

Medieval Mace Heads and Flail Striking Heads from the Old Collections of the Archaeological Museum in Cracow

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Abstract: *In the Department of the Old Collections of the Archaeological Museum in Cracow a small, but diversified on the account of forms, group of medieval mace heads and flail striking heads is stored. Some of them have been already published; others are presented for the first time in this bacellistic contribution. The most of them are – regrettably – artifacts of unknown origin and we may only guess that they were found before the World War II in the area of former Ruthenian lands of contemporary Ukraine. A smaller part of them are artifacts which place of discovery, sometimes also their discoverer, are known. The vast majority of these artifact are Ruthenian handicrafts dated to the 12th – the half of the 13th century, but there is also an older Ruthenian flail striking head, a younger Hungarian mace head and several specimens of uncertain chronology and provenience. Artifacts in this article are discussed in the order corresponding to schemas of types of East-European mace heads and flail striking heads elaborated more than a half century ago by A. N. Kirpičnikov.*

Key words: mace heads – flail striking heads – 12th–13th century – Ukraine – Archaeological Museum in Cracow

In the Department of the Old Collections of the Archaeological Museum in Cracow a small, but diversified on the account of forms, group of medieval mace heads and flail striking heads¹ is stored. Some of them have been already published²; others are presented for the first time in this *bacellistic* contribution. The most of them are – regrettably – artifacts of unknown origin and we may only guess that they were found before the World War II in the area of former Ruthenian lands of contemporary Ukraine. A smaller part of them are artifacts which place of discovery, sometimes also their discoverer, are known. The vast majority of these artifact are Ruthenian handicrafts dated to the 12th – the half of the 13th century, but there is also an older Ruthenian flail striking head, a younger Hungarian mace head and several specimens of uncertain chronology and provenience. Artifacts in this article are discussed in the order corresponding to schemas of types of East-European mace heads and flail striking heads (Fig.1) elaborated more than a half century ago by Anatolij Nikolaevič Kirpičnikov (1966, 49, 60, Fig. 10, 12), the most prominent researcher of medieval East-European weaponry.

¹ As a curiosity may be considered Lyuba Smirnov's (Holden) (2005) theory that they are steelyard weighs, contested by Sergej Ū. Kainov (2018) who correctly considered these artifacts as weapon. To his remarks I should add that this kind of flail is presented in the meticulous painting of an anonymous author from the 1st half of the 16th century (after year 1514) entitled: *The Battle of Orsha* ([https://en.wikipedia.org/wiki/Flail_\(weapon\)#/media/File:Battle_of_Orsha_detail_02.jpg](https://en.wikipedia.org/wiki/Flail_(weapon)#/media/File:Battle_of_Orsha_detail_02.jpg)). What is more, among archaeological artifacts steelyard arms are missing – unlike “weights”.

² Kirpičnikov 1966, 136–137; Liwoch 2006, 67–72, 75–76, Fig. 3, 6: 1–2; 2016; 2019; earlier literature there.

1. unknown place of discovery (Ukraine?)

– bronze mace head (Fig. 2: 1; inventory number MAK/9549) in the form of an empty cube with four pyramidal spikes, encircled with a roller and with a short eye, located on the plan of a cross; decorated with a point ornament; relatively well-preserved (dark-green patina, lack of almost half of the eye; conservation around years 2008/2009); dimensions: length 58 mm, width 68 mm, eye diameter 20 mm, weight 288 g

This mace head belongs to type I according to A. N. Kirpičnikov. It is similar to an iron artifact deriving from the 11th century tumulus from the area of the village of Zagor'e³ and to a bronze artifact deriving from the 9th–10th century layer in the stronghold located in the vicinity of the village of Cimlânskaâ (Kirpičnikov 1966, 48, 130–131, Plates XXV: 1, XXVI: 5, XXVIII: 1), it is dated approximately to the 10th(?)–11th century.

2. unknown place of discovery (Ukraine?)

– iron mace head (Fig. 2: 2; inventory number MAK/9858) in the form of a solid cube with four pyramidal spikes located on a plan of a cross; well-preserved (after conservation black color); dimensions: length 44 mm, width 63 mm and 61.5 mm, eye diameter 25–16 mm, weight 308 g

This mace head belongs to type I according to A. N. Kirpičnikov. It is similar to the 11th(?) century iron mace head from the village of Velikopoloveckoe and iron mace heads from Balkans, for example to some the 10th–11th century specimens from Bulgaria and the Central Europe (Kirpičnikov 1966, 48, 130–131, Plate XXV: 2; Michalak 2005, 189, 216, Plate I: 5–7). We may suppose that this artifacts derives from the 11th century but still its chronology is uncertain so it can be younger.

3. unknown place of discovery (Ukraine?)

– bronze (?) miniature mace head (Fig. 2: 3; inventory number MAK/9546) in the form of a solid prism with five pyramidal spikes located on a plan of a star; well-preserved (green color; conservation around years 2008/2009); dimensions: length 27 mm, width 42.5 mm, eye diameter 19 mm, weight 79 g

Despite the presence of five spikes and considerable resemblance to type IV, this mace head should be classified as type IV according to A. N. Kirpičnikov and dated back to the 11th–12th (13th) century because there are no conditions for narrowing down its chronology (see: Kirpičnikov 1966, 48–52; Michalak 2005, 189).

4. Horodnicâ (Городниця), Kolomyia Raion, Ivano-Frankivsk Oblast, Ukraine

– bronze mace head (Fig. 3: 1; inventory number MAK/9414) in the form of an empty sphere with spikes located on a plan of a star – in the centre: four big pyramidal, rounded with rollers and eleven (originally twelve) small conical and three spaces with pseudo-granulation; preserved in average condition (dirty-golden patina, fracture, losses, perhaps traces of impacts); dimensions: length 53 mm, width 61 and 58 mm, eye diameter 25 mm, weight 170.5 g

This mace head belongs to type III according to A. N. Kirpičnikov. He notices that the vast majority of mace heads were discovered during archaeological research conducted in strongholds destroyed by Mongols and he dates them to the 12th – the 1st half of the 13th century (Kirpičnikov 1966, 52). In case of Ukrainian findings it seems reasonable to narrow down their chronology to the 1st half of the 13th century (see: Liwoch 2006, 68).

5. Horodnicâ (Городниця), Kolomyia Raion, Ivano-Frankivsk Oblast, Ukraine

– bronze mace head (Fig. 3: 2; inventory number MAK/9414) in the form of an empty sphere with pyramidal spikes located on a plan of a star – four large spikes in the centre, encircled with ornamental

³ Names of villages where mace heads and flail striking heads were found as well as Russian- and Ukrainian-language reference works are transliterated from Cyrillic letters to Latin alphabet according to the Polish Standard PN-ISO 9 February 2000, the translation of the English version of the international standard ISO 9:1995.

bands and eight small spikes on the edge; well-preserved (dark-green patina, fractures and losses, perhaps traces of impacts); dimensions: length 62 mm, width 61 mm, eye diameter 29–25 mm, weight 187 g

This specimen belongs to type IV according to A. N. Kirpičnikov; it is often found – similar to specimen of type III – during excavations conducted in strongholds destroyed by Mongols and dated to the 12th – 1st half of the 13th century (Kirpičnikov 1966, 52). In case of Ukrainian findings, this chronology may be narrowed down to the 1st half of the 13th century (see: Liwoch 2006, 68).

6. Horodnicâ (Городниця), Kolomyia Raion, Ivano-Frankivsk Oblast, Ukraine

– stray find from a settlement site in the area of village gardens; in years 1878–1882 provided to Władysław Przybysławski from the Archaeological Commission of the Academy of Learning in Cracow and then (by him) to the Archaeological Museum in Cracow

– bronze mace head (Fig. 3: 3; inventory number MAK/9414) preserved in fragments: a part of a large knob, one small pyramidal knob, part of a ‘collar’ (dark-green patina, traces of strikes(?) on a larger knob); dimensions: length (preserved fragment) 47 mm, weight (preserved) 24 g

This is a fragment of a mace head of type IV according to A. N. Kirpičnikov dated to the 1st half of the 13th century (see: above).

7. unknown place of discovery (Ukraine?)

– bronze mace head (Fig. 3: 4; inventory number MAK/9547) in the form of a hollow sphere decorated with twenty-four pyramidal spikes located on a plan of a star: four large, encircled with rollers in the centre, eight medium on the edge, twelve small conical; well-preserved (dark-green patina, about half of a ‘collar’ broken off; conservation in years 2008/2009); dimensions: length 58 mm, width 87 mm, eye diameter 27 mm, weight 236 g

This mace head belongs to type IV with some features of type III according to A. N. Kirpičnikov and it should be dated to the 1st half of the 13th century (see: above).

8. unknown place of discovery (Ukraine?)

– bronze mace head (Fig. 3: 5; inventory number MAK/9546) in the form of a hollow sphere with small pyramidal spikes on a plan of a star. Spikes encircled with grooves; very well-preserved (grey-green patina; conservation about years 2008/2009); dimensions: length 58 mm, width 60 mm, eye diameter 24 and 23 mm, weight 232 g

It seems that this mace head should be qualified as a variant of type IV according to A. N. Kirpičnikov and dated to the 1st half of the 13th century (see: above). Several similar specimens are known from the Balkans, incl. from Čipuljić (a former independently inhabited place in the territory of today’s Bugojno municipality) in Bosnia and Herzegovina (Sijarić 2014, 270–274). Perhaps these are items related to the military culture of medieval Hungary.

9. Librantowa, Gmina Chelmiec, Nowy Sącz County, Poland

– finding during plough on 15 April, 1910; donated by Antoni Kowalski to the National Museum in Cracow (MNK), in 1984 transferred to the Archaeological Museum in Cracow

– bronze* mace head (Fig. 3: 6; inventory number MAK/10657) with a star-shaped head with solid pyramidal knobs in two sizes – four large central foursquare knobs and six (originally eight) small triangular knobs on the edge, eye with two circular ribs and conical ‘collar’ well-preserved** (dark-golden patina, fractures and losses, perhaps traces of impacts; conservation in year 2013); dimensions: length 95 mm, width 80 and 78 mm, eye length 53 mm, eye diameter (reconstructed) 24 mm, weight 374.5 g

* lead bronze: 81–91% Cu; 3–7% Pb; 0,8–1,5% As; 1,5–1,9% Sb; 0,3–0,5% Sn; 0,07–0,10% Co; 0,12–0,17% Ni; 1,0–2,5% Fe

** in the eye – remains of some organic matter (tar?) used perhaps to attach a handle

This mace head is the Hungarian handicraft. It belongs to Tustan' variant of type IV according to László Kovács and it may be preliminarily dated to the 2nd half of the 13th – 1st half of the 14th century. It could be assumed that it would be a trace of the battle of (Stary) Sącz fought in January 1288 when the Golden Horde warriors commanded by Nogai were defeated by a Hungarian unit led by George from Sívár (Sívári Soós György). To make this thesis more convincing, the 13th century battlefield should be discovered in the fields of the village Librantowa (Liwoch 2016).

10. unknown place of discovery (Ukraine?)

– iron mace head (Fig. 4: 1; inventory number MAK/8901); almost biconical form; solid; with a nail in an eye; well-preserved (surface corrosion); dimensions: length 39 mm, diameter 46 mm, eye diameter 18–12 mm, weight 216 g

This specimen belongs to spherical mace heads of type V according to A. N. Kirpičnikov. Similar – a quite simple form – are known from many places, for example from: Hungary (12th–1st half of the 13th century); Mielnica Duża in Poland (13th–15th century); Novgorod Velikij in Russia (2nd half of the 14th century); Sarkel-Belaâ Veža in Russia (end of the 11th – beginning of the 12th century) and Božanov in Czech Republic (2nd half of the 13th – beginning of the 14th century) (Kovács 1971, 177–179, Plate 6: 5, 181; Michalak 2005, 199, 203–204, 220, Plate V: 1, 5, 9; Drnovský, Mazáčková, Šrámek 2019, 582–583, 597, Fig. 18: 30). This mace head should be dated to the 12th–14th (15th?) century.

11. unknown place of discovery (Ukraine?)

– bronze mace head (Fig. 4: 2; inventory number MAK/9546) of a biconical form, hollow inside, decorated with pseudo-granulation and small rollers/ribs in the geometrical order; very well-preserved (golden patina; conservation about year 2008/2009); dimensions: length 49 mm, diameter 54 mm, eye diameter 20–19 mm, weight 159 g

This mace head should be linked with type V according to A.N. Kirpičnikov. We may suppose that it derives from the 12th–13th century, there are no analogies to this artifact. It should be mentioned that its surface resembles surfaces of flail striking heads type IIA according to A. N. Kirpičnikov with such chronology as mentioned below (see: Kirpičnikov 1966, 59–62, 136–137, Plates XXXI: 5–8, XXXII : 6, 8–12).

12. Žalibori (Жалибори), Ivano-Frankivsk Raion, Ivano-Frankivsk Oblast, Ukraine

– finding from an inhumation burial; in the half of the 19th century donated by Hieronim Konaszewski to the Collection of the Cracow Scientific Society

– bronze mace head (Fig. 4: 3; inventory number MAK/3385) in the form of a sleeve surrounded by flat spikes – six spikes in four rows; very well-preserved (dark-green patina); dimensions: length 19 mm, width 35 mm, eye diameter 20 mm, weight 35 g

This mace head is a rare specimen determined as Žalibori type (Liwoch 2006, 67, 68, 76). Two analogous artifacts are known from two undetermined villages in Italy (Lindenschmit 1858, Plate 2: 6) or perhaps from Ireland (http://test.huntmuseum.com/search_objects.asp). It should be assumed that determination of their chronology and origin is impossible at this stage of research.

13. Belz (Белз), Chervonohrad Raion, Lviv Oblast, Ukraine

– flail striking head (Fig. 4: 4; inventory number MAK/9297) made of moose antlers (?) with an iron tang; decorated with the eye-shaped ornament and engraved sign of a two-pronged spear; tang made of a bowed twig formed into a circular handle hooked at both ends; well-preserved (on a dirty-beige striking head noticeable three longitudinal fractures, tang after conservation sparkles metallicly); dimensions: length 83 mm, length of the antler part 63 mm, diameter 39 mm, weight 77 g

This flail striking head is linked with type I according to A. N. Kirpičnikov (1966, 59) and it is dated in Rus' within a wide timescale: the 2nd half of the 10th–13th century. It seems that its chronology may be in this case narrowed down to two first decades of the 11th century; the two-pronged spear (*dvuzub*)

may be linked with Sviatopolk Vladimirovich the Accursed (+1019) (see: Bieleckij 2000, 387, 390, 418; 2016, 293) whose warriors could be expected on the border between medieval Poland and Rus' in the first twenty years of the 11th century.

14. unknown place of discovery (Ukraine?)

– iron flail striking head (Fig. 4: 5; inventory number MAK/2303) – pear-shaped, provided with a pointed handle encrusted with brass*, handle with a circular opening; very well-preserved (after conservation in year 2021 black color); dimensions: length 65 mm, diameter 37 mm, weight 235 g
* Fe 16,8%, Cu 63,5%, Zn 9,8% and others (courtesy of Andrzej Dyga and Aldona Garbacz-Klempka)
This specimen belongs to type I according to A. N. Kirpičnikov with wide chronology between the 2nd half of the 10th and the 13th century (Kirpičnikov 1966, 62). A similar artifact, but decorated with silver and niello, was found in Zelenče and dated by A. N. Kirpičnikov (1966, 136–137, Plate XXXI: 2) to the 12th–13th century.

15. unknown place of discovery (Ukraine?)

– bronze flail striking head (Fig. 4: 6; inventory number MAK/2303) pear-shaped with a distinct knob at the base and a rhombus-shaped handle with an oval opening; decorated at both sides with a motif of a cross with a convexity in the center and pseudo-granulation; very-well preserved (dark-green patina; conservation about years 2008/2009); dimensions: length 58 mm, diameter 32 mm, weight 92 g

This specimen is linked with type IIA according to A. N. Kirpičnikov who dated a similar flail striking head from a former village of Verbična to the 12th–13th century (Kirpičnikov 1966, 136–137, Plate XXIX: 4).

16. unknown place of discovery (Ukraine?)

– bronze flail striking head (Fig. 4: 7; inventory number MAK/2303) of a spherical shape with a distinct knob at the base, with a neck in the form of a flange and a circular handle; decorated with pseudo-granulation (large grains); very well-preserved (gold-green patina; conservation about years 2008/2009); dimensions: length 54.5 mm, diameter 34 mm, weight 133 g

This is a flail striking head of type IIA according to A. N. Kirpičnikov and it is dated to the 12th–13th century (Kirpičnikov 1966, 59–62, 136–137, Plates XXXI: 5–8, XXXII: 6, 9–12).

17. unknown place of discovery (Ukraine?)

– bronze flail striking head (Fig. 5: 1; inventory number MAK/2303) pear-shaped with a distinct knob at the base, with a neck in the form of a flange and a circular handle; decorated with pseudo-granulation (small grains); very well-preserved (golden patina; conservation about years 2008/2009); dimensions: length 61 mm, diameter 28 mm, weight 95 g

This specimen belongs to type IIA according to A. N. Kirpičnikov and it is dated to the 12th–13th century (see: above).

18. Mar'ānivka (Мар'янівка), Bila Tserkva Raion, Kyiv Oblast, Ukraine

– finding from a burial mound; donated by Edward Rulikowski to the Archaeological Museum of the Academy of Learning in Cracow about the 19th–20th century

– bronze flail striking head (Fig. 5: 2; inventory number MAK/3611); pear-shaped with a thickened neck and bended handle; on its surface rare flat knobs; very well-preserved (dark-golden colour); dimensions: length 52 mm, width 32 mm, thickness 28 mm, weight 60 g

This specimen belongs to type IIA according to A. N. Kirpičnikov and it is dated to the 12th–13th century (see: above). It was most probably a Ruthenian import to Polovtsian milieu (Gołębiowska–Tobiasz 2020, 47).

19. Krilos (Крилос), Ivano-Frankivsk Raion, Ivano-Frankivsk Oblast, Ukraine

– bronze flail striking head (Fig. 5: 3; inventory number MAK/8972) of a spherical shape with a large knob at the base and a neck in the form of a flange, provided with a rhombic-hemispherical handle with a circular opening, decorated with pseudo-granulation (large grains); very well-preserved (dark-green-brown color); dimensions: length 60 mm, diameter 39 mm, weight 207 g

This flail striking head belongs to type IIA according to A. N. Kirpičnikov and it is dated to the 12th–13th century (see: above).

20. Krilos (Крилос), Ivano-Frankivsk Raion, Ivano-Frankivsk Oblast, Ukraine

– from the research conducted by Āroslav Pasternak in years 1934–1941

– bronze flail striking head (Fig. 5: 6; inventory number MAK/8972) of a spherical shape, empty inside, with rare flat knobs on its surface; preserved in average condition (in its coating three holes, perhaps used to melt the lead from inside; fragmentarily preserved handle; brown colour); dimensions: length (preserved) 42 mm, diameter 34 mm, weight 60 g

It is a specimen of type AII according to A. N. Kirpičnikov and it is dated to the 12th–13th century (see: above).

21. Krilos (Крилос), Ivano-Frankivsk Raion, Ivano-Frankivsk Oblast, Ukraine

– bronze flail striking head (Fig. 5: 4; inventory number MAK/8972) with a spherical flattened corpus (in side view – isosceles trapeze) and a rhombus-shaped handle with an oval opening, decorated with two zoomorphic images – perhaps of dragons (one image is unnoticeable); very well-preserved (dark-brown colour); dimensions: length 59 mm, width 35 mm, thicknesses 18 mm, weight 126 g

This flail striking head belongs to type IIIA according to A. N. Kirpičnikov and it is dated to the 2nd half of the 11th–13th century (Kirpičnikov 1966, 63, 138–139), but in this case its chronology should be narrowed down. Its decoration refers probably to the Romanesque bas-relief depicting a dragon from Uspenski church in Galič (Fig. 5: 5) that is dated to the 3rd quarter of the 12th century (por. Ġolembjovs 'ka-Tobiaš, Dombrovs 'kij 2019) so the specimen in question may derive no earlier than from the 2nd half of the 12th century.

22. unknown place of discovery (Ukraine?)

– iron flail striking head (Fig. 5:7; inventory number MAK/2303) in the form of a bi-pyramid (octagonal base) with a rectangular handle and horizontal grooves on a neck and a handle (traces of incrustation(?)); well-preserved (after conservation in year 2021: black color); dimensions: length 37–39 mm, width 37–39 mm, weight 188 g

This specimen, although it is not double-conical, is one of not numerous examples of type VI according to A. N. Kirpičnikov. Its chronology is not determined definitely but conditionally it may be dated to the 13th century due to the discovery of a similar flail striking head with artifacts dated to the century in question in Serensk (Kirpičnikov 1966, 63, 138–139; 1976, 27).

Schemas of types of mace heads and flail striking heads as well as chronological conclusions about them made by A. N. Kirpičnikov's – although dated back to 1960 – have not outdated. Newer analyses based on the Old Ruthenian materials do not make a significant contribution to *bacellistics* (see: Osipenko 2019a; 2019b; 2019c; 2020). However, there are new findings from former Ruthenian areas which do not fall within the scope of A. N. Kirpičnikov's classification. Such example is an iron mace head in the form of an elongated cube (octahedral in its cross-section) deriving from a stronghold in Nedoboivci (Voznyj 2014, 56, 61, Fig. 1: 18) that has its analogy in a mace head from a burial of an Asian warrior, a victim of the Hungarian-Mongolian battle by the Sajó river in year 1241, in the vicinity of the medieval settlement Mohi (Laszlovszky, Pow, Pusztai 2016, 33–35, Fig. 3). A mace head from Glins 'ke (Pugolovok 2020) is similar to both mentioned specimens. It seems that it is time to create a new, open typology

of not only Ruthenian but as well Eurasian mace heads on the foundation built by A. N. Kirpičnikov. In case of flail striking heads, there is no need for that, although a schema of types established by the mentioned scientist can be expanded slightly.

Presented specimens of former weaponry are not fully valuable archeological sources due to a fact they are devoid of any archeological context, only some of them are linked with archeological sites. This is the reason why this small text is only a catalogue supplementing the corpus of medieval mace heads and flail striking heads elaborated many years ago by A. N. Kirpičnikov.

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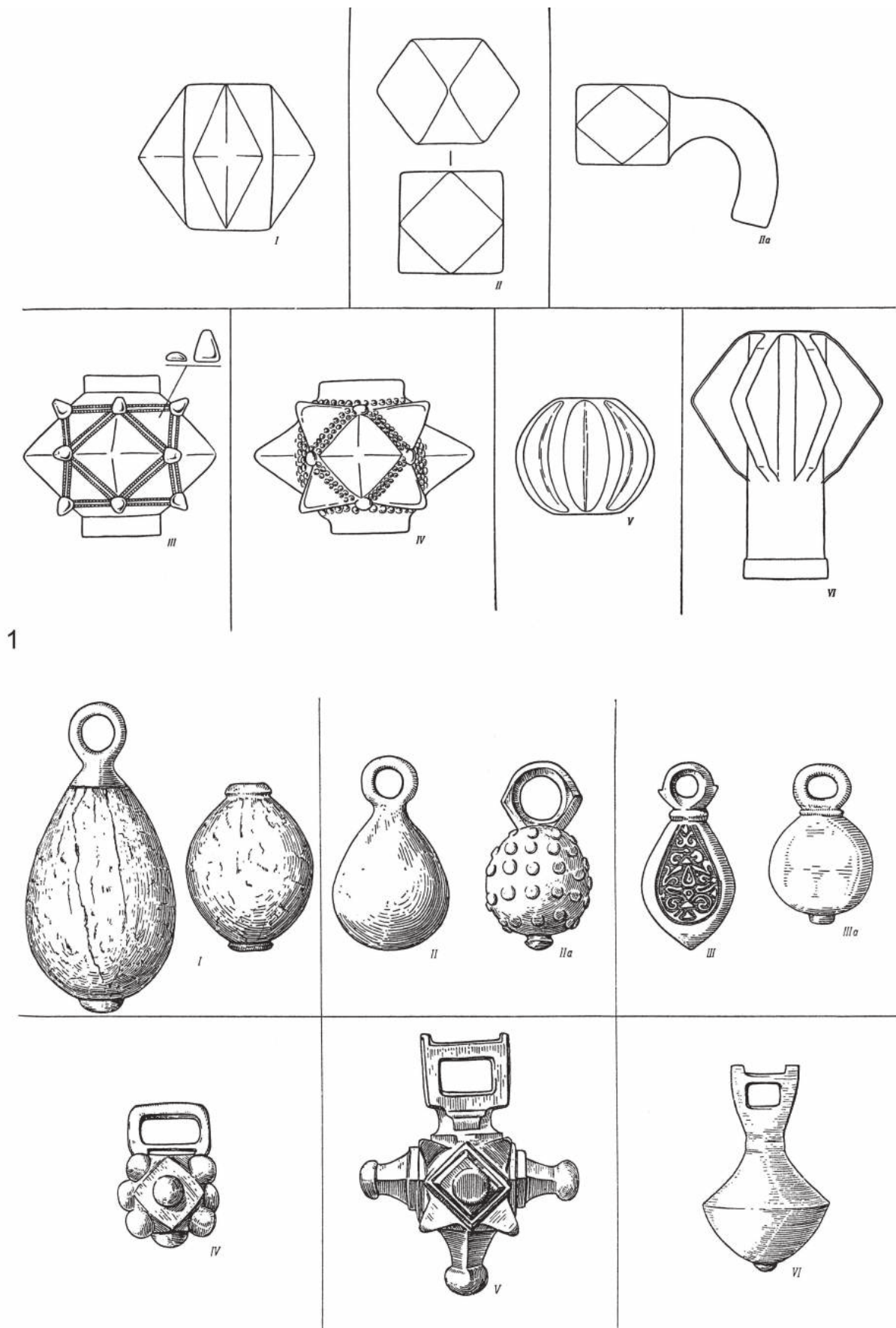


Fig. 1. 1 – types of Old Ruthenian mace heads dated to the 11th–13th century; 2 – types of Old Ruthenian flail striking heads dated to the 10th–13th century (according to A. N. Kirpičnikov).



Fig. 2. 1–3 – mace heads with unknown place of discovery (1–2 – photographed by R. Liwoch; 3 – photographed by A. Susul).

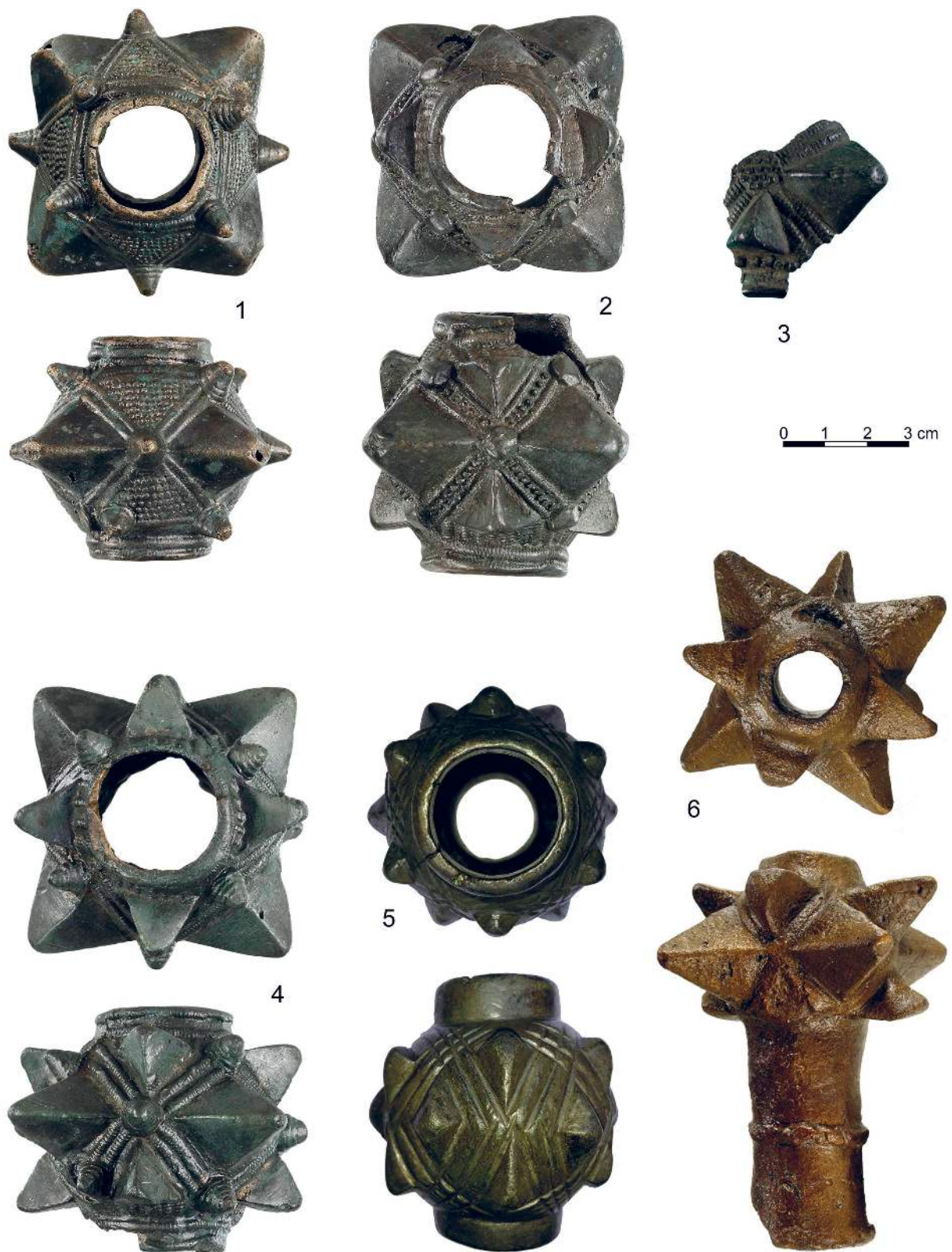


Fig. 3. 1–3 – mace heads from Horodnică; 4, 5 – mace heads with unknown place of discovery; 6 – mace head from Librantowa (1, 2, 6 – photographed by A. Susul; 3 – photographed by R. Łapanowski; 4, 5 – photographed by R. Liwoch)



Fig. 4. 1, 2 – mace heads with unknown place of discovery; 3 – mace head from Žalibori; 4 – flail striking head from Belz; 5–7 – flail striking heads with unknown place of discovery (1, 2, 4–7 – photographed by R. Liwoch; 3 – photographed by R. Łapanowski)



Fig. 5. 1, 7 – flail striking heads with unknown place of discovery; 2 – flail striking head from Mar’añivka; 3, 4, 6 – flail striking heads from Krilos; 5 – bas-relief of a dragon from Uspenski church in Galič (1–7 – photographed by R. Liwoch)

