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ORIGINS OF "HUNNIC" CAULDRONS IN CONTEXT OF METAL VESSEL DEVELOPMENT AMONG GREAT STEPPE NOMADS

Abstract: The objective of the present paper is to trace the path of development of metal vessels among the Great Steppe nomads in the first millennium BC and first millennium AD, which led to the emergence of a characteristic cauldron type, traditionally associated with the Huns. In my research on the evolution of these items, I developed a typology that could be used also to describe other types of metal vessels made by the nomads. Contrary to assertions by a number of scholars, I maintain that the "Hunnic" type of cauldron developed out of a Scytho-Sarmatian tradition. The place of development of the "Hunnic" type of vessel, that is a cauldron with a bell-shaped body ornamented with mushroom-shaped knobs, was the Dzungaria area between the Tian Shan and Altai mountains. The emergence of the form is dated to the second quarter of the first millennium AD. The vessels constitute one of a number of traits common to the material culture of European Huns and Xiongnu.

Key words: Asia, Europe, Huns, cauldrons, metal vessels, typology, Xiongnu

Introduction

The present paper considers origins and development of the cauldron type known traditionally as "Hunnic". It presents the results of the author's research to determine where and how the "Hunnic" type of vessel developed, as well as to decide the question of their role as the link between the European Huns and their putative Asian ancestors — the Xiongnu. In order to address the above questions, I developed a typology of nomad metal vessels, allowing me to trace the development of the items. This could find application well beyond the present article and be used in describing any metal vessels of the Great Steppe nomads.[1]

I do not discuss here the history of research into Hunnic cauldrons,[2] although it is worth noting that existing literature contains assertions that these cauldrons had nothing to do with vessels of Scythian or Sarmatian manufacture and that the form of the latter could have no contribution to the origins of the Hunnic cauldrons.[3] My analysis points to quite the opposite conclusions, which I set out in the latter part of the paper.

The vessels under consideration are known as "Hunnic" because a number of them have been found in contexts identified as Hunnic. It must, however, be borne in mind that the conventional

[1] Great Steppe — grasslands spreading from the Carpathian Basin to the Manchuria.

[2] It is exhaustively discussed by Miklós Érdy (Érdy 1995, pp. 10–16) and Otton Mènanchen-Helfen (Mènanchen-Helfen 1973, pp. 306–325).

[3] Mènanchen-Helfen 1973, p. 332.

name does not necessarily indicate they were all used by the Huns, Xiongnu or other related or confederated tribes. Nevertheless, the form arose undoubtedly in the Hunnic milieu; any people who used them must perforce have enjoyed closer or looser relations with the Huns. The items under consideration here have been found in two archaeological contexts — in graves or as special deposits, frequently located close to bodies of water. They were deposited in whole or just in part.

The Hunnic type vessels were cast from copper or bronze — mostly in two, three or even four casts with individual parts soldered together. They were bell-shaped and had rectangular handles typically ornamented with mushroom-shaped knobs [Fig. 1]. The better part of specimens also had a distinct stand. Decorative bands, frequently encountered on the cauldrons, were used to cover the soldering. This technique first appeared among Eurasian nomads in the first millennium BC in the Far East and was borrowed from Chinese metalworking,[4] where it had been in use since the Shang dynasty (ca. 16th–11th centuries BC). Although the art of working bronze had long been familiar to Eurasian nomads,[5] casting and soldering only came to be used for manufacturing cauldrons in the tenth century BC.[6] The rapid spread of this type of vessel over the vast areas of the Great Steppe was linked to the expansion of the Scythian-Saka cultural phenomenon.[7] The Hunnic form, in turn, emerged probably in the second quarter of the first millennium AD.

The "Hunnic" cauldrons were used presumably for cooking, although it remains unclear whether for cult or practical purposes.[8] They were most likely placed directly on a fire or on embers, as seen from the many specimens that have a sooty stand,[9] as well as from iconography.[10] This method of using the vessels necessitated having an empty stand. Around the third century BC in the Far East an openwork stand comes to be employed [Fig. 4.2], presumably to facilitate access to fire.[11] The idea did not, however, spread to western Eurasia. When it comes to handles, they seem to have been used exclusively for carrying and manipulating the cauldrons on fire/embers. Iconographic sources fail to point to their use to hang the vessels. In general, the quality of execution of the vessels under consideration was poor,[12] suggesting a purely utilitarian role. Some specimens also show signs of repair in the form of riveted patches (eg. No. 6).

Typology

I begin by defining the terms used in his paper. By a "Hunnic type cauldron" or "Hunnic cauldron" [Fig. 2.1–10] I mean a vessel with a bell-shaped body, frequently carrying ornamented with horizontal or vertical decorative bands with a single row of circles below them, and square handles placed vertically on the rim and decorated with mushroom-shaped knobs (occasionally found on the rim as well). By the terms "Hun-linked cauldrons" I mean the aforementioned collection of vessels of the Hunnic type as well as an extra four cauldrons with a bell-shaped body and square handles on the rim, but without mushroom-shaped knobs and with different ornamentation on the body [Fig. 2.11–14]. That makes for a total of 24: 14 complete and 10 fragmentary vessels. The collection of "Hun-linked cauldrons" owes its name to the fact it is comprised of items found in archaeological contexts connected to that people and dated to phase D of the great Migration Period. It is of course impossible to be certain that they were all made or used by the Huns, but it seems likely. In my paper I do not take into account the aforementioned fragmentary finds, since

[4] Bavarian, Reiner 2006, pp. 9–10; Linduff, Mei 2009, p. 268.
[5] Chochorowski 1999a, pp. 269–271.
[6] Jin 2009, pp. 167 & 428, fig. 115.22.
[7] Chochorowski 1999b, pp. 308–358; Jin 2009, p. 208.
[8] Érdy 1995, pp. 27–30; Mèanchen-Helfen 1973, pp. 326–330; Spertino 1995.
[9] Érdy 1995, p. 8; Mèanchen-Helfen 1973, p. 326.
[10] Érdy 1995, pp. 62–64, figs. 5–7.
[11] Érdy 1995, pp. 46–47.
[12] Mèanchen-Helfen 1973, p. 319.

they provide no information on the shape of whole vessels, which plays such an important part in my reasoning. Both in Hunnic-type vessels and in associated cauldron types there is no rule regarding presence or absence of the stand. If this structural element is found, it is always single and never openwork. An even larger category is that of "Hun-linked cauldrons" which includes two vessels quite different in form (without a bell-shaped body or rectangular handles placed vertically on the rim) but come from archaeological contexts linked to the Huns [Fig. 2.15–16].

For the purpose of studying the origins of the Hunnic-type cauldrons I have developed my own typology of nomad vessels. This facilitates the development of a diagram of their development, territorial spread and chronology. Such typologies have already been developed by Miklós Érdy (1995) and Jianjun Mei (2002). The former aims to trace the origins of the Hunnic cauldron against the background of the entire Great Steppe, but it lacks a clear structure. The latter is easier to understand but applies only to vessels from the Chinese province of Xinjiang. In order to gain a good understanding of the "Hunnic" cauldron, analysis is necessary of the development of each separate part, that is the body, rim and stand (with the stand as the least important). I thus propose a tripartite typology, treating each element separately. It is a compromise between a typology that precisely reflects the details of the formal evolution of the vessels and a transparent and easy-to--use typology. Another of its benefits is that it may be used to describe all cast cauldrons made by Eurasian Steppe nomads between the tenth century BC and the fifth century AD.

The first term, marked with a capital Latin letter, describes the shape of the belly or body of the vessel [Fig. 3]. I have identified the following variants:

A — spheric shape;
B — semi-spheric shape;
C — semi-bell shape;
D — bell shape, often with a separate rim, protruding outwards.

The second term, described with an Arabic numeral, describes the stand or its absence [Fig. 4]. These are the possible variants:

0 — no stand or vestigial form;
1 — one stand in a wide variety of shapes (but without openwork);
2 — single, openwork stand;
3 — three legs.

The third term, marked with a minor letter of the Latin alphabet, describes the handles [Fig. 5]. The first three varieties (a–c) have handles of a shape close to a sphere. The remaining variants show greater diversity. Here they are:

a — handles placed more or less vertically to the sides of the vessel, sometimes slightly extending above the rim;
b — handles "lying" horizontally to the sides of the vessel, sometimes slightly extending above the rim;
c — two pairs of handles placed on the sides of the vessel: one pair vertical, the other horizontal;
d — round or semi-round holders placed more or less vertically on the rim or just below;
e — round handles placed vertically on the rim, decorated with mushroom-shaped knobs (such decoration may also appear on the rim);
f — rectangular (or close to rectangular) holders placed horizontally on the rim;
g — rectangular (or close to rectangular) holders decorated with indentations in the shape of two bows;
h — rectangular (or close to rectangular) holders placed vertically on the rim, additionally decorated with mushroom-shaped knobs (such decoration may also appear on the rim).

It should be noted that the typology has been built on the basis of the most common types of nomad vessels. It may, of course, happen that a specimen will not fit into any of the categories described above, but this will be a rare occurrence. Such exceptions do not, moreover, seem to have influenced the evolution of the Hunnic type of cauldron.

The origins of cast cauldrons among the Great Steppe nomads

Cauldrons appeared among nomadic peoples as early as the Srubna (Timber-grave) and Andronovo cultures,[13] but these were made by hammering bronze plates with structural elements fixed by riveting [Fig. 6.B]. The earliest cast cauldrons, using soldering, turn up in nomad societies around the tenth century BC in today's northern China.[14] This technique was presumably borrowed from the Chinese culture of the western Zhou dynasty (ca. 1100–771 BC). They were mostly vessels with a spheric (type "A" [eg. Fig. 3.A]) or semi-spheric (type "B" [eg. Fig. 3.B]) shape of the body.[15] It is posited that the former may have derived from a type of small cauldrons/situlae [Fig. 6.], found in the Bronze Age Caucasus.[16] Due, however, to a serious chronological discrepancy and absence of intermediary examples, the hypothesis remains highly speculative. It is, however, possible that the the "A" or "B" body type and handles of "a" type developed out of bronze vessels of the *tou* type dated to the western Zhou period [Fig. 7.B].[17] Three-legged cauldrons were also in all likelihood inspired by Chinese vessels of the *ding* type [Fig. 7.A], popular ever since the Shang period (16th–11th century BC). The oldest nomad cauldrons with three legs date back to the seventh century BC and come from areas of present-day Xinjiang, southern Siberia and Zhetysu (Семиречье).[18] Such three-legged vessels had, however, no impact on the development of Hunnic-type vessels. In the ninth or eighth century BC there appear vessels of a semi-bell type "C" [Fig. 3.C],[19] and in the seventh century a bell-shaped "D" type [Fig. 3.D]. That is not, however, to say that manufacture ceased of "A" and "B" types; on the contrary, they are still found in the fourth–fifth century AD [Fig. 8].

The origins of "Hunnic"-type cauldrons[20]

The origins of Hunnic-type cauldrons seem to have been influenced by the following vessel types: from the types B1d (found from the ninth to the fourth century BC in northern China and from the second to the first century BC in eastern Europe), B1d/e (found in Xinjiang from the eight to the fourth century BC), C1d (found in northern China between the eight and the third century BC and in central Siberia between the seventh century BC and the first century AD) and C1d/e (found in northern China from the tenth to the third century BC and in western Siberia from the third to the first century BC) the following vessel types developed: B1e, B/C1e, C2a/d, C2d, C2g, D1d, D1e and D2d [Figs. 8 & 9]. Such objects were characteristic of the Scytho-Saka and then Sarmatian culture. The type B1e was found between the third and the first century BC in central and western Siberia. The type B/C1e was present from central Siberia to eastern Europe over the second century BC to the first century AD. Type C2a/d is found in Xinjiang between the second century and the end of the first century BC. Type C2d was characteristic of the areas around the Baikal and the

[13] Terenožkin 1982, pp. 218–223.
[14] Jin 2009, pp. 167 & 428.
[15] Érdy 1995, p. 92, pl. 6.3.1; Jin 2009, pp. 167, 172–173 & 428.
[16] Mączyńska 1996, pp. 4–5; Puturidze 2005, p. 12, fig. 5.a.
[17] Erdberg, Fong 1978, pp. 146–147, fig. 84.
[18] Bernshtam 1952, p. 47; Mei 2002, pp. 2–4.
[19] Bunker 2002, pp. 194–195, fig. 185.
[20] Individual types and bibliographical references are to be found in comments to Fig. 9.

upper Angara (territory of the Dingling tribe) between the second and first century BC. Type C2g is the first cauldron type with rectangular handles and was in use from the third century BC to the third century AD in present-day Inner Mongolia. Type D1d, in turn, appeared from the eight century BC to the second century AD in northern China and between the third century BC and second century AD in western Siberia. Type D1e can be attested for eastern Europe from the fourth century BC to the second century AD, while in northern China and central Siberia only in the second century AD. Type D2d, similar to the previous one, is only encountered between northern China and Tuva from the third century BC to the third century AD. It is worth noting that mushroom-shaped knobs on handles of the "e" type emerge in central Siberia's Tagar culture in the fourth century BC.[21] From here they expanded rapidly towards Europe, while reaching northern China only in the second century BC, despite the fact that is where their predecessor, a single knob, first appeared. Types C2a/d, C2d, C2g and D2d may have given rise to type D1g found between Inner Mongolia and Altai over the first to fourth centuries AD, as well as D2g, known from present-day northern China and Mongolia and dated to the third century BC to the third century AD. The decisive role in the emergence of the Hunnic type of cauldron was, however, played by the D1g type, which constituted the base form for all the vessels of this type with only the mushroom-shaped knobs missing. In Chinese literature cauldron types D1f, D1g, D2f and D2g are named *fu*[22] [Fig. 10]. Out of types B1e, B/C1e and D1e, in turn, evolved C0e, known from eastern Europe between the second and fourth centuries AD, which continued the idea of mushroom-shaped knobs in western Eurasia. At the same time, however, this type of decoration continued in use in the Far East, as seen from type A2e. It was the combination of the mushroom-shaped knob with the bell-shaped body rectangular handles that created Hunnic-style vessels (D0h and D1h) and associated forms (D0g and D1f). This took place presumably in the region of Altai, Dzungaria and Tien Shan in the second to fourth centuries AD. From the vicinity of Lake Teletskoye in the Altai, there comes a cauldron (No. 1), that constitutes the intermediate form between D0g and D0h. At Černaja Kuria, in turn, a very early specimen of D0h (No. 2) has been found with rudimentary mushroom-shaped knobs. A cauldron has been found near Urumqi that belongs to the developed D1h type. It is probably from the area of Altai, Tien Shan and Dzungaria that the Huns carried with them types D0g, D0h, D1g and D1h to Europe, where such cauldrons were found at the end of the fourth century and in the first half of the fifth century. It is these four vessel types that make up the Hun-linked vessel category [Fig. 9: D0g, D1f, D1h and D0h.]

Summary

From the above it follows that Hunnic-type cauldrons emerged most likely in the second quarter of the first millennium AD in the areas of Altai, Tien Shan, Dzungaria and Zhetysu. This type of vessel developed presumably out of the combination of elements which were originally separate, namely decorative knobs in the shape of mushrooms, known from Scytho-Sarmatian vessels, bell-shaped body and rectangular handles. It is worth noting that the area of Zhetysu, Tien Shan and

[21] Chochorowski 1999b, pp. 351–352; Érdy 1995, p. 25.

[22] It must be noted that the name *fu* is inconvenient, since Chinese has two characters for bronze vessels, both pronounced identically (as more or less *fu*). The first, written 釜, applies to large, decorative Chinese vessels of the Spring and Autumn period (8th–5th century BC), as well as to cauldrons for pressure cooking and to other vessels of that type. The cauldrons under consideration here, the D2g type, are described with the character 鍑. It consists of two parts. The left one means "metal" and indicates an object made of that material. The right part signifies the action of "restitution" or "returning". The combination of these characters carries no meaning and has a purely phonetic function. It is important to draw attention to this issue and explain it, as western literature uses the name *fu* for a wide variety of vessels that have nothing in common with the category under consideration here.

Dzungaria played host to a fraction of the Xiongnu that presumably gave rise to the European Huns.[23] This cauldron type presumably made its way to Europe with them. Although a vessel of the Hunnic type is yet to be found between Xinjiang and eastern Europe,[24] everything seems to point to its arrival in Europe from the Zhetysu – Tien Shan – Dzungaria area. The cauldrons under consideration thus constitute a common element for the Xiongnu and the European Huns, found in both cultures.

Fig. 1. Example of a "Hunnic" cauldron from Şestaci, Moldova (No. 15)

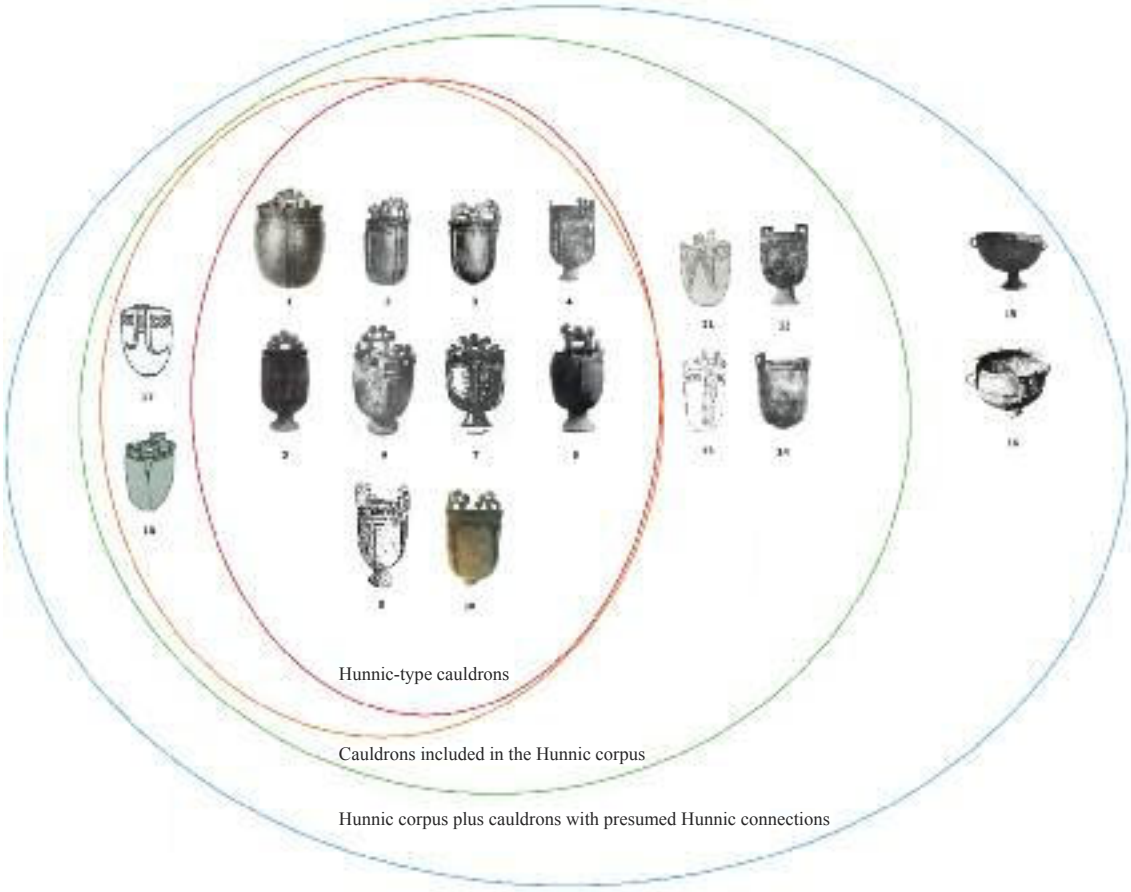

Fig. 2. Diagram of interconnections between Hunnic-type vessels (1–9), "Hun-linked" vessels (1–14), vessels of completely different form that may have been used by the Huns (15–16) and cauldrons seen as prototype for the Hunnic corpus (17–18): 1. Kizil-Adir 10); 2. Törtel (No. 11); 3. Kurtcsibrák (No. 12); 4. Bántapuszta (No. 13); 5. Desa (No. 14); 6. Şestaci (No. 15); 7. Habaz (No. 16); 8. Ivanovka (No. 17); 9. Urumczi (No. 3); 10. Balatonlelle-Rádpuszta (No. 18); 11. Solikamsk (No. 6); 12. Osoka (No. 7); 13. Verhnij Konec (No. 8); 14. Jędrzychowice (No. 9); 15. Münstermaifeld, (No. 5); 16. Borovoe (No. 4); 17. Lake Teletskoye (No. 1); 18. Černaja Kuria (No. 2)

[23] Érdy 2008, pp. 11–15.
[24] Except a single uncertain piece from Uzbekistan (Mèanchen-Helfen 1973, p. 321).

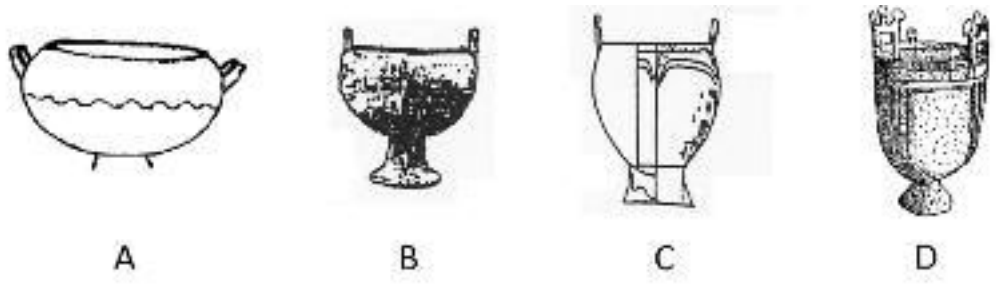

Fig. 3. Types of cauldron body included in the typology (based on: Érdy 1995, pls. 6.5.1 & 6.2.41; Mei 2002, fig. 3.2; Mèanchen-Helfen 1973, fig. 33)

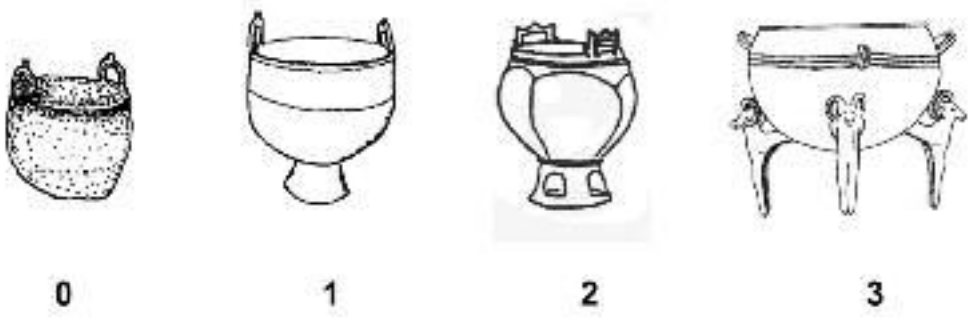

Fig. 4. Types of cauldron stand included in the typology (based on: Bernshtam 1952, fig. 20; Érdy 1995, pls. 6.3.1 & 6.8.2; Mei 2002, fig. 2.12)

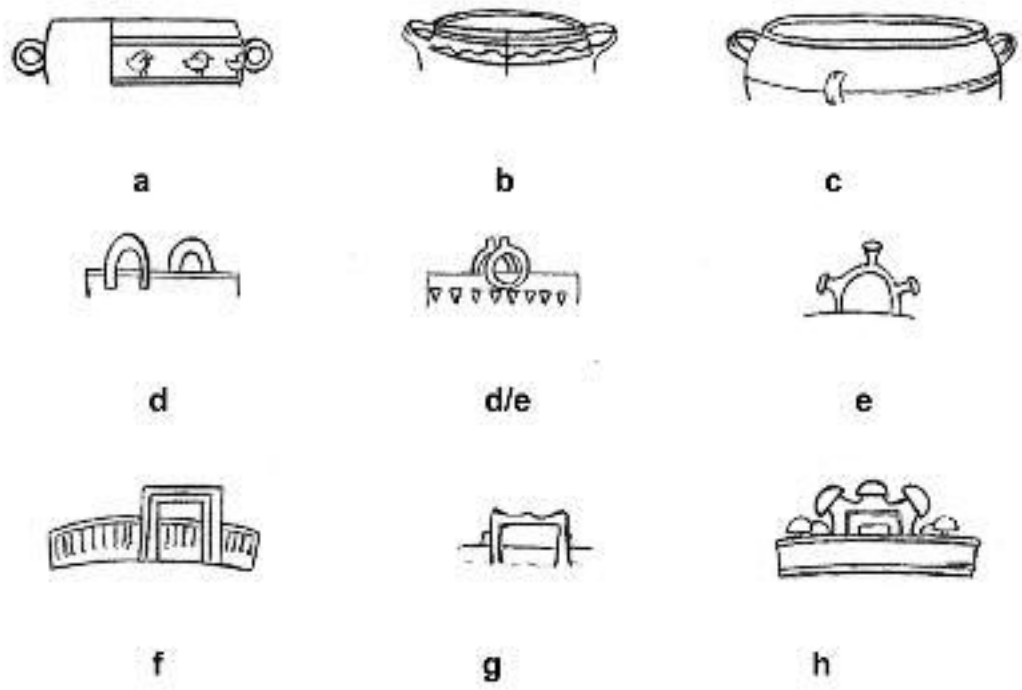

Fig. 5. Types of cauldron handles included in the typology (based on: (a) Jin 2009, pp. 72–73 & 367; (b) Érdy 1995, pp. 19 & 74, pl. 2.9; (c) Mei 2002, fig. 3.7; (d) Érdy 1995, p. 75, pl. 2.15; (d/e) Mei 2002, figs. 2.3 & 090.2; (e) Érdy 1995, p. 79, pl. 3.19; (f) Mèanchen-Helfen 1973, pp. 316 & 318, fig. 46; (g) Érdy 1995, p. 91, pl. 6.2.41; (h) Érdy 1995, p. 72, pl. 1.19)

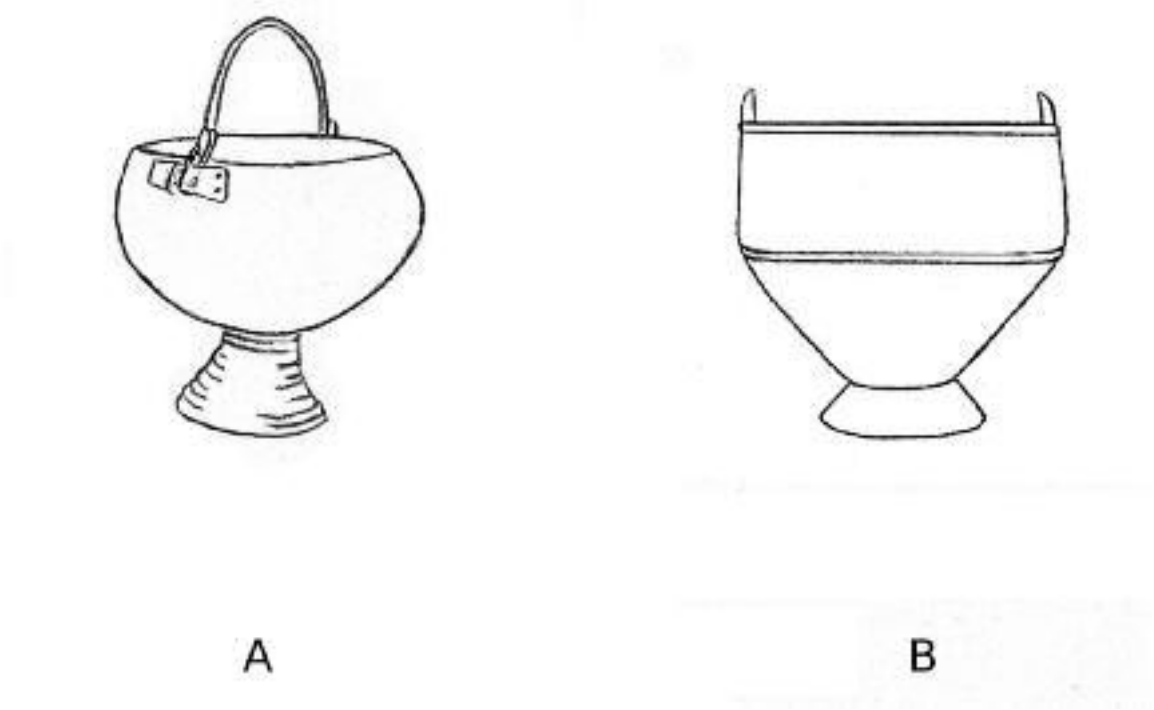

Fig. 6. A. Vessels from tumulus V at Trialeti, Georgia, mid-second millennium BC (based on: PUTURIDZE 2005, p. 12, fig. 5.a); B. Vessel from tumulus at Staromihajlovka, Stavropol Krai, Russian Federation, 14th–13th centuries BC (based on: TERENOŽKIN 1982, pp. 221–222, fig. 4.9)

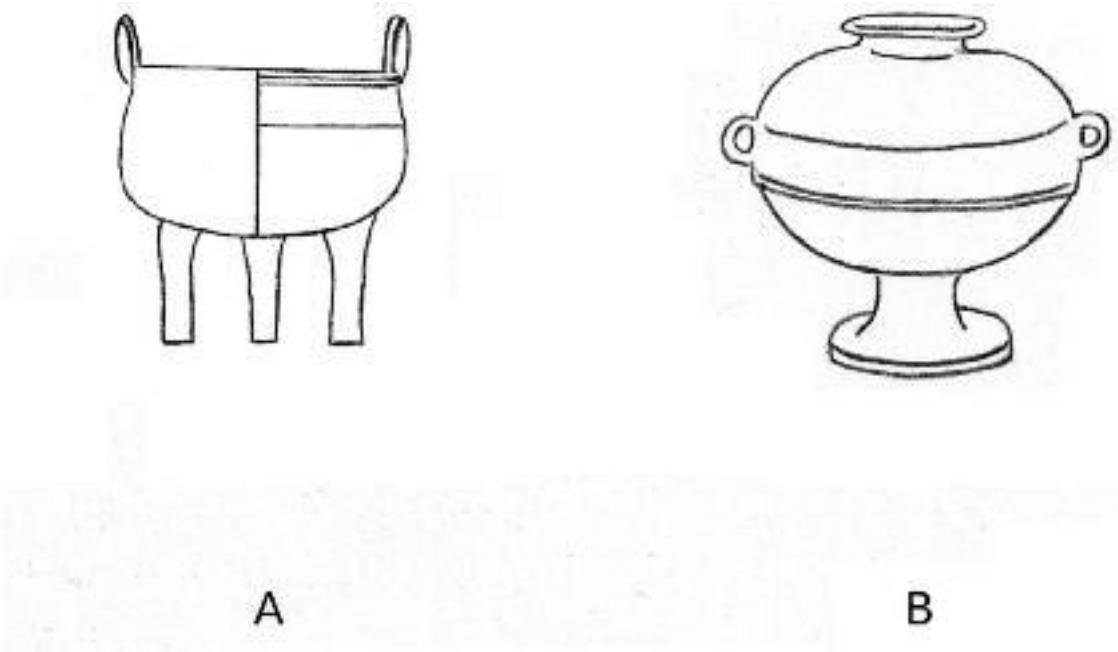

Fig. 7. Illustration of two types of popular Chinese Bronze Age vessels:
A. *Ding* from grave no. 30 at Lutaishan (based on: LI 2006, p. 326, fig. 41);
B. *Tou* from Chang-qi (based on: WEBER 1968, p. 220, fig. 63.e)

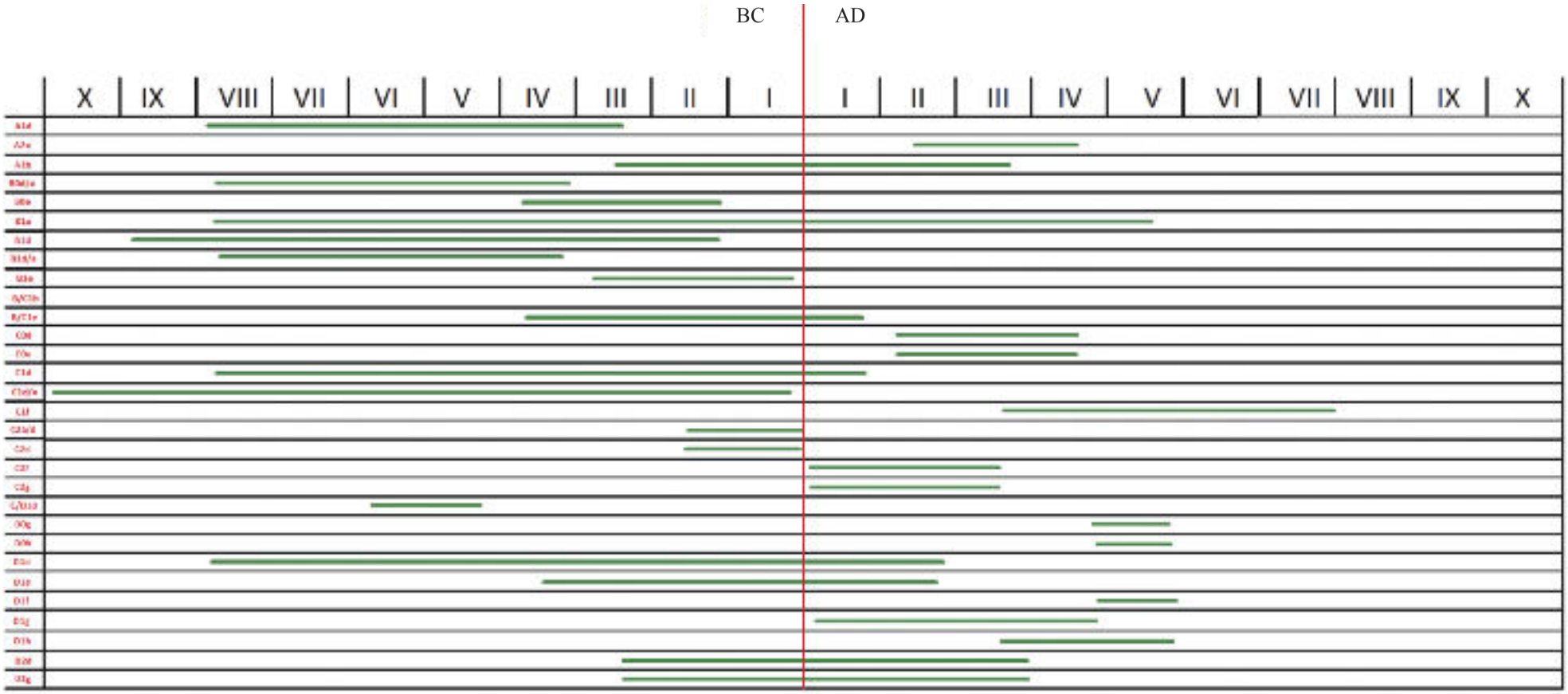

Fig. 8. Chronology of vessel types discussed in the paper

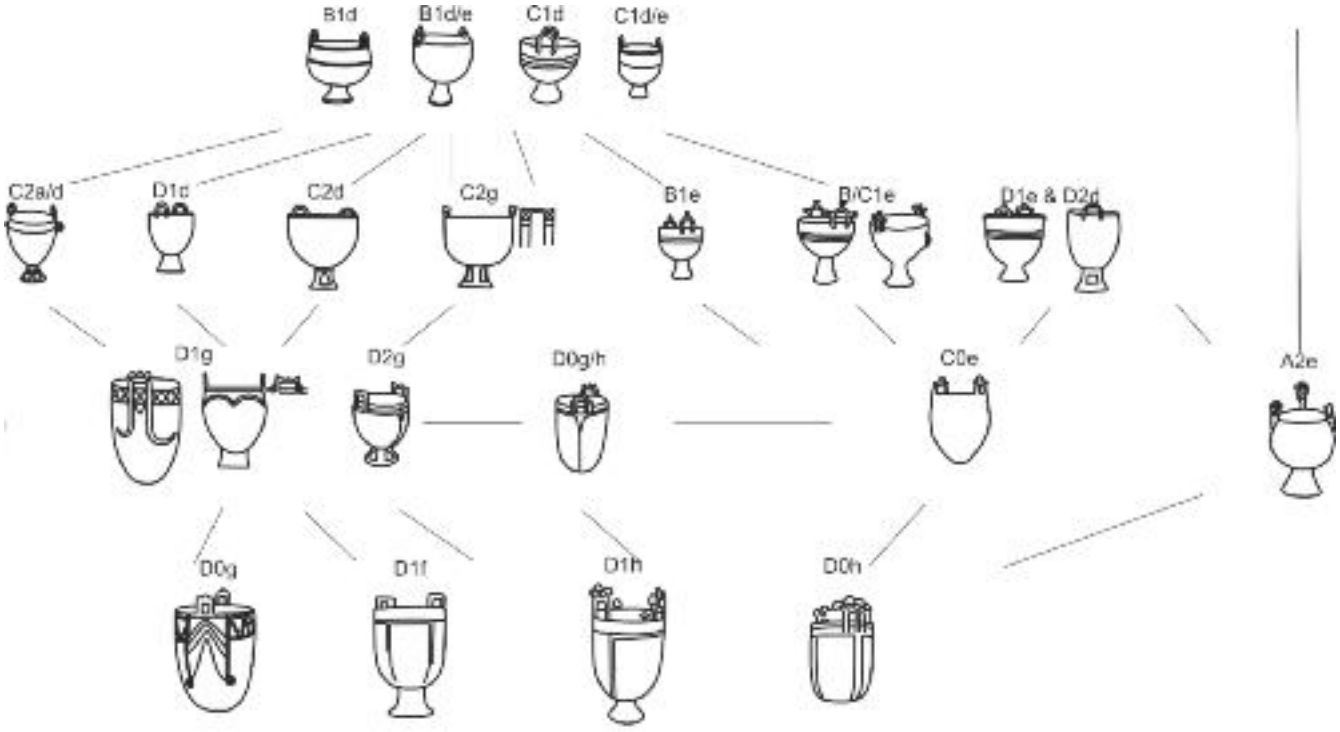

Fig. 9. Diagram of development of nomad vessels leading up to Hunnic-type cauldrons and associated types (based on: (B1d) Jin 2009, pp. 169–172 & 445, fig. 129b.1; (B1d/e) Mei 2002, fig. 2.5; (C1d) Érdy 1995, p. 82, pl. 5.1; (C1d/e) Mei 2002, fig. 2.12; (C2a/d) Mei 2002, fig. 2.2; (D1d) Érdy 1995, p. 75, pl. 2.15; (C2d) Érdy 1995, p. 82, pl. 5.5; (C2g) Érdy 1995, p. 91, pl. 6.2.34; (B1e) Érdy 1995, p. 79, pl. 3.15; (B/C1e) Érdy 1995, p. 82, pl. 5.6; Hampel 1897, pp. 12–13, fig. 12; (D1e) Érdy 1995, p. 80, pl. 3.21; (D2d) Érdy 1995, p. 90, pl. 6.2.29; (D1g) Mèanchen-Helfen 1973, pp. 316–317 & 320, fig. 48; Érdy 1995, p. 91, pl. 6.2.41; (D2g) Érdy 1995, p. 88, pl. 6.2.16; (D0g/h) Érdy 1995, p. 42, pl. 3.4; (C0e) Meliukov 1989, pp. 302 & 383, pl. 78.31; (A2e) Bunker 2002, pp. 196–197, fig. 187; (D0g) Mèanchen-Helfen 1973, pp. 315–316, fig. 44; (D1f) Werner 1956, pp. 59–60, pl. 27.11; (D1h) Mei 2002, fig. 3.6; (D0h) Hampel 1897, pp. 9–10, fig. 9)

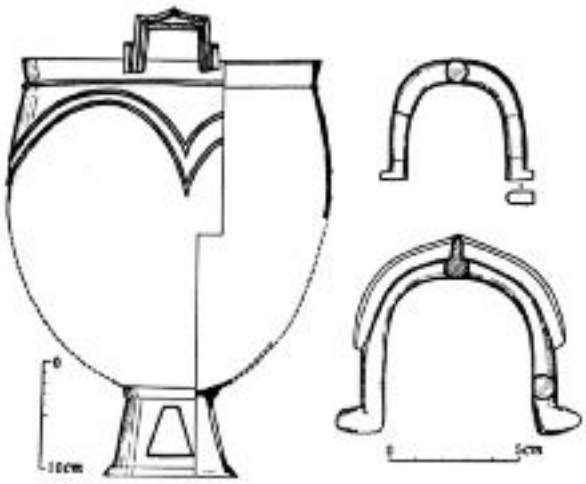

Fig. 10. Cauldron of *fu* type (based on: Mèanchen-Helfen 1973, p. 331, fig. 54)

Fig. 11. Geographic range of Hunnic-type cauldrons: 1. Lake Teletskoye; 2. Černaja kuria; 3. Nanshan; 4. Borovoe; 5. Münstermaifeld; 6. Solikamsk; 7. Osoka; 8. Verhnij Konec; 9. Jędrzychowice/Hockricht; 10. Kizil-Adir; 11. Törtel; 12. Kurtcsibrák; 13. Bántapuszta; 14. Desa; 15. Şestaci; 16. Habaz; 17. Ivanovka; 18. Rádpuszta-Temetőalja-dűlő

Catalogue

1 [Figs. 2.17 & 9.D1g]
Found: Lake Teletskoye (Altaic Altyn-Köl — "Golden Lake"), Altai Republic, Russian Federation
Context: cauldron deposited near Lake Teletskoye
Material: bronze
Dimensions: height 27 cm, radius 25–27 cm
Type: D1g
Dated: 2nd–4th century AD
Source: Érdy 1995, p. 76, pl. 3.3; Mèanchen-Helfen 1973, pp. 316–317 & 320, fig. 48
Comments: One occasionally comes across in specialist literature the erroneous assertion that the specimen comes from Biysk. Considered by some a Hunnic-type cauldron due to characteristic ornamentation and shape of handles. Currently held at the State Historical Museum, Moscow. The specimen had a single support, now damaged.

2 [Figs. 2.18 & 9.D0g/h]
Found: Černaja Kuria, Altai Republic, Russian Federation
Context: unknown
Material: bronze
Dimensions: unknown
Type: D0g/h
Dated: 2nd–4th century AD
Source: Érdy 1995, p. 42, pl. 3.4
Comments: Lack of detailed information on the place and context of the find. It is the earliest known example of the combination of square handles with mushroom-shaped knobs. Such ornamentation also appears next to the handles. In terms of decoration, shape of the body and handles, the vessel very closely resembles Hunnic-type cauldrons — presumably representing the point of departure for the Hunnic style.

3 [Figs. 2.9 & 9.D1h]
Found: Nanshan, Urumqi, Xinjiang, People's Republic of China
Context: loose find
Material: bronze with addition of lead
Dimensions: height 57 cm, radius 39 cm
Type: D1h
Dated: 2nd–5th century
Source: Érdy 1995, p. 46; Mei 2002, fig. 3.6
Comments: The cauldron was found by a pastoralist and transferred to the museum at Urumqi after several years. The vessel shows surprising similarity to Hunnic-era cauldrons from western Eurasia, both in terms of form and decoration. Despite differences in opinion, Miklós Érdy believes the specimen was not a western import and was made in the second century AD in the Altai region. I would personally propose a dating to the end of the third century at the earliest.

4 [Fig. 2.16]
Found: Borovoe, north Kazakhstan
Context: grave — individual burial of a steppe rider (Hun?)
Material: bronze
Dimensions: unavailable
Type: B1?a
Dated: first half of 5th century AD
Source: Mèanchen-Helfen 1973, p. 324, fig. 51; Werner 1956, pp. 57 & 122, pl. 51.5
Comments: The cauldron was found in a grave with a pit surrounded by stone stabs (perhaps Xiongnu tradition). The vessel was found in a layer of rubble on top of human remains. Grave goods included polychrome jewellery (characteristic of e.g. European Huns), triple leaf-shaped arrowheads, bone beads, copper buckle and earrings of copper wire. According to J. Werner, the cauldron, together with the rest of the grave furnishing and other finds linked to European Huns would testify to the territorial extent of Attila's state all the way to the present-day Kazakhstan (Werner 1956, pp. 57–58). I believe this to be an exaggeration, as the presence of western elements may simply testify to the intensity of trade contacts between different nomad groups, including the Asian cousins of the European Huns. Besides, the polychrome style developed in Central Asia. When it comes to the handles, they combine elements of "c" and "a" types.

5 [Fig. 2.15]
Found: Münstermaifeld, Rhineland, Germany
Context: grave — the cauldron served as an urn
Material: bronze
Dimensions: height ca. 33 cm, radius ca. 39 cm
Type: B1a
Dated: beginning of 5th century AD?
Source: Werner 1956, p. 58, pl. 26.2
Comments: The cauldron, which served as an urn, was found in a layer of "ashes" in the vicinity of a Roman villa. It is unclear if the vessel is to be linked to the Huns. While cremation was occasionally practiced among the Huns (Dąbrowski 1975, pp. 80–81), this cauldron form is not typical of them. Perhaps the specimen was used by a Sarmatian people (Mèanchen-Helfen 1973, p. 325). For the Sarmatians, however, cremation was also unusual. The vessel may have found its way to Rhineland with the Alans or Huns, but may have been used as an urn by the members of an accompanying Germanic tribe.

6 [Figs. 2.11 & 9.D0g]
Found: Solikamsk, Perm oblast, Russian Federation
Context: loose find
Material: bronze
Dimensions: height 19 cm
Type: D0g?
Dated: end-4th – first half of 5th century AD
Source: Mèanchen-Helfen 1973, pp. 315–316, fig. 44
Comments: The find's location, atypical decoration for this type of item and small height may all cause some surprise. It was probably an import and imitation since it is highly dubious that the area around today's Perm was ever under Hun rule. The specimen was repaired near one of the handles.

7 [Figs. 2.12 & 9.D1f]
Found: Osoka, Ulyanovsk oblast, Russian Federation
Context: cauldron found in sand near Osoka stream
Material: copper, cauldron cast in two casts
Dimensions: height 53.2 cm, radius 31.2 cm, weight 17.7 kg
Type: D1f
Dated: end-4th – first half of 5th century AD
Source: Mèanchen-Helfen 1973, pp. 316–317, fig. 45; Werner 1956, pp. 59–60, pl. 27.11

8 [Fig. 2.13]
Found: Verhnij Konec, Komi Republic, Russian Federation
Context: unknown
Material: bronze
Dimensions: unavailable
Type: D1f
Dated: end-4th – first half of 5th century AD
Source: Mèanchen-Helfen 1973, pp. 316 & 318, fig. 46

9 [Figs. 2.14 & 3.D]
Found: Jędrzychowice (German Hockricht — name more commonly found in literature), Lower Silesia, Poland
Context: allegedly grave
Material: bronze, cauldron cast in two casts
Dimensions: height 55 cm
Type: D1f
Dated: first half of 5th century AD?
Source: Mèanchen-Helfen 1973, p. 308, fig. 33; Werner 1956, pp. 59–60, pl. 27.10
Comments: The cauldron was allegedly cast in bronze, but the alloy was mixed in such an uneven manner that different parts of the vessel show very different percentage of copper. It was originally claimed the vessel came from a disturbed burial (supposedly indicated by the find of bones in its vicinity). There are, however, indications that it was deposited near an ancient stream, as is the case with many items of this kind. This could be indicated by a long strip of white sand to the north of the cauldron. The bones were, on the other hand, small in number and it was impossible

to determine whether they came from the same context. In addition, three buckles, a Roman bronze vessel and several ornaments, including presumably fragments of a diadem, were found. It is possible the items, together with the cauldron, made up a single deposit. The stand of the specimen is damaged.

10 [Fig. 2.1]
Found: Kizil-Adir cave on Ural river, Orenburg oblast, Russian Federation
Context: grave? (just a single burial found)
Material: copper with small admixture of lead and silver (cauldron made up of three separately cast parts, welded together)
Dimensions: height 28.5 cm, height with handles 35.1 cm, height of mushroom-shaped knobs 1 cm, radius of rim 26.4 cm, radius of bottom 13.5 cm
Type: D0?h
Dated: 4th/5th century AD
Source: Érdy 1995, p. 74, pl. 2.1; Garjajnov 1980, pp. 259–262, fig. 3
Comments: The cauldron was found in a cave with a human burial and other objects (including a sword). It remains unclear if the vessel was a grave good since it was found in a different pit from the human remains. In addition to the cauldron itself, horse bones were found — possibly remains of a ritual feast. It is unclear if the specimen had no stand or if it has been broken off.

11 [Figs. 2.2 & 9.D0h]
Found: Törtel, Pest county, Hungary
Context: grave
Material: bronze, made in four casts
Dimensions: height 89 cm, radius 50 cm, height of handles 7 cm, thickness 3 cm
Weight: 41 kg
Type: D0h
Dated: end-4th – first half of 5th century AD
Source: Hampel 1897, pp. 9–10, fig. 9; Mèanchen-Helfen 1973, p. 309, fig. 34
Comments: Cauldron found underneath tumulus earthwork.

12 [Fig. 2.3]
Found: Kurtcsibrák, Tolna county, Hungary
Context: comes from peat-bog
Material: bronze, cauldron made in two casts
Dimensions: height 52 cm, radius 33 cm, thickness 0.8 cm
Weight: 16 kg
Type: D1h
Dated: end-4th – first half of 5th century AD
Source: Hampel 1897, pp. 10–12, fig. 10; Mèanchen-Helfen 1973, pp. 309–310, fig. 35
Comments: The specimen has a broken off stand. Presumably deposited by a body of water, as is characteristic for this find category.

13 [Fig. 2.4]
Found: Bántapuszta, Veszprém county, Hungary
Context: comes from marsh
Material: bronze

Dimensions: height 56 cm, radius 38 cm, thickness 0.45 cm
Weight: 20.1 kg
Type: D1h
Dated: end-4th – first half of 5th century AD
Source: Mèanchen-Helfen 1973, p. 310, fig. 36

14 [Fig. 2.5]
Found: Desa, Oltenia, Romania
Context: found in lake near Desa
Material: presumably copper and cuprite
Dimensions: height 54.1 cm, radius 29.6 cm, height of handles 11.4 cm, height of stand 9.8 cm
Type: D1h
Dated: end 4th – first half of 5th century AD
Source: Mèanchen-Helfen 1973, pp. 310 & 312, fig. 38; Werner 1956, pp. 58–60, pl. 28.3b
Comments: Said to be made of "reddish" bronze, which presumably means an alloy of copper with cuprite (copper oxide).

15 [Figs. 1 & 2.6]
Found: Şestaci, Moldova
Context: storage pit
Material: bronze
Dimensions: height 53 cm
Weight: 29 kg
Type: D1h
Dated: end-4th – first half of 5th century AD
Source: Mèanchen-Helfen 1973, p. 315, fig. 43
Comments: none

16 [Fig. 2.7]
Found: Habaz, near source of Malka river, Kabardino-Balkar Republic, north Caucasus, Russian Federation
Context: deposited by river
Material: bronze
Dimensions: height 57.5 cm, radius 31.5 cm
Weight: 20 kg
Type: D1h
Dated: 4th/5th century AD
Source: Érdy 1995, p. 72, pl. 1.19
Comments: The specimen comes from a deposit by a river. It may be perhaps linked with Caucasian Huns.

17 [Fig. 2.8]
Found: Ivanovka, Dnipropetrovsk Oblast, Ukraine
Context: unknown
Material: bronze
Dimensions: unavailable
Type: D1h

Dated: end-4th – first half of 5th century AD
Source: Mèanchen-Helfen 1973, pp. 316 & 319, fig. 47

18 [Fig. 2.10]
Found: Rádpuszta-Temetőalja-dűlő near Balatonlelle, Somogy county, Hungary
Context: single deposit with no accompanying objects
Material: coper, made in a single cast
Dimensions: height 60 cm (body alone 45 cm), radius 42 cm
Weight: 22 kg
Type: D1h
Dated: end-4th – first half of 5th century AD (mid-5th century, according to discoverers)
Source: Honti, Németh 2007, pp. 71–78
Comments: The cauldron found at depth of 150 cm, during road construction in 2006. Although Rádpuszta is close to Lake Balaton, it does not lie directly on the lake and thus the deposit was not at the water's edge (although it cannot be ruled out that the coastline was slightly different in the past). The specimen shows minor signs of repair, has a damaged stand and was presumably wrapped in some sort of material. While no objects were found in the same context, the discoverers date the find to the mid-5th century AD, arguing that two fibulae were found in the same area, one silver and one iron.

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Streszczenie

Pochodzenie kotłów „huńskich" w kontekście rozwoju metalowych naczyń koczowników z Wielkiego Stepu

Celem niniejszego artykułu jest pokazanie drogi rozwoju metalowych naczyń nomadów z Wielkiego Stepu w I tysiącleciu p.n.e. i I tysiącleciu n.e., prowadzącej do powstania charakterystycznego typu kotłów, tradycyjnie łączonych z Hunami. Badając ewolucję tych przedmiotów, stworzyłem typologię, która może być stosowana również do opisywania wszelkich innych metalowych naczyń koczowników. Wbrew temu, co twierdziło wielu badaczy, dowodzę, że kotły typu „huńskiego" rozwinęły się z naczyń o tradycji scytyjsko-sarmackiej. Miejscem, gdzie powstały naczynia typu „huńskiego" — czyli kotły o dzwonowatym brzuścu zdobione grzybokształtnymi wypustkami — był obszar pomiędzy górami Tienszan, Ałtajem a Dżungarią. Wyodrębnienie się tej formy datuje się na 2 ćwierć I tysiąclecia n.e. Owe naczynia stanowią jeden z wspólnych elementów kultury materialnej europejskich Hunów i Xiongnu.

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