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Finds of Gold and Silver Ornaments of the People of the Wielbark Culture From the Area of the So-Called Eastern Zone of the Przeworsk Culture

Znaleziska złotych i srebrnych ozdób ludności kultury wielbarskiej
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Abstract: This paper presents finds of gold and silver ornaments characteristic of the Wielbark culture, originating from the eastern zone of the Przeworsk culture. The distinctiveness of the areas on the right bank of the Vistula occupied by the people of the Przeworsk culture has been repeatedly emphasised in the literature. This distinctiveness primarily manifests in a unique style, combining features typical of the Przeworsk culture with elements derived from other cultural areas, such as the Wielbark culture. The exceptional craftsmanship of goldsmiths is most evident in women's ornaments, specifically in various forms of pendants and bracelets. The article provides descriptions of fifteen gold and electrum ball and pear-shaped pendants, focusing on their internal variations and decorative elements like granulation or filigree. Additionally, the findings of bracelets from the discussed area are briefly outlined. The issue of sourcing non-ferrous metals required for crafting these ornaments is also explored. No out-

crops of these materials were identified in the area occupied by the Wielbark and Przeworsk cultures. It is highly likely that these materials were obtained from the territories of the Roman Empire. However, it remains uncertain whether Roman coins could have been a source of these metals, considering the varying purity levels of coins during different emperors' reigns. The identification of gold and silver objects within the grave goods of these cultures is hindered by the funeral practice of corpse-burning commonly employed during that era. Most findings exist in the form of small molten metal lumps, making identification impossible. Research and experiments involving the cremation of funeral pyres with grave goods have demonstrated that small non-ferrous metal ornaments almost entirely vanish, either fusing with the funeral pyre or melting to the point of becoming imperceptible. This underscores the possibility of such materials being present in the studied grave sites.

Keywords: Wielbark culture, eastern zone of the Przeworsk culture, Roman empire, gold, silver, ornaments

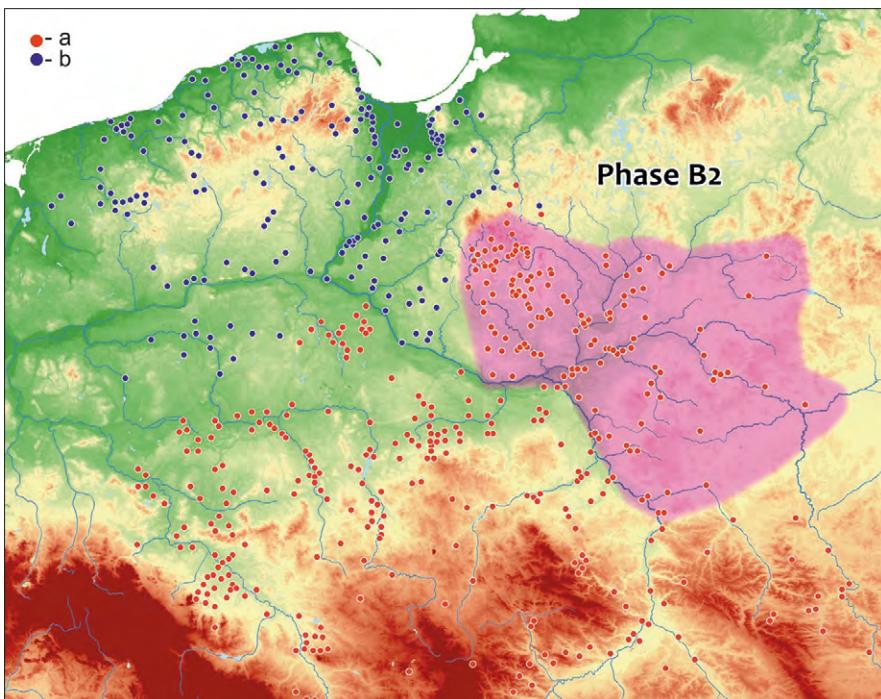


Fig. 1. Sites of the Przeworsk (a) and Wielbark (b) cultures dated to phase B2, with an approximate extent of the eastern zone of the Przeworsk culture (according to Andrzejowski 2020, Fig. 1:10).

The distinctiveness of the areas on the right bank of the Vistula occupied by the people of the Przeworsk culture has been repeatedly noted in the literature. Initially, the focus was primarily on the qualitative aspect, which was related to the small source base. A breakthrough came with the studies of Teresa Dąbrowska, in which she draws attention to the external links between the eastern Przeworsk areas (Dąbrowska, Pozarzycka-Urbańska 1978; Dąbrowska 1981a; 1981b). The territory of the northern part of right-bank Mazovia, occupied in the early phase of the younger pre-Roman period by the people of the Przeworsk culture, was defined by Jacek Andrzejowski as the eastern zone of the Przeworsk culture. The aforementioned distinctiveness is mostly evident in a specific style, combining features typical of the Przeworsk culture with elements derived from other cultural areas. Influences from the Wielbark culture environment undoubtedly played a major role here; however, West Scandinavian, Elbe River, and West Baltic influences are also clear (Andrzejowski 2001; 2020; Madyda-Legutko et al. 2021: 91; Olędzki 2022: 71). During the B1 phase, the new stylistic trend associated with Roman influences has a strong effect on many areas, unifying the inventory of the

Przeworsk culture throughout its entire territory. Even then, manifestations of the distinctiveness of the eastern zone of the Przeworsk culture are visible (Andrzejowski 2001: 50). This distinctiveness becomes more pronounced from the end of phase B₁ and continues until the end of phase B₂ and the beginning of C_{1a}. As in the Wielbark culture, in stylistic terms, in the discussed part of the range of the Przeworsk culture we are dealing with the youngest horizon of the Early Roman period (Andrzejowski 2001: 51).

Analysis of individual categories of artefacts was necessary to try to define the so-called eastern zone. The first group of finds consists of clasps, which, due to their great morphological diversity and abundance, are a very good starting point for stylistic and statistical analyses. The costume of the Przeworsk culture people is dominated by iron items, with fibulae being the most numerous. In the B₂ phase, we note the emergence of a local style and the production of iron ornaments. However, in the necropolises of the eastern zone, bronze clasps prevail (Andrzejowski 2001: 61). The second group of finds comprises ornaments such as banded pendants made of glass balls, shells, seeds, nuts, and beads, which are typical of Wielbark female costume (Blume 1912: 95; Dąbrowska 1981a: 49; Grabarczyk 1983: 21). Specific ornaments of the eastern zone of the Przeworsk culture are triangular pendants made from a double-folded bronze plate, plain or decorated with embossed studs, with ends coiled into a spring-like fastening. Finds of spherical and inversely pear-shaped gold pendants are also known (Andrzejowski 2001: 69, 70). Other unusual elements of necklaces are spirals made from bronze or occasionally silver wire. The appearance of these ornaments in the eastern Przeworsk zone may be the result of an association with West Baltic areas (Moora 1938; Nowakowski 1983; Michelbertas 1986) or Zarubintsy areas (Kucharenko 1964; Maksimov, Rusanova 1993). Large bronze beads adorned with ritual patterns or embossed studs have been discovered in several cemeteries. They are found in collections of the so-called baroque Wielbark style. Similar specimens made of gold or silver plate are found in western Scandinavia, mainly on Bornholm (Andersson 1995). Early Roman gold pendants, silver pendants, and silver filigree beads are also known from the eastern zone. From Kamieńczyk comes a silver capsule pendant decorated with filigree, entirely unique in the Przeworsk culture (Raddatz 1996). Ornaments made of precious metals were most likely much more numerous, given the number of melted gold and silver nuggets, impossible to identify at present, found at the sites in the inventory.

Glass beads, made of faience or multicoloured glass, were important elements of the East Przeworsk necklaces. The S-shaped buckles used to fasten necklaces were undoubtedly borrowed from the Wielbark culture (Andrzejowski 2001: 70). The eastern zone of the Przeworsk culture is also the source of such finds as bar bracelets made of bronze, decorated in a similar way to the Wielbark specimens. The great interest in and the adaptation of bracelets in East Przeworsk fashion



Fig. 2. 1 – Inversely pear-shaped pendant, Opatów, Kłobuck District; 2 – Type Ia spherical pendant, Prusiek, Sanok District; 3 – Inversely pear-shaped pendant, Łączany, Radom District; 4 – Type IbI spherical pendant, Oblin, Garwolin District; 5 – Spherical pendant, Nadkole, Węgrów District (according to Madyda-Legutko et al. 2010, Fig. 1: 2).

in the B₁ phase is evidenced by a local variant of the so-called Kamieńczyk-type bracelets made of iron, derived from simpler Wielbark forms ending with beads (Dąbrowska 1981a; Andrzejowski 1994). The high incidence of bronze pins is also clearly noticeable. They are mostly concentrated between the Wkra and lower Bug, mainly in the B₂ phase. One silver specimen is also known from Nadkole (Andrzejowski 2001: 74). The third category of artefacts includes belt elements. In the eastern zone of the Przeworsk culture, bronze belt elements are found in large numbers, including strongly profiled belt ends and so-called link joints. Bronze link joints, consisting of a ring, sometimes profiled, equipped with two or one strap ferrules (Madyda 1977: 388), appear exclusively in the B₂ phase, typically alongside bronze profiled belt ends and belt appliqués (Madyda-Legutko 1984). The extent of the occurrence of link joints and the context of these finds indicate that they were typical elements of East Przeworsk women's belts at the time (Andrzejowski 2001: 74). The fourth category is armament. Due to the strong uniformity of weaponry of the Przeworsk culture people, it is difficult to identify potential regionalisms here. However, it is possible to point out some characteristic elements concentrated in the areas east of the Vistula, such as spearheads of polearms decorated on the leaf with a specific motif of punched triangles, usually in the so-called negative arrangement. This decoration resembles the Wielbark ornamentation of

ceramics in the form of alternately rough and smooth fields, with the triangle motif dominating (Kaczanowski, Zaborowski 1988; Czarnecka 2014: 189). In the eastern zone of the Przeworsk culture, rare iron shield bosses of the Jahn 7 type with an edge bound by bronze sheet are concentrated. Bronze-clad iron shield bosses are quite common in the coastal and West Scandinavian areas (Zieling 1989). It can be assumed that the East Przeworsk specimens are imports or imitations of the shield bosses of the Wielbark culture (Kaczanowski, Zaborowski 1988; Czarnecka 2014). The attachment of iron shield bosses and holders with iron or bronze rivets is also common. The majority of the oldest Przeworsk encrusted spearheads also come from the East Przeworsk zone (Kaczanowski 1988).

The funeral rites of the zone in question are also worth noting. A local adaptation of Wielbark customs appears to be the absence of weapons in the early Roman graves of the Niedzica and Mława clusters (Okulicz 1965; 1983; Godłowski 1985). In the rest of the East Przeworsk areas, male burials are similar to the general Przeworsk standards. Interesting, albeit challenging to interpret, is the presence of various types of stone structures in many necropolises in northern and eastern Mazovia, often associated with burial structures (Okulicz 1970). These structures appear in phase B₁ and last throughout phase B₂, but most of them have not been studied (Andrzejowski 2001: 82). In phases B_{2c} – B₂/C_{1a}, i.e., at the end of the existence of the eastern zone of the Przeworsk culture, there is an increase in the number of poorly equipped pit burials, which is also typical of Wielbark cemeteries in this zone (Dąbrowska 1981a).

The artistic craftsmanship known from the areas of the Wielbark culture reached a particularly high level. This artistry is best seen in the various forms of women's jewellery such as serpentine bracelets, S-shaped buckles, and various types of pendants. They are made from bronze but also from precious metals such as gold and silver, using a variety of jewellery techniques (Tuszyński et al. 2016: 7). In contrast, the Przeworsk culture is considered to be a unit devoid of striking and numerous ornamental finds (Godłowski 1981: 90–105). Undoubtedly, this has to do with the funerary ritual practice of corpse burning, which is associated with the intentional destruction and burning of grave goods. However, as already mentioned, the eastern zone of the Przeworsk culture shows a variety of forms of ornaments made of precious metals, with stylistic references to the environment of the Wielbark culture during the development of the so-called Baroque style (Andrzejowski 2001: 67–74; Madyda-Legutko et al. 2010: 1).

Among the gold ornaments found at the sites of the eastern zone of the Przeworsk culture there are spherical pendants from graves with a female model of goods, e.g., from Kamieńczyk, Wyszków District, from grave no. 54 (Dąbrowska 1997: 20), from Nadkole, Węgrów District, from graves no. 44B and no. 121 (Andrzejowski 1998: 27, 45), from Piastów, Przasnyk District, from grave no. 15

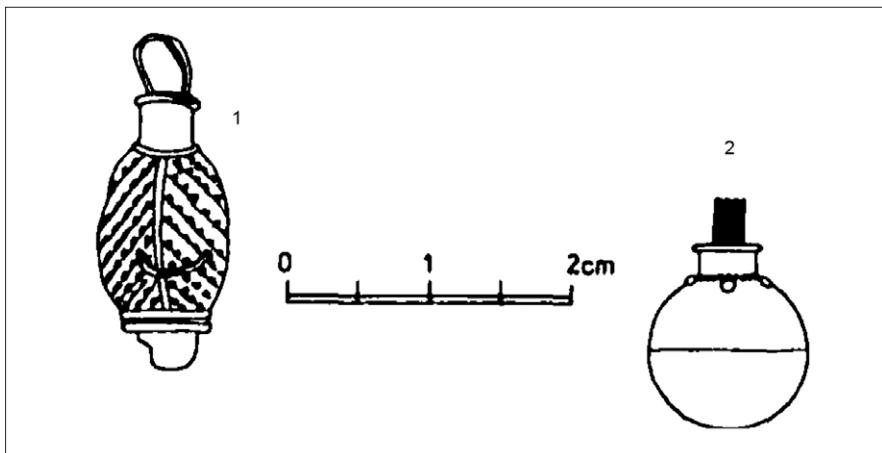


Fig. 3. 1 – Type I spherical pendant, Piastów, Przasnýk District; 2 – Type Ib1 spherical pendant, Grodzisk Mazowiecki, Białobrzeg District (according to Kokowski 1991, Fig. 5: 116).

(Peiser 1916: 6, 8), from Tuchlin, Wyszków District, from grave no. 3 (Okuliczowa 1964: 373), as well as from Prusiek, Sanok District, from objects no. 10 and no. 22 (Madyda-Legutko et al. 2010: 3). Most likely, a pendant made of electrum comes from the cemetery in Modła, Mława District, from grave no. 96 (Grzymkowski 1986: 249). A single specimen of such a pendant is also known from grave no. 23 in the cemetery in Grodzisk Mazowiecki, Białobrzeg District, located on the left bank of the Vistula (Barankiewicz 1959). There are also known specimens from graves with a male model of goods, e.g. from Kamieńczyk, Wyszków District, from grave no. 232 (Dąbrowska 1997: 52), from Oblin, Garwolin District, from grave no. 26b (Czarnecka 2007: 17), and from Oronsk, Szydłowiec District (from a grave without a number) made from electrum (Kokowski 1991: 108–109).

There are also specimens of inversely pear-shaped pendants, very rare in the Przeworsk culture. It cannot be ruled out that such a specimen may have been found in object no. 10 in Prusiek, however, due to its state of preservation, it is difficult to determine whether it is a spherical pendant or an inversely pear-shaped one (Madyda-Legutko et al. 2010: 6). Other specimens come from necropolises located west of the middle Vistula River: from Chmielów Piaskowy, Ostrowiec District, from grave no. 39 (Godłowski, Wichman 1998: 57), from Łączany, Radom District, from grave no. 43 (Bujakowska 2004: 330–331), and from Opatów, site 1, Kłobuck District, from grave no. 827 (Godłowski 1970: 250).

Among the mentioned golden spherical pendants, there is noticeable diversity in terms of structural details and decorations. Exemplars with a spherical, undecorated body of type Ia according to A. Kokowski's classification (1991) come from Kamieńczyk (grave no. 54 and grave no. 323), Nadkole (grave no. 44B), Prusiek

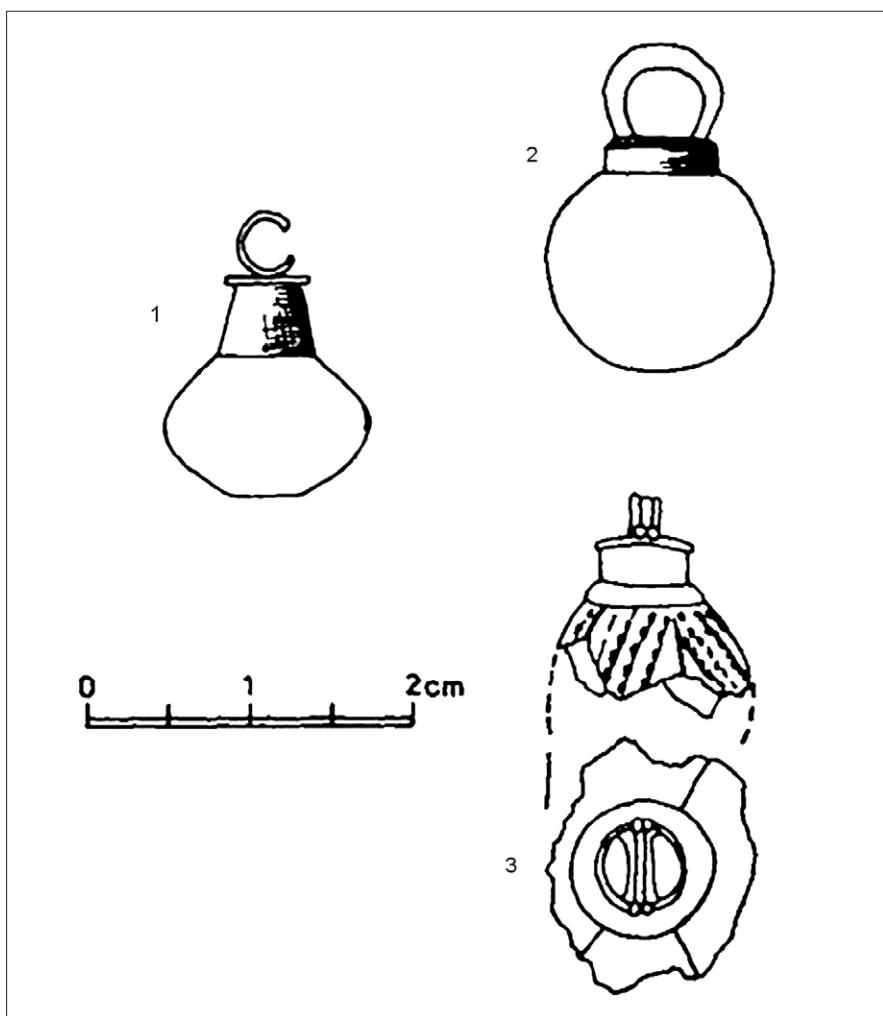


Fig. 4. 1 – Type Ib1 pendant, Modła, Mława District; 2 – Type Ib2 pendant, Opatów, Kłobuck District; 3 – Pendant of unspecified type, Tuchulin, Wyszków District (according to Kokowski 1991, Fig. 6:119).

(grave no. 22), and Opoka (grave no. 72). The gold pendant from Dobra, which features decoration made with granulation, also refers to them (Madyda-Legutko et al. 2010: 4). The specimens from Orońsk (a grave without number) and from Piastów (grave no. 1) are close to type Ia, with the specimen from Piastów distinguished by its nearly cylindrical body. The remaining gold pendants belong to type Ib1 according to A. Kokowski's classification (1991), i.e. Oblin (grave no. 26b), Modła (grave no. 96), Nadkole (grave no. 121), and Grodzisko Mazowieckie, capital

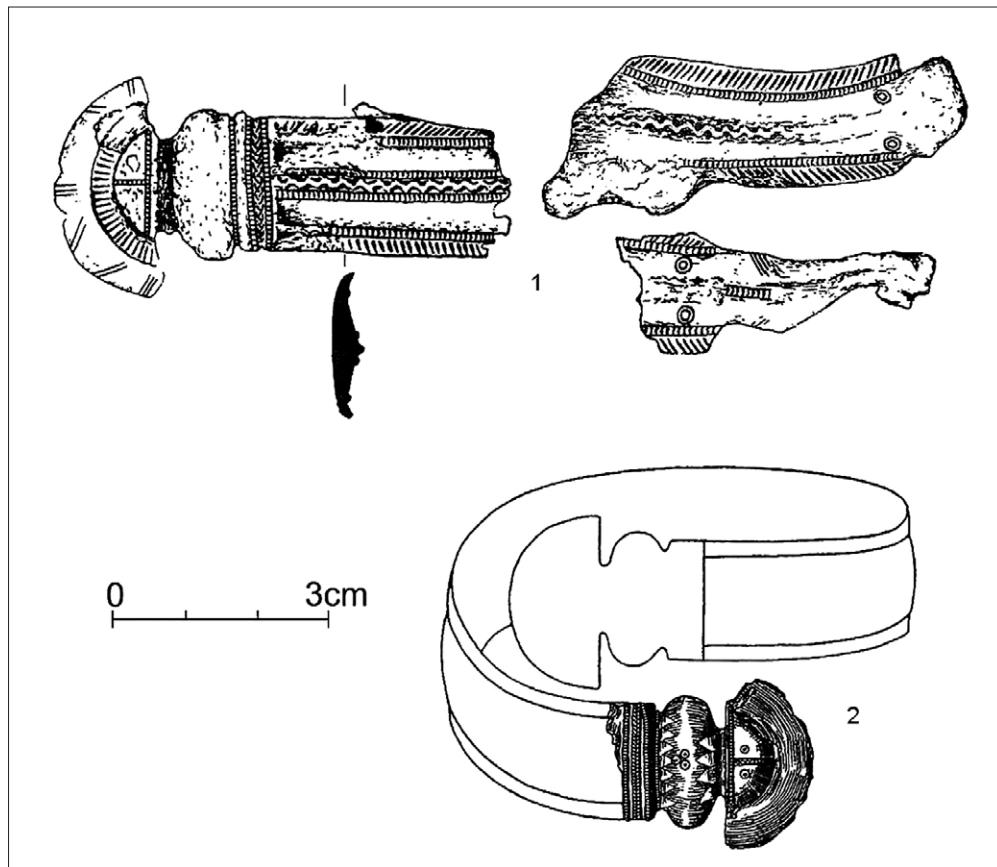


Fig. 5. Pomeranian-type serpentine bracelets: 1 – Kietrz, Głubczyce District; 2 – Dobra, Oleśnica District (according to Madyda-Legutko et al. 2021, Fig. 2: 92).

of the District (grave no. 23). It is also worth examining the decorations of the loops on several specimens. The loop of the Oblin specimen and the Grodzisk Mazowiecki artefact are decorated with granulation, while the loop of the Modła pendant is incised with filigree. In the case of the pendant from Nadkole (grave no. 121), the body is decorated with wire applications and granulation, while the loop is decorated with two strands of filigree (Madyda-Legutko et al. 2010: 4). Also from Kamieńczyk (grave 105) comes a silver capsule pendant decorated with filigree (Raddatz 1996: 247).

Occasional elements typical of the Wielbark culture are also found outside the eastern zone, in the western part of the Przeworsk culture's range, such as the specimen from Dobra. This inventory also included a fragment of a silver, gilded serpentine bracelet (Pescheck 1939: 318; Andrzejowski 1994: 322). Also noteworthy

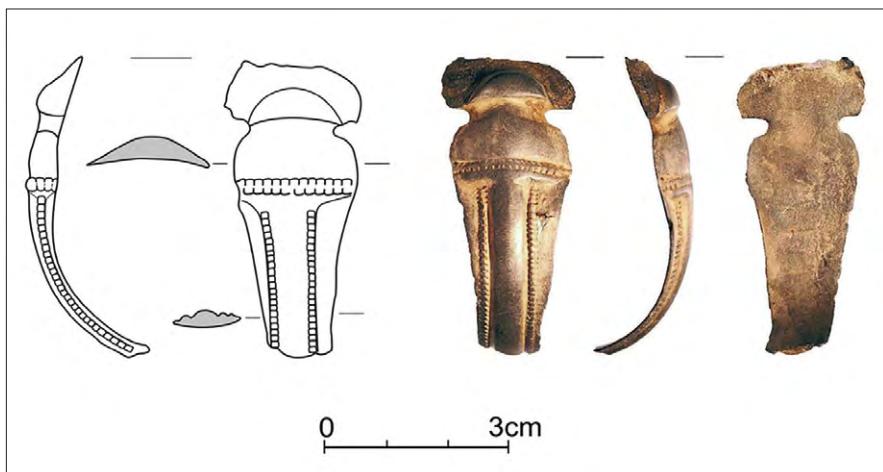


Fig. 6. Silver serpentine bracelet of the Pomeranian type, Jurowce, Sanok District (according to Madyda-Legutko et al. 2021, Fig. 1:90, fig. and photographs by P.N. Kotowicz).

is grave no. 39 from Chmielów Piaskowy (Godłowski, Wichman 1998: 36), in which, in addition to a gold inversely pear-shaped pendant, a fragment of a gold *lunulae* pendant was found (Madyda-Legutko et al. 2010: 7).

What sets apart the women's fashion in the eastern Przeworsk zone from the rest of this culture are the bracelets. Their number found in the East Przeworsk area exceeds many times the number discovered outside this zone. Bar bracelets, found from the B₁ phase to the B₂/C₁ phase, account for 80% of all early Roman finds from the area of the Przeworsk culture. One silver specimen is known from grave no. 11a/69 from Pajewo-Szwelice, Ciechanów District (PMA IV/323). The serpentine bracelets of the Pomeranian variety, characteristic of the Wielbark culture, are spread evenly across the area of the Przeworsk culture, and the eastern zone does not stand out in any way in this respect. At least twenty-one finds of Pomeranian-type serpentine bracelets or their fragments discovered at 18 sites are currently known from the area of the Przeworsk culture (Madyda-Legutko et al. 2021: 91, 95–96). Nine bronze specimens come from the Mazovian area, including Kamieńczyk, Niedanowo, and Nadkole. Seven specimens were discovered in central Poland, three of which were silver: Górkı Peławskie, Łęczyca District, Łódź Province, a grave (object no. 1015), a pair of silver bracelets, Mnich, Kutno District, Łódź Province, site 1, cobbles/2011 research, silver, type IIB (Olędzki 2015: 293, 298, 299, 301; Madyda-Legutko et al. 2021: 93, 95). From other areas of the described culture come five silver bracelets, including two decorated with gold: Dobra, Oleśnica District, Lower Silesia Province, a grave, silver decorated with

gold foil, type IV (Pescheck 1939: 42, 317, 318, Fig. 35: 8; Andrzejowski 1994: 337, Fig. 8; Olędzki 2015) Jadowniki Mokre, Tarnów District, Lesser Poland Province, "Zaurbanic" site, a loose find, silver (unpublished material, the collection of the Institute of Archaeology, Jagiellonian University; Olędzki 2015: 301), Jurowce, Sanok District, Subcarpathia Province, a loose find, silver, type IIIB (Madyda-Legutko et al. 2021: 95), Kietrz, Głubczycki district, Opole Province, site 1, grave no. 1563, silver decorated with gold filigree, type IVC (Gedl 1988: 155, Fig. 32a-c; Andrzejowski 1994: 337, Fig. 8; Olędzki 2015: 301), Przysieka Stara, Kościan District, Greater Poland Province, a loose find, silver, type II-IV (Kmiecinski 1962: 171; Andrzejowski 1994: 337, Fig. 8; Olędzki 2015: 301).

So far, no exploited outcrops or other sources of extraction of non-ferrous metal ores have been identified either in the area of the Wielbark culture or other cultural units in the Polish lands of the Roman period. This suggests the need to import the necessary material most likely from the Roman Empire and its provinces. It has been indicated more than once in the literature that the raw material necessary for ornaments came from melted coins or scrap metal vessels from the Roman Empire (Bezzenberger 1904: xviii; Wielowiejski 1960: 52; Natuniewicz-Sekuła 2020: 105). However, the use of Roman coins as raw material is still quite controversial. Such a use cannot be completely ruled out, but the percentage of precious metals in each denomination must be kept in mind (Natuniewicz-Sekuła 2020: 105). The share of precious metal depended on the political and economic situation in the Empire and the reforms introduced. During the reign of Nero (54–68 AD) the highest share of silver was recorded at around 92%, during the reigns of Antoninus Pius (138–161 AD) and Marcus Aurelius (161–180 AD) it was already 76%, and during the reign of Septimius Severus (193–211 AD) around 46% (Gitler, Ponting 2003: 31). Such low silver contents are not recorded in the metallographic analyses carried out on ornaments from the Wielbark culture, e.g., at the Weklice site. High-grade 900–980 gold and 920–980 silver are found there. Nor do we have any evidence or information about the ability of barbarians to refine precious metals. Traces of cupellation (cleaning scrap silver to obtain 99% of its content) are very well attested in the Roman *Colonia Ulpia Traiana* (Xanten) (Rehren 2003: 211–140). Given the great practical knowledge of the goldsmiths of the time, they were able to properly group the raw materials available in terms of quality, which they certainly did with coins as well, choosing older, better quality denominations for the production of ornaments (Natuniewicz-Sekuła 2020: 106). The origin and sourcing of raw material by the *Barbaricum* people remains an open question and requires further research, including extremely helpful metallographic analyses.

The cremation burial ritual effectively makes it difficult to record metal artefacts among grave goods. This is no different for precious metals such as gold and silver. Most finds are in the form of melted nuggets, sometimes impossible to interpret

and classify. Smaller nuggets most likely come from melted inlays, while larger nuggets may be the remains of whole objects. In 2000 and 2001, the Centre for Experimental Archaeology and Museum of Pedagogy (ZEAM) LDA in Mansfeld/Südharz prepared a series of four funeral pyre experiments to try to answer as many questions as possible about cremation in the Roman period. The primary focus was on understanding the cremation process and its impact on the grave goods.

For experiment number 3, in addition to the animal carcass imitating human remains, grave goods typical of Roman burials were added. The bone items were fragmented and bent, the silver ornaments were severely deformed and melted together, but recognisable. Iron items could only be captured with an X-ray image, precious and base metal alloys resembled glass. The silver clasp was completely melted, with only a few small lumps of silver remaining (Becker et al. 2005: 106). The gold elements shrank and the silver elements formed small balls. In this form, the metals fused with the wood/coal of the funeral pyre or covered the other items. It should also be considered that not all of the funeral pyre's contents are placed in the urn, and as a result, some materials, especially the finer ones, elude our detection. Settling in the form of microscopic dust on bones, ceramics, and metals, they are invisible to us. For this reason, we often overlook the fact that there may have been gold objects among the grave goods (Becker et al. 2005: 149–150). The researchers' conclusions about the behaviour of different metals were as follows: for metal objects, only those made of bronze and iron have a good chance of surviving a fire undamaged or slightly deformed. In the case of other metals, there is a risk of complete destruction due to the low melting point. However, no rule can be observed according to which these objects melt or remain intact. Metals and also fragments of semi-precious stones become microscopically unrecognisable (Becker et al. 2005: 155). Thanks to such experiments, we realise that the absence of gold objects in the grave goods of cremation graves cannot be completely ruled out. Perhaps many of the graves examined so far contained small gold ornaments that were completely melted or fused with the burial pile and are not detectable to us, which could likely lead to different conclusions and hypotheses on multiple occasions.

Undoubtedly, the eastern zone of the Przeworsk culture is rich in numerous ornaments associated with the Wielbark culture. This undeniably indicates the significant influence of this cultural unit on the area inhabited by the people of the Przeworsk culture. The high level of skill among local goldsmith-artists did not go unnoticed and enjoyed considerable popularity, perhaps even more so than what we can observe in the archaeological record, given the destructive nature of the funeral pyre. The absence of traces of non-ferrous metal outcrops and the still not entirely clear means by which the raw material was procured open up a broad avenue for discussion. Metallographic analysis, which is slowly becoming a standard in excavations, may prove to be indispensable in this context. However,

the source base is still limited, and further analyses of new discoveries, as well as those unearthed earlier, which currently often form the basis of our hypotheses and speculations, are needed.

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Streszczenie

W niniejszej pracy przedstawiono znaleziska złotych i srebrnych ozdób, charakterystycznych dla kultury wielbarskiej, pochodzących z obszaru wschodniej strefy kultury przeworskiej. W literaturze wielokrotnie zwracano uwagę na odrębność terenów prawobrzeża Wisły zajmowanych przez ludność kultury przeworskiej. Wspomniana odrębność przejawia się przede wszystkim w specyficznym stylu, łączącym cechy typowe dla kultury przeworskiej z elementami wywodzącymi się z innych obszarów kulturowych, m.in. kultury wielbarskiej. Niezwykły kunszt złotniczy najlepiej widoczny jest w kobiecych ozdobach, tj. w różnych formach wisiorów oraz bransolet. W artykule opisano piętnaście egzemplarzy złotych i elektronowych wisiorów kulistych i odwrotnie gruszkowatych. Zwrócono uwagę na ich wewnętrzne zróżnicowanie oraz elementy zdobnicze, jak granulacja czy filigran. Pokrótko scharakteryzowano znaleziska bransolet z omawianego obszaru. Poruszono również problematykę pozyskiwania metali kolorowych potrzebnych do wykonywania ozdób. Nie odnotowano na terenie zajmowanym przez kulturę wielbarską i przeworską obecności wychodni wspomnianych materiałów. Najprawdopodobniej zatem były one pozyskiwane z terenów cesarstwa rzymskiego. Nie jest jasne, czy pewne źródło ich pochodzenia mogły stanowić rzymskie monety, biorąc pod uwagę stopień ich zanieczyszczenia podczas panowania poszczególnych cesarzy. Uchwycenie przedmiotów wykonanych ze złota i srebra w inwentarzu grobowym omawianych kultur jest utrudnione przez stosowany wówczas obrązdek pogrzebowy, jakim było ciałopalenie. Większość znalezisk ma formę niewielkich, stopionych bryłek kruszcu, niemożliwych do identyfikacji. Badania i eksperymenty związane ze spalaniem stosu pogrzebowego z inwentarzem grobowym pokazały niemalże całkowity zanik małych ozdób z metali kolorowych, które wnikają w stos pogrzebowy lub ulegają całkowitemu stopieniu, stając się niezauważalne, co pokazuje, iż nie należy wykluczać obecności takich materiałów w badanych grobach ciałopalnych.

Słowa kluczowe: kultura wielbarska, wschodnia strefa kultury przeworskiej, cesarstwo rzymskie, złoto, srebro, ozdoby, ciałopalenie