

MUZEUL ȚĂRII CRIȘURILOR

CRISIA

LI

O R A D E A • 2 0 2 1

PREHISTORIC METAL DISCOVERIES FROM THE KARST OF THE PĂDUREA CRAIULUI MOUNTAINS, BIHOR COUNTY

Gruia FAZECAȘ*

ABSTRACT

In the spring of 2020, a local from Gălășeni (com. Măgești, Bihor county) discovered several copper and bronze artifacts with the help of the metal detector. It is about a flat copper axe belonging to the Early Bronze Age and several pieces that probably belonged to a Arpășel type bronze hoard belonging to Late Bronze Age.

Keywords: Early Bronze Age, Late Bronze Age, flat axe, bronze hoard

In the spring of 2020, a local from Gălășeni (com. Măgești, Bihor county) discovered several prehistoric copper and bronze artifacts with the help of the metal detector on vicinity of his village. Gălășeni is located about 55 kilometers west of Oradea on the northeastern slopes of the Pădurea Craiului Mountains (pl. I/2).

The first of the discoveries was made at the northern edge of the forest in *Dâmbu tânăr* hill, located north of the village (Pl. I/1-2). It is a flat copper axe (pl. II/1). It has 19,9 cm. in length, 5,6 cm. in width, with a thickness of 0,7 cm and a weight of 217 gr. The artifact has been cast in a bivalve mould and due to the rapid cooling of metal it has almost the entire surface covered by excrecence. On one side of axe these excrecence are more visible (Pl. II/2a) than on other (Pl. II/2b). It has an intense brown patina.

The second discovery consists in ten bronze artifacts discovered on *Chiceroaiei* Hill (Pl. I/1-1):

1. Perforated crescent pendant with grooved muff tube (pl. III/1). Height: 4,0 cm., width: 2,5 cm., muff diameter (Ø): 0,6 cm., weight: 6 gr. It has a dark green patina.
2. Perforated crescent pendant with grooved muff tube (pl. III/2). Height: 3,9 cm., width: 2,5 cm., muff diameter (Ø): 0,6 cm., weight: 4 gr. It has a dark green patina.
3. Perforated crescent pendant with grooved muff tube (pl. III/3). Height: 4,0 cm., width: 3,1 cm., muff diameter (Ø): 0,6 cm., weight: 6 gr. It has a silvery green patina.
4. Perforated crescent pendant with grooved muff tube (pl. III/4). Height: 4,0 cm., partial width: 2,1 cm. (complete – 2,9 cm.), muff diameter (Ø): 0,9 cm., weight: 4 gr. It has a dark green patina.
5. Bronze plate (pl. III/5). Length/width: 2,0 x 1,2 cm., thickness: 0,1-0,3 cm., weight: 2 gr. It has a dark green patina.

* Țării Crișurilor Museum Oradea - Museum Complex; e-mail: gruia74@yahoo.com

6. Bronze casting waste (pl. III/6). It has an irregular shape with maximum length of 1,9 cm., weight: 6 gr. It has a coarse aspect and an intense green patina. It has a dark green patina.
7. Tutulus (pl. III/7). Height: 1,1 cm., diameter (\emptyset): 1,6 – 1,8 cm., weight: 2 gr.. Due of wear, the edges are irregular. It has a dark green patina.
8. Tutulus (pl. III/8). Height: 1,2 cm., diameter (\emptyset): 1,3 – 1,6 cm., weight: 2 gr.. Due of wear, the edges are irregular. It has a dark green patina.
9. Tutulus (pl. III/9). Height: 1,4 cm., diameter (\emptyset): 2,7 – 2,9 cm., weight: 5 gr.. Due of wear, the edges are irregular. It has a dark green patina.
10. Tutulus (pl. III/9). Height: 1,35 cm., diameter (\emptyset): 2,2 – 2,4 cm., weight: 5 gr.. Due of wear, the edges are irregular. It has a copper green patina

It should be noted that regarding the discovery from *Chiceroaiei* Hill (Fig. 1), according to the minutes drawn up between the discoverer and the institutions to which the pieces were handed over¹, it appears that the author of these discoveries investigated the location at least three times, which is in contradiction with the legislation.



Fig. 1 - View from the north towards Chiceroaia Hill.

We would also like to mention that the same detectorist also discovered 10 Roman bronze coins that circulated during the III-IV centuries A.D.² on the right bank of the *Mnierii* or *Mnera* brook³, in a place close of Gălășeni village, but which is on the territory of the Aștileu commune (Pl. I/1-3). These coins are not the subject of this paper.

*

¹ It is about Criș County Museum – Museal Complex, Aștileu mayoralty, Măgești mayoralty, Bihor County Directorate for Culture.

² The determination was made by C. Ghemiș, whom we thank in this way as well.

³ In a previous article on the same area, in the absence of knowledge of the area I was referring to, the editors of the magazine to which I entrusted the manuscript “corrected” the hydronym of the *Mnierii* valley in the “*Muiera*” valley (Fazecaș/Marta 2019: 12).

As for the flat copper axe, it belongs to the Petrești type⁴. The best analogies for the artifact discovered in Gălășeni are found at “Banat”⁵, Petrești⁶, Fărcașul de Sus⁷, Suhărau⁸ and more recently at Prigoria (Gorj county)⁹. But similarities can also be found in the type called by Al. Vulpe “*Flachbeile mit verbeiteter Schneide*”¹⁰ = flat axes with widened edge, with analogies at Cornești (Timiș county)¹¹, Dragu (Sălaj county)¹², and Socodor (Arad county)¹³. Al. Vulpe inscribed these discoveries to a variant *with an enlarged body*¹⁴. More recently, such pieces were discovered near Gălășeni, by other metal detectorists, at Călățea and Lugașu de Jos (Bihor county). However, they will be the subject of another study. As a feature, these artifacts are considered rather tools, although their use as weapons is not excluded¹⁵. Considering the coarse aspect of the artifact surface, due to the fact that it has not been finished and does not have visible traces of use on edge and neck, it was probably used as an ingot.

These flat axes are generally considered to be weapons, but they may have been used as tools. Because such pieces are spread over a wide area, they cannot be assigned to a specific space. As for chronological position of these artifacts, these axes are attributed to the early Bronze Age, but given the conditions of discovery: the lack of archaeological context and an association with other archaeological materials, makes it quite difficult to assign it to a more accurate chronological classification¹⁶. In this context, it may not be without interest that the necropolis discovered in Gălășeni cave (Pl. I/1-4) is situated about 1,5 km south-east from the copper axe place of discovery. It belongs to the Roșia group which was dated in the Early Bronze II¹⁷. Another necropolis of the same cultural group is located in Călățea cave, located about 4 km west of the place of discoveries¹⁸.

In what concerns the discoveries from *Chiceroaiei* Hill, as I mentioned above, the discovery of these pieces was made in different stages. When we went on the location¹⁹, and following the discussions with the discoverer, we noticed that the pieces were collected on a area of approximately 25 m², on a slope located at the middle from of the top of the hill towards the valley. The level of soil in which the pieces were discovered has a thickness of 15-20 cm. that overlaps the native rock (Fig. 2). All these aspects, lead us to the conclusion that they belonged to a bronze hoard that was probably deposited above, but was brought down by various erosion factors. We intend to carry out a preventive archaeological research in the *Chiceroaia* Hill area as soon as possible, in order to recover any other artifacts that may have belonged to this deposit.

⁴ Vulpe 1975: 60; Mareș 2002: 40, 115.

⁵ Vulpe 1975: 60/297, Taf. 34/297.

⁶ Vulpe 1975: 60/298, Taf. 34/298.

⁷ Vulpe 1975: 60/298A, Taf. 34/298A.

⁸ Mareș 2002: 40, 115, Pl. 52/13.

⁹ Băjenaru/Hortopan 2021: 6 and 8, fig. 2/1.

¹⁰ Vulpe 1975: 61.

¹¹ Vulpe 1975: 61/304, Taf 34/304.

¹² Vulpe 1975: 61/303, Taf 34/303.

¹³ Vulpe 1975: 61/301A, Taf 34/301A.

¹⁴ Vulpe 1975: 61. Considering the large area on which such axes are spread, we consider that a variability of this type is explicable, a fact also noticed by the authors: “*Given their typological simplicity, this type of blades could be cast independently in any metallurgical center of that period, so they must be discussed and analyzed regionally*” (Băjenaru/Hortopan 2021: 8).

¹⁵ Vulpe 1975: 62.

¹⁶ Vulpe 1975: 62-63; Mareș 2002: 116; Băjenaru/Hortopan 2021: 11-15.

¹⁷ Molnár/Ghemiș 2003: 82/2; Molnár/Ghemiș 2007: 94/2 with older literature.

¹⁸ Molnár/Ghemiș 2003: 82/1; Molnár/Ghemiș 2007: 94/2; Fazecaș/Marta 2019; 12-13 with older literature.

¹⁹ Two weeks after the first discovery, at the request of Bihor County Directorate for Culture, alongside with D. Marta we went to record the place of discovery.



Fig. 2 - The pit made by the detectorist in order to recover the archeological artifact

Fl. Gogâltan and V. Sava discussing the bronze deposit from Lipova established the typological differences between buttons, phalerae and *tutuli*²⁰. In the following we want to refer just to perforated crescent pendant with muff tube (pl. III/1-4). S. Dumitrașcu and I. Crișan name these artifacts as «*pandantiv în formă de caliciu (caliciformi) cu șase brațe ușor îndoite. Tija pandantivului este în formă de tub "filetat" în exterior*» (Romanian) = «*calyx-shaped (calyx-shaped) pendant with six slightly bent arms. The stem of the pendant is in the shape of a "threaded" tube on the outside*»²¹. C. Kacsó describes these artifacts as “*durchbrochene halbmondförmiger Anhänger mit vertikal durchlochtem Stiel*”²² = “*pandantiv semilunar ajurat cu penduncul perforat vertical și ornamentat cu nervuri*” (romanian)²³ which can be translated as: *perforated crescent-shaped pendant with a vertically perforated stalk*. I preferred to use the term, *perforated crescent pendant with grooved muff tube*, which in my opinion is much closer to reality as a description without becoming technically and descriptively complicated.

As for their use, perforated crescent pendant with grooved muff tube are sometimes defined as “*Nadelschützer, -schoner or -halter*” = “*Needle protector, -adornment or -holder*”, because on the occasion of the first publication of the such pendant, it is described and illustrated as being attached to a bronze needle²⁴. S. Dumitrașcu and I. Crișan considered (without being very sure of it) that “*the*

²⁰ Gogâltan/Sava 2014: 184-187.

²¹ Dumitrașcu/Crișan 1989: 35.

²² Kacsó 1990: 36; Kacsó 1991: 15; Kacsó 1995: 115.

²³ Kacsó 1990: 34; Kacsó 1991: 10. The same term is used by Fl. Gogâltan and Fl. Drașovean (Gogâltan/Drașovean 2015: 122/4-7.

²⁴ Rusu 1960: 175, рис. 6; v. Brunn 1968: 72, note 5; Mozsolics 1975: 9.

*tube has a hole for fastening in the saltaleoni or for fixing needles (of hair, string or necklace, the needles with which they hung at the waist, at the belt)*²⁵. For C. Kacsó the appearance of these kinds of artifacts in relation with saltaleoni which “suggests that they were worn lined up on a string, masked by twisted wire tubes, being ornaments on the neck and/or chest, most likely also having a religious significance”²⁶. For others, pendants of this type are considered abstract symbols of horns²⁷, respectively they are included in the category of sacred symbols²⁸. But so far we cannot determine with certainty how these pendants were worn.

Analogies for tutuli and perforated crescent pendant with grooved muff tube are found among the so-called Arpășel type deposits: tutuli in Arpășel²⁹, Balc³⁰, Bicaci³¹, Lipova³², Oradea IV³³, Otomani, Poșaga de Sus³⁴, Răbăgani³⁵ Șuncuius³⁶ and Tăut³⁷ hoards; perforated crescent pendant with grooved muff tube in Arpășel³⁸, Cioclovina³⁹, Oradea IV(?)⁴⁰, Răbăgani⁴¹ Sânnicolau de Munte⁴² and Șuncuius⁴³ hoards.

So far we know a number of 31 Arpășel type bronze hoards (pl. IV)⁴⁴: Apateu (Arad county)⁴⁵, Arpășel (Batăr com., Bihor county)⁴⁶, Balc (Bihor county)⁴⁷, Beliu (Arad county)⁴⁸, Bicaci (Bihor county)⁴⁹, Cehăluț I (Cehal com., Satu Mare county)⁵⁰, Chereușa (Santău com., Satu Mare county)⁵¹, Cioclovina (Boșorod com., Hunedoara county)⁵², Ciocaia (Săcuieni city, Bihor county)⁵³, Cubulcut (Săcuieni city, Bihor county)⁵⁴, Felsődobsza (Borsod-Abaúj-Zemplén county,

²⁵ Dumitrașcu/Crișan 1989: 35.

²⁶ Kacsó 2009: 170.

²⁷ Schauer 1995: 306.

²⁸ Müller-Karpe 1980; Kreutle 2007: 208.

²⁹ Kacsó 1995, Abb. 4/3, Taf. 4. IV/4

³⁰ Petrescu-Dîmbovița 1977: 52, Pl. 22/16-17.

³¹ Petrescu-Dîmbovița 1977: 53, Pl. 28/10-11.

³² Gogăltan/Sava 2014: 187, fig. 1/2, 2/2a-b, 1/3, 2/3a-b, 1/4, 2/4a-b.

³³ Kacsó 1995, Abb. 4/2, 5/1-5; Gogăltan/Drașovean 2015: 123-124/21-27, Pl. IX/1-6, X/1-6.

³⁴ Petrescu-Dîmbovița 1977: 103, pl. 179/20.

³⁵ Kacsó 1995, Abb. 7/41.

³⁶ Dumitrașcu/Crișan 1989: 33-34, pl. XXIV/1-10, XXV/1-4.

³⁷ Petrescu-Dîmbovița 1977: 113, pl. 214/1.

³⁸ Kacsó 1995: 82, Abb. 3/6-8, Taf. III/9-11.

³⁹ Comșa 1966, fig. 1/4; Emödi 1978, fig 5/6.

⁴⁰ Gogăltan/Drașovean 2015: 122/4-7, Pl. V/1-4, VI/1-4.

⁴¹ Kacsó 1995, Abb. 7/1-6.

⁴² Kacsó 2009: 168-169, Pl. I.

⁴³ Dumitrașcu/Crișan 1989: 34-38, pl. XXVI - XXXII.

⁴⁴ The hoards from Debrecen “*Fancsika I*” (Hajdú-Bihar county, Hungary) - Mozsolics 1985: 110, taf. 212-217; Gogăltan/Sava 2014: 196, note 119 and Nyírlugos (Szabolcs-Szatmár-Bereg county, Hungary) - Mozsolics 1985: 161-162, taf. 218; Gogăltan/Sava 2014: 196, note 120 were excluded from the hoards which were previously reported to be of the Arpășel type.

⁴⁵ Mureșan/Caba 2007; 112-118; Gogăltan/Sava 2014: 197.

⁴⁶ Kacsó 1995: 81-83.

⁴⁷ Petrescu-Dîmbovița 1977: 52, Pl. 22/13-20, 23/1-2; Petrescu-Dîmbovița 1978: 98/5, Taf. 19E, 20A.

⁴⁸ Boroffka/Luca 1995: 225-227, Abb. 1/1-14; Gogăltan/Sava 2014: 197.

⁴⁹ Petrescu-Dîmbovița 1977: 53, Pl. 28/3-15, Petrescu-Dîmbovița 1978: 99/9, Taf. 22B.

⁵⁰ Petrescu-Dîmbovița 1977: 54, Pl. 30/10-12, Pl. 31-32; Petrescu-Dîmbovița 1978: 99/15, Taf. 24-25A; Bader 1978: 122/22, pl. LXXII.

⁵¹ Petrescu-Dîmbovița 1977: 147, Pl. 364/3-4; Petrescu-Dîmbovița 1978: 152/283, Taf. 269C; Bader 1978: 122-124/24.

⁵² Comșa 1966; Emödi 1978.

⁵³ Kacsó 1991: 10-12; Kacsó 1995: 87-88.

⁵⁴ Kacsó 1990: 32-34; Kacsó 1995: 90-91.

Hungary)⁵⁵, Gaj (Kuvin com., Serbia)⁵⁶, Gălășeni (Măgești com., Bihor county), Giula (Borșa com., Cluj county), Giurtelecul Șimleului (Măieriște com., Sălaj county)⁵⁷, Guruslău (Hereclean com., Sălaj county)⁵⁸, Lipova (Arad county)⁵⁹, Minișu de Sus (Tauț com., Arad county)⁶⁰, Mișca (Chișlaz com., Bihor county)⁶¹, Oradea IV (Bihor county)⁶², Otomani (Sălacea com., Bihor)⁶³, Poșaga de Sus (Poșaga com., Alba county)⁶⁴, Răbăgani (Bihor county)⁶⁵, Sânnicolau de Munte (Săcuieni city, Bihor county)⁶⁶, Sânnicolau Român II (Bihor county)⁶⁷, Șuncuiuș (Bihor county)⁶⁸, Tăut (Batăr com., Bihor county)⁶⁹, Tiszafüred (Jász-Nagykun-Szolnok county, Hungary)⁷⁰, “*vestul Transilvaniei*”⁷¹, Zăgujeni I⁷² and II⁷³ (Constantin Daicoviciu com., Caraș-Severin county).

As in the case of the flat copper ax, in the absence of other elements that would help to place it in a narrower chronological interval, we attribute this discovery to the period Late Bronze II-III (Br. D – Ha A) period⁷⁴.

The discoveries presented in this article enrich the knowledge about the archeological information of this part of Bihor county. On the other hand, the contribution of material brought by the researches made by the amateur detectors cannot be denied, but the way it is often done, without complying with the law, destroys evidence that could be later recovered through proper archaeological research.

Illustration:

Fig. 1 - View from the north towards *Chiceroaia* Hill.

Fig. 2 - The pit made by the detectorist in order to recover the archeological artifact.

Pl. I – Măgești commune (1) - numbers on map: 1 – *Dâmbu tânăr*; 2 – *Chiceroaia Hill*; 3 – *Mnieri* valley; 4 – Gălășeni cave and Măgești commune in Bihor county.

Pl. II – Flat copper axe from Gălășeni - *Dâmbu tânăr*.

Pl. III – Bronze artifacts found on *Chiceroaia* Hill: 1-4 – perforated crescent pendants; 5 – bronze plate; 6 – bronze casting waste; 7-10 – tuttuli.

Pl. IV – Arpășel type hoards. Numbers on map: 1 - Apateu (Arad county); 2 - Arpășel (Batăr com., Bihor county); 3 - Balc (Bihor county); 4 - Beliu (Arad county); 5 - Bicaci (Bihor

⁵⁵ Mozsolics 1973: 134-135; Gogâltan/Sava 2014: 197.

⁵⁶ Rašajski 1975: 52-60; Gogâltan/Sava 2014: 197

⁵⁷ Soroceanu 1995, 65, Abb. 8

⁵⁸ Petrescu-Dîmbovița 1977: 60, pl. 48/3-18; Petrescu-Dîmbovița 1978: 102/34, Taf. 33-34A.

⁵⁹ Gogâltan/Sava 2014.

⁶⁰ Kacsó 1995: 92.

⁶¹ Chidioșan 1977.

⁶² Kacsó 1990: 25-32; Kacsó 1995: 85-87; Gogâltan/Drașovean 2015.

⁶³ Ordentlich 1968; Nánási 1974: 181, fig 6/3-6; Kacsó 1991: 12.

⁶⁴ Petrescu-Dîmbovița 1977: 103, pl. 179/4-21.

⁶⁵ Kacsó 1991: 9-10; Kacsó 1995: 88-90.

⁶⁶ Kacsó 2009.

⁶⁷ Petrescu-Dîmbovița 1977: 68-69, pl. 64/1-2; Fazecaș 2017: 24-25, fig. 10. Fl. Gogâltan and V. Sava have doubts in including this hoard among those of the Arpășel type (Gogâltan/Sava 2014: 197, note 121).

⁶⁸ Dumitrașcu/Crișan 1989; Kacsó 1991: 12-14; Ghemiș 2003.

⁶⁹ Petrescu-Dîmbovița 1977: 113, pl. 213/8-35, 214/1-2.

⁷⁰ Kacsó 1995: 91.

⁷¹ Kacsó 1995: 93; Kacsó 2009: 169. Fl. Gogâltan and V. Sava have doubts in including this hoard among those of the Arpășel type (Gogâltan/Sava 2014: 197, note 122).

⁷² Gumă/Popescu 1992: 53-58; Gogâltan/Sava 2014: 197.

⁷³ Săcărîn/Negrei 2013: 157-194; Gogâltan/Sava 2014: 197, note 127.

⁷⁴ Gogâltan/Sava 2014: 199.

county); 6 - Cehăluț I (Cehal com., Satu Mare county); 7 - Chereușa (Santău com., Satu Mare county); 8 - Cioclovina (Boșorod com., Hunedoara county); 9 - Ciocaia (Săcuieni city, Bihor county); 10 - Cubulcut (Săcuieni city, Bihor county); 11 - Gaj (Kubin com., Serbia); 12 - Gălășeni (Măgești com., Bihor county); 13 - Giula (Bořsa com., Cluj county); 14 - Giurtelecul Șimleului (Măierîște com., Sălaj county); 15 - Guruslău (Hereclean com., Sălaj county); 16 - Lipova (Arad county); 17 - Minișu de Sus (Tauț com., Arad county); 18 - Mișca (Chișlaz com., Bihor county); 19 - Nyírlugos (Szabolcs-Szatmár-Bereg county, Hungary); 20 - Oradea IV (Bihor county); 21 - Otomani (Sălacea com., Bihor); 22 - Poșaga de Sus (Poșaga com., Alba county); 23 - Răbăgani (Bihor county); 24 - Sănnicolau de Munte (Săcuieni city, Bihor county); 25 - Sănnicolau Român II (Bihor county); 26 - Șuncuiuș (Bihor county); 27 - Tăut (Batăr com., Bihor county); 28 - Tiszafüred; 29 - Zăgujeni I (Constantin Daicoviciu com., Caraș-Severin county); 30 - Zăgujeni II (Constantin Daicoviciu com., Caraș-Severin county).

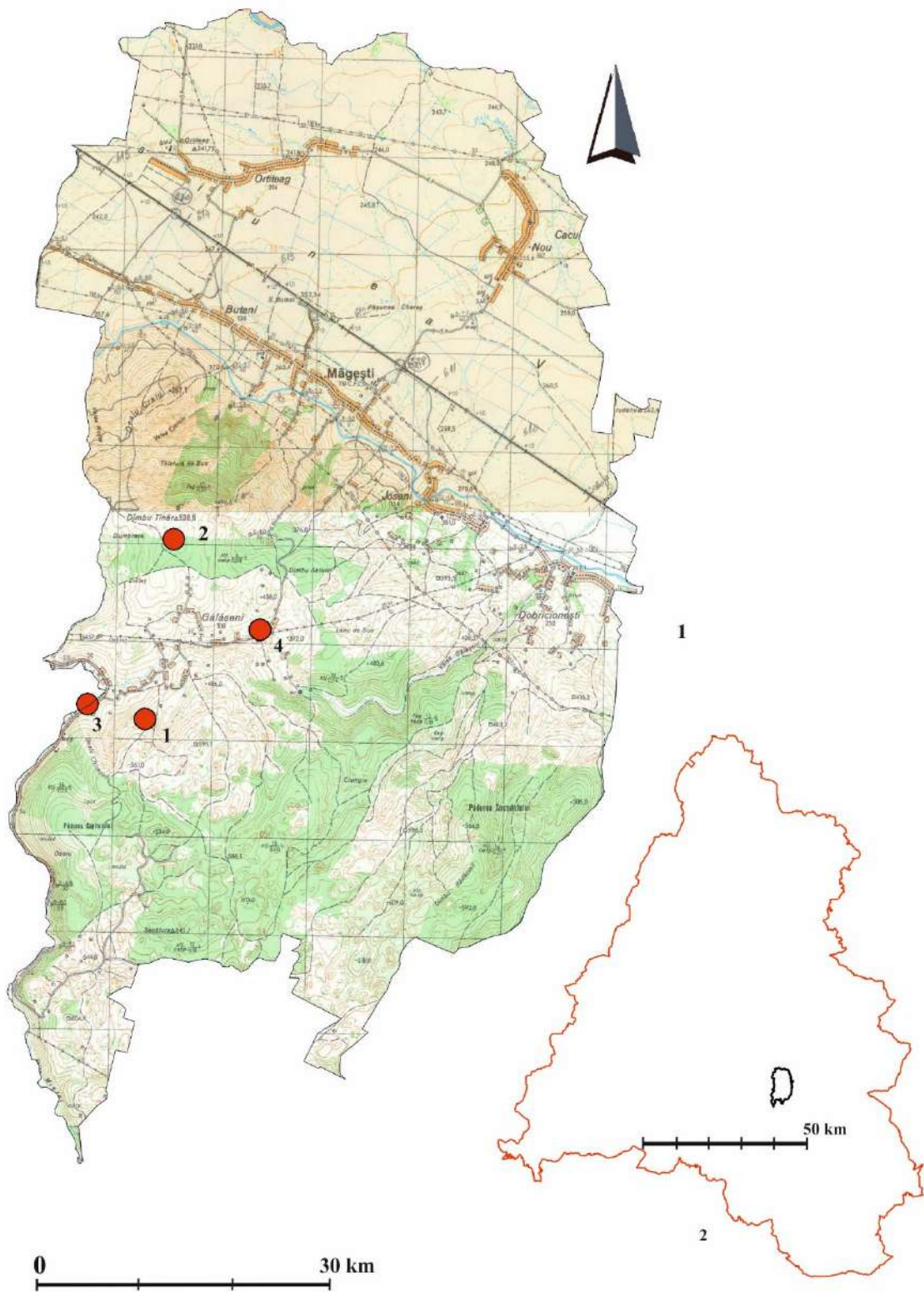
Literature:

- Bader 1978 T. Bader, *Epoca bronzului în nord-vestul Transilvaniei. Cultura pretracică și tracică*, București: Ed. Științifică și enciclopedică, 1978.
- Băjenaru/Hortopan 2021 R. Băjenaru/D. Hortopan, *Topoare plate din metal din epoca timpurie a bronzului descoperite recent în Oltenia și câteva observații cu privire la metalurgia cuprului în bazinul vestic al Dunării de Jos*. In: Litua. Studii și Cercetări XXIII, 2021: 5-28.
- Boroffka/Luca 1995 N. Boroffka/S.A. Luca, *Archäologische Metallfunde aus der Schulsammlung Beliu, Kr. Arad*. In: T. Soroceanu (ed.), *Bronzefunde aus Rumänien*, PAS 10, Berlin, 1995: 225-228.
- v. Brunn 1968 W.A. von Brunn, *Mitteldeutsche Hortfunde der jüngeren Bronzezeit. Römisch-Germanische Forschungen Bd. 29*. Berlin 1968.
- Chidioșan 1977 N. Chidioșan, *Depozitul de bronzuri de la Mișca*. In: S.C.I.V., 28 (1), 1977: 55-70.
- Comșa 1966 E. Comșa, *Le dépôt en bronze de Cioclovina (Carpates Méridionales)*. In: Acta Archaeologica Carpatica VIII, 1966: 169-174.
- Dumitrașcu/Crișan 1989 S. Dumitrașcu/ I. Crișan, *Depozitul de bronzuri de la Șuncuiuș, județul Bihor*. In: Crisia XIX 1989: 17-118
- Emödi 1978 I. Emödi, *Noi date privind depozitul de la Cioclovina*. In: S.C.I.V.A. 29 (4), 1978: 481-495.
- Fazecaș 2017 G. Fazecaș, *Preistoria*. In: G. Fazecaș (ed.), *Monografia comunei Sănnicolau Român, Oradea: Primus, 2017:*
- Fazecaș/Marta 2019 G. Fazecaș/D. Marta, *Contribuții privind descoperirile arheologice din carstul Munților Pădurea Craiului (jud. Bihor)*. In: Acta Musei Varadiensis II, 2019: 9-19.
- Ghemiș 2003 C. Ghemiș, *Piese inedite din primul depozit de la Șuncuiuș. Peștera Unguru Mare*. In: L. Cornea/G. Moisa/C. Ghemiș, *In memorian Nicolae Chidioșan, Oradea: Ed. Muzeului Țării Crișurilor, 2003:101-113.*
- Gogâltan/Drașovean 2015 Fl. Gogâltan /Fl. Drașovean, *Piese preistorice din cupru și bronz din România aflate în colecțiile British Museum, Londra. I*. In: Analele Banatului S.N. XXIII, 2015: 119-150

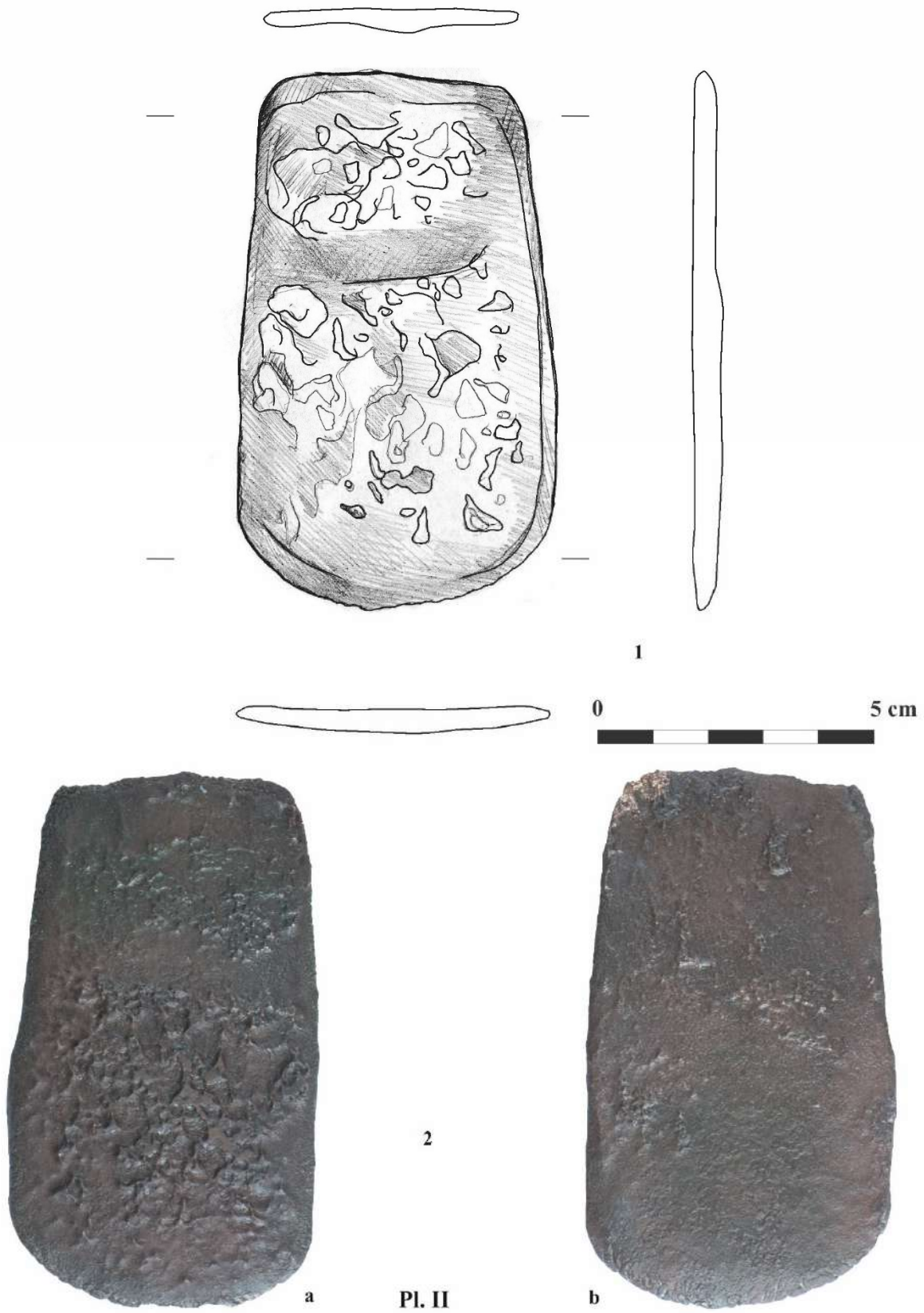
- Gogâltan/Sava 2014 Fl. Gogâltan/V. Sava, *Depozitul de bronzuri de la Lipova*, jud. Arad. In: Terra Sebus. Acta Musei Sebesiensis 6, 2014: 183-209.
- Gogâltan et al 2013 Fl. Gogâltan/V. Sava, L. Mercea, Sântana "Cetatea Veche". *Metal and power*. In: Ziridava. Studia Archaeologica 27, 2013: 21-72.
- Gumă/Popescu 1992 M. Gumă/O. Popescu, *Un nou depozit de bronzuri descoperit în zona Caransebeșului*. In: Thraco-Dacica XIII, 1992: 53-58.
- Kacsó 1990 C. Kacsó, *Precizări cu privire la câteva descoperiri de bronzuri din Bihor (I)*. In: Crisia XX, 1990: 25-369-17.
- Kacsó 1991 C. Kacsó, *Precizări cu privire la câteva descoperiri de bronzuri din Bihor (II)*. In: Crisia XXI, 1991: 9-17.
- Kacsó 1995 C. Kacsó, *Der Hortfund von Arpașel, Kr. Bihor*. In: T. Soroceanu (ed.), *Bronzefunde aus Rumänien*, PAS 10, Berlin, 1995: 81-130.
- Kacsó 2009 C. Kacsó, *Depozitul de bronzuri de la Sânnicolau de Munte (jud. Bihor) România*. In: Analele Banatului S.N. Arheologie – Istorie XVII, 2009: 167-173.
- Mareș 2002 I. Mareș, *Metalurgia aramei în neo-eneoliticul României*, Suceava: Bucovina Istorică, 2002.
- Molnár/Ghemiș 2003 Molnár Zs./C. Ghemiș, *O descoperire aparținând perioadei bronzului timpuriu din Peștera Izbuca Topliței (jud. Bihor). Considerații privind grupul Roșia*. In: Ephemeris Napocensis XIII, 2003: 41-92.
- Molnár/Ghemiș 2007 Molnár Zs./C. Ghemiș, *Kora bronzkori leletek a Fekete- és Sebes-Körösvidéki barlangokból. Adatok a Roșia csoport kérdésköréhez*. In: Dolgozatok, új sorozat II (XII), 2007: 67-95.
- Mozsolics 1973 A. Mozsolics, *Bronze- und Goldfunde des Karpatenbeckens. Depotfundhorizonte von Forró und Ópályi*, Budapest: Akadémiai Kiadó, 1973.
- Mozsolics 1975 A. Mozsolics, *Somogy megyei bronzleletek I*. In: Közlemények Somogy II, 1975, 5-20.
- Mozsolics 1985 A. Mozsolics, *Bronzefunde aus Ungarn. Depotfundhorizonte von Aranyos, Kurd und Gyermely*, Budapest: Akadémiai Kiadó, 1985.
- Mureșan/Caba 2007 A. Mureșan/I. Caba, *Depozitul hallstattian de bronzuri de la Apatcu, județul Arad*. In: P. Hügel/A. Mureșan (eds.), *Istoricul Liviu Mărghită la a 70-a aniversare*, Arad: Ramira, 2007: 112-118.
- Müller-Karpe 1980 H. Müller-Karpe, *Bronzezeitliche Heilszeichen*. In: Jahresbericht des Instituts für Vorgeschichte der Universität Frankfurt am Main, 1978-79 (München, 1980): 9-28.
- Nánási 1974 Z. Nánási, *Repertoriul obiectelor din bronz din Muzeul de Istorie de la Săcuieni*. In: Crisia IV, 1974: 177-184.
- Ordentlich 1968 I. Ordentlich, *Depozitul de bronzuri de la Otomani*, In: Acta Musei Napocensis V, 1968: 397-404.
- Petrescu-Dîmbovița 1977 M. Petrescu-Dîmbovița, *Depozitele de bronzuri din România*, București: Ed Academiei R.S.R., 1977.
- Petrescu-Dîmbovița 1978 M. Petrescu-Dîmbovița, *Die Sichel in Rumänien, mit Corpus der jung- und spätbronzezeitlichen Horte Rumäniens*, P.B.F. XVIII, 1, München: Beck, 1978.
- Rašajski 1975 R. Rašajski, *Ostava Gaj-Izlaz kod Kovina*. In: M. Garašanin (ed.), *Praistorijske ostave u Srbiji i Vojvodini*, Beograd: Srpska Akademija nauka i umetnosti, 1975.

- Roska 1942 M. Roska, *Erdély régészeti repertóriumai. I Óskor*, Kolozsvár [Cluj-Napoca], 1942.
- Roska 1943 M. Roska, *A kolozsgyulai (Kolozs vm.) bronzlelet*. In: *Közlemények* III. 2, 1943: 127-133.
- Rusu 1960 = Русу 1960 M. Русу, „Документируемые” детали конской сбруи из Трансильвании. In: *Dacia N.S.* IV, 1960: 161-180.
- Săcărin/Negrei 2013 C. Săcărin/T. Negrei, *Bronze Deposit from Zăgăjeni (II), Caraș-Severin County*. In: *Tibiscum.Arheologie* 3, 2013: 157-194.
- Schauer 1995 P. Schauer, *Eine späturnenfelderzeitliche Wagenbronze aus der Maas zwischen Montcy-Saint-Pierre, com. Charleville - Mézières und Charleville - Mézières, dép. Ardennes, Champagne*. In: A. Jockenhövel (Hrsg.) *Festschrift für Hermann Müller-Karpe zum 70. Geburtstag*, Bonn: Habelt, 1995: 297-309.
- Soroceanu 1995 T. Soroceanu, *Die Fundumstände Bronzezeitlicher Deponierungen. Ein Beitrag zur Hortdeutung beiderseits der Karpaten*. In: T. Soroceanu (ed.), *Bronzefunde aus Rumänien*, PAS 10, Berlin, 1995: 15-80.
- Vulpe 1975 Al. Vulpe, *Die Äxte und Beile in Rumänien II*, P.B.F. IX, 5, München: Beck, 1975.

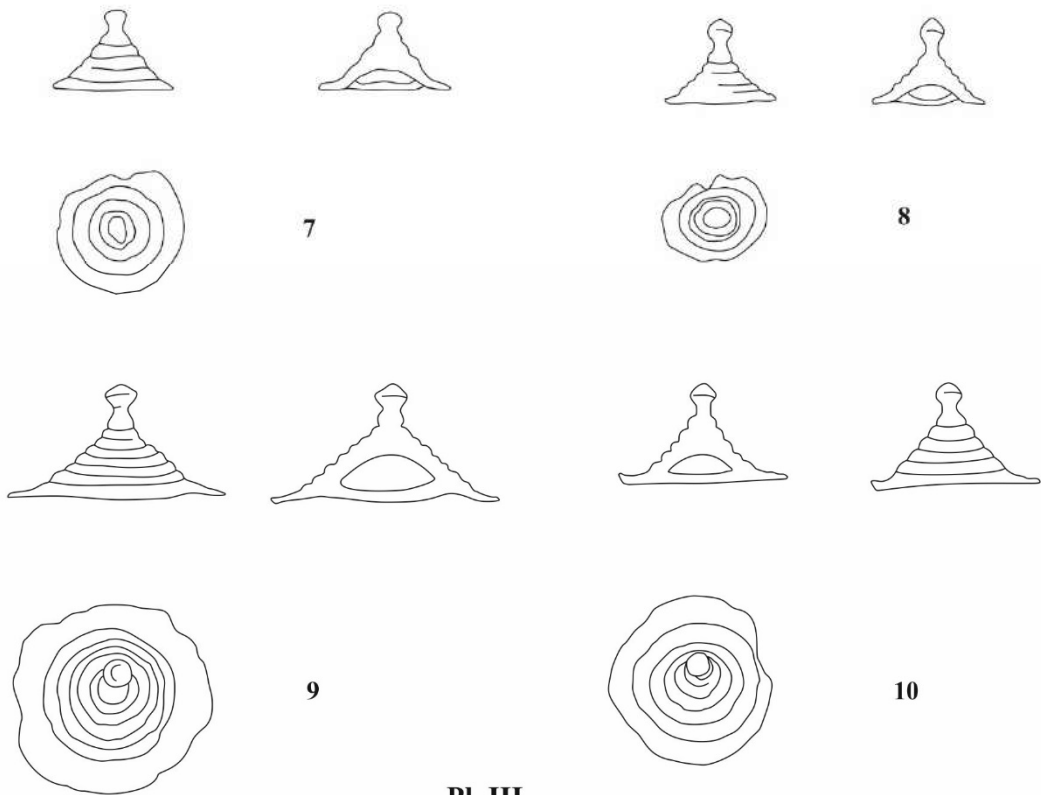
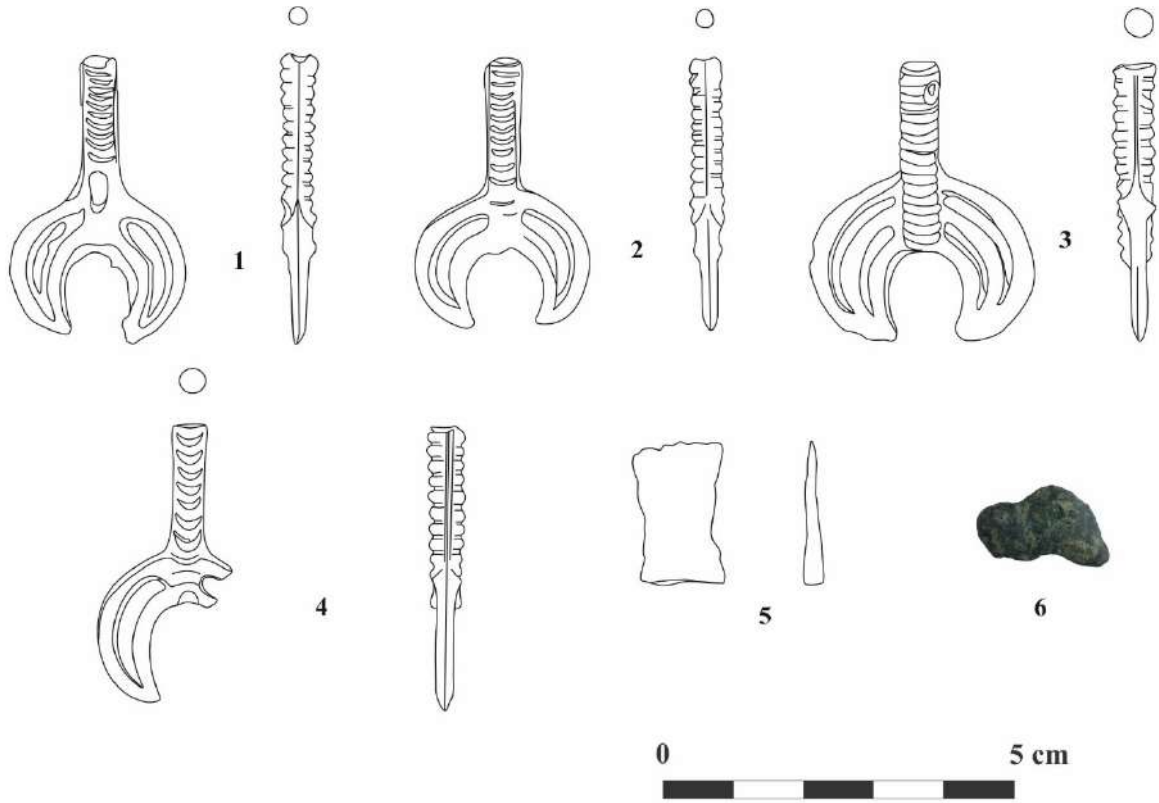
CRISIA



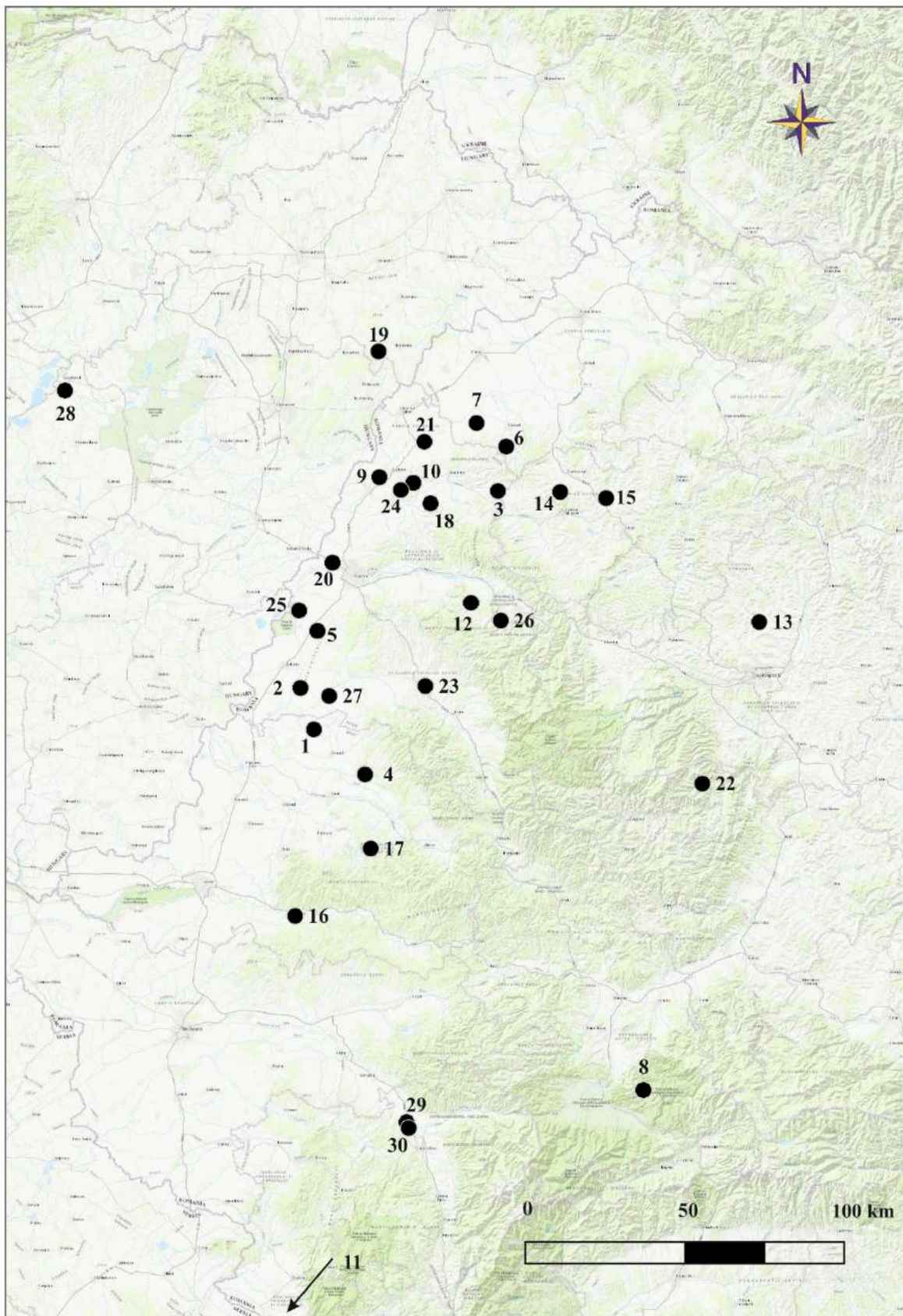
Pl. I



CRISIA



Pl. III



LI • 2021

PL. IV