interestingly, a very similar die flaw appears on the only known specimen struck with the reverse die LK R3 (Cat. 3.8). This reverse die bears a striking resemblance to the reverse die LK R2 but there are differences, mainly concerning the rays and the absence or different position of the small pellets present on LK R2. The similarities may indicate the use of reworked transfer dies. The reverse die LK R4 is represented by a single coin (Cat. 3.9), struck with the die combination LK O2-R4. Only two crew members are shown and a privy mark, consisting of two very small, diagonally arranged pellets, is located between the crew members and the front of the sail. The bar of the inverted T-shaped element is elongated and thick, with its top arm, as in the case of LK R2 and LK R3, connected to the edge of the coin with a thin line. The obverse die LK O2 shows sufficient similarity to LK O1 to conclude that either one is derived from the other or both have the same predecessor. The reverse die LK R5 is represented by seven coins (Cat. 3.10–3.16) of which one (Cat. 3.10) was struck

with the obverse die LK O3, three (Cat. 3.11–3.13) with the obverse die LK O4,¹⁰³ and three (Cat. 3.14–3.16) with blank dies. It is possible that LK O3 and LK O4 are, in fact, the same die, but the coin that was published by T. Żebrowski (Cat. 3.10) is only known from a drawing, leaving the attribution of the obverse die open. The inverted T-shaped motif on the reverse die LK R5 is reduced in size and has a short bar with irregular ends. The tip of the sail protrudes slightly beyond the mast. Directly above the rightmost of the crew members is a small pellet, and below the large pellet terminating the left side of the crescent is another. Reverse dies LK R6 and LK R7, known from one coin each (Cat. 3.17 and 3.18, respectively), are both derived from the reverse die LK R5. The stater found in Folkušová (Cat. 3.17) is uniface, while the one found in Opatów (Cat. 3.18) has a very worn obverse die, with uncertain attribution, although most probably derived from LK O4. The surface irregularities on the obverse of the stater from Opatów, brought to light by T. Bochnak,¹⁰⁴ seem to have been caused by localised sub-surface corrosion.¹⁰⁵

The weight within the Late Krakow type varies from 5.11 g to 6.3 g. As mentioned above, a parallel decrease in weight and alloy fineness, combined with die deterioration, can be observed for three of the known reverse dies. While different workshops for such a small series seem unlikely, they cannot be excluded. The metal composition is known for only one specimen (Cat. 3.18), which has a high silver content of 80.7%, 11.5% of copper and only 0.7% of gold. Nevertheless, the significant variation in metal colour among known coins of the Late Krakow type, from pale gold to silver, indicates a substantial initial gold content. Such differences in weight and fineness between coins made with the same dies point to either a prolonged use of dies, a rapid debasement, or both. The stater catalogued as Cat. 3.15 appears to have a considerably higher gold content than earlier coins struck with the same reverse die. As was the case with a comparable anomaly, the Early Krakow type specimen found on Straník Mountain (Cat. 1.5), this may be indicative of intermittent availability of gold.

The new finds bring new circulation data. To the six known findspots from Poland (Cat. 3.3, 3.10, 3.13, 3.14, 3.15 and 3.18), one from Czechia (Cat. 3.16), one from Slovakia (Cat. 3.17) and one, uncertain, from Holland (Cat. 3.9)¹⁰⁶ we can now add five previously unknown findspots from Ukraine (Cat. 3.1, 3.5, 3.7,

¹⁰³ The attribution of the obverse die of the coin catalogued as Cat. 3.13 is uncertain, due to the die being very worn and most likely recut.

¹⁰⁴ BOCHNAK 2020: 38–39.

¹⁰⁵ Irregularities are also present on the upper part of the reverse. Minute cracks on the bulged surface of several of them point to corrosion as the cause of their formation, as does at least one corrosion pit present on the obverse.

¹⁰⁶ The alleged Dutch findspot of Cat. 3.9 is considered unreliable, cf. ROYMANS and VAN DER SANDEN 1980: 184, 246 and RUDNICKI 2012: 67–68.

3.11 and 3.12) of which two can be narrowed down to the Lviv District (Cat. 3.1 and 3.12). Other Celtic coin finds, mainly represented by the imitations of Philip II tetradrachms, are known from Ukraine,¹⁰⁷ but discoveries of the Krakow type staters have so far gone unnoticed despite being reported for at least ten years. These finds now represent the second largest group of the Late Krakow type by country, indicating a hitherto unknown area of circulation of the type in question. Also noteworthy are two previously unpublished finds from the environs of Inowrocław, Poland (Cat. 3.13 and 3.15). Several Celtic issues are known from Kuyavia¹⁰⁸ and some of these coins must have reached the south of present-day Poland, as evidenced by a stater found in Modlniczka.¹⁰⁹ While it has been attested that coins minted in western Lesser Poland, including types which are the subject of this article, travelled in the opposite direction,¹¹⁰ the coins catalogued as Cat. 3.13 and Cat. 3.15 are the first known cases of Krakow type staters found in Kuyavia.

CATALOGUE

- 1.1. Early Krakow type, dies EK O1-R1, 6.89 g, 17 mm
 Findspot: environs of Zagreb, Croatia
 Literature: RUDNICKI 2012: 54–55, Cat. 1¹¹¹
 Collection: Magyar Nemzeti Múzeum, Budapest (Dess. 485)¹¹²
- 1.2. Early KRAKOW type, dies EK O1-R1, 6.73 g, 16.9 mm
 Findspot: unknown
 Literature: RUDNICKI 2012: 55–56, Cat. 2
 Collection: Bibliothèque nationale de France, Paris (BnF 9445)¹¹³
- 1.3. Early Krakow type, dies EK O1-R1, 6.62 g, 17 mm. Au: 70.03, Ag: 24.56, Cu: 3.18¹¹⁴
 Findspot: environs of Sochaczew, Sochaczew County, Masovian Voivodeship, Poland
 Literature: RUDNICKI 2012: 56–58, Cat. 3
 Collection: private

¹⁰⁷ Cf. KOLNÍKOVÁ 2002; KOLNÍKOVÁ and KOTIGOROŠKO 2008.

¹⁰⁸ Cf. ANDRAŁOJĆ and ANDRAŁOJĆ 2012; DYMOWSKI 2015: 87.

¹⁰⁹ BYRSKA-FUDALI, PRZYBYŁA and RUDNICKI 2009, disregarding the misidentification of the area where the coin was minted.

¹¹⁰ RUDNICKI 2012: 51; ADAMKIEWICZ 2000.

¹¹¹ For further literature concerning all coins catalogued by M. Rudnicki, see RUDNICKI 2012: 54–74.

¹¹² <https://gyujtemenyek.mnm.hu/record/-/record/MNMMUSEUM1438230> (accessed on 20 February 2022).

¹¹³ <https://gallica.bnf.fr/ark:/12148/btv1b11291661s> (accessed on 20 February 2022).

¹¹⁴ Mean values, calculated from two data sets, provided in RUDNICKI 2012: 57.

- 1.4. Early Krakow type, dies EK O2-R1.1, 6.83 g, 17.1 mm. Au: 45.5, Ag: 48, Cu: 6.5¹¹⁵
 Findspot: unknown
 Literature: RUDNICKI 2012: 58–59, Cat. 4
 Collection: Schweizerisches Nationalmuseum – Landesmuseum Zürich (M-8165)¹¹⁶
- 1.5. Early Krakow type, dies EK O2-R1.1, 6.72 g, 16.1 mm. Au: 76, Ag: 14, Cu: 10¹¹⁷
 Findspot: Straník mountain, Zástranie, Žilina District, Slovakia
 Literature: ČAMBAL and BUDAJ 2016: 13, Cat. 1
 Collection: Múzeum mincí a medailí Kremnica, Slovakia (N-14443)
- 2.1. Classic Krakow type, dies CK O1-R1, 6.69 g, 17.4 mm
 Findspot: Grzegórzki, Krakow, Lesser Poland Voivodeship, Poland
 Literature: RUDNICKI 2012: 59–60, Cat. 5
 Collection: Gabinet Numizmatyczny, Muzeum im. Emeryka Hutten-Czapskiego, Muzeum Narodowe w Krakowie (MNK VII-A-5890)
- 2.2. Classic Krakow type, dies CK O1-R1, 6.71 g, 17.3 mm. Au: 61.2, Ag: 35.5, Cu: 2.9
 Findspot: unknown
 Literature: BOCHNAK 2020: 40. Nomos auction 19, lot 14, 17 November 2019¹¹⁸
 Collection: private
- 2.3. Classic Krakow type, dies CK O1-R1, 6.58 g, 17 mm
 Findspot: unknown
 Literature: RUDNICKI 2012: 61–62, Cat. 7
 Collection: Le Musée de Bretagne, Rennes (949.2282)
- 2.4. Classic Krakow type, dies CK O1-R1, 6.56 g, 17.1 mm
 Findspot: environs of Krakow, Lesser Poland Voivodeship, Poland
 Literature: RUDNICKI 2012: 60–61, Cat. 6
 Collection: private
- 2.5. Classic Krakow type, dies CK O2-R2, 7.42 g, 17 mm
 Findspot: unknown
 Literature: RUDNICKI 2012: 62–63, Cat. 8
 Collection: Bibliothèque Nationale et Universitaire, Strasbourg (Strasbourg, BNU IV.B.1)
- 2.6. Classic Krakow type, dies CK O3-R3, 6.5 g, 16.8 mm
 Findspot: unknown
 Literature: RUDNICKI 2012: 63–64, Cat. 9
 Collection: Magyar Nemzeti Múzeum, Budapest (N.I.5412)¹¹⁹
- 3.1. Late Krakow type, dies LK B-R1, 6.3 g
 Findspot: Lviv District, Ukraine
 Literature: unpublished. Violity auction, 17 November 2015¹²⁰
 Collection: private

¹¹⁵ CASTELIN 1978: 117.

¹¹⁶ <https://sammlung.nationalmuseum.ch/de/list?detailID=100079047> (accessed on 20 February 2022).

¹¹⁷ ČAMBAL and BUDAJ 2016: 20, pl. 1.

¹¹⁸ <https://www.biddr.com/auctions/nomos/browse?a=793&l=836811> (accessed on 28 December 2021).

¹¹⁹ <https://gyujtemenyek.mnm.hu/record/-/record/MNMMUSEUM1439083> (accessed on 20 February 2022).

¹²⁰ <http://archive.violity.com/1942968> (accessed on 28 December 2021).

- 3.2. Late Krakow type, dies LK B-R1, 5.52 g, 17.9 mm
Findspot: unknown
Literature: RUDNICKI 2012: 73–74, Cat. 16
Collection: Münzkabinett der Staatlichen Museen zu Berlin (18215332)¹²¹
- 3.3. Late Krakow type, dies LK B-R1, 5.68 g, 19 mm
Findspot: Kunów, Ostrowiec County, Świętokrzyskie Voivodeship, Poland
Literature: RUDNICKI 2012: 74–75, Cat. 17
Collection: private
- 3.4. Late Krakow type, dies LK O1-R2, 5.91 g, 17 mm
Findspot: unknown
Literature: RUDNICKI 2012: 64–66, Cat. 10
Collection: Muzeum Uniwersytetu Jagiellońskiego, Krakow (UJ 5149)
- 3.5. Late Krakow type, dies LK Uncertain-R2, 5.64 g
Findspot: Ukraine
Literature: unpublished. Viology auction, 30 April 2019¹²²
Collection: private
- 3.6. Late Krakow type, dies LK O1-R2, 5.63 g, 16 mm
Findspot: unknown
Literature: RUDNICKI 2012: 66–67, Cat. 11
Collection: Münzkabinett, Staatliche Kunstsammlungen Dresden (AAB167)
- 3.7. Late Krakow type, dies LK B-R2, 5.12 g
Findspot: Ukraine
Literature: unpublished. Viology auction, 22 November 2020¹²³
Collection: private
- 3.8. Late Krakow type, dies LK B-R3, 5.31 g
Findspot: unknown
Literature: unpublished. WAG auction 53, lot 24, 10 May 2015¹²⁴
Collection: private
- 3.9. Late Krakow type, dies LK O2-R4, 5.87 g, 17.9 mm
Findspot: Holland (uncertain)
Literature: RUDNICKI 2012: 67–68, Cat. 12
Collection: Bibliothèque nationale de France, Paris (BnF 8744)¹²⁵
- 3.10. Late Krakow type, dies LK O3-R5¹²⁶
Findspot: environs of Krakow, Lesser Poland Voivodeship, Poland
Literature: RUDNICKI 2012: 68–70, Cat. 13
Collection: unknown

¹²¹ <https://ikmk.smb.museum/object?id=18215332> (accessed on 20 February 2022).

¹²² <https://viology.com/100436398-keltskij-stater-plemya-boji> (accessed on 28 December 2021).

¹²³ <https://viology.com/105789201-stater-plem-ya-bojyi> (accessed on 28 December 2021).

¹²⁴ <https://www.numisbids.com/n.php?p=lot&sid=1095&lot=24> (accessed on 28 December 2021).

¹²⁵ <https://gallica.bnf.fr/ark:/12148/btv1b11290925q> (accessed on 20 February 2022).

¹²⁶ Obverse die attribution tentative.

- 3.11. Late Krakow type, dies LK O4-R5, 5.58 g
 Findspot: unknown, but most likely Ukraine
 Literature: unpublished. *Violity forum*, 4 September 2010¹²⁷
 Collection: private
- 3.12. Late Krakow type, dies LK O4-R5, 5.53 g
 Findspot: Lviv District, Ukraine
 Literature: unpublished. *Violity auction* 22 October 2017¹²⁸
 Collection: private
- 3.13. Late Krakow type, dies LK O4-R5
 Findspot: environs of Murzynno, Inowrocław County, Kuyavian-Pomeranian Voivodeship, Poland¹²⁹
 Literature: unpublished¹³⁰
 Collection: private
- 3.14. Late Krakow type, dies LK B-R5, 5.51 g, 17 mm
 Findspot: Czechy, Lesser Poland Voivodeship, Poland
 Literature: DULĘBA and WYSOCKI 2017¹³¹
 Collection: private
- 3.15. Late Krakow type, dies LK B-R5
 Findspot: environs of Inowrocław, Inowrocław County, Kuyavian-Pomeranian Voivodeship, Poland
 Literature: unpublished
 Collection: private
- 3.16. Late Krakow type, dies LK B-R5, 5.18 g, 17.1 mm
 Findspot: Tuklaty, Kolín District, Central Bohemian Region, Czechia
 Literature: RUDNICKI 2012: 72–73, Cat. 15
 Collection: private
- 3.17. Late Krakow type, dies LK B-R6, 5.57 g, 17.4 mm
 Findspot: Folkušová, Martin District, Žilina Region, Slovakia
 Literature: RUDNICKI 2012: 70–71, Cat. 14
 Collection: Múzeum mincí a medailí, Kremnica, Slovakia (N-12791)
- 3.18. Late Krakow type, dies LK Uncertain-R7, 5.14 g. Au: 0.7, Ag: 80.7, Cu: 11.5¹³²
 Findspot: Opatów, Opatów County, Świętokrzyskie Voivodeship, Poland
 Literature: BOCHNAK 2020
 Collection: Gabinet Numizmatyczny, Muzeum im. Emeryka Hutten-Czapskiego, Muzeum Narodowe w Krakowie (MNK VII-A-11091)

¹²⁷ <https://forum.violity.com/viewtopic.php?p=1535189> (accessed on 28 December 2021).

¹²⁸ <http://archive.violity.com/28753773> (accessed on 28 December 2021).

¹²⁹ Available data identifies the findspot as “Murzynno-Wierzbiczano”, which are however separate villages, hence the term “environs of Murzynno”.

¹³⁰ Information concerning staters catalogued as Cat. 3.13 and Cat. 3.15 was obtained by the late Piotr Adamkiewicz. I am extremely grateful to Łukasz Kieferling for bringing them to my attention.

¹³¹ I would like to thank Dr Przemysław Dulęba for sharing the high-resolution images of the coin.

¹³² BOCHNAK 2020: 38.

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All coin figures are at scale 2:1.

- PLATE 1 Early Krakow type staters
Fig. 1.1. Dies EK O1-R1. Photo: Magyar Nemzeti Múzeum
Fig. 1.2. Dies EK O1-R1. Photo: gallica.bnf.fr / Bibliothèque nationale de France
Fig. 1.3. Dies EK O1-R1. Photo: after RUDNICKI 2012: 58, Ryc. 25
Fig. 1.4. Dies EK O2-R1.1. Photo: Schweizerisches Nationalmuseum – Landesmuseum Zürich
Fig. 1.5. Dies EK O2-R1.1. Photo: NBS – Múzeum mincí a medailí Kremnica, Slovenská republika
- PLATE 2 Classic Krakow type staters
Fig. 2.1. Dies CK O1-R1. Photo: Muzeum Narodowe w Krakowie
Fig. 2.2. Dies CK O1-R1. Photo: Łukasz Bul
Fig. 2.3. Dies CK O1-R1. Photo: Le Musée de Bretagne, Rennes
Fig. 2.4. Dies CK O1-R1. Photo: after RUDNICKI 2012: 61, Ryc. 28
Fig. 2.5. Dies CK O2-R2. Photo: Bibliothèque Nationale et Universitaire, Strasbourg
Fig. 2.6. Dies CK O3-R3. Photo: Magyar Nemzeti Múzeum
- PLATE 3 Late Krakow type staters
Fig. 3.1. Dies LK B-R1. Photo: violity.com
Fig. 3.2. Dies LK B-R1. Photo: Staatlichen Museen zu Berlin
Fig. 3.3. Dies LK B-R1. Photo: after RUDNICKI 2012: 75, Ryc. 39
- PLATE 4 Late Krakow type staters – continued
Fig. 3.4. Dies LK O1-R2. Photo: Muzeum Uniwersytetu Jagiellońskiego, Krakow
Fig. 3.5. Dies LK Uncertain-R2. Photo: violity.com
Fig. 3.6. Dies LK O1-R2. Photo: Münzkabinett, Staatliche Kunstsammlungen Dresden
Fig. 3.7. Dies LK B-R2. Photo: violity.com
Fig. 3.8. Dies LK B-R3. Photo: WAG-Online oHG
Fig. 3.9. Dies LK O2-R4. Photo: gallica.bnf.fr / Bibliothèque nationale de France
- PLATE 5 Late Krakow type staters – continued
Fig. 3.10. Dies LK O3-R5. Photo: after ŽEBRAWSKI 1847: Pl. V, no. 77
Fig. 3.11. Dies LK O4-R5. Photo: violity.com
Fig. 3.12. Dies LK O4-R5. Photo: violity.com
Fig. 3.13. Dies LK O4-R5. Photo: archive of Piotr Adamkiewicz
Fig. 3.14. Dies LK B-R5. Photo: Piotr Wysocki
Fig. 3.15. Dies LK B-R5. Photo: archive of Piotr Adamkiewicz
- PLATE 6 Late Krakow type staters – continued
Fig. 3.16. Dies LK B-R5. Photo: after RUDNICKI 2012: 73, Ryc. 37
Fig. 3.17. Dies LK B-R6. NBS – Múzeum mincí a medailí Kremnica, Slovenská republika
Fig. 3.18. Dies LK Uncertain-R7. Photo: Muzeum Narodowe w Krakowie
Secondary prototype of the Early Krakow type

Fig. 4. Denarius issued by Sextus Pompeius (left) and a stater of the Early Krakow type (right)
Photo: gallica.bnf.fr / Bibliothèque nationale de France

PLATE 7 Fig. 5. Secondary prototype of the stater BnF 8743, a denarius issued by L. Flaminus Chilo (left) and the stater BnF 8743 (right)

Photo: National Numismatic Collection, De Nederlandsche Bank, Amsterdam (left), gallica.bnf.fr / Bibliothèque nationale de France (right)

Fig. 6. Secondary prototype of the Late Krakow type, a denarius issued by C. Fonteius (left) and a stater of the Late Krakow type (right)

Photo: gallica.bnf.fr / Bibliothèque nationale de France (left), NBS – Múzeum mincí a medailí Kremnica, Slovenská republika (right)

PLATE 8 Fig. 7. Die links for Krakow type series

MAP 1 Distribution of Krakow type series



1.1



1.2



1.3



1.4



1.5

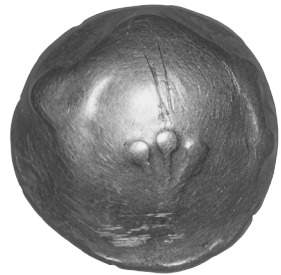




2.1



2.2



2.3



2.4

2.5

2.6





3.1



3.2

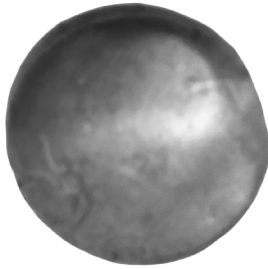


3.3





3.4



3.5



3.6



3.7

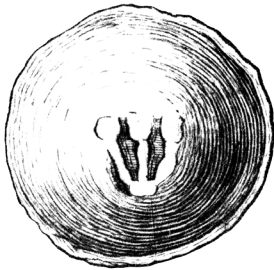


3.8



3.9

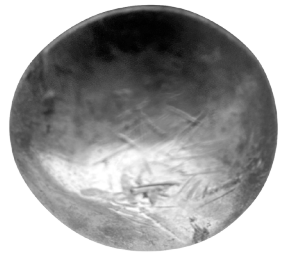




3.10



3.11



3.12



3.13

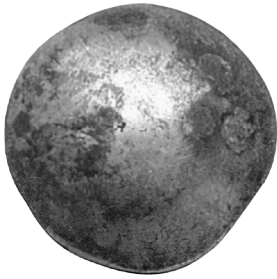


3.14

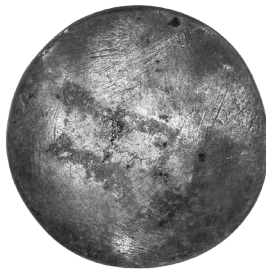


3.15





3.16



3.17



3.18

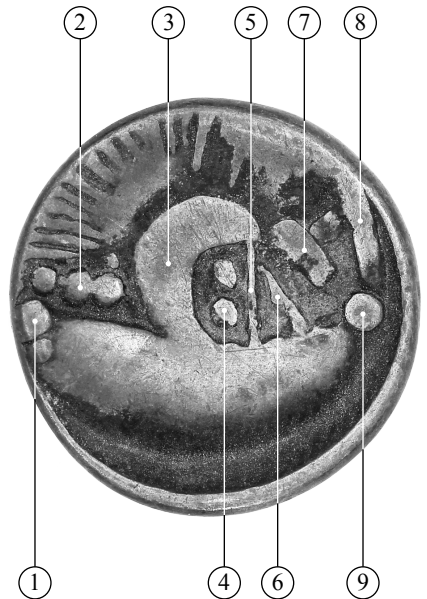


4



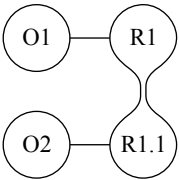


5

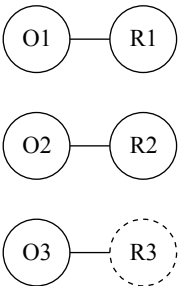


6

EK



CK



LK

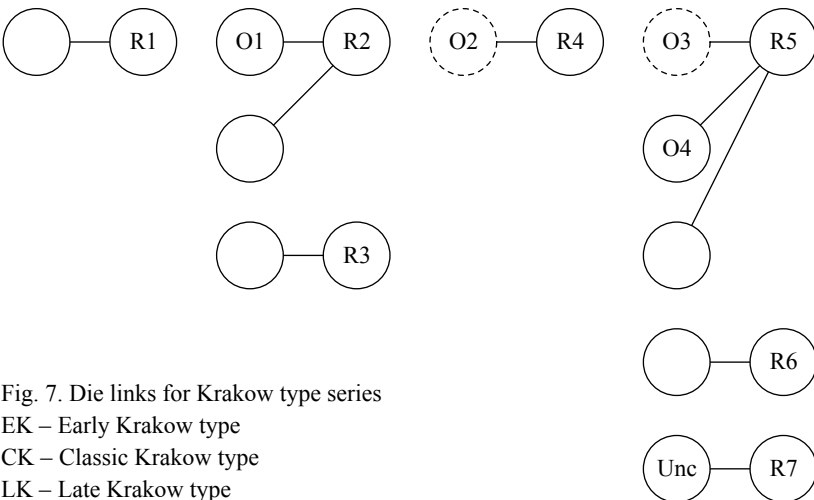


Fig. 7. Die links for Krakow type series

EK – Early Krakow type

CK – Classic Krakow type

LK – Late Krakow type

Dashed border indicates tentative attribution.

Unc stands for uncertain attribution.



Map 1. Distribution of Krakow type series

- – Early Krakow type, precise findspot
- – Early Krakow type, approximate findspot
- ⊙ – Classic Krakow type, precise findspot
- ⊙ – Classic Krakow type, approximate findspot
- ◐ – Late Krakow type, precise findspot
- ◐ – Late Krakow type, approximate findspot
- – Late Krakow type, country-level findspot
- ⊖ – Late Krakow type, uncertain findspot