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# Bronze hoard from Jabłonka, Głubczyce District

**Abstract:** In the village of Jabłonka in Głubczyce District, Opolskie Province, a bronze hoard was discovered in May 2015. It was comprised of 10 objects: 4 armlets or ankle-rings made from a bronze band decorated with grooves, a small bracelet with a decoration of transversal grooves, 2 armlets or ankle-rings made from a bar (one oval-sectioned and decorated with groups of notches and one twisted), a bronze cup with a handle, a disc with a loop (phalera), and a socketed axe. Most of the artefacts have analogies in Silesia and neighbouring regions. The hoard can be associated with the Silesian group of the Lusatian culture and dated to phase HaA2. The reasons for its deposition remain unknown.

Keywords: Bronze Age, hoard, armlets, socketed axe, phalera, bronze vessel

#### 1. Introduction

Information about the discovery of a hoard reached the Provincial Heritage Protection Office (Wojewódzki Urząd Ochrony Zabytków) in Opole<sup>2</sup> on 22.05.2015, reported by Mr Kamil Ploszka, a resident of nearby Chróścielów. He made the discovery while walking his dog: the first object to catch his eye was a metal vessel at the edge of a cornfield. 14 m east of the vessel a metal bracelet was found sticking out from the ground. After it was recovered it proved to have another ring ornament, twisted, attached to it. Other objects were found on the ground surface within an area of approximately 20 m² (Wilczyńska 2015).

The place of discovery lies in the north-western part of Jabłonka village in the District of Głubczyce, Opolskie Province, close to the boundary with Gródczany village, next to where a dirt road from Gródczany to Jabłonka meets another dirt road running from the west at a right angle. The land slopes slightly to the south-east, towards the valley of a small watercourse, a right-bank tributary of the Ostra creek (Bednarek 2015a).

On 25.05.2015 the spot shown by the discoverer was surveyed by Anna Wilczyńska M.A. and Grzegorz Molenda M.A. from the Provincial Heritage Protection Office in Opole. *Near the area where the objects had been found, 24 m from the road and 15 m from* (...) *the crossing of* 

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<sup>&</sup>lt;sup>2</sup> I would like to thank Iwona Solisz M.A., head of the Provincial Heritage Protection Office in Opole, for granting me permission to investigate and publish the hoard. I would like to express particular gratitude to the archaeologists working in the Office: Krzysztof Spychała M.A. and Grzegorz Molenda M.A., for their kind, many-sided help.

dirt roads [they discovered] one more bracelet (ankle-ring?), with traces of damage probably from a plough<sup>3</sup>. No other artefacts were recorded. In total, the Provincial Heritage Protection Office in Opole received 10 bronze objects (Fig. 1–2): 4 open rings (armlets or ankle-rings<sup>4</sup>) made from bronze bands decorated with grooves (including one deformed and one deformed and partly damaged), a small open bracelet made from a band decorated with transversal grooves, 2 open rings (armlets or ankle-rings) made from a bar of oval section (one decorated with groups of notches and one twisted; attached one to another when found), a round plate with a loop, a handled cup, and a socketed axe with a loop (cf. Wilczyńska 2015).

On 10.06.2015 the location was searched with a metal detector. The search of the indicated spot and in its vicinity, over an area of several dozen ares, has produced no more finds (Bednarek 2015, 4).

The place of discovery was designated as site 6 at Jabłonka and given number 74 within Area 103–76 of the Polish Archaeological Record programme (Bednarek 2015a).

The artefacts were subjected to preservation and analysis of chemical composition<sup>5</sup>.

# 2. Description of the artefacts

# 2.1. Armlets from a band of C-shaped section (Nos. 1-4)

No. 1 (Fig. 3: 1): Outer diameter approx. 113×110 mm, maximum width approx. 28.5 mm, minimum width approx. 24.5 mm, maximum thickness approx. 4 mm. Weight: 184 g.

On the outer surface, the armlet is decorated with transversal grooves having a maximum width of approx. 3 mm and depth of approx. 1 mm (Fig. 4). The transversal grooves form 4 groups separated with 3 shorter panels filled with 5–6 longitudinal grooves. In each of these longitudinally decorated zones, 2 central ridges between the grooves are covered in diagonal notches forming a herringbone pattern. In two of the longitudinal zones the herringbone pattern points in the same direction, while in the third zone it points opposite. Similar notches, slightly diagonal, can also be seen on the broadest of the transversal grooves near the armlet's terminals. The number of diagonal notches varies (11–16) and the herringbone patterns do not form symmetrical, paired composition. The artefact bears no evident traces of damage.

No. 2 (Fig. 3: 2): Diameter approx. 114.5×110.5 mm, maximum width approx. 28.5 mm, minimum width in the abraded part approx. 26.5 mm, minimum width at the terminals approx. 26 mm, maximum thickness approx. 4 mm. Weight: 199 g.

The decoration is similar to that on the artefact presented above, the only difference being here all the herringbone patterns point in the same direction. The number of notches varies from 11 to 14. Along the edge of the ring (on the side not shown in the drawing) the inner surface is slightly abraded over the length of a dozen or so centimetres (Fig. 3: 2:a). In the most damaged place the edge of the band has been cut to a depth of approx. 2 mm (cf. Fig. 5).

<sup>&</sup>lt;sup>3</sup> The unbent one, designated as No. 3 (personal communication from Grzegorz Molenda).

<sup>&</sup>lt;sup>4</sup> Having diameters exceeding 110 mm, these ornaments are highly unlikely to have been worn on the forearm as bracelets *sensu stricto*. In Polish archaeological literature, such artefacts are typically referred to as armlets (*naramienniki*), although ring ornaments of that size and design might also have been worn on the lower leg. For the sake of simplicity, the artefacts in question, as well as the other 2 ring ornaments described below, will be called 'armlets' further in the text, keeping in mind the conventional nature of the term.

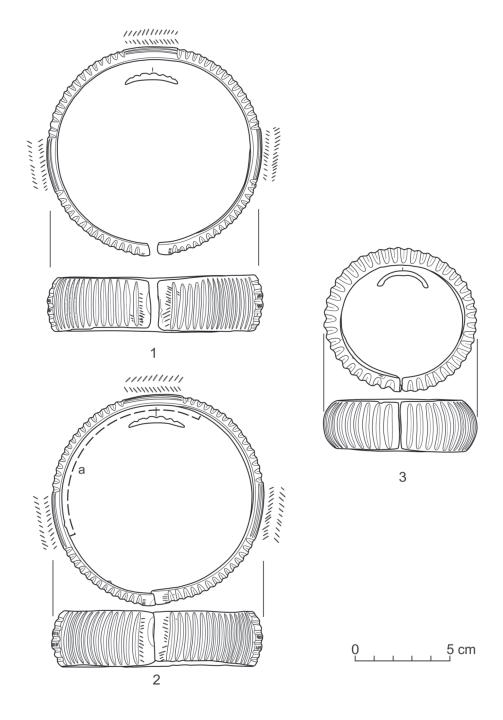
<sup>&</sup>lt;sup>5</sup> Cf. M. Biborski, in this volume.



Fig. 1. Jabłonka, Głubczyce District. Bronze hoard: armlets (ankle-rings?) and bracelet decorated with grooves (photo by U. Bąk)



**Fig. 2.** Jabłonka, Głubczyce District. Bronze hoard: armlet decorated with groups of notches, twisted armlet, disc, cup of the Friedrichsruhe type, socketed axe (photo by U. Bąk)



**Fig. 3.** Jabłonka, Głubczyce District. 1–2 – armlets (ankle-rings?) Nos. 1–2; 3 – bracelet decorated with grooves



Fig. 4. Jabłonka, Głubczyce District. Armlet (ankle-ring?) No. 1 (photo by U. Bak)

No. 3 (Fig. 6: 1): Heavy deformation of this artefact does not allow determination of its original diameter, and the current diameter is approx. 104×117.5 mm. The width ranges between 26.5–28.5 mm and is approx. 23 mm at the terminals, the maximum width being approx. 4 mm. Weight: 180 g.

The decoration resembles that seen on the two artefacts discussed above, and all the longitudinal herringbone groups point in the same direction. The number of notches in particular groups typically varies (10–14), being the same only in one case (13). Also in this case, the edge of the band is slightly cut over the length of several centimetres from the side invisible on the drawing (Fig. 6: 1:a). Although no traces of abrasion on the inner side can be seen, it nevertheless results in the band being narrower in that section by approx. 2 mm.

The artefact has been deformed. The distinct traces of flattening of the ring: one more evident and the other, less pronounced, stretching over the length of 6 grooves, point to contact with some hard objects (perhaps agricultural machinery).

No. 4 (Fig. 6: 2): Deformed and damaged artefact (one terminal has been torn or broken away). The present diameter is approx. 103×104–112 mm. Maximum width approx. 27.5–28.5 mm, minimum width at the terminals approx. 25 mm, maximum width approx. 4 mm. Weight: 162 g.

Once again, the decoration is similar to that of previous artefacts, although the longitudinal herringbone groups point twice in the same direction and in one case opposite, which makes this ornament more akin to the specimen described as No. 1. The notches in the herringbone groups of the central zone number 11 to 14, and the notches are partly effaced close to the terminals. A slight narrowing can be observed over a length of a few centimetres (from the side not shown in the drawing – Fig. 6: 2:a). In this part the band's width is decreased by approx. 1 mm, although there are no evident traces of abrasion or flattening.

The shape of the indentation suggests it may have been caused due to a pressure or a blow with a hard object (agricultural machinery?). Judging from the dimensions of the other artefacts it can be assumed that the armlet lacks its 50–55 mm-long terminal part, which means approximately 1/7 of the ring. Thus, the original weight of the artefact can be estimated at approx. 180–190 g.

In all the 4 artefacts, the decoration has been executed without much care, and in a few places the longitudinal grooves partly continue onto the adjacent transversal ridges. Similarly, the diagonal notches covering the wider ridges close to the terminals also overlap onto the nearest ridges. This details are informative about the order in which the ornamentation was executed.



Fig. 5. Jabłonka, Głubczyce District. Armlet (ankle-ring?) No. 2. Traces of wear on the lower edge of the ring

## 2.2. Bracelet from a band of C-shaped section (No. 5)

The object's diameter is 79×75.5 cm, with a maximum width of 27 mm and a minimum width (at the terminals) of approx. 24.5 mm, and the thickness is approx. 2 mm. Weight: 103 g.

Over its entire length, the bracelet is decorated with regularly spaced, carefully executed transversal or slightly diagonal grooves having a maximum width of 4–5 mm (43 grooves in total) (Fig. 3: 3).

#### 2.3. Armlet from a bar of oval section (No. 6)

The diameter is 118×109.5 mm, maximum thickness approx. 8.5×9 mm, minimum thickness (at the terminals) approx. 6.5×7 mm. Weight: 162 g.

The armlet is decorated with 8 groups of transversal or slightly diagonal notches. The ornamentation is very fine, incised (or cut) to a shallow depth, carefully executed, and does not overlap onto the inner side of the ring (Fig. 6: 3).

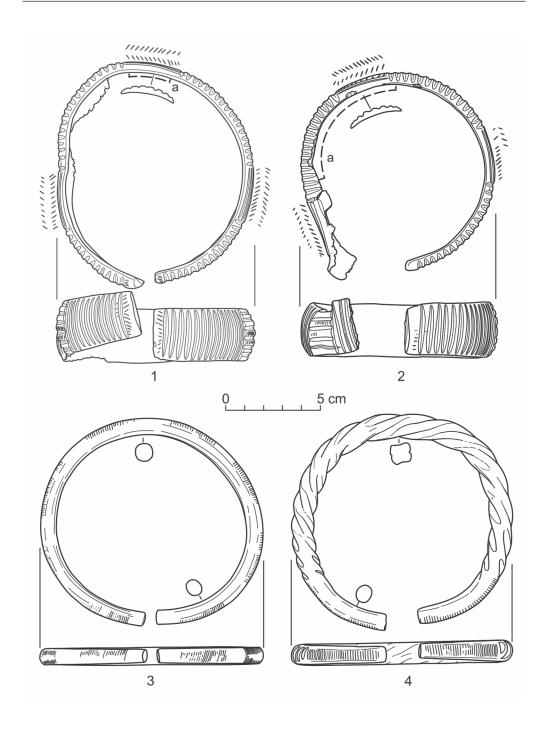
The artefact is worn, in places flattened on both lateral surfaces, in particular on the side presented in the drawing. In several places the decoration is also worn: in the place where the ring has its maximum bulge (where flattened places can also be seen); by one of the ends (on the left in the drawing); and, to a varying degree, on the lateral surface not presented in the drawing.

#### 2.4. Twisted armlet (No. 7)

Diameter approx. 116.5×113.5 mm, maximum thickness approx. 11×13 mm, minimum thickness – at the terminals, where the section becomes oval – approx. 7×8 mm. Weight: 235 g (Fig. 6: 4).

The decoration imitating the twisting had most likely been executed on a wax model prior to casting, as no traces of any mechanical twisting of the bar can be seen. The tapering terminals are covered with transversal notches, only on the outer (convex) side. The notches have been executed quite carefully and finely.

Both lateral surfaces are flattened, and this flattening is more pronounced on the lower side, not presented in the drawing.



**Fig. 6.** Jabłonka, Głubczyce District. 1–2 – armlets (ankle-rings?) Nos. 3–4; 3 – armlet decorated with groups of notches; 4 – twisted armlet

# 2.5. Cup (No. 8)

The rim diameter is 108×110 mm, the neck diameter approx. 96–97 mm, maximum body diameter approx. 107×106 mm, base diameter (measured between the outer edges of the larger of circular grooves) approx. 30 mm. The present maximum height is 54 mm. The thickness is up to approx. 1 mm. Handle width is approx. 19.5 mm, and it reaches a maximum of 22 mm near the upper rivet, and 25 mm near the lower one. The length of the strip forming the handle is approx. 15 mm and its thickness is approx. 0.6 mm. Weight of the vessel: approx. 95 g (Fig. 7).

The cup was made by hammering. Its bottom is slightly raised in the central part and surrounded with 2 concentric ribs embossed from outside to the inside of the vessel. The body is rounded, with a gently arching profile. Its basal part is decorated with 7 curved ribs embossed from the inside of the vessel, arranged in a composition resembling a seven-pointed star. The body is surrounded with 3 horizontal ribs embossed from the inside. The areas between these ribs are filled with elongated knobs (transversal to the ribs, i.e. vertical if the vessel is resting on its base), punched from inside. The area closer to the base features 116 knobs, and closer to the rim – 127 knobs (Fig. 8). The body terminates in a differentiated, cylindrical neck approx. 11 mm high, and the rim flares funnel-like.

The ribbon-like handle is made from a strip of sheet metal whose ends slightly flare (resembling a trapezium). It is attached with 2 rivets, and between the lower rivet and the inside of the vessel an additional piece of sheet metal resembling a rectangle with strongly rounded corners, 27×21 mm in size and approx. 1 mm thick, was inserted. The upper rivet is oval inside, while the outer head is less regular, and is now deformed due to a lump of corrosion adhering to it.

The handle is covered with a drawing of finely incised lines. Double parallel lines run along the longer edges, and the space between the outermost lines and the edges of the strip are filled with tiny diagonal notches. The central space between the double lines is filled with groups of three incised lines arranged one after another to form a continuous zigzag.

The vessel is well preserved. The bottom is slightly deformed (slightly indented to the inside), bears a fracture, and there is a small puncture in one of the arc-like ribs forming the star motif. A small puncture can also be noticed in the body at the edge of the middle of the three circumferential ribs. Inside the vessel, at the bottom and in the basal part of the body, one can see traces of corrosion. The handle is slightly deformed.

## 2.6. Disc (so-called phalera) (No. 9)

The diameter is 140–142 mm, thickness varies (typically 2–3 mm), height approx. 26 mm. Weight: 212 g.

The disc domes in the central part, and its highest point is marked by an additional small knob. On the bottom side, there is a loop in the middle, which was probably cast along with the disc (Fig. 9: 1). The edge of the disc is bordered by three circumferential ribs, each decorated with 7 groups of incised notches (7–18 notches in a group) arranged in such a manner that a group on one rib faces a plane space on the neighbouring ribs, thus giving the impression of a chequerboard pattern. The outermost rib is slightly narrower. The notches on the ribs are clearly marked and must have been made with bold strokes, although the strength of them sometimes varied, as evidenced by the differences in the depth and width of notches observable even within a single group. Some groups are more regular than others, although none of the strokes were completely missed or had to be repeated. Three of the groups decorating the outermost rib are considerably worn (on the right in the drawing – Fig. 9: 1:a).

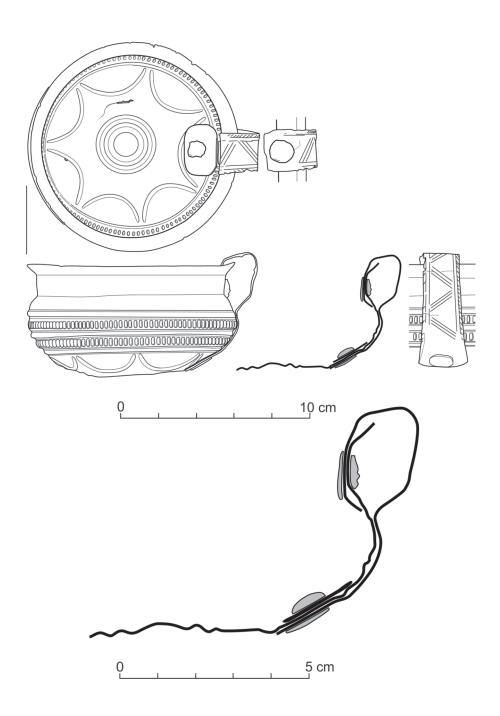


Fig. 7. Jabłonka, Głubczyce District. Cup of the Friedrichsruhe type



Fig. 8. Jabłonka, Głubczyce District. Cup of the Friedrichsruhe type (photo by U. Bąk)

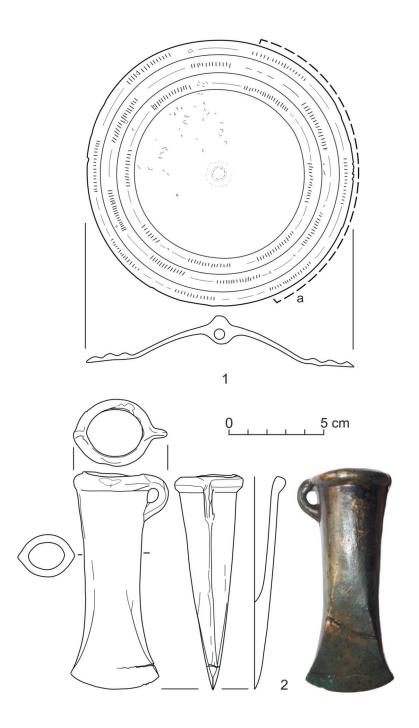


Fig. 9. Jabłonka, Głubczyce District. 1 – disc; 2 – socketed axe (photo by U. Bąk)

The colour of the patina on the disc (brown-green) is slightly different from that covering the other artefacts, although the analysis has not shown a different chemical composition<sup>6</sup>.

The disc bears traces of minor damage – a few insignificant indentations at the edge, as well as several splinters on the convex surface, less numerous on the concave side.

## 2.7. Socketed axe with a loop (No. 10)

The axe resembles a wedge in profile. It is approx. 114 mm long, the outer diameter of the socket is approx. 42×35.5 mm, and the blade width is 45.5 mm. The longer width of the socket beneath the circumferential ridge amounts to 38 mm, and in the narrowest part of the socket to 29 mm. Loop height is approx. 24 mm. Weight: 280g.

Casting seams can be noticed on the loop (where they were hammered flat) and in the upper part of the socket opposite the loop's base. In other places the casting seams have been hammered flat, which results in the narrower sides of the axe appearing slightly faceted. The cutting edge has been slightly differentiated due to forging and polishing (Fig. 9: 2).

The axe is fractured on one side of the blade, and the crack reaches the middle of the axe's width. On the opposite side, there is a shallow, diagonal scratch in that place.

## 3. Typology and chronology

#### 3.1. Armlets from bronze band

Armlets (ankle-rings?) made from a band and decorated with groups of deep grooves (Fig. 3:1–2, 6:1–2) belong to ornaments widespread in the western range of the Lusatian culture: in Silesia, southern and western Greater Poland, and in Lusatia (Fig. 10). Three basic variants can be distinguished with respect to the arrangement of the decoration: with grooves running transversally, diagonally, or parallel to the band (Blajer 1999, 71–72). The specimens from Jabłonka belong to the most numerous variant, decorated with alternate groups of longitudinal and transversal grooves. Taking into account the arrangement of notches forming the herringbone patterns on the central ridges separating longitudinal grooves, one can identify two pairs, consisting of artefacts nos. 1 and 4, and nos. 2 and 3.

Notches on longitudinal ridges, such as those featuring on the Jabłonka artefacts, are rare motifs. Examples with herringbone pattern are known from a hoard from Wilenko in Świebodzin District (Lücke 1997; Blajer 1999, 214, pl. 195:1–2,4–7). Diagonal notches – oriented all in the same direction instead of in a herringbone pattern, and with the ornamentation enriched by notches on some of the transversal ridges – were recorded on objects discovered in Ustronie, Lubin District (Seger 1936, 123, fig. 37; Blajer 1999, 211, pl. 186:1–2), and on finds from an unknown locality in Silesia (Blajer 1999, 222, pl. 222:3–4). Transversal notches can be found in the case of Droszków, Zielona Góra District (Seger 1936, 122–123, pl. XII; Blajer 1999, 161–162, pl. 38:1–2), and Raczyce, Ostrów Wielkopolski District (Kurnatowski 1966, 162–163, fig. 49; Blajer 1999, 194, pl. 143:1–2). Notches could not be identified on a badly damaged fragment from Krzydlina Mała, Wołów District (Blajer 1999, 173–174, pl. 68:18). However, all the artefacts mentioned above are made from a band of flat-convex section. The C-shaped section was recorded in the case of ornaments from Lubanice, Żary District, and from an unknown locality, most likely in Greater Poland

<sup>&</sup>lt;sup>6</sup> Cf. M. Biborski, in this volume.

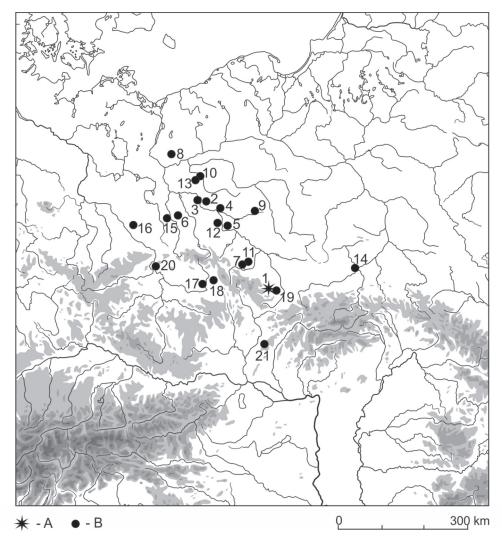


Fig. 10. The hoard from Jabłonka (A) and the finds being analogies for armlets and bracelet (B): 1 – Jabłonka, Głubczyce district; 2 – Buczków, Nowa Sól district; 3 – Droszków, Zielona Góra district; 4 – Górczyna, Wschowa district; 5 – Krzydlina Mała, Wołów district; 6 – Lubanice, Żary district; 7 – Maciejowice, Nysa district; 8 – Myślibórz; 9 – Raczyce, Ostrów Wielkopolski district; 10 – Siercz, Międzychód district; 11 – Siodłary (Białowieża), Nysa district; 12 – Ustronie, Lubin district; 13 – Wilenko, Świebodzin district; 14 – Witów, Proszowice district; 15 – Bad Muskau, Niederschlesischer Oberlausitzkreis; 16 – Spansberg, Kreis Riesa-Großenhain; 17 – Hradec Králové-Kukleny; 18 – Králova Lhota, Rychnov nad Knežnou district; 19 – Rohov, Opava district; 20 – Rýdeč, Ústí nad Labem district; 21 – Suchá Loz, Uherské Hradiště district

(Blajer 1999, 176, 223–224, pl. 78:1–4, 79:1, 224:6–7), as well as on smaller objects from the Myślibórz hoard in Myślibórz District (Blajer 1999, 187, pl. 115:1–4). All of them are decorated with alternate groups of opposite-facing grooves.

Although no artefacts identical to those from Jabłonka could be found, it seems justified to place the latter within a period corresponding to phases HaA1–HaA2 (Blajer 1999, 71–72).

#### 3.2. Bracelet from bronze band

Bracelets made from a band and decorated with deep transversal grooves are quite common finds, although it is difficult to show a precise analogy to the one from Jabłonka (Fig. 3: 3) which would share the same proportions between diameter and width (approx. 3:1).

Relevant here is a bracelet fragment from an unknown locality, probably in Greater Poland (Blajer 1999, 73, pl. 223:4). Similar pieces were found in hoard 1 from Bad Muskau, Niederschlesischer Oberlausitzkreis, dated to HaA1 (von Brunn 1968, 331–332, pl. 117:2–3). A fragment (about one half) of a similar ornament comes from Rýdeč, Ústí nad Labem District, Czechia, where it occurred in a hoard attributed to the Lažany-Suchdol phase, which corresponds to phases BrD–HaA1 (Kytlicová 2007, 175–176, 300–302, pl. 86:31).

## 3.3. Armlet from bronze bar decorated with groups of transversal notches

As this ornament is marked by a simple form and unsophisticated decoration (Fig. 6: 3), when looking for analogies more attention must be paid to its distinctive traits such as the form of the terminals, which are slightly tapering and ended flat, and the arrangement and execution of the decoration.

In the territory of Poland similar artefacts are known from hoards discovered at Buczków, Nowa Sól District (Seger 1906, 24, fig. 29; Blajer 1999, 155, pl. 16:7), and Siodłary (today Białowieża), Nysa District (Seger 1924, 69, fig 27; Blajer 1999, 201, pl. 163:1–4 – all heavily worn – flattened). Similar, but very thin, ornaments were also found in a hoard II discovered at Witów, Proszowice District (Marciniak 1967, PL 114:6,10; Blajer 1999, pl. 201:1–2). All the mentioned hoards date to HaA2 (Blajer 1999, 126, 128).

Among the finds known from Moravia and decorated with groups of transversal notches, a certain distant affinity with respect to the form of the terminals is shown by the smaller artefacts from a hoard discovered at Suchá Loz, Uherské Hradiště District, which is decorated with alternate smaller and larger groups of transversal notches. The hoard dates to the Mušov 2 horizon, which corresponds to phase HaA1 (Salaš 2005, 391–392, fig. 24, pl. 275:10). A similar decoration – with notches forming groups of varying size – could have featured on the damaged ornaments from a hoard known from Králova Lhota, Rychnov nad Knežnou District, which is dated to the Kosmonosy horizon (HaA1–HaA2) (Kytlicová 2007, 270, pl. 165A:1–2).

In general, the chronology within phases HaA1-HaA2 appears to be the most likely in this case.

#### 3.4. Twisted armlet

In this case, important attributes are the considerable weight and slightly tapering ends (Fig. 6: 4).

Analogical ornaments occurred in the mentioned hoard from Buczków (Seger 1906, 24, fig. 28; Blajer 1999, 155–156, pl. 15:1–11), and a slightly smaller example comes from a hoard from Górczyna, Wschowa District (Pfützenreiter 1933, 13, pl. 11:1; Blajer 1999, 164–165, pl. 43:2). Similar forms are also known from hoards from Maciejowice, Nysa District (Seger 1936, 131–132, fig. 52; Blajer 1999, pl. 86:5,7) and Siodłary (Białowieża) (Seger 1924, 69, fig. 30; Blajer 1999, 201, pl. 163:5–6,8–9). A thinner and more tightly twisted armlet was found in

hoard II at Witów (Marciniak 1967, PL 114:12; Blajer 1999, pl. 200:4). The Górczyna hoard dates to HaA1–HaA2, and the remaining ones to HaA2 (see above).

In Opava Silesia, somewhat similar artefacts (less massive, more tightly twisted, and with only insignificantly narrowing ends) can be found in a hoard from Rohov, Opava District, which is linked with the Lešany 2-Železné horizon corresponding to phase HaA2 (Salaš 2005, 404–405, fig. 24, pl. 302:14,16–18). Some similarity in terms of proportions is also shown by artefacts from a hoard discovered in Hradec Králove-Kukleny which dates to the Kosmonosy horizon (HaA1–HaA2), although in this case the terminals are decorated with groups of notches instead of being uninterruptedly covered with notches (Kytlicová 2007, 264, pl. 173:1–7).

However, twisted ornaments of this type continued to be used slightly longer, as at least one example occurred in a hoard from Siercz, Międzyrzecz District, which should be dated to HaB1 due to the occurrence of a spiral bracelet made from a band decorated with a zigzag motif (Blajer 2013, 16, 63, 67–68, 157–158, pl. 96:1).

Numerous twisted armlets known from Central Germany all have slightly flaring, sometimes even stamp-shaped terminals (von Brunn 1968, *passim*), and therefore cannot be regarded as good parallels for the armlet from Jabłonka.

### 3.5. Cup

Because of its rounded body and slightly concave bottom, as well as the slightly flaring neck ending in the everted rim, the cup from Jabłonka (Fig. 7–8) can be assigned to the Friedrichsruhe type once distinguished by Ernst Sprockhoff. The ribbon-like handle diverges from most typical designs in that its width varies and the upper end is not riveted to the neck from outside, but extends above the rim to the inside of the vessel. In his most recent analysis of bronze vessels from north-eastern Germany Jens Martin discusses a number of variants within that type, distinguished mostly based on the proportions or ornamentation (Martin 2009, 36–52, 161–165, appendix 1).

What is striking in the cup from Jabłonka is the ornamentation of its base. A seven-pointed star, although not single but tripled or quadrupled, can be seen on vessels from Dresden-Dobritz<sup>7</sup>, both of which have the handle attached from inside (Martin 2009, pl. 7:33, 9:39). The motif of a star, but having a different number of points, is known from grave 11 in barrow 2 at Osternienburg, Landkreis Anhalt-Bitterfeld, and from other vessels from Dresden-Dobritz (Martin 2009, pl. 8:35, 9:40–41, 10:42–43). Cups bearing such ornamentation were included in the Osternienburg-Dresden variant, and within the scope of this variant in sub-groups Osternienburg and Dresden-Dobritz, although it needs to be emphasised that the same attribution was proposed for other vessels as well, which differed in certain details and did not feature this characteristic ornamental motif (Martin 2009, 41–43, pl. 6:32, 7:34, 8:37–38, 11:45–47, 12:48). With respect to the chronology, J. Martin followed Wilhelm Albert von Brunn and dated the two mentioned assemblages to phase HaA2 (2009, 46).

A motif of a seven-pointed star formed by quadrupled curved ribs (embossed from the inside of the vessel) can also be seen on a cup of a somehow akin form, formerly classed as a separate variant of the Friedrichsruhe type, which was discovered in an urn grave at Viernheim, Kreis Bergstrasse in southern Hesse, dated to the younger phase of the Hanau stage, i.e. to HaA2 (Jacob 1995, 18–21, pl. 2:5, 96; Soroceanu 2008, pl. E). J. Martin included this find in the Dresden-Dobritz sub-group (2009, p. 163–164).

<sup>&</sup>lt;sup>7</sup> The assemblage was previously published as Dresden-Laubegast, hoard 5 (von Brunn 1968, 316–316, pl. 52–57).

A review of archaeological literature suggests that the circumferential ribs on the body of the Jabłonka cup are a rare design in Central Europe and finds only one, partial, analogy in a cup from Königswartha, Landkreis Bautzen, representing the Dresden-Dobritz sub-group and allegedly discovered in a barrow (Martin 2009, 43, pl. 11:46).

On the other hand, the decoration in the form of 1–4 ribs clustered in the basal part of the body often occurs on cups of the Jenišovice type dated to HaB1 and known from Czechia (Kytlicová 1991, 45–46, tab. 1, pl. 2:11–14, 3:15–20, 4:21), Austria (Prüssing 1991, 25–26, pl. 2:13–15A), Slovakia (Novotná 1991, 27, 32, pl. 3:26, 4:27, 29, 5:31–32) and Poland (Gedl 2001, 19, pl. 4:8–9, 5:11, 6:14,16), and on vessels from Moravia assigned to the Jenišovice-Kirkendrup type (Nekvasil, Podborský 1991, 4–6, pl. 1:7–8, 2:11,14, 3:15–16,20–22). However, such ornamentation cannot be regarded as an analogy for the decoration of the cup from Jabłonka.

Unlike in the majority of known examples, the knobs on the body of the Jabłonka cup are elongated (vertical), not round. From a search through the available literature it emerges that no such decoration is known from Poland (Gedl 2001), Hungary (Patay 1990) or Romania (Soroceanu 2008).

A combination of 2 circumferential ribs with 3 circumferential bands of elongated (vertical) knobs was recorded – in partly alternate arrangement – on the body of a cup recovered from a cremation burial at Očkov, Trenčín District. The cup is regarded as a separate variant and dated to BrD (Novotná 1991, 19–21, pl. 2:8). Another feature it shares with the cup from Jabłonka is the way the handle is attached (the upper part bent to the inside of the vessel, rivets, and additional pads).

Furthermore, fragments of a cup bearing similar motifs – circumferential ribs and bands of elongated knobs, although this time not in alternate arrangement but in separate zones – were discovered in barrow C1 at Milavče, Domažlice District, confidently dated to the early Urnfields based on, among other objects, a sword of the Riegsee type and a knife classed as the Baierdorf type (Kytlicová 1991, 62, 64, pl. 6:35).

A row of similar but distinctly longer knobs accompanying a circumferential rib was recorded on a cup representing the Dresden-Dobritz sub-group and discovered in the eponymous hoard (Martin 2009, pl. 11:46).

Groups of elongated knobs in various arrangements can also be found on a bronze bowl from Haltingen, Kreis Lörrach in Baden, on gold beakers from Unterglauheim, Kreis Dillingen a.d. Donau in Swabia, on gold bowls from barrow 41 at Gönnebeck, Kreis Segeberg, and on those from the hoard discovered at Depenau, Kreis Plön, in Schleswig-Holstein. Cremation burials from Haltingen originate from the early phase of the Urnfields, and the same applies to the bowl from Unterglauheim, although in this case the accompanying bronze vessels suggest the deposition took place in the younger phase of the Urnfields. The accompanying artefacts allow the bowls from Gönnebeck to be dated to the transition between Bronze Age Periods II and III, while a gold bracelet occurring in Depenau hints at Bronze Age Period IV (Jacob 1995, 124–126, pl. 18:137, 77:408–409,411, 78:414). Thus, these typologically and geographically distant finds occupy a chronological position similar to the analogies from Slovakia, Czechia, and Saxony quoted above.

A few words need to be said about the handle decoration, as well. A similar but single zigzag features on the handle of a cup having a 'high protruding handle' (*Tasse mit hochgezogenem Henkel*) from a hoard from Tamási, Tolna County dated to BrD–HaA1 (Patay 1999, 55, pl. 39:82). In turn, a zigzag composed of 3–7 lines is present on the handle of a Jenišovice-type cup from a hoard from Somotor, Trebišov District, dated to HaB1 (Novotná 1991, pl. 5:32). A very distant analogy can be found in the zigzag arrangement of triple lines on the handle of a cup with a 'high protruding handle' discovered at Wielenbach, Kreis Weilheim-Schongau in southern Bavaria, dated very late, i.e. to HaD1 (Jacob 1995, 40, pl. 9:49). A similar decoration

of the handle edges – with diagonal notches – was recorded on the cup from Očkov mentioned above (Novotná 1991, pl. 2:8).

The review of the comparative material suggests that the cup from Jabłonka should possibly be attributed to variant Osternienburg, sub-group Dresden-Dobritz, and dated to a period corresponding to phase HaA2, although the decoration on the body reveals certain more archaic features, connected more with phases BrD–HaA1. This would be the first find of the Friedrichsruhe type in Poland.

#### 3.6. Disc

Examples of a similar design (Fig. 9: 1) but without the decoration in the form of notches on the ridges occur in the upper Tisa River basin in hoards dated to a timespan corresponding to phases BrD–HaA1 (Blajer 1987, 119–120 – with older literature quoted therein, map 2:e). More recent studies have confirmed the dating of the examples known from Transcarpathian Ukraine to the Lazy I series, which means to phase HaA1 (Kobal' 2000, 84–85, 97–98, fig. 1). Analogies from Poland include two artefacts (diameter approx. 136–143 mm, weight of the extant one approx. 230 g) from a hoard at Mackówka, Przeworsk District, dated to HaA1 (Blajer 1987, 129, fig. 8:c, 9:d; 1999, 124, 179–180, pl. 87:7–8). In Opava Silesia a similar but smaller disc (diameter: 106 mm), decorated with no less than 7 ribs, was found in a hoard from Opava-Kateřinky dated to the Mankovice horizon, which corresponds to phase BrD2 (Salaš 2005, 372–373, fig. 24, pl. 238A:123).

The only precise analogy to the Jabłonka disc, bearing identical ornamentation although with 9 instead of 7 groups of notches, is a disc from hoard II from Witów (Marciniak 1967, PL 115:1; Blajer 1999, 216, pl. 202:2). This hoard contained two other discs as well – one of atypical form and unclear chronology and the other with analogies in the Bronze Age Period V (possibly IV–V) (Blajer 1999, 98–100, pl. 202:1,3). The assemblage from Witów can most likely be dated to phase HaA2 (Blajer 1999, 98–100, 125–126) or later (Marciniak 1967, PL 115). The disc from Witów has a similar diameter (approx. 140 mm) but is slightly heavier (approx. 242.5 g) than the one from Jabłonka.

#### 3.7. Axe

The characteristic feature of the undecorated axe from Jablonka is its wedge-like profile. Moreover, the edges between the wider and narrower sides are not clearly emphasised, which gives the socket a lens-like section not only at the mouth but also at mid-length (Fig. 9: 2), and only the blade, transformed due to forging, has a nearly hexagonal section.

No precise analogy for this artefact could be found. A similar shape but with a different – square or hexagonal – section in the middle of the socket length can be seen in the case of an axe from Kamień, Wrocław District, and those from Miejsce, Namysłów District (Kuśnierz 1998, pl. 5:80, 6:84–89). A very similar specimen originating from an unknown locality, probably in Silesia, having narrowly more pronounced edges between the wider and narrower sides and a slightly arching mouth, was recently published by Radosław Jarysz (2015).

In his study concerning the Moravian finds, Jiří Říhovský included analogical axes in group VI. The most similar among the published finds seem to be axes representing type 1 discovered at Krumšin, Prostějov District, and in an unknown locality, and a single find of type 2 axe from Rymice, Kroměříž District, although they all are more or less hexagonal in section (Říhovský 1992, 196–197, pl. 46:691,693, 47:698). From the chronological analysis

presented by Říhovský it transpires that if type 1 can be dated to BrD–HaA1, there are no sufficient grounds for determining the chronology of type 2, as all the examples were stray finds (Říhovský 1992, p. 198–199). The late chronological position of the axe from Krumšin was confirmed by Milan Salaš, who included this hoard in the Křenůvky type, corresponding broadly to phase HaB1 (2005, 435–436, fig. 24, pl. 378:B:2). It is worth mentioning that the axe from Krumšin was described by E. Sprockhoff as a 'simple' (or 'plain') socketed axe (*schlichtes Tüllenbeil*) (Sprockhoff 1953, 98).

According to Jerzy Kuśnierz, the specimens from Kamień and Miejsce belong to the earliest group of 'Lusatian' axes, which he described as the Kowalewko type. The undecorated variant A is distinguished exactly by the wedge-like outline of the narrower sides and can be dated as early as phase HaB1, or the second half of Bronze Age Period IV. J. Kuśnierz included 28 axes in this variant (Kuśnierz 1998, 26–28, 30, pl. 5:75–83, 6:84–97, 7:98–102)<sup>8</sup>.

However, linking the undecorated axes having a wedge-like profile with the earliest Lusatian 'large' axes goes against the views of E. Sprockhoff (1953, 77, 80). It is worth noting here that even though most of the finds mentioned by J. Kuśnierz had already been known in the interwar period, E. Sprockhoff included in 'older Lusatian axes' only those from Parszowice, Lubin District, Witowice, Strzelin District, and Wrocław-Osobowice (1953, 95, 127–129).

Only one of all the axes published by J. Kuśnierz has the lens-like section of the socket confirmed. This is the axe from Wrocław-Osobowice, retrieved from the Oder River (Kuśnierz 1998, 27–28, pl. 7:98). The remaining artefacts – as far as can be deduced from their drawings – had distinct edges between the broader and narrower sides, which gave them a square or hexagonal shape in cross-section, although this shape may to some extent stem from the re-forging.

Nearly all the examples of 'variant A' recovered from datable contexts should be linked with phase HaB1, or even HaB2–HaB3, or Bronze Age Period V. The only possible exception is the axe discovered in a grave at Parszowice (Kuśnierz 1998, 27, pl. 6:93), which was discovered together with a razor of the Parszowice type, a pin with a biconical head and a shaft decorated in the upper part, 2 spearheads, and 25 clay vessels (Gedl 1981, 20–21, pl. 26D:1–11, 27:1–19). The schematic bossed ornamentation on pottery (Gedl 1981, pl. 26D:2, 27:2,8–9), and the biconical profile of some vases in particular (Gedl 1981, pl. 26D:4, 27:16), allow us to accept the early position of this grave within Bronze Age Period IV, corresponding to phase HaA2. The same chronological position was apparently suggested by the author for razors of the Parszowice type, which he placed on the chronological table in the older section of Period IV (Gedl 1981, pl. 39).

In light of the above, one should take into account that undecorated socketed axes of wedge-like profile, which J. Kuśnierz described as 'variant A of the Kowalewko type', could have appeared as early as phase HaA2 – in variants marked by a lens-like (Jabłonka) or polygonal (Parszowice) section.

The wedge-like profile and the absence of ornamentation speak against including undecorated axes of this kind in the 'Lusatian' Kowalewko type and suggest they should be possibly distinguished as a separate type, dated within HaA2–HaB1 or possibly even longer. Apart from the mentioned examples from Jabłonka, Kamień, Miejsce, an unknown locality in Silesia, and Krumšin, and perhaps some other axes from Poland included by J. Kuśnierz in the Kowalewko type variant A (e.g. Kraków-Salwator; Mochów, Prudnik District; Oleszna, Dzierżoniów District; Wrocław-Osobowice – Kuśnierz 1998, 27, pl. 5: 81, 6:90,92, 7:98), one should certainly

<sup>&</sup>lt;sup>8</sup> The axe from Miejsce (Kuśnierz 1998, pl. 5:83) should not be included as being decorated with grooves. Furthermore, the axe from Siercz had a groove in the middle of the longer side (Kossinna 1917, fig. 45; Kuśnierz 1998, pl. 6:96), so it can hardly be included in the undecorated variant A.

also include in this new type the axe from the second part of the Pławowice hoard in Proszowice District (Blajer 2013, 34, 145, pl. 48:1) and one of the two axes found together in Mniszów-Kolonia, Proszowice District. The second axe from this unpublished find<sup>9</sup>, with an arching mouth, has indirect analogies in hoards dated to HaA1 known from Chruszczyna Mała, Kazimierza Wielka District, Maćkówka, Przeworsk District, and hoard I from Witów, Proszowice District (Blajer 1999, 28, pl. 17:3, 87;2, 199:5). Thus, axes of the new type would be characteristic of the Silesian group of the Lusatian culture (Fig. 11:C).

At the present stage of research, it is difficult to determine whether the inspiration for the development of this new type could have come from beyond the Carpathians. Somewhat similar axes were found in hoards from Birján, Baranya County (without a loop?), Miskolc (sturdy axe of lens-like section), and Tállya (with a socket of circular section), both Borsod-Abaúj-Zemplén County, dated to the Kurd horizon, which means approximately HaA1 (Mozsolics 1985, 98–99, 150, 200–201, pl. 69:8, 226A:1, 159:3), as well as those found at Debrecen, Szabolcs-Szatmár-Bereg County, in hoard III (with a socket of probably square section), dated to the Gyermely horizon, which means approximately HaA2 (Mozsolics 1985, 111–112, pl. 264:10,13).

## 3.8. Recapitulation

The chronological analysis points to the following dating of the particular artefact types: the small bracelet: HaA1; the 'band' armlets: HaA1–HaA2; the armlet decorated with notches and the twisted armlet: HaA1–HaA2 (the latter more likely); the disc: probably HaA2; the cup: probably HaA2, the axe: HaA2–HaB1. Thus, the hoard should most likely be dated to a period corresponding to phase HaA2, or in other words the first half of Bronze Age Period IV (approximately the first half of the 11<sup>th</sup> century BC).

The distance of several metres between the objects discovered on the ploughed field does not exclude the possibility that they originally were deposited close to each other, or even in the same place. A good example of such a situation is a find from Reupelsdorf, Landkreis Kitzingen in Lower Franken, where more than 50 bronze artefacts or their fragments, including over 20 axes (palstaves) with upper wings and a loop known as the Homburg type, were found 'scattered over an area of many square metres due to ploughing' (durch Pflügen über eine Fläche von mehreren Quadratmetern verstreut) (Pászthory, Mayer 1998, 139–140). The chronological position of the artefacts from Jabłonka emerging from the above remarks can be seen as an argument in favour of the artefacts having originally been one assemblage.

#### 4. Discussion and conclusions

# 4.1. The hoard from Jablonka against the background of local settlement

The place where the hoard was discovered lies relatively far from the known settlement sites linked with phase II of the Lusatian culture development: approx. 2.5 km to the south of a site (without a number) at Niekazanice and approx. 3 km to the south of Nasiedle, site 11, which were both included by Łukasz Mrówka to the Chróścielów-Nasiedle settlement micro-region (Mrówka 2014, 155, 154, appendix 16a). This picture corresponds well with the findings of

<sup>&</sup>lt;sup>9</sup> I would like to kindly thank Dr Krzysztof Tunia from the Institute of Archaeology and Ethnology of the Polish Academy of Sciences in Kraków for the information about the axes from Mniszów-Kolonia sent in emails dated 27.02.2013, 03.10.2016 and 04.10.2016.

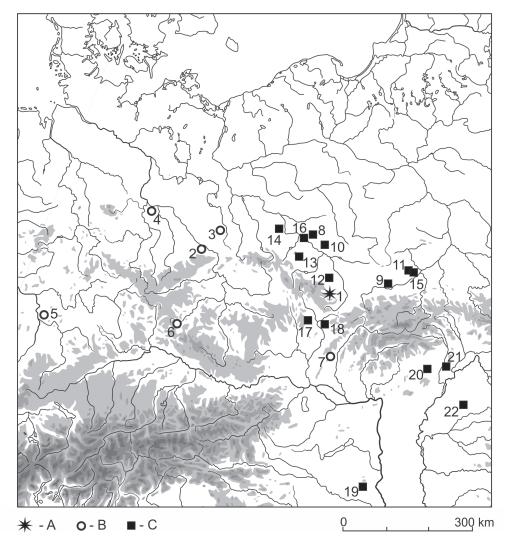


Fig. 11. The hoard from Jabłonka (A) and the finds being analogies for Friedrichsruhe-type cup (B) and socketed axe (C): 1 – Jabłonka, Głubczyce District. B – bronze cups decorated with similar motifs: 2 – Dresden-Dobritz; 3 – Königswartha, Landkreis Bautzen; 4 – Osternienburg, Landkreis Anhalt-Bitterfeld; 5 – Viernheim, Kreis Bergstrasse; 6 – Milavče, Domažlice District; 7 – Očkov, Trenčín District. C – socketed axes: 8 – Kamień, Wrocław District; 9 – Kraków-Salwator; 10 – Miejsce, Namysłów District; 11 – Mniszew-Kolonia, Proszowice District; 12 – Mochów, Prudnik District; 13 – Oleszna, Dzierżoniów District; 14 – Parszowice, Lubin District; 15 – Pławowice, Proszowice District; 16 – Wrocław-Osobowice; 17 – Krumšin, Prostějov District; 18 – Rynice, Kroměříž District; 19 – Birján, Baranya District; 20 – Miskolc, Borsod-Abaúj-Zemplén District; 21 – Tállya, Borsod-Abaúj-Zemplén District; 22 – Debrecen, Szabolcs-Szatmár-Bereg District

Marcin Maciejewski formulated on the basis of his analysis of places of discovery of selected Bronze and Early Iron Age deposits in Greater Poland and Pomerania. His analysis proves that a considerable part of the hoards have been discovered in areas remote from settlement clusters, which allows interpreting them as connected with the rituals associated with the organisation

of the space (Maciejewski 2016). One could add here that in the Głubczyce sub-group a hoard from Racibórz-Sudół dated to HaB1 was also discovered at a certain distance from the known settlements (Blajer 2013, 95).

The composition of the assemblage, the manner in which the artefacts were executed, as well as the place and circumstances of the discovery do not provide grounds for a functional interpretation of the hoard or for discussion of the reasons behind its deposition.

## 5. The hoard from Jablonka in light of inter-regional connections

The find from Jabłonka fits well into the current picture of hoards from the southern zone of the Lusatian culture (Blajer 1999; 2013). By the presence of the broad armlets decorated with grooves and the fluted bracelet it refers to a group of deposits known from Lower Silesia and Lusatia and distinguished by a specific set of ornaments called the 'Droszków set' (von Brunn 1968, 210, fig. 14:5; Blajer 1996, 95; 1999, 126–127), being the southernmost assemblage of this type. On the other hand, by the occurrence of the armlet decorated with groups of notches and the twisted armlet, which both show affinity with the Czech 'Kosmonosy set' (Kytlicová 1976; Blajer 1994; 1999, 125–126), and of the decorated disc, the hoard form Jabłonka links with the assemblages from eastern Czechia, northern Moravia, and western Lesser Poland. Finally, the cup of the Friedrichsruhe type suggests connections with Lusatia and Saxony, and possibly Czechia and western Slovakia as well.

# 6. The importance of the Jablonka hoard for studies on the Bronze Age in south-western Poland

The armlets typical of the "Kosmonosy set" and the decorative disc confirm the role of the Głubczyce Plateau in west-east contacts. On the other hand, the grooved ornaments characteristic of the "Droszków set" and the cup of the Friedrichsruhe type are new elements in this territory. These two artefact categories confirm connections with the territories to the north-east. In addition, the cup allows the hoard to be precisely dated to phase HaA2. The socketed axe, akin to early Lusatian axes but with a wedge-like profile, contributes to the discussion on the validity of the currently used definition of variant A of the Kowalewko type, and is one more argument for distinguishing a separate type of such tools.

#### Skarb brązowy z Jabłonki, pow. głubczycki

W wiosce Jabłonka, gm. Branice, pow. głubczycki, woj. opolskie, w maju 2015 roku odkryty został skarb brązowy. W jego skład wchodziło 10 przedmiotów: 4 naramienniki lub nagolenniki z masywnej taśmy dekorowane poprzecznymi i podłużnymi żłobkami, mała bransoleta z masywnej taśmy zdobiona poprzecznymi żłobkami, 2 naramienniki lub nagolenniki z pręta (1 okaz o owalnym przekroju zdobiony grupami poprzecznych nacięć i 1 okaz tordowany), brązowa repusowana czarka z uszkiem typu Friedrichsruhe zdobiona żeberkami i guzkami z motywem gwiazdy na dnie, kolista tarczka z uszkiem (tzw. falera) oraz niezdobiona siekierka z tulejką o klinowatym profilu i z uszkiem. Większość zabytków ma analogie na obszarze Śląska i sąsiednich regionów. Skarb można łączyć z grupą śląską kultury łużyckiej i datować na fazę HaA2. Przyczyny zdeponowania skarbu odkrytego w odległości 2,5–3 km od innych znanych stanowisk kultury łużyckiej z tego czasu pozostają nieznane.

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