Proceedings of the Prehistoric Society (2026), 1–11
doi:10.1017/ppr.2026.10098

CAMBRIDGE UNIVERSITY PRESS

Research Article

The evolution of Cimmerian *bouterolles* in the Scythian era (10th–3rd century BC)

Danylo Klochko
Department of Archaeology, National University of Kyiv-Mohyla Academy, Ukraine

Abstract

This article continues the examination of eastern European chapes (*bouterolles*), uniting the artefacts of the Cimmerian and Scythian eras into a single discussion. This continuation provides a new perspective on previously known finds, claiming that Scythian *bouterolles* descended from Cimmerian ones. Among the five known types of Scythian chapes, at least three seem to have a Cimmerian origin; the fourth type appears to have developed from a Scythian tradition, and the fifth type is too difficult to determine, because of the small number of finds. The chronology of the chapes found at archaeological sites suggests that the evolution of Scythian *bouterolles* was fast, and the early and later variants and types seem to have co-existed. This study covers finds from Ukraine, Moldova, Romania, Hungary, Russia, and the Middle East. New and previously published *bouterolles* are included and a suggested scheme of typological development from Cimmerian to Scythian eras is provided.

Keywords: *bouterolles*; chapes; Scythians; Cimmerians; north Pontic region; Early Iron Age; weaponry

(Received 21 May 2026 UTC; revised 21 May 2026 UTC; accepted 3 June 2026 UTC)

Introduction

The author's first article on this topic, 'Eastern European sheath-ends during the Final Bronze Age and the beginning of the Early Iron Age', was published in the previous issue of this journal (Klochko 2025a). In it, the author provided an overview of Cimmerian chapes, which were divided into six groups – five morphological types (Subotiv, Dunakömlőd, Novomyrhorod, spiral-ornament, and ring-edge) and one ornamentation tradition. The first three of these types were already known; however, their dataset was expanded to include new objects. The latter two types (spiral-ornament and ring-edge) were introduced in that article, based on newly published artefacts. Since then, several new items have appeared, which calls for the re-evaluation of some previously proposed ideas. In addition, the new material enables the proposal of a possible chronological continuity from Cimmerian to Scythian *bouterolles*.[1]

Rethinking the Dunakömlőd type: the new blistered *bouterolles*

The Dunakömlőd type of Cimmerian chape was first introduced by Chochorowski (1993). Named after the find from Hungary, it is 11 cm long and possesses no distinct features, unlike others from the same time period (10th–7th century BC): these are simple, cone-shaped items without ornament, decoration, specific tips, etc. A direct analogy to the Dunakömlőd find is one with an undisclosed length from the Russian site Akhmylovo. Another was found at an unknown location in Ukraine (Figure 1, no. 1). Interestingly, it is 15.5 cm long, making it one of the longest Cimmerian *bouterolles*. Another *bouterolle* from Akhmylovo is most distinct (Figure 1, no. 3), with two parallel vertical lines of circles that resemble the Novomyrhorod type (Figure 1, no. 2). However, its form differs from the typical Novomyrhorod type and more closely resembles the Dunakömlőd type. The *bouterolle* from Katlabuh (formerly Suvorove), Ukraine (Figure 1, no. 4), which belongs to the triangular ornament tradition, is similar in this way. The iron *bouterolle* from Croatia (unique, as other Cimmerian *bouterolles* are made of bronze) morphologically resembles the classical Dunakömlőd type.

In previous research (Klochko 2025a), it was suggested that three additional finds from Ukraine could belong to the Dunakömlőd type: one from the Kharkiv region (Figure 1, no. 11), one from Talne (Cherkasy region) (Figure 5, no 2), and one from Bila Tserkva (Kyiv region) (Figure 5, no 3). The first one was assumed to be the earliest form (considering the size and shape), while the second and third were thought to be later developments. This proposal was based on the similar production technique used for the iron chape from Croatia. The iron chape and the two from Talne and Bila Tserkva were

Corresponding author. Danylo Klochko; Email: klochko.danil@ukr.net
Cite this article: Klochko D. (2026) The evolution of Cimmerian *bouterolles* in the Scythian era (10th–3rd century BC). *Proceedings of the Prehistoric Society*, 1–11, https://doi.org/10.1017/ppr.2026.10098

© The Author(s), 2026. Published by Cambridge University Press on behalf of The Prehistoric Society. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution and reproduction, provided the original article is properly cited.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 17 Nov 2026 at 18:12:45, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/ppr.2026.10098

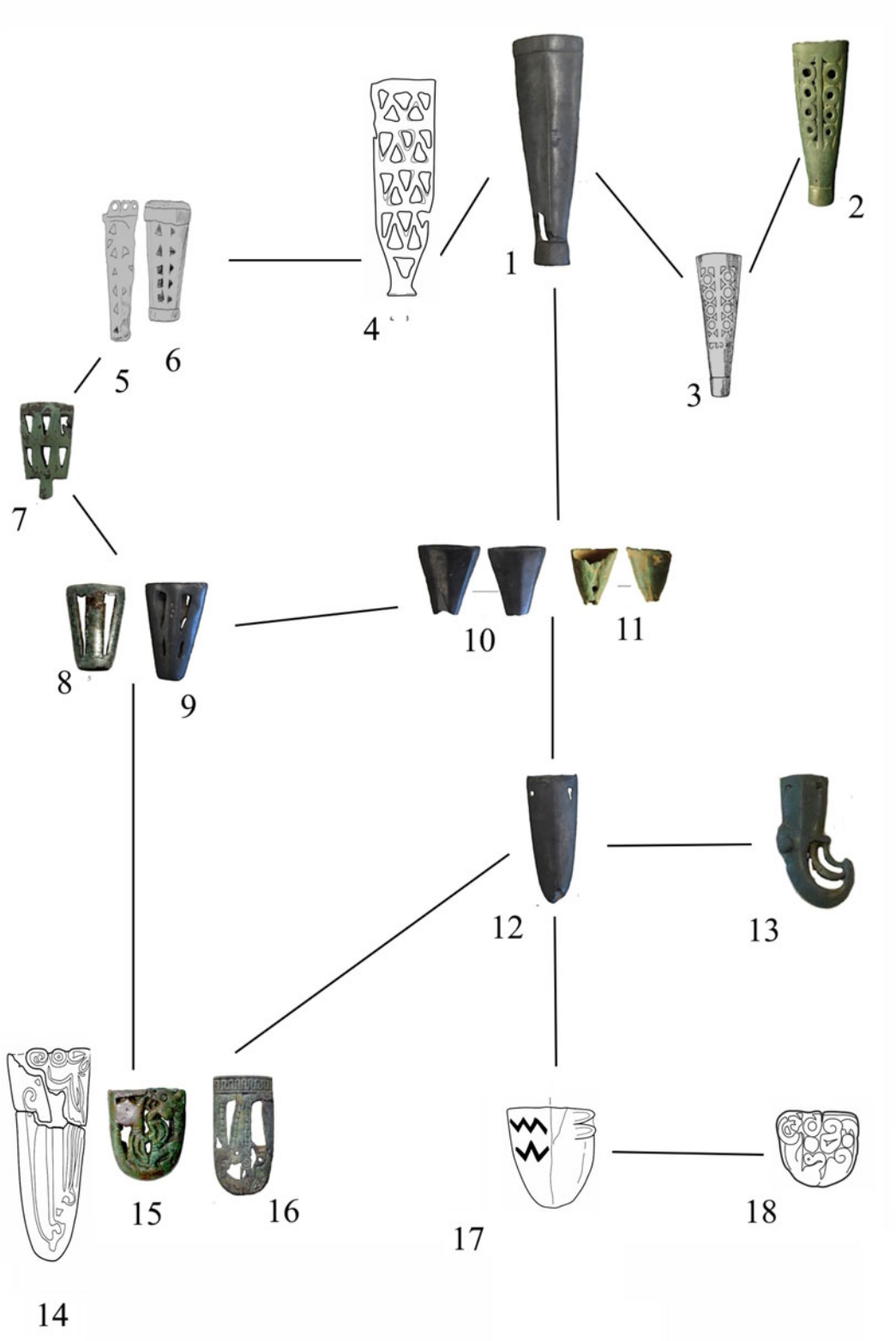


Figure 1. The relationship of the Dunakömlőd type to other types of Cimmerian (2–9) and Scythian (10–18) *bouterolles*. 1. Dunakömlőd type (unknown, Ukraine); 2. Novomyrhorod type (Novomyrhorod, Ukraine); 3. Novomyrhorod imitation (Akhmylovo, Russia); 4. Dunakömlőd shape with triangular slots (Katlabuh [formerly Suvorove], Ukraine); 5–9. *Bouterolles* with triangular slots (5. Ártánd, Hungary, 6. Murgești, Romania, 7. Lviv region, Ukraine, 8. Kamianets-Podilskyi, Ukraine, 9. Unknown, Ukraine); 10–11. Triangular-shaped non-ornamented *bouterolles* (10. Unknown, Ukraine, 11. Kharkiv region, Ukraine); 12. Kelermes type, non-ornamented (unknown, Ukraine); 13. Bird-headed type (Kharkiv region, Ukraine); 14–16. Starsha Mohyla type (14. Starsha Mohyla mound, 15. Zaiukovo, Russia, 16. Unknown); 17–18. Kelermes type, with carved ornament (17. Mineralnye Vody, Russia, 18. Dariivka village, Ukraine). (Sources: 2, 7, 8, 11 [Klochko 2025a, fig. 3]; 3, 5, 6 [Szabó *et al.* 2018, fig. 5]; 4 [Terenozhkin 1976, fig. 32]; 14, 18 [Meliukova 1964, tab. 19]; 15 [Rossiiskoe istoricheskoe obshchestvo 2019]; 16 [Institut arkheologii Rossiiskoi Akademii Nauk 2020]; 17 [Topal 2013, pl. 3]).

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 17 Nov 2026 at 18:12:45, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/ppr.2026.10098

produced not by casting (as the rest of Cimmerian chapes are), but by folding the rectangular piece of metal into a cone shape.

However, a new find from Brovary, around Kyiv in Ukraine (Ukrainian Museum of Arms and Armory) (Figure 5, no. 1) has prompted a reconsideration of whether or not these two later *bouterolles* from Talne and Bila Tserkva are actually of the Dunakömlőd type. Just like the items from Talne and Bila Tserkva, the new find from Brovary has raised dot (blistered) decoration and was crafted via folding (it is not fully folded, which makes its form simpler than those from Talne and Bila Tserkva). The folding technology seems relatively simplistic compared to casting, and the ornamentation on the blistered *bouterolles* shows a lack of skill, compared to others from the same time and region. However, the small number of finds does not enable a clear explanation for these production issues. The 'blistered *bouterolles*' might represent a separate type, with the find from Brovary possibly being earliest.

The transition from the Cimmerian to the Scythian Age: the weaponry point of view

According to the established chronology, the Scythian Age in the North Pontic region began in the 7th century BC. However, the previous nomadic tribes related to the early Scythians arrived from the east one to two centuries prior (Klochko & Murzin 1987). This is evidenced in the archaeological finds of ancient weaponry. For example, the Scythian weaponry complex (bow, *gorytos* [bow case], and arrows) is based on Cimmerian-age (10th–7th century) technology: the bow from the grave in the Luhansk region, dated to the first half of the 8th century BC (Dubovskaya, 1985), is almost identical to the Scythian type; the same can be said about the remains of the *gorytos* (Klochko 2006, 264). The bows and *gorytoi* seen on Cimmerian-age sculptures from the northern Caucasus and central Asia (most likely crafted by eastern nomads) also resemble the Scythian types (Dudarev 1999; Savinov 1994; Terenozhkin 1976). Cimmerian-age arrows of the 'Mala Tsymbalka' type (dated 9th–8th century BC) are later transformed into the primary type of Scythian arrows (Klochko 1979; 2006). Lastly, the lamellar armour technology was initially used by Assyrian chariot warriors (made of leather) and was probably brought into the Cimmerian territories as the trophies from raids (similar to the Assyrian helmets [Valchak 2016]), which are known from historical records (Ivanchik 1996). As a result, the remains of bronze lamellar armour are found in the Caucasus (the eastern flank of the Cimmerian territories) in burial grounds dating to 8th century BC (Ivanchik 2001). The grave Stebliv-15 (Cherkasy region, Ukraine), dated to the end of 9th century BC, contained the remains of iron lamellar armour, the oldest such find in eastern Europe. Its resemblance to the Scythian lamellar armour is generally accepted (Klochko & Skoryi 1993). The early forms of 'animal style' decoration (typical during the Scythian age) are present on some items of Cimmerian-age weaponry.

Most relevant to this research are the Scythian swords – both Classical and long *akinakai* (acinaces) – based on the developed forms of Cimmerian cross-guard swords, which had been in use from around the second half of the 9th century through the 8th century BC (Klochko 2025b; Terenozhkin 1976). Since the sheaths (and thus their parts) are closely related to the swords and daggers, it is logical to assume that Scythian *bouterolles* and chapes are *also* based on Cimmerian ones. The small number of items known (until recently) was an obstacle to analysing such a possible connection. Now that the dataset has expanded, it is possible to explore this idea.

Scythian *bouterolles*/chapes

Scythian *bouterolles* are better known and studied than Cimmerian ones, although many questions about them (mainly their origins and the relationship of different types) remain unanswered. Generally speaking, Scythian *bouterolles* can be divided into two main groups: simple (no decoration) and decorated. The decorated *bouterolles* are more studied, because of their larger quantity and clear distinctions, but the subject overall remains underdeveloped.

The *bouterolles* in the form of a bird head (mostly interpreted as a golden eagle; Volnaya 2015) (Figure 2) have received most of the attention. They are dated to the end of 7th and the first half of the 6th century BC, and the majority are from the Caucasus, with some from the Kuban and Volga regions. In Ukraine, this type has been found in the Repiakhuvata Mohyla mound (Cherkasy region) and the Bilsk hillfort (Poltava region), and as stray finds from Zmiinyi (Snake) island, Crimea (Skoryi & Zimovets 2014; Topal 2015), and the Kharkiv region. The large number of specimens (as well as their diversity) allows for distinct variants to be defined within this type, although there are currently several such typologies (Topal 2015).

Another form of decorated Scythian *bouterolle* is slotted with animal style ornamentation. Only three of them are known currently. The first is from the Starsha Mohyla mound (Sumy region) and is dated back to the 6th century BC (Figure 1, no. 14). The depiction is interpreted as the 'stylized feline predator' (author's translation; Meliukova 1964, 62). For a long time, this find was unique. However, in 2019, two similar chapes were found in a Scythian grave at the Zaiukovo-3 burial ground in Kabardino-Balkaria (Russia) (Figure 1, nos 15–16), dated to the 6th–5th centuries BC (Rossiiskoe istoricheskoe obshchestvo 2019).

The most numerous examples of undecorated *bouterolle* are a type with rounded edges (Figure 3, A). In Ukraine, such items have been found in Crimea, the Cherkasy region (in the 3rd century BC Velykyi Ryzhanivskyi mound and in Dariivka village), and the Sumy region (in the Starsha Mohyla mound). The exact origin of three others is unknown. In Russia, such *bouterolles* have been found in the Kelermes mounds (7th–6th century BC) and the Ananyino burial ground (7th–6th century BC).

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 17 Nov 2026 at 18:12:45, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/ppr.2026.10098

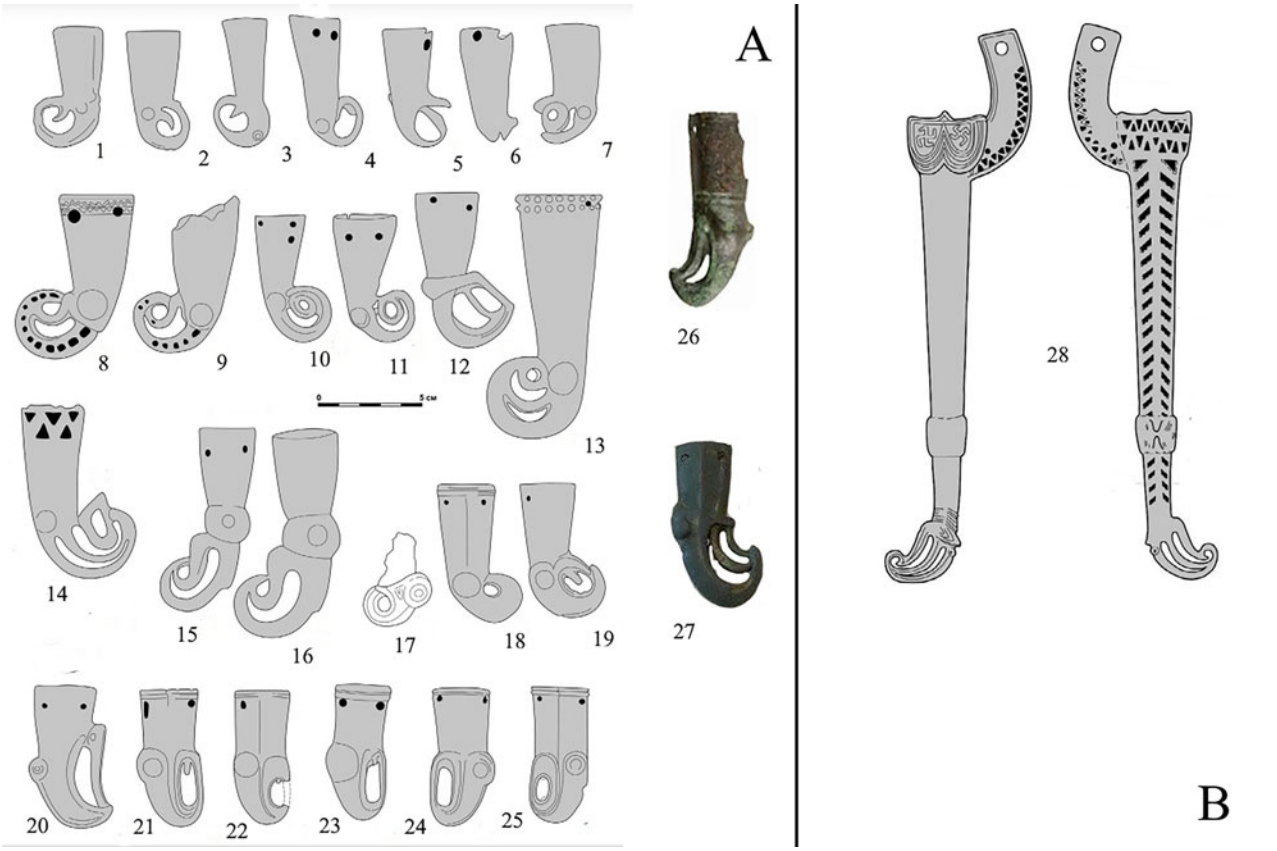


Figure 2. Finds of bird-headed *bouterolles* (A) and sheaths of the same form (B). 1–2. Nizhniy Chegem (Russia); 3. Verkhniy Aul (Russia); 4–7. Faskau (Georgia); 8. Klivana (Georgia); 9, 14. Koban (Russia); 10. Natsargora (Georgia); 11. Dvani (Georgia); 12. Akhmylovo (Russia); 13. Patardzeuli (Georgia); 15. Vladimirovskiy (Russia); 16. Maykop (Russia); 17. Tlia burial ground (Georgia); 18. Oleksandrivka (Ukraine); 19. Sinne-Nekrasivka (Ukraine); 20. Pashkovskoe hillfort (Russia); 21. Surb-Khach (Ukraine); 22. Staryi Krym (Ukraine); 23. Snake island (Ukraine); 24. Nisporeni (Moldova); 25. Repyakhuva Mohyla (Ukraine); 26. Bilsk hillfort (Ukraine); 27. Kharkiv region (Ukraine); 28. Firminiș (Romania). (Sources: 1–25 [Topal 2015, fig. 5]; 26 [Skoryi *et al.* 2020, fig. 2]; 28 [Topal 2015, fig. 2]).

Closely related to them is the *bouterolle* type that was initially made of organic materials (bone or horn) and had carved geometric decoration. The early examples of this type come from the Scythian burial ground near the city of Mineralnye Vody (6th–4th century BC, Russia) (Figure 4, no. 1), from near Dariivka village (stray find, Ukraine) (Figure 4, no. 4), and from the Tlia burial ground (16th–4th century BC, Georgia) (Figure 4, no. 2). Later, the bronze variants of this type emerge – a small number of such finds is known from Ukraine, and singular items have come from northern Moldova and Romania. Eventually, the carved decoration becomes more complex and animalistic. In the 7th century, such items were widely spread across the Caucasus and later spread to the Middle East, in Sakan and Persian archaeological contexts; they are found as far east as Egypt and also depicted in Persian imagery (Figure 4).

Another type of Scythian undecorated *bouterolle* is represented by three curved items from Romania (Figure 5, nos 4–6), dated to the second half of the 6th century BC (Topal 2022). Two of them are 11–12 cm, some of the longest Scythian examples. They were discovered along with iron *akinakai*, which were also curved.

Three other Scythian *bouterolles* cannot be attributed to any of the aforementioned types based on their morphology. The first one is from the Hungarian village of Tarpa, dated to the 7th–6th century BC. It is approximately 7 cm long, with a rounded edge (Figure 5, no. 11). Two others come from unknown locations in Ukraine. The first has a triangular form, is slightly convex on one side, and lacks a tip (Figure 1, no. 10). It is 4.5 cm long. The closest analogy, 3 cm long, comes from the Kharkiv region and was previously considered a possible early form of the Cimmerian Dunakömlőd type (Figure 1, no. 11).

The second is 14 cm long. Near the base, it is ornamented with three lines of shallow triangular engravings on one side. On the other side, there are two holes, which is standard on the rounded and bird-headed *bouterolles*. It is possible that these holes relate to how the *bouterolle* was connected to the rest of the sheath. The edge of this *bouterolle* is somewhat rounded (Figure 3, no. 13).

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 17 Nov 2026 at 18:12:45, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/ppr.2026.10098



Figure 3. Non-ornamented Kelermes type *bouterolles* (A) and sheaths of the same form (B). 1. Kelermes mounds (Russia); 2. Ananyino burial ground (Russia); 3–5, 13. Unknown (Ukraine); 6–7. Bilohirskyi district (Ukraine); 8. North of Moldova; 9. Cajvana (Romania); 10. Dumbrava-Vârful Muncelului (Romania); 11. Starsha Mohyla mound (Ukraine); 12. Sâncrai (Romania); 14. Ryzhanivka mound (Ukraine); 15. Hostra Mohyla (Ukraine); 16. Kul-oba (Ukraine). (Sources: 1 [Topal 2013, pl. 3]; 2 [Gorelik 2003, tab. XI]; 6, 7 [Skoryi & Zimovets 2014, photo 35, 36]; 8–9 [Topal 2019a, fig. 11]; 10, 12 [Topal 2022, fig. 6]; 11, 14–15 [Meliukova 1964, tab. 15, 19]; 16 [Topal 2019b, fig. 9]).

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 17 Nov 2026 at 18:12:45, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/ppr.2026.10098

Discussion

The sizes and proportions of the Scythian *bouterolles* overall continue the Cimmerian traditions. The length may vary from 4 to 14 cm, which correlates with the weaponry that is also similar for the two periods. The same can be said of their distribution, as the chapes are found in the North Pontic region, the Caucasus, the Volga region, and the territories of central–eastern Europe across both time periods. However, the concentration moves from Ukraine to the east from one period to the next. Also, most of the Scythian *bouterolles* were found in archaeological sites, along with swords or daggers, whereas the Cimmerian examples are largely stray finds.

Most of the currently known Scythian *bouterolle* types resemble the tips of the actual sheaths (Figures 2–5). This is evident from both ordinary finds (made of bronze, i.e. a common material) and ceremonial finds (made of gold), as well as from the images from the Middle East (in the context of chapes with carved animalistic depictions [Figure 4, C]). On the other hand, the tip of the only known Cimmerian sheath (the ceremonial artefact, made of gold, from the Ptychata Mohyla mound in Bulgaria [Aleksandrov *et al.* 2018]) is unique and does not reflect any known *bouterolle* from that period.

Based on the evidence presented above, it is logical to propose that Scythian *bouterolles* were based on Cimmerian ones. The *bouterolles* with rounded edges appear to be the oldest, as evidenced by the items from the Kelermes mounds and the Ananyino burial ground (both dated 7th–6th century BC). In previous research (Topal 2021), the name 'Starsha Mohyla type' was used for them. However, in my opinion, the name 'Kelermes type' seems more reasonable, as it emphasises the ancient nature of such *bouterolles*. In the Ananyino burial ground, a Kelermes-type chape was discovered along with a Subotiv-type chape – the most common of the Cimmerian period. The Ananyino communities were clearly in contact with the Cimmerians, as evidenced by the Ananyino axes and spears found in the North Pontic region where the Cimmerians were based, as well as Cimmerian Novocherkask-type arrows being found in Ananyino burials. This is important, because the Kelermes mounds contain assemblages of Early Scythian objects, which also included items from the Cimmerian period. The precursor of the Kelermes type may be the triangular *bouterolles* from Ukraine. The lack of context (and thus, dating) does not allow absolute certainty, however, morphologically they seem to be the transitional stage between the Kelermes and earlier Dunakömlőd types. However, it is important to note that these *bouterolles*, as well as the early Kelermes types, are tiny (3–4 cm) compared to the Dunakömlőd types (10–14 cm). Later Scythian *bouterolles* are larger, so this relatively short-term diminishing of size is interesting. An explanation (albeit currently speculative) is that a decline in access to the main raw material – bronze – forced craftsmen to use smaller amounts and resulted in a smaller size of early Scythian *bouterolle*. This would not have been unique for the region. For example, during the final period of the Bronze Age, the spears of Berezhivka-Maivka Zrubna culture shrink into the proto-Scythian darts (Klochko 2006; 2025b). Yurii Brovender (2016)

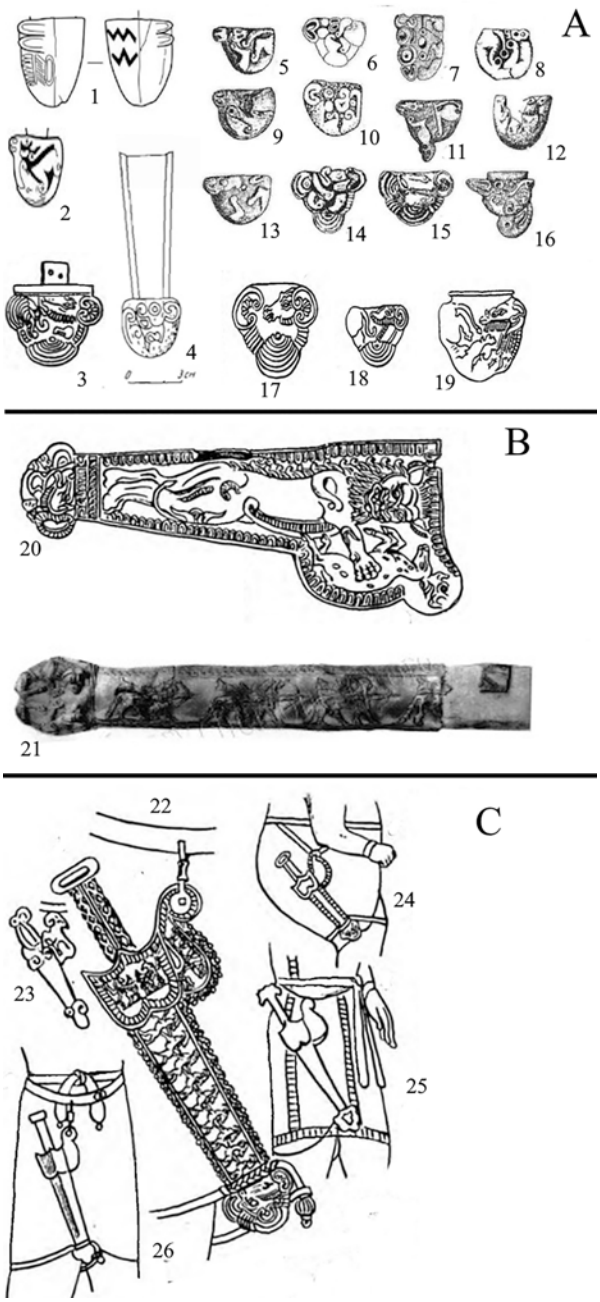


Figure 4. Kelermes-type *bouterolles* with carved ornamentation (A), sheaths with tips of the same form (B), and the depiction of such sheaths (C). 1. Mineralnye Vody (Russia); 2, 9, 11, 13. Tlia burial ground (Georgia); 3, 17–19. Egypt; 4, 10. Dariivka village (Ukraine); 5. Ruk village (Russia); 6. Nartan village (Russia); 7. Karmir-Blur hillfort (Armenia); 8. Gudermes village (Russia); 12. Makiivka (Ukraine); 14. Iran; 15. the bas-relief piece from Persepolis (Iran); 16. Faskau burial ground (Russia); 20. Takht-i-Sangin hillfort (Tajikistan); 21. Melgunov mound (Ukraine); 22. the *akinak* of royal squire, depiction from the Darius I palace in Persepolis (Iran); 23. the *akinakai* of the Persian noble, piece of bronze flat horseman figurine; 24. the *akinak* of the Persian noble, depicted on the silver rhython found in Yerevan (Armenia); 25. the *akinak* of the Persian noble, depicted on the golden plate from Oxus treasure (Tajikistan); 26. the *akinak* on the relievo from Xerxes palace in Persepolis (Iran). (Sources: 1, 2, 21 [Topal 2013, pls 3, 5, 7]; 3, 17–19, 20, 22–26 [Gorelik 2003, tab. X]; 4 [Meliukova 1964, tab. 19]; 5–16 [Polidovich 2014, fig. 1]).

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 17 Nov 2026 at 18:12:45, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/ppr.2026.10098



Figure 5. Possible evolution of Cimmerian folded, blistered *bouterolles* into sharp-edged ones (A) and the presumed evolution of the Subotiv type into the round-edge type (B). 1. Unknown (Ukraine); 2. Talne (Ukraine); 3. Bila Tserkva (Ukraine); 4. Băiţa (Romania); 5. Mirăslău (Romania); 6. Pâclişa (Romania); 7. Shumeyko mound (Ukraine); 8. Vettersfelde/Witaszkowo (Poland); 9. Kruhlyk tract (Ukraine); 10. Subotiv hillfort; 11. Solokha mound (Ukraine); 12. Nikopol burial ground (Ukraine). (Sources: 2–3 [Klochko 2025a, fig. 3]; 4–5 [Topal 2022, fig. 6]; 6–7 [Topal 2019b, figs 2, 4]; 8–9, 11–12 [Meliukova 1964, tab. 17–19]; 10 [Terenozhkin 1976, fig. 49]).

has proposed that this could be explained by a palaeoecological crisis that affected bronze craftsmanship. However, this aspect of the research remains open to further studies.

The primary type of Scythian-age chapes is the Kelermes type. The bird-headed *bouterolles* seem to have developed from its bronze variant, as evidenced by the similarity of the upper part. The bone variant might have served as a basis for the carved chapes, which are found in the Caucasus and the Middle East (including the representations of them) (Figure 4) – this is evident by their form, material, and ornamentation.

The Cimmerian Subotiv type with round-edges probably continued into the Scythian period, as indicated by their similar form (Figure 5, B). The sharp-edged chapes (as well as curved *bouterolles* from Romania) remain a mystery. They resemble the collapsed, blistered *bouterolle* from Talne, mentioned at the beginning of this article, but the few finds do not enable a clear conclusion (Figure 5, A).

The slotted Starsha Mohyla type resemble the Kelermes type; however, they probably descend from the Cimmerian *bouterolles* with geometric ornaments (Figure 1). The slots are evidence of this relationship: initially they were geometrical (mostly triangular), but with the spread of Scythian animal style, they became more complex and symbolic. It should be noted that due to being stray finds, most of the *bouterolles* with geometric ornament currently lack dating more specific than the Cimmerian period, 10th–7th century BC.

The dating of the Scythian *bouterolles* provides two interesting (and correlated) conclusions regarding the evolution of these items: firstly, the development of some types and variants occurred within one century (or perhaps even a few decades); secondly, with the emergence of the latter forms, the former did not vanish but continued to co-exist. Many new Scythian-age *bouterolles* are stray finds and thus have no contextual dating. However, their quantity indicates that they were a 'mass-produced' item. This means that in the future, it is highly likely such *bouterolles* will be discovered within definitive archaeological contexts.

As for the geographical distribution (Figures 6–7), the situation seems to be uneven: in eastern Europe, most of the finds are concentrated in Ukraine, with all of the types in this paper present there; however, they are spread somewhat haphazardly, save for a few clusters. In central Russia, Scythian *bouterolles* are hardly present, while in the Caucasus region, two of the types (bone Kelermes type and bird-headed) are concentrated densely. In the Middle East and central Asia, the Scythian and bone Kelermes-type *bouterolles* are spread vastly, although in small number, in addition to the Persian depictions.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 17 Nov 2026 at 18:12:45, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/ppr.2026.10098

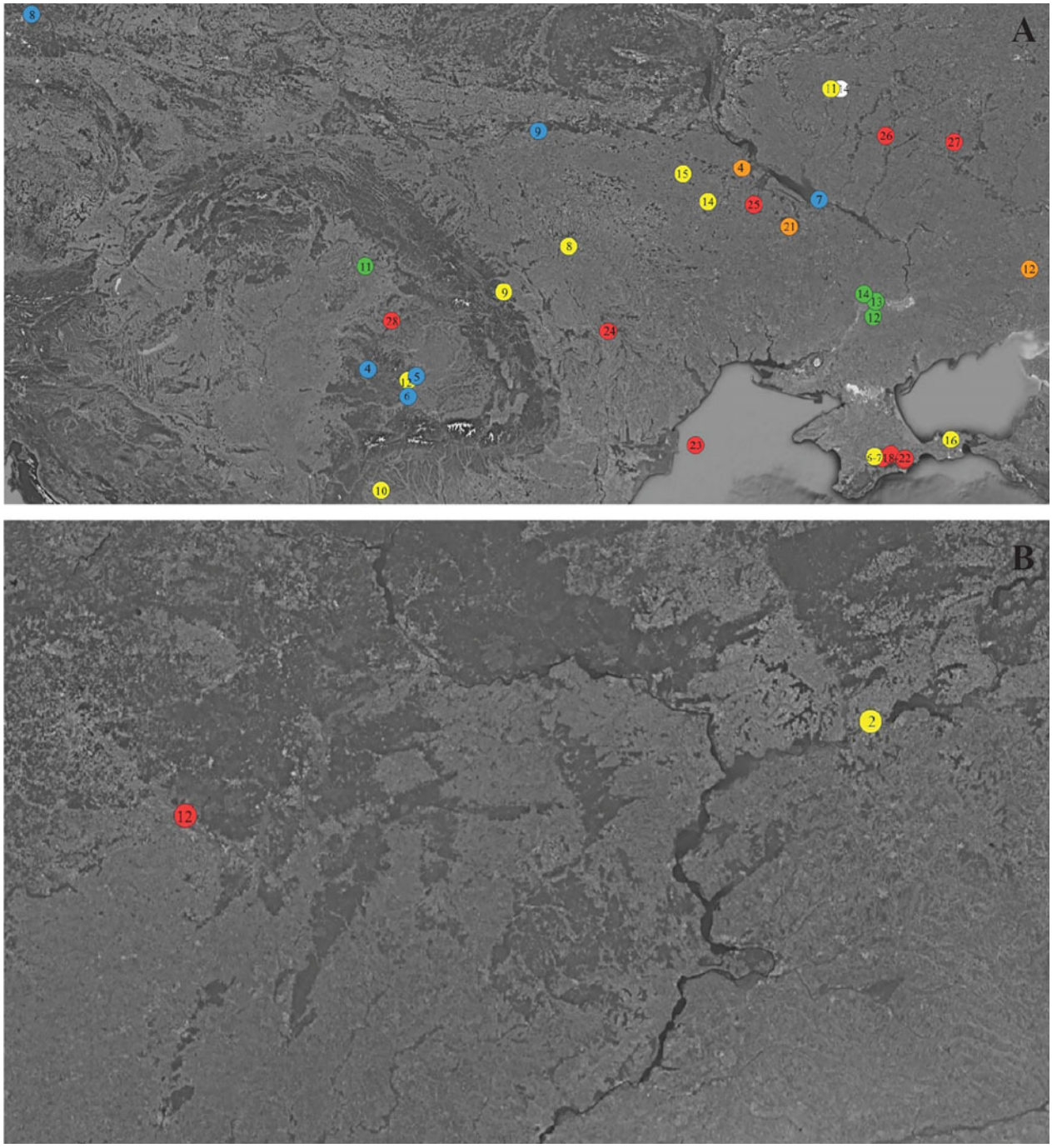


Figure 6. Distribution map of Scythian *bouterolles* and sheaths, part 1. A: eastern Europe; B: central Russia. Red: bird-headed; white: Starsha Mohyla type; yellow: Kelermes type (bronze); orange: Kelermes type (bone); blue: sharp-edged; green: round-edged. The numbers are as on the Figures 1–5. Scale 1:10163463.

Conclusions

The evidence presented above supports the argument that Scythian *bouterolles*/chapes (much like some other weaponry) developed from Cimmerian chapes. This development is clearer with some types than with others, depending on the specifics of construction and/or decoration – such is the case for the Cimmerian-age Subotiv-type *bouterolle* and Scythian round-edged chapes, as well as the Cimmerian triangular decoration tradition and the Scythian Starsha Mohyla-type *bouterolles*. On the other hand, the transformation of the Cimmerian Dunakömlőd type into the Scythian Kelermes type seems more drastic due to the decline in size of the latter. Despite this, the Kelermes chapes become the main type for the Scythian era, serving as the foundation for the bird-headed (bronze) and carved (initially bone) chapes.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 17 Nov 2026 at 18:12:45, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/ppr.2026.10098

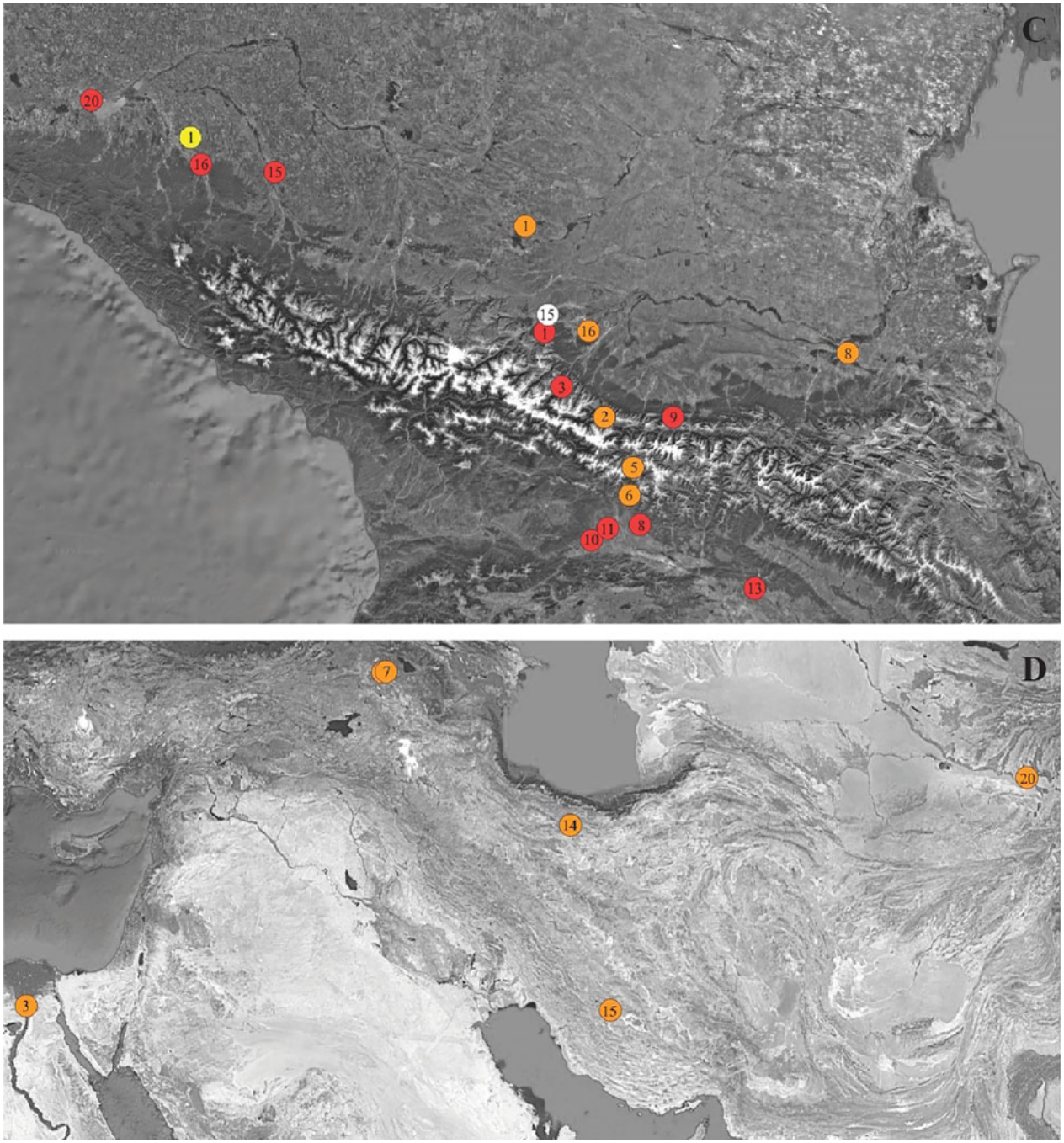


Figure 7. Distribution map of Scythian *bouterolles* and sheaths, part 2. C: Fore-Caucasus and Caucasus; D: Middle East and central Asia. Red: bird-headed; white: Starsha Mohyla type; yellow: Kelermes type (bronze); orange: Kelermes type (bone); blue: sharp-edged; green: round-edged. The numbers are as on the Figures 1–5. Scale 1:5081731 (C) and 1:20326924 (D).

Note

1 This article uses the traditional names chapes and *bouterolles*, instead of 'sheath-ends' – the author's coined and previously used term.

References

Aleksandrov, S., Dimitrova, Y., Popov, H., Horejc, B. & Chukalev, K. 2018. *Metali, tehnologii i mezhduregionalni kontakti na teritoriyata na Iztochnite Balkani prez bronzovata epoha*. National Archaeological Institute with Museum Bulgarian Academy of Sciences.

Brovender, Yu. 2016. *Doneckij gorno-metallurgicheskij centr epohi bronzy. Dissertaciya na soiskanie uchenoj stepeni doktora istoricheskih nauk (na pravah rukopisi), 07.00.04 – arheologiya*. Nacionalnaya akademiya nauk Ukrainy, Institut arheologii.

Chochorowski, J. 1993. *Ekspansja kimmeryjska na tereny Europy Środkowej*. Universytet Jagiellonski.

Dubovskaya, O. 1985. Pogrebenie luchnika rannego zheleznogo veka. *Sovetskaya Archeologia* **2**, 166–72.

Dudarev, S. 1999. *Vzaimootnoshenia plemen Severnogo Kavkaza s kochevnikami Jugo-Vostochnoi Evropy v predsifskuy epohu*. Armavirskij gosudarstvennyj pedagogicheskij institut.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 17 Nov 2026 at 18:12:45, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/ppr.2026.10098

Gorelik, M. 2003. *Oruzhie drevnego Vostoka (IV tysyacheletie – IV v. do n. e.). 2-e izd. dop*. Vostochnaya literatura.
Ivanchik, A. 1996. *Kimmerijcy. Drevnevostochnye civilizacii i stepnye kochevniki v VIII-VII vv. do n.e*. Rossiiskaya Akademiya nauk, Institut vseobshchei istorii, Tsentr po sravnitelnomu izucheniyu drevnikh tsivilizatsii.
Ivanchik, A. 2001. *Kimmerijcy i skify. Kulturno-istoricheskie i hronologicheskie problemi arheologii vostochnoevropejskih stepej i Kavkaza pred- i ranneskifskogo vremeni*. Paleograph.
Klochko, D. 2025a. Eastern European sheath-ends during the Final Bronze Age and the beginning of the Early Iron Age. *Proceedings of the Prehistoric Society* **91**, 1–7.
Klochko D. 2025b. *Weaponry and warfare of the Cimmerian time. Qualified research work (manuscript). Dissertation to obtain the scientific degree of Doctor of Philosophy in the Field of Study 03 "Humanities", Programme Subject Area 032 "History and archaeology"*. National University of Kyiv-Mohyla Academy, Kyiv.
Klochko, V. 1979. Nekotorye voprosy proishozhdeniya bronzovyh nakonechnikov strel Severnogo Prichernomorya VIII — VII vv. do n.e. *Pamyatniki drevnih kultur Severnogo Prichernomorya,* 40–46.
Klochko, V. 2006. *Ozbroiennia ta viiskova sprava davnoho naselennia Ukrainy (5000–900 rr. do R.Kh.)*. ArtEk.
Klochko, V. & Murzin V. 1987. O vzaimootnoshenii mestnikh i privnesennikh elementov skifskoi kulturi. *Skifi Severnogo Prichernomorya*. Naukova dumka.
Klochko, V. & Skoryi, S. 1993. Kurhan 15 bilia Stebliva v Porossi. *Arkheolohiia* **2**, 71–84.
Meliukova, A. 1964. *Vooruzhenie skifov*. Nauka.
Polidovich, Yu. 2014. Izobrazhenie svernuvshegosya hishnika v dekore skifskih mechej i ih nozhen. *Fenomen Bilskoho horodishchia*. Tsentr pamiatkoznavstva NAN Ukrainy i UTOPIK.
Savinov, D. 1994. *Olennye kamni v kulture kochevnikov Evrazii*. Saint Petersburg State University.
Skoryi, S. & Zimovets, R. 2014. *Skifskie drevnosti Kryma. Materialy odnoi kollektsii*. Oleh Filiuk.
Skoryi, S., Zimovets, R. & Okatenko, V. 2020. Akinak s buteroliy iz kurgana bliz Belskoho horodishchia. *Fenomen Bilskoho horodishchia*. Tsentr pamiatkoznavstva NAN Ukrainy i UTOPIK.
Szabó, G., Horváth, V., Barkóczy, P., Erdélyi, Z., Juhász, L. & Gyöngyösi, S. 2018. Eastern objects or western imitations? New results and questions raised in light of the archaeometallurgical investigations of bronze objects from the 9th–7th century B.C. *Archeometriai Műhely* **XV**(2), 77–116.
Terenozhkin, A. 1976. *Kimmerijczy*. Naukova dumka.
Topal, D. 2013. Akinakai of Kelermes type: new discoveries in Central Bessarabia. *Marisia* **3**, 13–32.
Topal, D. 2015. The use of bronze in making the early Scythian akinakai. *Tyragetia* **9**(24), 29–50.
Topal, D. 2019a. Scythian akinakai between Carpathians and Dniester: the structure of a storm. In V. Diaconu & L. Pîrnău (eds), *Un secol de arheologie în spațiul est-carpatic. Concepte, metode, tendințe*, 141–95. Complexul Muzeal Județean Neamț.
Topal, D. 2019b. Single-edged akinakai of Transylvania and Great Hungarian Plain. Reflection of a Balkan tradition. *Godišnjak/Jahrbuch* **48**, 199–218.
Topal, D. 2021. *Akinak na zapade skifskoho mira*. Muzeul Național de Istorie a Moldovei.
Topal, D. 2022. Swords and daggers of early nomads from Transylvania and Southern Carpathians: local varieties and continental trends. *Plural* **10**(1), 34–69.
Valchak, S. 2016. Bronzovye kovanye shlemy predskifskogo perioda na Kavkaze. *Revista Arheologică, serie nouă* **XII**(1–2), 128–44.
Volnaya, G. 2015. Nakonechniki nozhen s izobrazheniem golovy ptitsy iz pamyatnikov rannego zheleznogo veka Tsentralnogo Kavkaza i ikh analogii v skifo-sibirskom zverinom stile. *Rossiyskaya arkheologiya* **1**, 19–31.
Rossiiskoe istoricheskoe obshchestvo 2019. Na Kavkaze nashli izgotovlennii 2,5 tisyachi let nazad nakonechnik nozhen dlya mecha. Available at: https://historyrussia.org/sobytiya/na-kavkaze-nashli-izgotovlennyj-2-5-tysyachi-let-nazad-nakonechnik-nozhen-dlya-mecha.html [accessed 24-Sept-2025].
Institut arkheologii Rossiiskoi Akademii Nauk 2020. Mogilnik Zayukovo-3 v kontekste razvitiya kulturi naseleniya gornoi zoni tsentralnikh raionov Severnogo Kavkaza v epokhu rannego zheleznogo veka. Available at: https://historyrussia.org/sobytiya/na-kavkaze-nashli-izgotovlennyj-2-5-tysyachi-let-nazad-nakonechnik-nozhen-dlya-mecha.html [accessed 23-June-2026].

RÉSUMÉ

L'évolution des bouterolles cimmériennes à l'ère scythe (X^e^–III^e^ siècle av. J.-C.)

Cet article poursuit l'étude des chapes (bouterolles) d'Europe de l'Est, en regroupant celles des époques cimmérienne et scythe dans une discussion unique. Il offre une nouvelle perspective sur des découvertes déjà connues, affirmant que les bouterolles scythes descendent des cimmériennes. Parmi les cinq types de chapes scythes connus, au moins trois semblent avoir une origine cimmérienne ; le quatrième type semble s'être développé à partir d'une tradition scythe, et le cinquième type est trop difficile à déterminer en raison du nombre limité de découvertes. La chronologie des chapes trouvées sur les sites archéologiques indique que l'évolution des bouterolles scythes a été rapide, et que les variantes et types anciens et récents semblent avoir coexisté. Cette étude couvre des découvertes en Ukraine, Moldavie, Roumanie, Hongrie, Russie, et au Moyen-Orient. Des bouterolles nouvelles et précédemment publiées sont incluses et un schéma de développement typologique allant des époques cimmérienne à scythe est proposé.

Mots-clés: bouterolles; chapes; Scythes; Cimmériens; région nord pontique; Premier Âge du fer; armement

ZUSAMMENFASSUNG

Die Entwicklung kimmerischer *bouterolles*in skythischer Zeit (10.–3. Jh. v. Chr.)

Der Beitrag setzt die Untersuchung von osteuropäischen Ortbändern (*bouterolles*) fort und vereint dabei Artefakte aus kimmerischer und aus skythischer Zeit in einer gemeinsamen Diskussion. Diese Fortsetzung eröffnet neue Perspektiven auf bereits bekannte Funde und schlussfolgert, dass skythische *bouterolles* von kimmerischen abstammen. Von den fünf bekannten Typen skythischer Ortbänder scheinen mindestens drei einen kimmerischen Ursprung zu haben. Der vierte Typ hat sich wohl aus einer skythischen Tradition entwickelt und der fünfte Typ ist aufgrund der geringen Anzahl der Funde schwierig zu bestimmen. Die Chronologie der in archäologischen Kontexten gefundenen Ortbänder lässt erkennen, dass die Entwicklung skythischer *bouterolles* schnell verlief und dass frühe und spätere Varianten zeitgleich existierten. Diese Studie umfasst Funde aus der Ukraine, Moldawien, Rumänien, Ungarn, Russland und dem Nahen Osten. Neue und bislang unpublizierte *bouterolles* werden mit aufgenommen und ein Schema für die typologische Entwicklung von kimmerischer zu skythischer Zeit wird vorgeschlagen.

Schlagwörter: bouterolles; Ortbänder; Skythen; Kimmerer; nordpontische Region; frühe Eisenzeit; Waffen

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 17 Nov 2026 at 18:12:45, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/ppr.2026.10098

RESUMEN

La evolución de los regatones cimerios durante la época escita (siglos X-III BC)

Este artículo da continuidad al estudio de los regatones (*bouterolles*) de Europa oriental, integrando en una misma discusión artefactos cimerios y escitas. Esta continuación aporta una nueva perspectiva de los hallazgos previamente conocidos, al proponer que los *bouterolles* escitas proceden de los cimerios. De los cinco tipos conocidos de época escita, al menos tres parecen tener un origen cimerio; el cuarto tipo parece haberse desarrollado a partir de una tradición escita, y el quinto tipo es muy difícil de determinar, dado el pequeño número de ejemplares conocidos. La cronología de los yacimientos arqueológicos sugiere que la evolución de los *bouterolles* escitas fue rápida y que las variantes y tipos más antiguos coexistieron con los más recientes. Este estudio abarca los hallazgos procedentes de Ucrania, Moldavia, Rumanía, Hungría, Rusia y Oriente Próximo. Se incorporan los nuevos hallazgos con las piezas publicadas previamente y se propone un esquema de modificaciones tipológicas que describe la transición desde los regatones cimerios hasta los escitas.

Palabras clave: bouterolles; regatones; escitas; cimerios; norte de la región póntica; primera Edad del Hierro; armamento

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 17 Nov 2026 at 18:12:45, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/ppr.2026.10098