THE BRONZE AGE IN EASTERN EUROPE

Multidisciplinary approaches

Edited by

VASILE DIACONU
ALEXANDRU GAFINCU

BRĂILA – PIATRA-NEAMȚ | 2023

Volume dedicated to PhD Carol Kacsó, on the occasion of his 80th birthday, for the contributions made to Bronze Age research and for the wonderful collaboration with the Neamț National Museum Complex

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CONTENT

NEW FINDS OF BRONZE AGE METAL ARTEFACTS FROM THE NORTHERN PART OF BUKOVINA

Mykola Ilkiv[*]**,**
Mykola Bodnariuk[**]

Keywords: *Carpathian region, Bukovina, shaft-hole axes, beaked socketed axe, bracelets, typology.*

Abstract

The publication introduces new finds of Bronze Age metal products from the northern part of Bukovina (Chernivtsi region, Ukraine). A description of paleometal products is provided. A definition of the type of each thing is proposed on the basis of analogies. The shaft-hole axe from Hrozyntsi belongs to the Fajsz type and is dated to the end of the Eneolithic – the Early Bronze Age. The shaft tube smoothly separated from the blade serves as a defining feature. The shaft-hole axe from Diakivtsi has a separated socket and a narrower blade. It belongs to the Kozarac type (the Early and Middle Bronze Age). There is insufficient data to map the axes to specific local cultures or groups. Three more bronze finds are related to the Gáva-Holihrady culture. The beaked socketed axe from Ternavka is characteristic for the Hungarian-Transylvanian types with a wide chronological range of use – HaA – HaB1. Two bracelets from Kamianka are dated within the time limits of this period, but most of the analogies relate to the period HaA1.

Bukovina is a historical-ethnographic region between the Eastern Carpathians and the middle course of the Dniester. It was formed in the Late Middle Ages and, especially, in modern times. Today, these lands are part of the Chernivtsi region of Ukraine (northern part) and the Suceava County of Romania (southern part). However, the specificity of the historical and cultural development of the region began to form and manifest much earlier. Geographical factors also played an important role in this regard. A significant variety of natural conditions in the limited territory of the region allowed both sedentary farmers and mobile pastoral tribes to lead a traditional lifestyle, to engage in many trades and crafts. Convenient mountain passes, the presence of salt springs and flint deposits contributed to

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this. A particularly important factor was the fact that in the northern part of Bukovina, the channels of the big rivers come as close as possible to each other: Dniester, Prut and Siret. These rivers with some tributaries and watersheds between them served, among other things, as the main communication routes. Thanks to the mapping of items of imported origin and of hoards of metal products, we assume that these communication routes began to function no later than the Bronze Age. Obviously, this can also be considered as one of the eastern branches of the Amber Road (Ilkiv 2012, 333, 341). The location of fortified hillforts mirrors subsequently the same trend.

From the end of the 19th century metal products and hoards of the Bronze Age were occurred in the region as isolated finds. It is natural that the number of finds in recent decades exceeded all previous ones. Only a small percentage of artefacts there is information on the circumstances and context of their finding, which limits their potential as historical sources. Among the many paleometal products recorded in the last ca. 30 years, half a dozen items that have not yet been the subject of research studies are offered for consideration.

Catalog of finds

Hrozyntsi (Toporivtsi village territorial community, Chernivtsi district – formerly Khotyn district). The shaft-hole axe was found in the forest north of the village (Fig. 1/1). The product, displaying irregularities on its surface, is characterized by a massive blade. The shaft tube is smoothly, but clearly separated from the blade. The edge of the blade is slightly flaring, the back of the axe is almost straight, with the edge along the axis of symmetry. There is a slight decrease in the area of the butt (Fig. 2). The axe is probably made of copper; the surface is covered with a light patina. The artefact is 12.6 cm long; the width of the blade is 6.6 cm; the minimal hexagonal profile of the base of the blade part – 5.1 x 2.7 cm; the height of the shaft tube – 4.8 cm; its external diameter along the entire height – 3.7 cm; internal diameter – 2.8 cm. The weight of the find is 934 g.

Diakivtsi (Hertsa city territorial community, Chernivtsi district – formerly Hertsa district). The shaft-hole axe was found in the forest southwest of the village (Fig. 1/2). The find is also an isolated one. The product has a smooth surface, evenly covered with patina. The tool has a separated socket and a narrower blade. The wedge of the blade is noticeably curved and has a hexagonal cross-section. The upper part of the shaft-hole is obliquely lowered towards the butt; the lower edge of the shaft-hole is uneven. There is a hook-shaped "sign" on the side of the lower plane of the blade, at the point of maximum bending (Fig. 3). It protrudes from the plane of the artefact, and it was formed from a depression in the mould. The axe is 14.8 cm long; the width of the blade is 4.8 cm; the minimal profile of the base of the blade part – 2.9 x 2.5 cm; the height of the shaft tube – 4.9-3.4 cm; its external diameter – 3.0-3.2 cm; internal diameter – 2.6-2.7 cm. The weight of the product is 530 g.

Ternavka (Hertsa city territorial community, Chernivtsi district – formerly Hertsa district). The beaked socketed axe with a loop and curved body comes from the outskirts of the village and is curated by the director of the Yordaneshty lyceum and historical-ethnographic museum Vasyl Ionets (Fig. 1/3). Minor traces of the casting jet are

visible on the upper part of the loop. Casting seams are detectable on the lateral sides. The cross-section of body is oval-shaped. The cutting edge is sharp and has no visible damage. The patina on the surface of the axe is almost lost due to modern grinding (Fig. 4/1). The main measurements of the artefact: length max. – 12.2 cm; length to the edge of the socket – 10.4 cm; mouth dimensions – 5.8 x 4.7 cm; diameter of the socket – 4.4-3.3 cm; socket depth – 7.7 cm; cross profile min. – 3.7 x 2.6 cm; width of blade – 5.5 cm.

Kamianka (Kamianka village territorial community, Chernivtsi district – formerly Hlyboka district). Two circular bracelets with a circular cross section and tapered straight ends come from the outskirts of the village (Fig. 1/4). The inner surfaces of the artefacts are smooth. The outer and lateral surfaces have an applique ornament of parallel transverse and oblique ribs – three separated groups of four shaded triangles, similar to a "parquet" motif. One product is covered with a soil coating and the ornament is barely visible. There are significant patina and mineralization on the surface of the bracelets. Their diameters are 8.7 cm and 8.4 cm, respectively; diameter of rods – 1.2 cm; weight – approximately 120 g each (Fig. 4/2-3). It is possible that the bracelets were part of the same feature, but the circumstances of their finding remain unclear.

Typology and dating

The morphology of the axe from *Hrozyntsi* is characteristic of the Fajsz type (Vulpe 1970, 28-29). Axes of this type are spread all over the Carpathian Basin, except for the southern and southwestern parts of Transdanubia, where another local tradition was in place (Dani 2013, 204). Territorially, the closest analogies come from the basin of the Tisa River. A morphologically close analogy of this type from Zscheiplitz, Burgenlandkreis (Federal Republic of Germany) was made of chemically pure copper (Hansen 2021, 59, fig. 46). In their vast majority, these are also isolated finds without context. The eponymous hoard in Hungary included three shaft-hole axes and two chisels. For a long time, the chronology of this type of axe has been based on a small deposit from Brno-lišeň. It was discovered in the settlement of the Jevišovice group and consists of a shaft-hole axe, a flat axe and a chisel. The radiocarbon dating of this layer is 3090-2470 cal. BC (2σ) (Dani 2013, 204).

The shape of the axe from *Diakivtsi* is similar to the Kozarac (Vulpe 1970, 39-41) or Stubło type (Novotna 1970, Taf. 8). In the Eastern Carpathian region, the same type of axe was found in Mezhyhirtsi (Halych district, Ukraine) and had two gold earrings in the shaft-hole socket. The researchers attributed this complex to the early phase of the Mierzanowice culture (Machnik, Tkaczuk 2003; Bátora 2003, 25, Abb. 24). Mykola Bandrivskyi and Larysa Krushelnytska assigned this deposit to the second phase of the pre-Komariv group. They believe that the production of such axes ceased at the end of the Early Bronze Age period – no later than 2300 / 2250 BC (Bandrivskyi, Krushelnytska 2005, 215, fig. 4/7-9). This axe type with different variants is probably of southern Carpathian Basin / northern Balkanic origin and is associated with Vučedol culture and post-Vučedol traditions (Dani 2013, 207). Analogies are known, for example, in the hoard from Griča (Bosnia and Herzegovina) (Hansen 2021, 67, fig. 53). Based on the photo, it can be assumed that Viktor Klochko assigned the find from Diakivtsi to the Kozarac-Stubło type (Klochko 2020, 321,

fig. 4/4). The shaft-hole axes from Hrozyntsi and Diakivtsi significantly supplement the list of similar finds in the region (Niculică 2004; Pyvovarov, Ilkiv 2011, 294).

The socketed axe from *Ternavka* belongs to a widespread group in the Carpathian region. On the territory of Hungary, such axes are found in the depots from horizon Opalyi (B IVb) to horizon Hajdúböszörmény (B VIa) by Mozsolics (1973, 164, 286, Taf. 31/2-3; 1985, Taf. 139/4-5; 191/20; 251/6; 257/3; 2000, Taf. 25/1; 42/2-4; 50/4; 55/7; 69/1-5; 70/1; 74/4). An even wider chronological range is defined for beaked socketed axes in Romania. Indeed, in Transylvania it is found in series from Uriu-Domănești to Fizeșu Gherlii / Sîngeorgiu de Pădure (Petrescu-Dîmboviţa 1977, pl. 21/7; 24/5-8; 289/8-11; 329/2, 4-7; 351/4-7). A significant number of such axes of this period also come from the territory of Slovakia (Novotna 1970, Taf. 27-30). In Transcarpathia (Ukraine) beaked socketed axes are known from deposits of the series Kriva and Lazy I (BrD – HaA1): Batrad', Lazy I, Obava II, Olešnik III, Podmonastyr' II, Uzgorod III etc. (Kobal' 2000, Taf. 17/J2; 36/40; 41/A31; 42/23; 46/A4; 48/58; 67/4). They are also recorded in the Upper Prut and Upper Dniester basins as isolated finds or as part of hoards, such as at Zalozhtsi, Kornych, and Velyka Kamianka (Zurowski 1949, 218-219, tab. I/7; II/2, 4). Beaked socketed axes have many variants, the allocation of which is actively developing. For example, according to Oliver Dietrich's typology for socketed axes from the territory of Romania (2021, 261, 273, 279, 281), the Ternavka find belongs to type A, variant a or f. These variants are characteristic mainly of the stage 4 (HaB1).

Almost one and a half dozen beaked socketed axes were found in the northern part of Bukovina (Fig. 5). More than half of them are part of deposits. The earliest appear in the hoards from Prylypche (von Gutter 1882, fig. 14; Ilkiv 2008a, 378, fig. 1/11) and Koroviia (Ilkiv 2008b, 29, fig. 1/5). They have a subrectangular or hexagonal body profile and were dated to the threshold of periods BrD – HaA1 – the beginning of HaA1. Later specimens were dated to period HaB1, inclusive. The mapping of the finds shows the general outlines superimposes the reconstruction of the communication routes between the Dniester, Prut and Siret rivers (Ilkiv 2012, fig. 1). Secondly, these locations seem to outline the eastern periphery of the distribution area of the sites of the Gáva-Holihrady culture. An exception is a find from Khotyn (Fig. 5, no. 11). It is located approximately 40 km to the east. Obviously, there was a contact zone between Gáva-Holihrady and Chornolissia cultures in Khotyn area. It was at the nearby hillfort of Darabany-Zamchesko that ceramic vessels characteristic of both cultures were discovered. Valentin Dergačev traced a similar trend on the territory of Romanian Moldova, where accidental finds of beaked socketed axe (Gemzse type) delineate the eastern limit of the Grănicești group (Dergačev 1997, 34).

The bracelets from *Kamianka* have close analogies in the deposits of the HaA1 period in Transylvania – Uioara de Sus and Bîrsana, as well as in a number of items of isolated finds with the ornamental motif (Petrescu-Dîmboviţa 1998, 51, 55-58, Taf. 38/378-384). Such bracelets from the territory of Transcarpathia were allocated to a type 2, variant B5, that appeared in the deposits of the series Lazy I (HaA1): Borodovka, Obava I, Sel'co II, Čopovka, Olešnik V, and Orosievo (Kobal 2000, 54, Taf. 55/B2-3; 62/B4; 69/B1-2; 71/1-4, 6-7; 72/E2; 89/2). Between the Upper Prut and Upper Dniester area

bracelets are known from the deposits at Velyka Kamianka and Potochyska (Zurowski 1949, tab. XLVI/1-3, 6; XLVII/4, 5). J. V. Kobal refers them to the Hrushka horizon (HaA1) (Kobal' 1992, 31). In the northern part of Bukovina, a similar artefact was found at Shypyntsi (Romstorfer 1903, fig. 112). According to B. P. Niculică, this complex is dated HaA1 – HaB1 (2011, fig. 5, 7).

Conclusions

Accidental finds of metal implements from the northern part of Bukovina cover wide chronological boundaries. The shaft-hole axe from Hrozyntsi is similar to the Fajsz type and is dated to the end of the Eneolithic – the Early Bronze Age (within the end of the fourth – the middle of the third millennium BC). The shaft-hole axe from Diakivtsi belongs to the Kozarac type, whose various variants were common in the Early and Middle Bronze Age. It is difficult to talk about the cultural-chronological identification of these things, but they help to fill the territorial gap between the findings of the Carpatho-Balkan region and the south of eastern Europe and the Caucasus. Socketed axe from Ternavka and the bracelets from Kamianka were dated within the HaA1 – HaB1 period and are related to the finds of the Gáva-Holihrady culture.

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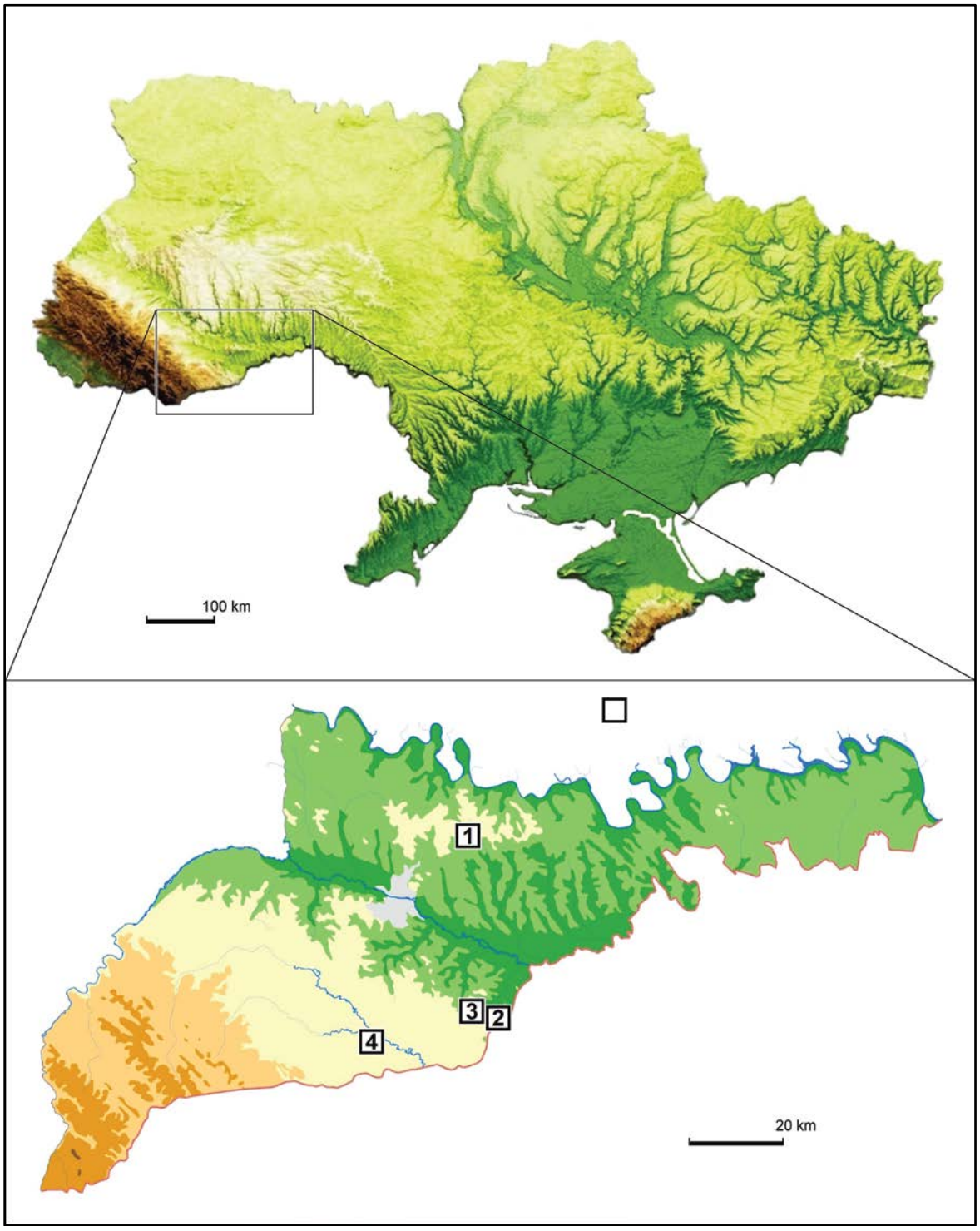

Figure 1. Location the finds of Bronze Age metal products on the map of Chernivtsi region of Ukraine: Hrozyntsi (1); Diakivtsi (2); Ternavka (3); Kamianka (4).

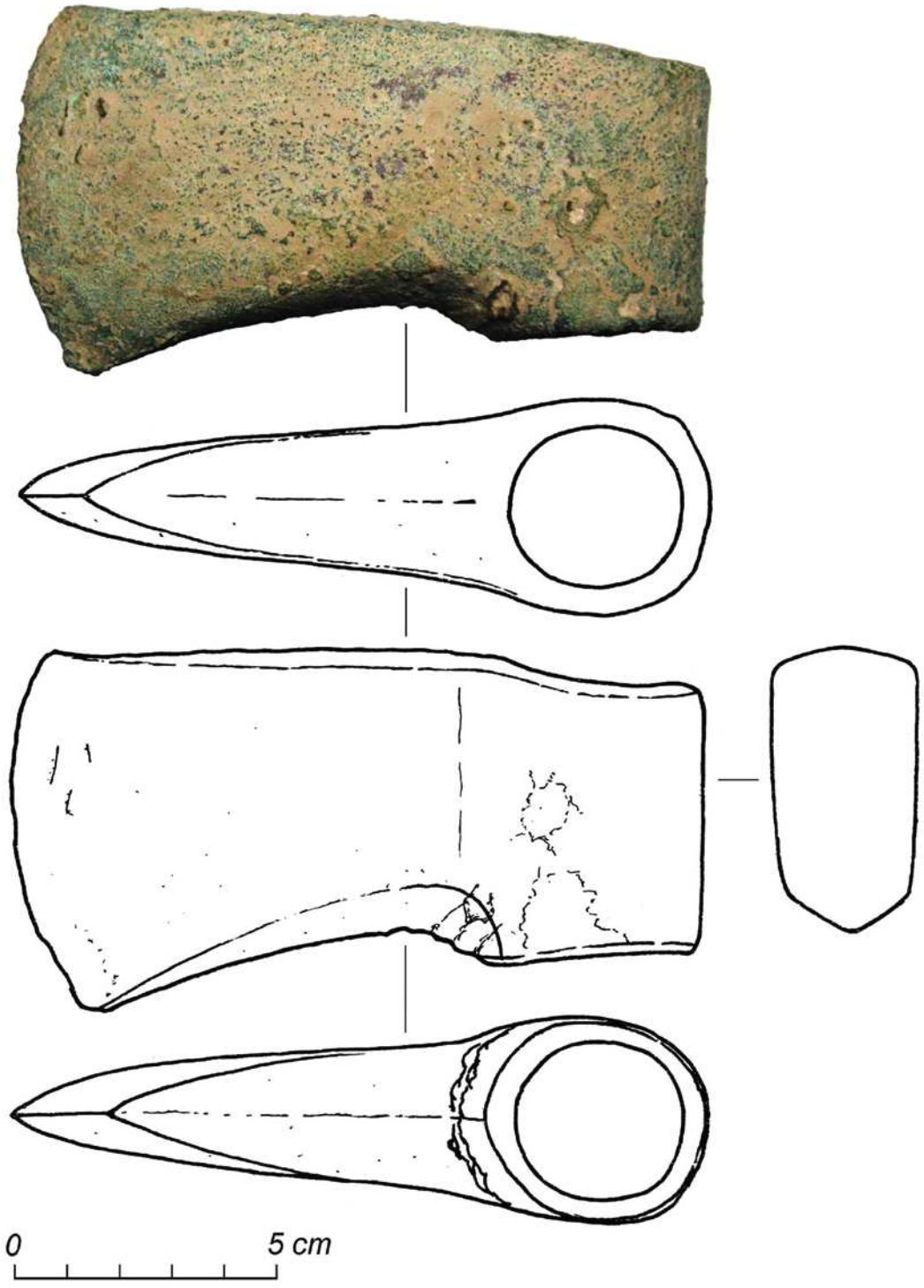

Figure 2. The shaft-hole axe from Hrozyntsi.

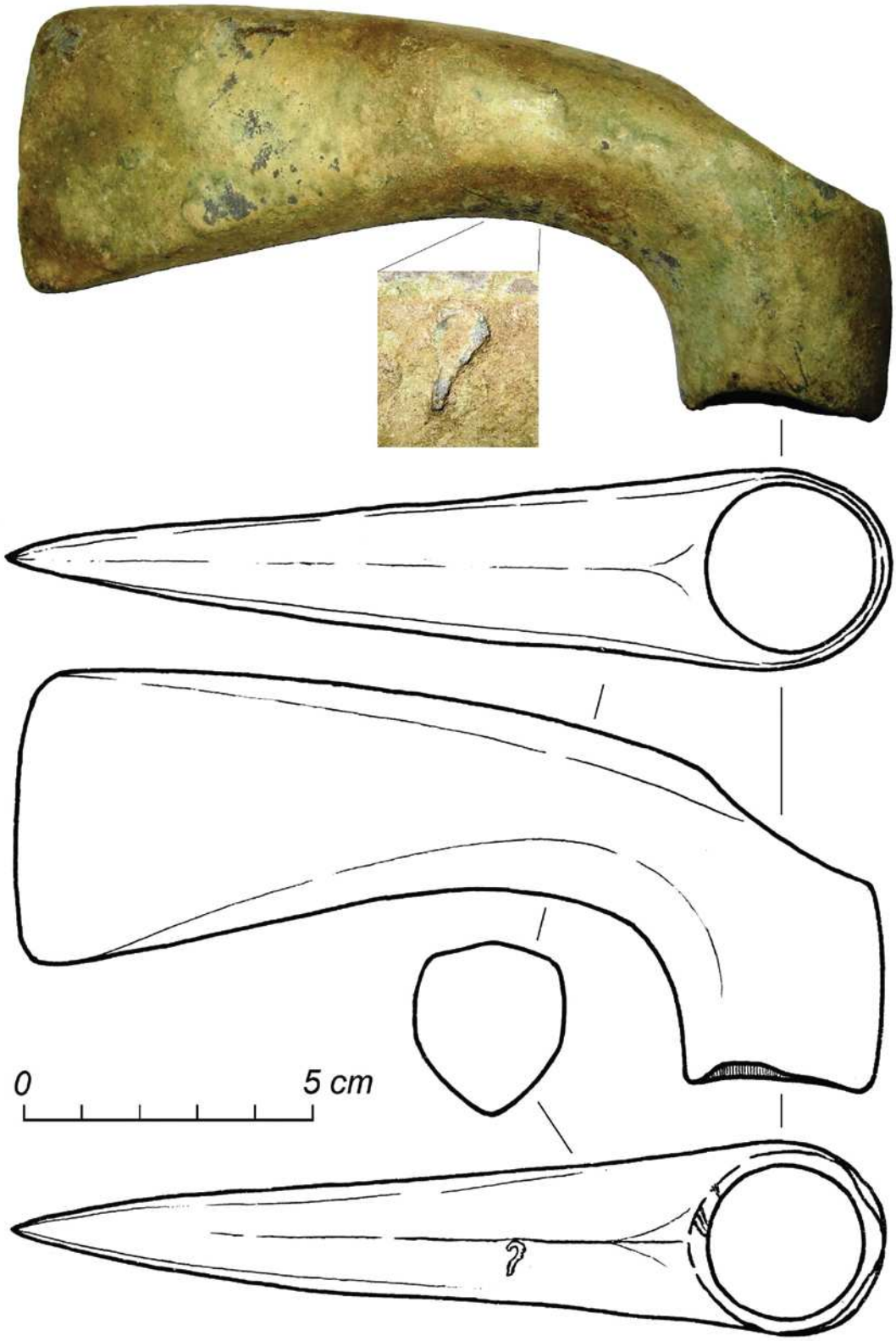

Figure 3. The shaft-hole axe from Diakivtsi.

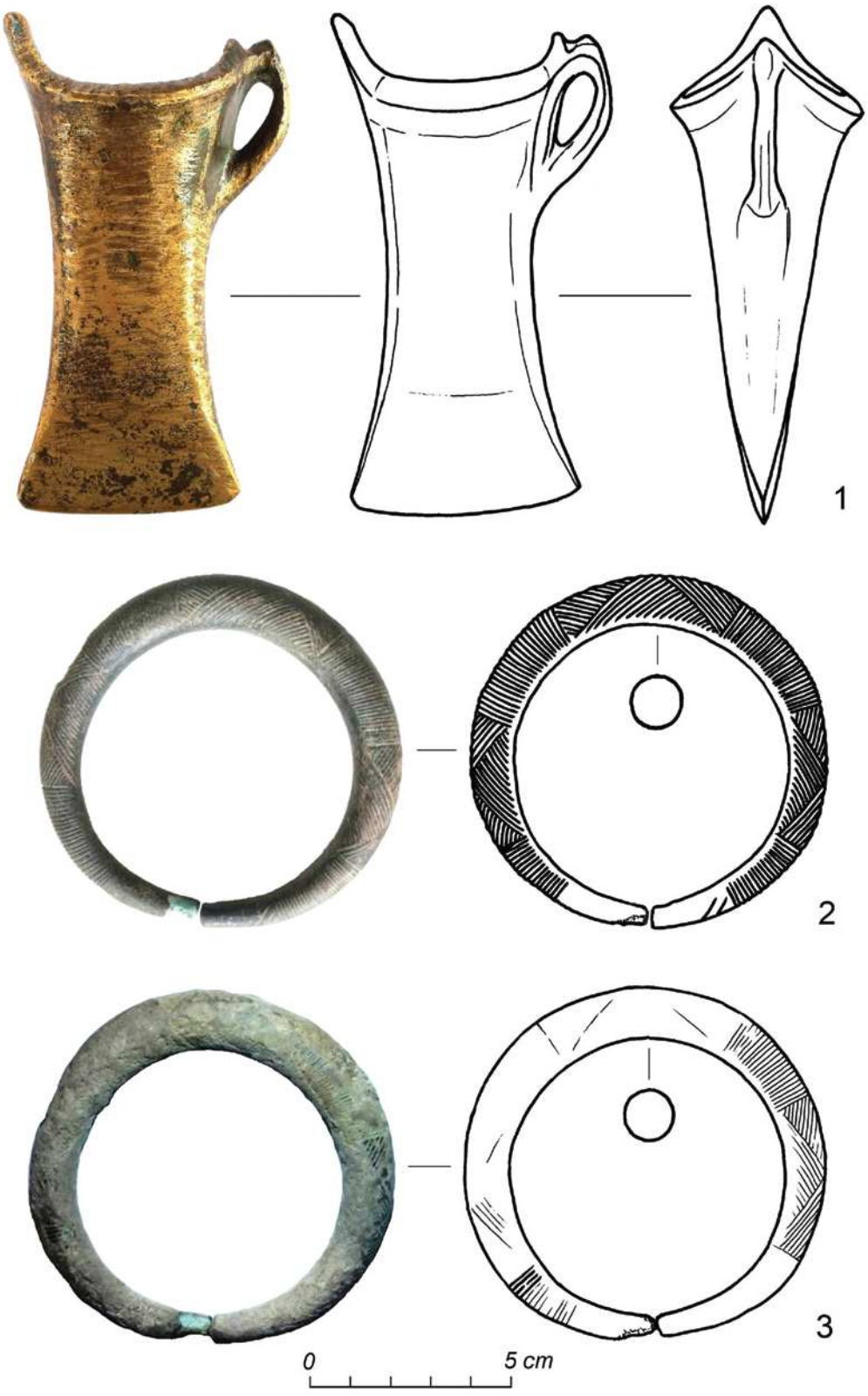

Figure 4. The bronze socketed axe from Ternavka (1)
and the bracelets from Kamianka (2, 3).

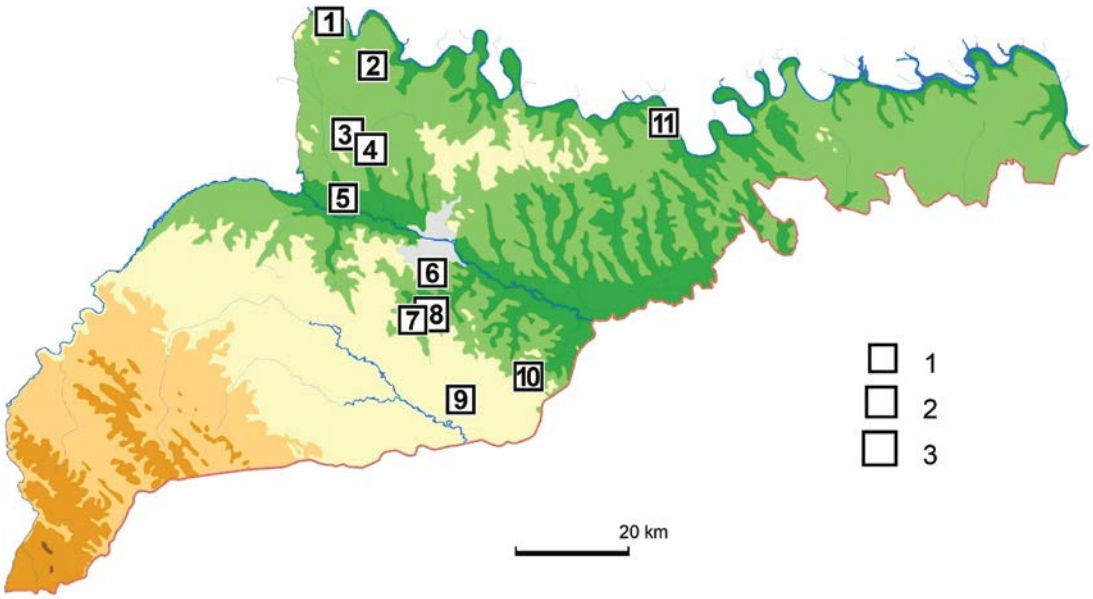

Figure 5. Beaked socketed axes with a loop and curved body in the northern part of Bukovina.
The size of the square corresponds to the number of artefacts in one location: Prylypche (1); Kadubivtsi (2); Sukhoverkhiv (3); Kitsman (4); Dubivtsi (5); Koroviia (6); Voloka (7, 8); Oprysheny (9); Ternavka (10); Khotyn (11).