
**GOING TO POT:
BRONZE CAULDRONS ON THE WESTERN FRINGE
OF SCYTHIAN CULTURE**

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Abstract: *Bronze cauldrons of the Scythian time are a rather rare find in the Northern Black Sea region, especially on its western borders. Scythian bronze cauldrons in the west area are concentrated in three main regions: Bukovina and Podillya (Iacobeni, Avrămeni, Ioane-Puste, Shvaikiotsy), the Lower Dniester (Răscăieții Noi, Nikolskoe, Dubăsari, Cioburciu), and the Lower Danube (Ograda, Castelu, Scorțaru Vechi, Mresnota Mogyla, Ostrivne). Some Scythian cauldrons have no reliable archaeological context. Nevertheless, in combination with the same “stray” finds like the Scythian statues, the finds of Scythian cauldrons mark the Scythian presence, most likely, not earlier than the late 6th century or even the turn of the 6th-5th centuries BC. There is a significant chronological difference between the northern (forest-steppe, Bukovina-Podillya) group of cauldrons and the southern (steppe, Lower Danube-Lower Dniester). At the same time, a chronological priority is characteristic of the first, where the cauldrons are known since the middle of the 7th century BC. Bronze cauldrons (with their carriers) penetrate the steppe region 150-200 years later, as well as the “military” burials that appear in the western steppe regions no earlier than the middle of the 5th century BC. Most of the burials with cauldrons (and, apparently, the stray finds) are dated back to the second half of the 5th century BC. Then, at the early 4th century BC their quantity is reduced and after the first quarter of the 4th century BC, they will completely disappear from the cultural practice of the population of the steppes of the North-Western Black Sea region.*

Rezumat: *Cazanele turnate din bronz din perioada scitică sunt o descoperire destul de rară în stepa și silvoostepa din nordul Mării Negre, în special la limitele sale de vest. Cazanele de bronz scitice din nord-vestul Mării Negre sunt concentrate în trei regiuni principale: Bucovina și Podolia (Iacobeni, Avrămeni, Ioane-Puste, Șvaikiți), Nistrul de Jos (Răscăieții Noi, Nikolskoe, Dubăsari, Cioburciu) și Dunărea de Jos (Ograda, Castelu, Scorțaru Vechi, Mresnota Moghila, Ostrivne). Unele cazane scitice au fost găsite în afara unui context arheologic și sunt, de fapt, descoperiri fortuite. Cu toate acestea, în combinație cu alte descoperiri „fortuite” (de ex. statui antropomorfe scitice), cazanele scitice marchează prezența sciților, cel mai probabil, nu mai devreme de finele sec. al VI-lea a.Chr. Există o diferență cronologică semnificativă între grupul de nord (silvoostepă, Bucovina – Podolia) și cel de sud (stepă, Dunărea de Jos – Nistrul de Jos). Astfel, în primul grup, cazanele sunt cunoscute de la mijlocul sec. al VII-lea a.Chr., pe când în zona de stepă cazanele din bronz turnate (împreună cu purtătorii lor) pătrund cu cca 150-200 de ani mai târziu, ca și complexele funerare „militare”, care apar în regiunile de vest ale stepei nu mai devreme de mijlocul seco. al V-lea a.Chr. Marea majoritate a complexelor funerare cu cazane (și a descoperirilor fortuite) se încadrează în a două jumătatea a sec. V a.Chr. La începutul sec. al IV-lea a.Chr., ele vor deveni mult mai puține, iar în al doilea sfert al sec. IV a.Chr. vor dispărea complet din practicile culturale ale populației din stepele spațiului nord-vest-pontic.*

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Cuvinte cheie: *cultură scitică, cazane din bronz, spațiul nord-vest-pontic, Dunărea de Jos, perioada scitică mijlocie, perioada scitică clasică.*

... A wide, mist-filled, thundering cauldron of white water that elsewhere would have a name like The Devil's Cauldron but here was nameless because this was Koom Valley and for Koom Valley there just weren't enough devils and they didn't have enough cauldrons.

Terry Pratchett, *Thud!*

Scythian bronze cauldrons are a rather rare find in the Northern Black Sea region, especially on its western borders. According to the latest data, at least 117 finds of bronze cauldrons of the 7th–3rd centuries BC are known from the territory covering the steppes of the Northern Black Sea region, the Kuban region, the Dnieper forest-steppe, the Lower and Middle Don (Fig. 1). In other 88 cases, traces of cauldrons that disappeared as a result of looting graves were recorded.¹ Scythian bronze cauldrons in the west are concentrated in three main regions: Bukovina-Podillya (Iacobeni, Avrămeni, Ivane-Puste, Shvaikivtsy), Lower Dniester (Răscăieții Noi, Nikolskoe, Dubăsari, Cioburciu), and Lower Danube (Ograda, Castelu, Scorțaru Vechi, Mresnota Mogila, Ostrovnoe). There is the also a stray find of a bronze cauldron found far to the west (Fig. 2/1) – on the Hungarian-Slovak border near Szőny (Komárom).²

In the north-east of Romania, on the territory of Bukovina, it has long been known about two finds of bronze cauldrons. The first one was discovered in 1942 as a result of road works, during which a burial mound was destroyed between Avrămeni and Săveni villages (Fig. 2/2), Botoșani County.³ It is distinguished by vertical handles, an oval rim (according to A. Nițu, deformed under the weight of the soil) and relatively small dimensions (the height excluding handles is 32.5 cm).⁴ In 1948, 17 km to the south, on the western outskirts of the Iacobeni village, Botoșani County, another cauldron with four vertical handles (in the shape of goats) and two horizontal handles was discovered (Fig. 2/3).⁵ This item is larger (48.5 cm high without handles) and has an unusually high foot (19.5 cm). There were documented no archaeological context, although a burial mound with a diameter of about 100 m was located 200 m from it.⁶

¹ Ромашко 2015, 2.

² Patay 1990, 81, Taf. 68/148.

³ Nițu 1953, 9, fig. 4.

⁴ Nițu 1953, 10.

⁵ Rață 1966, fig. 1.

⁶ Rață 1966, 351.

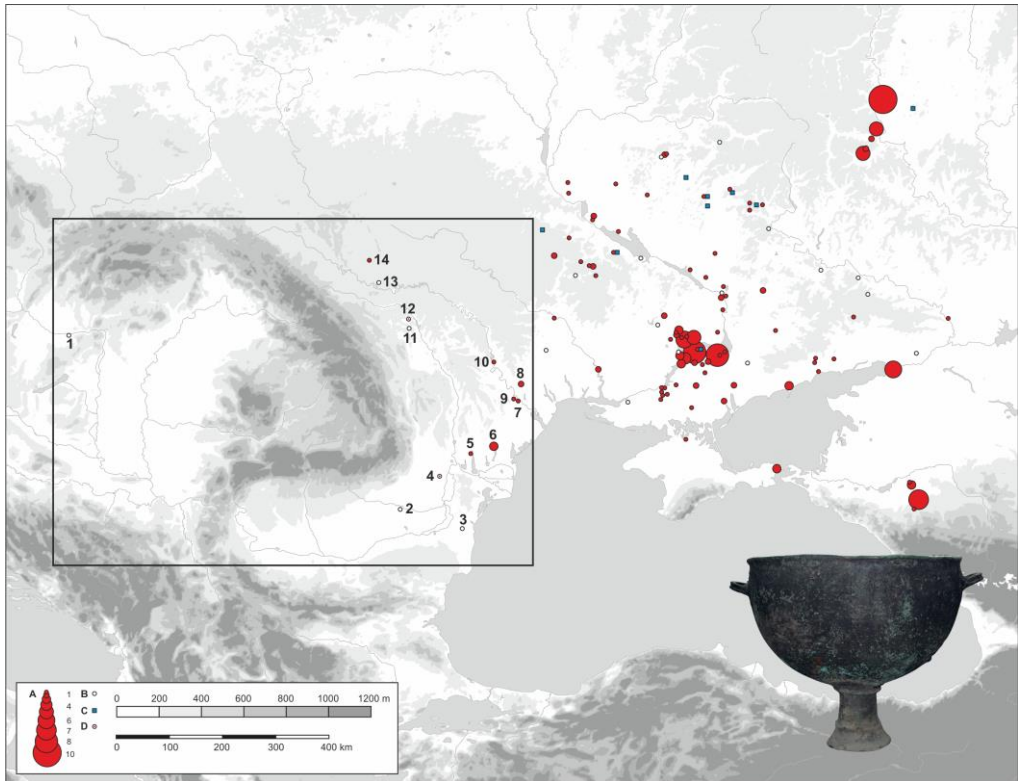


Fig. 1. Distribution of the Scythian bronze cauldrons in the Northern Black Sea region (A. burials; B. stray finds; C. settlements; D. destroyed barrows). Western area: 1. Szőny (Komárom); 2. Ograda; 3. Castelu; 4. Scorțaru Vechi; 5. Mresnota Mogyla (Vinogradivka-Vladycheni); 6. Ostrivne (Ostrovnoe); 7. Răscăieții Noi (Novye Raskaitsy); 8. Nikolskoe; 9. Cioburciu (Chobruchy); 10. Dubăsari (Dubossary); 11. Iacobeni; 12. Avrămeni; 13. Ivane-Puste; 14. Shvaykivtsy.

Two finds of cast bronze cauldrons are connected with the Middle Dniester River. One of the cauldrons was displayed in the Archaeological Museum of Krakow and was accidentally discovered at the end of the 19th century at Ivane-Puste village (Fig. 2/5), Borshchiv district, Ternopil region.⁷ Another cauldron was found in 2007 as a result of an investigation of the destroyed Early Scythian barrow near the Shvaikivtsy village (Fig. 2/4), Chortkiv district, Ternopil region.⁸ The burial mound was erected over a tomb made of wood and stone and covered with a layer of yellow clay. A wooden urn with cremation was found under a stone vault, and the

⁷ Demetrykiewicz 1898, 124-125; Гребеняк 1914, 16, табл. I/5; Sulimirski 1936, 101, tabl. IX/7.

⁸ Бандрівський 2009, 202.

grave goods were located along the edges of the stone construction, including a cauldron, a bronze wine strainer, clay bowls, a ladle, and jars.⁹ The author of the excavations, based on analogies with a bronze wine strainer and an openwork sheath for a spear, believes that the assemblage belongs to the late HaC₂ or the third quarter of the 7th century BC.¹⁰

In the Danube region, inside the burials mounds near the Ostrivne (Ostrovnoe) village, Artsyz district, Odessa region, three cauldrons were found: two in barrow 1¹¹ (Fig. 3/2) and one in barrow 3¹² (Fig. 3/1). In barrow 1, excavated in 1972, both cauldrons (one of which is huge, on a conical foot, with vertical and horizontal handles below the rim) were filled with the bones of a bison, pig, cow and sheep. The looted burial with the cauldrons, probably due to the remains of iron armour, a bronze arrowhead, was dated by the author of excavations to the 6th century BC¹³, however, according to V. Yu. Murzin, it belongs to the 5th century BC¹⁴, possibly to the second half of the century. Another cauldron from barrow 3, similar to the find from 1972 (but smaller), was found north of the “false” central burial pit and was half-filled with animal bones. In the filling of the looted burial, bones of a male skeleton, 18 bronze arrowheads, fragments of a single-edged iron sword, bronze clothing ornaments, fragments of armour, gold and silver foil were found. In addition, in the northern part of the pit, three Heracleian amphorae with three-line englyphic stamps were discovered, on the basis of which, apparently, the burial was originally dated back “to the late 5th or to the first half of the 4th century BC”¹⁵. Subsequently, the date of the burial (still unpublished, like other graves from Ostrovnoe) was restricted by S.Yu. Monakhov to the first decade of the 4th century BC. According to his definitions, two Heracleian amphorae of type I were found in the assemblage with the magistrate stamp ΑΡΙΣΤΟΚ | ΛΗΣ ΑΡΤΟΝ | ΔΑ and the reconstructed stamp of the early manufacturer *Satyriion* ΣΑΤΥ¹⁶, which allowed the researcher to synchronize the burial with the Olbian warehouse excavated in 1947, the upper limit of which is the late 390s BC.¹⁷

⁹ Бандрировский 2013, 342, рис. 2-3.

¹⁰ Бандрировский 2013, 354.

¹¹ Алексеева 1973.

¹² Алексеева, Дворянинов, Чернов 1977.

¹³ Алексеева 1973, 253.

¹⁴ Мурзин 1984, 45.

¹⁵ Алексеева, Дворянинов, Чернов 1973, 259.

¹⁶ Monakhov 1999, 205-206.

¹⁷ Монахов 1999, 197.

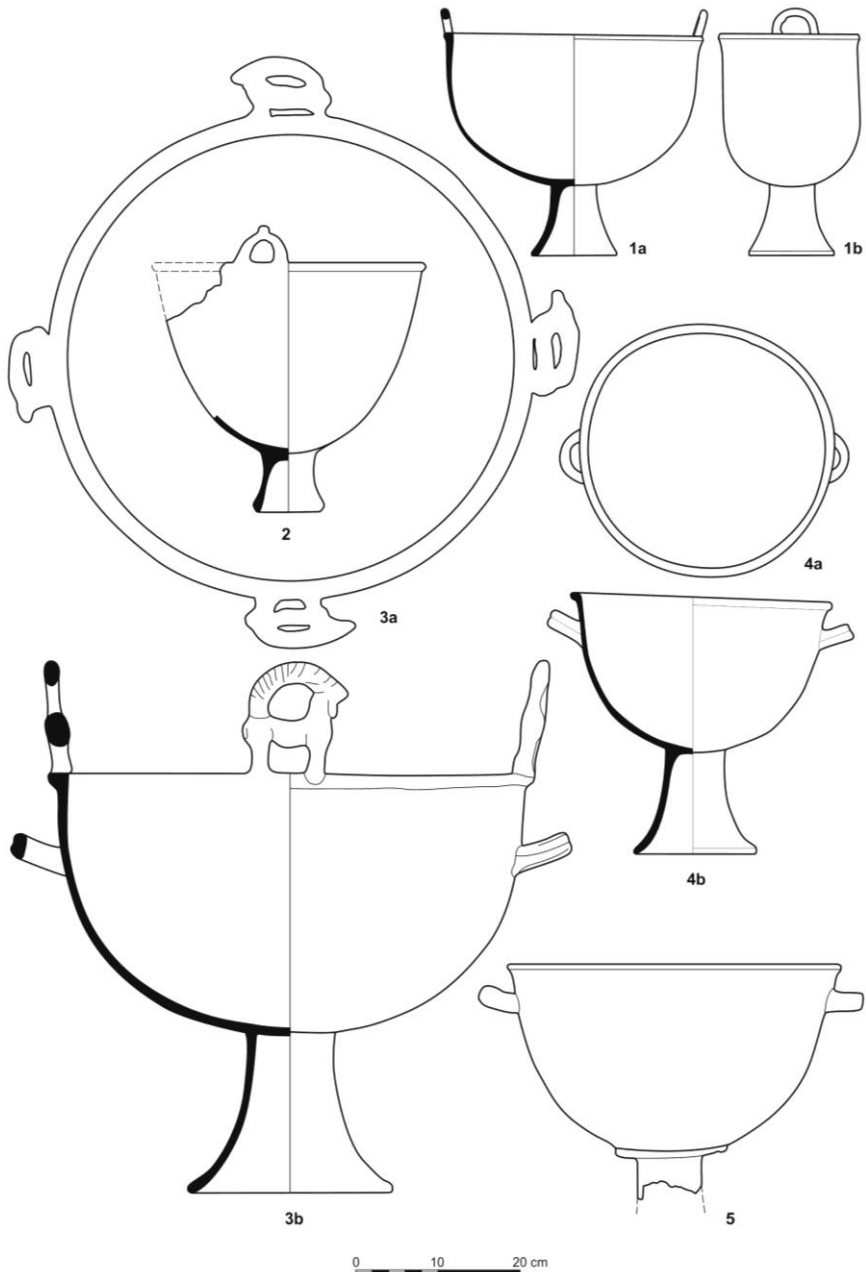


Fig 2. Scythian bronze cauldrons from the Great Hungarian Plain (1) and Bukovina-Podolia (2-5): 1. Szőny, stray find; 2. Avrămeni, destroyed barrow (?); 3. Iacobeni, stray find; 4. Shvaikivsy, barrow; 5. Ivane-Puste, stray find.

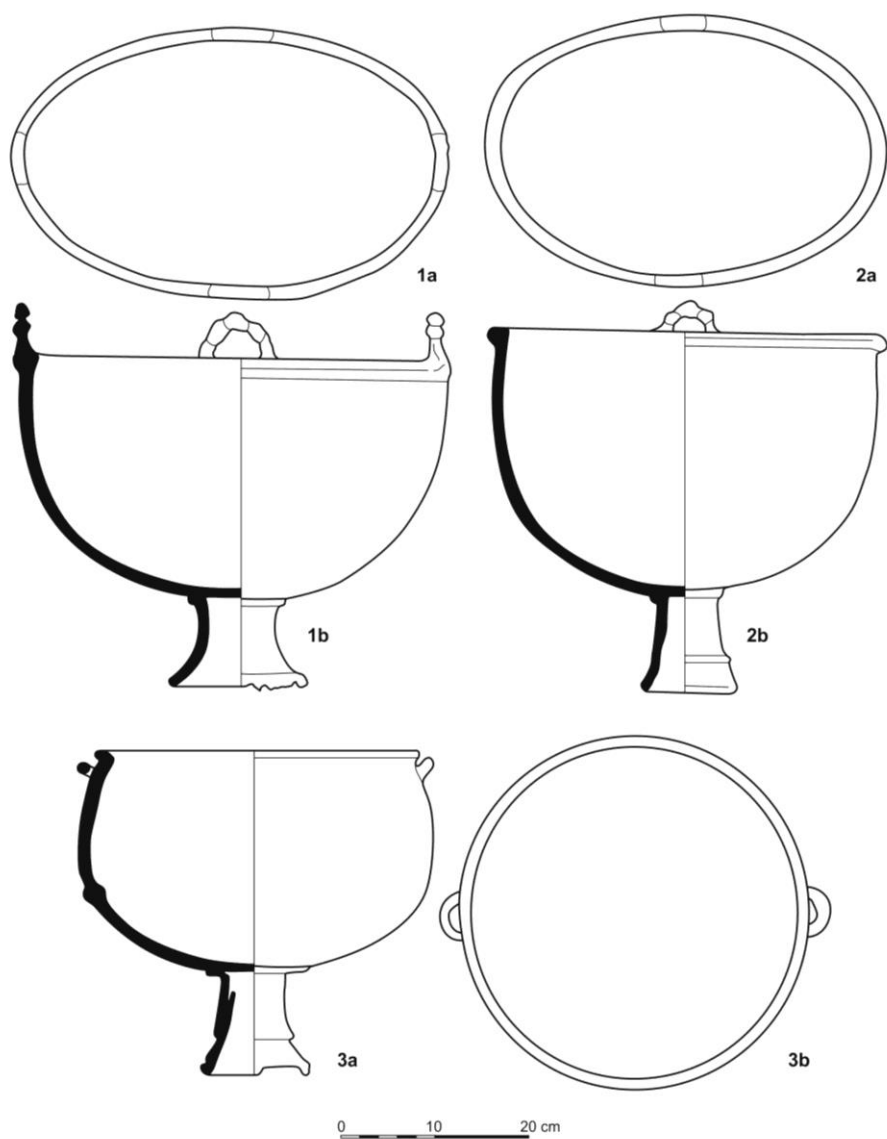


Fig 3. Scythian bronze cauldrons from the left bank of the Lower Danube: 1. Ostrivne, barrow 3; 2. Ostrivne, barrow 1; 3. Mresnota Mogyla, barrow 3.

Another cauldron from the left bank of the Lower Danube was discovered in the burial mound 3 of “Mresnota Mogyla” group between the Vinogradovka¹⁸ and Vladycheni¹⁹ villages, Bolgrad district, Odessa region (Fig. 3/3). In burial 1 (in connection with a cauldron inside the mound and covered with stone slabs), despite the looting, an iron armour shirt and a shield, three amphorae, a *kyathos*, a gold applique on a wooden bowl, and a black-glazed *skyphos* were found.²⁰ A.S. Ostroverkhov and E.F. Redina dated back this assemblage (along with a barrow near Chobruchy village) to the second or third quarter of the 5th century BC.²¹ Indeed, the Attic black-glazed *skyphoi*, similar to the item from the barrow 3 of Mresnota Mogyla group, appear in the second quarter of the 5th century BC.²² S.Yu. Monakhov, who studied *de visu* two of the three amphorae, considers them to be unique products, reminiscent of the Thasian amphorae of the second half of the 5th century BC, although different in the shape of the rim, handles and colour. According to his conclusion, morphological features such as a high neck and conical body allow the date of the burial within “the third quarter of the 5th century BC”.²³

Other Scythian cauldrons of the Lower Danube have no reliable archaeological context. Nevertheless, the finds of Scythian cauldrons in combination with the “stray” finds of Scythian anthropomorphic statues, mark a direct Scythian presence²⁴, most likely not earlier than the late 6th century or the turn of the 6th-5th centuries BC. Indeed, there is a stable correlation between the finds of cauldrons and anthropomorphic sculptures of the Scythian period, which appearance could be hardly explained by “imports”, “influences” or “intercultural contacts”.²⁵ The main concentrations of both cauldrons and statues, as a rule, coincide, for example, on the Danube²⁶, Dniester²⁷,

¹⁸ In Ukrainian – Vinogradivka (Виноградівка), before 1945 was known as Curciu.

¹⁹ Before 1934 – Împuțita.

²⁰ Гудкова и др. 1984, 73-76, рис. 42-44; Редина 1992, 84; Островерхов, Редина 2013, 381, рис. 94/8; 96/7; 98/6.

²¹ Островерхов, Редина 2013, 382.

²² Sparkes, Talcott 1970, 84.

²³ Монахов 1999, 140.

²⁴ V. Sîrbu also agrees that bronze cauldrons are an indicator of the Scythian presence (Sîrbu 2019, 373). However, unfortunately, in his recent paper, a number of inaccuracies and factual errors were made: e.g. the cauldron from Shvaikivtsy was localized either at Chortkiv or Bolshivtsy, its photos were named “a cauldron from Dubossary”, Mresnota Mogyla was located near Reni (Sîrbu 2019, 373, 383, fig. 7-8, 11). In addition, the scholar mentions an “unknown” cauldron from Artsyz, but ignores the well-known finds at Avrămeni and Ivane-Puste.

²⁵ Topal 2019, 96.

²⁶ It has long been known of three Scythian anthropomorphic statues: from Sibioara, Stupina and the find from Dobroudja (Alexandrescu 1958, fig. 1, 2, 4; 1960, 384, fig. 1). Besides, not

Bukovina and Western Podolia²⁸ (Fig. 4). And, on the contrary, in the centre of Romanian Moldova and Bessarabia, where we observe many Scythian complexes and items (including weapons), neither Scythian statues nor Scythian cauldrons have been found yet.²⁹ As an additional argument, one can cite information about the dynamics of the most important stronghold of the east of the Lower Danube – the Kartal settlement near the Orlovka³⁰ village, Reni district of Odessa region, which was periodically used either as a “bridgehead” or as a “castle” from the Eneolithic to the Middle Ages.³¹ There is no full-fledged settlement in Kartal in the second half of the 7th – late 5th centuries BC.³² That indicates, in my opinion, that during the period of the most active phase of the nomadic movement to the west, the river boundary in the east of the Lower Danube was absolutely permeable for the Scythians. On the territory of Dobroudja, near Castelu (Fig. 5/1), not far from Medgidia, Constanța County, a cast bronze cauldron was discovered³³, which, unfortunately, could not be associated with a reliable archaeological context. In addition, bronze cauldrons are known to the west, in Wallachia. Findings of cauldrons from the Ograda and Scorțaru Vechi³⁴ testify to the Scythian exit to the Bărăgan Plain. A stray find of a bronze cauldron near the Ograda village (Fig. 5/2), Ialomița County, is displayed in the Lower Danube Museum in Călărași and was recently introduced into the scientific circuit by V. Sîrbu.³⁵ Another cauldron was found near the Scorțaru Vechi village (Fig. 5/3), Brăila County, and published by V. Pârvan.³⁶ V. Sîrbu later provided some additional details: the

far from Medgidia, a unique bronze cast model or an emblem of a Scythian akinakes was found, possibly also made to decorate the statue (Berciu 1959, 18, fig. 1/a, c, pl. 3). The Scythian penetration to the Bărăgan steppe is probably shown by the statue from Platonești (Matei, Coman 2000, fig. 1a). There are also two more statues on the left bank of Lower Danube – from Vinogradovka and Plavni (Ольховский, Евдокимов 1994, илл. 4/6, 6/8).

²⁷ Lower Dniester is represented by Scythian anthropomorphic statues from Dubossary, Butor, Krasnogorka, Yaroslavka (Ольховский, Евдокимов 1994, илл. 3/4, 5/7; Четвериков 1997, рис. 1, Кетрапу *et alii* 2014, рис. 44/1).

²⁸ There are two statues on the Middle Dniester discovered near Loivtsy (Семенчук 2013, 178), Nizhchiy Olchedaiv (Забашта, Білозор 1996, 31).

²⁹ Topal 2019, fig. 1.

³⁰ In Ukrainian – Orlivka (Орлівка), before 1945 – Cartal.

³¹ Брумяко 2019, 246.

³² Брумяко 2019, 250.

³³ Aricescu 1965, 565-570, fig. 1; Sîrbu 2015, 55, fig. 4.

³⁴ Sîrbu 2015, fig. 2, 3; Pârvan 1926, fig. 1.

³⁵ Sîrbu 2015, 54.

³⁶ Pârvan 1926, 9.

cauldron was found in 1899 at the top of the embankment of the destroyed Dinghiliu burial mound, at a depth of about three meters, and was also filled with bones.³⁷

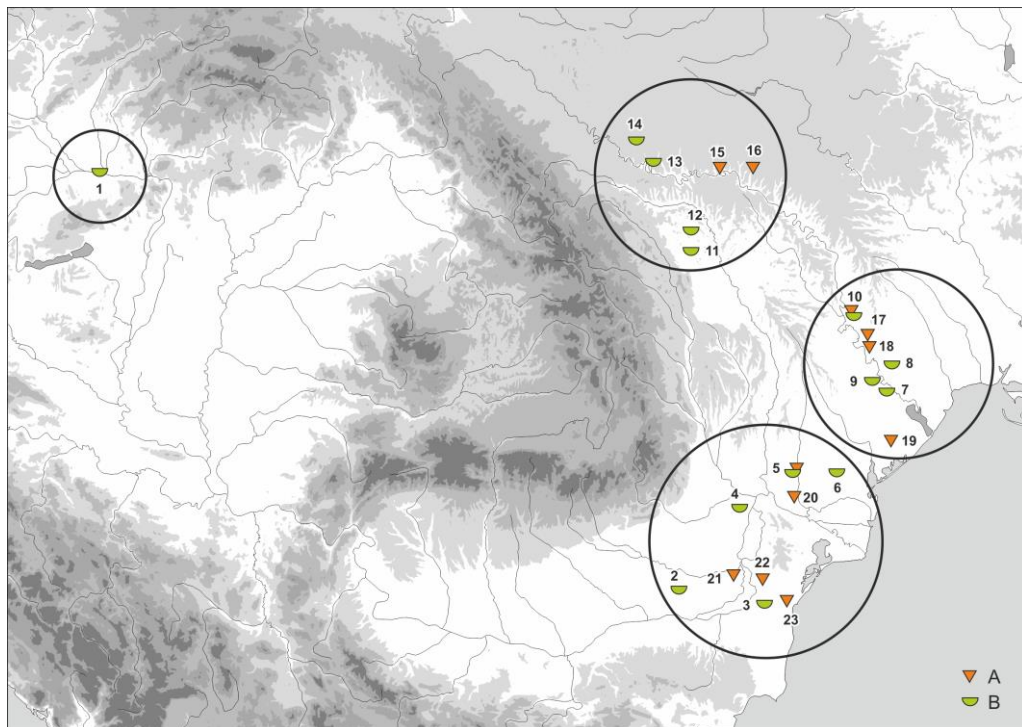


Fig. 4. Scythian antropomorphic statues (A) and bronze cauldrons (B): 1. Szőny (Komárom); 2. Ograda; 3. Castelu; 4. Scorțaru Vechi; 5. Mresnota Mogyla (Vinogradivka-Vladycheni); 6. Ostrivne (Ostrovnoe); 7. Răscăieții Noi (Novye Raskaitsy); 8. Nikolskoe; 9. Cioburciu (Chobruchy); 10. Dubăsari (Dubossary); 11. Iacobeni; 12. Avrămeni; 13. Ivane-Puste; 14. Shvaykivtsy; 15. Loivtsy; 16. Nizhchiy Olchedaiv; 17. Butor; 18. Krasnogorka; 19. Yaroslavka; 20. Plavni; 21. Platonești; 22. Stupina; 23. Sibioara.

Another concentration of cauldrons of the Scythian period is associated with the Lower Dniester River. The collection of the National Museum of History of Moldova (NMHM) in Chișinău has two bronze cauldrons discovered during the excavations near the Nikolskoe village in 1988 under the burial mounds 14 and 15.³⁸ These items became known due to the monographic research that summarized the results of excavations on the left bank of the Dniester River.³⁹ Barrow 14 was erected over the

³⁷ Sîrbu 2015, 55.

³⁸ Агульников, Левинский 1989, 81-83, рис. 42/2; 44/3.

³⁹ Агульников, Сава 2004, 127-128, 131, рис. 63/2; 65/4.

main Scythian burial 2. At the same time, in the filling of the burial, no traces of the buried were found, only a few stones, bones of cattle and fragments of pottery. In addition to a human skeleton, a bronze mirror with a handle, 114 arrowheads, and six gold fish-shaped plaques were found in the secondary burial.⁴⁰ The cauldron was found in a rounded pit in the northeastern part of the burial mound and was filled with bones of *Ovis-Capra* covered with copper oxides⁴¹. The total height of the cauldron from the mound 14 is 40 cm, the height of the hemispherical body is 27 cm, and the weight is 28.5 kg (Fig. 6/3; 7). The foot is conical, the height of foot is 13 cm, the maximum diameter at the bottom is 14 cm, the diameter in the middle is 8 cm, there are two embracing thickenings on the foot-base (from the moulding seams): at the place where the foot is attached to the body and at 4-5 cm from the bottom edge. The rim is flattened towards the edge, the dimensions of the rim are 43 × 45 cm, the thickness is 1.5 cm. The semicircular horizontal handles are fixed on the body 5 cm below the rim at an angle of about 70°, the outer edge of the handles is embossed and consists of two outgrowths along the edges and a cannellure in the centre, the dimensions of the handles, rounded in cross-section, are 4 × 9 cm, the thickness is 1.5 cm. Traces of repair are visible: there are in the upper part two sub-oval rivets (1.5 × 4.0 and 1.7 × 2.6 cm), horizontally fastening the vertical crack extending from the rim and another rounded rivet of 1.0 × 1.3 cm at the bottom of the cauldron.

Another cauldron from Nikolskoe was discovered in the barrow 15, which was constructed over a burnt soil and with a stone *crepidoma*. In the mound, two completely looted burials and a round pit with a bronze cauldron were found. This cauldron is much smaller, its total height is 30 cm, the height of the hemispherical body with convex sides is 22 cm, its maximum diameter is 29 cm, and its weight is 20.5 kg (Fig. 6/4; 8/1-3). A conical foot, along the lower edge of which three oval-shaped cone-shaped protrusions (the remains of the sprues?) of 0.8 × 1.2 cm, located at the same distance are noticeable. The height of the foot (excluding the "cones") is 7.5 cm, the maximum diameter in the lower part is 10 cm, and diameter in the middle is 6.5 cm. There is also a noticeably enveloping thickening (moulding seam?) on the foot on about 1 cm above the lower edge. The foot was additionally reinforced in the bottom part with an amorphous influx of metal of 6.5 × 5.5 cm. The upper edge of the rim is rounded and as if formed from two semicircular rods in cross-section, the dimensions of the rim are 24 × 25 cm, the thickness is 1.5 cm. Semicircular handles fixed on the body horizontally, below the crown by 4 cm, at an angle of about 65° to the surface of the cauldron, the outer edge of the handles is embossed and consists of

⁴⁰ Агульников, Сава 2004, 124.

⁴¹ Агульников, Сава 2004, 128.

two nodes (like the edge of the rim), the dimensions of the handles rounded in cross-section are 4 × 6 cm, the thickness is 1.1 cm.

Unfortunately, due to the complete looting of the main burials of mounds 14 and 15 near Nikolskoe, it is difficult to judge their chronological position. The secondary burial of mound 14 was made not much later than the main one and, apparently, dates back to no later than the late 5th century BC. Probably, the main burial, connected with the cauldron, is dated back to the same period, as well as mound 15. It is possible to suppose that the cauldron accompanied the main burial 1 in barrow 1 near the Chobruchy village⁴² but was carried away during the looting⁴³. This, according to the authors of the excavations, was indicated by the presence of animal bones in the infill, some of which are intensely coloured green.⁴⁴ Despite the dating of the amphora to the second quarter of the 5th century BC (according to N.A. Leipunskaya), the author of the excavations increases the date of burial by arrowheads (sic!) to the “end of the 5th century BC”.⁴⁵ At the same time, Chios plump-throated amphorae of III-B variant (according to S.Yu. Monakhov) appear in the 480-470s BC and became especially popular during the second quarter of the 5th century BC. Then, in the middle of the century, these amphorae are replaced by a late swollen-throated variant with an interception on the throat⁴⁶, like the vessel from Cioburciu. Therefore, the most relevant date for the burial from Cioburciu could be the third quarter of the 5th century BC, which allows us to synchronize this assemblage with the burial mound 3 of Mresnota Mogyla group. In connection with the first studies of the Scythian barrows of Bessarabia, a treasure with a bronze cauldron is sometimes mentioned. It was found near the Broasca village and its “association with the Scythian period is undoubtful”.⁴⁷ However, upon closer examination, as well as referring to the original source (records of the meeting no. 387 of the Odessa Society of History and Antiquities⁴⁸, it turned out that E.A. Shumansky tells about famous Bubueci hoard⁴⁹ of

⁴² Now Cioburciu village in Ștefan Vodă district, Republic of Moldova.

⁴³ Агульников, Субботин 1997, 182-186.

⁴⁴ Агульников, Антипенко 1990, 3; Agulnicov 2003, 40.

⁴⁵ Agulnicov 2003, 43.

⁴⁶ Монахов 2003, 18, табл. 7/1-3.

⁴⁷ Тельнов, Синика 2014, 31.

⁴⁸ Заседание 1910, 7-8.

⁴⁹ According to S.V. Demidenko, the cauldron from the Broasca-Bubueci hoard “is unique, possesses a number of archaic features and is typologically close to the Scythian-Sauromatian items” (Мордвинцева 2001, 110).

3rd-2nd centuries BC⁵⁰. The hoard with the cauldron from Velikoploskoe also belongs to the Late Scythian period (which lays outside the task of this paper).⁵¹

Besides these finds, in 2020, two cast bronze cauldrons were discovered by the author in the collections of the NMHM without any labels or accompanying documents, but visually identified as originating from various excavations on the Lower Dniester. One of them was found in 1987 by N.A. Chetraru in barrow 45 of the Dubossary (Dubăsari) group of barrows to the west of the Novye Goyany (Goianul Nou) village.⁵² The barrow was introduced into scientific circuit ten years after the excavations⁵³, and then it was published in various monographic studies.⁵⁴ However, despite an impressive series of publications, the only image of the cauldron was replicated, and its basis, apparently, was a photograph taken by N.A. Chetraru for the report on excavations.⁵⁵ But the view chosen by the author of the excavations cannot be called really relevant for this type of items; moreover, the graphical presentation lacks the sections necessary to understand some of the technological features. The barrow 45 was erected at once over the only Scythian burial, then reinforced with a stone *crepidoma* and surrounded by a ditch.⁵⁶ The burial was made in a wooden construction with a radial ceiling made of logs and poles; under it were subsequently found concentrations of animal bones, amphorae fragments, and a bronze cauldron was deformed by high temperatures⁵⁷. The data on the looting of the mound are contradictory: the report and the first publications do not mention this, while the 2005 monograph indicates that the looting pits destroyed the central part of the burnout.⁵⁸

The cauldron was damaged by fire as a result of the burning of the tomb and, possibly, was deformed under the weight of the soil or a collapsed construction: at the moment it consists of 29 fragments of various sizes, some of which are melted. The height of the cauldron is 47 cm, the height of the bowl-shaped body is 33 cm, the reconstructed diameter is about 50 cm, the total weight of the fragments is 18.5 kg (Fig. 6/2; 9). The foot is conical, the height of the foot is 13 cm, the maximum diameter in the lower part is 14 cm, the diameter in the middle is 8 cm. There are two enveloping thickenings on the foot: a large one in the form of a kind of “skirt” at the

⁵⁰ Тельнов *et alii* 2016, 8.

⁵¹ Дзис-Райко, Суничук 1984, 148, рис. 2/13.

⁵² Кетрару 1988, 7-8, рис. 11.

⁵³ Chetraru, Mateevici 1997.

⁵⁴ Кетрару, Четвериков 2005, 148-152; Кетрару *et alii* 2014, 125-128.

⁵⁵ Кетрару 1988, рис. 3.

⁵⁶ Кетрару *et alii* 2014, 125.

⁵⁷ Кетрару *et alii* 2014, 126-127, рис. 4.

⁵⁸ Кетрару, Четвериков 2005, 148.

point where the base is attached to the body and less convex overflow (moulding seam) 6 cm from the bottom edge. The bottom edge of the foot is decorated with a rope roller. The rim has a rounded edge in the upper part, in the lateral plane (like handles) it is formed from two rods rounded in cross-section, the thickness is 1.3 cm. The semicircular horizontal handles are fixed on the body 5.5 cm below the rim at an angle of about 55°, the outer edge of the handles is embossed and consists of two nodes along the edges, the dimensions of the rounded handles in cross-section are 3 × 8 cm, the thickness is 1.5 cm. In barrow 45 of the Dubossary group, in addition to a bronze cauldron, three amphorae were found, two of which were restored. Two pink-clay amphorae (including the fragmented one) are identified as Chios with a cap-shaped foot, V-B variant (according to S.Yu. Monakhov). This variation appears no earlier than the turn of the 5th-4th centuries BC and was produced for about a century.⁵⁹ Another yellow-clay amphora belongs to the Mendean amphorae of II-B or *Porticello* variant of the first two decades of the 4th century BC.⁶⁰ Therefore, the dating of the assemblage within the first quarter of the 4th century BC could be accepted.⁶¹

Another cauldron is a less known find discovered in 1979 inside the burial mound 1 near the Novye Raskaytsy (Răscăieții Noi) village, Ștefan Vodă district. This mound, in addition to its outstanding dimensions (reconstructed height was about 10 m), is known for the fact that a cast bronze pommel in the Scythian animal style was discovered on its surface in 1953.⁶² In addition, there are two Scythian burials (9 and 10) with rather modest grave goods (a vessel, an iron knife with a bone handle, 62 glass beads) among the excavated secondary burials inside this Bronze Age barrow. The burials were excavated in the southwestern part of the mound.⁶³ The bronze cauldron from Răscăieții Noi was mentioned in the monograph devoted to the excavations of burial mounds in the Lower Dniester region. In particular, the author says that “by the beginning of excavations, part of the mound was damaged by agricultural activity, and a cast bronze cauldron⁶⁴ of the Scythian culture was found near it. Most likely, he was put in a destroyed Scythian burial”.⁶⁵ The cauldron was seriously damaged mechanically and, as a result, the rim was deformed and the walls, together with one surviving vertical handle, were bent inward. Fragments in the upper part of the body and one handle are

⁵⁹ Монахов 2003, 21-22.

⁶⁰ Монахов 2003, 91-92.

⁶¹ Кетрару *et alii* 2014, 217; Полин 2014, 423.

⁶² Нудельман, Рикман 1956, 129, рис. 2; Сергеев 1963, 68-69, рис. 1.

⁶³ Яровой 1990, 16-19.

⁶⁴ Nevertheless, for some reason, this find was not reflected in the Report of excavations in 1980 (Яровой 1981).

⁶⁵ Яровой 1990, 9.

lost. The total reconstructed height of the cauldron is 24 cm (excluding handles), the reconstructed diameter of the hemispherical body is 30 cm, the weight of the remaining part is 6.5 kg (Fig. 6/1; 8/4-9). The surface of the cauldron is uneven; vertical beads of metal are clearly visible over the entire surface of the body. The handle of 3.0 × 6.5 cm and 1 cm thick were cast vertically, in cross-section they are round. The height of the cylindrical foot is 6.5 cm, the maximum diameter, taking into account the thickening in the lower part, is 9.5 cm, the diameter closer to the attachment to the body is 6.5 cm. The foot was cast poorly; metal protrusions are not removed below the edge. In addition, a rounded hole was formed on the base cylinder, probably also as a result of the casting issues – underfilling of metal.

Unfortunately, due to the loss of information about the context of the discovery of the cauldron from Răscăieții Noi, it is not possible to associate the find with one or another Scythian secondary burial of the mound. In addition, the grave goods of other Scythian burials of mound 1 do not allow their dating more precisely than within the 4th century BC. However, the vertical-handled cauldron from Răscăieții Noi most likely dates back to earlier times. This can also be indicated by a bronze pommel found on this mound in 1953. Stylistically, it is associated with a pommel from the Zashchita mound⁶⁶ of the early 5th century BC and a pommel from the Ulyap burial mound excavated in 1909 and dated back within mid-5th century BC.⁶⁷ It seems that a further stylization of the image can be traced on the item from Răscăieții Noi, reaching its highest stage, when a bird's beak is only guessed in the curls of the upper part of the pommel, but the pronounced cere and relief eye still emphasize the resemblance to the head of a bird of prey or a gryphon. The image on this pommel is much closer to the golden ornaments of wooden bowls in the shape of the heads of birds of prey from barrow 1 of Zavadskaya Mogyla, barrow 15 of the Pereshchepine burial ground, mound 411 at Pekary, mounds 1 and 2 at Yablonivka, mound 4 at Berestnyagy, Artsyz barrow, and the barrow 3 of Mresnota Mogyla, discussed above. It is known that these golden plaques for the wooden bowls appear in the steppe region no earlier than the middle of the 5th century BC; moreover, they appear performed in a much more stylized manner than in the forest-steppe regions⁶⁸. In addition, the secondary burial 7 from the nearest excavated mound 2 near Răscăieții Noi, where a plaque with the image of a curled predator was found also belongs to the middle of the 5th century BC.⁶⁹ Thus, it is highly probable that the cauldron from mound 1 at Răscăieții Noi is associated with the end of the Middle Scythian period or the middle – third quarter of the 5th century BC.

⁶⁶ Бокій 1970, 187, рис. 1/1, 2.

⁶⁷ Лесков 2015, 96.

⁶⁸ Махортых 2019, 479.

⁶⁹ Яровой 1990, 36-37, рис. 13.

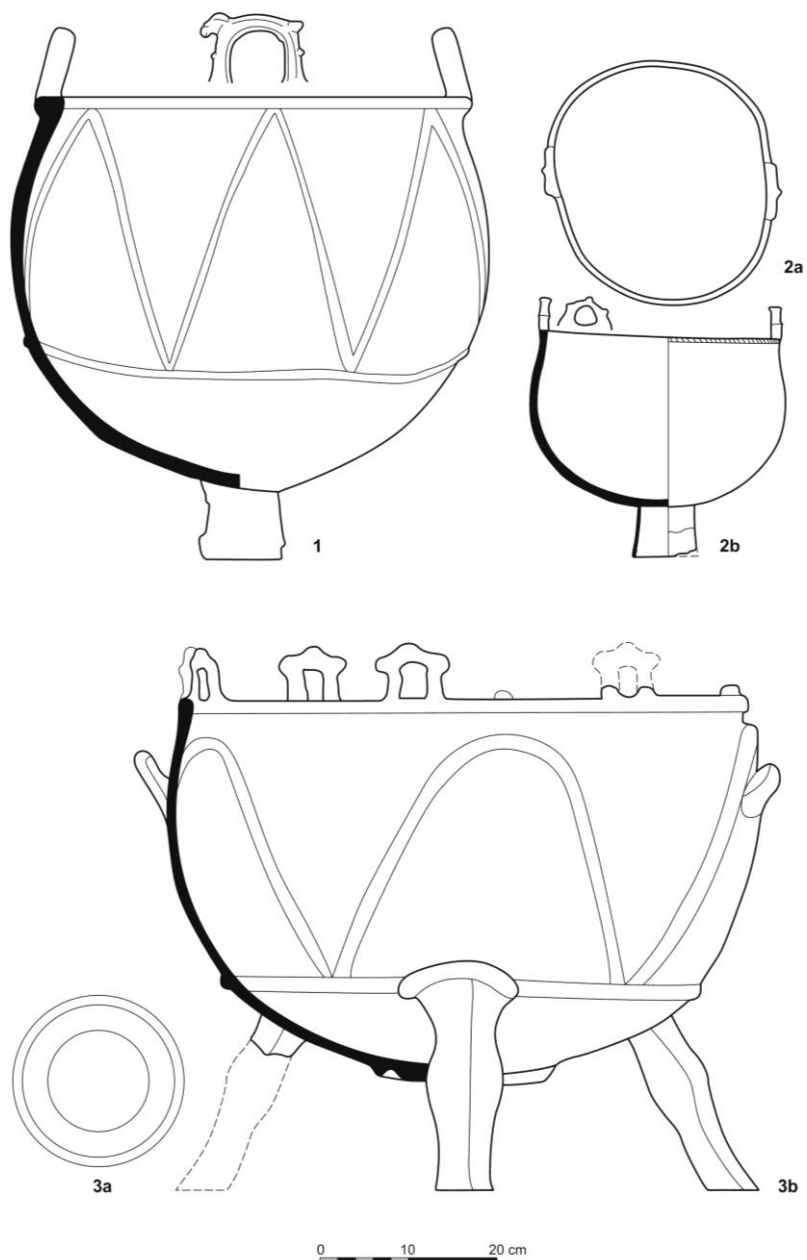


Fig 5. Scythian bronze cauldrons from the right bank of the Lower Danube: 1. Castelu, stray find; 2. Ograda, stray find; 3. Scorțaru Vechi, destroyed barrow.

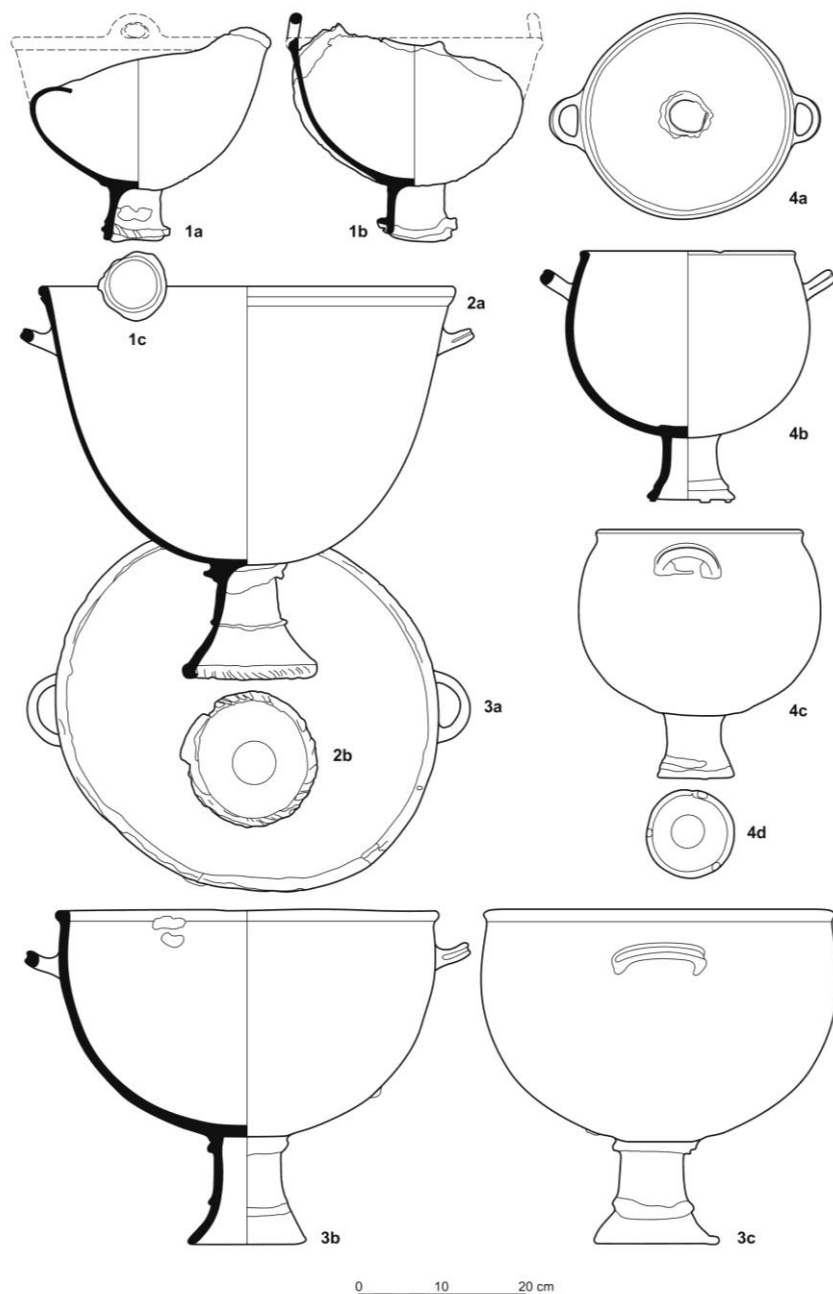


Fig 6. Scythian bronze cauldrons of the Lower Dniester region: 1. Răscăieții Noi, barrow 1; 2. Dubăsari, barrow 45; 3. Nikolskoe, barrow 14; 4. Nikolskoe, barrow 15.



Fig. 7. Cauldron from Nikolskoe, barrow 14.

In 2020, data were also obtained on the chemical composition of the alloy of bronze cauldrons⁷⁰ which are displayed in the National Museum of History of Moldova in Chişinău, Republic of Moldova (Tab. 1). As a result, it turned out that the selected cauldrons were cast from a copper-lead alloy with a low tin presence. Copper-lead alloys dominate, there are copper-tin-lead-arsenic (Cu+Pb+Sn+As), copper-lead-arsenic (Cu+Pb+As) and copper-lead-arsenic-ferrous (Cu+Pb+As+Fe) alloys. It can also be seen that in some cases the bases were cast from a different metal than the cauldron's body. For example, the percentage of tin in the bronze alloy of the

⁷⁰ The analyses were carried out by Lazar Dermenji using a *Xenometrix's X-Calibur* (Energy Dispersive X-Ray Fluorescence (EDXRF) spectrometer) at the Laboratory of Materials for Photovoltaics and Photonics of the Institute of Applied Physics of the Academy of Sciences of the Republic of Moldova.

Dubăsari cauldron and the items from Nikolskoe (barrows 14 and 15) is below the limit of its artificial input (0.5%), while the concentration of lead is stable within 2%. The arsenic content (for similar items) is also quite high – 0.6-0.7%. The cauldrons from the NMHM collection differ noticeably in the content of antimony: from the complete absence in the alloy of Dubăsari cauldron to hundredths-tenths of a percent in the rest of the samples. T.B. Bartseva identifies several chemical groups⁷¹ for the composition of the alloy: “Eastern” (with low concentrations of all elements, except bismuth (hundredths, tenths of one percent) and arsenic (tenths)), “North Caucasian” (with thousandths of one percent of bismuth, cobalt, partly nickel, hundredths-tenths of arsenic, hundredths of silver, antimony, partly nickel) and “Western” (with a high content of nickel and cobalt (hundredths-tenths)).⁷² The almost complete absence of bismuth excludes the possibility of comparing the analyzed items with the “Eastern” and “North Caucasian” groups. The samples from Răscăieții Noi and Nikolskoye (barrow 15) are the closest to the Western group by the high content of cobalt and nickel, two other items (from Dubăsari and Nikolskoe, barrow 14), can also be attributed to this group, albeit with a lower degree of confidence.

First of all, attention is drawn to the fact that the overwhelming majority of finds of cauldrons (12 out of 17) in the Carpathian-Dniester region are in one way or another associated with burial mounds or burials. It seems that the earliest finds of cauldrons are found in the north of the region: the cauldron from the Shvaikivtsy from a burial mound of the third quarter of the 7th century can definitely be attributed to the Early Scythian period and probably, the stray find from Iacobeni also belongs to that period. It is also possible to attribute the finds from Ivane-Puste and Avrămeni to the Early Scythian period (or to the early Middle Scythian). Assemblages with cauldrons from the Lower Dniester and the Lower Danube date back to the period no earlier than the middle of the 5th century BC, while the bulk of the cauldrons belong to the third quarter of the century, and then disappear during the early part of the 4th century BC. The chronological position of the stray finds could be hardly determined, although the cauldron from Ograda most likely belongs to the third quarter – the second half of the 5th century BC by analogy with an item from Răscăieții Noi. The design of the cauldron from Scorțaru Vechi is so original that even A.I. Melyukova decided that it rather belongs to the Hunnic period (sic!).⁷³ Of course, the temptation is great to associate this cauldron with the Saka three-legged cauldrons, known from the 5th century BC mainly on the territory

⁷¹ The most recent data on the chemical composition of Scythian cauldrons was obtained by S. Ya. Olgovsky (Ольговский 2003, tab. 1).

⁷² Барцева 1981, 21-23.

⁷³ Мелюкова 1979, 8.

of the Seven Rivers (Zhetysu).⁷⁴ Nevertheless, despite some common technological details (the shape of the bottom, the location of the legs), there are also fundamental differences from the Seven Rivers cauldrons. So, for instance, there are no vertical handles on the rim on all three-legged cauldrons of the Zhetysu type (without any exception), the legs are much higher and, as a rule, are decorated in the animal style, the rope ornament on the body also does not find analogies in Asia.



Fig. 8. Cauldrons from Nikolskoe, barrow 15 (1-3) and Răscăieții Noi, barrow 1 (4-9).

⁷⁴ Демиденко 2008, 39-40; Джумамбекова, Базарбаева 2013, 35; Спасская 2017, 20.



Fig. 9. Cauldron from the barrow 45 near Dubăsari.

Tab. 1. Chemical composition of the alloy of the selected cauldrons according to X-ray fluorescence (XRF), %.

	Dubăsari, barrow 45		Răscăieții Noi, barrow 1		Nikolskoe, barrow 14		Nikolskoe, barrow 15	
	Rim	Foot	Rim	Foot	Rim	Foot	Rim	Foot
Cu	96.52	98.54	94.94	90.82	96,67	97,7	95,99	92,15
Pb	1.88	0.98	1.93	2.78	2.16	1.51	2.22	5.37
Sn	0.13	0.12	1.59	4.51	0.05	0	0.45	0.52
Fe	0.63	0.04	0.65	0.71	0.14	0.03	0	0.08
As	0.62	0.31	0.64	0.92	0.71	0.45	0.76	1.71
Co	0.07	0	0.04	0	0.03	0.02	0.13	0.03
Bi	0	0	0	0	0	0.06	0	0
Au	0.03	0	0.06	0	0.04	0.01	0	0
Mn	0.03	0.01	0.04	0.07	0.04	0.08	0.11	0.08
Ni	0	0	0.02	0.02	0	0	0.07	0.02
Sb	0	0	0.03	0.17	0.11	0.11	0.28	0.04
Ag	0	0	0	0	0	0	0	0
Zn	0	0	0	0	0	0	0	0

Thus, there is a significant chronological difference between the northern group (forest-steppe, Bukovina-Podolia) of cauldrons and the southern one (steppe, Lower Danube-Lower Dniester). At the same time, the chronological priority remains with the first, northern group, where the Scythian cauldrons have been known since the middle of the 7th century BC. Bronze cast cauldrons (with their bearers, of course) penetrate into the steppe 150-200 years later, as well as “military” burials, which appear in the steppe region in the west no earlier than the middle of the 5th century BC. Most of the assemblages (and, most likely, stray finds) of bronze cauldrons also belong to the second half of the 5th century BC. Then, in the early 4th century BC the number of the cauldrons is significantly smaller and they completely disappear from the cultural practices of the population of the steppes of the North-Western Black Sea region in the second quarter of the 4th century BC.

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