

NOTAE NUMISMATICAE

ZAPISKI NUMIZMATYCZNE



Tom XVI

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

Kraków 2021

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Adres redakcji / Address of the Editorial Office:

Muzeum Narodowe w Krakowie
ul. Marszałka Józefa Piłsudskiego 12, 31-109 Kraków
tel. (+48) 12 433 58 50, e-mail: notae@mnk.pl
<http://mnk.pl/notae-numismaticae-zapiski-numizmatyczne-1>

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ISSN 1426-5435

SPIS TREŚCI / CONTENTS

- 9 Od redakcji
10 From the Editors

ARTYKUŁY / ARTICLES

- 13 SŁAWOMIR SPRAWSKI
The Temenidae, Who Came Out of Argos. Literary Sources and Numismatic Evidence on the Macedonian Dynastic Traditions
Temenidzi, którzy przybyli z Argos. Macedońskie tradycje dynastyczne w źródłach literackich i świadectwach numizmatycznych
- 43 CATHARINE C. LORBER
A Die Study of the Silver Staters (Didrachms) of Thessalian Larissa
Studium powiązań stempli srebrnych staterów (didrachm) tesalskiej Larissy
- 77 JAROSŁAW BODZEK
The Sabakes' "Owl" from the Collection of the District Museum in Toruń and Some Notes on the Coinage of the Penultimate Achaemenid Satrap of Egypt
„Sówka” Sabakesa ze zbiorów Muzeum Okręgowego w Toruniu i kilka uwag na temat mennictwa przedostatniego achemenidzkiego satrapy Egiptu
- 97 ÖMER TATAR
Two Rare Shield/Helmet Type Macedonian Regal Bronze Coins from the Collection of the Museum of Anatolian Civilizations in Ankara
Dwie rzadkie królewskie monety macedońskie typu „tarcza/helm” z kolekcji Muzeum Anatolijskich Cywilizacji w Ankarze
- 107 ANNA ANZORGE-POTRZEBOWSKA
*On the Search for *Damnatio Memoriae* on Ancient Roman Numismatic Artefacts. Research Assumptions*
O poszukiwaniach damnatio memoriae na starożytnych rzymskich numizmatach. Postulaty badawcze
- 125 PIOTR JAWORSKI
Reading the History of the Roman Fort in Apsaros (Autonomous Republic of Adjara, Georgia) from a Numismatic Perspective
Odczytując historię rzymskiego fortu w Apsaros (Adżarska Republika Autonomiczna, Gruzja) z perspektywy numizmatycznej

- 143 PRZEMYSŁAW DULĘBA, ANDRZEJ ROMANOWSKI
New Finds of Roman Coins from the Przeworsk Culture Settlements
in the Nidzica and Szreniawa River Basins
*Nowe znaleziska monet rzymskich na osadach kultury przeworskiej w dorzeczu
Nidzicy i Szreniawy*
- 177 DAGMAR GROSSMANNOVÁ
Finds of Byzantine Coins in the Collection of the Moravian Museum.
A Contribution to the Completion of the Register of Byzantine Coins in Moravia
*Znaleziska monet bizantyńskich w kolekcji Morawskiego Muzeum Krajowego.
Przyczynek do uzupełnienia rejestru monet bizantyńskich na Morawach*
- 201 DOROTA MALARCZYK, ŁUKASZ MIECHOWICZ, SYLWIA WAJDA
Dirham Imitations and Glass Beads from the 10th Century Discovered
in an Early Medieval Building in Kłodnica, Municipality of Wilków, Lublin
Voivodeship
*Naśladownictwa dirhamów i szklane paciorki z X w. odkryte we wczesno-
średniowiecznym budynku w Kłodnicy, gm. Wilków, woj. lubelskie*
- 225 ANNA BOCHNAK
Drohiczyn-type Small Lead Seals with the Image of a Bird from the Collection
of the National Museum in Krakow. Old Ruthenian Sigillography Versus Early
Piast Numismatics
*Plomby typu drohiczyńskiego z wyobrażeniem ptaka w kolekcji Muzeum
Narodowego w Krakowie. Staroruska sfragistyka versus wczesnopiastowska
numizmatyka*
- 243 LILIA DERGACIOVA, IRINA STANKIEWICZ
Coin Hoard of Moldovan Copper Coins Found in the Belgorod Fortress
on the Dniester River (Ukraine)
*Skarb miedzianych monet moldawskich znaleziony na terenie twierdzy Białogród
nad Dniestrem (Ukraina)*
- 261 ELŻBIETA M. KŁOSIŃSKA, BORYS PASZKIEWICZ
A Coin Hoard from the 16th Century Found During Archaeological Excavations
at Perespa, and Its Context
*Zbiór monet z XVI w. znalezione podczas wykopalisk archeologicznych
w Perespie i jego kontekst*

RECENZJE / REVIEWS

- 301 JAROSŁAW BODZEK
HAIM GITLER, OREN TAL, *The Nablus 1968 Hoard. A Study of Monetary
Circulation in the Late Fourth and Early Third Centuries BCE. Southern Levant,*

with contribution of ARNOLD SPEAR and SYLVIA HURTER, DANA ASHKENAZI and ADIN STERN, *Numismatic Notes and Monographs* 171, The American Numismatic Society, New York 2019, 209 pages, 41 plates; ISBN 978-0-89722-360-7; ISSN 0078-2718

JAROSŁAW BODZEK

- 307 CATHARINE C. LORBER, *Coins of the Ptolemaic Empire. Part I: Ptolemy I through Ptolemy IV. Volume 1: Precious Metal, Volume 2: Bronze*, The American Numismatic Society, New York 2018, 625 and 205 pages, 76 and 46 plates; ISBN 978-0-89722-332-4

BARBARA ZAJĄC

- 312 RENATA CIOŁEK, ROKSANA CHOWANIEC (eds.), *Aleksandria. Studies on Items, Ideas and History Dedicated to Professor Aleksander Bursche on the Occasion of his 65th Birthday*, Harrassowitz Verlag, Wiesbaden 2021, 446 pages; ISBN 978-3-447-11554-4; DOI: 10.2307/j.ctv1h9djth

ALESSANDRA MAGNI

- 322 PAWEŁ GOŁYŻNIAK, *Engraved Gems and Propaganda in the Roman Republic and under Augustus*, Archaeopress Roman Archaeology 65, Archaeopress, Oxford 2020, 618 pages, 1015 figures; ISBN 978-1-78969-539-7

KATARZYNA BALBUZA

- 328 RICHARD ANTHONY ABDY and PETER FRANZ MITTAG, *The Roman Imperial Coinage, Volume II, Part 3: From AD 117–138, Hadrian*, Spink, London 2019, 332 pages, 218 plates, indices; ISBN 978-1-912667-18-5

BARBARA ZAJĄC

- 333 MATEUSZ BOGUCKI, ARKADIUSZ DYMOWSKI, GRZEGORZ ŚNIEŻKO (eds.) *Slivers of Antiquity. The Use of Ancient Coins in Central, Eastern and Northern Europe in the Medieval and Modern Periods / Okruchy starożytności. Użytkowanie monet antycznych w Europie Środkowej, Wschodniej i Północnej w średniowieczu i okresie nowożytnym*, Wydawnictwo Uniwersytetu Warszawskiego, Warszawa 2020, 444 pages, 1 map; ISBN 978-83-235-4697-9; DOI: 10.31338/uw.9788323547051

KRONIKA / CHRONICLE

MATEUSZ WOŹNIAK

- 341 Kronika Gabinetu Numizmatycznego Muzeum Narodowego w Krakowie (2020)
345 The Chronicle of the Numismatic Cabinet of the National Museum
in Krakow (2020)

DOROTA MALARCZYK

National Museum in Krakow

ORCID: 0000-0002-7415-7049

ŁUKASZ MIECHOWICZ

Polish Academy of Sciences

Institute of Archaeology and Ethnology

ORCID: 0000-0003-2920-6419

SYLWIA WAJDA

University of Warsaw

Faculty of Archaeology

ORCID: 0000-0001-8100-764X

Dirham Imitations and Glass Beads from the 10th Century Discovered in an Early Medieval Building in Kłodnica, Municipality of Wilków, Lublin Voivodeship

ABSTRACT: The article discusses the finding of two dirham imitations and the accompanying glass beads, which presumably formed a necklace unique in Poland. The artefacts were discovered during research on the early-medieval building-granary, uncovered on the hillfort's open square in Kłodnica, in the municipality of Wilków, Opole Lubelskie county, Lublin Voivodeship. The object has been radiocarbon dated to the end of 10th – first half of the 11th century. Ornaments of this type are known mainly from early-medieval Kievan Rus', especially from the Volga region and from Scandinavia. During the research, other artefacts with analogies from the areas of Kievan Rus' were also encountered.

KEY WORDS: dirham imitations, Early Medieval Ages, necklace, coin-pendants, glass beads

ABSTRAKT: *Naśladownictwa dirhamów i szklane paciorki z X w. odkryte we wczesnośredniowiecznym budynku w Kłodnicy, gm. Wilków, woj. lubelskie*

W artykule omówiono znalezisko dwóch naśladownictw dirhamów oraz towarzyszących im szklanych paciorków, które przypuszczalnie tworzyły unikatowy na obszarze Polski naszyjnik. Zabytki odkryto w trakcie badań wczesnośredniowiecznego budynku-spichlerza, odsłoniętego na majdanie grodziska w Kłodnicy, gm. Wilków, pow. opolski, woj. lubelskie. Obiekt datowany jest radiowęglowo na koniec X – 1. połowę XI w. Ozdoby tego typu znane są głównie z wczesnośredniowiecznej Rusi Kijowskiej, zwłaszcza z terenów nadwołżańskich, oraz ze Skandynawii. W trakcie badań natrafiono również na inne zabytki mające swoje odpowiedniki na obszarach Rusi Kijowskiej.

SŁOWA KLUCZOWE: naśladownictwa dirhamów, wczesne średniowiecze, naszyjnik, monety-zawieszki, paciorki szklane

THE CONTEXT OF THE FIND

The hillfort in Kłodnica, in the municipality Wilków, is one of the four objects of this type located in the Chodel Valley, in the northeastern part of the historical territory of Lesser Poland. It can be described as a single-rampart, ring hillfort with a diameter of about 70 m.¹ During the excavations carried out on the hillfort's square in 2016–2017, relics of an early medieval building measuring approx. 12 × 6 m were unearthed (Pl. 1, Fig. 1; Pl. 2, Fig. 2).² In its strata, several thousand fragments of clay vessels, several dozen metal artefacts (weapons, elements of clothing, agricultural implements) and the largest collection of charred remains of edible plants known in Poland were discovered. Radiocarbon analyses of the botanical remains indicate that the building with its furnishings most likely burned down in the first half of the 11th century.³

In the central part of the building, at the level of the putative floor, a cluster of 69 glass beads and two coins were discovered in the layer of charred plant remains, one of which is fully preserved (Pl. 3, Figs. 3A–B), the other one in fragments (Pl. 3, Fig. 4). The fully preserved copy has two holes for suspension. Based on the analysis of the artefacts scatter and analogous finds from outside Poland, it was assumed that together with the beads they could originally have formed a necklace (Pl. 4, Fig. 5).⁴

¹ MIECHOWICZ 2018: 54–60.

² Excavation research conducted by Dr Łukasz Miechowicz on behalf of the Institute of Archaeology and Ethnology of the Polish Academy of Sciences.

³ MIECHOWICZ 2018: 57–59; MIECHOWICZ and SKRZYŃSKI 2021.

⁴ MIECHOWICZ 2018: 60.

DESCRIPTION OF COINS

1. Volga Bulghār, imitation of a Sāmānid prototype, ‘Naṣr ibn Aḥmad’, no mint or date; 1.86 g, 24 mm (Figs. 3A–B)

Obv.: kalimah Ia, barbarized

لا اله الا \ اللسه \ لا بركله; r. 1

inner marginal legend: an inscription consists of a combination of Arabic letters (‘lām’, ‘mīm’, ‘sīn’, ‘dāl’); illegible: لا ممسسب... ممسسبمسسب

no outer marginal legend

Rev.: kalimah IIb 2, Caliph and amir names barbarized

الله \ محمد \ رسرسه \ المتدله \ نصرن د

marginal legend barbarized, illegible, partly preserved: ... سمسسب ... (?)

Note: part of the edge removed; pierced twice

2. Volga Bulghār, imitation of a Sāmānid prototype, ‘Naṣr ibn Aḥmad’, ([Sama]rḡand?), AH xx8 (?); 2.16 g, 28 mm (Pl. 3, Fig. 4)

Obv.: kalimah Ia, partially legible

لا اله الا \ الله \ ده \ لا ...ر...

inner marginal legend: ... هذا... رقتد سنة ثمن...

outer marginal legend: illegible

Rev.: kalimah IIb 2, Caliph’s name and amir’s name barbarized

الله \ محمد \ رسولله \ المقد لله \ نصرين مد

marginal legend: totally illegible

Note: coin broken in several pieces, part of coin removed

Coins discovered at the site in Kłodnica belong to the imitations of the Sāmānid type, minted by Volga Bulgars in the mints of Bulgar (Bulḡār) and Suwār after AH 323 (934).⁵ The dirhams of the Sāmānid ruler Naṣr ibn Aḥmad (301–331 = 914–942/3) from the reign of the ‘Abbāsīd caliph al-Muqtadir billāh (295–320 = 908–932) served as prototypes for the above emissions. On both the first and second coin, incorrectly executed legends in the obverse and reverse fields are visible, including the names of the caliph and the emir on the reverse, while the circular legends form a sequence of repeating incoherently letters, among which we can partially read the name of the mint and the year of issue (see Pl. 3, Fig. 4).

The first specimen (Pl. 3, Figs. 3A–B) is characterized by the absence of the external circular legend on the obverse. Despite small fractures, there are no traces of it having been cut off, which can be also evidenced by the fully preserved circular

⁵ VASMER 1925; KROPOTKIN 1990; RISPLING 1990; IDEM 2005.

legend on the reverse, and the two holes are located a few millimetres from the edge of the coin. Of the *kalima* in three-lines on the obverse, only the first is made correctly; in the other two we can see missed letters and their wrong connection. We can observe a similar situation on the reverse of the coin: the first two lines: *lillāh / Muḥammad* are correct, the rest are clusters of letters that resemble the actual legend. The name of the caliph al-Muqtadir billāh was written in the form: *al-Mutad lah (?)*, while this of the emir Naṣr-n-D (?). An analogy for the type and notation of the central legends of our imitation may be dirham number 2, which is part of a small group consisting of eight copies of imitations, found in 2014 in the Korochan region, Belgorodskaja oblast (Russia)⁶ and in the Bezliudovka hoard (*terminus post quem* 940).⁷ Unfortunately, due to the cutting off of the circular legends, we cannot say for sure whether they were coins with a single circular inscription on the obverse and whether the coins from Kłodnica, from the Korochan region and Bezliudovka were struck with the same obverse and reverse stamps. As in the case of the specimen from Kłodnica, it was pierced twice, as evidenced by the traces of holes visible on the coin's edge. An imitation of the Sāmānid type with a single circular legend on the obverse and the name Naṣr ibn Aḥmad on the reverse was also noted in the Swedish hoard from Rangsarve,⁸ although the lack of photographic documentation does not allow us to compare it with the one from Kłodnica.

204

The second coin (Pl. 3, Fig. 4; broken, stucked together fragments), due to its state of preservation, has not been subjected to conservation, which made it difficult to identify. Despite the poor legibility, the name of the caliph and emir were identified, the execution of which is similar to the style of the inscriptions on the first coin: *al-Mutad lah / Naṣr bn Mad*. Slightly more information can be found in the inner circular legend of the obverse than in the case of the first dirham, where the mint fragment is likely to be written: [Sama] rḡand? and year of issue: AH xx8? The coin analogies for this specimen, taking into account the type of writing and the arrangement of legends, as well as the clear name of the mint and a fragment of the year of issue, were found, among others, in the Máramaros hoard⁹ and in the Väänikvere hoard (Estonia), *terminus post quem* AH 330 (941/2),¹⁰ although the preserved half of the coin does not allow their full comparison.

⁶ GOGLOV and GOLEMIKHOV #139488: 2, <https://www.zeno.ru/showphoto.php?photo=139488>, access 29.11.2021.

⁷ KOLODA, LEBEDEV and ENUKOV 2014: 13, 108, Tab. 45, nos. 532–534; GOGLOV 2017.

⁸ MALMER and RASMUSSEN 1975: 111, no. 612; *Obv.*: one marginal legend.

⁹ FOMIN and KOVÁCS 1987: 34, no. 276, Pl. XVII: 276; “Samarqand”, “8”.

¹⁰ LEIMUS 2007: 21, 408, no. 3424, Pl. 142: 3424; Sāmānid imitation with the name of Naṣr ibn Aḥmad (Caliph al-Muqtadir), Samarqand, AH 303 (915/6).

According to Rispling, the imitations of Sāmānid coins found in Kłodnica can be included in the ImC3 group, meaning coins minted by Volga Bulgars, probably in the Bulgār mint in AH 324–340 (935/6–951/2).¹¹

ANALYSIS OF GLASS BEADS

The beads were examined macroscopically, and two different groups were distinguished: group I – items formed by the drawing technique, and group II – items formed by the winding technique. In group I two varieties were additionally divided: 1. made of a single-layer tube, and variety 2. made of a double-layer tube, decorated with a metallic foil, then the number of bodies was taken into account.

GROUP I. Beads made by drawing technique

Most of the beads found on the Kłodnica stronghold were made by the drawing technique – 65 specimens. This consists in making beads from a previously prepared semi-finished product – a drawn glass tube.¹² The literature on the subject mentions several methods by which such a tube could be produced. The first, described in detail by M. Dekówna,¹³ consisted of forming a glass plate, the edges of which were melted to form a tube, which was then drawn out. The second method involved melting the edges of two or perhaps three previously drawn glass bands. On the bodies of beads made in this way, one can see the so-called “seams”, i.e. places where two edges of a plate or glass strips join. Another possibility for the production of this semi-finished product was to stretch a lump of glass containing a gas bubble or to form a tube on a rod by rotating it and “pouring” liquid glass on it.¹⁴ The next step in the production of these beads was to form their bodies and cut them into individual pieces. The beads were shaped either with special pincers or by the use of stone moulds, thanks to which multi-segmented specimens have similar shapes of bodies and necks.¹⁵ On the beads formed by the technique described, one can often see numerous strings and gas bubbles and capillaries, which are arranged parallel to the axis of the canal.

Variety I

The first variety included 54 beads made of single-layer tube, which can be divided into three types based on the number of bodies: one-segment (type I), two-segment (type II) and three-segment (type III).

¹¹ RISPLING 2005: 172–173, 198–199; Tab. 1.

¹² DEKÓWNA and SZYMAŃSKI 1971: 284–285, Fig. 1.

¹³ DEKÓWNA 1999: 54–55, Fig. 28.

¹⁴ DEKÓWNA and PUROWSKI 2016: 157; DEKÓWNA and SZYMAŃSKI 1971: 284.

¹⁵ SPAER 1993: 12–13, Figs. 2–4.

Type I. Beads with one body (Pl. 5, Figs. 1–12, 19)

The first type included 13 beads, 10 of which were made of opaque, yellow glass (Pl. 5, Figs. 3–12), the other 3 were made of blue (cobalt), strongly translucent glass¹⁶ (Pl. 5, Figs. 1–2, 19). One of the blue specimens has signs of burning (Pl. 5, Fig. 1). The bodies of the beads have shapes similar to a section of the central part of a sphere, less commonly ring-shaped (Pl. 5, Figs. 4–6) and cylindrical (Pl. 5, Fig. 3). In the glass of the blue items gas bubbles and capillaries are clearly visible, which run along the longer sides parallel to the tubular axis. On the yellow specimens, due to the opacity of the glass, only strings and open, circular gas bubbles can be seen, near the canal surfaces.

Type II. Beads with two bodies (Pl. 5, Figs. 13–47).

The second type includes 34 beads, with two bodies joined by a neck. They were made from strongly transparent blue (6) and light blue (1) glasses, as well as opaque: yellow (26) and celadon (1) glasses. As in the case of type I beads, many traces attesting to the technique of their production can be seen, such as longitudinal strings (Pl. 6, Figs. a3, c2) or gas bubbles (Pl. 6, Fig. b2). It is worth noting the light blue specimen, one of whose tips is rounded and melted, while the other has been cut off (Pl. 6, Fig. b1). A second specimen with an identical feature belongs to type III (Pl. 6, Fig. a1). It can be assumed that in both cases we are dealing with the beginnings of the tube from which such ornaments were produced (see above). Another rarely encountered feature is a very clearly visible seam on the body of one specimen¹⁷ (Pl. 6, Fig. c1). It forms a deep groove along the entire length of the bead, visible also when viewed from above. Probably the seams are visible on two or three more specimens, but they are not so distinct (Pl. 6, Figs. d–e). In the rest of the artefacts, it is impossible to establish how the tube was formed. Undoubtedly, some of the beads had to be strung on a wire and held in a horizontal position before the glass solidified, as 11 specimens have elongated bodies (Pl. 6, Figs. a2, f, g2), which results in a decentrally positioned canal.¹⁸ On many beads, the necks between individual segments have traces of mending (Pl. 6, Figs. g1, h), often they are unevenly cut off – at a slant (Pl. 5, Figs. 13, 27, 35, 36) or together with a fragment of the body (Pl. 5, Figs. 16, 45). As in the case of type I, the bodies have different shapes – spherical, ring-shaped and cylindrical. On two specimens, traces of contact with fire can be seen (Pl. 5, Figs. 15, 17).

¹⁶ The third bead (Pl. 5, Fig. 19) is strongly fused to a specimen with two bodies. The beads were not separated to avoid being damaged, so in Pl. 5 it is in a series with Type II beads.

¹⁷ Often in the case of segmented beads, it is very difficult to establish by what method the glass tube from which the individual specimens were separated was made (cf. OLCZAK and JASIEWICZOWA 1963: 63; DEKÓWNA and SZYMANSKI 1971: 284–285; DEKÓWNA 1999: 69).

¹⁸ JONSSON and HUNNER 1995: 115, Fig. 3.

Type III. Beads with three bodies (Pl. 5, Figs. 48–54)

The third type included beads with three segments, 5 of which were blue, clear, and 2 of which were yellow, opaque. They bear the same production marks as the specimens described above – gas bubbles and capillaries that are parallel to the axis of the tubule, and in addition, one of the blue specimens also shows signs of burn-through, as in some of the beads described above.

Variety II

Variety II includes 11 beads made from a double-layered tube. Such items consist of: 1) an inner layer – a core, often made of poorer quality glass (Pl. 6, Figs. i2, j2);¹⁹ 2) a metallic layer, which in the case of ornaments from Kłodnica was probably applied both in the form of a thin metal foil (Pl. 5, Figs. 55, 58, 62, 63) and does not cover the entire circumference of the beads (Pl. 6, Figs. i1, j1), as well as a mixture of silver with water (Pl. 5, Figs. 56, 57, 65);²⁰ and 3) an external layer, which protected the metal foil. The external layer could be applied in several ways, by spreading with a suspension of powdered glass, by coating in a semi-liquid glass mass or by inserting into a shaped tube.²¹

Like the single-body specimens, the beads have been divided into three types according to the number of segments (type I – one-segmented, type II – two-segmented, type III – three-segmented). The majority (7 pieces) are items with two bodies, then with one (3 pieces) and only one bead is three-segmented. Most specimens were made of strongly translucent, colourless or slightly yellowish glass (Pl. 5, Figs. 55–65). The individual segments are roughly spherical or cylindrical in shape. The artefacts were made with care, the bodies are symmetrical and cut off where the neck is formed straight or at an oblique angle. It seems that all the beads included in this variety were decorated with a metal film, but without analyses of the chemical composition it is impossible to determine exactly what the main component of such decoration was. As researchers point out, often in the Early Middle Ages, in order to obtain an imitation of gold foil, such beads were covered with a layer of yellow glass.²² This procedure was probably applied to a bead with two bodies (Pl. 5, Fig. 62). One specimen bears traces of contact with fire and the outer layer of glass is melted (Pl. 5, Fig. 64). Glass beads made by the drawing technique were found in Poland in the Early Middle Ages on many sites. Their distribution and the centres which produced this type of glass jewellery have been discussed

¹⁹ DEKÓWNA and PUROWSKI 2012: 118; ŠTAŠŠÍSKOVÁ-ŠTUKOVSKÁ 2009: 204, Fig. F47. 3–5.

²⁰ DEKÓWNA 1999: 55–56; ASTRUP and ANDERSEN 1988: 225.

²¹ LVOVA 1983: 101; ASTRUP and ANDERSEN 1988: 224–225; GREIFF and NALLBANI 2008: 371–372.

²² LVOVA 1968: 82, 84; DEKÓWNA 1980: 220; EADEM 1999: 55–56; STAWIARSKA 1985: 52; ASTRUP and ANDERSEN 1988: 226.

extensively in the literature.²³ They were probably smelted in Byzantine or (and) Islamic workshops²⁴ and from there they spread in various directions, including to Europe. Undoubtedly, such beads were produced in Haithabu²⁵ and Staraya Ladoga from the end of the 8th to the 11th century.²⁶ The latest findings concerning the existence of a glass workshop in Wolin, confirmed that from the second half of the 10th to the 11th century beads were also produced there in the drawing technique. According to K. Kokora²⁷ these were mainly three types of items: bisier, segmented beads with a metal foil and single-layer yellow segmented beads, the latter being produced in greatest numbers from the second half of the 10th century. It should be noted that in all of the above workshops, beads were made from melted glass or from semi-finished products imported from the Middle East.²⁸ It is possible that some of the specimens discovered in Kłodnica came from one of these workshops.

Considering the provenance of the coins discovered in Kłodnica, it cannot be excluded that they are imports from the Volga Bulgarian centres. On the archaeological sites (mainly sepulchral) in the middle Volga region dating from the 8th to 10th century a great number of glass wares were discovered, most of which were beads made in the drawing technique, in yellow and blue colours.²⁹ It was undoubtedly an area that played an important role in long-distance trade. According to Russian researchers, glasses, silver and other goods produced in oriental centres were exchanged for furs there.³⁰ Unfortunately, without an analysis of the chemical composition of glass, which would reveal the technology used to make the beads studied here, it is difficult to guess from which areas these ornaments reached Kłodnica. It seems that the analysis of similar specimens from other sites would also be helpful in solving this problem. Beads of this type have been discovered in nearby Żmijowiska, Opole Lubelskie County,³¹ as well as in Radom,³² Mozolice Duże, Koziencice County,³³ Sądziadka, Zamość County,³⁴ and Zawada Lanckorońska, Tarnów County.³⁵

²³ ŽAK 1957: 161–174; OLCZAK and JASIEWICZOWA 1963: 50; DEKÓWNA and PUROWSKI 2012: 110–124.

²⁴ DEKÓWNA 1999: 61.

²⁵ EADEM 1980: 181–186.

²⁶ LVOVA 1968: 84; RYABININ and CHERNYKH 1988: 87–98.

²⁷ KOKORA 2019a: 320–322.

²⁸ *Ibidem*: 322; DEKÓWNA 1980: 181–185.

²⁹ VALIULINA 2016: 115, Figs. 1–2.

³⁰ STOLYAROVA 2016: 192.

³¹ Information from Anna Kacprzak, MA, Nadwiślańskie Museum in Kazimierz Dolny.

³² WAJDA 2020: 19–21; FUGLEWICZ 2013: 78.

³³ The glass beads (under analysis) from Mozolice Wielkie come from surface research and excavations carried out in 2019 under the direction of Prof. Dr Hab. Joanna Kalaga, Warsaw University.

³⁴ WAJDA 2013: 96.

³⁵ DEKÓWNA 1999.

GROUP II. Bead made by winding technique

Group II includes one bead, the body of which was probably made in the technique of winding, which consisted in winding a glass band on a metal rod.³⁶ It is almost spherical in shape and decorated with six ribs parallel to the axis of the canal (Pl. 5, Fig. 66). The ribs were imprinted with a sharp tool around the body, at unequal distances (Pl. 6, Fig. k). Unfortunately, the colour and transparency of the glass cannot be determined, as the specimen is heavily corroded. The beads decorated with longitudinal ribs are referred to in the literature as melon-shaped,³⁷ ribbed³⁸ or fluted.³⁹ It is a form commonly found in many territories, in different periods of time and, as M. Dekówna⁴⁰ shows, in Europe it is known from the Late Roman period to the Middle Ages. On the territory of Poland in the Early Middle Ages they are a fairly frequent find, but they typically occur in small numbers. In Lesser Poland similar specimens were found in several skeleton cemeteries, e.g.: in Strzemieszyce Wielkie (today, a district of Dąbrowa Górnicza) in graves of two women (grave 11: three beads and grave 44: seven beads),⁴¹ in Garbów, Lublin district and one in Gorysławice, Busko district.⁴² Many analogies of beads decorated in this way can also be found in today's Mazovia and Podlasie,⁴³ Lower Silesia,⁴⁴ Pomerania,⁴⁵ but also in Rus,⁴⁶ Bohemia and Moravia,⁴⁷ and Scandinavia.⁴⁸ It is a trans-regional and long-lived form, it seems that perhaps technological analyses could help to solve the questions of its origin.

ISLAMIC COINS AS ORNAMENTS AND ELEMENTS OF JEWELLERY IN THE EARLY MIDDLE AGES – THE ARCHAEOLOGICAL BACKGROUND

Early-medieval finds of coins used as pendant in necklaces are known mostly from grave finds from the areas of Scandinavia and Eastern Europe inhabited by Finns and Scandinavians. They are also discovered in the graves of nomads

³⁶ Cf. WAJDA 2019: Fig. 4.55; DEKÓWNA and PUROWSKI 2016: 164, 165; WAJDA 2014: Fig. 23a–d; DEKÓWNA and SZYMAŃSKI 1971: 286, Fig. 2. Beads decorated with ribs may also have been made by other techniques, from a drawn glass tube (LVOVA 1968: 88), molded (STAWIARSKA 1974: 191–192) or from a glass lump (DEKÓWNA 1980: 58).

³⁷ WAJDA 2014: 72; MARKIEWICZ 2006: Tab. 13.

³⁸ ZOLL-ADAMIKOWA 1971: 94.

³⁹ DEKÓWNA 1980: 57.

⁴⁰ *Ibidem*: 59–60.

⁴¹ MARCINIAK 1960: Tab. I, 19–20; Tab. IV, 12.

⁴² ZOLL-ADAMIKOWA 1971.

⁴³ WAJDA 2014: 72.

⁴⁴ PANKIEWICZ, SIEMIANOWSKA and SADOWSKI 2017: 64, Tab. 2.

⁴⁵ KOKORA 2019b: Figs. 67.48, 68.47.

⁴⁶ ZAKHAROV and KUZINA 2008: Fig. 142; ZAKHAROV 2004: 147, Fig. 289.

⁴⁷ HRUBY 1955: Tab. 83.59–61.

⁴⁸ CALLMER 1977: Tab. 1: A005T, A005T.

inhabiting the Pannonian Basin and the Black Sea steppes. We find them less frequently in Western Europe and in the Slavic region.⁴⁹

The issue of coins used as ornaments for clothes or jewellery in Scandinavia was recently discussed by F. Audy.⁵⁰ The topic of coin-pendants discovered in burials in the area of early medieval Rus' was the subject of considerations by T. Potin,⁵¹ who has broken down the grave finds in terms of their meaning into "Charon's obol" and those used as ornaments. He was one of the first to notice that in the Early Middle Ages, the vast majority of cemeteries where graves with coins-pendants were discovered, were located in areas covered by the Scandinavian expansion and colonisation, which led to the formulation of a conclusion about the Norman origin of this custom. A significant part of this type of finds was catalogued by T. Ravdina.⁵² A work by A.S. Belyakov on finds of coins and coin-like pendants from a Finno-Ugric early-medieval cemetery in the village of Pleshkovo⁵³ is worth mentioning in this context.

This issue appeared in works concerning early-medieval grave finds of coins, among others of T. Ravdina⁵⁴ (on Russian coins) and O. Mocia.⁵⁵ A. Musin⁵⁶ and W.N. Sedykh⁵⁷ undertook the interpretation of the significance of the grave finds of coin-pendants, mainly the Byzantine and Western European denarii, which were to fulfil the function of devotional articles and be a determinant of a Christian burial.

In recent years, the issue of grave finds – including coin-pendants – in the upper Volga basin was taken up by J. Stepanova,⁵⁸ and in the area of the Ladoga Lake catchment area by S.I. Kochkurkina.⁵⁹ One of the most important works dealing with the use of coins in the form of jewellery is the work of I.I. Sinchuk on a necklace with coin-pendants from the end of the 10th–11th century from the burial mound in the village of Izbishche.⁶⁰ One should also mention the work of N. Plavinski⁶¹ on the finds of coins in the burial mounds of the Polotsk region.

Taking into account the neighbouring areas, the works of T. Berga on early medieval grave finds from the area of today's Latvia, where coin-pendants constituted

⁴⁹ MIECHOWICZ 2012: 613–616.

⁵⁰ AUDY 2015; IDEM 2016: 149–154; IDEM 2018.

⁵¹ POTIN 1971: 52–54.

⁵² RAVDINA 1988.

⁵³ BELYAKOV 1992.

⁵⁴ RAVDINA 1979.

⁵⁵ MOCIA 1984; IDEM 1987: 94–102.

⁵⁶ MUSIN 1998; IDEM 2002: 171–172.

⁵⁷ SEDYKH 2001; IDEM 2005.

⁵⁸ STEPANOVA 2011.

⁵⁹ KOCHKURKINA 2011.

⁶⁰ SINCHUK 2015.

⁶¹ PLAVINSKI 2016.

a significant part of the finds, are among the most important in terms of the subject matter undertaken.⁶²

The question of grave finds of coins (including coin-pendants) in the area of the Khazar Khaganate was discussed by A.A. Laptev and V.S. Aksenov,⁶³ and I. Iskov.⁶⁴ The subject of coin-pendants is discussed in more detail in the work of A.I. Semenov.⁶⁵

In the area of Eastern Europe, according to the analysis of archaeological sources, the oldest early-medieval finds of coins used as pendants in necklaces date back to the 8th and 9th centuries. They were recorded in the burials of Scandinavians in the upper Volga basin and of the nomadic Khazars and Alans inhabiting the Black Sea steppes. In the first case, the finds are dominated by Islamic coins, and in the second, by the Byzantine emissions. Similarly, it is a kind of ornament encountered in the area of Kievan Rus' in the 10th century, in burials attributed to the Scandinavian Varangians.⁶⁶

At the end of the 10th and the beginning of the 11th century, Islamic coins became a common element of women's jewellery in the north of Kievan Rus'. We can also find them in this function in the graves of the Novgorod and Transnistrian Slavs, but the greatest number of finds come from the burials of the female Finno-Ugric people of Méra, Wes and Chude. On the basis of the topography of the finds, we can conclude that in the 11th century, necklaces with coins used as pendants were even one of the criteria of ethnographic differentiation (Map 1). Islamic coins are the most common in these finds.⁶⁷

In male burials from the 10th century, coins were usually hung individually around the deceased's neck, probably on straps or strings. In women's graves, we find them in numbers from one to four. They were most often pendants crowning glass bead necklaces. In the 11th century, we observe a tendency to increase the number of coins in necklaces from one to a dozen. Moreover, they consisted of a dozen or several dozen, often even several hundred, glass beads. In the first half of the 11th century, Islamic silver coins minted in the 10th or even 9th century predominate in the necklaces from northern Russia. In the second half of the 11th century, Western

⁶² BERGA 1976; EADEM 1988.

⁶³ LAPTEV and AKSENOV 2017.

⁶⁴ ISKOV 2016.

⁶⁵ SEMENOV 1978.

⁶⁶ MIECHOWICZ 2012: 614–616; IDEM 2013.

⁶⁷ Sāmānid dirhams dominate the finds (about 40%). Dirham imitations are in second place – most often in the form of silver plaques with coin imprints. They constitute a significant part of the historic material (approx. 37%). The issuance of rulers from the 'Abbāsīd, Buyid, Ḥamdānid, Umayyad, Ziyārid and Marwānid dynasties occurred much less frequently. In two cases, the necklaces had dirhams minted in the area of Volga Bulgaria. In one grave, a Sassanian drachma of Khosrow II, minted in the 7th century, was recorded (analysis after MIECHOWICZ 2013: 226–227).

European denarii are more often used in this function. In the 10th century and the beginning of the 11th century, Byzantine coins are also used as pendants, although their finds come mainly from southern Rus’.

Taking into account the above-mentioned information and the scatter of finds of this type of artefacts, it seems reasonable to suppose that the dirham imitations and the accompanying glass beads discovered in the hillfort in Kłodnica are an import in the form of a necklace from the areas of Kievan Rus’. The fact of discovery in the same layers of a brown panner fitting, which has a direct analogy in the 10th century chamber tomb in Kiev, makes this more probable.⁶⁸

The discovery from Kłodnica is one of the few jewellery finds in the settlement context from the 10th–beginning of the 11th century in the area of historical Lesser Poland.⁶⁹ We do not know how this artefact and other finds imported from the area of Kievan Rus’ reached the area of the Chodel Valley. One explanation is that the region is situated at the intersection of two long-distance early-medieval trade routes.⁷⁰ In this context, the discovery from Kłodnica is an important source for research on the issue of early-medieval interregional contacts.

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⁶⁸ MIECHOWICZ 2018: 58; similar artefacts were occurred in 2002 in a chamber tomb from the second half of the 10th century in Kiev, discovered under the Orthodox church of St. Aleksandr, see IEVLEV 2009: 662–663. From the settlement complex in Żmijowiska, municipality of Wilków, there is also a known find of a belt tongue, which has a direct analogy in the Scandinavian cemetery in Shestovitsa near Kiev (cf. MIECHOWICZ 2018: 51–52).

⁶⁹ POLESKI 2013: 129–135.

⁷⁰ MIECHOWICZ 2018: 65–66.

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Translation: Andrzej Leligdowicz

Authors' addresses:

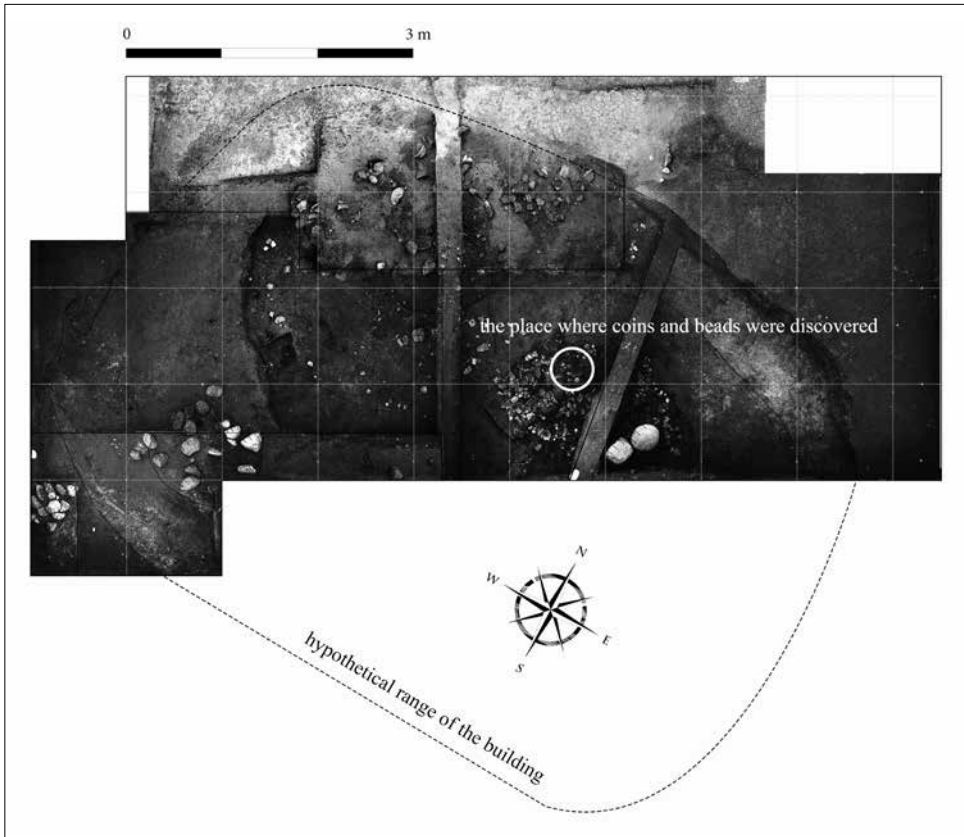
Dorota Malarczyk
National Museum in Krakow, Numismatic Cabinet
12 Piłsudskiego Street, 31-109 Krakow, Poland
dmalarczyk@mnk.pl

Łukasz Miechowicz
Polish Academy of Sciences, Institute of Archaeology and Ethnology
105 Al. Solidarności, 00-140 Warsaw, Poland
lmiechowicz@gmail.com

Sylwia Wajda
University of Warsaw, Faculty of Archaeology
26/28 Krakowskie Przedmieście Street, 00-927 Warsaw, Poland
sylwia.wajda@gmail.com

PLATE 1	Fig. 1. Stronghold in Kłodnica, Opole district Photo by Ł. Miechowicz
PLATE 2	Fig. 2. Photogrammetric image of excavation of the granary with the marking of the place where coins and glass beads were discovered Photo by Ł. Miechowicz
PLATE 3	Figs. 3A–B; Fig. 4. Coins discovered during excavations of the granary Photo by Ł. Miechowicz
PLATE 4	Fig. 5. Reconstruction of a glass-bead necklace with coins, recovered from the granary building Compiled by J. Stępnik
PLATE 5	Figs. 1–66. Kłodnica, Opole district. The typological classification of glass beads Compiled by S. Wajda
PLATE 6	Figs. a–k. Kłodnica, Opole Lubelskie County. Production technology Compiled by S. Wajda
MAP 1	The graves (10 th –11 th) with dirham- (and its imitations) pendants discovered in Central and Eastern Europe Drawing by L. Miechowicz







3A



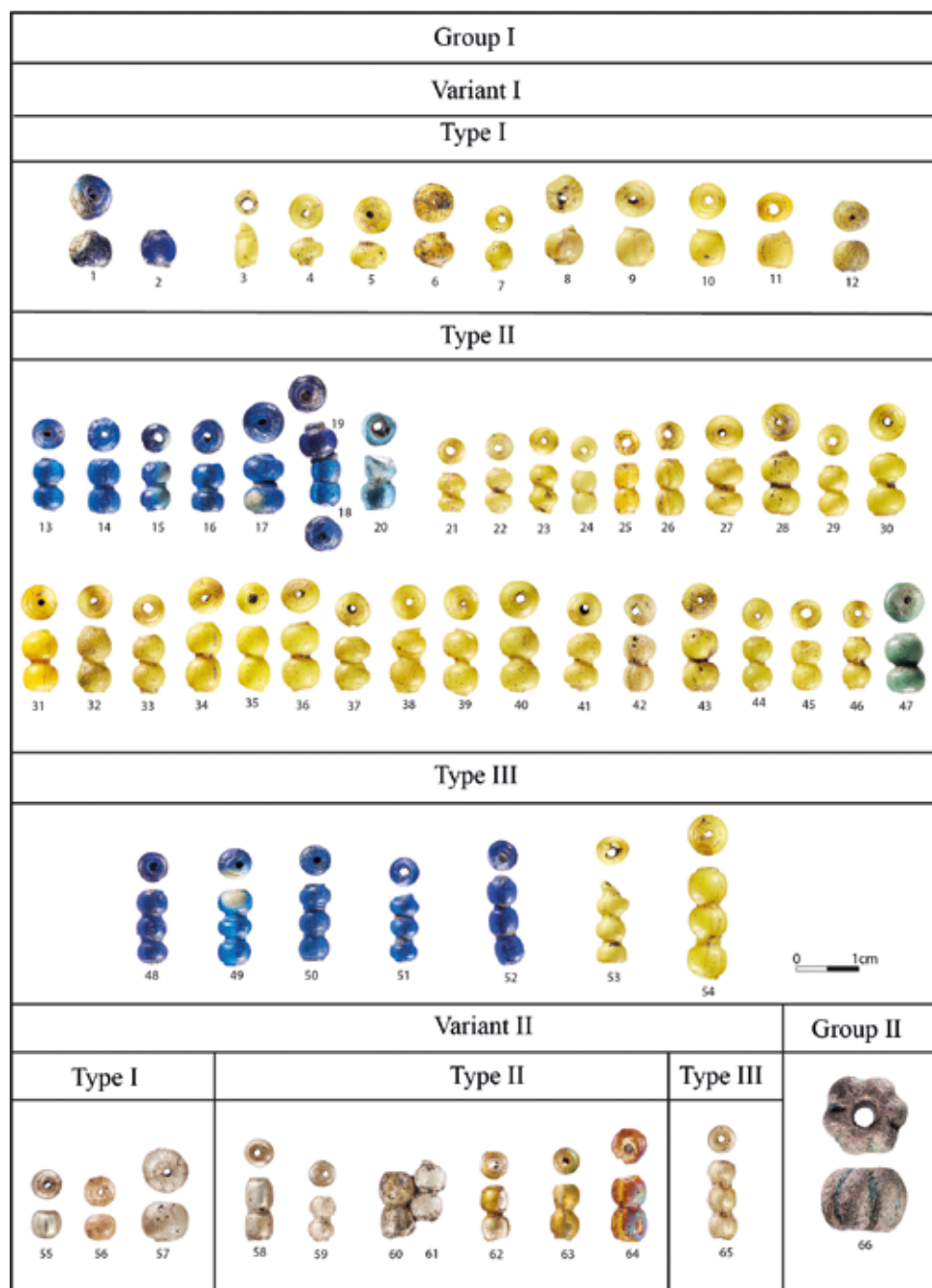
3B

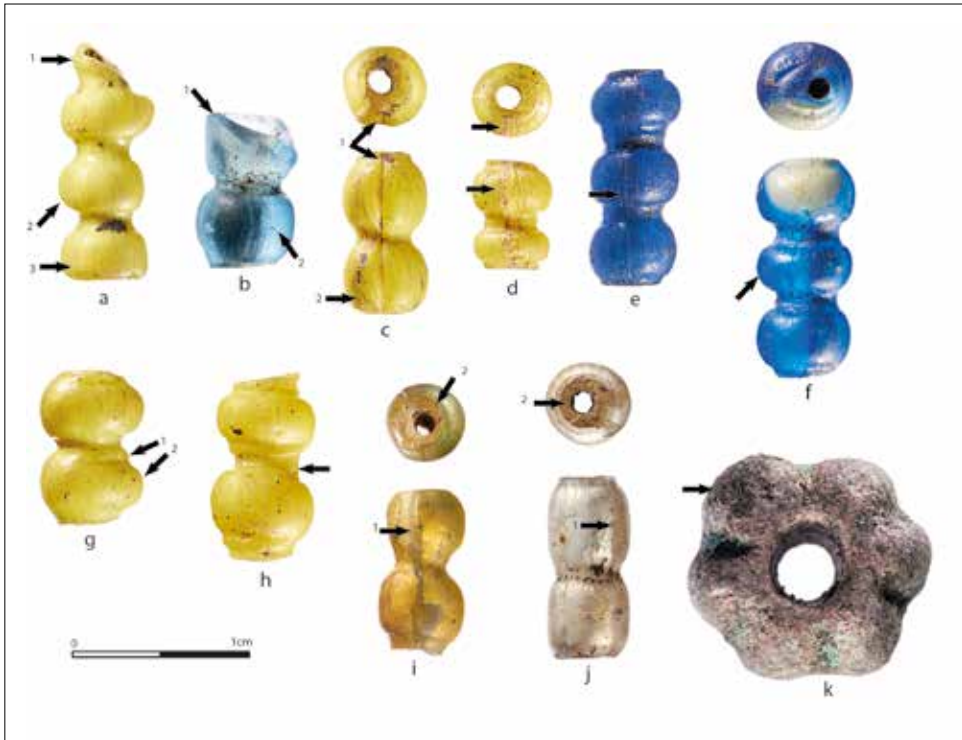


4









Kłodnica, Opole Lubelskie County. Production technology: a) 1. melted glass tube ending, 2. asymmetrical body, 3. strings of glass; b) 1. melted glass tube ending, 2. gas bubbles; c) 1. traces of «seam» on the bead body, 2. strings of glass; d), e. traces of “seam” on the bead body; f. asymmetrical body; g) 1. traces of neck repairs, 2. asymmetrical body; h) traces of neck repairs, 2. asymmetrical body; i) 1. metallic foil, 2. inner layer; j) 1. metallic foil, 2. inner layer; k) ribs of various sizes imprinted on the body of the bead

