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EARLY IRON AGE LEAD ARTEFACTS FROM LUSATIAN CULTURE SITES

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Abstract: The article deals with issues related to the position of lead products in the sphere of funeral rituals of the Lusatian culture community, mainly the Upper Silesian-Lesser Poland group. Almost all the analysed artefacts can be classified as ornaments (e.g. rings, beads, pendants, buttons). More than 100 items are known, all of them originating exclusively from sepulchral sites. These are the cemeteries in Gliwice Łabędy-Przyszówka, Jankowice, Kokotów, Kwaczała, Mstów, Orzech, Piasek and Świbie. The site in Piaski, should be mentioned separately, because the cemetery was used by the Pomeranian culture community. Almost all categories of lead objects have their counterparts made of bronze or clay. Lead ornaments were found primarily in inhumation graves. Graves furnished with lead artefacts represent both the "poor" and "rich" categories. The finds from Jankowice and Piaski are exceptional, as the context indicates that the items were deposited as hoards. While discussing lead products, finds of objects made of silver are sometimes mentioned, but their connection with the metallurgy of the Lusatian culture community is mostly hypothetical. Lead objects are a peculiar phenomenon in the milieu of the Lusatian culture. The occurrence of lead ornaments has strict chronological (HaC-HaD) and territorial (Upper Silesia, western Lesser Poland) boundaries. Despite the relatively easy processing of lead and probably high availability of the raw material, ornaments made of this material did not gain popularity.

Key words: lead, burial ground, cemetery, Lusatian culture, Early Iron Age, Hallstatt period

INTRODUCTION

The first objects made of lead appeared in the circle of Mediterranean civilizations, in today's Turkey and Syria (Szydłowska 1964, 158; Popko *et al.* 2018, 33). Compared to the metal products of the Late Bronze Age and Early Iron Age communities in Central Europe, lead products are unique. Outside the territory of the Lusatian culture, lead products are known from France (Szydłowska 1964, 158). A large series of lead figures was found in the Frög barrows, dating back to the Hallstatt period (Tomedi 2002). Several items from the Bronze Age and the Early Iron Age are also known from Scandinavia (Johannsen 2016).

In this article I would like to discuss only the issues related to the position of lead products in the sphere of the funeral rituals of the Lusatian culture community. Technological issues, such as methods of obtaining ore, its processing, or methods of forming ornaments constitute a separate, broad issue, developed by E. Szydłowska (1988), C.W. Popko, and M. Szymaszkiewicz and D. Rozmus (2018), among others.

MATERIALS

Almost all the acquired items can be classified as ornaments or parts of clothes. At present, more than 100 artefacts are known. The finds are concentrated in an area inhabited by the community of the Upper Silesian-Lesser Poland group (mainly Częstochowa-Gliwice subgroup and partly Kraków subgroup). The finds come only from sepulchral sites (Fig. 1).

These are the cemeteries in Gliwice Łabędy-Przyszówka, Gliwice district (Dobrzańska-Szydłowska, Gedl 1962); Jankowice, Chrzanów district (IA 1974); Kokotów, Wieliczka district (Matoga 2015); Kwaczała, Chrzanów district (Durczewski 1948); Mstów, Częstochowa district (Szydłowska 1988); Orzech, district Tarnowskie Góry (Abłamowicz 1994); Piasek, district Lubliniec (Jażdżewski 1932) and Świbie, Gliwice district (Szydłowska 1988; Wojciechowska 1980; Wojciechowska 1986; Wojciechowska 1994). The site in Piaski, Piotrków Trybunalski district, should be mentioned separately, because the cemetery was used by the Pomeranian culture community (Gąsior 1976).

An unusual necklace, preserved in fragments, comes from grave 43 in Gliwice (Figs 3: 1–2). It is made of a lead band and is decorated with a grid pattern (Szydłowska, Gedl 1962, 49–51, photo 17). In Jankowice, a necklace consisting of 13 lead beads of oblong shape was found in grave 53 (Archaeological Guide 1974, 86), and a hoard of objects made of lead (binocular pendant, triangular pendant, 5 rings, 5 beads identical to those found in grave 53) (Fig. 3: 3–13) and bronze (2 rings) was discovered at the margins of the cemetery (Popko *et al.* 2018).

In Kokotów, in grave 29, six rings were found, including four fully preserved specimens. They were made of a lead bar which was coiled into 2–3 turns. The way the items were arranged in the grave deserves attention. Rings usually adorned the head: they are typically discovered next to the skulls or their marks if the skeleton has completely decayed. Here, however, four of them were most probably placed along the body (the bones have not survived), over a length

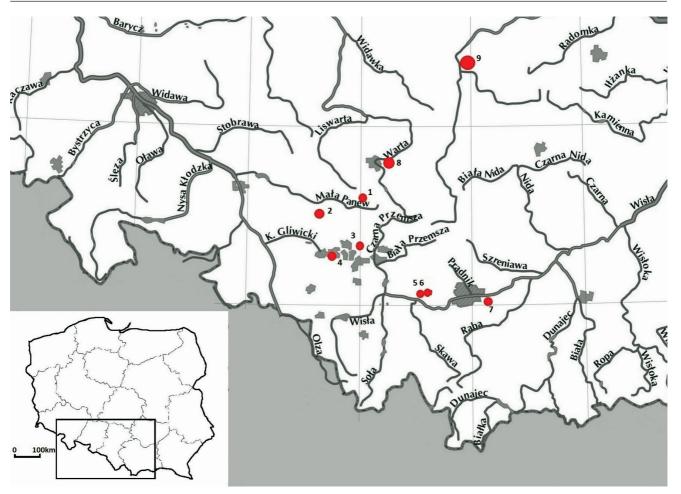


Fig. 1. Map of cemeteries: 1 – Piasek, Lubliniec district; 2 – Świbie, Gliwice district; 3 – Orzech, Tarnowskie Góry district; 4 – Gliwice Łabędy-Przyszówka; 5 – Jankowice, Chrzanów district; 6 – Kwaczała, Chrzanów district; 7 – Kokotów, Wieliczka district; 8 – Mstów, Częstochowa district; 9 – Piaski, Piotrków Trybunalski district.

of about 100 cm in the middle of the burial pit. The fifth ring was placed in a ceramic vessel (a ladle), and the last one next to the vessel (Matoga 2015, 221).

The objects from Kwaczała are a collection of artefacts that cannot be assigned to individual grave assemblages. They were discovered in the late 19th century, when no attention was paid to maintaining the integrity of the discovered burials. The collection from Kwaczała comprises 14 beads in the shape of a rectangular plate with a conical knob and holes for threading (Fig 4: 1–2), ten beads in the shape of a tube with transverse ribs, four rings (2 open-ended with perforated ends, 2 closed), an openwork plate made of seven rings merged together, a ball with a drilled hole, and a fragmentarily preserved ornament in the shape of a pointed knob with ribs (Durczewski 1948, 72, 86). In grave 3/82 from Mstów a small lead ball was found, with no traces of drilling (Szydłowska 1988, 46). In Piasek, in grave 60, cup-shaped buttons with an eyelet (7 items) were found (Fig. 3: 14) (Jażdżewski 1932, 82–83).

In Świbie, cup-shaped buttons were also found in graves 151, 270, 279 and 350 (Wojciechowska 1986, 156; Szydłowska 1988, 45–46). The shape of some buttons (from graves 270 and 350) is described in the publications as "flower cup/calyx" (Wojciechowska 1980, 170; 1986, 156), while in a paper by E. Szydłowska they are described as "buttons in the shape of a segment of a sphere with an eyelet on the flat

side" (1988, 46), although the paper provides no illustration that would allow the description to be verified. In grave 521, a poorly preserved flat ring with a cross inscribed in it was

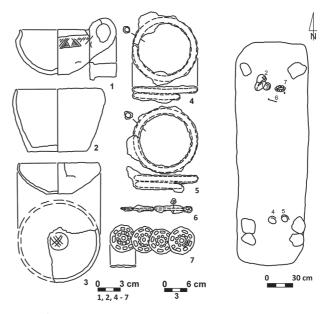


Fig. 2. Świbie, Gliwice district, grave 552 (plan). 1-3 – clay; 4, 5, 6 – iron; 8 – lead (after Wojciechowska 1994).

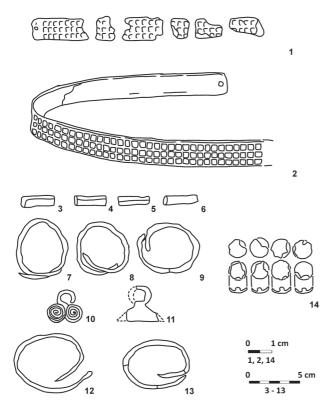


Fig. 3. Gliwice Łabędy-Przyszówka, grave 43: 1 – lead necklace, 2 – reconstruction of necklace (after Szydłowska 1988); Jankowice, Chrzanów district, a hoard: 3–13 – lead (after Popko *et al.* 2018); Piasek, Lubliniec district, grave 60: 14 – lead (after Jażdżewski 1932).

found (Wojciechowska 1992, 226, Fig. 4g). Most interesting, however, are artefacts from graves 552 and 554. These are flat ornaments composed of three concentric circles connected by eight bars (Fig. 2: 8). Fourteen such objects were found in grave 552, and another eight in grave 554 (Wojciechowska 1994, 289–290).

The hoard found in Piaski is comprised of 33 bronze buttons of various types (8 cup-shaped) (Fig. 5: 1–10), 28 openwork lead pendants – 22 circular with an inscribed cross, 6 composed of two concentric circles connected by 6 bars (Fig. 5: 11–38). It was found approx. 1 m south of grave 25. According to the author of the study, the in situ arrangement of the objects suggests that they might have been deposited in a bag, which has completely decayed (Gąsior 1976, 220). In addition, three distorted lead rings were found in grave 13, probably a secondary deposit, as the burial itself is associated with the Pomeranian culture (Gąsior 1976, 216).

Origin of the artefacts

The shape of the products mostly does not differ from the traditional shapes of bronze ornaments, so it can be assumed that most of them are local products rather than imports (Szydłowska 1988, 49).

Triangle-shaped pendants are quite a popular ornament in the milieu of the Upper Silesian-Lesser Poland group. They were found in the furnishings of graves, among others in Kokotów (Matoga 2015, Pl. 3g), Piasek (Reyman 1928, Fig. 37a-c), and Będzin-Łagisza (Galasińska-Hrebendowa 1989,

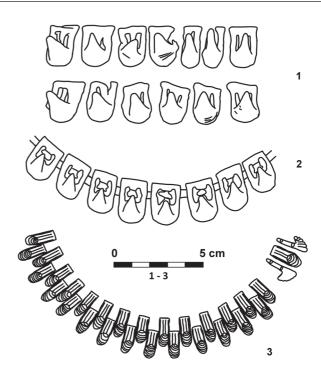


Fig. 4. Kwaczała, Chrzanów district: 1 – lead beads, 2 – reconstruction of necklace (after Szydłowska 1988); Będzin-Łagisza, grave 225: 3 – clay beads (after Galasińska-Hrebendowa 1989).

Pl. XXXVI p; XXXIX d). M. Gedl considered them distinctive for the Upper Silesian-Małopolska subgroup (Gedl 1962, 108). Binocular pendants, on the other hand, are a form occurring in various cultural *milieux* starting from the Eneolithic.

The beads from Kwaczała fit into a pattern of construction of unusual beads known from graves of the Upper Silesian-Lesser Poland community: graves 13b and 141 in Prokocim (now Kraków-Prokocim) (clay beads: one in grave 13b, 24 fully preserved and several damaged in grave 141) (Durczewski 1948, 138, 172), Skotniki (now Kraków-Skotniki) (2 bronze beads) (Durczewski 1948, 207), Żarki-Ziajki, district Chrzanów (24 clay beads) (Szymaszkiewicz 1998, Fig. XV), and grave 225 from Bedzin-Łagisza (28 clay beads) (Galasińska-Hrebendowa 1989, 92, Pl. LXXII a) (Fig. 4: 3). Despite the differences in appearance and the raw material used, a common concept can be seen in the construction of these items. Assuming the cemeteries in Prokocim can be dated after Z. Durczewski to the end of the Bronze Age (Ha B), clay and bronze objects should be considered prototypes for lead artefacts (Durczewski 1948, 126; Szydłowska 1988, 48).

Bronze cup-shaped buttons with a loop are a characteristic element of diadems, multi-element head ornaments particularly characteristic of the costume of the population of the Częstochowa-Gliwice and Kraków subgroups (Szydłowska 1963).

Rings with a cross and sometimes with a horizontal bar are quite popular. Bronze examples were found in the cemetery in Będzin-Łagisza (Galasińska-Hrebendowa 1989, Pl. XLIII d), in Opatów, district Kłobuck (12 pendants from grave 457) (Szczepanek *et al.*, 2004, 445–448) (Fig 5: 40–45), the cemetery in Częstochowa-Raków (grave no. 8) (Błaszczyk 1965, 40–44), grave 67 from Niechmirów, district Sieradz (Janiak 2002, 149, Pl. 74), and in a settlement site in Tyniec,

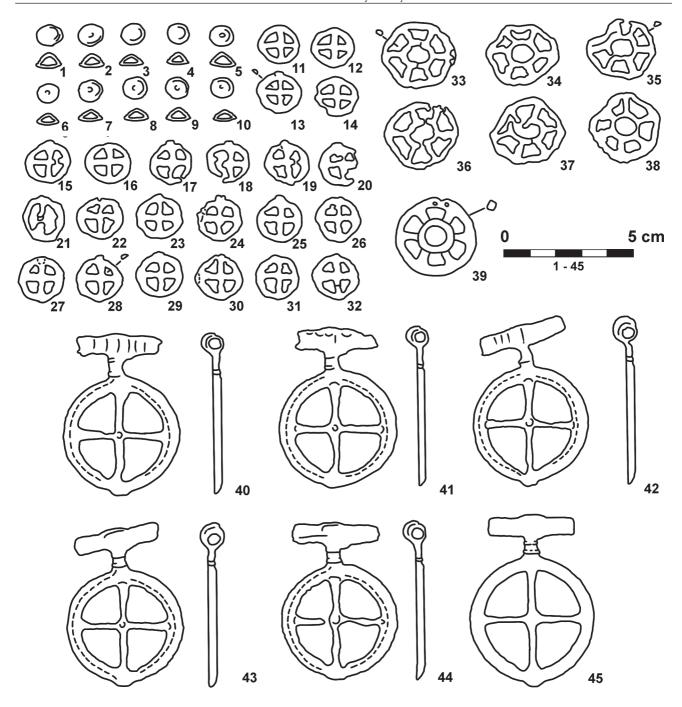


Fig. 5. Piaski, Piotrków Trybunalski district, hoard: 1–10 – bronze, 11–38 – lead (after Gąsior 1976); Grzybiany, Legnica district: 39 – bronze (after Sielicka 2014); Opatów, Kłobuck district, grave 457: 40–45 – bronze (after Szczepanek 2004).

district Kraków (Leńczyk 1956, Pl. XXV.2). A bronze disc consisting of two concentric circles connected by bars is known from the cemeteries in Facimiech, district Kraków (Durczewski 1948, 93) and Zbrojewsko, district Kłobuck (grave 1349) (Dzięgielewski, Bąk 2016, Fig. 18: 10). Such a disc was also found in a stronghold in Grzybiany, district Legnica (Sielicka 2014b, Pl. 1.3) (Fig. 5: 39). Interestingly, from the same site come clay seals resembling a circle with an inscribed cross (Stolarczyk 2014, Pl. 1: 2; 1: 3; 1: 7) and a fragmentarily preserved spoke wheel made of clay (Sielicka 2014a, Fig. 1). These types of motifs belong to the group

of solar motifs (Gediga 1979, 324–325). In this connection, we can also mention a vessel from the cemetery in Przeczyce, on the bottom of which there is a schematic representation somewhat reminiscent of contemporary children's visualizations of the sun (Szydłowska 1972, Fig. 11a).

The oblong, "ribbed" beads from Kwaczała and Jankowice resemble horizontal bars of the aforementioned ring pendants with a cross. The pendant from Kwaczała has no known counterparts or analogies made in bronze or any other material, although E. Szydłowska notices a similarity to a pendant from the cemetery in Ziemięcice, district Tarnowskie Góry (1988, 48).

Comparison of grave inventories containing lead ornaments

Apart from the necklace, two bronze rings and a necklace of glass and bronze beads were found in the grave from Gliwice, while the ceramic inventory consisted of a pot, a ladle, and a bowl (Dobrzańska-Szydłowska, Gedl 1962, 49-51). In Piasek, bronze rings were found, which, along with the buttons, were part of a diadem, as well as fragmentarily preserved bronze beads of the *salta leone* type. The accompanying vessels were a bowl and a fragment of an undefined vessel (Jażdżewski 1932, 82-83). Grave 53 from Jankowice was furnished with five vessels (a bowl, a ladle, a cup, a pot, a clay disc), and in addition to the necklace, three pendants and a bronze ring (most likely the clasp of the necklace) were found by the skull (Popko et al. 2018, 37). Grave 552 from Świbie contained an iron pin, two iron anklets and three ceramic vessels (a pot, a bowl, a ladle) (Wojciechowska 1994, 60) (Fig. 2: 1-6), while in grave 554 two circle pendants, a bronze necklace, two bronze bracelets, a pot, and a cup were found (Wojciechowska 1994). In terms of metal inventory, grave 350 from Świbie was the best-furnished burial. A full set of ornaments was found there, consisting – in addition to the diadem - of a necklace, a pin, two bracelets, and two anklets, but only one vessel (a cup) (Wojciechowska 1980, 172; Wojciechowska 1986, 169-170). Grave 521 was furnished with two pendants with binocular pendants, two bronze necklaces, an iron pin, two bracelets (iron and bronze), two iron anklets, and five vessels (a pot, 3 bowls, a ladle) (Wojciechowska 1992, Figs 4-5). Against this background, the inventory of the Kokotów grave is the most modest, where only one ladle was found (Matoga 2015).

The burials with lead ornaments do not stand out in terms of ceramic inventory, and the sets of vessels can even be described as very modest, although a relatively low number of vessels (compared to the graves of the Silesian group from the early Iron Age, especially the chamber graves) is a characteristic feature of grave furnishings in the Upper Silesian-Lesser Poland group. In other burials the number of vessels varies between one and five, very rarely exceeding ten. In grave 350, however, it is worth noting a painted vessel, undoubtedly an import (Michnik 2017, Fig. 4: 5). The burials containing lead objects contained no other atypical artefacts, like figural art or small clay objects (pendants/amulets).

Lead ornaments and the funeral rite

Lead objects were found almost exclusively in inhumation graves. The exceptions are the graves from Mstów (cremation burial) (Szydłowska 1988, 46) and Orzech (cremation burial "in shape of" inhumation burial) (Abłamowicz 1994, 34), but the items retrieved from them are not ornaments in the strictest sense. The ball from Mstów cannot be unambiguously classified as an ornament (no drilled hole or other elements suggesting attachment). Grave 12 from Orzech yielded a lump of galena (Abłamowicz 1994, 34). With the exception of Mstów, each of the mentioned cemeteries are biritual ones.

The absence of lead objects in cremation graves can be given two possible explanations - either there was no custom of furnishing the deceased "assigned" to the cremation ritual with lead items, or lead objects were placed on the pyre and, due to the low melting point of lead, have been completely destroyed (or, in inhumation graves, oxidised, as suggested by E. Szydłowska, 1964, 161, 163). In general, the treatment of metal objects in the Lusatian funeral rituals followed two patterns. Inhumation graves were furnished with unburned ornaments (the deceased was dressed in them), while in the case of cremation graves the ornaments were put on a pyre, where they were deformed or completely melted - for example, objects from grave 269 from Kokotów (Matoga 2015, Pl. 96e, l), or they were put unburned into the grave. There are situations where both burned and unburned ornaments were placed in one cremation grave - for example, grave 85 from Kokotów (Matoga 2015, 67-70).

Lead ornaments and the sex and age of the deceased

The absence of preserved bone remains does not allow for establishing the relationship between sex and the presence of lead ornaments. However, there are indirect premises. Assuming that diadems were more distinctive for women (Kowalczyk-Matys 2018, 39), just like glass beads (Purowski 2012, 421), it can be proposed with great caution that these were female burials. The grave from Gliwice was described as female (Dobrzańska-Szydłowska, Gedl 1962, 49–51). The person buried in grave 12 from Orzech was identified as a man aged *Maturus* (Abłamowicz 1994, 34). Thus, lead objects were hypothetically more often deposited in female graves, while the dimensions of the pits, often exceeding 2 m in length, indirectly indicate that they were primarily adults.

Lead - an "elite" raw material?

The degree of elitism of Hallstatt-circle communities was the rich furnishing of graves; the phenomenon of "princely graves" and broadly understood "elite" burials, distinguished by the furnishings and the construction of the burial pit (Gediga 2014, 18). E. Szydłowska (1964, 163) suggests that lead was a quite expensive raw material that only the richest could afford, pointing to rich sets of bronze ornaments accompanying lead objects. However, analysing the burial inventories in more detail shows that this is not the rule: see grave 29 from Kokotów. Apart from lead rings, only a ladle was found in the grave, which makes it almost "poor" in terms of the number of grave goods, compared to other burials from the same cemetery, and even more so when compared to the graves from Świbie. A. Matoga (2015, 221) believes the person buried in grave 29 in Kokotów held a special position and function in the social structure of the group using the cemetery, reflected by the unusual arrangement of the grave goods and the raw material itself. It is commonly assumed that the quantity and quality of grave goods is directly proportional to the social position of the deceased: the more goods and the higher their value (metal, glass products), the higher the social position. According to M.S. Przybyła (2014, 27), however, the situation may be more complicated: We must finally assume that costly signaling was not always and not everywhere necessary, and individuals having significant real influence did not have to manifest their position in this form, that is by means of funeral rituals".

The cemeteries in Świbie, Gliwice Łabędy-Przyszów-ka, and Kwaczała stand out against other early Iron Age cemeteries of the Upper Silesian-Lesser Poland group. Whereas analysis of burials from other cemeteries suggests egalitarian communities, with respect to these three cemeteries one can risk stating that they were the burial places for members of a newly emerging hierarchised community, analogical to the societies of the Hallstatt cultural circle (Gediga 2014, 18). Material links with the Hallstatt culture circle are artefacts such as harp fibulas, iron hatchets, and glass beads – imported items belonging to the category of luxury goods (Gedl 1991, 141; Michnik 2007).

This is a purely theoretical discussion, because we will probably never know what the status of lead was. Was it a marker of wealth/high social status or an inferior "substitute" for bronze products? Lead products have been found both in "poorer" cemeteries (for example Kokotów, Piasek) and the aforementioned "elite" ones.

Hoards

The deposition of lead objects as a hoard on the border of the burial space of a cemetery is an unusual behaviour. According to the authors of the studies, the analysis of the arrangement of the finds leaves no room for doubt: they are not remains of destroyed graves (Gasior 1976, 220; Popko et al. 2018, 37). Ceramic deposits of variously interpreted functions (from symbolic graves to sacrificial deposits) are known from cemeteries and have been widely discussed (Zyzman 2009), while metal hoards are quite rare in funeral contexts. This is even more striking in the case of Jankowice, because the site is situated in a region where deposits of metal objects are generally rare (Blajer 1994, 104-105, map 3-4). Both hoards are "bimetallic": apart from lead ornaments they contained small bronze items. The functions of the hoards can be very broadly interpreted. The hoards could be votive offerings, means of "costly signaling", or "war" deposits (valuable items hidden in an emergency). Considering that they included artefacts interpreted mainly as ornaments and pieces of clothing, it is most probable that they are also some kind of "symbolic graves". While the hoard from Jankowice is culturally consistent, the one from Piaski is not. The Piaski hoard contains objects undoubtedly associated with the Lusatian culture, but the cemetery was used by the Pomeranian culture community. Perhaps this is an accidental overlapping between the place of deposition of the hoard and the cemetery. A possibility cannot be ruled out that during the digging of the burial pits the hoard was discovered and possibly separated (which would explain the presence of lead objects in grave 13) and then buried again.

Silver products

When considering lead, the question of the potential use of silver should be raised. One silver artefact was found in a funeral context. It is a ring from cemetery II in Iwanowice-Klin, Kraków district. We cannot be sure that it belonged to a grave assemblage. According to the documentation prepared by L. Kozłowski, the ring was probably from grave no. 1 (Kozłowski 1917, 50), while in a later study by Z. Durczewski (1948, 28) this information is given as certain. In the biritual cemetery in Baczyn, Kraków district, in a layer at a depth of about 20 cm, a silver ball was found (Prokopowicz-Krauss 1963, 158). Given the place where it was found, the mentioned object cannot be indisputably associated with the metallurgy of the Lusatian culture. In Stradów, Kazimierza Wielka district, a fragment of an object was found. It was a twisted and slightly molted wire of a trangular cross-section. The detailed context of the finding from Stradów is unclear, so it remains so it remains uncertain whether or not it came from a grave (Błasiak 1994, 91). In addition, the site in Stradów was intensely occupied in the medieval period, so it cannot be ruled out that the object has a medieval provenance.

CONCLUSIONS

The occurrence of lead ornaments has strict chronological (Ha C-Ha D) and territorial (Upper Silesia, western Lesser Poland) boundaries. In fact, against the background of the entire Lusatian culture, it is an episodic phenomenon.

Despite the fact that lead is easy to process, ornaments made of this material did not become common. Perhaps it was due to their relatively heavy weight and rapid tarnishing. They were definitely not as visually attractive as bronze artefacts.

It is most likely we will never identify the people given lead ornaments as grave goods. The very phenomenon of lead extraction and processing raises more questions than answers, so it all the more deserves to be presented to the wider scientific community.

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