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THE BRONZE AXE FROM MIHALŢ (ROMANIA) AND SOME PROBLEMS RELATED TO HYBRID "LARGA" TYPE AXES

Abstract: Along with the well-known metal artefacts produced in series specific to the Bronze Age, unique, prestige products were also manufactured in the Carpathian area. Among them the Larga type axes stand out both by their very small number and by their beauty. Summing up specific elements, found individually and in the case of other axes (semi-calotte flat, curved blade, decoration on the sleeve and so on), the use of the term hybrid axes is justified. Their similarity with Drajna-type axes is obvious, supporting their symbolic value. The last known axe, discovered in Mihalţ, in a gravel pit, is also the only Transylvanian piece, the rest of the discoveries being known from Maramureş and Ukraine. Their dating is relative, with no specific context, but they can be dated in the Late Bronze and associated / contemporary with Wietenberg, Gligoreşti or Komarow manifestations.

Keywords: *bronze axe, Larga type, Mihalţ, Bronze Age, bronze metallurgy.*

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PREAMBLE

The intensity of Bronze Age metallurgical activity in the east of the Carpathian Basin no longer needs a special presentation. The numerous discoveries recorded over time allowed the classification of "bronzes" and the establishment of an evolution of the main categories of pieces. One of the findings resulting from these classifications is, on the one hand, the definition of specific types for the defined geographical and cultural area, and on the other hand the emergence of obviously isolated types. The pieces that form the object of our article, the so-called "Larga type" axes fall in the latter category, which we call with the term "hybrids". A specimen recently discovered in Transylvania (Romania) reopens the discussion on the origin, evolution and definition of bronze axes-sceptres with semi-calotte flat.

THE AXE OF MIHALŢ

The work at the Mihalţ gravel pit, located on the left bank of the Mureş river, immediately downstream from the mouth of the Târnava River (Fig. 18), led to the discovery of a bronze axe. The artefact appeared in the spring of 2012 on the selection lane, having been recovered by one of the workers. Subsequently, in the same gravel pit, a bronze spearhead appeared in the same circumstances, but a possible association between the two bronze

artefacts is entirely relative.[1] We must therefore consider these discoveries as isolated occurrences, the context of which cannot be precisely established.

The axe is made of bronze. The flat of the axe, finished in the shape of a half-calotte, is connected to the hafting tube by an octagonal faceted bar, which thins in the middle. The hafting tube, with its oval section, is weak and unevenly developed, practically uniting at the top with the blade. The lower part is more highlighted due to its thinning and elevation. The blade is very arched, gradually broadening, with the straight bevel, giving the axe perfect stability by resting it on the points of the lower part of the hafting tube and the bottom tip of the blade. The axe's tube is ornamented, on both sides, with a round, semi-calotte protrusion, surrounded by a rib in the form of an "eye"-shaped loop. The rib continues medially on the blade, extending parallel to the edges of the axe, almost to the edge, its margins being well delimited by a groove of varying width and depth. The artefact does not show any casting flaws, but its finishing is not complete. Small fine notches are visible on the upper edge of the hafting tube.

Preservation conditions in a humid environment gave the surface of the axe the colour of unoxidized bronze, although it seems that the artefact had a patina, as evidenced by the small areas on the body where spots of green colour appear. This would suggest that the axe once lain in another environment, in the soil, from where it later reached the aquatic environment.

The dimensions of the axe are: total length = 24 cm; blade length = 15 cm; flat axe bar length = 5 cm; tube diameter = 3 x 2.3 cm; nape diameter = 3.8 cm (Fig. 3-4).

CONTEXTS, ASSOCIATIONS

The context of axes in this category is different, but no artefact comes from bronze deposits. The Larga artefact has no discovery context, and the one from Orțâța was found by chance, isolated, on the slope of a hill.[2] The context cannot be precisely specified for the axes from the Ukrainian area. In the case of the axe from Troieshchyna the context is completely unknown, but in the case of the one from Ivanija there is a suspicion that it could probably come from a destroyed tumulus. The aquatic environment is found at Mihalț, but it seems to be a conjectural one, since the piece could reach the gravel from Mureș brought by this river.

With regard to associations, it is important to note that such axes are not part of bronze accumulations. This indicates their special status, being probably unique orders honoured directly to a beneficiary. Instead, fatally, their missing in deposits deprives us of the possibility of associating them with other artefacts whose chronological value is greater. However, when Márton Roska published, alongside the Larga axe, another axe, with the transversal hafting hole,[3] he saw a possible association between the two pieces,[4] just as Amália Mozsolics did.[5] Mircea Petrescu-Dîmbovița considered the association of the two axes as uncertain but did not completely exclude it.[6] C. Kacsó has a different opinion and, more categorically, believes that the two Larga axes offer no argument for being dealt with together,[7] a position also followed by Tudor Soroceanu, who dated the axe in the Late Bronze and dissociated it, in turn, from the other bronze axe also found at Larga.[8]

Returning to the Mihalț artefact, it must be said that from the gravel pit here was recovered, around the same time as the discovery of the axe, a bronze spearhead, common for the end of the Bronze Age[9] (Fig. 19). Clearly, however, the association cannot be sustained, given the fortuitous nature of the findings.

Therefore, even if other metal artefacts were reported in the area of the discovery of the Larga type axes, their association with them, at the moment, is completely uncertain.

ANALOGIES, TYPOLOGY

To begin with, we consider useful a discussion on the discovery that gave the name of the Larga-type axes. Ion Nestor discussed in 1933 the Larga axe, the first known of its type, in the context of the axes from the Drajna deposit and noted its identity with an axe from the western Volhynia area.[10] Later, Márton Roska observed the similarities of the Larga axe with some stone axes and dated the artefact in the second age of the Bronze Age in the Carpathian Basin.[11] Amália Mozsolics included the axe in Hajdusámson deposits horizon,[12] a categorisation criticized later.[13] Alexandru Vulpe republished the axe and included it in the Larga type; especially starting from the analogy offered by the artefact found in the tumulus at Ivanija, Vulpe dated the axe in the Late Bronze.[14] A review of the discussions about the Larga axes was conducted by C. Kacsó,[15] which questioned the chronological categorisation suggested by the axe found in the tumulus at Ivanija, dated only by suspected connections to Late Komarow materials found in the vicinity of the tomb.[16] Instead, A. László, contrary to Kacsó, considered as probable the association of the Ivanija axe with the Komarow type materials, as well as the dating of the Larga-type axes in

[1] The bronze axe was discovered on March 23, 2012 and was presented to us by Tiberiu Polgar, then a student of the "1 Decembrie 1918" University of Alba Iulia, who also facilitated our access to studying the piece. A first information on the discovery was made in the form of a scientific communication: Cristian I. Popa, Tiberiu Polgar, *Toporul de bronz de la Mihalț*, Sesiunea Muzeului Național al Unirii Alba Iulia (2013) and Cristian I. Popa, *Bunuri de prestigiu la periferia lumii tell-urilor epocii bronzului. Topoarele hibride de tip Larga*, Zilele Academice Clujene (2017). At about the same time, a medieval iron axe and a brass floret were also found in the same gravel pit.

[2] KACSÓ 1989, 83; KACSÓ 2011, 419.

[3] ROSKA 1942, 280, no. 17, Fig. 338.

[4] ROSKA 1959, 66.

[5] MOZSOLICS 1967, 38, 168.

[6] PETRESCU-DÎMBOVIȚA 1977, 49.

[7] KACSÓ 1989, 85; KACSÓ 2002, 7-8, 15; KACSÓ 2007, 91, note 481; KACSO 2011, 515.

[8] SOROCEANU 2012, 55-56.

[9] A good analogy for the artefact is in the deposit from Dridu, dated in Ha B (ENĂCHIUC 1995, Pl. XIV/5).

[10] NESTOR 1933, 128.

[11] ROSKA 1959, 63-66, Fig. 12.

[12] MOZSOLICS 1967, 38, 168.

[13] KACSÓ 1989, 85, note 11.

[14] VULPE 1970, 22, 100-101, Taf. 41/570.

[15] KACSÓ 1989, 83-85.

[16] KACSÓ 1989, 85.

the same range as those of the Drajna-Lozova - Pobit Kamăk type, belonging to the Late Bronze.[17]

From the very beginning we notice that the artefact has a rare form, with few known correspondences, which creates difficulties in searching for the right analogies. The axes similar to the Mihalț one, starting from its characteristics (calotte-shaped flat of the axe, arched blade and decoration consisting of small protrusions surrounded by ribs that continue along the length of the blade) help us to better understand its place within the metallurgy of Carpathian prestigious axes.

One of the axes with which it shows certain similarities is the one discovered at Larga (Maramureș county), heading the series of axes with the same name. It has a prominent, mushroom-shaped flat connected to the hafting tube by a massive bar with a round section. The hafting tube is poorly developed and has thickened edges. The blade is arched and ending in a very widened blade, crescent-curved, like a halberd. There is a circular, rounded protrusion on the sleeve, surrounded by ribs that continue along the blade parallel to the sides, up to the cutting edge. On the middle, next to the protrusion, another rib starts medially, which bifurcates close to the edge joining with those on the sides[18] (Fig. 5/4 = 6/3).

A somewhat similar axe, but only in light of some of its components, also comes from Maramureș, from Orțâța. The artefact features the mushroom-shaped disc, connected to the hafting tube by a circular cross-section bar. The tube is well developed, with thickened edges, but with very thin walls. The blade is moderately curved and the bevel slightly concave. The tube and the blade are ornamented with the same elements (protrusions, ribs) in a layout similar to that found on the Larga axe[19] (Fig. 5/5 = 6/2).

Three other artefacts, with a similar typology, come from outside Romania, being located in the north-western area of Ukraine. An axe similar to the Larga one was discovered in "West Volhynia." It has an elongated shape, long blade, finished with a halberd-like crescent-shaped edge. Two parallel ribs start from the sleeve and run along the blade's sides and unfold on the edge; between them, another rib, medial, bifurcates on the blade. The ribs also frame a small circular protrusion. The tube is short, the calotte-shaped flat is connected to it by a strong rod[20] (Fig. 5/3 = 6/4).

An axe somewhat similar in shape and decoration comes from Ivanija, probably from a destroyed tumulus (tumulus no. 1). The artefact is smaller in size, the massive hafting tube, stands out lengthened from the area of some ribs, on both sides. The blade is short, curved, with a widened bevel, ending in a crescent shape. In the central area of the sleeve is a circular protrusion, approx. 1.5 cm in diameter, surrounded by a rib similar in shape, opening on the blade. The flat of the axe is calotte-shaped, being connected to the tube by a rod thinned in the middle area[21] (Fig. 5/1 = 6/5).

An axe very similar to the Ivanija axe was published from Troieshchyna (Kyiv) and still preserved in the handle wooden traces of the haft (dimensions: length = 12 cm; length of hafting tube = 7.2 cm; diameter of the tube = 2.3 cm) (Fig. 5/2). We do not know the context of the artefact; it is attributed to the Tschiniecko-Komarov culture (2100-1300 BC).[22]

As a distinctive note of these axe-sceptres, it was observed the special profile of the flat of the axe's handle, given that it is usually quadrangular,[23] although all known Larga-type axes, except those from Cernavodă (discussed below) (Fig. 12/1) and Mihalț, have a round profile. The octagonal faceting of the Mihalț axe nape bar is also a unique component within the Larga-type axes.

Along with these axes that constitute themselves in the best analogues, one can also select some finds with less similarities, but with the elements specific to the discussed type. An axe discovered in Sălaj, at Gâlgău Almașului,[24] would show some elements of hybrid axes,[25] but only the drawing of the published piece is not enough. An axe that even if it does not have an arched blade has a semi-calotte bevel and an arched halberd flat,[26] is known to us from Brzeźno (Poland) (Fig. 12/7). An axe with certain similar characteristics, with a semi-calotte flat, also comes from Serbia, from the Vatina culture area.[27]

The battle axe from Silișteni (Argeș county), attributed to the Tei culture, with its slender appearance and cylindrical edge[28] (Fig. 8) has a similar shape to that of the Mihalț axe. A bronze axe, with a semi-calotte flat and circular protrusion on the sleeve is published from the Buzău area, probably from Nehoiu and is dated in Middle Bronze. The surface of the artefact was smoothed after casting[29] (Fig. 12/2).

Sleeves decorated with circular protrusions, which probably mimic rivets for a stable fastening with the hafting tube,[30] are also seen in other types of axes, such as those with disc, discovered at Hajdúböszörmény,[31] Winklarn, Zelené u Přeštice, "Hungary",[32] "Bereg county"[33] or Veľký Blh (Slovakia).[34] Incidentally, during the Middle Bronze in Central Europe we meet circular protrusions (either only one or three) on the sleeve of some halberds,[35] these most likely also imitating the fixing rivets of the blade. Ribs arranged

[17] LÁSZLÓ 2013, 257.
[18] The first mentioning of the artefact, only as a drawing, without further information, in *Archaeologiai Értesítő*, 22, 1902, 414. In 1959, M. Roska dedicates it a special study (ROSKA 1959); see also ROSKA 1942, p. 280, no. 17, Fig. 339; MOZSOLICS 1967, 38, 168, Abb. 10/2; VULPE 1970, 22, 100-101, Taf. 41/570; PETRESCU-DÎMBOVIȚA 1977, 49, Pl. 19/6. K. Kacsó makes a last drawing of the artefact (KACSÓ 2002, 7-8, Fig. 2/2).
[19] KACSÓ 1989, 83-89, Fig. 1; KACSÓ 2004, Pl. 67/1; KACSÓ 2010, 94.
[20] SVEŠNIKOV 1968, 167, Fig. 1/1; KLOCHKO 1993, 9-10, Fig. 1/2; MAKAROWICZ 2012, 184, Fig. 5/2.
[21] ANTONIEWICZ 1928, Pl. XIV/15; SVEŠNIKOV 1968, 160, Fig. 1/2; KLOCHKO 1993, 9-10, Fig. 1/1; MAKAROWICZ 2012, 184, Fig. 5/1; КЛОЧКО, КОЗЫМЕНКО 2017, 308, Fig. 17; 309.
[22] КЛОЧКО, КОЗЫМЕНКО 2017, 129, 3.9, Fig. 1; 309.
[23] SOROCEANU *et alii* 2019, 203.
[24] LAKÓ 1983, 76, Pl. V/3, a discovery highlighted by KACSÓ 2007, 38.
[25] SOROCEANU *et alii* 2019, 204.
[26] GEDL 1980, 60, no. 116, Pl. 34/G 1.
[27] GARAŠANIN 1973, 327, Pl. 13/3.
[28] COMȘA 1967, 671-674, Fig. 1; VULPE 1970, Pl. 18/278.
[29] MOISIL 1911a, 86, Fig. 2; 87; discussed again in VULPE 1970, Taf. 56/C2; MOTZOI-CHICIDEANU 1995, Fig. 10/3; SOROCEANU 2005, 29 and note 116, Pl. 3/33.
[30] See BUCHHOLZ 1999, 76.
[31] HAMPEL 1886, Pl. XXX/4.
[32] DAVID 2002, Pl. 10/1-3 = 53/1-3; 345/5; 348/3.
[33] HAMPEL 1896, Pl. CCLV/2.
[34] MOZSOLICS 1973, Pl. 7/1.
[35] KOVÁCS 1996, 89-93, Fig. 6/1; 7/1-2.

on the blade similar to those of the Orțâța axe are seen in the case of bronze axes, different typologically, coming from "Hungary," but also from Dračiny and Vel'ký Blh.[36] The looped ribs on the sleeve, even though they do not contain any protrusions, are found on bronze axes from Ópályi,[37] Levelek,[38] Hostice[39] or Kriva[40].

We must mention here the axe discovered in Epirus, Dodona (Greece),[41] very far away from the known area; it also had a semi-calotte flat (Fig. 12/11), similar to the ones from Orțâța and Larga. Unfortunately, the fragmentary state of the piece does not allow a definite categorisation and association with the North Carpathian pieces, although C. Kacsó estimated that the specimen found at Dodona could have been manufactured in Transylvania itself, from the direct contact of the Greek area with the local intra-Carpathian metallurgy.[42]

After reviewing the characteristics of the axes belonging to the Larga type, we can make some assessments regarding the Transylvanian axe. Unlike the rest of the axes similar in terms of morphology and ornamentation, the Mihalț axe has certain peculiarities. For example, the flat, which connects to the bar directly from its sides, has no analogues in the known axes, although some similarities can be observed with the artefact from "West Volhynia." The bar connecting the flat to the sleeve is also different from that of the Larga-type axes, the octagonal section of which is again devoid of analogues. The hafting tube also shows notable differences from the known ones, by the stronger development at the bottom end. The blade of the axe is also shaped in a particular way, which is strongly arched and slightly cant to the sleeve, but also much thinner in section.

As noted by Carol Kacsó, the common element that most closely approximates the Larga axes is the embossed decoration, with a protrusion on the sleeve surrounded by a rib, but with differences in the way the ribs, and especially the central one, develop on the blade.[43] From this point of view, the decoration of the Mihalț axe fits into this type, but the motifs are different again, without analogues.

The flat axes of the Orțâța, Larga and "Western Volhynia" is very similar to that of the axe from the Târşolț deposit, included by T. Bader in the "Târşolț variant" (Fig. 7; 11/1) of type B3 Drajna type (with bar under the oval flat of the axe).[44] An axe flat with Drajna decoration was discovered in the Bicaz II deposit[45] (Fig. 10/1).

A first variant separation of the Drajna-type axes (Fig. 10) was put forward by C. Kacsó, who identifies three variants: one with an *hemispherical* flat (*halbkugel*) (Csongrád, Drajna de Jos-two artefacts, "Baia Mare Museum," Penészlek, Perişor, Tg. Lăpuş, Ungureni), another with *ellipsoidal, flattened* flat of the axe (*ovaler, elliptischer*) (Ciceu-Corabia, Drajna de Jos - one artefact, Gemzse, Kispalád, Lohovo, „Maramureş," "Kaufbeuren Museum," Oarța de Sus, Prelipce, „Someş") and a third variant, with the *globular* flat (*Kugel*) (Hajdúhadház).[46] A Drajna-type axe, located in the old literature by M. Roska as possibly found in one of the tumuli from Lăpuş (Oláhlápos),[47] and another axe, preserved in the Baia Mare Museum, was located by Al. Vulpe also at Lăpuş,[48] opinion disputed by C. Kacsó.[49] The latter attributes the axe to the Suciu de Sus culture and to the Berckesz-Demecser group, noting the specificity of this type of axe for metallurgy in north-western Romania,[50] an idea then taken up by other authors.[51]

Tiberiu Bader identified 21 Drajna-type axes: one artefact each in 19 discoveries and three copies in the Drajna deposit and categorised most of them, in the Ópalyi-Uriu type[52]. The author identifies three variants of axes (Fig. 7), under the terms of *Kugelknaufäxte* (Mozsolics) / *Nackenknaufäxte* (Vulpe), bringing some changes to Kacsó's typology: *variant 1-Târşolț*, with semi-callote flat, *variant 2-Prelipce* (calotte-shaped, elliptical axe flat occur in the northern Carpathian range, from Northern Bukovina, to Prelipce, in Ukraine[53] and coming from an unknown place, today in the "Kaufbeuren Museum"),[54] with oval flat and *variant 3-Oarța*, with the flat in the shape of three quarters of a sphere (*mit Kugelknauf*, as is the bronze artefact from Hajdúhadház in Hungary, belonging to the horizon Ópályi).[55] Referring to the typological evolution of the axes, Bader identified an origin in the axes with the discus shaped as a sphere segment, of the Bikács-Borlești type, from which type B_3 of the Drajna type would develop, hemispherical, elliptical and spherical in shape.[56]

The problem of placing axes in this category was recently discussed by Tudor Soroceanu, during the analysis of the axe with the decorated disc from Jabenița. The author concluded that the copy belongs to a "narrow typological circle," insisting that the piece (and we complete all these other artefacts) also reflects a chronological phenomenon.[57] The Jabenița axe is essentially a Drajna axe,[58] slightly different,[59] decorated, with the "mushroom" shaped discus[60] but much thinner than in the "classic" artefacts.

[36] NOVOTNÁ 1970, Pl. 22/380 = 49/A 5; DAVID 2002, Pl. 83/1b; 85/2-3.
[37] MOZSOLICS 1973, Pl. 17/12.
[38] MOZSOLICS 1973, Pl. 42 B/2.
[39] NOVOTNÁ 1970, Pl. II; MOZSOLICS 1973, Pl. 77/4a-5a.
[40] KACSÓ 2018, Fig. 5/7.
[41] SANDARS 1983, 53-55, Fig. 12b; see also LÁSZLÓ 2006a, 45, Fig. 1/2; LÁSZLÓ 2006b, Fig. 1/5; KACSÓ 2007, 38; LÁSZLÓ 2013, 256, Pl. 2/8.
[42] KACSÓ 2007, 40.
[43] KACSÓ 1989, 86.
[44] BADER 1996, 269, 274-275 and note 47, Fig. 11/3; see and KACSÓ 2003, 272, Pl. VII/5; KACSÓ 2017, 19, 27-28, Fig. 19/3.
[45] KACSÓ 2003, 278, Pl. VII/2.
[46] KACSÓ 1977a, 59, Fig. 2.
[47] ROSKA 1942, 209, no. 23; KACSÓ 1977A, 59, the author connects the artefact to the tumuli on Podanc.
[48] VULPE 1970, 99; location at Lăpuş and BADER 1996, 275, note 47.
[49] KACSÓ 1977a, 59, note 5; KACSÓ 1977b, 146, note 43, Fig. 7/2; KACSÓ 2015.
[50] KACSÓ 1977a, 61-62; KACSÓ 1977b, 151.
[51] BADER 1996, 275.
[52] BADER 1996, 274-275, Fig. 19.
[53] HAMPEL 1886, Pl. CLXXIV/3 (located at Csákány); MOZSOLICS 1973, 213, Pl. 29/6; KACSÓ 1977a, 59; BADER 1996, 275, note 47; IGNAT 2000, 98, Fig. 29 (lower left); IL'KIV 2012, Fig. 2/4; IL'KIV 2013, Fig. 1/14; LÁSZLÓ *et alii* 2013, 219; LÁSZLÓ 2013, 256, Pl. 2/6.
[54] KACSÓ 1977a, 59; LÁSZLÓ 2013, 256, Pl. 2/7 ("Kaufbeuren Museum").
[55] MOZSOLICS 1973, 140, Pl. 42 A/4; see and KACSÓ 1977a, 57; BADER 1996, 275, note 47.
[56] See BADER 1996, 274, fig. 18.
[57] SOROCEANU 2016, 171-173, Fig. 10.
[58] SOROCEANU, RETEGAN 1981, 210, note 72; BADER 1996, 275, note 47.
[59] KACSÓ 2007, 42.
[60] SOROCEANU 2016, 167-168, 170, Fig. 8.

A very similar axe was recently published from a pit (complex no. 121) from the settlement of the Coslogeni culture at Cernavodă (Constanța county) (Fig. 12/1), where it is considered a product of northern Transylvanian origin.[61] It is a good opportunity for Tudor Soroceanu to discuss the axes of Drajna and Larga types, offered as analogues for the Cernavodă specimen,[62] on which occasion the use of the term hemispherical nape axes is proposed.[63]

An axe included in the category *Nackenknaufäxte* in the Drajna type originates from northern Moldova, from Țibucani (Fig. 13/4), which Vasile Diaconu considers an import from the Suciu de Sus culture area and dates it in the Late Bronze.[64] Obviously, in the case of this axe it should be noted the special flat, with good analogues only in the Republic of Moldavia and Ukraine, at Lozova II and Malye Geevcy.

We have, therefore, axes with different blade shapes, outlining 3 main variants: with spiral blade (Drajna type),[65] with arched blade (Larga type) and straight blade (Dragna and Larga type).

The moulds discovered in the central European area do not provide relevant data. The only discovery associated at one time with the casting of Drajna type *Kugelknauf* axes was one of the moulds from the workshop at Dăbâca[66] (Fig. 12/3), but the classification was tributary to incomplete information. The recent publication of the mould by Fl. Gogâltan still does not completely solve the problem concerning the typological classification of moulds with this pattern. The author attributes it to axes with the "sphere segment shaped" flat (*Axt mit Kugelsegmentnacken*), which would have been in use at the end of the Middle Bronze, with the more archaic morphology, different in this respect from the known specimens from the Carpathian Basin.[67] However, by not having the artefact available, but only an old drawing of it, we are not sure that what is seen as a sphere segment shaped flat, given its earlier dating compared to known specimens, does not represent, in fact, a much flatter axe flat, which possibly brings it closer to the morphology of some axes from the Szőreg variant of the type Křtěnov, known due the finds from Szőreg and Bánov.[68] We have the same uncertainty regarding the typological classification in the case of the Vinkovici mould, from the Belegiš Iculture area, which has a conical flat, on a short handle, but we do not know how the blade continued.[69] On the other hand, the mould discovered at the Dunańjvaros-Kosziderpadlás can be considered much more similar to the morphology of the Larga type axes;[70] the former, in our opinion, was used to cast axes that probably made the transition from the Křtěnov-type to the Larga type.

However, noting the notable differences of the Mihalț artefact from those of the Larga type, it would be wrong to continue to speak of a single typological line of axes with an arched blade and the opposite side finished in the shape of a mushroom. Since, in our opinion, it is not the decoration that should dictate the typological classification, but also the shape of the piece, we consider that ornaments similar to the specimens discussed should be regarded, as with other types, only as specific to axes with these characteristics. Therefore, given that each piece presents as common elements only the decoration, with obvious differences between them in terms of component elements (edge, sleeve, flat), we consider that we cannot speak of the existence of a unitary type nor of variants of the same type, but of *a hybrid type*.[71]

Origin of Larga-type hybrid axes

The origin of this hybrid type within the stone axes, with the role of a sceptre, is worth considering. Alexander Vulpe, referring to the genesis of the type of axes with a semi-calotte flat, stated they developed at the beginning of the Bronze Age from older stone axes with a cylindrical neck.[72] According to Viktor I. Klochko, Ukrainian axes, although they show similarities to Mozsolics B type axes, are nevertheless singular specimens, which would continue in metal the tradition of Borodino-type stone axes,[73] this legacy being especially visible in the case of the Ivanija axe.[74]

Even if the origin of these axes is difficult to establish, it should be noted that the shape of the piece, with its semi-calotte flat, transposed into metal itself, appears well crystallized a millennium before, within the Maikop culture.[75]

Great similarities also exist between the shape of the semi-calotte rounded nape, and the flat of some Bronze Age axes (generally called "battle axes"),[76] recently published and inventoried by Marian Lie as *Poiana-type axes*. The author, referring to some decorated artefacts, believes that they copy metal ones, but believes that in the Bronze Age there were no influences directed in only one direction,[77] an opinion with which we also agree, since the coexistence of stone axes with metal ones has allowed for a return of influences in both ways.

From the great series of axes with calotte-shaped flats, we are interested in the granodiorite axe-sceptre from Toboliu (Bihor county), whose embossed decoration, on the sides, consisting of a loop on the sleeve and is widening in an arched manner on the blade, reminds us very well of the decoration of the metal axes of the Larga type, with which it

[61] SOROCEANU *et alii* 2019, 192, 202, 210, Fig. 9-10. Originally mentioned in KACSÓ 2017, 27, note 91.
[62] SOROCEANU *et alii* 2019, 203.
[63] SOROCEANU *et alii* 2019, 192, note 7.
[64] DIACONU 2019, 44-46, Fig. 4; DIACONU 2021, 142-147, Fig. 2-3.
[65] The repertoire of these axes was carried out by C. Kacsó (KACSÓ 2003, 278-279); to this list we add the Drajna axe, with the flat of the axe decoration identical to one of the artifacts from Drajna, discovered at Cluj-Napoca-*Tufele Roșii*, in a deposit specific to Late Bronze II (ROTEA 2017, 51, Pl. XV).
[66] SOROCEANU, RETEGAN 1981, 210, note 72; BADER 1996, 275, note 47; KACSÓ 2003, 278.
[67] GOGÂLTAN 2017, 18-21, Fig. 4; GOGÂLTAN 2019, 81-84, Fig. 4.
[68] See DAVID 2002, Pl. 70/1-2.
[69] DIZDAR 2013, 65-69, Pl. I.
[70] DAVID 2002, Pl. 83/2a-2b.
[71] As we see in the case of axes from the types A_1, A_2, B_1, B_2, B_3 and B_4.
[72] VULPE 1959, 270-271.
[73] For Borodino-type axes, see KAISER 1997.
[74] KLOCHKO 1993, 9-10; see and MARKUS 2009, 150.
[75] KOHL 2007, 80, Fig. 3.11 (lower left).
[76] See ROSKA 1958, 127-140, Fig. 1 (Gherla), 3 (Brețcu), 6 (Cincșor), 9 (Daia). The author considers that the types with "dome" survive from the Copper Age to the Bronze Age (ROSKA 1958, 136).
[77] LIE 2019, 91-92.

was compared, moreover[78] (Fig. 16/8). Another piece from Bihor, located at Palota[79] (Fig. 16/7), but also other pieces, such as an artefact from Muntenia, were also compared with the Larga type axes.[80] In the case of other stone axes, one can point out the pronounced semi-calotte flat of the eastern specimens (Klady,[81] Korkino, Mirnyi),[82] also present in Moldova (Roznov, Bărcăneşti, Liteni or Poiana), associated with an elegant shape, with a long blade and a wide and arched bevel.[83] Similar stone pieces appear early, relative to the Carpathian specimens, in the Scandinavian area, within the "battle axe culture (*Stridsyxekulturen*)".[84]

A special category is that of stone axe-sceptres with mushroom-shaped flat (= semi-calotte) and the spiral tip inwards, which can be found in the Middle and Late Bronze across large spaces in the eastern areas of Europe. A stone axe with some characteristics similar to Larga-type axes was discovered in Naum (Bulgaria) (Fig. 16/9) and was dated to the first part of the14th centuries. The piece has a straight, elongated blade with a protrusion on the sleeve that gradually thins along the blade.[85] More striking, however, is the similarity of the Larga-type axes with the stone axes from the Late Bronze from Ljulin (Bulgaria)[86] (Fig. 16/2) and Glavan (Bulgaria)[87], similar not only in the shape of the nape, but also in the presence of the circular protrusion on the sleeve, from which two ribs run along the blade. Another axe with a similar flat and the tip of the blade arched inwardly, without decoration, included in the category of sceptres, comes from Pantelimonu de Sus (Constanța county) (Fig. 16/3). The artefact, whose tip Mircea Irimia said it is "suggesting a stylized bird of prey beak (eagle? true eagle?)"[88] is not perforated, but only shows an abandoned beginning of perforation, which either emphasizes its sceptre attribute or illustrates an unfinished piece, dated to the 14th-13th centuries BCE.[89] Other axe fragments, with a similar flat, are known from Satu Nou (Romania),[90] Elhovo (Fig. 16/6) and Haskovo (Bulgaria)[91] (Fig. 16/5). We also notice in the area of Tei culture the axe-sceptres with semi-calotte flat from Bărbuceanu and Butimanu.[92] An andesite axe, forgotten by specialists, published as a sceptre, was also found in Transylvania, in the surroundings around Biertan (Fig. 16/4) (so-called Mediaș),[93] proof that even the intra-Carpathian space is not alien to such artefacts. The existence of unique, prestige stone axes in Transylvania, is proven, for example, not only by the Wietenberg axe from Vințu de Jos (Sibișeni),[94] but also by an axe-sceptre remaining in anonymity, with a conical flat and protrusions on the sleeve, coming from Rotbav, published in 1880 by Gr. Tocilescu.[95]

The most famous, however, remains the sceptre found on the wreck from Uluburun (Turkey),[96] richly decorated both along the flat and the body (Fig. 16/1), dated to the second half of the 14th century BCE.[97] The way in which the blade ornamentation starts from a central area is reminiscent, of course, of the ornamentation of Larga type bronze axes, its copying after a piece of metal being widely accepted,[98] although the reverse variant is just as plausible, we think. The dating of stone axe-sceptres in the 13th-12th centuries BCE, with the exception of the one at Uluburun, provides support for the hypothesis that metal artefacts could copy, as well, those made of stone.[99] The owner of the stone axe-sceptre from the Uluburun ship could have been a "northern Balkan," familiar with the prestigious Carpathian-Danubian insignia but, at the same time, a participant in the "international" trade of the Mediterranean Sea.[100]

Mircea Irimia stated that stone axes copy metal ones, because "the pickaxe shape and especially the inward rolling of the tip of the piece, foreign to this type of material – stone – makes it clear that the sceptre was copied in stone according to a metallic pattern." As has already been stated, unfortunately, a direct connection cannot be established with the spiral-headed sceptres that appeared in the East a millennium before those discussed here, such as the specimens from Persia, from Susa (Fig. 14/3-5), dated between the 24th and 23rd centuries BCE[101], or the one at Perse[102] (Fig. 14/6).

The mushroom-shaped nape of the metal artefacts is specific to type B axes$_1$, from the Middle Bronze, as they

[78] Artifact originally presented as coming from Girișu de Criș (GHEMIȘ 2001, 663-664, Pl. I, III); see also LIE 2019, 98-99, Pl. II/6.
[79] LUCA/ILIEȘ 2000, 323-324, Fig. 2/1. The location at Palota may be real, but it can also be questioned, given that C. Kacsó has proven that the bronze pieces from the same collection, presented as coming from Palota, were actually discovered at Pocluşa de Beiuș (Bihor county) (KACSÓ 2016, 87).
[80] DIACONU/OANCĂ 2015, 82-84, Fig. 1-2.
[81] HANSEN 2011, 163, Fig. 9/8.
[82] KORYAKOVA/EPIMAKHOV 2007, 149, Fig. 3.14/1; Pl. 3.4.
[83] DIACONU 2010, 8, 11 (type C), Fig. 3.
[84] HALLGREN 2012, 148-149, Fig. 5; https://digitaltmuseum.se/021026641353/yxa.
[85] NIKOLOV 2013, 29-32, Fig. 1.
[86] BUCHHOLZ 1999, 76, Fig. 6/a; IRIMIA 2007, 32, Fig. 9/2; PULAK 2008, 372, Fig. 117; IRIMIA 2008, 92-94, Fig. 3/2; IRIMIA 2009, 41, Fig. 9/2; DIACONU 2010, 16, Fig. 6/2; LÁSZLÓ 2013, Pl. 2/11; GOLD & BRONZE 2018, 520, cat. no. 365.
[87] PULAK 2008, 372; GOLD & BRONZE 2018, 520, cat. no. 366.
[88] IRIMIA 2007, 27-28, Fig. 8; IRIMIA 2008, 80-81, Fig. 2 = 5; IRIMIA 2009, 41-42, Fig. 8.
[89] IRIMIA 2007, 33.
[90] IRIMIA 2008, 81, 84, Fig. 1/2 = 6/3.
[91] IRIMIA 2007, 26-27, Fig. 9/3-4; IRIMIA 2008, 84, 86, Fig. 3/3-4; IRIMIA 2009, 36, Fig. 9/3-4.
[92] SCHUSTER *et alii* 2016, 78, 81, Pl. III/1 (Bărbuceanu); VII/1 (Butimanu).
[93] The piece comes from the former museum collection of Biertan commune (according to STOICOVICI/BLĂJAN 1979, 31, note 1) and entered in 1971 in the collections of the Mediaș Municipal Museum with inv. no. 5168. For the artefact see STOICOVICI/BLĂJAN 1979, 44, 46, 50, Fig. 5/8 = 8/8; DIACONU 2010, 16, Fig. 3/3.
[94] POPA 2019.
[95] TOCILESCU 1880, 426-427, Fig. 1. The author, sensing the possible copying of some metal pieces, described the piece thusly: "both by its sharp tip and by the bumps around the handle, and by the ornament consisting of blisters, it can undoubtedly pass as the copy of an identical metal tool, from the Bronze Age."
[96] BUCHHOLZ 1999, 70-76, Fig. 3; 4/a; BUCHHOLZ/WEISGERBER 2005, 149, Fig. 1; PULAK 2008, 372, cat. 237; see also Irimia 2007, 28-29 and note 122, Fig. 9/1; IRIMIA 2008, 89-93, Fig. 3/1; IRIMIA 2009, 37-38, Fig. 9/1.
[97] BUCHHOLZ 1999, 69; LÁSZLÓ 2006a, 44, Fig. 1/1; LÁSZLÓ 2006b, Fig. 5/1; LÁSZLÓ 2013, 259, Pl. 2/13.
[98] See PULAK 2008, 372, cat. 237.
[99] NIKOLOV 2013, 31.
[100] PULAK 2000, 264; PULAK 2001, 14, 47-49; KOLB 2004, 592; LÁSZLÓ 2006a, 49; IRIMIA 2007, 32-33; GESTOSO SINGER 2007, 30; POPA 2015, 201.
[101] BUCHHOLZ 1999, 77, note 20; BUCHHOLZ/WEISGERBER 2005, 151-152, Fig. 7-8; LÁSZLÓ 2006a, 45, Fig. 3/3; IRIMIA 2007, 29; LÁSZLÓ 2013, 258, Pl. 2/10.
[102] BUCHHOLZ 1999, 76-77, Fig. 4/c; LÁSZLÓ 2006a, 44, Fig. 3/2; LÁSZLÓ 2006b, Fig. 3/8-9.

are known to us by the Borleşti variant of the B_1-type axes,[103] documented today also by the Cajvana artefact[104] (Fig. 12/5). Tudor Soroceanu noted the difficulty of distinguishing between different variants,[105] but noted their possible origin in the flat of some type B $axes_1$, such as the one at Szeghalom and a discovery with an unknown place from Hungary.[106] He noted four decades ago that the semi-calotte shaped flat, or similar to a sphere, appears in the case of several types of axes: Drajna, Larga, Křtěnov.[107]

Regarding the Křtěnov-type, it must be said that its flat is not hemispherical but has the profile resembling an axe-blade. The presence of these axes, specific to the Middle Bronze, in the area of the Northern Carpathians,[108] leaves open the possibility of influences on axes of the Larga or Dragna types. The earlier chronological position of Křtěnov-type axes (dated in the Early and Middle Bronze), supports a possible source of inspiration for the manufacturers of future Larga or Drajna-type axes. This is even more so as some artefacts (from the Szőreg variant), from Szőreg, Bánov or Donau bei Dunaújváros,[109] do not have a flat axe flat, but well thickened, rather close to the semi-calotte flats. Some axes develop their flat in their own semi-calottes, as are the specimens from Bržezno and Slaný.[110] In the evolutionary scheme to Larga type axes, it is probable that the artefact from Kamýk u Prílep[111] represents the connecting link to the axes of the Larga type.

Metallographic analyses

The Mihalț axe benefited from metallographic analyses. Two microprobes were taken from the blade area and from a repair, which were analysed by Scanning Electron Microscope/energy Dispersive X-ray (SEM/EDX).[112] A repair was observed in the hafting tube area by which an attempt was made to cover a casting defect (cavity caused by the accumulation of gases in the mould in the form of a perforation that completely pierced the artefact's body). Bronze was added to this alveola, and the surface was subsequently finished without achieving complete uniformity. In both cases, an alloy based on copper 91-91.8% with tin 8.2-9% (91% Cu, 9% SN – sample 1, respectively 91.8% Cu and 8.2% SN – sample 2) (Fig. 1-2) is observed which also contains small amounts of S, Ni, Fe and Si, O and C contamination is also observed, as a result of corrosion processes on the surface of the artefact and its contamination with organic residues.

Metallographic analyses performed on Larga type hybrid axes indicate high percentages of tin alloyed with copper, placing them at the limit of becoming brittle, an aspect that we believe supports the interpretation of these pieces as having rather a symbolic utility. The best example is the Nehoiu axe, with 13.81% Sn, a percentage that "makes the artefact unique."[113] The axe found near Kiyv, from Troieshchyna, with 12,68% Sn[114] has similar percentages. Next follow the axes from Cernavodă (10.99% Sn)[115] and Mihalț (8.2-9% Sn). At the opposite end is the axe from Larga, with only 4.3% Sn.[116]

Larga:

Sn	Pb	As	Sb	Ag	Ni	Bi	Au	Zn	Co	Fe
4,3	0,07	1,8	0,72	0,16	1,3	0,009	0	0	0,06	+

Nehoiu:

Cu	Sn	Pb	Ni	Zn	As	Ag
83,46	13,81	0,012	0,55	2,10	„urme"	-

Cernavodă:

Ti	Fe	Ni	Cu	Zn	Au	Pb	As	Bi	Ag	Sn	Sb
0,20	0,92	0,64	84,7	0,20	0,10	1,4	0,21	0,001	0,001	10,99	0,60

Troieshchyna:

Cu	Sn	S	Ni	P	Sb	Pb	Al	As
76,68	12,68	6,084	1,198	0,961	0,662	0,661	0,511	0,463

[103] VULPE 1970, 70, 73.
[104] IGNAT 2000, 34, Fig. 7; see also SOROCEANU *et alii* 2019, 203.
[105] SOROCEANU *et alii* 2019, 203.
[106] HAMPEL 1886, Pl. XXX/1; MOZSOLICS 1967, 38, 165, Taf. 12/3 = 14/3; 17/3; SOROCEANU *et alii* 2019, 203.
[107] SOROCEANU, RETEGAN 1981, 210.
[108] For these axes, widespread in Hungary, Slovakia and Romania, see HÁJEK 1950; NEUGEBAUER-MARESCH/NEUGEBAUER 2000-2001; DAVID 2002, Pl. 70-82; 209-212; PERNIKA *et alii* 2016, 62-63, Fig. 11.
[109] See DAVID 2002, Pl. 70/1-2; 83 / 3A-c; 252/1.
[110] DAVID 2002, Pl. 84/2a-b, 4a-b.
[111] DAVID 2002, Pl. 84/1a-b.
[112] The analysis was made by the National Institute for Research and Development of Isotopic and Molecular Technologies of Cluj-Napoca (INCDTIM), carried out by Associate Professor Lucian Barbu-Tudoran, to whom we are thus grateful.
[113] Lost artefact; analysis performed by C. Nicolescu-Otin in 1913 (see SOROCEANU 2005, 23).
[114] КЛОЧКО, КОЗЫМЕНКО 2017, Fig. 3.9.
[115] SOROCEANU *et alii* 2019, 205, table 1.
[116] Analyses published in SCHUBERT, SCHUBERT 1967, 196-197, data in VULPE 1970, 101; PETRESCU-DÎMBOVIȚA 1977, 49; KACSÓ 2011, 516.

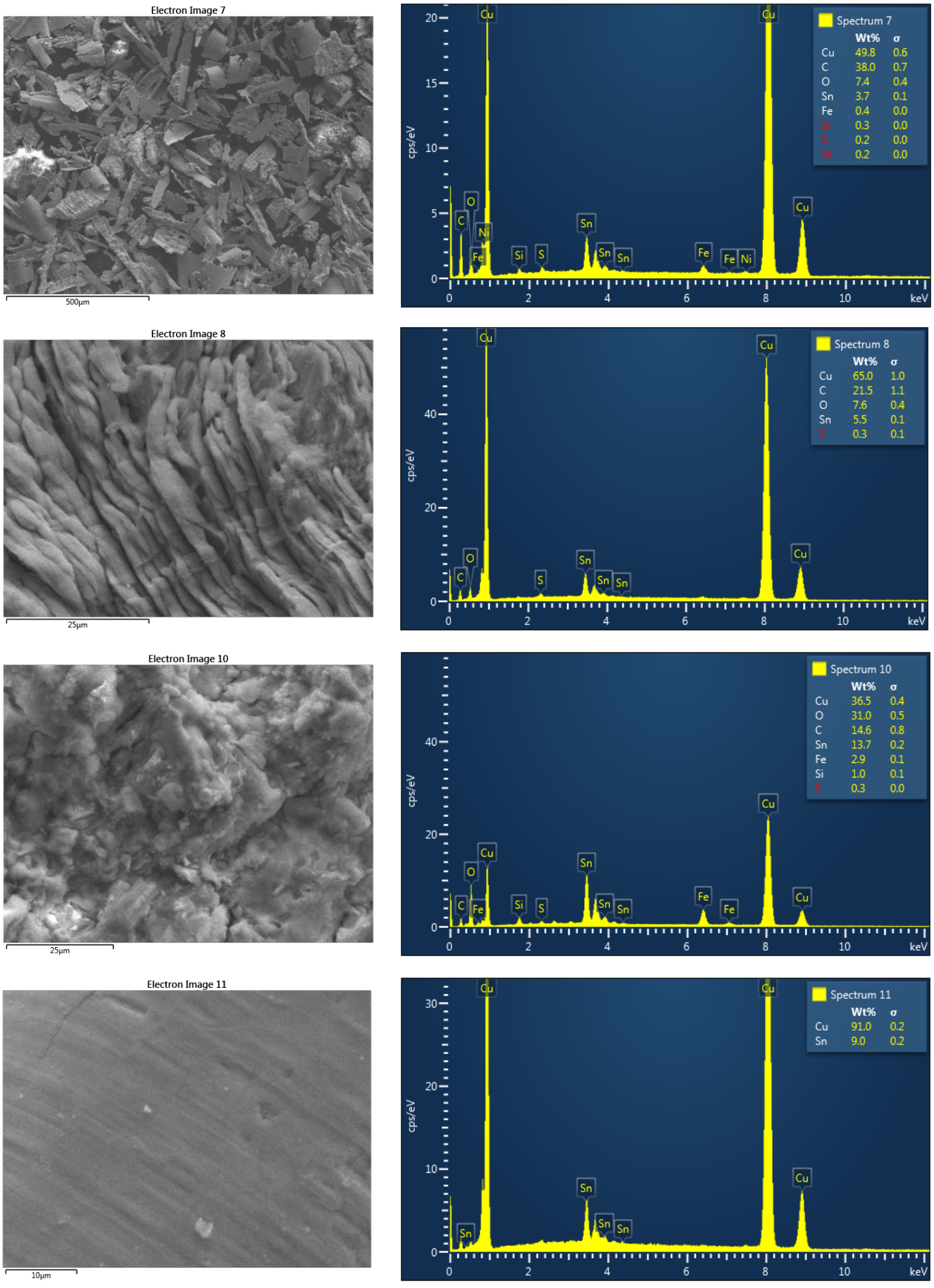

Fig. 1. Results of metallographic analysis (sample 1) taken from the bronze axe from Mihalț

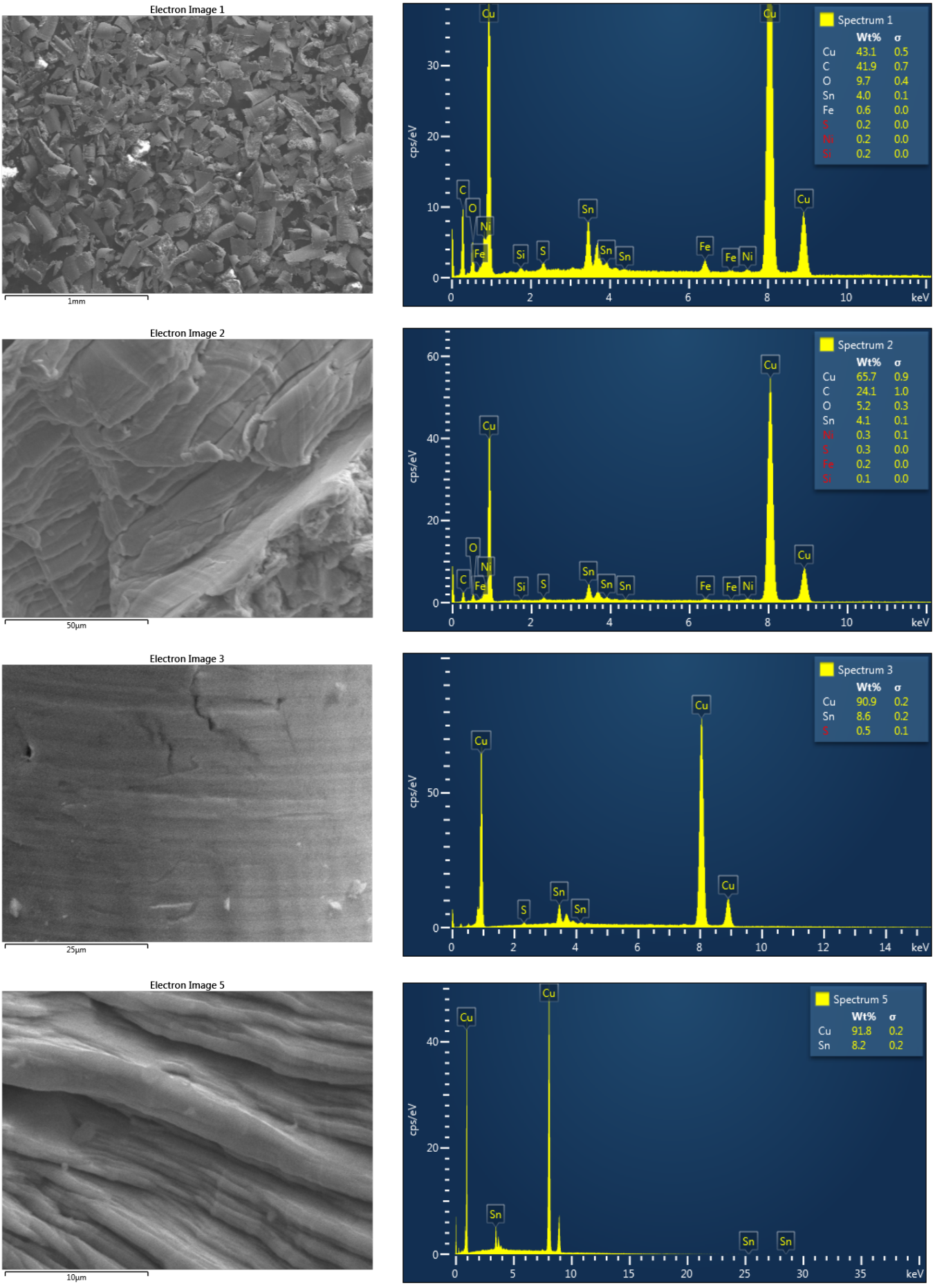

Fig. 2. Results of metallographic analysis (sample 2) taken from the bronze axe from Mihalț.

DATING AND CULTURAL CATEGORISATION

The bronze axes from Orțâța and Larga were dated by C. Kacsó in the Late Bronze 2 Age,[117] and regarding the Drajna type axes, with which the former are related, opting for the same classification, in Late Bronze II, but with some more recent artefacts, seen as legacies, going into Late Bronze 3, therefore datable at the end of Bronze D and the beginning of Hallstatt A.[118] The same author observed over four decades ago that the associations of Larga-type axes in deposits indicate two stages: an early one (Perișor, Gemzse, Prelipce and Lohovo) and another more recent one (Ungureni, Kispalád, Penészlek, Hajdúhadház, Drajna de Jos). A. László grouped the deposits of the Uriu-Domănești/ Uriu-Ópalyi type under the extended name of *Uriu-Ópályi-Drajna de Jos-Lozova-Pobit Kamăk type*, including, therefore, expressly, the main findings from the map of Drajna axes[119] and dated the *Drajna-Lozova-Pobit Kamăk type* sceptres in the interval between the middle of the 14th and the end of the 12th centuries BCE.[120] Associations from sub-Carpathian Ukraine, of a Drajna-type axe with a decorated semi-calotte flat, discovered at Malye Geevcy,[121] as well as the one from Lochovo, of an axe with a spherical 3/4 flat, both belonging to the Kriva (Uriu-Domăneşti) series,[122] indicate the same dating.

Tudor Soroceanu classifies the axes defining the Drajna or Larga types in the Bronze D period, with the possibility that they are even earlier, but excludes a more recent chronological placement (Ha A).[123] The mould from Dăbâca argues for an earlier dating of some artefacts (with due reservations given by the difficulty of specifying the type), placed by Fl. Gogâltan at the end of the Middle Bronze.[124]

The Larga-type axes in Ukraine, from Ivanija and from "West Volhynia" do not benefit from precise dating. The Ivanija axe is dated in the Middle Bronze of West Volhynia. However, the calibrated ^{14}C data from tumulus 2 in the Ivanija necropolis (adjacent to the one from which the bronze axe originated) indicate the interval 1560-1430 BCE,[125] but we do not know for sure whether the two tumuli were contemporaries;[126] however, it is accepted as probable their belonging to the Komarov[127]/Trzciniec culture.[128] For the Ukrainian area, V. I. Klochko and A. V. Kozymenko uses the term *Ivanija-type* axes for specimens from Ivanija and Troieshchyna.[129] It is probably important to remember that in the area of the Desa river basin, in Ukraine, we find other axe-sceptres, of the Křtěnov-Type, with a halberd bevel,[130] possibly partially contemporary to those of the Larga type.

The difficulty of establishing cultural attributions in the case of Larga hybrid axes appears all the more evident in the case of the Mihalț axe. Although we are in the area of the late evolution of the Wietenberg culture and where the Gligorești Wietenberg-Noua type discoveries spread), it is hard to believe that the piece was manufactured locally, in the area where it was found. Perhaps this Transylvanian example can best support the hypothesis of manufacturing Larga type axe-sceptres in the metallurgical centre of north-western Romania and in Transcarpathian Ukraine.

Still, however, the Larga axe was associated in the Lăpuș depression precisely with the Wietenberg III-IV style pottery finds that appeared at Lăpuș.[131] There was no shortage of voices that attributed the axe to the Komarov culture;[132] the classification was rightly disputed, as traces of this culture are missing in Transcarpathian Ukraine,[133] and the area is connected to the Carpathian metallurgical centre.[134]

Therefore, it is observed the tendency of specialists *always*, to associate such axes with a cultural environment alien to that specific to the area: Wietenberg III-IV or Komarov for Larga, North-West Transylvanian for the Mihalț one. Probably closer to reality would be to decipher behind such products their exclusive prestige role, born on the border of cultural areas in direct contact: Suciu de Sus II/ Lăpuș I axes from Larga and Orțâța) – Komarov/Trzciniec (axes from Ivanija, "Western Volhynia" and Troieshchyna), on the one hand, and the Late Wietenberg or Gligorești Wietenberg-Noua type (Mihalț axe, Dăbâca mould).

The unique types of axe-sceptres, derived from the Drajna type, are also present in different cultural areas, helping us to perceive the wider phenomenon in which the Larga hybrid type falls. For example, we mention here the axe from Țibucani, considered in Moldova as an import from the Suciu de Sus culture area,[135] but also the axe from Dobrogea from Cernavodă, which comes from a Coslogeni type settlement, with data ^{14}C between 1450-1111 BCE (with probability of the 13th century BCE).[136]

If we admit that the model for the Uluburun sceptre was the axe-sceptre from the Drajna deposit, the dating of the Uriu-Ópalyi series of deposits should be placed until the middle of the second half of the 14th century.[137] However, as the Drajna artefact is not only far outside the Drajna type axes, but also the only one of its type, made of metal, with a spiral blade, it most likely represents only a copy of axes around the Black Sea in the extra-Carpathian metallurgy.[138]

The Drajna type spiral blade axes cease their production and use long before the end of the first millennium BCE. But half a century later, at the beginning of the Iron Age, similar

[117] KACSÓ 2011, 419, 516.
[118] KACSÓ 2007, 38-39, 41.
[119] LÁSZLÓ 2006a; LÁSZLÓ 2006b. For the terminology of this horizon, see the recent discussion at KACSÓ 2018, 322.
[120] LÁSZLÓ 2013, 259.
[121] KOBAL 2000, 37-38, Taf. 5A/6.
[122] KOBAL 2000, 37-38, Taf. 17H/6.
[123] SOROCEANU *et alii* 2019, 211.
[124] GOGÂLTAN 2017, 21; GOGÂLTAN 2019, 86.
[125] MARKUS 2009, 150, Fig. 2.
[126] See the reservations expressed by C. Kacsó, who even though he accepts a cultural unity, does not exclude that the destroyed tumulus, implicitly the axe that would have belonged to it, was earlier (KACS, 1989, 85).
[127] KLOCHKO 1993, 9-10.
[128] MAKAROWICZ 2012.
[129] КЛОЧКО, КОЗЫМЕНКО 2017, 129.
[130] ШАФЕНКОВА, ЧУБУР 2019.
[131] KACSÓ 2007, 91.
[132] NICULICĂ 2007, [37, bottom right photo].
[133] KACSÓ 2011, 516, note 234.
[134] KOBAL 2000, 27; BOROFFKA 2006, 453-454; MARKUS 2009, 135.
[135] DIACONU 2019, 44-46, Fig. 4.
[136] SOROCEANU *et alii* 2019, 208-209, 212, Fig. 15.
[137] IRIMIA 2007, 31.
[138] For the discussion on this topic see KACSÓ 2007, 39-40.

shapes reappear, seen as sceptres penetrating from the same eastern space. A bronze artefact discovered in Hungary at Sárviz-Kanal,[139] with its rolled blade and semi-calotte flat, has good parallels in metal axes from Kislovodosk and Fars (Russia).[140]

CONCLUSIONS

The rarity of the Larga type axes was put not on the inventiveness of a local craftsman, but on the existence of a market demand at the time.[141] It is obvious, therefore, that we have in front of us rare specimens, the result of some innovations that their craftsmen have certainly made for special orders. These axes rather constitute isolated artefacts, which were not in use for long, so they failed to develop into a unitary typological series, or it was desired that they remain unique specimens, which would increase their value in the market.

The fact that the area of spread of Drajna type axes is the upper basin of Tisa and Someş rivers[142] indicates an overlap with the area of Larga axes, except for the Mihalț axe and the extra-Carpathian axe, from Nehoiu. Two moulds for casting metal parts similar to the axe-sceptre from Drajna,[143] because of the spiral shape of the blade, were discovered in Bulgaria, at Pobit Kamăk (Fig. 14/7-8). Their flat was attached separately, but it is reconstructed as being also in the form of a mushroom.[144] At least in these last cases, their manufacturing at the Lower Danube appears obvious,[145] helping to explain the origin of the Uluburun stone artefact. The shape of the bronze axe-sceptre, with spiral tip, discovered in the Republic of Moldova, in the Lozova II Deposit, also contributes to the reconstruction (Fig. 14/2), the artefact is dated in the Late Bronze (Bz. D).[146] Of course, what Attila László defined as the Drajna or Drajna-Lozova-Pobit Kamăk type, spiral-edged sceptres (*Spiralschneidezepter*,[147] present only outside the Carpathian arch, is a special category, perfectly moulded on the attribute of prestigious goods. Their result would be attributed to the influences of the metallurgical centres in the Upper Tisza area but also the North-West Pontic one, László being tempted to associate them with the elites of the Noua-Sabatinovka Coslogeni communities.[148]

On the other hand, if we look in a wider circle, we cannot ignore the axes with the semi-calotte flat from Lunde and Raknes (Fig. 12/8). Seen as individual artefacts, dated to the end of the 14th century, it is possible that they reflect not only local creations or related to the "Path of the North"[149] but also distant echoes up to the Scandinavian metallurgical centres of some central European models.

Obviously, the morphology, dispersion (Fig. 17) and the rarity of Larga-type hydride axes show their symbolic value as prestige goods. M. Roska intuited these attributes, he saw in the Larga axe an insignia of rank and prestige;[150] the religious and social value is obvious for C. Kacsó and T. Bader.[151] The imitation of an aquatic bird's head is not excluded, a credible hypothesis if we refer to the shape and decoration of the Gemeinlebarn axe[152] (Fig. 9), which by its age (Reinecke phase A2) can constitute a prototype of the Larga-type axes. The symbolic importance of the B-type axes lies also in the representation of a specimen on a ceramic vessel from Pákozdvár, from the Hungarian Middle Bronze, belonging to the Vatina culture, Koszider period.[153] They join the horn and bone sceptres,[154] the stone axe-sceptres[155] or stone mace,[156] as prestige goods also encountered in the Bronze Age of the present-day Central Europe.

(*translated into English, Cosmin Mihail Coatu*)

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[140] KEMENCZI 1995, 332, Fig. 3/b-c.
[141] KACSÓ 1989, 85.
[142] KACSÓ 1977a, 61-62; BADER 1996, 275; see also IRIMIA 2007, 30.
[143] For this axe, see ANDRIESESCU 1925, Pl. III/18 = IV/5.
[144] WANZEK 1989, Pl. 42; BUCHHOLZ 1999, 75-76, Fig. 6/b-c; BUCHHOLZ/WEISGERBER 2005, Fig. 3-4; LÁSZLÓ 2006a, 44, Fig. 3/4-7; LÁSZLÓ 2006, 3/4-7; IRIMIA 2007, 30 and note 132, Fig. 10/3-5; IRIMIA 2009, 39-40, Fig. 10/3; DIACONU 2010, 16, Fig. 3/5; LÁSZLÓ 2013, 256, Pl. 2/7; GOLD & BRONZE 2018, 489, cat. no. 262-263; 502, cat. no. 289-290.
[145] SOROCEANU *et alii* 2019, 203.
[146] LÁSZLÓ 2006a, 45, Fig. 3/1; LÁSZLÓ 2006, Fig. 3/2; IRIMIA 2007, it is worth noting the striking similarity of the Lozova axe with an artefact considered as an "old Episcopal crutch" from the Romanian space, published in 1911 (see MOISIL 1911b, 143, drawing on the right).
[147] LÁSZLÓ 2006a, 46.
[148] LÁSZLÓ 2006a, 45; LÁSZLÓ 2013, 256-257.
[149] ENGEDAL 2010, 90-91, 168, Pl. 39 (nr. 421, 425).
[150] ROSKA 1959, 66.
[151] KACSÓ 1977a, 62; KACSÓ 2002, 19; BADER 1996, 275.
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Fig. 3. The bronze axe from Mihalț (foto Călin Şuteu).

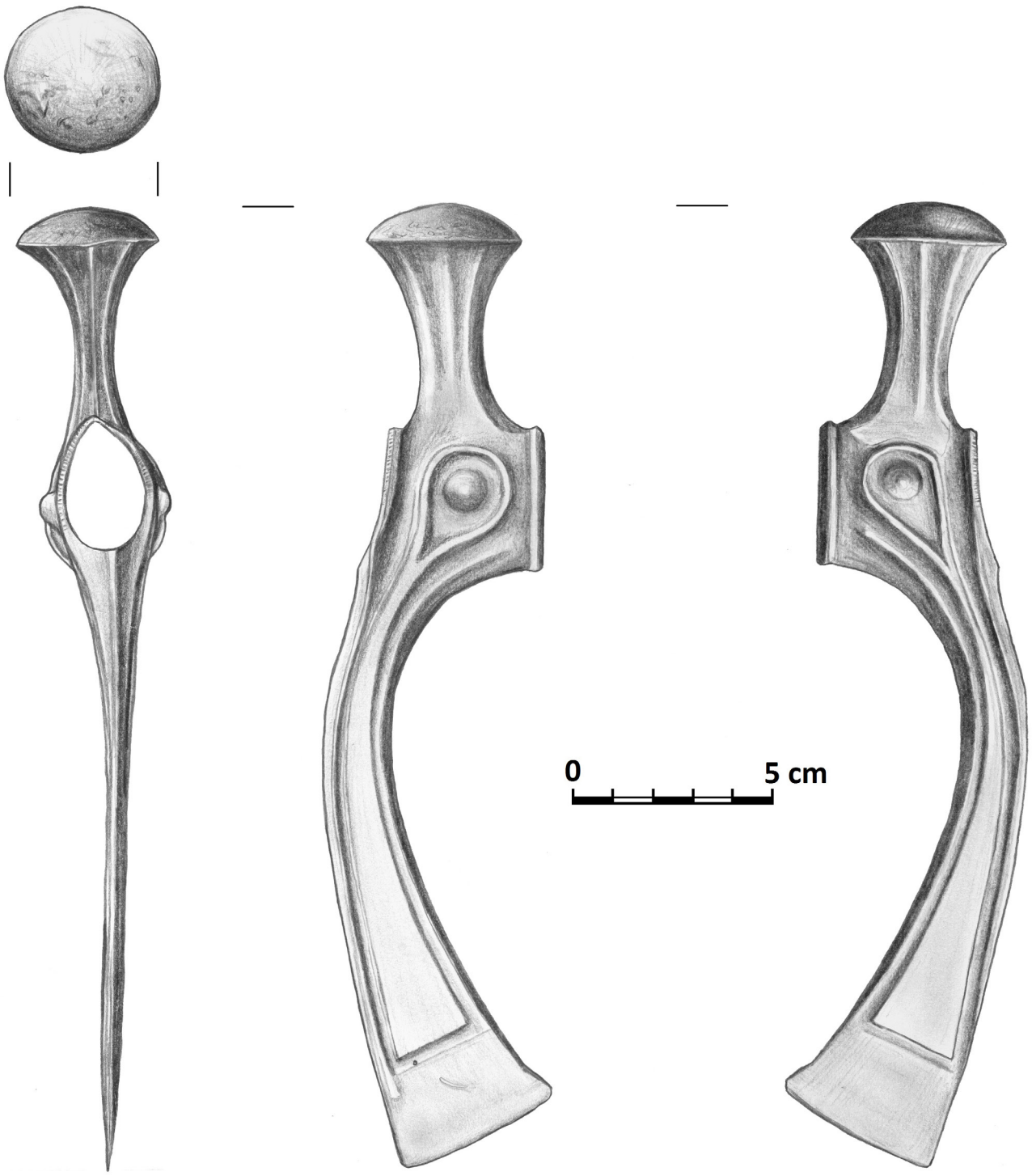

Fig. 4. The bronze axe from Mihalț (drawing Cristian I. Popa).

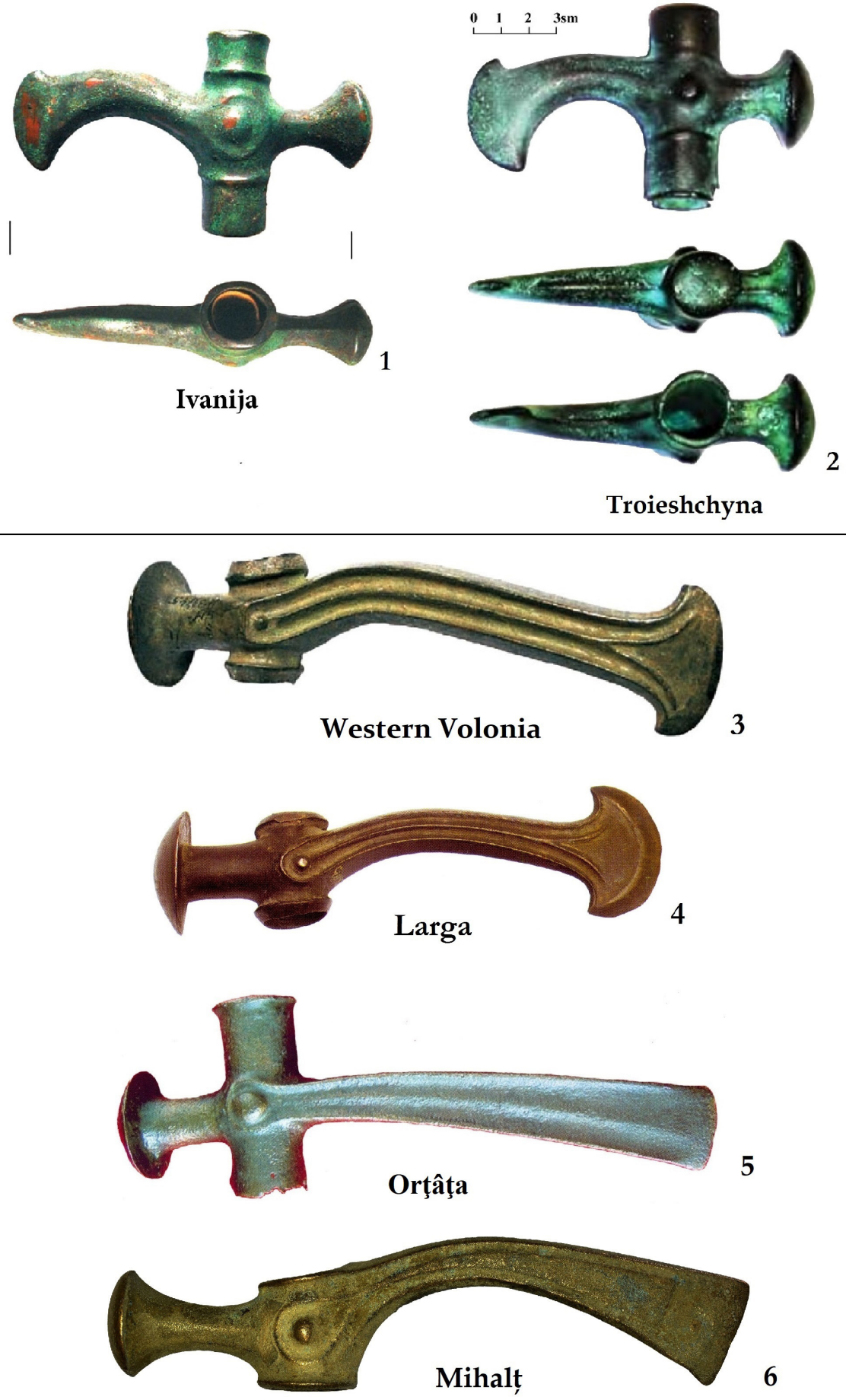

Fig. 5. Hybrid Larga-type axes (foto) (after КЛОЧКО/КОЗЫМЕНКО 2017 – 1-2; NICULICĂ 2007 – 3-4; KACSÓ 2004 – 5; not published – 6).

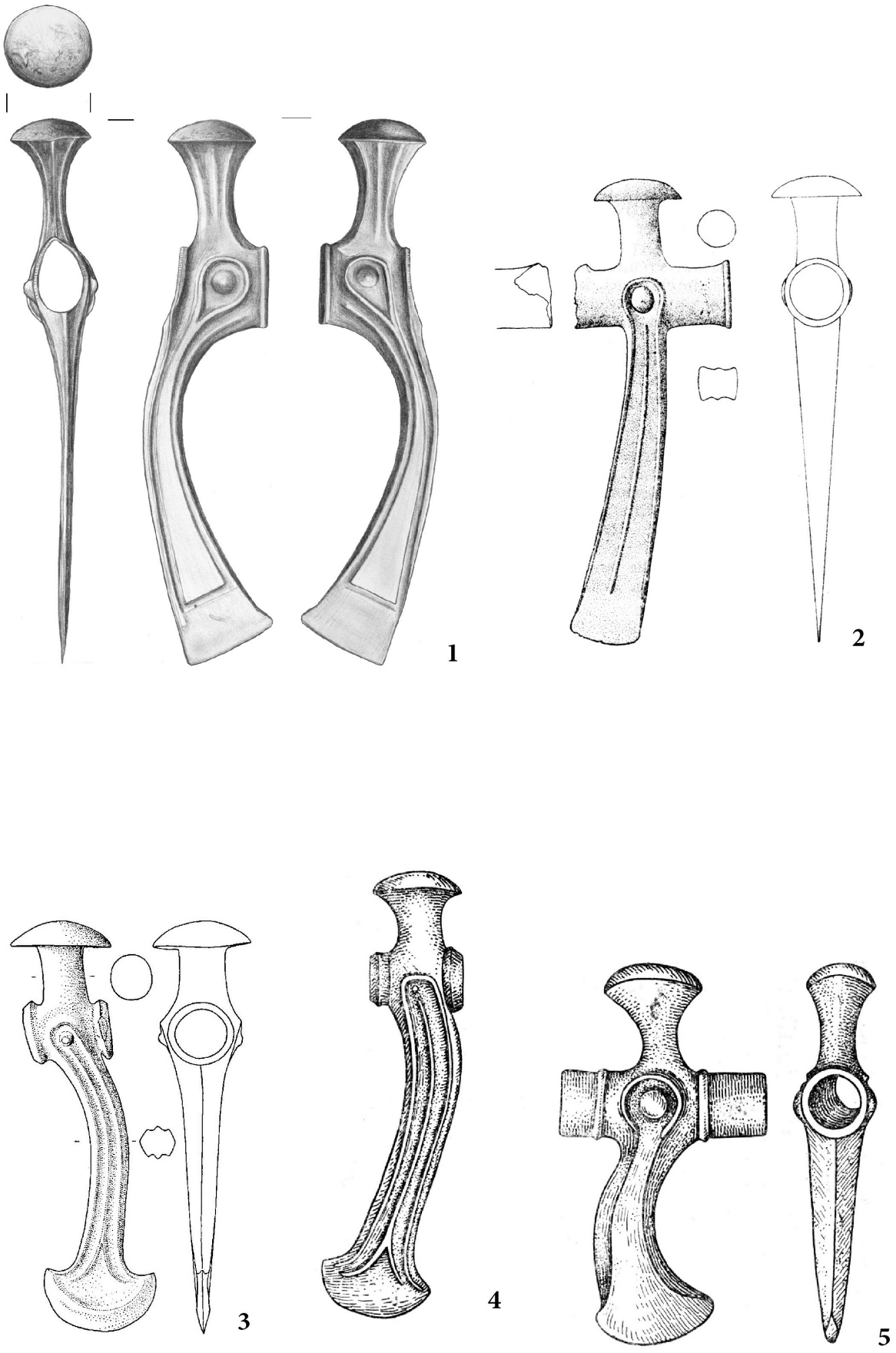

Fig. 6. Hybrid Larga-type axes: Mihalț (1), Orțâța (2), Larga (3), Ivanija (4) şi Troieshchyna (5) (1 – not published; *apud* KACSÓ 1989 – 2; VULPE 1970 – 3; Svešnikov 1968 – 4-5).

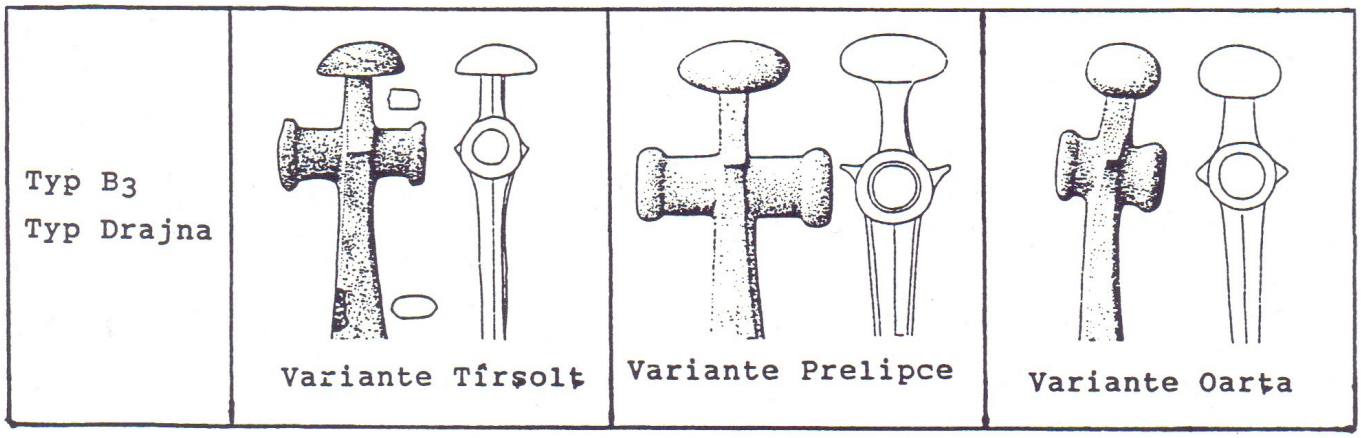

Fig. 7. Typology of Drajna, type B axes$_3$ after T. Bader (BADER 1996).

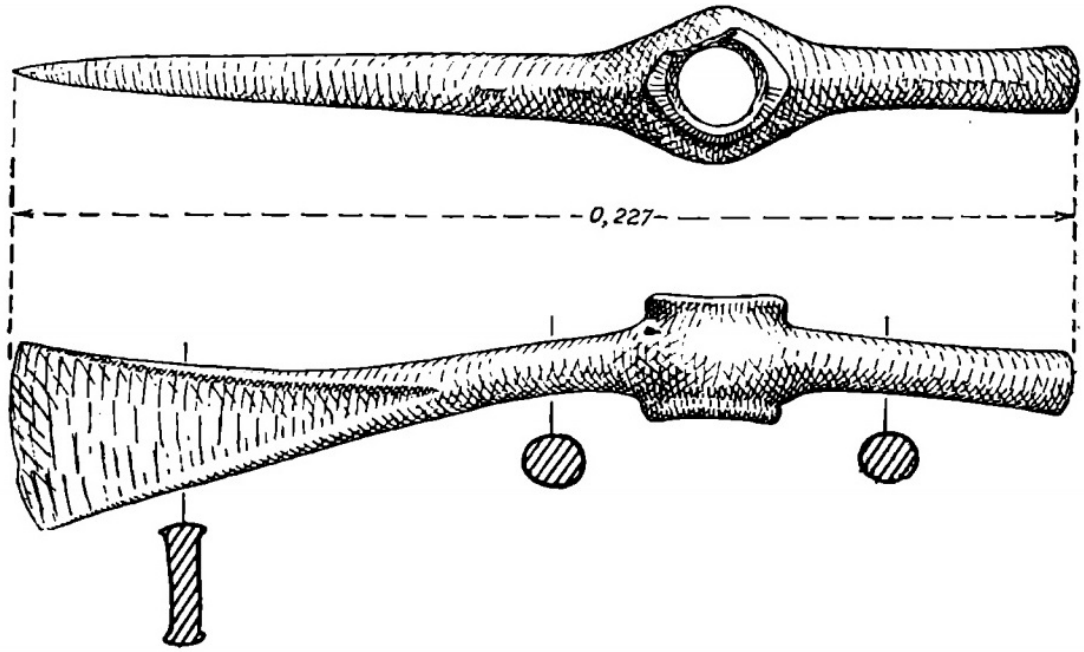

Fig. 8. Bronze axe from Silişteni (Tei culture) (after COMŞA 1967).

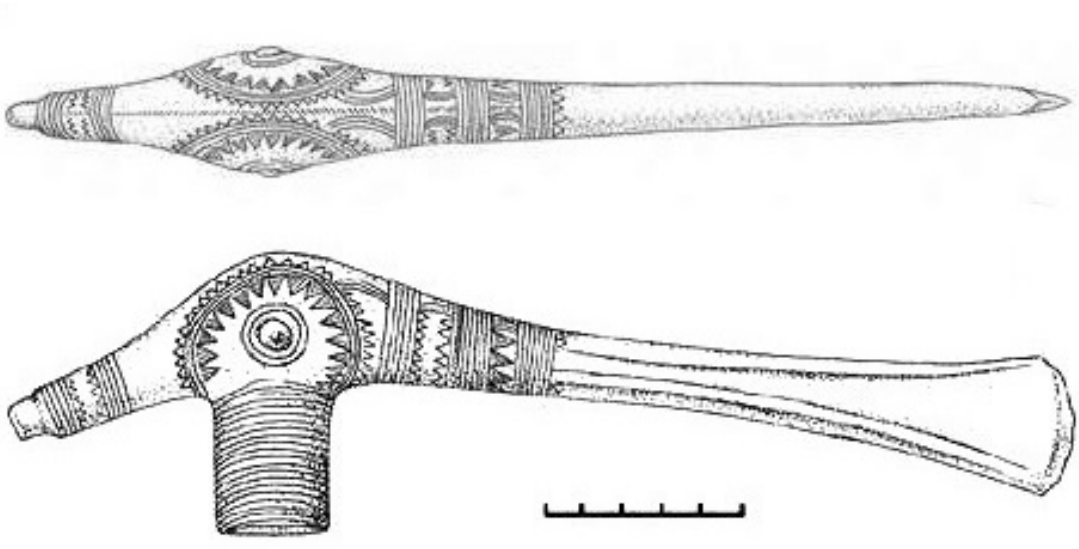

Fig. 9. Křtěnov -type axe from Gemeinlebarn (after GRIGORIEV 2018).

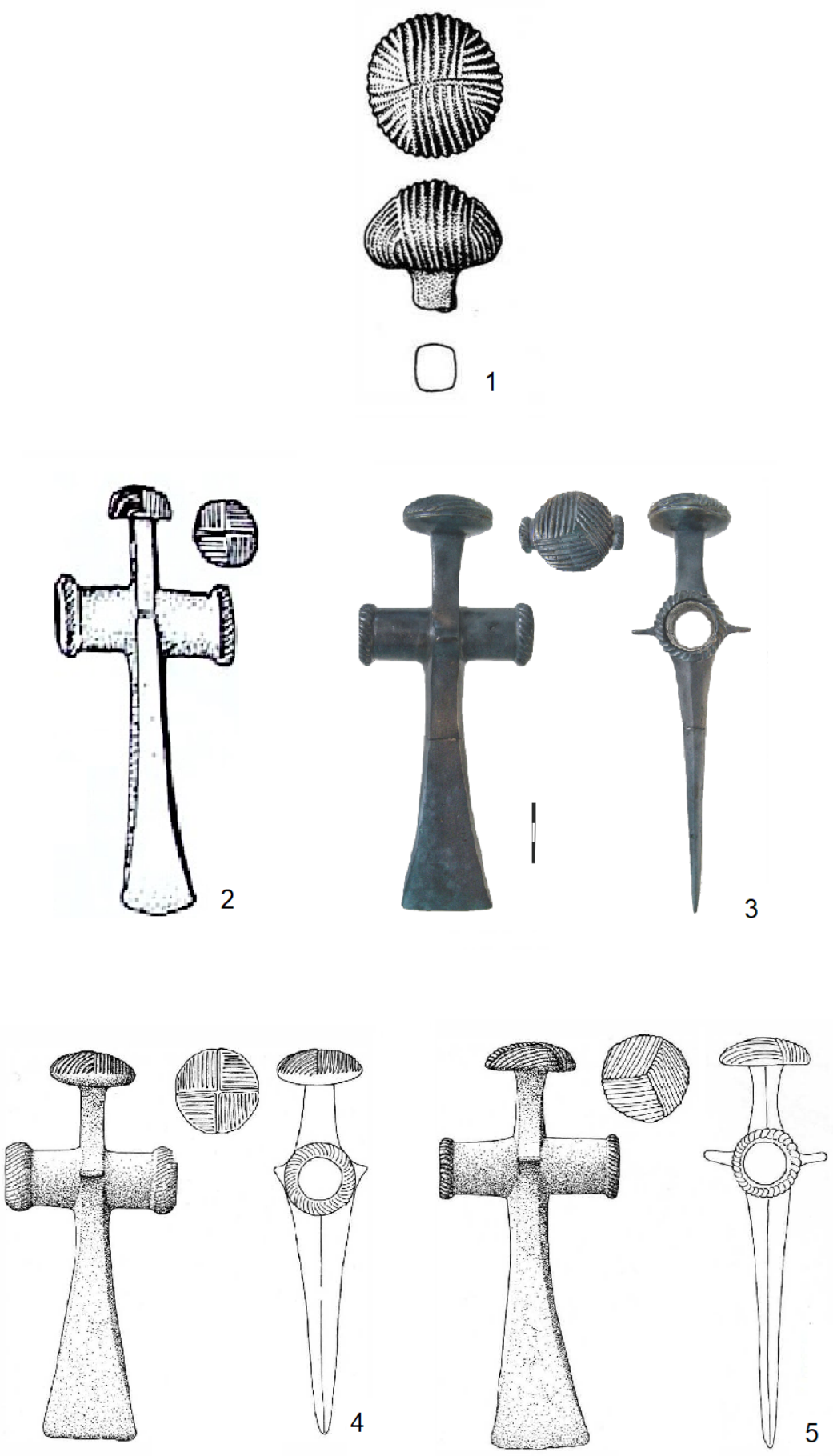

Fig. 10. Drajna-type axes with a straight blade: Bicaz II (1); Penészlek (2); Cluj-*Tufele Roşii* (3); Drajna de Jos (4-5) (after KACSÓ 2003 – 1; MOZSOLICS 1967 – 2; ROTEA 2017 – 3; VULPE 1970 – 4-5).

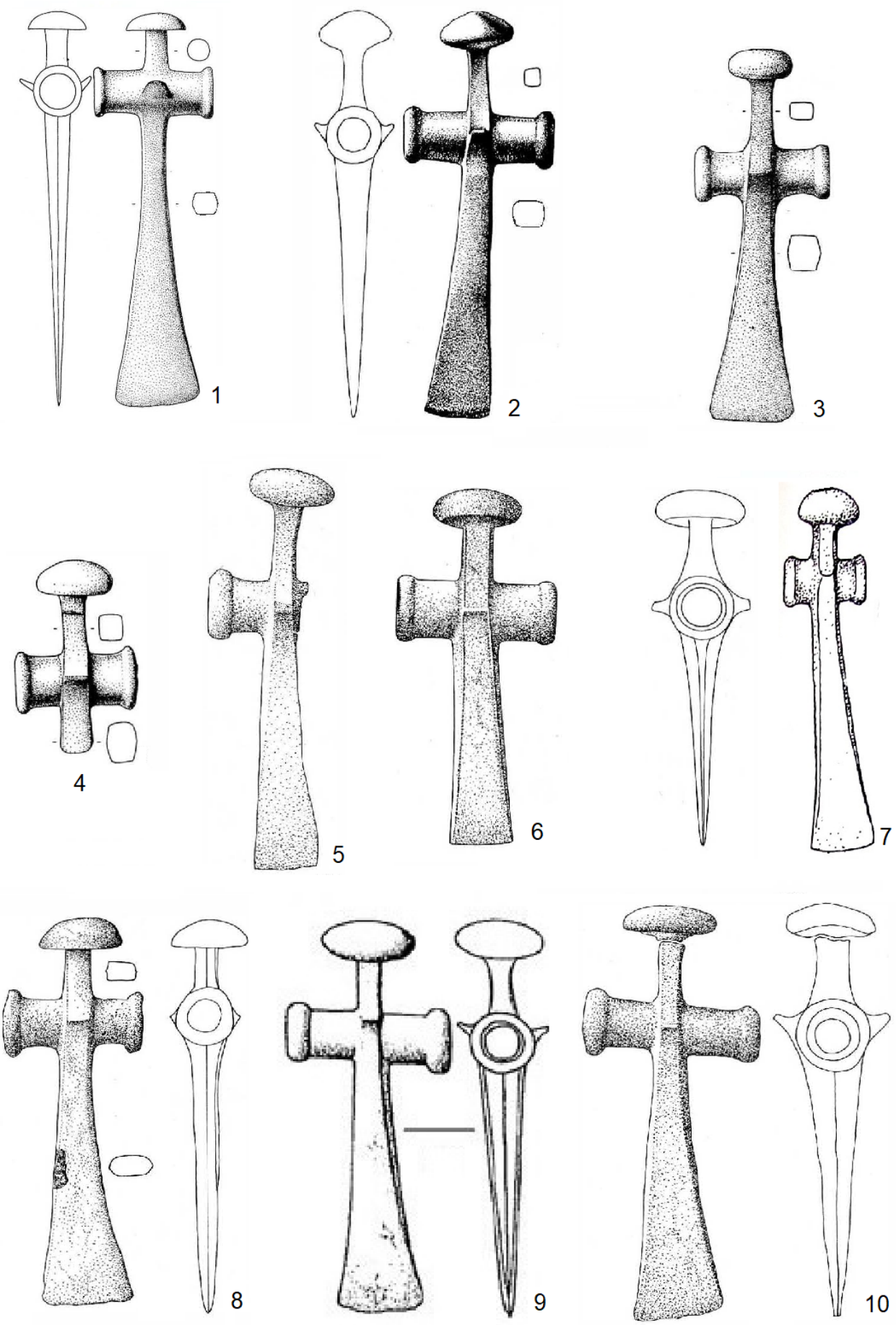

Fig. 11. Bronze axes discovered at Târşolț (1), Bicaz I (2), Ciceu Corabia (3), unknown (4), „Someş county" (5); Târgu Lăpuş (6); Kispalád (7); Lăpuş (8); Prelipce (9); Şanț (10) (after KACSÓ 2003 – 1-4; IL'KIV 2012 – 9; VULPE 1970 – 5-6, 8, 10).

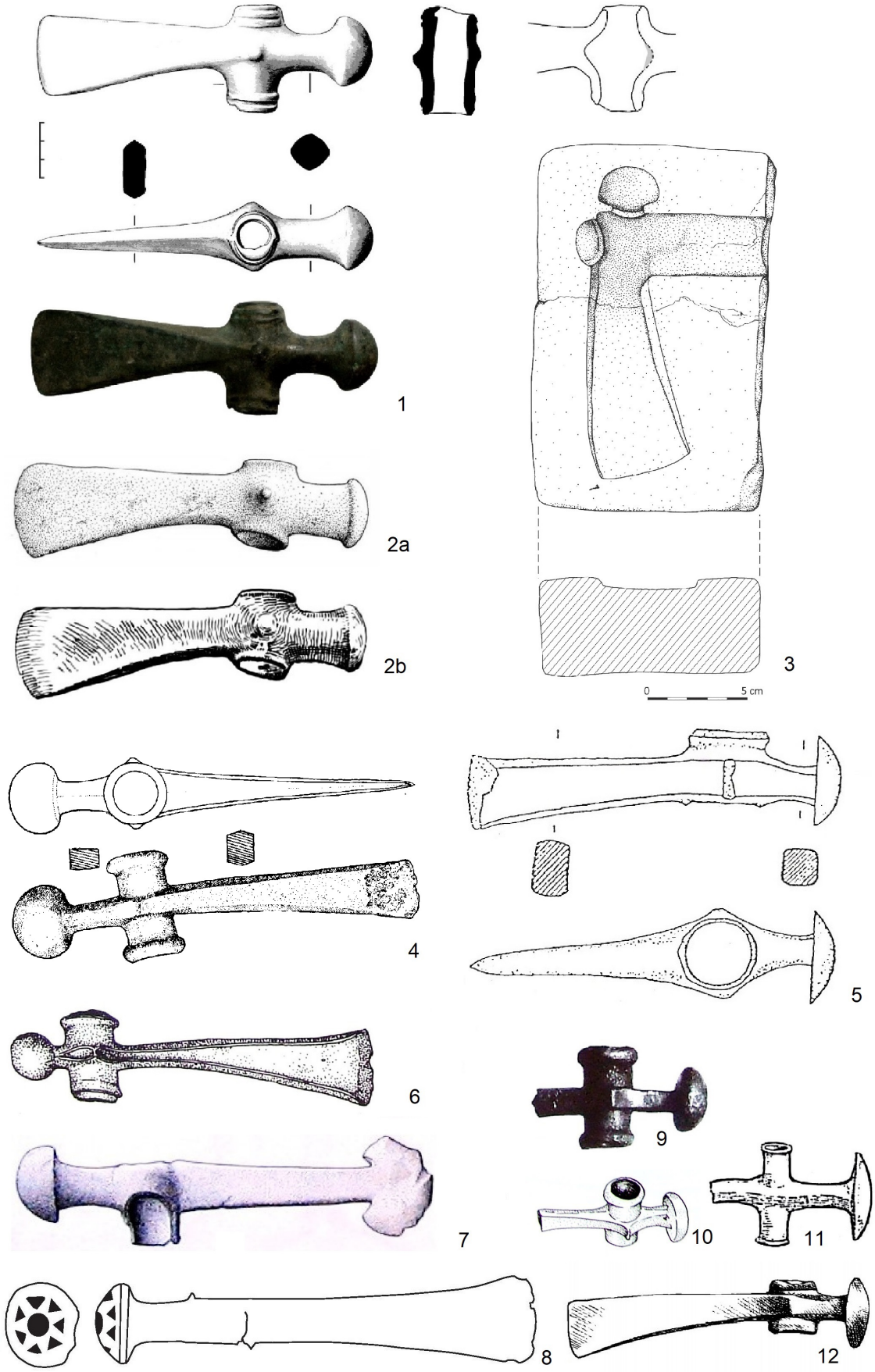

Fig. 12. The bronze axes from Cernavodă (1), Nehoiu (2), Cajvana (5), Oarța de Sus (4), Hajdúhadház (6), Brzeźno (7), Raknes (8), Gemzse (9), Csongrád (10), Dodona (11), unknown („Hungary") and mould from Dâbâca (3) (after SOROCEANU *et alii* 2019 – 1; VULPE 1970 – 2a; MOISIL 1911a – 2b; GOGÂLTAN 2017 – 3; KACSÓ 1977a – 4; IGNAT 2000 – 5; MOZSOLICS 1973 – 6; GEDL 1980 – 7; ENGEDAL 2010 – 8; LÁSZLÓ 2006b – 11; MOZSOLICS 1967 – 10, 12).

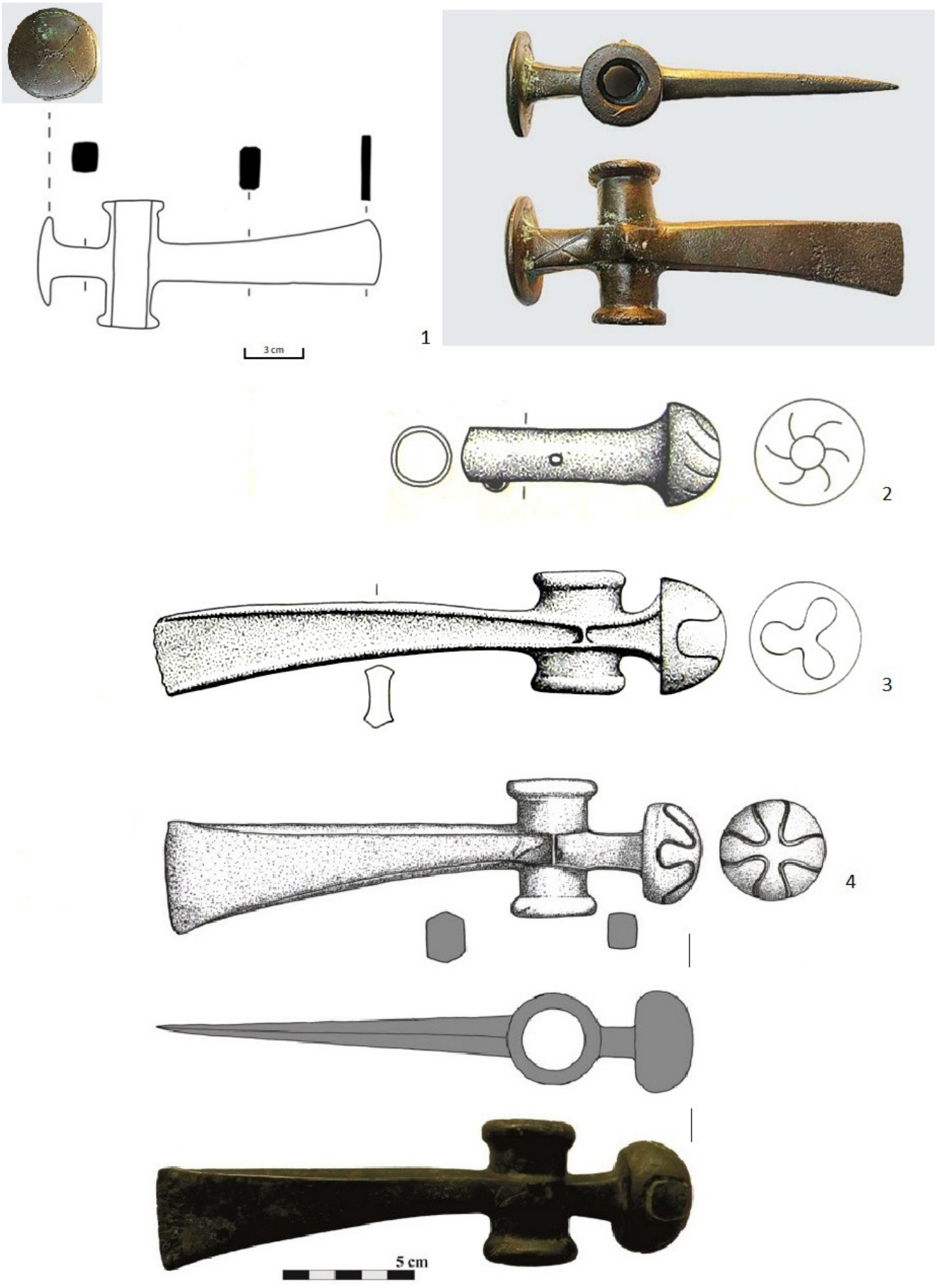

Fig. 13. Bronze axes from Jabeniţa (1), Malye Geevcy (2-3), Ţibucani (4) (after SOROCEANU 2016 – 1; KOBAL 2000 – 2-3; DIACONU 2019 – 4).

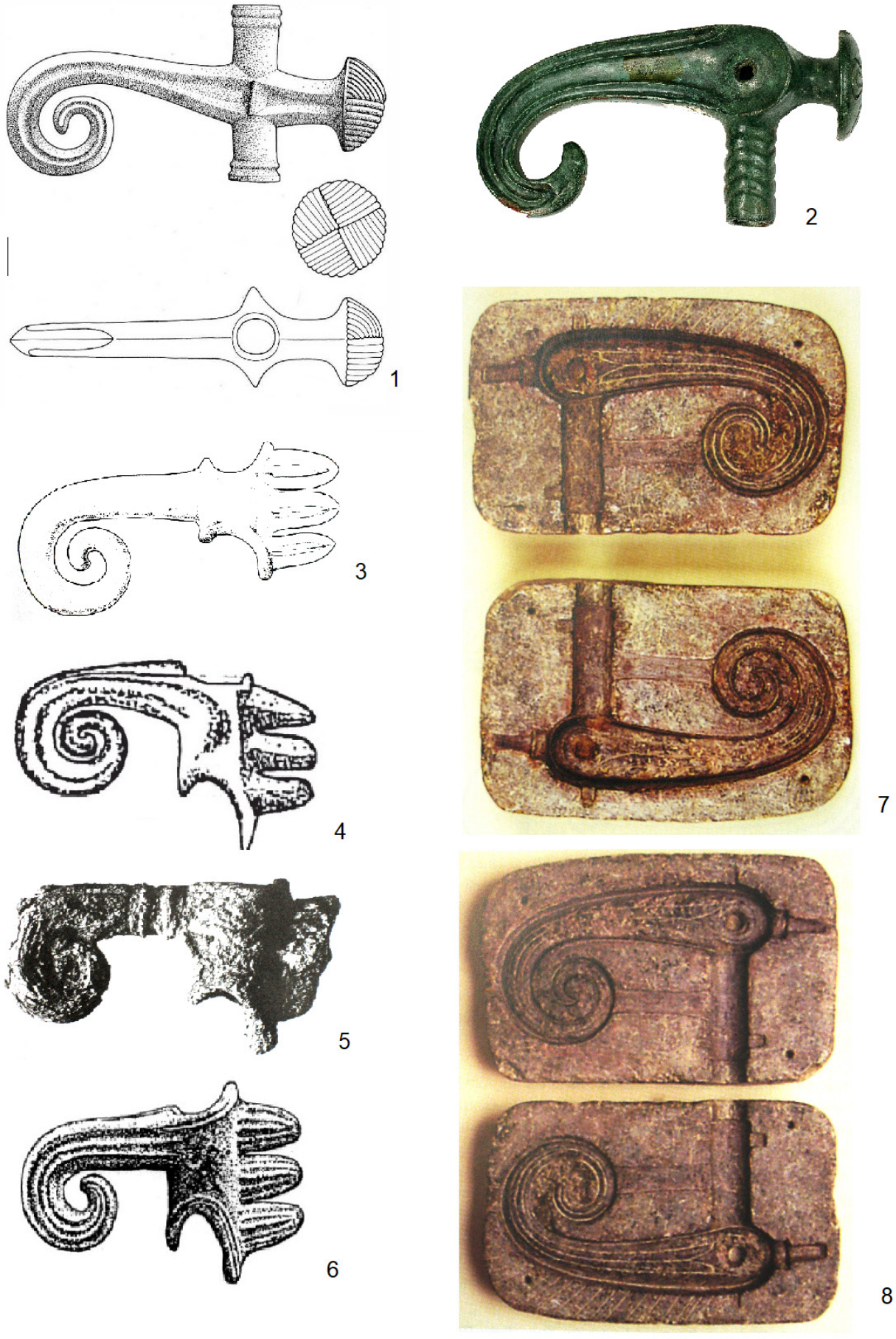

Fig. 14. Spiral blade axes (1-6) and moulding patterns (7-8): Drajna (1), Lozova (2), Susa (3-5); Perse (6) Pobit Kamăk (7-8) (after VULPE 1970 – 1; www.nationalmuseum.md – 2; BUCHHOLZ 1999 – 6; BUCHHOLZ/WEISGERBER 2005 – 3, 5, 7-8).

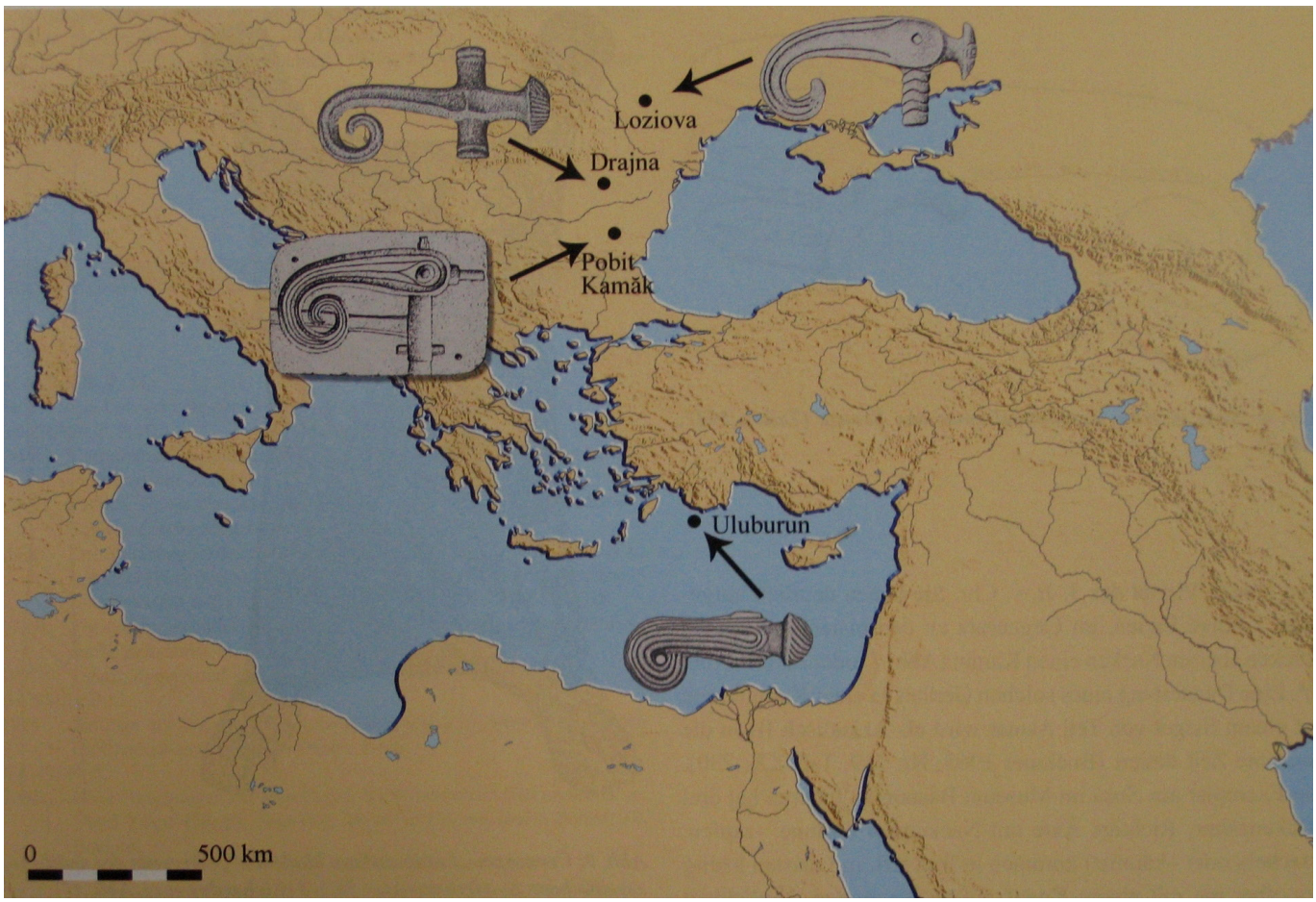

Fig. 15. The spread of Bronze Age spiral-headed axes (after BUCHHOLZ/WEISGERBER 2005).

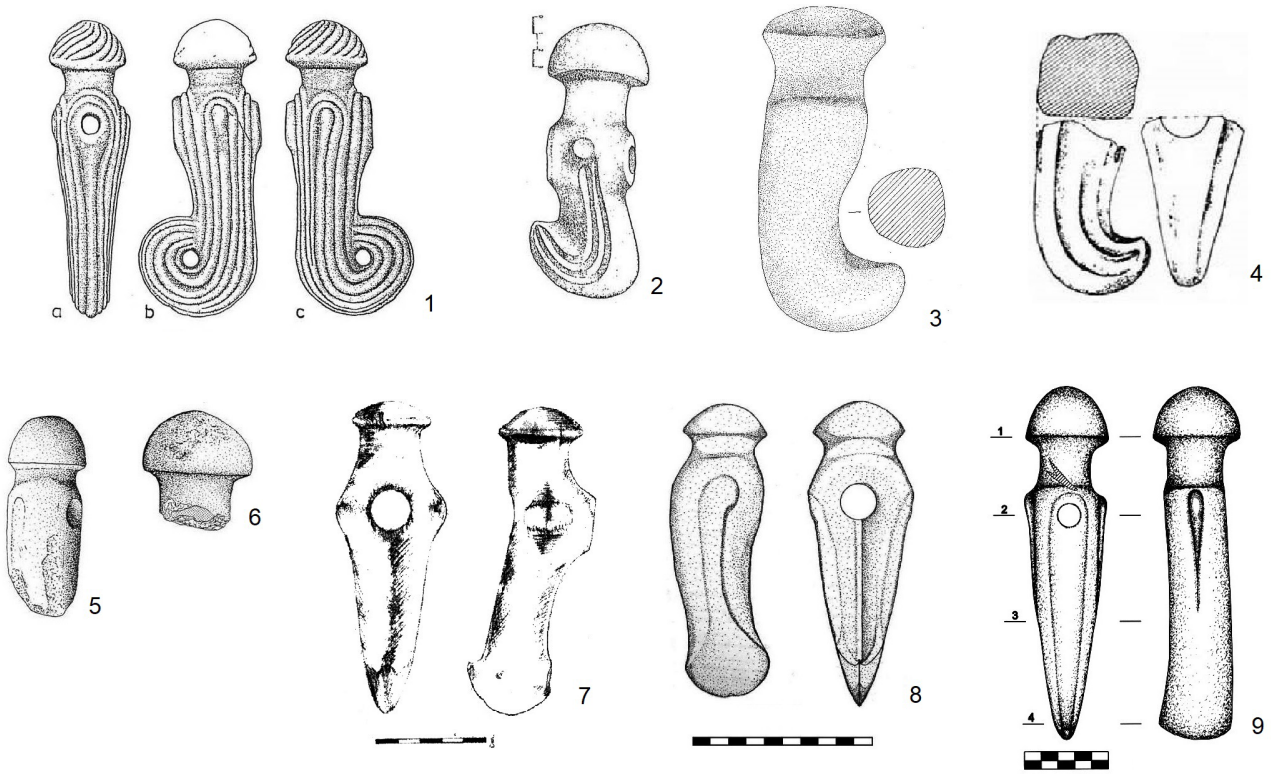

Fig. 16. Bronze Age stone axes-sceptres: Uluburun (1), Ljulin (2), Pantelimonu de Sus (3), „Biertan" (4), Haskovo (5), Elhovo (6), Palota (7), Toboliu (8), Naum (9) (after BUCHHOLZ 1999 – 1-2; IRIMIA 2007 – 3; STOICOVICI/BLĂJAN 1979 – 4; IRIMIA 2008 – 5-6; LUCA/ILIEŞ 2000 – 7; GHEMIŞ 2001 – 8; NIKOLOV 2013 – 9).

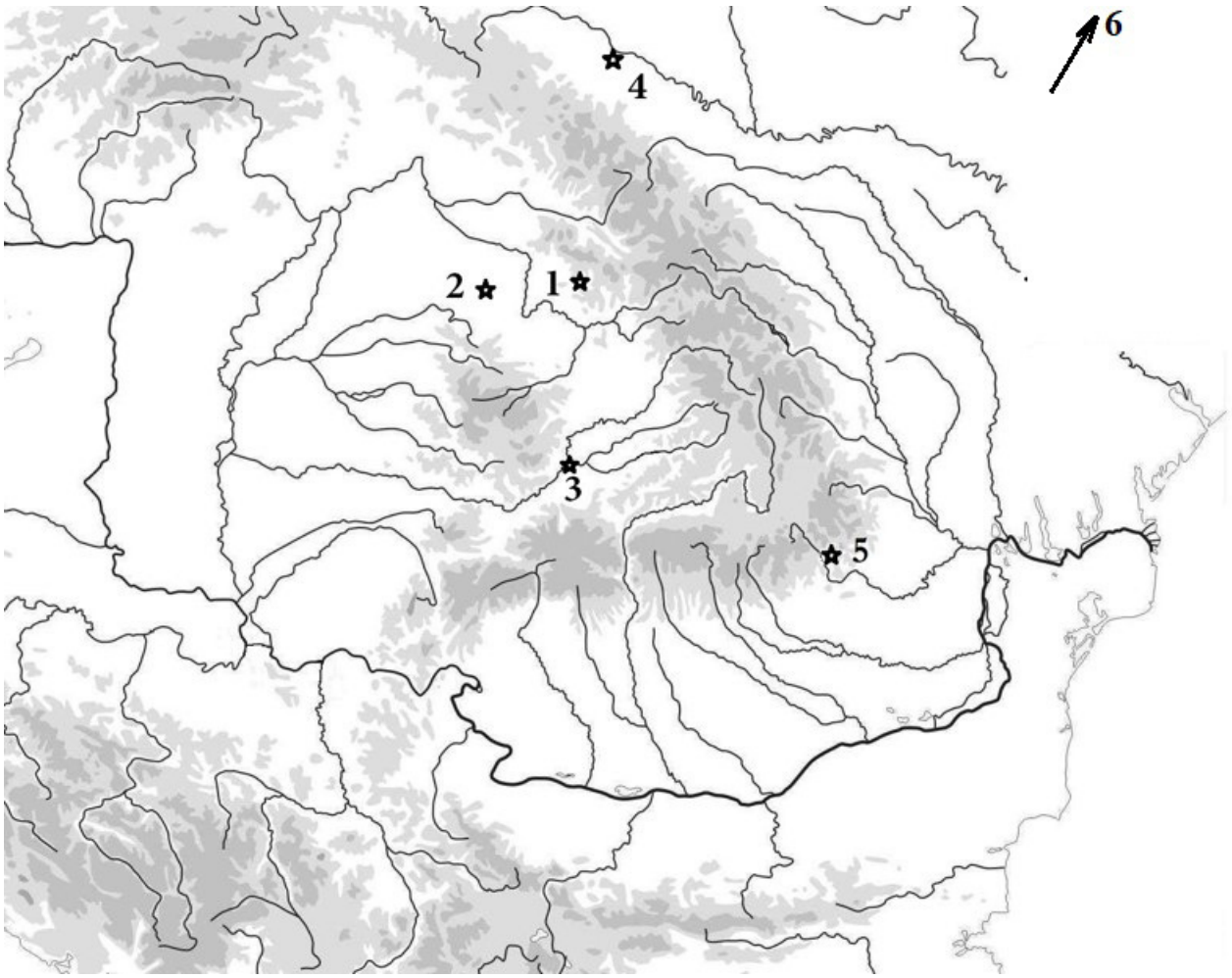

Fig. 17. Map of the spread area of hybrid Larga-type axes: 1 – Larga, 2 – Orțâța, 3 – Mihalț, 4 – Ivanija, 5 – Nehoiu, 6 – Troieshchyna (Kiev).

Fig. 18. The place of discovery of the bronze axe from the Mihalț gravel pit.

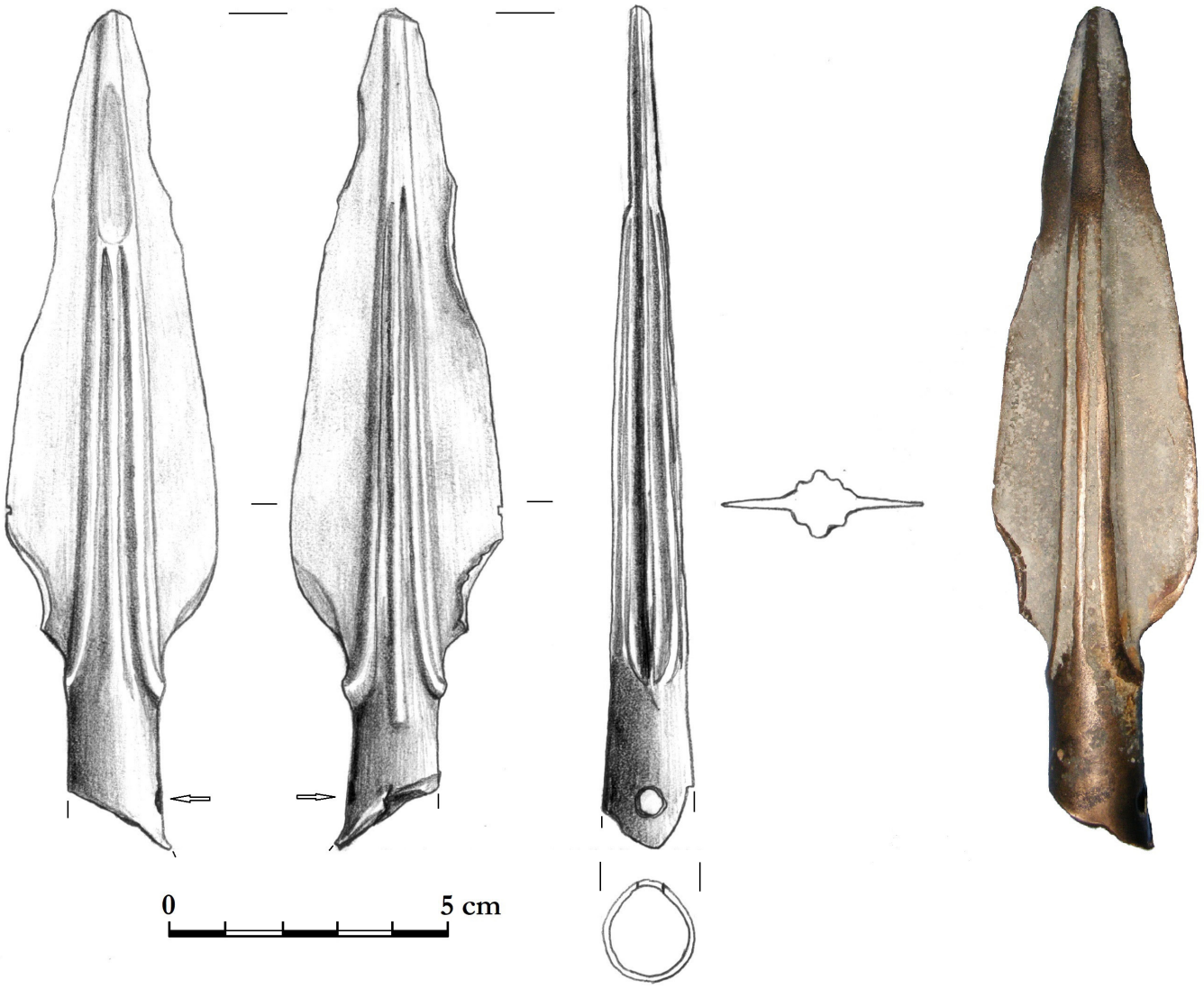

Fig. 19. Bronze spearhead discovered in the Mihalț gravel pit (drawing and photo C. I. Popa).