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Funerary Ditched Enclosures in the Sarmatian Funerary Ritual. Observations Regarding Their Introduction, Distribution, Use, and Dating*

Vitalie Bârcă

To professor Oleksandr Symonenko on his 70th birthday

Abstract: Without aiming at being exhaustive, the present study attempts to present the circular, square, rectangular, or trapezoidal ditched enclosures, with or without graves inside, from the Sarmatian environment. The analysis has shown that the Sarmatians started to use such enclosures in barrow necropolises and under some of the singular Sarmatian barrows from the area north of the Black Sea ever since the Middle Sarmatian Period (1st century – first half of the 2nd century AD). The author notes the fact that the earliest square ditched enclosures without inner graves were found in the necropolises from Chertovitski II and Pisarevka (left of the Middle Don) and Medeleni (in the Prut-Dniester interfluve). He also notes that the earliest circular ditched enclosures with graves in the inner area are attested below a series of barrows dated to the Middle Sarmatian Period (Obileni, Cazaclia (the Prut-Dniester area), Verbki, Marina Roshcha (left of the Middle Dnieper), Kobyakovo (right of the Lower Don), as well as those in Krivoj Liman and Novoaleksandrovka I (left of the Lower Don).

The analysis has indicated that at the current stage of research, most of the ditched enclosures from the north-Pontic area mainly cluster in the Prut-Dniester interfluve, where most are dated to the second half of the 2nd century – the first half of the 3rd century AD (the first stage of the Late Sarmatian Period), but are also encountered during the second half of the 3rd century – the beginning of the 4th century AD. A similar situation was noted for the Lower Don Basin, where funerary ditched enclosures were discovered below barrows dated to the second half of the 3rd century – the beginning/middle of the 4th century AD.

Similar funerary ditched enclosures are also present both in the habitation area of the Sarmatians in the Pannonian Plain and in the territory inhabited by Sarmatians in the Don Basin. It has been noted that the square, rectangular, and circular enclosures from the area of the Lower Don, most of which contained graves inside, can be largely dated to the chronological interval between the 2nd century and the beginning/first half of the 4th century AD. In the environment of the Sarmatians from the Pannonian Plain, these ditched enclosures were brought by immigrants from the north-west Pontic steppes in the end of the 2nd century AD (right after the Marcomannic Wars) and were used in this area until the disappearance of the Sarmatians from the Carpathian Basin. Most of the ditches are circular, but some are oval, square, or even polygonal with six or eight corners. The square ditched enclosures from the Pannonian Plain differ from those in the north and north-west Pontic area through the existence of graves inside most of these enclosures.

Taking into account all of these facts, the author concludes that ditched enclosures, following ground plans of different shapes, with or without inner graves, functioned as scenes for ritual actions connected to the funerary banquet and other elements of the cult of the dead. In the case of enclosures with graves inside, the ditches probably also separated the deceased from the outer world. The author has also concluded that the funerary ditched enclosures in the north Pontic area are mainly an attribute of the barrow funerary ritual. Last but not least, the author tends to believe in the eastern origin of the ditched enclosures from the Sarmatian environment.

Keywords: Sarmatians; graves; ritual ditched enclosures; the north-Pontic area; the Pannonian Plain.

Introduction

Starting from the most recent discoveries, the present study aims at reanalyzing in a wider context a series of aspects related to the ditched funerary enclosures with or without graves inside. I must mention from the very beginning that I do not aim to approach exhaustively all the peculiarities of these ditched funerary enclosures, but only to deal with some of the aspects that are more relevant for their function during ritual actions, but also for the chronology and history of the Sarmatian world.

* English translation: Ana M. Gruia.

Several types of funerary ditched enclosures, often with graves inside but sometimes without, have been identified so far in the Sarmatian environment: with circular ditch (Fig. 1/1), with square ditch (Fig. 1/2), with rectangular ditch (Fig. 1/3–4), and with trapezoidal ditch (Fig. 1/5)¹.

Funerary enclosures with ditches following various ground plans, with or without inner graves, discovered below singular Sarmatian barrows or part of tumular or flat necropolises (according to some authors) are only known for about five decades in certain territories inhabited by the Sarmatians (mainly the Prut-Dniester interfluvium, the region of the Lower and Middle Don, and the Pannonian Plain).

The following classification of funerary ditched enclosures in the north and north-west Pontic area has been suggested: 1. Square, with access on one of the sides and without graves inside; 2. Rectangular, without either access or inner graves; 3. Rectangular, both with and without access, but with graves inside; 4. Trapezoidal, with access and graves inside; 5. Circular, both with and without an entrance, but with graves mainly placed in the central part².

Square-shaped funerary ditched enclosures

In the territories located north and north-west of the Black Sea, these enclosures have an access area located mainly on the southern, south-eastern, or south-western sides, their corners or sides are oriented towards the four cardinal points, and, with a few exceptions, do not have graves inside. Funerary enclosures of this type are usually set in rows or in chessboard-type patterns, but there are also cases in which they are irregularly placed inside the necropolises.

In the area between the Prut and the Dniester, such square ditched enclosures have been discovered in Aliyaga³, Alkaliya⁴, Bădragii Noi⁵, Cioropcani⁶, Cuconești Vechi II⁷, Florițoaia Nouă⁸, Kholmskoe⁹, Kotlovina¹⁰, Nagornoe¹¹, Palanca¹², Petrești¹³, Vasil'evka¹⁴, and probably also the Sarmatian necropolis close to the settlement of Cartal¹⁵ etc. Such a ditched enclosure with access on the southern side was recently discovered in Medeleni¹⁶. In the basin of the River Don, such finds were noted in the necropolises from Chertovitski II¹⁷, Pisarevka¹⁸ (left of the Middle Don), Zhuravka¹⁹, and Kobyakova²⁰ (right of the Lower Don).

In the barrow necropolis from Kholmskoe (Fig. 3) 22 graves are grouped around five such square ditched enclosures²¹, while in the necropolis from Cuconești Vechi II 48 graves have been researched

¹ See for this Bărcă 2015, 103–118, with the entire bibliography. Abbreviations: T = Tumulus; G = Grave.

² Simonenko 1991, 212–213; Simonenko 1993, 118–119; Kurchatov, Symonenko, Chyrkov 1995, 118–119.

³ Gudkova, Fokeyev 1984, 32, 34, Fig. 10/1; Fokeyev 1986, 159.

⁴ Subbotin, Dzigovskij 1990a, 12, 17, Fig. 5/8, 10/2. The Alkaliya necropolis is located on the territory of the municipality of Shirokoe, in the Belgorod-Dnestrovsk raion, the region of Odesa.

⁵ Yarovoj, Chirkov 1989, 182–183; Kurchatov, Symonenko, Chyrkov 1995.; Bărcă, Symonenko 2009, 215–216, Fig. 78. The burials in Bădragii Noi – “La Stâncă” were performed in a breast-shaped limestone cliff. This should probably be regarded as a situation reminding of burials below barrows.

⁶ Grosu, Savva 1987, 72–73.

⁷ Dergachev 1982, 122–124, Fig. 34, 43/5, 7, 8.

⁸ Kurchatov, Levinskij 2007, 311–320.

⁹ Gudkova, Fokeyev 1984, 6, 91, Fig. 1; Fokeyev 1986, 159.

¹⁰ Data provided by A. V. Simonenko.

¹¹ Gudkova, Fokeyev 1984, 39, 44, Fig. 12/7; Fokeyev 1986, 159; Fokeyev 1987, 20.

¹² Kurchatov 1990, 26–27, Fig. 15/1.

¹³ Yarovoj 1986, 41–70; Kurchatov 1989, 74–75; Grosu 1995, 146, Fig. 19; Kurchatov, Levinskij 2007, 316; Simonenko 2010, 566, the figure on the bottom of the page. 20 such funerary enclosures have been documented so far in the necropolis from Petrești, but the site has not been entirely researched.

¹⁴ Subbotin, Dzigovskij 1990b, 15, Fig. 8/8, 12/2, 13/13–14.

¹⁵ Bruyako, Dzigovskij 2008, 76.

¹⁶ Vornic, Bubulici, Popovici 2015, 61–63, Fig. 4, 16; Vornic, Bubulici, Popovici 2016, 23, Fig. 12/4.

¹⁷ Medvedev 1990, 71, 95, Fig. 25V; Simonenko 1993, 120; Simonenko 2003, 154, Fig. 6; Bărcă, Symonenko 2009, 218. The necropolis is located close to the Voronezh river, a left-side effluent of the Don.

¹⁸ Medvedev 1990, 77, 95; Simonenko 1993, 120; Simonenko 2003, 154; Bărcă, Symonenko 2009, 218. The necropolis is located on the right bank of the Voronezh, a left-side effluent of the Don.

¹⁹ Bezuglov, Zakharov 1988, 11, Fig. 1/3. The necropolis is located on the right bank of the Lower Don, on a high terrace of River Bystraya, 1 km away from the town of Komissarova, in the raion of Tatsinsk, Rostov region.

²⁰ Larenok 2016, 10–13, Fig. 7. The necropolis is located on the right bank of the Lower Don.

²¹ Gudkova, Fokeyev 1984, 6–20, Fig. 1, 3/8, 5/17, 6/1, 5, 8, 7/10, 8/19.

around six square ditches²². In the partially investigated necropolis from Aliyaga, specialists have identified six barrow graves located in the proximity of a square ditched enclosure,²³ whereas 13 barrow graves and four square ditched funerary enclosures were researched in the necropolis from Vasil'evka (Fig. 4/6–8). Archaeologists have noted that the barrows on top of the latter enclosures have been totally destroyed by agricultural works performed on the site²⁴. 19 such funerary features, only one of which had a grave inside, were researched in the necropolis from Petrești. In this necropolis, the square ditched enclosures are placed irregularly and some of them have a grave in close proximity²⁵. Both in the necropolises from Petrești and Kholmskoe, on the one hand and the necropolis from Vasil'evka, on the other hand, archaeologists have also discovered numerous graves located inside rectangular (Fig. 4/1) or circular ditched enclosures (Fig. 4/3–5). In Medeleni, five graves were found near the funerary enclosure²⁶ (Fig. 8/1). The enclosure in Palanca (Fig. 10/1) was located near T 2 where several contemporary Sarmatian graves, forming a small necropolis, were discovered²⁷. An interesting situation was identified in the necropolis from Alkaliya. A square ditched enclosure was discovered below T 20, while a grave with a ritual pit in its close proximity was identified 3 m apart from its north-western side²⁸. A square ditched enclosure with no grave inside was discovered below barrow T 31 in the same necropolis. A few square ditched enclosures were also found left of the Lower Don beneath the mantle of barrows with and without inner graves. Such features have been attributed to the final stage of the Late Sarmatian Period (the second half of the 3rd century – the 4th century AD)²⁹. Nevertheless, the rest of the square or rectangular ditched enclosures from the same area and chronological segment are characterized by the presence of inner graves³⁰. A grave with niche for example contained inside a square enclosure with access on the southern side below T 16 in Zhuravka³¹ (Fig. 7/3). The skull of the deceased buried in this grave had been artificially deformed³², just like the skull of the body in G 1 in Florițoaia Nouă, located 60 m north of the square ditched enclosure³³.

In the borrow necropolis from Chertovitski II³⁴ the five enclosures were placed in a chain from north to south along the eastern side of the necropolis (Fig. 7/4–5) that can be dated to the 1st century AD³⁵. The ditched enclosure in Pisarevka is part of a necropolis that consists of 42 barrows, of which only five have been researched³⁶. In my opinion this indicates that future researches inside the necropolis could lead to the discovery of other ditched enclosures. The situation in the two cemeteries suggests that such funerary enclosures might have also existed in other necropolises around barrows.

The square ditched enclosure in Kobyakova was discovered in 2004 on a promontory bordered to the south by the tall and steep bank of River Ron. The relief of the area has been deeply transformed and leveled. Two barrows were located on the promontory, one of which was built during the Eneolithic-Bronze Age (T 1) and the other during the Middle Bronze Age (T 2). During the first centuries AD, a platform surrounded by a square-shaped ditch was designed on the spot of the second barrow³⁷.

The dimensions of the square ditched enclosures vary, they contained no inner graves, and the great majority cannot be connected to any grave in the respective necropolises. The situations in Medeleni (Fig. 8/1), Petrești, and the necropolis in Bădragii Noi (Fig. 2) are exceptions to these characteristics, as in these cases one can identify connections between the funerary enclosures and graves. In

²² Dergachev 1982, 101, 121–124, Fig. 34, 43/5, 7, 8; Grosu 1995, 146.

²³ Gudkova, Fokeev 1984, 32–35, Fig. 10.

²⁴ Subbotin, Dzigovskij 1990b, 2–15, Fig. 1, 8/8, 12/2, 13/13–14.

²⁵ Kurchatov 1989, 74; Kurchatov, Levinskij 2007, 316; Grosu 1995, 146, Fig. 19; Simonenko 2010, 566, the figure on the bottom of the page.

²⁶ Vornic, Bubulici, Popovici 2015, 59–72; Vornic, Bubulici, Popovici 2016, 20–48.

²⁷ Kurchatov 1990, 27–40.

²⁸ Subbotin, Dzigovskij 1990, 11–12, Fig. 5/8.

²⁹ Bezuglov, Zakharov 1988, 14.

³⁰ Bezuglov, Zakharov 1988, 13–17.

³¹ Bezuglov, Zakharov 1988, 7, 11, Tab. 1, Fig. 1/3, 6.

³² Bezuglov, Zakharov 1988, 9.

³³ Kurchatov, Levinskij 2007, 314.

³⁴ The necropolis consists of 30 barrows, only 13 of which have been researched (Medvedev 1990, 63 sqq.).

³⁵ Medvedev 1990, 63–73, Fig. 26–28.

³⁶ Medvedev 1990, 77–78.

³⁷ Larenok 2016, 10–11, Fig. 1/7; 7.

Medeleni, four of the graves were located west of the funerary enclosures and one was located east of it (Fig. 8/1). In the necropolis from Bădragii Noi the graves were located near the western sides and the north-western corners of these square ditched enclosures. A similar situation can be noted in several cases in the necropolis from Petrești, but also in the enclosure below T 20 in Alkaliya. The enclosures in Bădragii Noi were oriented from north-west to south-east. They measured between 11.5 × 11 m and 13.5 × 13.3 m, while their corners were oriented towards the cardinal points. The width of the entrance into the enclosures from Bădragii Noi varied between 2.1 and 2.8 m. The smallest square ditched enclosure in Cuconești Vechi II measured 7 × 7 m, while the largest measured 13 × 13 m. The width of the entrances of the enclosures in Cuconești Vechi II varied between 2 and 4.3 m. The smallest square enclosure in Petrești measured 7 × 7 m, but others on the same site measured as much as 12 × 12 m. The square-shaped ditched enclosure in Aliyaga measured 13 × 13 m, while those from the necropolis in Kholmskoe measured 11 × 11.5 m, 12 × 12 m, 13 × 13 m, and 16 × 16 m respectively (Fig. 3). The sides of the square enclosure in Cioropcani measured 8 m in length, while the width of the access area was of 1.2 m. As for the square enclosures in the necropolis from Vasil'evka, they measured 6 × 6 m, 9 × 9 m, 12 × 12 m, and 13 × 13.5 m, with the entrances varying between 1.3 and 3 m in width (Fig. 4/6). The enclosures in Alkaliya measured 6.2 × 6 m and 7.5 × 6.8 m and their access areas measured 0.7 and 0.6 m in width. The square ditched enclosure in Medeleni had the following dimensions: the northern side 9.9 m in length, the eastern side 9.4 m in length, the western side 8.3 m, and the southern side 10.3 m, while the opening of the access area measured 1.8 m³⁸ (Fig. 8/1).

The ditched enclosure in Florișoia Nouă measured 10.5 × 10.5 m. Its corners were oriented towards the cardinal points and the access area, 2.5 m-wide, was located in the south-eastern side. One can note the similar dimensions of the square ditched enclosure in Palanca (Fig. 10/1). Its sides were oriented towards the cardinal points and the access area, measuring 2 m in width, was located on the southern side. The dimensions of the square ditched enclosures and southern entrance of the features from the necropolis in Chertovitski II varied between 8 × 8 m and 12 × 12 m. A special situation is that of the funerary ditched enclosure from the barrow necropolis in Nagornoe. It measured 25 × 26 m and was located 80 m south-west of T 1 (Fig. 10/4). The ditched enclosure in Kobyakova measured 18 × 18 m and its corners were also oriented towards the cardinal points.

As for the width of the ditches one must note that it varied between 0.5 and 2.2 m, while in depth such features measured between 0.70 m and 1.8 m; the great majority of such ditches were deeper than 1 m.

A rarer situation has been identified in the case of the square ditched enclosure near T 7 in the necropolis from Chertovitski II. It was not provided with an access area, but contained two ritual pits inside, rectangular in ground shape, with the fill containing burnt wooden coals³⁹.

In the fill of the ditches and from the surface of some of these square ditched enclosures archaeologists have discovered entire and fragmentary amphorae (Bădragii Noi, Palanca, Vasil'evka), entire and fragmentary ceramic pots (Cuconești Vechi II, Medeleni, Kholmskoe, Zhuravka, Chertovitski II), burnt wooden coals, ash (Chertovitski II), astragals (Cioropcani), and animal bones (Cuconești Vechi II, Palanca). One fragment from a human skull cap was discovered in the ditch from the eastern side of the enclosure in Medeleni. The bone fragment was attributed with a high degree of probability to a male mature individual (aged 30–60)⁴⁰. 55 fragments of broken amphorae, several fragments from handmade and wheel-thrown pots, as well as a rather small number of fragmentary horse and sheep bones were uncovered from the surface of the enclosure in Kobyakova. On the same site, a jug containing a fragment from a reddish amphora and several small limestone rocks had been deposited in a pit. North-west of the southern side of the ditch of this funerary enclosure, at the depth of 1.58 m, archaeologists have also discovered a small cauldron made of bronze sheet, with convex bottom⁴¹.

The amphorae from Bădragii Noi belong to type C according to D. B. Shelov's typological classification⁴² and to type C IVC in S. Yu. Vnukov's most recent typology⁴³. These amphorae have been dated

³⁸ Vornic, Bubulici, Popovici 2016, 24.

³⁹ Medvedev 1990, 71, 95, Fig. 25V.

⁴⁰ Vornic, Bubulici, Popovici 2016, 24.

⁴¹ For the artifacts discovered on the surface of the enclosure see Larenok 2016, 11–13, Fig. 8.

⁴² Shelov 1978, 18, Fig. 6.

⁴³ Vnukov 2003, 202; Vnukov 2006, 166, 167, Fig. 1/9; 10.

to the 2nd century AD⁴⁴ or to the chronological period between the second quarter of the 2nd century AD and the end of the 2nd century AD (?)⁴⁵. Based on a discovery made in Tanais some specialists have stated that amphorae of this type were introduced sometime at the turn between the 1st and the 2nd centuries AD. In support of this statement, they have mentioned the discovery of a closed feature that contained amphorae of the Vnukov C IVB2 type and the neck of an amphora of an earlier variant (C IVC1) of type C IVC, encountered in features that ended in the fire from the middle of the 2nd century AD⁴⁶. The military necropolis from Bădragii Noi has been dated to the second half of the 2nd century – the first half of the 3rd century AD⁴⁷, despite the fact that both the amphorae from the funerary enclosures and the inventory items in the graves, among which one notes the strongly profiled brooch⁴⁸ and the buckles with circular eye and mobile plate from G 7, as well as the swords with ring-shaped pommel discovered in six of the graves, suggest that the necropolis should be rather dated to the second half of the 2nd century AD, probably sometime during the Marcomannic Wars and the subsequent period.

To type C in D. B. Shelov's typological classification and to type C IVC in S. Yu. Vnukov's one can also include 48 of the amphora fragments found in Kobyakova. Five other fragments belong to Bosphoran amphorae dated to the second half of the 2nd century, while two are amphora feet dated to the first centuries AD⁴⁹.

The amphora found in the fill of the ditch from Palanca is made of light yellowish fabric, has profiled rim, tall and narrow neck, conical and oblong body (with the surface with light striations), short and ring-like foot, and profiled handles⁵⁰ (Fig. 10/2). It belongs to type B in D. B. Shelov's classification⁵¹ or type C IVB according to S. Yu. Vnukov⁵². Amphorae of this type are dated to the second third of the 1st century – the middle of the 2nd century AD⁵³ or to 75/80 –130/140 AD⁵⁴. S. A. Naumenko believes that such amphora started to be produced in the second half of the 1st century AD or in the beginning of the final third of the century and went out of production in the beginning of the 2nd century AD⁵⁵. In the group of amphorae of this type, S. Yu. Vnukov⁵⁶ and S. A. Naumenko⁵⁷ distinguish between two sub-variants: C IVB1 and C IVB2. The amphora from Palanca belongs to sub-variant C IVB2⁵⁸.

The funerary inventories of the graves around the square ditched enclosure in Medeleni indicate that this group of graves should be dated sometime between the final quarter/end of the 1st century and the beginning/first decades of the 2nd century AD⁵⁹.

As for the cauldron discovered near the ditch of the enclosure in Kobyakova, one must state that it is similar to the "Debelt"-type cauldrons. They are of Italic origin and are frequently encountered in the Roman provincial environment. Such cauldrons are dated to the second half of the 1st century

⁴⁴ Shelov 1978, 18.

⁴⁵ Vnukov 2003, 202; Vnukov 2006, 167, Fig. 10; Vnukov 2016, 41, 43, 44.

⁴⁶ Naumenko 2008, 271; Naumenko 2017, 25 and Fig. 4/4C1. The items that belong to sub-variant C IVC1 reach 7–7.5 liters in volume, while those part of sub-variant C IVC2 are slightly smaller, with a volume of ca. 6 liters, and spread during the second half of the 2nd century AD (Naumenko 2017, 25, Fig. 4/4C2).

⁴⁷ Kurchatov, Symonenko, Chyrkov 1995, 122.

⁴⁸ The bilateral spring of the brooch consists of a large number of coils and its external chord is supported by the hook. The body is slightly flattened and decorated with two knots, one towards the head and the other separating the body from the foot that ends in a knob. The catchplate is rectangular. The brooch belongs to group 10, series I, variant 2 of strongly profiled brooches in V. V. Kropotov's typological classification, mostly dated to the 2nd century AD (Kropotov 2010, 224, 225, 226–227, 228).

⁴⁹ For all types of discovered amphorae see Larenok 2016, 13, Fig. 8/6–17.

⁵⁰ Kurchatov 1990, 27, Fig. 15/3.

⁵¹ Shelov 1978, 18, Fig. 4.

⁵² Vnukov 2006, 166, 167, Fig. 1/8, 10.

⁵³ Shelov 1978, 18; Opaiț 1980, 301, type VIA.

⁵⁴ Vnukov 2003, 202; Vnukov 2006, 166, 167, Fig. 10.

⁵⁵ Naumenko 2012, 64; Naumenko 2017, 25.

⁵⁶ Vnukov 2016, 41, Fig. 3/7–8 (C IVB1), 3/9–12 (C IVB2).

⁵⁷ Naumenko 2017, 25, Fig. 4/4B1 (C IVB1), 4/4B2 with sub-variants a-b. The volume of amphorae variant B1 measures 6.1 liters, while the volume of amphorae part of variant B2 vary between 5.4 and 6 liters.

⁵⁸ The amphorae that can be included in this sub-variant are dated between the beginning of the 2nd century AD and the 140s (Vnukov 2016, 44), despite the fact that a series of discoveries indicate they were used ever since the end of the 1st century AD.

⁵⁹ For the graves in Medeleni see Vornic, Bubulici, Popovici 2015; Vornic, Bubulici, Popovici 2016.

AD – the middle of the 2nd century AD⁶⁰. Numerous items of this type, that are the earliest forms of cauldrons, have been discovered in Pompei and the surrounding cities⁶¹. The distribution area of these artifacts reaches West Kazakhstan and they have been occasionally found in the region of the Volga and of the Don as well⁶².

In the Sarmatian environment similar cauldrons were discovered in T 12 G 1 from Novo-Podkreazh⁶³ (left of the Lower Dnieper), dated in my opinion to the second half/end of the 1st century AD – the beginning of the 2nd century AD, T 3 G 1 in Berdiya⁶⁴ (left of the Don), dated to the second half of the 1st century AD – the beginning of the 2nd century AD, and T 15 Tiflisskaya⁶⁵ (in the region of Kuban), that can be dated to the second half of the 1st century AD. Such a cauldron was also found in T 11 from the necropolis in Avilovsk II⁶⁶ (in the Lower Volga region), the inventory of which includes an Eggers 140-type saucepan⁶⁷, that indicates the fact that the grave should be dated to the same chronological period as the previously discussed features. Similar cauldrons were also discovered in several later Sarmatian graves, such as those in T 26 from Staritsa⁶⁸, T 67 from Berezhnovka⁶⁹ (in the Volga region), T 20 in the necropolis from Tsentral'nyj⁷⁰, and the barrow grave (T 6) from Rostov on the Don⁷¹. In the north-Pontic area west of the Don, a similar item was found in T 6 G 1 from Shevchenko⁷², that should be dated, in my opinion, to the period between the middle/end of the 2nd century AD and the beginning of the 3rd century AD⁷³. All of the above-mentioned cauldrons, and other similar ones from the Sarmatian environment, belong to types II and III in S. I. Demidenko's typological structure⁷⁴. Based on its horizontal rim, the vessel from Kobyakovo is closer to those of type III⁷⁵ that also includes the items from T 67 in Berezhnovka and T 20 from the necropolis in Tsentral'nyj.

No such cauldrons are known from Sarmatian graves dated subsequent to this upper chronological limit, indicating the fact that in the Sarmatian environment they were used between the second half of the 1st century and the beginning of the 3rd century AD.

Taking into account the dating of the amphorae and of the cauldron one can conclude that the square ditched enclosure from Kobyakova can be dated between the second quarter and the end of the 2nd century AD.

Rectangular funerary ditched enclosures without graves inside

Funerary ditched enclosures of this type are not very numerous in the north-west Pontic area. Such a design, partially destroyed by agricultural works, was discovered 100 m east of the Sarmatian barrow in Kalanchak that was part of a group of barrows dated to different periods⁷⁶. The northern corner and two of the sides (one measuring 5 m and the other measuring 7 m in length) have been preserved from

⁶⁰ Raev 1978, 628, 636, Pl. 11/3; Raev 1986, 24.

⁶¹ Raev 1986, 24. S. Tassinari attributes cauldrons of this type from Pompei to type U2120 (Tassinari 1993, 100, 253–265).

⁶² Raev 1986, 24 with the bibliography.

⁶³ Kostenko 1977, 123, Pl. 3/11; Raev 1986, 24; Simonenko 2008, 60, Pl. 28/1; Bârcă, Symonenko 2009, 185–186, Fig. 68/8. The funerary furnishings of the grave in Novo-Podkreazh included an Eggers 70-type cauldron (Řepov type) and two beads (Simonenko 2008, 60, Pl. 27/2a-b, 28/2).

⁶⁴ Mordvintseva, Sergatskov 1995, 118, 121, 123, Fig. 5/3; Sergatskov 2000, 121–122, Fig. 87/1; Sergatskov 2004, 110, Fig. 2/3.

⁶⁵ Gushchina, Zasetzkaya 1994, 59, cat. no. 273; Marčenko, Limberis 2008, 349, Pl. 77/2.

⁶⁶ Sergatskov 2000, 87, 121–122, Fig. 104/4; Sergatskov 2004, 110.

⁶⁷ Sergatskov 2000, 85, 122–123, Fig. 104/3; Sergatskov 2004, 109, Fig. 2/1.

⁶⁸ Kropotkin, 1970, 91, no. 777, Fig. 61/8–9; Shilov 1975, 162, Fig. 61/1.

⁶⁹ Kropotkin 1970, 91, no. 778, Fig. 63/4; Raev 1986, 24 and footnote 194.

⁷⁰ Raev 1986, 24–25, Pl. 19/9; Raev, Naumenko 1993, Fig. 4; Maksimenko 1998, 116, Fig. 54/3; The grave in T 20 from the necropolis in Tsentral'nyj is dated to the first half of the 2nd century AD (Raev 1986, 55; Raev, Naumenko 1993, 157).

⁷¹ Volkov, Guguev 1986, 73–74, Pl. 53/5. The grave in Rostov on the Don dates to the end of the 2nd century AD – the beginning of the 3rd century AD.

⁷² Shepko 1987, 165, Fig. 7/5; Simonenko 2008, 81–82, Pl. 144/2; Bârcă, Symonenko 2009, 250, Fig. 100/2.

⁷³ The grave has revealed two brooches with the foot returned and coiled on the bow that belong to group 15, series III, variant 4 in A. K. Ambroz's classification, as well as a strongly profiled brooch of the Pontic type that belongs to group 11, series I, variant 3 in the same classification (for the inventory of this grave see Shepko 1987, 158–173; Simonenko 2008, 81–82, Pl. 144–145).

⁷⁴ Demidenko 2008, 44–45, 117–119, cat. no. 13–18, 21–28, 31, Fig. 19, 21, 22, 125–127.

⁷⁵ Demidenko 2008, 118, 119, cat. no. 18, 22, 25–26.

⁷⁶ Gudkova, Fokeev 1984, 52, Fig. 16/13.

this enclosure. The ditch measured 0.7 m in both width and depth. Several such rectangular ditched enclosures located not very far from the tumular Sarmatian graves were discovered in the necropolis from Kurchi⁷⁷, on the western bank of Lake Ialpu⁷⁸. Their corners or sides were oriented towards the four cardinal directions and their dimensions varied between 9 × 8 m and 44 × 22 m. Unfortunately, no elements were uncovered in these cases that could indicate their connection to graves part of the necropolis. A rectangular ditched enclosure was researched around T 2, as yet not investigated, in Strumok⁷⁹. A secondary Sarmatian grave was discovered and researched in T 1 from Strumok, located in the proximity of T 2⁸⁰. I believe this points to a connection between this ditched funerary enclosure and the above-mentioned grave, as well as with the possible Sarmatian graves from the other two barrows (T 2 and T 3) that are set in a row.

In the fill of the ditch of the enclosure from Kalanchak archaeologists found several fragments of narrow-neck amphorae made of light yellowish fabric, of the Shelov C – Vnukov C IVC type, thus possibly dating the feature to the second quarter – end of the 2nd century AD.

Rectangular funerary ditched enclosures with graves inside

Such enclosures were discovered inside certain tumular necropolises in Cazaclia⁸¹, Dzinilor⁸², Vasil'evka⁸³, Petrești⁸⁴, Kholmskoe⁸⁵, or under isolated Sarmatian barrows such as those in Kalanchak⁸⁶ and Nagornoe (T 2)⁸⁷ etc. A special case is the rectangular ditched enclosure below T 18 in the necropolis from Kubej that had an inner circular ditch measuring 7.5 m in diameter and a grave in the central area⁸⁸ (Fig. 12/3). Parts of rectangular ditched enclosures were also recently researched in the Sarmatian necropolis in the area of the settlement of Cartal⁸⁹.

These rectangular enclosures beneath barrows vary in size. The feature under T 8 in Dzinilor was oriented east-west and measured 17.4 × 4.7 m (Fig. 12/1). It displayed a three-fold inner division. The middle part, that included the grave with rectangular pit and side steps along the long sides, measured 8 × 4.7 m, while the two other parts that flanked it measured 4.7 × 4.7 m each. The ditched enclosure below the barrow in Kalanchak measured 16 × 13 m, while the one below T 1 from Cazaclia, oriented ENE-WSW and provided with an access area in the north-western part, measured 27 × 13.5 m (Fig. 11/2). The funeral pits of the graves from the inner area of the rectangular enclosures in Dzinilor⁹⁰, Kalanchak⁹¹, and Cazaclia⁹² (Fig. 11/1) were rectangular in shape and displayed side steps along their long sides. One of the rectangular enclosures from the necropolis in Petrești measured 21 × 17 m. The ditched enclosure underneath T 2 from Nagornoe measured 54 × 10.5 m (Fig. 12/2). It was oriented east-west and had an access area on the southern side. The funerary ditched enclosure below T 14 from Vasil'evka measured 11 × 4 m. Its eastern side was partially shared with the western side of the rectangular enclosure below T 26 that measured 12.5 × 4.5–5.4 m (Fig. 4/1). The inner area of the ditched enclosure under T 14 included six graves, three of which had rectangular pits with niche under the western wall (G 1, G 6) and the eastern wall (G 5). G 2 inside the funerary ditched enclosure below T 26 was also provided with a funerary pit with niche under the western wall. Neither of the two

⁷⁷ The necropolis in Kurchi is located on the territory of the municipality of Vinogradovka, in the raion of Bolgrad, the Odesa region.

⁷⁸ Fokeev 1986, 160; Fokeev 1987, 20, 21; Fokeev 1991, 58.

⁷⁹ Fokeev 1987, 20.

⁸⁰ Gudkova, Fokeev 1984, 56.

⁸¹ Savva, Agul'nikov, Manzura 1984, 71–72; Grosu 1990, 29, 74; Savva, Agul'nikov, Manzura 2019, 108, Fig. 78/1.

⁸² Gudkova, Fokeev 1984, 36, Fig. 11/7.

⁸³ Subbotin, Dzigovskij 1990b, 9–10, Fig. 5/7, 12.

⁸⁴ Yarovoj 1986, 41–70; Kurchatov 1989, 74; Grosu 1995, 146, Fig. 19; Simonenko 2010, 566, the figure on the bottom of the page.

⁸⁵ Gudkova, Fokeev 1984, 10, 14, 17, 19, Fig. 1, 3/8, 5/17, 6/1, 5, 8, 7/10, 8/19.

⁸⁶ Gudkova, Fokeev 1984, 52, Fig. 16/10; Grosu 1990, 29.

⁸⁷ Gudkova, Fokeev 1984, 42, Fig. 12/7–8; Grosu 1990, 29; Bărcă, Symonenko 2009, 216, Fig. 77/4.

⁸⁸ Subbotin, Dzigovskij 1990b, 22–23, Fig. 21/7–8.

⁸⁹ Bruyako, Dzigovskij 2008, 76.

⁹⁰ Gudkova, Fokeev 1984, 36, Fig. 11/3.

⁹¹ Gudkova, Fokeev 1984, 52, Fig. 16/11.

⁹² Savva, Agul'nikov, Manzura 1984, 71.

rectangular features had an access area to the inner part. The rectangular ditched enclosures below the barrows from the necropolis in Kholmskoe (Fig. 3) had the corners or the sides oriented towards the four cardinal directions and were rather similar in dimensions (4.4 × 6.4 m, 5 × 4.6 m, 9.5 × 6.5 m, 7 × 8 m, 7 × 4.5 m, 6.5 × 5.4 m, 6 × 7 m). One of the enclosures had two graves inside and shared the north-western side with another rectangular enclosure⁹³. Most of the graves inside the rectangular enclosures from Kholmskoe had funerary pits with side steps along the long sides. The enclosure in Kubej measured 8.5 × 5.4 m. It was oriented NW-SE and had an entrance on the south-western side (Fig. 12/3). The burial inside it has been performed in a rectangular funerary pit with niche under the western wall.

As for the width of the ditches, one must mention that it varied between 0.4 and 0.90 m, while their depth varied between 0.45 m and 1.6 m, in the great majority of cases between 0.5 and 0.65 m.

Fragments from three amphorae⁹⁴ of the Shelov C – Vnukov C IVC type were discovered in the fill of the north-eastern side of the ditch in Cazaclia (Fig. 11/3–5). Fragments from amphorae of the same type were also discovered in the barrow's mantle. In the north-western corner of the funerary enclosure below T 14 in Vasil'evka archaeologists found a handmade pot, while the fill of the ditch of the enclosure below T 26 has revealed fragments from the handle and walls of an amphora made of light yellowish fabric.

Trapezoidal funerary ditched enclosures

These features are provided with access area and contain graves inside; they are oriented along the north-south and north-east-south-west axis. Such enclosures were discovered under T 1 in Mirnoe⁹⁵, T 1 in Corpaci⁹⁶, and T 20 from the tumular necropolis in Vasil'evka⁹⁷ (in the Prut-Dniester interfluvium). A ditch below T 3 from the necropolis in Zhuravka was also in the shape of an oblong trapezoid oriented east-west⁹⁸. Funerary enclosures with trapezoidal ditch and one grave inside were also discovered in the necropolis from Vysochino V (T 4)⁹⁹, as well as the one in Krasnogorovka I (T 6)¹⁰⁰, both located on the left side of the Lower Don. Another trapezoidal ditched enclosure, oriented NE-EW, was discovered in 2000 during researches performed in the necropolis from Kobyakova¹⁰¹. The latter site is located, just like the one in Zhuravka, on the right side of the Lower Don.

The enclosure in Mirnoe measured 67 × 36 × 22 m, the one in Corpaci measured 25 × 21.6 × 4 m (Fig. 6/1), while the enclosure below T 20 in Vasil'evka measured 8 × 7 × 3 m (Fig. 4/2). The trapezoidal enclosure below the barrow in Mirnoe had two entrances, one on the northern side and the other on the southern side, both with the opening measuring 0.8 m in width (Fig. 6/2). The funerary enclosures below the barrows from Corpaci and Vasil'evka also had access areas on the northern sides, with the opening measuring 1.6 and 1 m in width, respectively. The funerary enclosure below T 3 in Zhuravka had three asymmetrically placed entrances (Fig. 7/1). The enclosure under T 4 in Vysochino V measured 11 × 13 m and was oriented NE-SW. On the western and eastern side it was provided with entrances (Fig. 6/4). The ditch that followed a trapezoidal ground plan located below T 6 in Krasnogorovka I measured 14 × 19 m and was oriented WSW-ENE (Fig. 15/2). In width, the ditch in question measured 0.9 m, while in depth it measured 1.3–1.4 m. In the south-western side the ditch was interrupted over a distance of 1.7 m. In the case of Mirnoe the ditch measured 1.5–2 m in depth and up to 3 m in width in the upper part. The ditch of the enclosure below the barrow in Corpaci measured 1 m in depth and 0.9 m in width. The sides of the enclosures in Kobyakova measured 8.5 m (on the north-western side), 10.5 m (on the south-eastern side), 6 m (on the north-eastern side), and 6.5 m (on the south-western side). The funerary enclosure had two entrances, one in the northern corner, measuring 0.20 m in width, and the other on the south-eastern side. The second entrance was slightly off to the west and

⁹³ Gudkova, Fokeev 1984, Fig. 3/8.

⁹⁴ Savva, Agul'nikov, Manzura 1984, 72, Fig. 100/1–2; Savva, Agul'nikov, Manzura 2019, 108, Fig. 78/8, 79/6.

⁹⁵ Gudkova, Fokeev 1984, 50, Fig. 15/1; Grosu 1990, 29; Grosu 1995, 146, Fig. 17.

⁹⁶ Grosu 1979, 250–255, Fig. 2; Grosu 1990, 75; Grosu 1995, 140, Fig. 15.

⁹⁷ Subbotin, Dzigovskij 1990b, 10–11, Fig. 9/3.

⁹⁸ Bezuglov, Zakharov 1988, 11, Fig. 1/1.

⁹⁹ Bespalyj, Luk'yashko 2008, 64–65, Pl. LXIV/2.

¹⁰⁰ Bespalyj, Luk'yashko, 2018, 167–168, Fig. 89/2.

¹⁰¹ Larenok 2016, 4, Fig. 3/1.

its opening measured 0.9 m in width. The width of the ditch varied between 0.5 and 0.8 m, deepening into the sterile layer by 0.1-0.3 m (Fig. 6/3).

In connection to the grave in Mirnoe I must mention that it was located in the north-western corner of the trapezoidal enclosure (Fig. 6/2) and its funerary pit, rectangular in shape, had a niche below the western wall¹⁰². The graves inside the funerary enclosure in Corpaci¹⁰³ and Vasil'evka¹⁰⁴ had rectangular pits, while the one in Zhuravka was a catacomb burial¹⁰⁵. The grave (21) in Kobyakova was located in the western part of the enclosure, while the burial had been performed in a trapezoidal funerary pit provided with a niche under the south-western wall¹⁰⁶. The funerary pit inside the enclosure below T 6 in Krasnogorovka I was almost square in shape, with the opposite sides measuring 2.2 × 2.35 m¹⁰⁷.

In the fill of the ditch that formed the enclosure in Corpaci archaeologists found four horse skulls and a significant quantity of fragmentary amphorae made of light yellowish fabric (type Shelov C – Vnukov C IVC), similar to those found in the ditches and on the surface of the funerary enclosures in Bădragii Noi, Cazaclia, or Kalanchak. Bones from large-size animals were also found in the fill of the ditches of the enclosures in Mirnoe and Vasil'evka. In connection to the ditched enclosure in Corpaci one must also mention the existence of a platform in front of the entrance. This platform consisted of limestone slabs on top of which archaeologists found the traces of a pyre and several fragments of amphorae made of light yellowish fabric. Fragments of a handmade pot were discovered in the fill of the ditch in the area of the entrance located on the south-eastern side of the funerary enclosure in Zhuravka. Sandstone fragments were also found in the north-western corner of the same enclosure.

An interesting situation has been documented in relation to the enclosure below T 4 in Vysochino V, where a pit had been dug in the entrance area on the eastern side. The pit continued down to the level of the bottom of the ditch and contained a bronze cauldron placed horizontally. Horse skulls were discovered in the ditch of the enclosure, 1 m and 1.45 m apart from the cauldron, while a horse bone was found 0.5 m north of the artifact. Fragments from a gray-fabric clay cup were discovered in the south-south-western sector of the ditch, while a horse skull was uncovered in the entrance on the western side. In his typological classification, S. I. Demidenko included the cauldron into type VI, variant 7, sub-variant A¹⁰⁸, dating the artifact to the second half of the 1st century – the first half of the 2nd century AD. Based on the preserved items found in the Sarmatian grave located inside this enclosure, the cauldron in question and the trapezoidal ditch have been dated to the 1st century AD¹⁰⁹.

In the fill of the ditch in Kobyakova archaeologists have discovered fragments from amphorae made of light yellowish and reddish fabric, a cup made of gray fabric, highly fragmented, animal bones, as well as rocks¹¹⁰. The fragments (walls, handles) from amphorae made of light yellowish fabric belong to type Shelov B – Vnukov C IVB, dated to the second third of the 1st century – the middle of the 2nd century AD¹¹¹, to 75/80–130/140 AD¹¹², or to the second half/the beginning of the final third of the 1st century AD – the beginning of the 2nd century AD¹¹³. Though the grave (G 21) inside the funerary enclosure has been looted, the discovered inventory points to its dating to the end of the 1st century AD and the beginning of the 2nd century AD¹¹⁴. A fragmentary pot made of burnished gray fabric and fragments from an amphora type Shelov B-C – Vnukov C IVB- CIVC were discovered in the fill of the ditch from Krasnogorovka I (T 6).

¹⁰² Gudkova, Fokeev 1984, 50, Fig. 15/2.

¹⁰³ Grosu 1979, 251, Fig. 2.

¹⁰⁴ Subbotin, Dzigovskij 1990b, 10, Fig. 9/4.

¹⁰⁵ Bezuglov, Zakharov 1988, 11, Fig. 1/4.

¹⁰⁶ Larenok 2016, 4, Fig. 3/1–2.

¹⁰⁷ Bespalyj, Luk'yashko 2018, 167, Fig. 89/4.

¹⁰⁸ Demidenko 2008, 19, 98, cat. no. 69, Fig. 8/69, 104/VI.7.1.

¹⁰⁹ Bespalyj, Luk'yashko 2008, 65.

¹¹⁰ Larenok 2016, 4, Fig. 3/1, 3–5.

¹¹¹ Shelov 1978, 18; Opaiț 1980, 301, type VIA.

¹¹² Vnukov 2003, 202; Vnukov 2006, 166, 167, Fig. 10.

¹¹³ Naumenko 2012, 64; Naumenko 2017, 25.

¹¹⁴ Larenok 2016, 5–7, Fig. 4.

Funerary enclosures with circular ditch

Funerary enclosures with circular ditch always contain graves inside and when they are provided with an entrance, the latter is mainly located on the south, the south-western, or the south-eastern sides. Such features have been identified both under singular barrows and inside several necropolises. In the Prut-Dniester interfluve, such enclosures were discovered in Bălăbănești (T 1)¹¹⁵, Cazaclia (T 5, T 10, T 22)¹¹⁶, Gradeshka (T 11)¹¹⁷, Diviziya¹¹⁸, Kotlovina¹¹⁹, Kubej¹²⁰, Kurchi¹²¹, Nagornoe (T 12)¹²², Obileni (T 5)¹²³, Vasil'evka¹²⁴, Petrești¹²⁵, the settlement in Cartal¹²⁶ etc. On the left side of the Dniester, circular ditches were discovered in the necropolis from Zel'ts (T 2, T 6)¹²⁷ located in the area of the municipality of Limanskoe (left of the Lower Dniester).

Such circular enclosures were also found below the barrows left of the Dnieper, in Verbki¹²⁸, Marina Roshcha¹²⁹, and Brilevka (T 25)¹³⁰, as well as in the cemeteries from the Lower Don basin, in Krivoj Liman (T 41, T 48)¹³¹, Zhuravka (T 6)¹³² (Fig. 7/2), Kobayakova¹³³, Kirovskij I (T 5, T 6, T 9)¹³⁴, Kirovskij IV (T 4)¹³⁵, Valovij I (T 4, T 10)¹³⁶, Vysochino I (T 18)¹³⁷, Vysochino V (T 10)¹³⁸, and Novoaleksandrovka I (T 53)¹³⁹.

In the Lower Danube Plain, a circular ditch surrounded the grave below T 2 in Vitănești¹⁴⁰. The absence of more such discoveries east and south of the Carpathians is due to the low research of the Sarmatian vestiges on the territory of Romania during the last decades.

The diameter of the circular ditched enclosures below barrows varies on a case to case basis. Thus, the diameter of the feature below T 1 in Bălăbănești measured 15 m and those below the barrows in Cazaclia (T 5, T 10, T 22) measured 18.5, 26, and 16.6 m, respectively (T 5, T 10, T 22). The feature below T 10 in Cazaclia had a continuous ditch and its diameter measured 26 m (Fig. 13/1), while the enclosure below T 5 in Obileni, provided with an access area on the north-north-eastern side, measured 14 m in diameter (Fig. 5/1). In the necropolis from Petrești, the diameter of the ditched enclosures varies between 9 and 18 m and had entrances on the southern, south-western, and south-eastern sides. In two cases the circular enclosures contained two graves inside. The enclosure below T 11 in Gradeshka measured 8.5 m in diameter and had an entrance on the southern side (Fig. 5/2),

¹¹⁵ Borziac, Manzura, Levitskij 1983, 3–5, Fig. II; Grosu 1995, 141.

¹¹⁶ Savva, Agul'nikov, Manzura 1984, 94; Bejlekchi, Agul'nikov, Chirkov 1985, 11–12, 47–48, Fig. 12, 46; Grosu 1990, 29, 48, 75; Grosu 1995, 141; Agulnicov, Bubulici 1999, 287, Fig. 2A; Agul'nikov, Bubulici 1999, 10, Fig. 1/2; Agul'nikov, Kurchatov 2005, 285, Fig. 2/1; Savva, Agul'nikov, Manzura 2019, 122–123, 132–134, 158–159, Fig. 84/7, 92/1, 116/1.

¹¹⁷ Gudkova, Redina 1999, 180, Fig. 1/2.

¹¹⁸ Subbotin, Dzigovskij 1990a, 7, 10, 12, Fig. 5/6, 8/15, 10/3.

¹¹⁹ Bârcă, Symonenko 2009, 216.

¹²⁰ Subbotin, Dzigovskij 1990b, 20, 23, Fig. 20/1, 21/7; Fokeev 1991, 60, Fig. 1/5. The necropolis of Kubej is located 3 km south of the municipality of Chervonoarmejsk, the Bolgrad raion, in the region of Odesa.

¹²¹ Fokeev 1986, 160; Fokeev 1991, 58; Grosu 1990, 29.

¹²² Grosu 1990, 29, 84.

¹²³ Levički, Manzura, Demcenko 1996, 55–56, Fig. 46; Bârcă 2006, 55, 336–337, Tab. 3/10; Bârcă, Symonenko 2009, 108.

¹²⁴ Subbotin, Dzigovskij 1990b, 10, 12, 14, Fig. 7/15, 11/17, 12/1.

¹²⁵ Yarovoj 1986, 41–70; Kurchatov 1989, 74; Grosu 1995, 146, Fig. 19.

¹²⁶ Bruyako, Dzigovskij, Madyda-Legutko 2017, 234–238, Fig. 2. The settlement of Cartal is on the territory of the municipality currently called Orlovka, the Reni raion, in the region of Odesa.

¹²⁷ Ivanova, Petrenko, Vetchinnikova, 2005, 9, 18–19, Fig. 4, 10.

¹²⁸ Kostenko 1986, 56; Simonenko 1993, 118, 119; Kurchatov, Symonenko, Chyrkov 1995, 119; Bârcă, Symonenko 2009, 108.

¹²⁹ Kurchatov, Symonenko, Chyrkov 1995, 119; Bârcă, Symonenko 2009, 108.

¹³⁰ Simonenko 1993, 94–96, Fig. 23/1A, 24/1A.

¹³¹ Maksimenko 1998, 90, Fig. 15/1, 4. The necropolis is located on the left bank of River Sal, a left-hand side effluent of the Don, in the Martynovsk raion, the region of Rostov.

¹³² Bezuglov, Zakharov 1988, 11, Fig. 1/2.

¹³³ Larenok 2016.

¹³⁴ Il'yukov 2000, 104, 105, Fig. 9/3, 10/1, 11/1.

¹³⁵ Il'yukov 2000, 110, Fig. 22/1.

¹³⁶ Bespalyj, Bespalaya, Raev 2007, 14–15, 18, 34–35, Pl. 11–12; 39/2; 40/1–2; Bezuglov, Glebov, Parusimov 2009, 13, Fig. 3.

¹³⁷ Bespalyj, Luk'yashko 2008, 24, 25, Pl. XIX/1.

¹³⁸ Bespalyj, Luk'yashko 2008, 68–69, 71–72, Pl. LXVIII/1.

¹³⁹ Bespalyj, Luk'yashko 2018, 130, 132–134 Fig. 73.

¹⁴⁰ Leahu, Trohani 1979, 133, 134, 138–139, Fig. 5–7; Bârcă 2015a, 48–49, Fig. 7/1.

the feature below one of the barrows in the necropolis from Kurchi measured 8 m in diameter, while the one below T 12 in Nagornoe measured 24.5 m in diameter and its entrance was located on the southern side. The ditched enclosure under T 9 in Kubej measured 7.5 m in diameter and was provided with an access area on the southern side, while the feature below T 18 had 12 m in diameter. As for the circular enclosure below T 18 one must mention the fact that it was in its turn located inside a rectangular ditched enclosure¹⁴¹. The circular enclosures found under the barrows in the necropolis from Vasil'evka (T 19, T 23, T 25) measured 5.7, 7.2, and 14 m respectively (Fig. 4/3–5). In their case, specialists have noted an entrance, located on the southern part, only for the feature under T 19. A similar situation has been encountered in the case of the necropolis in Diviziya, where the enclosure measuring 11.5 in diameter located under T 7 (Fig. 5/3) and the feature measuring 11 m in diameter identified under T 17 were not provided with an entrance, while the feature below T 11 (Fig. 5/4) had an entrance with a 1 m-wide opening, located in the south-western part. Two graves were found inside the enclosure under T 25 in Vasil'evka (Fig. 4/5). Two other graves, one with an inhumation burial (298a) and the other with a cremation burial (no. 298), were found inside the circular ditched enclosure measuring 10–11 m in diameter (Fig. 5/5) from the settlement in Cartal. The continuous circular ditch below T 2, part of the necropolis in Zel'ts, measures 29 m in diameter. Inside it contained a burial in a pit with niche on the western side. Two concentric continuous ditches, the first measuring 10 m in diameter and the second measuring 17 m in diameter, were discovered under T 6 in Zel'ts (Fig. 15/1). Inside the first circular ditch archaeologists found a burial in rectangular pit. The circular ditched enclosures below the barrows (T 25, T 139, T 165) from the necropolis in Brilevka measured 7 and 9 m in diameter and did not have an entrance (Fig. 14/6). The circular ditches with graves inside from the necropolis in Kobyakova measured 10.2 and 13.4 m in diameter. The circular ditch that surrounded G 1 under T 5 from Kirovskij I measured 14.3 m in diameter, while the feature under T 9 that contained two graves inside measured 11 m in diameter. The ditched enclosure under T 6 in the same necropolis followed an irregular circular ground plan and had a grave inside. The enclosure under T 5 had an entrance in the southern part, while the entrance of the feature below T 6 was on the south-western side. The southern part of the circular ditch below T 9 from Kirovskij I has not been identified, while only parts of the ditch below T 4 in Kirovskij IV were found.

The ditch that surrounded G 1 and G 2 below T 4 in the necropolis from Valovyj I measured 33 m in diameter and did not have an entrance (Fig. 14/1), while the one that surrounded G 1 under T 10 measured 16.5 m in diameter. The latter had an entrance with a 1 m-opening on the southern side¹⁴² (Fig. 14/2). The circular ditched enclosure under T 10 in Vysochino V, provided with an entrance on the western side and another on the eastern side, measured 28 m in diameter (Fig. 14/3). A closed circular ditch surrounded the graves below T 18 in the necropolis from Vysochino I (Fig. 14/4). Another closed circular ditch surrounded the grave under T 53 from the necropolis in Novoaleksandrovka I and measured 36 m in diameter.

Due to the partial research of barrow T 2 in Vitănești, the diameter of the circular ditched enclosure underneath could not be established. When the research begun the barrow measured 15 m in diameter, suggesting that the ditch that surrounded the grave was probably slightly smaller.

As for the width of the above-mentioned ditches, one must note that it varies between 0.3 and 1.5 m, while in depth the features range between 0.3 m and 1.4 m. Still, in some cases lower depths or larger dimensions have been recorded. One such case is, for example, the ditch under T 4 from Valovyj I, that measured between 0.7 and 2 m in depth, with the width of 2.6–2.9 m. (Fig. 14/1). The ditch below T 18 from Vysochino I measured 1.55–1.60 m in depth (Fig. 14/4). The largest dimensions have been recorded in the case of T 53 in Novoaleksandrovka I, where the ditch measured 3.0–3.5 m in width and 4.0–4.2 m in depth.

A horse skull and fragments from amphorae made of light yellowish and reddish fabrics were found inside the ditch of the enclosure from Bălăbănești, while the enclosure under T 5 in Cazaclia has revealed fragments of light yellowish amphorae (type Shelov C – Vnukov C IVC) and animal bones. In the ditch of the enclosures below T 139 and T 165 from the necropolis in Brilevka archaeologists found handmade pottery fragments and animal bones, while the one of the enclosure under T 19 in

¹⁴¹ Subbotin, Dzigovskij 1990b, 22–23, Fig. 21.

¹⁴² Bespalyj, Bespalaya, Raev 2007, 14, 34, Pl. 11–12, 39/2.

Vasil'evka they uncovered a dog skeleton oriented eastwards. Fragments of light yellowish amphorae and animal bones were also found in the area of the entrance into the funerary enclosure in Nagornoe. 263 amphora fragments (walls, rims, handles) were discovered in Obileni in the entrance area, between the ends of the ditch, while a horse skull was found in the north-western part of the barrow's mantle, near the inner margin of the enclosure¹⁴³.

Among the amphora fragments in Obileni one notes a series of rims and handles from amphorae type C IVA, subvariants 1 and 2 in S. Yu. Vnukov's typological classification¹⁴⁴. Amphorae part of subvariant C IVA1 are dated to the second quarter – the beginning of the final quarter of the 1st century AD, while those subvariant C IVA2 are dated to the final third of the 1st century AD¹⁴⁵. The inventory of the looted grave located inside the ditch included a tronconic cup with straight rim, pulled inwards, and a flat base. The item was made of fine reddish fabric and its surface was covered in red firnis¹⁴⁶. Cups of this type were also discovered in a series of graves that can be dated to the second half of the 1st century AD¹⁴⁷. The grave in Obileni was dated to the 1st century AD¹⁴⁸, the 1st–2nd centuries AD¹⁴⁹, or the second half of the 1st century – the beginning of the 2nd century AD¹⁵⁰, though it seems more likely that it was made towards the end of the 1st century AD.

In Cartal the ditch was covered with small and average-size rocks forming a compact layer over two segments, one in the southern side and the other in the eastern side. Bones from horse skulls were uncovered in two spots on the bottom of the circular ditch of the enclosure in Cartal (Fig. 5/5), while on the surface of the enclosure archaeologists found several fragmentarily preserved pots made of brick-red fabric and a fragment with the surface in relief from the middle part of a brick-red amphora¹⁵¹.

In the ditch of the circular enclosure below T 5 in the necropolis of Kirovskij I archaeologists discovered fragments from light yellowish amphorae (type Shelov C or D¹⁵²) and pottery fragments; in the ditch below T 6 pottery fragments from vessels made both by hand and on the potters' wheel, as well as a fragmentary bone from a large-size cattle individual. Pottery fragments from a vessel made of gray fabric were also found in the ditch of the enclosure below T 9 in the same necropolis. The barrow graves from the necropolises in Kirovskij are dated based on their funerary furnishings to the 2nd century – the first part of the 3rd century AD¹⁵³.

Fragments of amphorae made of light yellowish fabric and handmade pots, rocks measuring up to 0.2 × 0.2 × 0.1 m, as well as horse bones, were discovered in the ditch below T 4 from the necropolis in Valovj I¹⁵⁴. In the area from the south-western side of the ditch below T 10 from Valovj I archaeologists found bones from the jaws of two horses, pottery fragments from several handmade pots, a fragmentary vessel made of reddish fabric, wheel-thrown, but also fragments from amphorae made of reddish fabric.¹⁵⁵ The northern and western sectors of the enclosure below T 10 in Vysochino have revealed fragments of amphorae made of light yellowish and reddish fabric, as well as fragments from handmade pots, cow and small-size horse bones etc. Several bronze plaques were also discovered in the fill of the north-western part of the ditch¹⁵⁶.

Numerous animal bones (sheep), a small fragment from the wall of a bronze cauldron, several gold leaf fragments that once plated a wooden pot the size of which could not be reconstructed, fragments from burnished gray pots and from a wheel-thrown pot made of reddish fabric were all discovered

¹⁴³ Levițki, Manzura, Demcenko 1996, 56, Fig. 46, 47/2, 4; Bârcă 2006, 337, Fig. 85/2, 8; Bârcă, Symonenko 2009, 108.

¹⁴⁴ Vnukov 2003, 118–128, 202, Fig. 45; Vnukov 2006, 39–41, Fig. 1/6–7; 2/14–18; 3/1–6; For the chronology of amphorae C IV see also Vnukov 2006, 101–170; Vnukov 2016, 36–47.

¹⁴⁵ Vnukov 2003, 202; Vnukov 2006, 167; Vnukov 2016, 44.

¹⁴⁶ Levițki, Manzura, Demcenko 1996, 55, Fig. 48/2; Bârcă 2006, 337, Fig. 86/2; 162/7.

¹⁴⁷ Bârcă 2006, 89.

¹⁴⁸ Grosu 1995, 161.

¹⁴⁹ Levițki, Manzura, Demcenko 1996, 90.

¹⁵⁰ Bârcă 2006, 336–337, Fig. 85–86.

¹⁵¹ Bruyako, Dzigovskij, Madyda-Legutko 2017, 234–238, Fig. 2/1; 5/2, 3a-c.

¹⁵² Amphorae of the Shelov D type (Shelov 1978, 18–19, Fig. 7) were introduced during the final quarter of the 2nd century and were produced until sometime during the second half / third quarter of the 3rd century AD (Vnukov 2006, 166–167, 168, Fig. 1/10; Vnukov 2016, 43, Fig. 4/11–18).

¹⁵³ Il'ukov 2000, 111.

¹⁵⁴ Bespalyj, Bespalaya, Raev 2007, 14, 18.

¹⁵⁵ Bespalyj, Bespalaya, Raev 2007, 35.

¹⁵⁶ Bespalyj, Luk'yashko 2008, 69.

at ground level in the inner area of the closed circular enclosure below T 53 in Novoaleksandrovka I. One can add a large number of fragmentary amphorae made of light yellowish fabric, out of which 18 belong to amphorae type A¹⁵⁷ and B¹⁵⁸ in D. B. Shelov's typology or C IVA¹⁵⁹ and C IVB¹⁶⁰ in S. Yu. Vnukov's typology. In the lot of type C IVA amphorae, specialists have distinguished between two sub-variants (IVA1 and IVA2)¹⁶¹, just like in the case of type C IVB amphorae (C IVB1 and C IVB2)¹⁶². The items of sub-variant IVA1 are dated to the second quarter – the beginning of the final quarter of the 1st century AD, while those of sub-variant IVA2 to the final third of the 1st century AD¹⁶³. Amphorae type CIVB are dated based on the new discoveries to 75/80 –130/140 AD¹⁶⁴ or to the second half/ the beginning of the final third of the 1st century AD – the beginning of the 2nd century AD¹⁶⁵. Items included in sub-variant C IVB1 are dated to the end of the 1st century – the beginning of the 2nd century AD, while those of sub-variant C IVB2 to the period between the beginning of the 2nd century AD and the 140s¹⁶⁶. The grave surrounded by a ditch located under T 53 in Novoaleksandrovka I is a double burial performed in a large funerary pit, rectangular in ground plan. Though the grave has been looted, the preserved funerary inventory has allowed the authors of the discovery to date it to the second half of the 1st century AD¹⁶⁷, though it is more likely a feature dated towards the end of the 1st century AD.

In the necropolis from Kobyakova, in the circular ditch researched in 1981 archaeologists found the remains of five large-size cattle individuals, a horse, and a ram, plus small animal bone fragments. They also discovered a large quantity of pottery fragments from handmade and wheel-thrown vessels (some of which were decorated), as well as numerous fragments from light yellowish and reddish fabric amphorae¹⁶⁸. A bronze cauldron was found in the proximity of the ditch¹⁶⁹. It belongs to the type of bronze cauldrons produced in the second half of the 2nd century AD¹⁷⁰. The grave from the inner area of the enclosure was only researched in 1984. Its funerary pit was provided with a niche below the western wall and was dated to the second half of the 2nd century AD based on its rich funerary inventory¹⁷¹.

Other circular ditched enclosures were researched in the necropolis from Kobyakova in 1984¹⁷², 2000–2001¹⁷³, 2003¹⁷⁴, and 2008¹⁷⁵. The ditch of the circular enclosures investigated in 2000 has revealed fragments from light yellowish amphorae (type Shelov C – Vnukov C IVC), as well as fragments from pots modelled by hand or on the potters' wheel, some containing animal bones and rocks. Pottery fragments and shards from fragmentary amphorae of the Shelov C – Vnukov C IVC type were also discovered in the ditch that surrounded barrow grave no. 1, researched in 2008¹⁷⁶. Based on the fragmentary amphorae from the ditch and the items in the fill of the looted grave, the two features were dated between the second quarter and the end of the 2nd century AD.

Fragments from light yellowish fabric amphorae were also discovered in the ditch that surrounded

¹⁵⁷ Shelov 1978, 17–18, Fig. 1–3.

¹⁵⁸ Shelov 1978, 18, Fig. 4.

¹⁵⁹ Vnukov 2003, 118–128, 202, Fig. 45; Vnukov 2006, 167, Fig. 1/7; Vnukov 2016, 39–41, Fig. 1/6, 7, 2/14–18, 1, 3/1–6.

¹⁶⁰ Vnukov 2006, 166, 167, Fig. 1/8; Vnukov 2016, 41, Fig. 1/8, 9, 3/7–12.

¹⁶¹ Vnukov 2016, 41, Fig. 1/6, 2/14–18 (C IVA1), 1/7, 3/1–5 (C IVA2); Naumenko 2017, 25, Fig. 4/4A1 (C IVA1), 4/4A2. The two variants differ through the dimensions of the small feet. In volume, these amphorae range between 6.7 and 7.6 liters.

¹⁶² Vnukov 2016, 41, Fig. 3/7–8 (C IVB1), 3/9–12 (C IVB2); Naumenko 2017, 25, Fig. 4/4B1 (C IVB1), 4/4B2 with sub-variants a-b.

¹⁶³ Vnukov 2003, 202; Vnukov 2006, 167, Fig. 10; Vnukov 2016, 44.

¹⁶⁴ Vnukov 2003, 202; Vnukov 2006, 166, 167, Fig. 10.

¹⁶⁵ Naumenko 2012, 64; Naumenko 2017, 25.

¹⁶⁶ Vnukov 2016, 44.

¹⁶⁷ Bespalyj, Luk'yashko 2018, 130, 132- Fig. 53.

¹⁶⁸ Larenok 2016, 2–3.

¹⁶⁹ Larenok 2016, 2–3; Guguev, Bezuglov 1990, 166, 167, 170, Fig. 2/22.

¹⁷⁰ Demidenko 1994, 67.

¹⁷¹ Guguev, Bezuglov 1990, 164–175.

¹⁷² Larenok 2016, 3–4, Tab. 1, no. 2. The grave in the catacomb was looted and dates to the end of the 2nd century – the beginning of the 3rd century AD (Guguev 1986, 52).

¹⁷³ Larenok 2016, 8–10, Fig. 5–6, Tab. 1, no. 4, 5(?), 6, 8(?).

¹⁷⁴ Larenok 2016, 10, Tab. 1, no. 8(?).

¹⁷⁵ Larenok 2016, 13–20, Tab. 1, no. 10–11.

¹⁷⁶ Larenok 2016, 14–15, Fig. 9, Tab. 1, no. 10.

barrow grave no. 7, researched in 2008¹⁷⁷. The fragments were once part of amphorae type Vnukov C IVD that have been dated to the final quarter of the 2nd century – the second half/first quarter of the 3rd century AD¹⁷⁸. The rich inventory of the grave, that includes a strongly profiled brooch¹⁷⁹, an Eggers 160-type strainer¹⁸⁰, a bronze cup of the “Straldzha” group¹⁸¹, buckles and belt ends, as well as two swords without metal cross-guards and blades that meet the hilts at an obtuse angle of the Khazanov II type¹⁸² indicate, in my opinion, the fact that the feature can be dated towards the end of the 2nd century AD¹⁸³.

Among the discoveries in Kobyakova one notes the ditched enclosure following an irregular circular ground plan, measuring 11.6 m in diameter, an entrance on the south-eastern part, and grave in the center of the inner area. Another ditched enclosure was attached to it on the south-western side. The second feature has an entrance and a grave inside (Fig. 14/5). The two constructions share the ditch in the south-western side of the first enclosure. The second follows an irregular rectangular ground plan and measures 13.5 × 8.8 m. In its fill, archaeologists discovered fragments of amphorae and both handmade and wheel-thrown pots. The researches have revealed that the ditched enclosure around G 10 was built first and the second enclosure was attached to it subsequently¹⁸⁴.

A rarer situation was identified inside the area surrounded by a ditch below T 22 in Cazacalia, where nine ritual pits that were circular in ground plan were located around the grave¹⁸⁵ (Fig. 5/6). Nine ritual pits placed in a half-circle around a pyre were also discovered below T 24 in Cazacalia¹⁸⁶. In the central part of the circular ditched enclosure below T 11 from Gradeshka archaeologists discovered a clay platform measuring 0.7 × 0.4 m¹⁸⁷.

As side observation, one should note that such ritual pits were also discovered in the Prut-Dniester interfluvium below the mantle of Sarmatian barrows in Ciobrucu I (T 5), Găvânoasa (T 7), Taraclia (T 13)¹⁸⁸, Alkaliya (T 1, T 6, T 7, T 16, T 20)¹⁸⁹, Mikhajlovka (T 9)¹⁹⁰, Petrești,¹⁹¹ and Palanca¹⁹². Two graves and two ritual pits were also discovered in the proximity of the square ditched enclosure in Florițoaia Nouă¹⁹³. In a few cases, the fill of such pits contained pottery fragments (Palanca, Florițoaia Nouă), ash (Alkaliya, Petrești), animal bones (Alkaliya), bird bones (Petrești), and horse skulls (Petrești). In the central part of T 24 in Cazacalia archaeologists also discovered the remains of an oval-shaped pyre covered with strongly burnt rocks on top of bones from a large-size animal and two fragmentary

¹⁷⁷ Larenok 2016, 15, Fig. 11/1–2

¹⁷⁸ Vnukov 2006, 166–167, 168, Fig. 1/10; 10; Vnukov 2016, 43, Fig. 4/11–18.

¹⁷⁹ The bilateral spring consists of a large number of coils and an outer pin supported by a hook. The head is flattened and decorated with two knobs, one towards the end and the other separating the body from the foot that ends in a knob. The catchplate was rectangular. The item belongs to group 10, series II, shape 3 of strongly profiled brooches in V. V. Kropotov’s typological classification, that he dated between the 2nd century AD and the first half of the 3rd century AD (Kropotov 2010, 229–233).

¹⁸⁰ Analyzing all discoveries of such pots, their contexts, and stamps, R. Petrovsky noted that such items started to be produced in 35–45 AD and their production ceased in 140–160 AD (Petrovsky 1993, 98–101). The same author observed that the great majority of finds belong to phases B2 and C1a (Petrovsky 1993, 101). For the discoveries in the Sarmatian environment see Bărcă 2009, 109–110 with bibliography.

¹⁸¹ Raev, 1978, 616; Raev 1986, 36–39; for discoveries of such cups see Radnóti 1938, 151 sqq., Pl. LI/1–2; Kropotkin 1970, 24, cat. no. 789, 795, 797, 824, 826, 829, 831, 833, 834, 835, Fig. 57/5–6, 67/7, 9, 69, map 14; Raev 1978, 616–617, 635–642 no. 3, 4, 19, 23, 35, 52, 71, 81, 101, 104, Pl. 11/2, 14/2, 17/3, 5, 20/3, 23/7, 27/2, 29/5–6, 30/5, 32/6, 38/4; Raev 1986, 36–39, Pl. 29–31; Volkov, Guguev 1986, 73, Pl. 54/1; Florea 1993, 173–180, Fig. 1/1; Maksimenko 1998, 116, Fig. 54/2; Puzdrovskij 2007, Fig. 154/1; Bărcă 2006, 174–175, Fig. 81/2; Bărcă, Symonenko 2009, 193–194, Fig. 72/1–4; Bărcă 2009, 110–111, Fig. 9/1–4; Simonenko 2011, 63–65, Fig. 42–43.

¹⁸² Khazanov 1971, 17, Pl. X/1–3,5, XI/1–2, 4–7, XIII/1–2. See also for this Simonenko 2009, 46–49, 57–58, Fig. 29–30.

¹⁸³ For the inventory of G 7 see Larenok 2016, 15–20, Fig. 10–12.

¹⁸⁴ Larenok 2016, 9–10, Fig. 6.

¹⁸⁵ Bejlekchi, Agul’nikov, Chirkov 1985, 47–48, Fig. 46, 47/2; Agul’nikov, Kurchatov 2005, 285–286, Fig. 2/1, 3; Savva, Agul’nikov, Manzura 2019, 158–159, Fig. 116/1.

¹⁸⁶ Bejlekchi, Agul’nikov, Chirkov 1985, 47–48, 53–54; Agul’nikov, Kurchatov 2005, 289–290, Fig. 3.

¹⁸⁷ Gudkova, Redina 1999, 180, Fig. 1/2.

¹⁸⁸ Agul’nikov 1997, 279; Agul’nikov, Kurchatov 2005, 290–291.

¹⁸⁹ Subbotin, Dzigovskij 1990, 5–8, 11–12, 18, Fig. 2/3, 4/1, 5/8.

¹⁹⁰ Subbotin, Dzigovskij 1990a, 21.

¹⁹¹ Yarovoj 1986, 41–70; Kurchatov, Levinskij 2007, 316.

¹⁹² Kurchatov 1990, 31, Fig. 17/8; Kurchatov, Levinskij 2007, 316.

¹⁹³ Kurchatov, Levinskij 2007, 314, 316, Fig. 2–4.

ceramic pots. Pyre remains are rather rarely encountered below Sarmatian barrows without graves underneath. Besides the case in T 24 from Cazacalia, such situations were also encountered in the Prut-Dniester interfluvium under T 8 from Opaci¹⁹⁴ and T 6 from Burlănești¹⁹⁵. Fragments of narrow-neck amphorae made of light yellowish fabric and profiled handles type Shelov C¹⁹⁶ – Vnukov C IVC¹⁹⁷ were discovered in the proximity of both pyres under the two barrows. These fragments indicate that the barrows date to the second quarter – end of the 2nd century AD. In the territory between the Prut and the Dniester, traces of pyres under barrows with main Sarmatian graves were discovered in T 3 from Suvorovo (currently Alexandru Ioan Cuza)¹⁹⁸ and T 1 in Ogorodnoe¹⁹⁹. Traces of very large pyres were also discovered below several Sarmatian barrows from the Middle Period in the area of the Lower Don²⁰⁰.

Though specialists believe that the Sarmatian barrows with ritual pits under their mantles from the Prut-Dniester area are to be dated between the middle of the 2nd century and the first half of the 3rd century AD²⁰¹, one must mention that such pits are encountered below Sarmatian barrows in the area north of the Black Sea ever since the 1st century AD. An example consists of the ritual pits with between one and four offerings inside (horse skulls, large-size animal bones, pottery fragments, amphora handles, glass beads, and granite rocks) discovered below a series of barrows from the Sarmatian necropolis in Ust-Kamenka²⁰², located on the right side of the Lower Dnieper. Most of the graves in this necropolis date to the period between the middle of the 1st century AD and the beginning of the 2nd century AD. I believe this indicates that this ritual was introduced to the north-western Pontic area ever since the end of the 1st century – the beginning of the 2nd century AD.

One also knows of ritual pits that contained pottery fragments, animal bones, and traces of fire in the area left of the Lower Don. Such offerings, found between one and seven items in one feature, were discovered both around graves below barrows and at the periphery of the barrow mounds or in the area between the barrows.²⁰³ Just like in the case of Alkaliya (T 1, T 16) and Taraclia (T 24), some of the barrows did not contain graves from the same period underneath.

The graves from the inner area of the circular ditched enclosures below the barrows in Obileni (T 5) (Fig. 5/1), Diviziya (T 17), Vasil'evka (T 25 G 3) (Fig. 4/5), Kirovskij I (T 5 G 1), and Kirovskij IV (T 4 G 1) had large rectangular funerary pits, while those under the barrows in Cazacalia (T 5, T 22), Diviziya (T 11), Nagornoe (T 12), and Vasil'evka (T 19, T 25 G 2) (Fig. 4/5), Kirovskij I (T 6 G 4) had rectangular pits with lateral steps along the long sides. The rectangular funerary pit of grave 298a in Cartal had steps on three of its sides. The pit of the grave inside the circular ditched enclosure below T 7 in Diviziya has small steps along the four sides, while the graves inside the enclosures in Gradeshka (T 11), Kubej (T 9, T 18), Kurchi, Vasil'evka (T 23) (Fig. 4/3), Brilevka (T 25, T 139, T 165) had funerary pits with niche under the western wall. Last but not least, one should mention that a grave with catacomb was found in the inner area of the circular ditched enclosure under T 10 in Cazacalia (Fig. 13/2). Its rich inventory included a bronze bowl of the Eggers 70 type (*type Řepov*)²⁰⁴ (Fig. 13/3) and an amphora made of light yellowish fabric with profiled rim, tall neck, oblong conical body with striations, short foot, and profiled handles²⁰⁵ (Fig. 13/4) of the Shelov B²⁰⁶ – Vnukov C IVB type²⁰⁷. Bronze bowls type Eggers 70 (*type Řepov*) are dated to the second half of the 1st century – the beginning of the

¹⁹⁴ Grosu 1990, 28, 77; Grosu, Demchenko 1990, 136.

¹⁹⁵ Demchenko, 1987; Agul'nikov, Kurchatov 2005, 292.

¹⁹⁶ Shelov 1978, 18, Fig. 6.

¹⁹⁷ Vnukov 2003, 202; Vnukov 2006, 166, 167, Fig. 1/9, 10.

¹⁹⁸ Bejlekchi, Yarovoj, 1973, 10–11, Fig. 1a, 10–11; Grosu 1990, 78.

¹⁹⁹ Subbotin, Zaginajlo, Shmaglij, 1970, 136.

²⁰⁰ Maksimenko 1998, 90.

²⁰¹ Agul'nikov, Kurchatov 2005, 291.

²⁰² Kostenko 1993, 55–56, 67–68, 75, 90–91, Fig. 19/2, 22/1, 8–9, 24/1–5.

²⁰³ Chernopitskij 1983, 84–89.

²⁰⁴ Agulnicov, Bubulici 1999, 288, Fig. 5/4–5; Agul'nikov, Bubulici 1999, 12, Fig. 2/4–5; Bărcă 2006, 174, 302, Fig. 43/1; Bărcă 2009, 106, Fig. 7/1; Bărcă, Symonenko 2009, 190–191, Fig. 70/1.

²⁰⁵ Agulnicov, Bubulici 1999, 288, Fig. 5/6; Agul'nikov, Bubulici 1999, 12, Fig. 2/6; Bărcă 2006, 90, 302, Fig. 43/2; Bărcă, Symonenko 2009, 130, Fig. 45/2.

²⁰⁶ Shelov 1978, 18, Fig. 4.

²⁰⁷ Vnukov 2006, 166, 167, Fig. 1/8, 10.

2nd century AD²⁰⁸, while amphorae like the one in Cazaclia are dated to the second third of the 1st century – the middle of the 2nd century AD²⁰⁹, the second half/beginning of the final third of the 1st century – the beginning of the 2nd century AD²¹⁰, or to 75/80–130/140 AD²¹¹. A catacomb burial was also found inside the circular ditched enclosure below T 6 in the necropolis from Zhuravka²¹². Rectangular funerary pits with small niches-hiding places were also noted in the case of the rich graves in the inner areas of the circular ditched enclosures below T 41 and T 48 in the necropolis from Krivoj Liman²¹³.

Burials in funerary pits with niche (3), rectangular pits with lateral steps (1), and catacombs (3) were researched in the inner areas of the circular enclosures from Kobyakova. Most of the graves inside these circular ditches in Kobyakova had been looted of old, a case largely encountered among graves surrounded by circular ditches in the Sarmatian environment.

Grave no. 1 in T 4 from Valovj I was a catacomb burial, while G 2 had a rectangular funerary pit with a niche under the north-eastern and south-western sides each. The grave inside the circular ditch below T 10 part of the same necropolis had a rectangular pit (Fig. 14/2)

As for the grave in Vitănești, one must mention that it was located in the central part of the enclosure and of the barrow. Though the grave has been looted and partially destroyed, one can note that it had a large funerary pit, rectangular in shape, provided with steps, but also with a small niche in the southern part²¹⁴. Analyzing the grave in Vitănești²¹⁵ I have concluded that a series of elements and traits of the funerary rite and ritual (main burial, large funerary pit, the niche/hiding place, the circular ditch that surrounded the pit) indicate, besides the preserved funerary inventory, the most likely dating of the feature sometime during the first half of the 2nd century AD²¹⁶, probably in the second quarter.

In connection to the ditched enclosures in the north and north-west Pontic areas one must mention that in some cases rectangular or square enclosures were found in the proximity of unresearched barrows (e.g. in Nagornoe and Strumok), while in some necropolises both circular and square or rectangular enclosures were discovered (e.g. Cazaclia, Kholmskoe, Kotlovina, Kubej, Kurchi, Nagornoe, Petrești, Vasil'evka, Kobyakova, Zhuravka). One cannot exclude the possibility that in the case of certain tumular necropolises the number of square or rectangular ditched enclosures located in the proximity of the barrows was much higher. They have not been yet identified due both to the fact that certain researchers did not take into account the existence of such funerary enclosures located a certain distance away from the barrows and to the lack of research performed in these areas.

In the case of rectangular ditched enclosures usually characterized by the presence of an entrance, the lack of inner graves, and the location outside barrows, archaeologists were able to note the existence of some features without entrance (Chertovitski II) or with entrance and inner grave (Petrești, Zhuravka T 16) that were located below barrows (Zhuravka T 16). There are also graveless enclosures below barrows (Alkaliya T 31) and graves placed several meters apart from one of the sides of the funerary enclosure below barrows (Alkaliya T 20). Another observation envisages cases of several graves grouped around square ditched enclosures inside necropolises (e.g. Aliyaga, Alkaliya, Chertovitski II, Cuconești Vechi II, Kholmskoe, Vasil'evka). Last but not least, one notes the absence of clear patterns inside necropolises in the position of square or rectangular ditched enclosures²¹⁷. An exception is the situation in the necropolis from Bădragi Noi where the enclosures are placed in rows

²⁰⁸ Bârcă 2006, 174; Bârcă 2009, 107; Bârcă, Symonenko 2009, 190–191.

²⁰⁹ Shelov 1978, 18; Opaiț 1980, 301, type VIA.

²¹⁰ Naumenko 2012, 64; Naumenko 2017, 25.

²¹¹ Vnukov 2003, 202; Vnukov 2006, 166, 167, Fig. 10.

²¹² Bezuglov, Zakharov 1988, 10, 11, Fig. 1/5.

²¹³ Maksimenko 1998, 91, Fig. 15/2–3, 5–6.

²¹⁴ Bârcă 2015a, 48, Fig. 7.

²¹⁵ Bârcă 2015a, 47 sqq.

²¹⁶ Bârcă 2015a, 54.

²¹⁷ In the necropolises that have revealed square or rectangular ditched enclosures, such features were singular finds (Palanca) or as many as 20 (Petrești).

and connected to one grave each (see Fig. 2A). A similar situation was also observed in the case of the necropolis from Petrești, where some ditched enclosures had one grave in their proximity.

Despite the fact that most of the square ditched enclosures were mainly part of Sarmatian necropolises dated to the second half of the 2nd century – the middle of the 3rd century AD, one can note that they were introduced, besides other ritual actions²¹⁸, ever since the 1st century AD. Another proof of this are the square ditched enclosures in the proximity of barrows and graves dated to the Middle Sarmatian Period from Chertovitski II, Pisarevka (left of the Middle Don), Medeleni, and Palanca (the Prut-Dniester interfluve).

Though the current stage of research indicates that many of the circular ditched enclosures below barrows date to the first stage of the Late Sarmatian Period (the second half of the 2nd century – the first half of the 3rd century), they feature, as previously noted²¹⁹, since the Middle Sarmatian Period (the 1st century – the first half of the 2nd century AD). Proof of this resides in the discoveries made below the barrows in Cazaclia (T 10), Obileni (T 5) (the Prut-Dniester interfluve), Verbki and Marina Roshcha (left of the Middle Dnieper), Kobyakovo (right of the Lower Don), as well as those in Krivoj Liman and Novoaleksandrovka I (left of the Lower Don).

Following the analysis of the circular ditched enclosures, one can also note that S. Bezuglov and A. Zakharov's belief²²⁰ that the features in the area of the Lower Don were provided with an entrance on the southern side and those in the Prut-Dniester area were characterized by the absence of an entrance, does not fit the observed reality.

Last but not least, one must conclude that despite the fact that at the current stage of research the ditched enclosures with various ground plans in the North Pontic area west of the Don are mainly dated to the second half of the 2nd century – the beginning/first half of the 3rd century AD²²¹, specialists were able to establish the fact that they were introduced to this area sometime during the second half of the 1st century AD. In the Prut-Dniester interfluve the most recent are the circular ditched enclosures in the necropolises from Kubej and Kurchi that can be dated to the second half of the 3rd century – the beginning of the 4th century AD. A similar situation can be noted for the Don Basin, where the number of ditched enclosures, varying in shape, that are dated to certain chronological intervals during the period starting with the 1st century and ending with the beginning of the 4th century AD increases constantly (e.g. Chertovitski II, Pisarevka, Krivoj Liman, Kobyakova, Kirovskij I, Valovij I, Vysochino V, Novoaleksandrovka I, Krasnogorovka I), though since recently those dated between the middle of the 3rd century AD and the beginning/first half of the 4th century AD represented the majority.

In connection to the graves inside the ditched enclosures one must also mention the fact that most consisted of simple rectangular funerary pits, followed by those that had side steps along the long sides, often slightly larger in size, and by those with rectangular pits with niche under the western wall. One can also note that the features under small or flattened barrows are also smaller than those below the large barrows. The deceased from the graves inside the ditched funerary enclosures were placed on their backs with extended arms and legs, oriented exclusively to the north, north-west, and north-east.

Another observation in that the ditched funerary enclosures below the large barrows, besides the funerary banquets and other ritual actions under these barrows or in their mantles, are mainly specific to the aristocratic graves, as well as of those part of the richer social layer of Sarmatian society. The funerary furnishings of these graves support this idea, even if they have been looted in many cases.

I would also like to mention that for the north and north-west Pontic territory one can conclude that most often the ditched enclosures, of all shapes, with and without inner graves, were in close connection to the barrows, though their shape is often independent from the barrow mound proper. Thus, such enclosed areas were mostly an attribute of the tumular funerary ritual, though in some cases they were present in necropolises interpreted as flat necropolises.

²¹⁸ See for this Mukhopad 1986, 136–142; Kostenko 1993, 90–92; Maksimenko 1998, 90; Bârcă 2006, 54–55; Bârcă, Symonenko 2009, 107–108.

²¹⁹ Bârcă 2015.

²²⁰ Bezuglov, Zakharov 1988, 16.

²²¹ The ditched funerary enclosures are considered good chronological indicators for the first stage of Late Sarmatian culture (Bârcă, Symonenko 2009, 217).

As for the ditched enclosures of various shapes from the Sarmatian environment in the Pannonian Plain, one must mention that Hungarian researcher G. Vörös²²² was the first to synthesize the data regarding them, while V. Kulcsár²²³ performed the first pertinent analysis.

40 sites with graves discovered inside ditched enclosures were known by 1998²²⁴, while in 2003 the number had grown to 50²²⁵. The rescue archaeological researches performed during the last decade on the territory of Hungary have revealed new necropolises that contained graves surrounded by ditches. As examples one can mention the numerous ditched enclosures, mostly circular, with graves inside, that were discovered and researched after 2003 during works for future highways and other infrastructure features²²⁶.

The numerous studies presenting the results of older or more recent archaeological researches, as well as researches that analyze such ditched enclosures have brought significant contributions to the knowledge of these features. The monograph work dedicated to the necropolis in Madaras-Halmok where 102 graves surrounded by circular or square ditches were researched is an example of this²²⁷ (Fig. 19/1).

The great majority of such ditched enclosures from the Iazygian Sarmatian environment were circular in ground plan, but oval, square, rectangular, even hexagonal and octagonal ones have been encountered. Their entrance was most often located, like those in north and north-western areas of the Black Sea, on the southern, south-eastern, and south-western sides²²⁸. There are also cases with two or even three entrances into the inner area that contained the grave²²⁹. The opening of these entrances measured mainly between 0.6 and 1.1 m, but some were also larger. The diameter of the circular ditches varies between 5 and 13 m²³⁰, and even more, as in a few cases in the necropolis from Pócspetri²³¹ (Fig. 17/1). Last but not least, one must mention that in some cases the ditches were continuous and there was no entrance into the inner area.

In the Western Plain of Romania, another area inhabited by the Sarmatians for about three centuries, such ditched enclosures were first discovered in 2011 during preventive archaeological researches on the route of the Nădlac-Sibiu highway, the Nădlac-Pecica sector, site 1 M²³². The first circular ditched enclosure from the site in Nădlac (Cx. 028) had the maximum diameter of 12 m and three entrances into the inner area. The first was located in the northern part and its opening measured 1.5 m and the other two in the southern side. The opening of the latter two measured 1.4 m and 1 m, respectively (Fig. 20/2). Upon identification, the ditch measured ca. 1.4 m in width and had an average depth of about 0.4 m, identified from the level where the feature was uncovered. In the fill of the ditch, archaeologists discovered several small atypical pottery fragments²³³. Grave (G 1 = Cx. 029) from the inner area had a rectangular pit oriented with the long sides along the N-S axis (Fig. 20/2). The maximum length of the pit reached 4 m and its width measured 2.66 m. The remains of a wooden structure were identified at the depth of ca. 0.9 m from the level of identification of the pit²³⁴.

²²² Vörös 1985, 157.

²²³ Kulchar 1997, 126–133; Kulcsár 1998, 35–40, 95–96, 111.

²²⁴ Kulcsár 1998, 35–36, Fig. 10.

²²⁵ Istvánovits, Kulcsár 2003, 273. The current stage of research indicates the presence of ditched enclosures in almost every major Sarmatian cemetery on the present-day territory of Hungary.

²²⁶ Simon 2006; Bencze *et al.*, 2009, 130–149; Korom, Szilas, Terei 2010, 134 sqq.; Gulyás 2011, 125–253; Gulyás 2014, 15–107; Hullám 2012, 351–394; Herendi, Sóskuti 2016, 31–32, 36, Fig. 5, 6/2; Sóskuti 2016, 80, 85, Fig. 7/2–3. See also Tóth, Szabó, Homoki 2015, 275–292.

²²⁷ Kóhegyi, Vörös 2011, 235, 239, 361, 362, Map 1.

²²⁸ Kulcsár 1998, Fig. 18–24, 26a, 26b, 27, 31–32.

²²⁹ Kulcsár 1998, Fig. 24; Váradi 1997, 119.

²³⁰ Kulchar 1997, 127; Kulcsár 1998, 35–36.

²³¹ Hullám 2012.

²³² Bărcă, Cociș 2013, 31–50.

²³³ Bărcă, Cociș 2013, 32, Fig. 2.

²³⁴ Part of it, archaeologists have identified four transversal beams located ca. 0.6 m apart. They were identified over lengths varying between 2 and 2.1 m, while in width they measured 0.2 m and in thickness 0.04 m. Along the long sides of the grave pit, below the ends of the transversal beams, archaeologists have also identified traces of two wooden beams placed ca. 1.7 m apart. Their width and thickness could not be established due to their poor state of preservation (Bărcă, Cociș 2013, 32, Fig. 2; Bărcă, Grmueza, 2014, 160, Pl. IV).

The second funerary feature (Cx. 032) had a circular ditch measuring 12.3 m in diameter. In the eastern side it was provided with an access area that measured 1.8 m in width and in the southern side it had a small passage that measured 0.43 m in width (Fig. 20/1). The maximum width of the ditch was ca. 2 m and the average depth, identified from the level where it was uncovered, measured approximately 0.4 m. In the fill of the ditch archaeologists discovered several small atypical pottery fragments²³⁵. Grave (G 1 = Cx. 033) inside the enclosure had a rectangular pit oriented with the long sides along the N-S direction (Fig. 20/1). The maximum length of the pit reached 3.84 m, while in width it measured 2.5 m. A wooden structure was found at the depth of approximately 1 m below the identification level of the pit²³⁶. Both graves have been looted of old and the skeletons largely destroyed. In the great majority of cases one could note that the graves surrounded by ditches had been desecrated and looted.

To these circular funerary ditched enclosures with inner graves from the site of 1 M one can add several others from the sites 4 M and 3 M Nord, researched in 2012 and 2014 along the route of the Nădlac-Arad highway, in the Nădlac-Pecica sector²³⁷. They were part of the same chronological and cultural sectors as those from the site of Nădlac 1 M. Two circular ditches with inner graves were discovered and researched on site 3 G Nord (Cx. 326, 401)²³⁸ (Fig. 21), and eight in Nădlac 4 G (Cx. 5, 9, 10, 12, 27, 28, 29, 32)²³⁹. In the case of the features on site 4 M one must mention the absence of inner graves, but the presence of pottery fragments in the fill of all these circular ditches and in some of them animal bone fragments (Cx. 5), horse skulls (Cx. 28, 29), or animal skeletons (Cx. 9, 10). Several funerary enclosures with circular ditch and inner graves were discovered and researched in 2019 on the site of Hladik 1²⁴⁰.

No other such funerary ditched enclosures are currently known in the Western Plain of Romania north (Crișana) or south (Banat) of the Mureș. In my opinion, this is due to the lack of ample archaeological researches such as those performed over the last three decades on the territory of Hungary. Thus, any attempt to sketch the distribution area of this funerary habit in the Pannonian Plain, such as the one attempted by researchers C. Balogh and M. Heipl²⁴¹, seems hazardous. The more recent researches support the ideas under discussion, as they have revealed a series of graves surrounded by ditches, discovered in the territories located outside the established area. To this end one should mention the discoveries in north-east Hungary in Onga²⁴² and Bükkábrány-Bánya XI/A²⁴³ (Borsod-Abaúj-Zemplén County) and Kótaj-Verba-tanya (Szabolcs-Szatmár-Bereg County), as well as those in south-east Hungary, in Óföldsék-Ürmös II, Site 10²⁴⁴, and those on the sites in Nădlac (Arad County, Romania) presented above. At the current stage, the southernmost spot in the Pannonian Plain that has revealed several graves surrounded by circular ditches is located in Subotica-Verušić²⁴⁵ (Fig. 19/2).

Researcher V. Kulcsár believes that the graves located inside the ditched enclosures with an entrance were flat, like most of the Sarmatian graves in the Pannonian Plain²⁴⁶. A. Vaday supports a different idea, i.e. that graves surrounded by ditches were an attribute of the tumular ritual²⁴⁷, like in the Sarmatian environment in the north and north-west areas of the Black Sea. V. Kulcsár nevertheless claims that not all of the graves surrounded by ditches must be interpreted straight-

²³⁵ Bărcă, Cociș 2013, 34, Fig. 3.

²³⁶ It consisted of two beams placed 1.4 m apart along the long sides and of two transversal beams placed 2.6 m apart along the short side of the funerary pit. The long beams were identified over a length of 3.16 m and 2.9 m, respectively, while the short ones over a length of 1.72 m and 1.5 m, respectively. In width, they measured approximately 0.14 m (Bărcă, Cociș 2013, 32, Fig. 3; Bărcă, Grmueza, 2014, 161, Pl. V).

²³⁷ Grumeza, Ursuțiu 2016, 195–213.

²³⁸ Grumeza, Ursuțiu 2016, 195–196, Pl. II-III.

²³⁹ Grumeza, Ursuțiu 2016, 196–197, Pl. IV/1, V-VII.

²⁴⁰ A. Mătiș, C. Fântăneanu, C. Florescu, Cercetările arheologice preventive în situl Hladik 1 în anul 2019 (Situl 6 – Centura de Sud a Timișoarei), presentation delivered on December 10th 2020 at Sesiunea Științifică „Unitate, continuitate și independență în istoria poporului român”, National Museum of the Union, Alba Iulia.

²⁴¹ Balogh, Heipl 2010, 153–154, 158.

²⁴² Tóth, Szabó, Homoki 2015.

²⁴³ Tutkovics 2015, 225–226, 228, 236–237, 259, Fig. 3–5.

²⁴⁴ G. Gulyás 2014.

²⁴⁵ Szekeres, Szekeres 1996.

²⁴⁶ Kulchar 1997, 127.

²⁴⁷ Vaday 1989, 197.

forward as tumular²⁴⁸. In the author's opinion, the enclosures with continuous ditch represent a technological detail in the erection of the barrows, while those with an entrance were characteristic to the flat graves and fulfilled a ritual function²⁴⁹. According to her, the decisive argument is the case of the necropolis in Madaras-Halmok²⁵⁰ where archaeologists have noted that the enclosures below barrows had continuous ditches, while the enclosures of the flat graves were provided with an entrance into the inner area²⁵¹. Naturally, this argument seems viable, but one must not forget that reality in the field is often different. Cases when barrows are discovered in a fully flattened state due to intense agricultural exploitation suggest that in some situations the absence of a mound is not always proof of the fact that the grave was initially of the flat type. It is possible that some of the graves surrounded by ditches interpreted as flat were in fact tumular even if nothing was preserved of the mound. One cannot exclude, especially in the case of necropolises, the possibility that the mantle on top of the graves surrounded by ditches was not very large in the first place, in some cases only symbolic. This can be supported by the cases encountered in the area between the Prut and the Dniester where in some necropolises (e.g. Alkaliya, Cuconeștii Vechi I and II, Diviziya, Kholmskoe, and Vasil'evka) the barrows were flattened and only their outline was marked, in the shape of a circular spot with one grave or more graves in its perimeter. Some of these graves were surrounded with a circular ditch smaller in diameter than the flattened mound. Last but not least one must also mention the fact that the majority of the circular ditched enclosures below the barrows in the north and north-west Pontic area were provided with an entrance just like many of the more recent discoveries in the Pannonian Plain. To this end I should mention the archaeological researches in Pilis-Horgászto where specialists discovered numerous tumular graves with mounds preserved no taller than 0.4-0.5 m. All of the graves below these mounds were surrounded by a circular ditch provided with an entrance²⁵². In the case of the cemetery in Hajdúdorog-Csárdadomb one could note that the six graves surrounded by ditches were surmounted by a mound made of the soil extracted from the ditches²⁵³. For the same necropolis, specialists have also observed that individuals who held important positions in the community were buried in the graves surrounded by ditches and that the graves not surrounded by ditches belonged to lower-status individuals²⁵⁴. The same was noted in the case of the graves in Makó-Járandórol²⁵⁵. Like in the north and north-west Pontic region, in the necropolises from the Pannonian Plain only some of the graves had ditched enclosures²⁵⁶ and such features mainly contained a single grave inside. There are rare cases when several graves or double burials feature in the inner area of such features²⁵⁷.

Despite the fact that numerous Sarmatian necropolises were researched on the territory of Hungary, specialists have noted that the graves with ditched enclosures often followed no pattern inside these necropolises²⁵⁸, a fact also confirmed by the discoveries of the last two decades. In the case of several necropolises one can note that graves surrounded by ditches are grouped in the center of the necropolis or form compact groups in a certain part of the cemetery. To this end I should men-

²⁴⁸ Kulchar 1997, 127.

²⁴⁹ Kulchar 1997, 127, 128, 130, 131.

²⁵⁰ Kulchar 1997, 127.

²⁵¹ Kőhegyi 1971, 213.

²⁵² Gulyás 2011; Korom, Szilas, Terei 2010, 132.

²⁵³ Fodor 1997, 113.

²⁵⁴ Fodor 1997, 113.

²⁵⁵ Herendi, Sóskuti 2016, 31-32, 36.

²⁵⁶ A total of 632 graves was researched in the necropolis from Madaras-Halmok, 151 of which were of the barrow type. In the case of 102 tumular graves archaeologists have noted the fact that they were surrounded by a circular or square ditch (Kőhegyi, Vörös 2011, 235, 239, 361, 362, Map 1). In the necropolis from Pócspetri, 16 out of the 19 graves were surrounded by a circular ditch (Hullám 2012). The same is true for 17 of the 67 graves in the necropolis from Subotica-Verušić (Szekeres 1998, 107-147), for only 3 out of the 23 graves in Orosházi-tanyá, Máv-Sandgrube (Nagy 2005, Fig. 3), and for 32 out of the 79 graves in Makó-Járandórol (Herendi, Sóskuti 2016, 31-32, 36, Fig. 5). On site BP 002-003 (M0, the ring road around Budapest) only 28 out of the 79 researched graves were surrounded by a ditch (Korom, Szilas, Terei, 2010, 129-130, Fig. 1), while in the necropolis of Kiskundorozsma-Subasa (site 26/78) only 16 out of the 60 graves were surrounded by such a feature (Bozsik 2003, 97, 106, Fig. 1).

²⁵⁷ See for this the discoveries made in Sándorfalva-Eperjes (Vörös 1985, 129 sqq.), Kiskundorozsma-Nagyszék II (Szalontai, Tóth 2003, 69-81), Balástya, Sospál-halom (Balogh, Heipl 2010), or on site BP 002-003 researched along the route of highway M0 (the ring road around Budapest) (Korom, Szilas, Terei 2010, 138, Fig. 10).

²⁵⁸ Kulchar 1997, 128.

tion the situation on site BP 002-003, researched on the route of highway M0 (the Budapest ring road), where the 20 rectangular ditched enclosures were located in the western and north-western areas of the necropolis, while six of the graves with circular ditched enclosures were grouped in the eastern and south-eastern parts²⁵⁹ (Fig. 18/4). Still, in both cases, one notes the tendency of graves without ditched enclosures to be grouped around those with such enclosures. Such cases have been encountered in the necropolises in Endrőd-Szujókereszt²⁶⁰ (Fig. 16/2), Lajosmizse-Kónya major²⁶¹ (Fig. 16/1), Törökszentmiklós-Surján-Újtelep²⁶², Madaras-Halmok²⁶³, Subotica-Azotara/Szabadka-Verusics²⁶⁴ (Fig. 19/2), Óföldséak-Ürmös II²⁶⁵, Kiskundorozsma-Subasa²⁶⁶, Abony 39 (Fig. 18/1-2), Abony 48 (Fig. 17/2), and Cegléd²⁶⁷ (Fig. 17/3) etc. Inside some necropolises such as those in Törökszentmiklós-Surján-Újtelep²⁶⁸ (Fig. 16/3) and Endrőd-Szujókereszt²⁶⁹ some of the graves are placed in a row, some distance apart from those surrounded by ditches and those grouped around the first²⁷⁰. For the necropolis in Lajosmizse-Kónya major²⁷¹ archaeologists have noted that women's and men's graves were located in distinct parts of the necropolis²⁷², while in Sándorfalva-Eperjer²⁷³ men and boys were buried in the central part of the small cemetery, while women and lower-rank community members were buried around them²⁷⁴. There are also cases when the graves with ditched enclosures were placed in rows (e.g. Sándorfalva-Eperjes²⁷⁵) or separated from the rest of the funerary features (e.g. Tizsakürt-Homokos²⁷⁶).

Sometimes, in the case of certain necropolises, like in the area north and north-west of the Black Sea, archaeologists discovered both circular and square or rectangular ditched enclosures. As examples for this are the necropolises in Endrőd-Szujókereszt²⁷⁷ (Fig. 16/2), Makó, Járándórol²⁷⁸, Bükkábrány-Bánya XI/A²⁷⁹ or the one on site BP 002-003, researched along the route of the M0 highway (the ring road of Budapest)²⁸⁰ (Fig. 18/3-4). Most of the square ditched enclosures on the present-day territory of Hungary have inner graves, but specialists have also encountered cases when they contained no burials inside (Madaras-Halmok²⁸¹, Sándorfalva-Eperjer²⁸²).

Like in the north and north-west Pontic area, in the Sarmatian environment on the present-day territory of Hungary as well the ditches of these funerary features (with and without inner graves) have revealed animal bones (bovine), horse skulls or skull fragments, as well as pottery fragments or broken pots.²⁸³ An interesting situation has been recorded in Hajdúszoboszló-Bocskai TSz where the skeleton of a newborn infant was discovered in the ditch surrounding the grave²⁸⁴. Traces of possible funerary banquets were also identified archaeologically in the ditches of the funerary enclosures on sites 1M and 4M in Nädlac²⁸⁵.

²⁵⁹ For more details regarding the ditched enclosures on this site see Korom, Szilas, Terei 2010, 130-132.

²⁶⁰ Vaday, Szöke 1983, Fig. 26; Kulcsár 1998, 76-77, Fig. 18.

²⁶¹ Kulcsár 1998, Fig. 21a-21b.

²⁶² Vaday 1985, Fig. 2; Kulcsár 1998, Fig. 27.

²⁶³ Kőhegyi, Vörös 2011, Map. 1.

²⁶⁴ Szekeres, Szekeres 1996, Tab. I; Kulcsár 1998, Fig. 24.

²⁶⁵ Gulyás 2014, Pl. I-II.

²⁶⁶ Bózsik 2003, 97, 106, Fig. 1.

²⁶⁷ Gulyás 2011, Fig. 1-4.

²⁶⁸ Vaday 1985, Fig. 2; Kulcsár 1998, 82-83, Fig. 27.

²⁶⁹ Vaday, Szöke 1983, Fig. 26; Kulcsár 1998, Fig. 18.

²⁷⁰ Istvánovits, Kulcsár 2003, p. 273.

²⁷¹ Kulcsár 1998, 79, 129-132, Fig. 21a-21b.

²⁷² Istvánovits, Kulcsár 2003, p. 273.

²⁷³ Vörös 1985, 129-172; Kulcsár 1998, 80, Fig. 23.

²⁷⁴ Istvánovits, Kulcsár 2003, 273.

²⁷⁵ Vörös 1985, Fig. 2; Kulcsár 1998, Fig. 23.

²⁷⁶ Vaday, Kiszely 1986, 109.

²⁷⁷ Vaday, Szöke 1983, 103, Fig. 26; Kulcsár 1998, Fig. 18.

²⁷⁸ Herendi, Sóskuti 2016, 32, 36, Fig. 6/2.

²⁷⁹ Tutkovics 2015, 225-226, 228, 236-237, 259, Fig. 3-5.

²⁸⁰ Korom, Szilas, Terei 2010, 130-131, Fig. 1.

²⁸¹ Kőhegyi 1971, 211-212; Kőhegyi, Vörös 2011, Map 1; Kulcsár 1998, 39.

²⁸² G. Vörös 1981, 26; Kulcsár 1998, 39.

²⁸³ Kulchar 1997, 129; Kulcsár 1998, 39, 72-73, 100, 116; Hullám 2012, 394; Korom, Szilas, Terei 2010, 132, Fig. 2.

²⁸⁴ Kulcsár 1998, 39.

²⁸⁵ Bărcă, Cociș 2013, 32, 34; Grumeza, Ursuțiu 2016, 196-197.

The graves with ditched enclosures found in the Sarmatian environment of the Pannonian Plain had rectangular pits with rounded corners predominantly. Rectangular pits with lateral steps along the long sides were more rarely encountered, while those with niches or catacombs were missing, despite being frequent finds among the ditched funerary enclosures in the Sarmatian works from the north and north-west Pontic area.

Researches have also indicated that the graves inside ditched enclosures were located slightly deeper than the ground level of the features, as well as the fact that the funerary pits of these graves were much larger than those of the graves that were not surrounded with ditches²⁸⁶, a situation also confirmed by the discoveries made during the last couple of decades. The funerary pits of these graves have often revealed wooden structures (box-type coffins made of wooden beams/plaques/frames). One must also note that the great majority of graves from the inner area of the ditched enclosures in the Sarmatian environment of the Pannonian Plain had been looted and desecrated of old, thus without inventory. This often makes their exact dating more difficult²⁸⁷. Still, the fact that they were looted suggest they had rich inventories and, besides the other aspects (the surrounding ditch, the funerary wooden structures, the funerary banquets and other ritual gestures), that the graves inside such enclosures belonged to individuals part of the rich layer of Sarmatian society. Researcher V. Kulcsár believes that the graves from the areas enclosed by ditches belonged to individuals who were the *pater familias* of families at the top of group hierarchy²⁸⁸.

Still, one must mention the fact that in the Sarmatian environment of the Pannonian Plain, just like in the one north and north-west of the Black Sea, in certain cases archaeologists have not revealed significant differences between the graves with ditched enclosures and some of the graves without such enclosures in the same necropolises.

V. Kulcsár believes that the habit of enclosing graves with ditches entered the Pannonian Plain after the arrival there of a group of Sarmatians from Bugeac during the 2nd century AD and was used until the Sarmatians disappeared from the Carpathian Basin²⁸⁹. Some have recently stated that the habit of surrounding the graves with circular or rectangular ditches entered the regions of Bugeac and the Great Hungarian Plain in the final third of the 2nd century AD²⁹⁰. Taking into account the archaeological and historical realities, I believe that this ritual habit, besides other elements and new funerary traits²⁹¹, was introduced to the Pannonian Plain, as mentioned on other occasions as well²⁹², by Sarmatians who have arrived here from the north-western part of the Black Sea right after the Marcomannic Wars²⁹³. Supporting these statements one can also mention the numerous graves with ditched enclosures from the Pannonian Plain that can be dated after the end of the 2nd century AD. Thus, N. Dzigovskij's statement that graves with ditched enclosures were introduced in the two geographic areas during the same chronological period does not stand considering that in the Prut-Dniester interfluvial ditched enclosures following various ground plan shapes, with and without inner graves, appeared much before the period of the Marcomannic Wars.

The topic of the genesis of funerary ditched enclosures has been debated over time by several researchers²⁹⁴, but has not yet been fully settled.

The great majority of researchers looked for the roots of this habit in the eastern areas where the Sarmatians came from. S. I. Bezuglov and A. V. Zakharov compared the square ditched enclosures with the similar ones below the barrows of the Bronze Age in West Siberia and mentioned as analogies the

²⁸⁶ Kulchar 1997, 127–128.

²⁸⁷ Such graves are sometimes dated with approximation, but also according to the chronological identification of the graves that had not been looted and were not surrounded by ditches, located in their proximity.

²⁸⁸ Kulchar 1997, 128; Istvánovits, Kulcsár 2003, 273.

²⁸⁹ Kulchar 1997, 131; Kulcsár 1998, 95; Istvánovits, Kulcsár, 1993, 29.

²⁹⁰ Dzigovskij 2013, 622.

²⁹¹ See for this Kulcsár 1998, 95, 96, 102.

²⁹² Bârcă, Cociș 2013, 44; Bârcă 2015, 115.

²⁹³ Bârcă, Cociș 2013, 44; Bârcă 2015, 115.

²⁹⁴ Dergachev 1982, 134; Gudkova, Fokeev 1984, 91–92; Bezuglov, Zakharov 1988, 16–17; Simonenko 1991, 213; Simonenko 1993, 120, Kurchatov, Symonenko, Chyrkov 1995, 120–121; Kulchar 1997, 128–131; Kulcsár 1998, 35–40.

5th-century features from Central Asia²⁹⁵. A. V. Gudkova and M. M. Fokeev saw their roots in the nomadic environment of Central Asia²⁹⁶ and compared the square ditched enclosures from the southern part of the area between the Prut and the Dniester with those below the barrows in Chash-Tepe²⁹⁷. In their turn, Yu. A. Rappoport and S. A. Trudnovskaya presented as analogies for the ditched enclosures in Chash-Tepe those below the earlier barrows in the delta of river Sirdaria²⁹⁸. I should mention here the presence of the habit of surrounding the graves with ditches during the Eneolithic and the Bronze Age in East Europe²⁹⁹. One often encounters tumular graves surrounded by ditches in the Scythian³⁰⁰ and Late Scythian³⁰¹ environments as well, in the north and north-west Pontic areas. Without marking essential differences between the square ditched enclosures without inner graves and the enclosures that follow different ground plans, V. Kulcsár believes, based on numerous analogies, that the ditched enclosures with an entrance originate in the Iranian world³⁰². I have nothing against the eastern origin of ditched enclosures with and without inner graves in the Sarmatian world, especially since sufficient proof supports the idea.

Some researchers have expressed the idea that square ditched enclosures without inner graves originated in the West, linking their introduction in the Sarmatian world either to the Celtic tradition³⁰³ or to the Central-European area³⁰⁴. For the square ditched enclosures in the Prut-Dniester area they have mentioned a series of analogies from the territory of Poland, Slovakia, the Czech Republic, and Hungary³⁰⁵. Based on the latter, these authors presumed that the Sarmatians from the Prut-Dniester interfluvium could have adopted them through the lengthy contacts with the carriers of the Przeworsk Culture who moved during the 2nd century AD towards the north-western part of the Black Sea³⁰⁶. Unfortunately, the mechanism through which the Sarmatians adopted these square enclosures is unclear and lacks plausible arguments. Upon a first glance at this hypothesis they have noted the fact that none of the graves of the Przeworsk Culture had ditched enclosures in the vicinity of the Sarmatian graves from the Prut-Dniester interfluvium³⁰⁷.

V. Kulcsár has rejected this latter opinion³⁰⁸. A. V. Simonenko³⁰⁹ and myself³¹⁰ have also recently supported by the discoveries from the Middle Sarmatian Era necropolises in Chertovitski II and Pisarevka. The existence of square ditched enclosures in the Sarmatian environment from the Middle Don area must be interpreted as a natural argument that supports the fact that they are the precursors of those in the territory between the Prut and the Dniester, where they were introduced shortly afterwards (Medeleni, Palanca). I believe this archaeological fact indicates the possibility that the habit of using square ditched enclosures entered the north-west Pontic area after the arrival there of Sarmatian groups from the territories left of the Don and not as a result of influences exerted by the Przeworsk Culture or other cultural environments in this part of Europe.

The opinion that square ditched enclosures were adopted from the Przeworsk environment is also contradicted by the very small number of such features in the Iazygian environment from the Pannonian Plain and by the fact that they are dated later than those in the north and north-west Pontic areas – which is not normal if one believes that the carriers of the Przeworsk Culture inhabited territories neighboring those of the Iazyges where square enclosures should be more numerous and

²⁹⁵ Bezuglov, Zakharov 1988, 16–17.

²⁹⁶ Gudkova, Fokeev 1984, 92.

²⁹⁷ Rappoport, Trudnovskaya 1979, 151–177.

²⁹⁸ Rappoport, Trudnovskaya 1979, 156.

²⁹⁹ Agul'nikov 1996, 20, Fig. 3; Agul'nikov 2011, Fig. 3; Agul'nikov, Savva 2004, 49, 81–82, 113, 119, 155, 157, 180, Fig. 22, 24, 53, 56, 74, 86; Kuznetsov, Myshkin 2003, 142, 148, Fig. 2; Bepalyj, Luk'yashko 2018, Fig. 95/3, 5, 100/1.

³⁰⁰ Ol'khovskij, 1989, 105–107; S Agul'nikov, Savva 2004, 35, 44, 100–101, 128, Fig. 8, 18, 46, 61; Bepalyj, Luk'yashko 2008, 74–75, Pl. LXXIV/3; Bepalyj, Luk'yashko 2018, 7–8, 15, 48, 175, Fig. 1/1, 6/1, 28/1, 94/1; Ciobanu *et al.* 2019, 99, 102, 106, 108, 111, 112, Fig. 29, 32, 36, 42; Bondar *et al.* 2019, 134–152.

³⁰¹ Tel'nov, Chetverikov, Sinika 2016, 930–933, tab. 27.

³⁰² Kulchar 1997, 129–130; Kulcsár 1998, 36–38 with the entire bibliography.

³⁰³ Dergachev 1982, 134.

³⁰⁴ Simonenko 1991, 213; Simonenko 1993, 120; Kurchatov, Symonenko, Chyrkov 1995, 120.

³⁰⁵ Simonenko 1991, 213; Simonenko 1993, 120; Kurchatov, Symonenko, Chyrkov 1995, 120 with the entire bibliography.

³⁰⁶ Simonenko 1991, 213; Simonenko 1993, 120; Kurchatov, Symonenko, Chyrkov 1995, 120.

³⁰⁷ Bârcă 2015, 115.

³⁰⁸ Kulchar 1997, 129–131; Kulcsár 1998, 36–40.

³⁰⁹ Simonenko 2003, 154–156.

³¹⁰ Bârcă, Symonenko 2009, 218; Bârcă, Cociș 2013; Bârcă 2015, 115.

dated similarly, if not earlier than those north and north-west of the Black Sea³¹¹. Besides, the hypothesis³¹² that the tradition of designing square and rectangular enclosures was brought to the area of the Don about the middle of the 3rd century by a group of Sarmatians who had arrived there from the north-west area of the Black Sea as a consequence of their involvement in the eastwards campaigns of the Goths is also to be rejected under scrutiny. The archaeological discoveries made in the north and north-west Pontic area also contradict the statement that the habit of surrounding the graves with ditches appeared in the Sarmatian environment from the area north-west of the Black Sea and the present-day territory of Hungary during the final third of the 2nd century AD³¹³. This is supported by the square ditched enclosures in Medeleni and Palanca that are dated sometime between the final quarter/end of the 1st century and the beginning/first decades of the 2nd century AD.

As for the circular enclosures below barrows, one must note that despite the fact that the current stage of research indicates that most of them date to the first stage of the Late Sarmatian Period (the second half of the 2nd century – the first half of the 3rd century AD), they had been introduced, as previously mentioned³¹⁴, already during the Middle Sarmatian Period. The idea is supported by the discoveries made under the barrows in Cazaclia (T 10), Obileni (T 5) (the Prut-Dniester interfluvium), Verbki, Marina Roshcha (left of the Middle Dnieper), Kobyakovo (right of the Lower Don), Krivoj Liman and Novoaleksandrovka I (left of the Lower Don) that are dated to the chronological period between the second half of the 1st century AD and the beginning/first decades of the 2nd century AD. It is nevertheless certain that in the Sarmatian environment in the area north and north-west of the Black Sea this ritual habit must be interpreted, as I have argued before³¹⁵, as introduced by the Sarmatians who had arrived from the territories in the Don area and in the Iazygian environment from the Pannonian Plain as introduced by the Sarmatians from the north-west Pontic area.

In connection to the square and rectangular ditched enclosures without inner graves and with an entrance on the southern side, I believe, as previously mentioned on other occasions³¹⁶, that they had a ritual function in the necropolises and for isolated graves (of the barrow or flat type) discovered in their proximity. The presence on the surface of these funerary enclosures and in the fill of their ditches of remains from funerary banquets (animal bones, especially horse skulls, broken amphorae and pots, burnt wooden coals etc.) stands proof of the ritual gestures performed in those areas after the burial of the deceased in the graves around the enclosures. The enclosures without inner graves probably functioned as sacred areas for ritual gestures connected to the cult of the ancestors or other religious ceremonies.

As for the ditched enclosures with graves inside, I must stress the idea that the ditches were most likely meant to separate the deceased from the outer world and that the surface of these funerary ditched enclosures was the scene of certain ritual gestures performed after the burial of the deceased³¹⁷. The ditches of these features were probably also meant to protect the ritual gestures performed inside from the influence of the evil spirits³¹⁸. It is thus very likely that the funerary ditched enclosures, with and without inner graves, fulfilled, as previously mentioned³¹⁹, the role of scenes for ritual gestures connected to the funerary banquet and other elements of the cult of the dead.

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³¹¹ Bârcă 2015, 115.

³¹² Simonenko 1991, 213; Simonenko 1993, 121; Kurchatov, Symonenko, Chyrkov 1995, 121.

³¹³ Dzigovskij 2013, 622.

³¹⁴ Bârcă 2015.

³¹⁵ Bârcă 2015, 115.

³¹⁶ Bârcă 2015, 115.

³¹⁷ See Kulchar, 1997, 129–131; Kulcsár 1998, 36–40, 96; Bârcă 2015, 115; Bârcă, Cociș 2013, 44.

³¹⁸ Bârcă 2015, 115; Bârcă, Cociș 2013, 44.

³¹⁹ Kulchar 1997, 131; Kulcsár 1998, 39, 96, 111; Bârcă 2015, 116.

BIBLIOGRAPHY

- Agulnicov, Bubulici 1999 S. Agulnicov, V. Bubulici, *Tumulul sarmatic din sec. I p. Chr. de lângă satul Cazaclia. Thraco-Dacica XX/1-2*, 1999, 287-307.
- Agulnikov 1996 S. Agulnikov, *Necropola culturii Belozerka de la Cazaclia*. București 1996.
- Agulnikov 2011 S. Agul'nikov, *Raskopki kurgana 17 u s. Kazaklia v 1985 godu*. Revista Arheologică VII, 1-2, 2011, 129-156.
- Agul'nikov 1997 S. M. Agul'nikov, *Sarmatskie kurganye mogilniki v Nizhnem Podnestrov'e*. In: S. B. Okhotnokov (Ed.), *Nikonij i antichnyj mir Severnogo Prichernomor'ya*. Odessa 1997, 278-282.
- Agul'nikov, Bubulici 1999 S. Agul'nikov, V. Bubulici, *Sarmatskij kurgan I v. n. e. u s. Kazaklia*. In: P. P. Tolochko (Ed.), *Problemy skifo-sarmatskoj arkheologii Severnogo Prichernomor'ya*. K 100-letiyu B. N. Grakova. Zaporzh'e 1999, 10-15.
- Agul'nikov, Kurchatov 2005 S. M. Agul'nikov, S. I. Kurchatov, *Pogrebal'no pominal'nye komplekсы sarmatskogo vremeni Budzhakskoj stepi*. Revista Arheologică I/2, 2005, 285-294.
- Agul'nikov, Savva 2004 S. Agul'nikov, E. Savva, *Issledovaniya kurganov na levoberezh'e Dnestra*. Chișinău 2004.
- Balogh, Heipl 2010 C. Balogh, M. Heipl, *Szarmata temetőrészet Balástya, Sospál-Halom mellett. Új adatok a Dél-Alföld árokkeretes szarmata temetőihez és a rendellenes temetkezéseihez*. Pusztaszertől Algyőig. A Móra Ferenc Múzeum Évkönyvei. Monumenta Archeologica II, 2010, 149-170.
- Bârcă 2006 V. Bârcă, *Istorie și civilizație. Sarmati în spațiul est-carpatic (sec. I a. Chr. – începutul sec. II p. Chr.)*. Cluj-Napoca 2006.
- Bârcă 2009 V. Bârcă, *Câteva considerații privind vasele metalice de import din mediul sarmatic nord-pontic*. In: O. Țentea, I. C. Opriș (Eds.), *Near and Beyond the Roman Frontier. Proceedings of a colloquium held in Târgoviște, 16-17 October 2008 (= Supplementum Cercetări Arheologice XVI)*. București 2009, 85-124.
- Bârcă 2014 V. Bârcă, *Sarmatian vestiges discovered south of the Lower Mures River. The graves from Hunedoara Timișană and Arad*. Cluj-Napoca 2014.
- Bârcă 2014a V. Bârcă, *Returned foot exterior chord brooches made of a single metal piece (Type Almgren 158) recently discovered in the Western Plain of Romania. Notes on origin and chronology*, *Journal of Ancient History and Archaeology*, 1/2, 2014, p. 21-39. DOI: 10.14795/j.v1i2.50.
- Bârcă 2015 V. Bârcă, *A few notes on the emergence and distribution in the Sarmatian environment of variously shaped ditched enclosures, with or without graves inside*. In: R. Kogălniceanu, M. Gligor, R.-G. Curcă, S. Stratton (Eds.), *Homines, Funera, Astra 2. The Archaeology of Death in Ancient Times (Romanian Case Studies). Proceedings of the International Symposium on Funerary Anthropology, 23-26 September 2012, 1 Decembrie 1918 University (Alba Iulia, Romania)*. Oxford 2015, 103-118.
- Bârcă 2015a V. Bârcă, *The reinterpretation of the Sarmatian finds from the Romanian Plain (I)*. *Journal of Ancient History and Archaeology* 2/1, 2015, 35-71. DOI: 10.14795/j.v2i1.105.
- Bârcă 2013 V. Bârcă, *Nomads of the steppes by the Danube frontier of the Roman Empire in the 1st C CE. Historical sketch and chronological remarks*, *Dacia N. S.* LVII, 2013, 99-125.
- Bârcă 2019 V. Bârcă, *Notes on a clay mould for brooch casting recently discovered in the Great Hungarian Plain*. *Journal of Ancient History and Archaeology* 6/3, 2019, 119-133. DOI: 10.14795/j.v6i3.446.
- Bârcă, Cociș 2013 V. Bârcă, S. Cociș, *Sarmatian Graves Surrounded by Flat Circular Ditch Discovered at Nădlac (Arad County, Romania)*. *Ephemeris Napocensis* XXIII, 2013, 31-50.
- Bârcă, Symonenko 2009 V. Bârcă, O. Symonenko, *Călăreții stepelor. Sarmati în spațiul nord-pontic*. Cluj-Napoca 2009.
- Bârcă, Grumeza 2014 V. Bârcă, L. Grumeza, *Sarmatian burials in coffins and funerary timber features recently discovered in the Western Plain of Romania*. *Ephemeris Napocensis* XXIV, 2014, 157-194.
- Bencze et al. 2009 Z. Bencze, A. Korom, Gy. Terei, Z. Tézer, *Régészeti kutatások az M0 autópálya soroksári nyomvonalán / Archaeological investigations in the Soroksár section of the M0 motorway*. In: *Aquincumi füzetek*, 15, BTM Aquincumi Múzeumának ásatásai és leletmentései 2008-ben / Excavations at the Aquincum Museum in 2008. Budapest 2009, 130-149.

- Bespalyj, Bespalaya, Raev 2007 E. I. Bespalyj, N. E. Bespalaya, B. A. Raev, *Drevnee naselenie Nizhnego Dona. Kurgannyj mogil'nik „Valovyj 1”*. Rostov-na-Donu 2007.
- Bespalyj, Luk'yashko 2008 E. I. Bespalyj, S. I. Luk'yashko, *Drevnee naselenie mezhdurech'ya Dona i Kagal'nika. Kurgannyj mogil'nik u s. Vysochino*, Vol. 1. Rostov-na-Donu 2008.
- Bespalyj, Luk'yashko 2018 E. I. Bespalyj, S. I. Luk'yashko, *Drevnee naselenie mezhdurech'ya Dona i Kagal'nika. Kurgannyj mogil'nik u s. Novoaleksandrovka*, Vol. 2. Rostov-na-Donu 2018.
- Bejlekchi, Agul'nikov, Chirkov 1985 V. S. Bejlekchi, S. M. Agul'nikov, A. Yu. Chirkov, *Otchet o rabote Budzhakskoj ekspeditsii v 1985 godu*. Kishinev 1985 (ms.). Report preserved in the archive of the National Museum for the History of Moldavia, Chişinău.
- Bejlekchi, Yarovoj 1973 V. S. Bejlekchi, E. V. Yarovoj, *Otchet o rabote Kagul'skoj arkheologicheskoj ekspeditsii u s. Suvorovo v 1973*. Kishinev 1973 (ms.). Report preserved in the archive of the National Museum for the History of Moldavia, Chişinău.
- Bezuglov, Glebov, Parusimov 2009 S. I. Bezuglov, V. P. Glebov, I. N. Parusimov, *Pozdnesarmatskie pogrebeniya v ust'e Dona (Kurgannyj mogil'nik Valovyj I)*. Rostov-na-Donu 2009.
- Bezuglov, Zakharov 1988 S. I. Bezuglov, A. V. Zakharov, *Mogil'nik Zhuravka i final pozdnesarmatskoj epokhi v pravoberezhnom Podon'e*. *Izvestiya Rostovskogo oblastnogo muzeya kraevedeniya* 5, 1988, 5–28.
- Bondar et al. 2019 K. M. Bondar, M. M. Daragan, V. Prylukov, S. V. Polin, I. V. Tsyupa, S. V. Didenko, *Magnitometriya skifs'kogo kurgannogo mogyl'nyka Katerynivka u Nizhn'omu Podniprov'i*. *Geofizicheskij zhurnal* 41/3, 2019, 134–152. DOI: <https://doi.org/10.24028/gzh.0203-3100.v41i3.2019.172438>
- Borziac, Manzura, Levitskij 1983 I. A. Borziac, I. V. Manzura, O. G. Levitskij, *Korzhevskie kurgany*. In: *Arkheologicheskie issledovaniya v Moldavii v 1979–1980 gg*. Kishinev 1983, 3–27.
- Bozsik 2003 K. Bozsik, *Szarmata sírok a Kiskundorozsma-subasai 26/78. Lelöhelyen*. In: Cs. Szalontai (Ed.), *Úton-útfélen. Múzeumi kutatások az M5 autópálya nyomvonalán*. Szeged 2003, 97–106.
- Bruyako, Dzigovskij 2008 I. V. Bruyako, A. N. Dzigovskij, *Zametki po istori gorodishcha Kartal v rimskoe vremya*. In: I. V. Nemchenko (Ed.), *Drevnee Prichernomor'e. VIII chteniya pamyati prof. P. O. Karyshkovskogo*. Odessa 2008.
- Bruyako, Dzigovskij, Madyda-Legutko 2017 I. V. Bruyako, A. N. Dzigovskij, R. Madyda-Legutko, *Studia Baltica et Pontica (Sarmato-germanskij kompleks na orodishche Kartal v nizov'yakh Dunaya)*. *Stratum plus* 4, 2017, 233–264.
- Chernopitskij 1983 M. P. Chernopitskij, *Pogreba'nye komplekсы v kurganah Nizhnego Dona*. In: V. Ya. Kiyashko (Ed.), *Problemy khronologii arkheologicheskikh pamyatnikov stepnoj zony Severnogo Kavkaza*. Rostov-na-Donu 1983, 84–89.
- Ciobanu et al. 2019 I. Ciobanu, A. Simalcsik, L. Bejenaru, R. Pirnău, S. Agulnicov, S. Popovici, *Considerații preliminare privind cercetările arheologice și interdisciplinare de la Crihana Veche (raionul Cahul). Campaniile 2016 și 2017*. *Arheologia Preventivă în Republica Moldova* IV, 2019, 71–118.
- Cociș, Bârcă 2013 S. Cociș, V. Bârcă, *The Workshops and Production of “Sarmatian” Brooches (Almgren Group VII, Series I)*. *Dacia N.S.* LVII, 2013, 161–175.
- Demchenko 1987 T. I. Demchenko, *Otchet o polevyh issledovaniyah Edinetskoj novostroechnoj arkheologicheskoj ekspeditsii v 1987 godu u s. Burlaneshty*, Kishinev 1987 (ms.). Report preserved in the archive of the National Museum for the History of Moldavia, Chişinău.
- Demidenko 1994 S. V. Demidenko, *Tekhnologiya izgotovleniya sarmatskikh kotlov i nekotorye problemy sarmatskoj istorii*. In: *Problemy istorii i kul'tury sarmatov. Tezisy dokladov Mezhdunarodnoj konferentsii, 14–16 sentyabrya 1994 goda*. Volgograd 1994, 65–67.
- Demidenko 2008 S. V. Demidenko, *Bronzovye kotly drevnikh plemen Nizhnego Povolzh'ya i Yuzhnogo Priural'ya (V v. do n.e. – III v. n. e.)*. Moskva 2008.
- Dergachev 1982 V. A. Dergachev, *Materialy raskopok arkheologicheskoj ekspeditsii na Srednem Prute (1975–1976)*. Kishinev 1982.
- Dzigovskij 2013 A. N. Dzigovskij, *Sarmaty*. In: I. B. Briyako, T. L. Samojlova (Eds.), *Drevnie kul'tury Severo-Zapadnogo Prichernomor'ya (k 95-letiyu Natsional'noj akademii nauk Ukrainy)*. Odessa 2013, 597–630.

- Dzygovs'kyj 1993 O. M. Dzygovs'kyj, *Sarmaty na zakhodi stepovogo Prychornomor'ya naprykintsi I st. do n. e. - pershij polovyni IV st. n. e.* Kyiv 1993.
- Dzygovs'kyj 2000 O. M. Dzygovs'kyj, *Kul'tura sarmativ Pivnichno-Zakhidnogo Prichornomor'ya.* Odesa 2000.
- Florea 1993 G. Florea, *Două piese de import în zona așezărilor dacice din Munții Orăștiei.* Apulum XXVII-XXX, 1990–1993 (1993), 173–180.
- Fodor 1997 I. Fodor, *Hajdúdorog-Csárdadomb. Szarmata temetkezések a II-III. Szazadbol.* In: P. Raczky, T. Kovács, A. Anders (Eds.), *Utak a múltba: az M3-as autópálya régészeti leletmentései (Paths into the past: rescue excavations on the M 3 motorway).* Budapest 1997, 110–112.
- Fokeev 1985 M. M. Fokeev, *O poyavlenii katakomb na mogil'nikakh III-IV vv. v Severo-Zapadnom Prichernomor'e.* In: *Etnokul'turnye i etnosotsial'nye protsesy v kontse I tys. do n. e. – pervoj polovine I tys. n. e. na yugo-zapade USSR i sopredelnyh regionov.* Tezisy dokladov i soobshchenij sovместnoj shkoly-seminara. Uzhgorod 1985, 61–63.
- Fokeev 1986 M. M. Fokeev, *Tipy sarmatskih mogil'nikov v Budzhakskoj stepi.* In: V. N. Stanko (Ed.), *Issledovaniya po arkheologii Severo-Zapadnogo Prichernomor'ya.* Kiev, 1986, 157–161.
- Fokeev 1987 M. M. Fokeev, *Pamyatniki pervyh vekov nashej ery v Budzhakskoj stepi.* In: A. T. Smilenko (Ed.), *Dnestrovsko-Dunajskoe mezhdurech'e v I – nachale II tys. n. e.* Kiev 1987, 16–25.
- Fokeev 1989 M. M. Fokeev, *Pogrebal'nyj obryad pozdnejshikh sarmatskikh mogil'nikov Budzhakskoj stepi.* In: V. G. Petrenko (Ed.), *Istoriya i arkheologiya Nizhnego Podunav'ya.* Reni 1989, 88–89.
- Fokeev 1991 M. M. Fokeev, *Pozdnejshie mogil'niki sarmatskogo vremeni v stepi mezhdú Dnestrom i Dunaem.* In: P. P. Byrnea (Ed.), *Drevnosti yugo-zapada SSSR.* Kishinev 1991, 56–64.
- Grosu 1979 V. I. Grosu, *Sarmatskij kurgan u s. Korpach.* Sovetskaya Arkheologiya 2, 1979, 250–255.
- Grosu 1990 V. I. Grosu, *Khronologiya pamyatnikov sarmatskoj kul'tury Dnestrovsko-Prut'skogo mezhdurech'ya.* Kishinev 1990.
- Grosu 1995 V. I. Grosu, *Sarmatii în spațiul geto-dacic răsăritean.* Arheologia Moldovei XVIII, 1995, 133–186.
- Grosu, Demchenko 1990 V. I. Grosu, T. I. Demchenko, *Sarmatskie kurgany u sel Kyrnatseny i Opach.* In: *Arkheologicheskie issledovaniya v Moldavii v 1985 g.* Kishinev 1990, 132–140.
- Grosu, Savva 1987 V. I. Grosu, E. N. Savva, *Arkheologicheskie issledovaniya u s. Choropkany.* Izvestiya AN Moldavskoj SSR, Seriya obshchestvennyh nauk 2, 1987, 71–74.
- Grumeza, Ursuțiu 2016 L. Grumeza, A. Ursuțiu, *Amenajări funerare circulare descoperite pe tronsonul autostrăzii Nădlac-Arad, Siturile Nădlac 3 M Nord și 4 M.* Arheologia Moldovei XXXIX, 2016, 195–213.
- Gudkova, Fokeev 1984 A. V. Gudkova, M. M. Fokeev, *Zemledel'tsy i kochevniki v nizov'yah Duniya I-IV vv. n. e.* Kiev, 1984.
- Gudkova, Redina 1999 A. V. Gudkova, E. F. Redina, *Sarmatskij mogil'nik Gradshka v nizov'yah Dunaya.* Starozhytnosti Pivnichnogo Prychornomor'ya i Krymu VII, 1999, 177–193.
- Guguev 1986 V. K. Guguev, *Novye dannye o Kobyakovskom gruntovom mogil'nike.* In: *Problemy okhrany i issledovaniya pamyatnikov arkheologii v Donbasee.* Tezisy dokladov, 10–11 aprelya, 1986 goda. Donetsk 1986, 52–53.
- Guguev, Bezuglov 1990 V. K. Guguev, S. I. Bezuglov, *Vsadnicheskoe pogrebenie pervyh vekov nashej ery iz kurgannogo nekropolya Kobyakovo gorodishcha na Donu.* Sovetskaya Arkheologiya 2, 1990, 164–175.
- Gushchina, Zaset'skaya 1994 I. I. Gushchina, I. P. Zaset'skaya, *„Zolotoe kladbishche” Rimskoj epohi v Prikuban'e.* Sankt-Peterburg 1994.
- Gulyás 2006 G. Gulyás, *Abony 39. Lelőhely (Tatárhányás-dűlő).* In: L. Simon (Ed.), *Régészeti kutatások masfelmmillió négyzetméteren. Autópálya és gyorsforgalmi utak építését megelőző régészeti feltárások Pest megyében 2001–2006.* Pest Megyei múzeumi füzetek 7, Szentendre 2006, 89.
- Gulyás 2011 G. Gulyás, *Szarmata temetkezések Abony és Cegléd környékén.* Studia Comitatus 31, 2011, 125–253.

- Gulyás 2014 G. Gulyás, *Késő szarmata temetőrészletek Óföldsék-Ürmös II. Lelőhelyen (M43-as autópálya 10. lelőhely)*. A Nyíregyházi Jósa András Múzeum Évkönyve LVI, 2014, 15–107.
- Herendi, Sóskuti 2016 O. Herendi, K. Sóskuti, *Réz-, bronz-, római, Árpád-kori településnyomok és temetkezések Makó, Járándóról. (Előzetes jelentés az M43, 37., HT 40. lelőhelyen végzett régészeti feltárásokról) / Copper Age, Bronze Age, Roman period and Árpadian Age settlements and burials at Makó, Járándó (Preliminary report on the excavations at the M43, 37, HT 40 site)*. In: Régészeti kutatások Magyarországon 2011–2014 / Archaeological Investigations in Hungary 2011–2014. Budapest 2016, 30–50.
- Hullám 2012 D. Hullám, *Római császárkori temetkezések Kántorjánosi és Pócspetri határában*. In: Á. Szabó, Zs. Masek (Eds.), *Ante viam stratam, A Magyar Nemzeti Múzeummegelőző feltárásai Kántorjánosi s Pócspetrihatárában az M3 autópálya nyírségi nyomvonalán*. Budapest 2012, 351–394.
- Il'yukov 2000 L. S. Il'yukov, *Pozdnesarmatske kurgany levoberezh'ya reki Sal*. In: *Sarmatu i ikh sosedi na Donu. Materialy i issledovaniya po arkheologii Dona 1*. Rostov-na-Donu 2000, 100–140.
- Il'yukov, Vlaskin 1992 L. S. Il'yukov, M. V. Vlaskin, *Sarmaty mezhdurech'ya Sala i Manycha*. Rostov-na-Donu 1992.
- Istvánovits, Kulcsár 1993 E. Istvánovits, V. Kulcsár, *New archaeological phenomena in the ethnical picture of Eastern Hungary after the Marcomannic-Sarmatian war*. Specimina Nova IX, 1993, 27–35.
- Istvánovits, Kulcsár 2003 E. Istvánovits, V. Kulcsár, *The archaeology of the Sarmatian territories. Burials*. In: Z. Visy (Ed.), *Hungarian archaeology at the turn of the millennium*. Budapest 2003, 271–275.
- Ivanova, Petrenko, Vetchinnikova 2005 S. V. Ivanova, V. G. Petrenko, N. E. Vetchinnikova, *Kurgany drevnikh skotovodov mezhdurech'ya Yuzhnogo Buga i Dnestra*. Odessa 2005.
- Korom, Szilas, Terei 2010 A. Korom, G. Szilas, G. Terei, *Kr.u. 3–5. századi temető és település valamint Árpád-kori falu az M0 körgyűrű nyomvonalán / 3rd–5th century AD cemetery and settlement, and Árpád period village along the path of M0 motorway*. In: *Aquincumi füzetek, 16, A BTM Aquincumi Múzeumának ásatásai és leletmentései 2009-ben / Excavations at the Aquincum Museum in 2009*. Budapest 2010, 129–151.
- Kostenko 1977 V. I. Kostenko, *Sarmatskie pamyatniki v materialakh arkheologicheskoy ekspeditsii DGU*. In: *Kurgannye drevnosti stepnogo Podneprov'ya (III-I tys. do n. e.)*. Dnepropetrovsk 1977, 114–137.
- Kostenko 1986 V. I. Kostenko, *Sarmaty Samarsko-Orel'skogo mezhdurechya III vv. do n. e. – IV v. n. e.* Dnepropetrovsk 1986.
- Kostenko 1993 V. I. Kostenko, *Sarmaty v Nizhnem Podneprov'e (po materialam Ušt'-Kamenskogo mogil'nika)*. Dnepropetrovsk 1993.
- Kóhegyi 1971 M. Kóhegyi, *Előzetes jelentés a Madaras-Halmok későszarmata hunkori temetőjének ásatásáról*. *Archaeológiai Értesítő*, 98, 1971, 210–215.
- Kóhegyi, Vörös 2011 M. Kóhegyi, G. Vörös, *Madaras – Halmok, Kr. U. 2–5. Századi szarmata temet.* Szeged 2011.
- Kropotkin 1970 V. V. Kropotkin, *Rimskie importnye izdeliya v Vostochnoj Evrope (II v. do n. e.- V v. n. e.)*. *Arkheologiya SSSR, Svod Arkheologicheskikh Istochnikov*, D1–27. Moskva 1970.
- Kropotov 2010 V. V. Kropotov, *Fibuly sarmatskoj epokhi*. Kiev 2010.
- Kulchar 1997 V. Kulchar, *Nekotorye kharakternye cherty pogrebal'nogo obryada sarmatov Karpatskogo bassejna*. *Donskie drevnosti* 5, 1997, 126–133.
- Kulcsár 1991 V. Kulcsár, *A szarmaták temetkezési rítus néhány jellegetessége. A halmos temetők. A Móra Ferek Múzeum Évkönyve 2, 1984–1985 (1991), 17–28*.
- Kulcsár 1998 V. Kulcsár, *A kárpát-medencei szarmaták temetkezési szokásai*. *Aszód*, 1998.
- Kurchatov 1989 S. I. Kurchatov, *Novye materialy iz raskopok sarmatskogo i chernyakhovskogo mogil'nikov u s. Petreshy MSSR*. In: *Problemy skifo-sarmatskoj arkheologii Severnogo Prichernomor'ya*, posvyashchennoj 90-letiyu so dnya rozhdeniya profesora B. N. Grakova, I. Tezisy dokladov oblastnoj konferentsii, Zaporozh'e 1989, 74–75.
- Kurchatov 1990 S. I. Kurchatov, *Otchet o rezul'tatakh arkheologicheskikh issledovaniy kurganov bliz sel Palanka i Novye Shal'viry Drokievskogo rajona MSSR, v 1990 godu*, Kishinev 1990 (ms.). Report preserved in the archive of the National Museum for the History of Moldavia, Chişinău.

- Kurchatov, Levinskij 2007 S. Kurchatov, A. Levinskij, *Novye materialy sarmatskogo vremeni iz Poprutya*. Revista Arheologică III/1–2, 2007, 311–320.
- Kurchatov, Symonenko, Chyrkov 1995 S. I. Kurchatov, O. V. Symonenko, A. Yu. Chyrkov, *Sarmatskij voinskij mogil'nik na Serednomu Pruti*. Arkheologiya (Kyiv) 1, 1995, 112–123.
- Kuznetsov, Myshkin 2003 P. F. Kuznetsov, V. N. Myshkin, *Issledovanie mogil'nika Zhyravlikha I*. Nizhnevolzhskij arheologicheskij vestnik 6, 2003, 142–164.
- Larenok 2016 V. A. Larenok, *Pogrebal'nye komplekсы s rovikami (nekropol' Kobyakova gorodishcha)*. Archaeoastronomy and Ancient Technologies 4/2, 2016, 1–26.
- Leahu, Trohani 1979 V. Leahu, G. Trohani, *Săpăturile arheologice de la Vitănești, jud. Teleorman*. Cercetări Arheologice 3, 1979, 127–141.
- Levițki, Manzura, Demcenko 1996 O. Levițki, I. Manzura, T. Demcenko, *Necropola tumulară de la Sărăteni*. București 1996.
- Maksimenko 1998 V. E. Maksimenko, *Sarmaty na Donu (arkheologiya i problemy etnicheskoy istorii) (= Donskie drevnosti 6)*. Azov 1998.
- Marčenko, Limberis 2008 I. I. Marčenko, N. Ju. Limberis, *Römische Importe in sarmatischen und maiotischen Denkmälern des Kubangebietes*. In: A. Simonenko, I. I. Marčenko, N. Ju. Limberis, *Römische Importe in sarmatischen und maiotischen Gräbern zwischen Unterer Donau und Kuban*. Mainz: Philipp von Zabern, 2008, 265–400.
- Medvedev 1990 A. P. Medvedev, *Sarmaty i lesostep'*. Voronezh 1990.
- Mordvintseva, Sergatskov 1995 V. I. Mordvintseva, I. V. Sergatskov, *Bogatoe sarmatskoe pogrebenie u stantsii Berdiya*. Rossijskaya Arkheologiya 4, 1995, 114–124.
- Mukhopad 1986 S. E. Mukhopad, *Sarmatskie pogrebeniya s bronzovymi kotlami v Orel'-Samarskom mezhdurech'e*. In: Problemy arkheologii Podneprov'ya III. Dnepropetrovsk 1986, 136–143.
- Nagy 2005 D. S. Nagy, *Az Orosházi – Tanyák, Máv – homokbánya szarmata temetője*. A Szántó Kovács János Múzeum Évkönyve 7, 2005, 11–48.
- Naumenko 2008 S. A. Naumenko, *Amfory iz zakrytykh kompleksov Tanaisa rimskogo vremeni*. Novensia 18–19, 2008, 267–289.
- Naumenko 2012 S. A. Naumenko, *Sostav amfor v zakrytykh kompleksakh Tanaisa kontsa I – serediny III vv. n. e.* Vestnik Tanaisa 3, 2012, 63–88.
- Naumenko 2017 S. A. Naumenko, *Torgovye svyazi Tanaisa s Pontijskim regionom*. Vestnik Tanaisa 4, 2017, 22–31.
- Ol'khovskij 1989 V. S. Ol'khovskij, *O rovikakh skifskikh kurganov Prichernomor'ya*. In: Problemy skifo-sarmatskoj arkheologii Severnogo Prichernomor'ya", posvyashchennoj 90-letiyu so dnya rozhdeniya profesora B. N. Grakova, I. Tezisy dokladov oblastnoj konferentsii. Zaporozh'e 1989, 105–107.
- Opaiț 1980 A. Opaiț, *Considerații preliminare asupra amforelor romano-bizantine din Dobrogea*. Peuce VIII, 1980, 291–327.
- Raev 1978 B. A. Raev, *Die Bronzegefäße der römischen Kaiserzeit in Trakien und Mösien*. Bericht der Römisch-Germanischen Kommission des Deutschen Archäologischen Institutes, 58, 2, 1977 (1978), 605–642.
- Raev 1986 B. A. Raev, *Roman Imports in the Lower Don Basin*. British Archaeological Reports, International Series, 278. Oxford 1986.
- Raev, Naumenko 1993 B. A. Raev, S. A. Naumenko, *Pogrebenie s rimskimi importami v Rostovskoj oblasti*. In: B. A. Raev, M. Yu. Vakhtina (Eds.), *Skifiya i Bospor. Materialy konferentsii pamyati akademika M. I. Rostovtseva*. Novocheerkassk 1993, 151–160.
- Párducz 1950 M. Párducz, *A szarmatakor emlékei Magyarországon / Denkmäler der Sarmatenzeit Ungarns III*. (= Archaeologia Hungarica XXX). Budapest 1950.
- Puzdrovskij 2007 A. E. Puzdrovskij, *Krymskaya Skifiya II v. do n. e. – III v. n. e. Pogrebal'nye pamyatniki. Simferopol' 2007*.
- Radnóti 1938 A. Radnóti, *Die römischen Bronzegefäße von Pannonien*. Dissertationes Pannonicae, Ser. II, no. 6. Budapest-Leipzig 1938.
- Rappoport, Trudnovskaya 1979 Yu. A. Rappoport, S. A. Trudnovskaya, *Kurgany na vozvyshenosti Chash-Tepe*. In: M. A. Itina (Ed.), *Kochevniki na granitsakh Khorezma (= Trudy Khorezmskoj arkheologo-etnograficheskoy ekspeditsii XI)*. Moskva 1979, 151–166.

- Savva, Agul'nikov, Manzura 1984 E. N. Savva, S. M. Agul'nikov, I. V. Manzura, *Otchet o polevyh issledovaniyah Budzhakskoj novostroechnoj arkheologicheskoj ekspeditsii v 1984 godu*, Kishinev 1984 (ms.). Report preserved in the archive of the National Museum for the History of Moldavia, Chişinău.
- Savva, Agul'nikov, Manzura 2019 E. N. Savva, S. M. Agul'nikov, I. V. Manzura, *Issledovanie kurganov v Budzhakskoj stepi (1980–1985 gg.)*. Chişinău 2019.
- Sergatskov 2000 I. V. Sergatskov, *Sarmatskie kurgany na Ilovle*. Volgograd 2000.
- Sergatskov 2004 I. V. Sergatskov, *K khronologii srednesarmatskoj kul'tury Nizhnego Povolzh'ya*. In: B. A. Raev (Ed.), *Sarmatskie kul'tury Evrazii: problemy regional'noj khronologii. Doklady k 5-j mezhdunarodnoj konferentsii "Problemy sarmatskoj arkheologii i istorii"*. Krasnodar 2004, 107–116.
- Shelov 1978 D. B. Shelov, *Uzkogorlye svetloglınınyane amfory pervyh vekov nashej ery. Klassifikaciya i khronologiya*. *Kratkie soobshcheniya Instituta arkheologii* 156, 1978, 16–21.
- Shepko 1987 L. G. Shepko, *Pozdnesarmatskie kurgany v Severnom Priazov'e*. *Sovetskaya Arkheologiya* 4, 1987, 158–173.
- Shilov 1975 V. P. Shilov, *Ocherki po istorii drevnikh plemen Nizhnego Povolzh'ya*. Leningrad 1975.
- Simon 2006 L. Simon (editor), *Régészeti kutatások masfelmmillió négyzetméteren. Autópálya és gyorsforgalmi utak építését megelőző régészeti feltárások Pest megyében 2001–2006*. Pest Megyei múzeumi füzetek 7. Szentendre 2006.
- Simonenko 1991 A. V. Simonenko, *Sarmatskie pogrebeniya so rvami kak istoricheskij istochnik*. In: *Drevnejšie obshchnosti zemledeľcev i skotovodov Severnogo Prichernomor'ya (V tys. do n. e. – V v. n. e.)*. Kiev 1991, 212–213.
- Simonenko 1993 A. V. Simonenko, *Sarmaty Tavrii*. Kiev 1993.
- Simonenko 1995 A. V. Simonenko, *Catacomb Graves of the Sarmatians of the North Pontic Region*. *Studia Archaeologica. A Móra Ferek Muzeum Evkönyve I*, 1995, 345–374.
- Simonenko 2003 A. V. Simonenko, *Eshche raz o rvakh v pogrebal'nom obryade sarmatov*. In: V. D. Baran (Ed.), *Starozhytnosti I tysyacholittya nashoj ery na teritorii Ukrainy*. Kyiv 2003, 148–157.
- Simonenko 2004 A. V. Simonenko, *Khronologiya i periodizatsiya sarmatskih pamyatnikov Severnogo Prichernomor'ya*. In: B. A. Raev (Ed.), *Sarmatskie kul'tury Evrazii: problemy regional'noj khronologii. Doklady k 5-j mezhdunarodnoj konferentsii "Problemy sarmatskoj arkheologii i istorii"*. Krasnodar 2004, 134–173.
- Simonenko 2008 A. Simonenko, *Römische Importe in sarmatischen Denkmälern des nördlichen Schwarzmeergebietes*. In: A. Simonenko, I. I. Marchenko, Natal'ya Ju. Limberis, *Römische Importe in sarmatischen und maiotischen Gräbern zwischen Unterer Donau und Kuban*, Philipp von Zabern, Mainz, 2008, 1–94, Taf. 1–168.
- Simonenko 2010 A. V. Simonenko, *Cultura sarmaţilor*. In: V. Dergaciov (Ed.), *Istoria Moldovei. Epoca preistorică și antică (până în sec. V)*. Chişinău 2010, 554–580.
- Simonenko 2011 A. V. Simonenko, *Rimskij import u sarmatov Severnogo Prichernomor'ya*. Sankt-Peterburg 2011.
- Skripkin 1990 A. S. Skripkin, *Aziatskaya Sarmatiya. Problemy khronologii i ee istoricheskij aspekt*. Saratov 1990.
- Sóskuti 2016 K. Sóskuti, *Középső bronzkori, szarmata, avar-, Árpád-kori településnyomok, valamint szarmata és avar kori temetkezések Makó, Dáli-ugarról (Előzetes jelentés az M43, 40., HT 43. lelőhelyen végzett régészeti feltárásról) / Middle Bronze Age, Sarmatian, Avar and Árpadian Age settlements and Sarmatian and Avar period burials at Makó, Dáli-ugar (Preliminary report of the excavations at Site M43, 40, HT 43)*. In: *Régészeti kutatások Magyarországon 2011–2014 / Archaeological Investigations in Hungary 2011–2014*, Budapest 2016, 76–96.
- Subbotin, Dzigovskij 1990 L. V. Subbotin, A. N. Dzigovskij, *Sarmatskie drevnosti Dnestro-Dunajskogo mezhdurechya I. Kurgannye mogilniki Alkaliya i Khadzhide II*. Kiev 1990.
- Subbotin, Dzigovskij 1990a L. V. Subbotin, A. N. Dzigovskij, *Sarmatskie drevnosti Dnestro-Dunajskogo mezhdurechya II. Kurgannye mogilniki Divizijiskij i Belolesskij*. Kiev 1990.
- Subbotin, Dzigovskij 1990b L. V. Subbotin, A. N. Dzigovskij, *Sarmatskie drevnosti Dnestro-Dunajskogo mezhdurechya III. Kurgannye mogilniki Vasilevskij i Kubej*. Kiev 1990.
- Subbotin, Zaginajlo, Shmaglij 1970 L. V. Subbotin, A. G. Zaginajlo, N. M. Shmaglij, *Kurgany u s. Ogorodnoe*. *Materialy po arkheologii Severnogo Prichernomor'ya* 6/1, 1970, 130–155.

- Symonenko 1991 O. V. Symonenko, *Roxolany (poshuk arkeologichnyh vidpovidnostej)*. Arkheologiya (Kyiv) 4, 1991, 17–28.
- Szalontai, Tóth 2003 Cs. Szalontai, K. Tóth, *Szeged-Kiskundorozsma-Nagyszék II. (26/72., M5 Nr. 34. lelohely)*. In: Cs. Szalontai (Ed.), *Úton-útfélen*. Múzeumi kutatások az M5 autópálya nyomvonalán. Szeged 2003, 69–81.
- Szekeres 1998 Á. Szekeres, *Sarmatska nekropola Subotica–Verušić*. Rad muzeja Vojvodine 40, 1998, 107–147.
- Szekeres, Szekeres 1996 L. Szekeres, Á. Szekeres, *Szarmata és XI. Századi temetők Verusicson (Subotica-Azotara)*. Szabadka 1996.
- Tassinari 1993 S. Tassinari, *Il vasellame bronzeo di Pompei*. Ministero per I Beni Culturali ed Ambientali, Soprintendenza Archeologica di Pompei, Cataloghi, 5. Roma 1993.
- Tóth, Szabó, Homoki 2015 K. Tóth, Á. Szabó, B. Homoki, *Archaeological research at the Twin-barrows near Onga (Northeast Hungary) in 2015*. A Herman Ottó Múzeum Évkönyve LIV, 2015, 275–292.
- Tutkovics 2015 E. K. Tutkovics, *Szarmata temetkezések a bükkábrányi lignitbánya területén – Bükkábrány-Bánya, XI/A lelőhely szarmata sírjai*. A Herman Ottó Múzeum Évkönyve LIV, 2015, 221–274.
- Vaday 1985 A. Vaday, *Sarmatisches Gräberfeld in Törökszentmiklós-Surján-újtelep*. Acta Archaeologica XXXII/3–4, 1985, 345–390.
- Vaday 1989 A. Vaday, *Die sarmatischen Denkmäler des Komitats Szolnok (= Antaeus 17–18, 1988–1989)*. Budapest 1989.
- Vaday, Szöke 1983 A. Vaday, B. M. Szöke, *Szarmata temető és gepida sír Endröd-Szujókereszten*. Communicationes Archaeologicae Hungariae 1983, 79–132.
- Vaday, Kiszely 1986 A. Vaday, I. Kiszely, *Sarmatische Gräber in Tiszkürt, Homokos*. Mitteilungen des Archäologischen Instituts der Ungarischen Akademie der Wissenschaften 10/11, 1986, 109–116, 375–380.
- Váradai 1997 A. Váradai, *Szihalom–Pamélyi-tábla*. In: P. Raczky, T. Kovács, A. Anders (Eds.), *Utak a múltba: az M3-as autópálya régészeti leletmentései / Paths into the past: rescue excavations on the M 3 motorway*. Budapest 1997, 117–119.
- Vnukov 2003 S. Yu. Vnukov, *Prichernomorkie amfory I v. do n. e. – II v. n. e. (morfológiya)*. Moskva 2003.
- Vnukov 2006 S. Yu. Vnukov, *Prichernomorkie amfory I v. do n. e. – II v. n. e., II, Petrografiya, khronologiya, problemy trgovli*. Sankt-Peterburg 2006.
- Vnukov 2016 S. Yu. Vnukov, *Eshche raz o tipologii, evolyutsii i khronologii svetloglinyanykh (pozднеgeraklejskih) uzkogorlyh amfor*. Rossijskaya Arkheologiya 2, 2016, 36–47.
- Volkov, Guguev 1986 I. V. Volkov, Yu. K. Guguev, *A Late Sarmatian burial in Rostov-on Don*. In: B. A. Raev, *Roman Imports in the Lower Don Basin*, British Archaeological Reports, International Series, 278. Oxford 1986, 73–74.
- Vornic, Bubulici, Popovici 2015 V. Vornic, V. Bubulici, S. Popovici, *Date preliminare privind necropola sarmatică de la Medeleni (com. Petrești, r-nul Ungheni)*. Arheologia Preventiva în Republica Moldova II, 2015, 59–72.
- Vornic, Bubulici, Popovici 2016 V. Vornic, V. Bubulici, S. Popovici, *Sarmatian necropolis from Medeleni (com. Petrești, Ungheni District, Republic of Moldova)*. Journal of Ancient History and Archaeology 3/3, 2016, 20–48. DOI: 10.14795/j.v3i3.191.
- Vörös 1981 G. Vörös, *Későszarmata hunkori telep és temető Sándorfalva-Eperjesen*. Múzeumi kutatások Csongrád megyében, 1981, 25–31.
- Vörös 1985 G. Vörös, *Hunkori szarmata temető Sándorfalva-Eperjesen*. A Móra Ferek Múzeum Évkönyve 2, 1982–1983 (1985), 129–172.
- Yarovoj 1984 E. V. Yarovoj, *Pogrebal'nyj obryad nekotorykh skotovodcheskikh plemen Srednego Pruta (po materialam raskopok kurganov u s. Korpach)*. In: *Kurgany v zonah novostroek Moldavii*. Kishinev 1984, 37–75.
- Yarovoj 1986 E. V. Yarovoj, *Otchet o polevykh issledovaniyakh Prutskoj novostrochnoj arkheologicheskoy ekspeditsii v 1986 godu*. Kishinev 1986 (ms.). Report preserved in the archive of the National Museum for the History of Moldavia, Chișinău.
- Yarovoj, Chirkov 1989 E. V. Yarovoj, A. Yu. Chirkov, *Voinskij sarmatskij mogil'nik v Edinetskom rajone na Prute*. In: *Problemy skifo-sarmatskoj arkheologii Severnogo Prichernomor'ya*, posvyashchennoj 90-letiyu so dnya rozhdeniya profesora B. N. Grakova I. Tezisy dokladov oblastnoj konferentsii. Zaporozh'e 1989, 182–183.

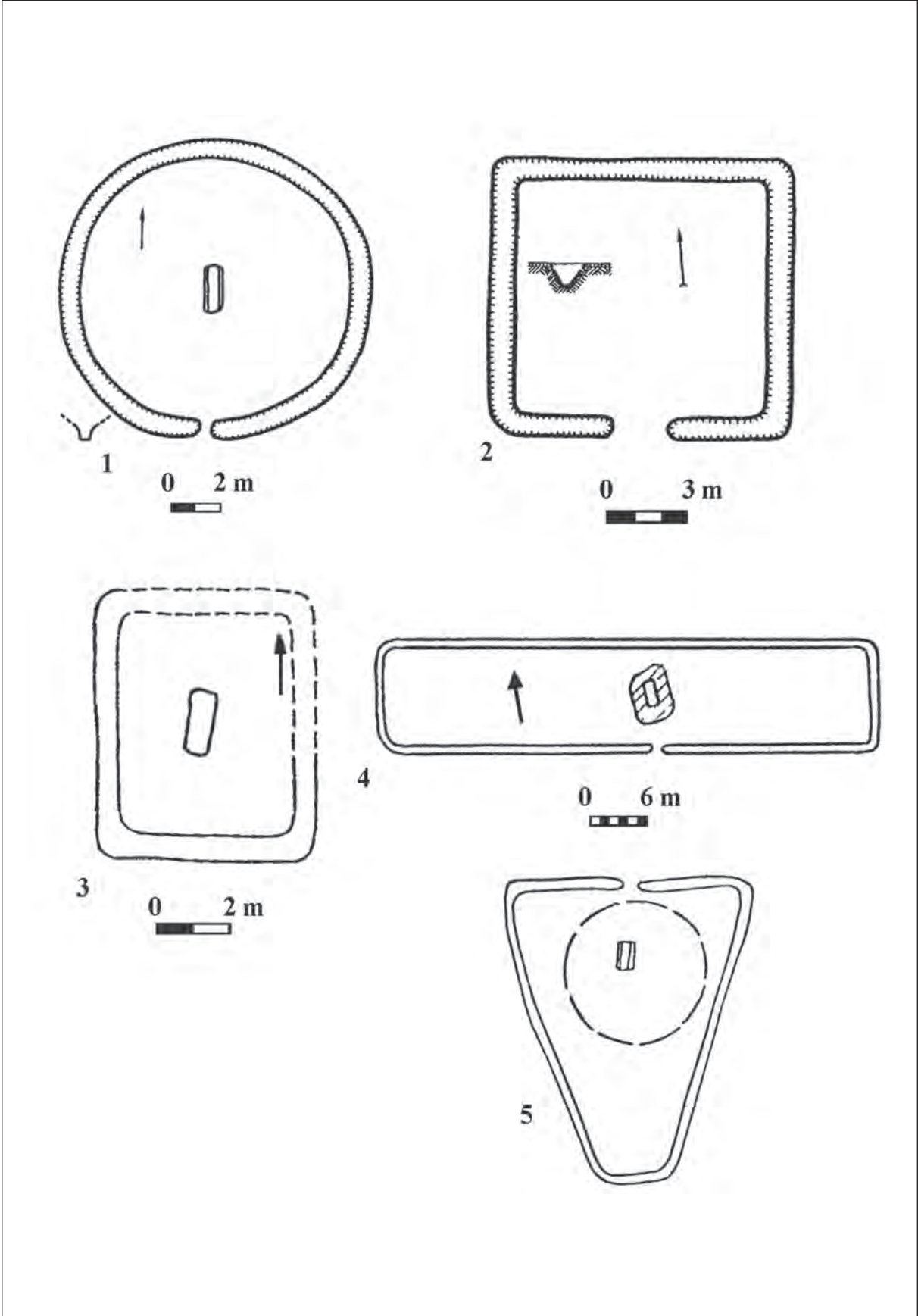


Fig. 1. Ditched enclosures that are circular, rectangular, and trapezoidal in ground plan.

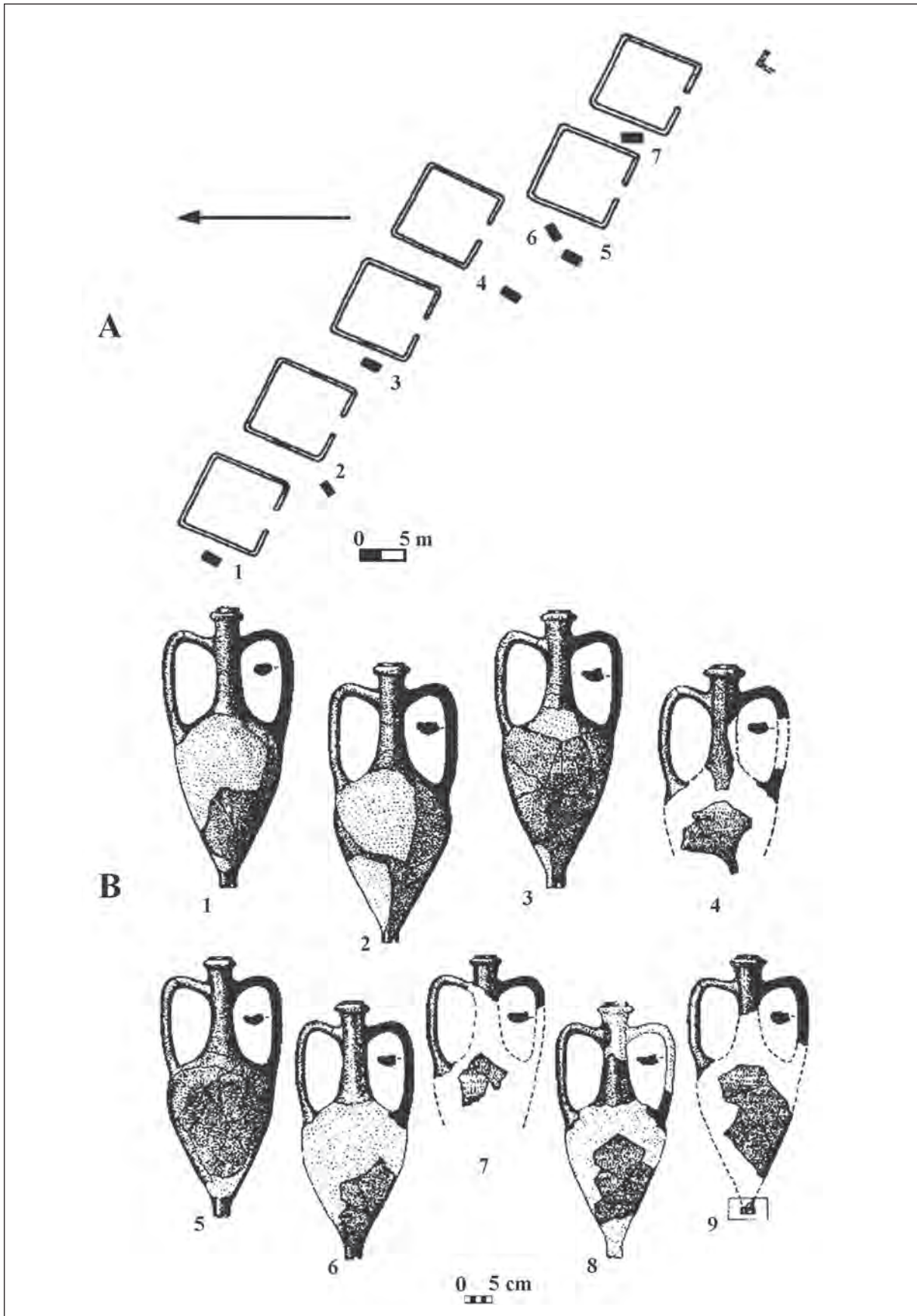


Fig. 2. A. The location of the square-shaped ditched enclosure in Bădragii Noi; B. Amphorae found in the ditch of enclosures no. 1 (1-4) and no. 2 (5-9) (after Kurchatov, Symonenko, Chyrkov 1995).

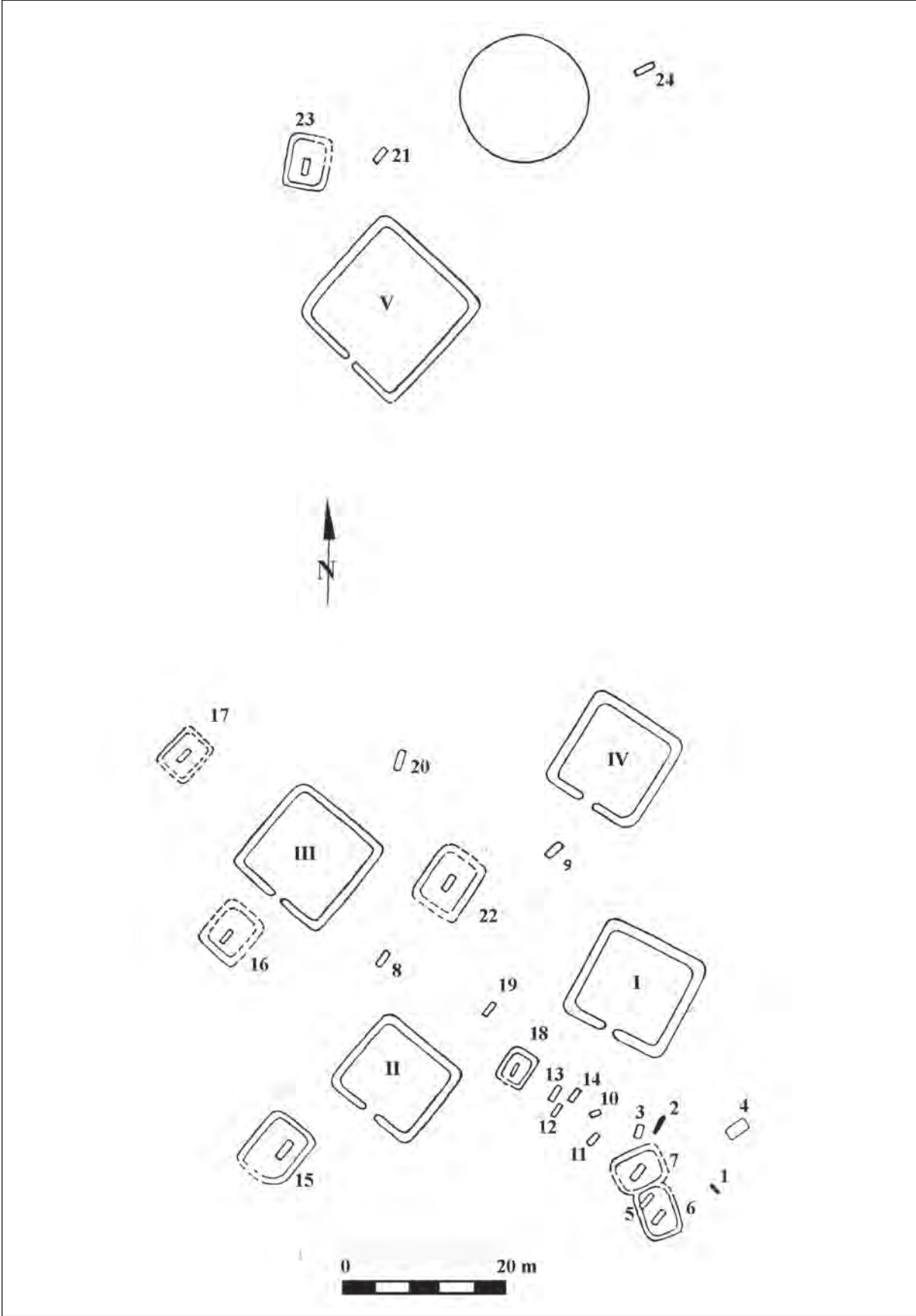


Fig. 3. Ground plan of the necropolis in Kholmskoe (after Gudkova 1984).

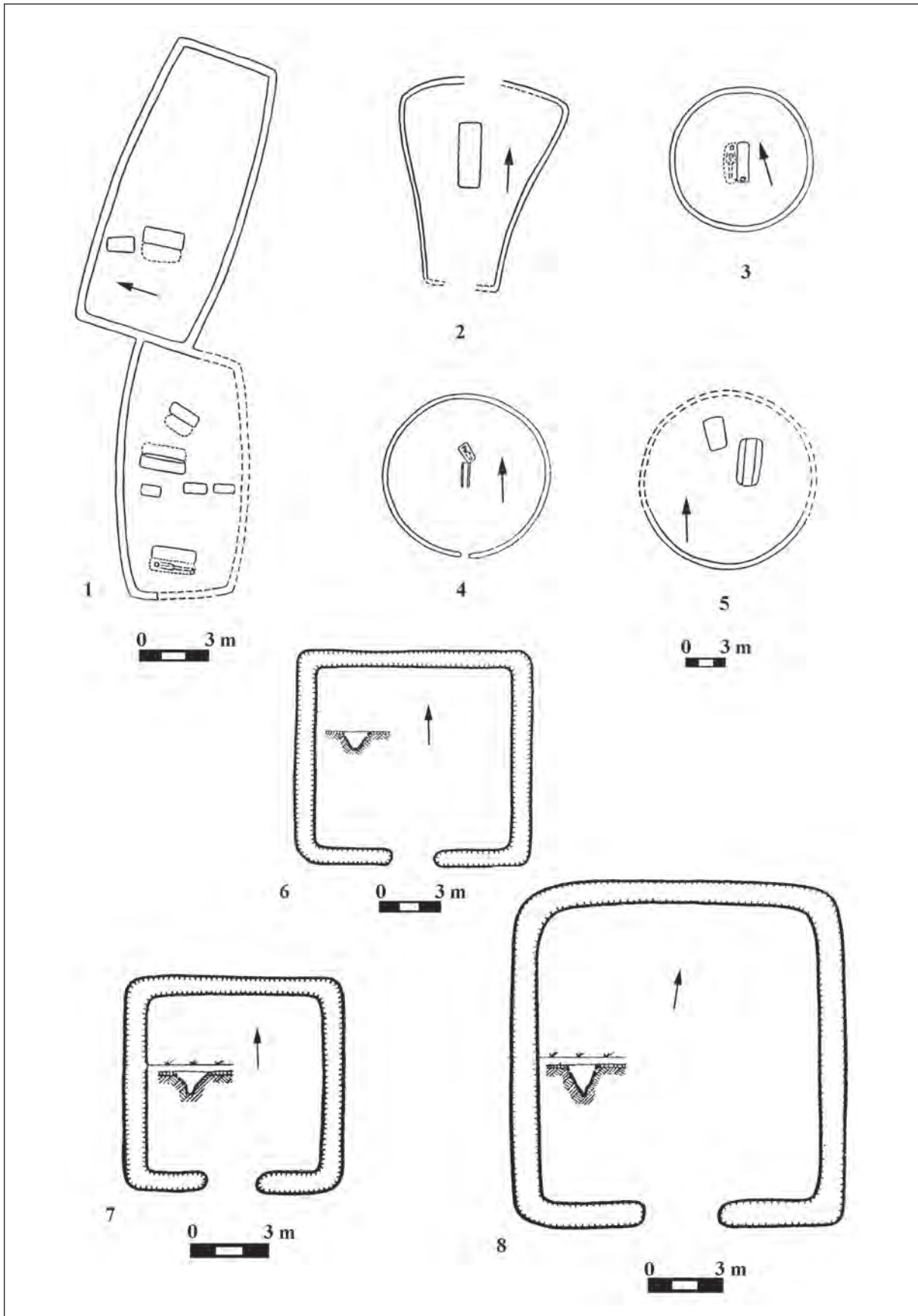


Fig. 4. Funerary ditched enclosures, following various ground plan shapes, from the necropolis in Vasil'evka (after Subbotin, Dzigovskij 1990b).

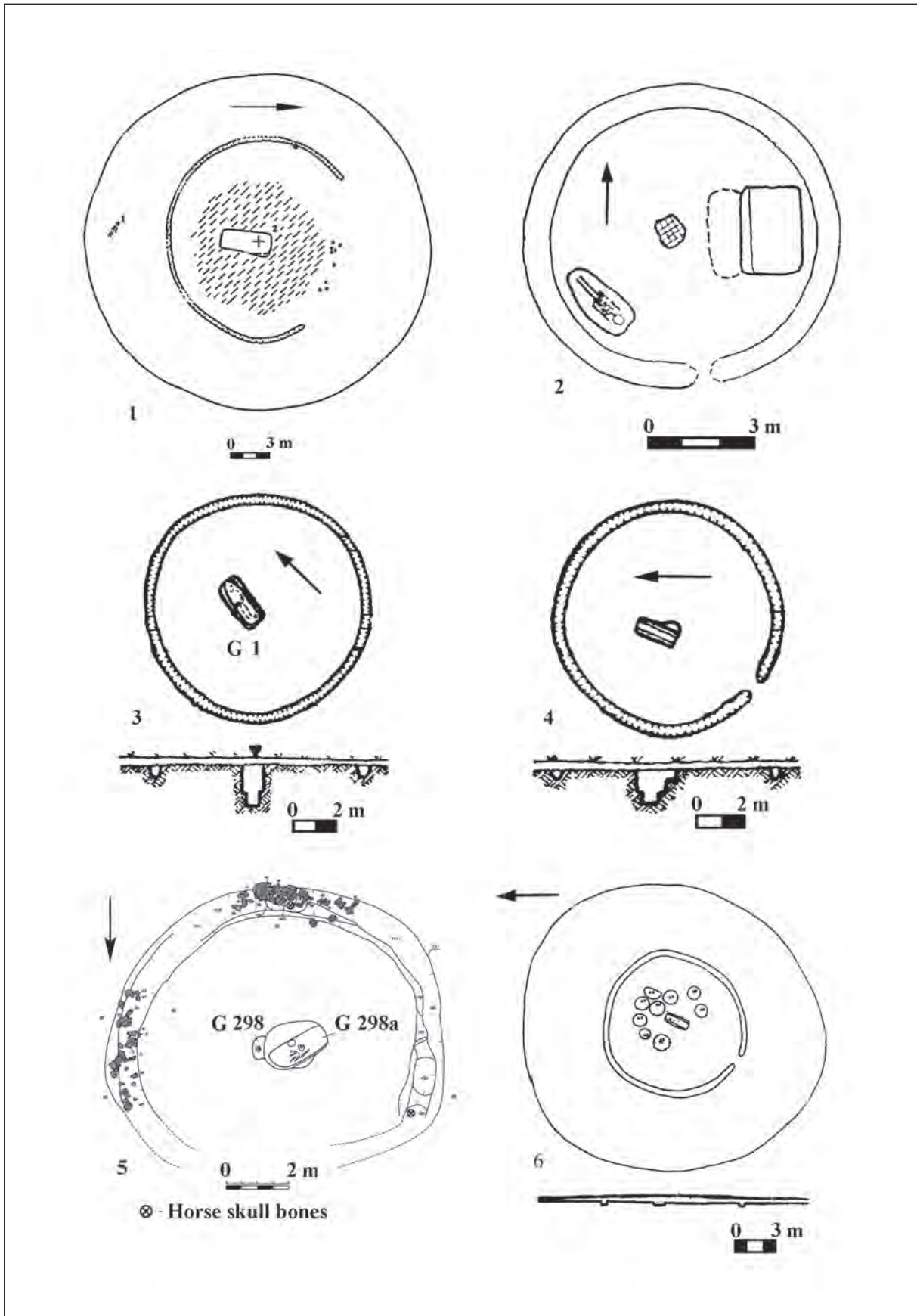


Fig. 5. Circular ditched enclosures. 1. Obileni, T 5 (after Levițki, Manzura, Demcenko 1996); 2. Gradeshka, T 11 (after Gudkova, Redina 1999); 3. Diviziya, T 7; 4. Diviziya, T 11 (after Subbotin, Dzigovskij 1990a); 5. Cartal (after Bruyako, Dzigovskij, R. Madyda-Legutko 2017); 6. Cazaclia, T 22 (after Agul'nikov, Kurchatov 2005).

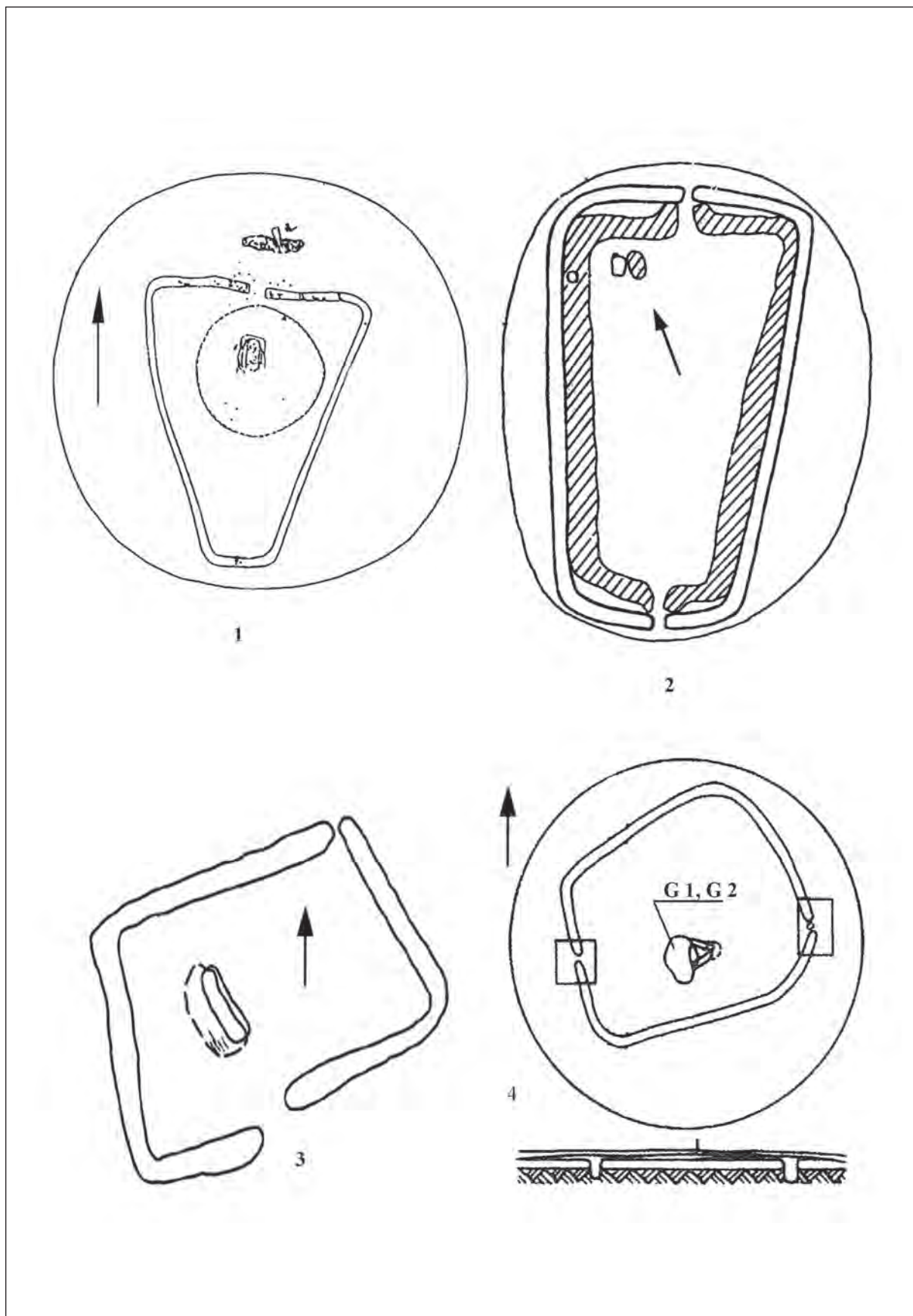


Fig. 6. Trapezoidal ditched enclosures. 1. Corpaci, T 1 (after Grosu 1979); 2. Mirnoe (after Gudkova, Fokeev 1984); 3. Kobyakova (after Larenok 2016); 4. Vysochino V, T 4 (after Bespalyj, Luk'yashko 2008). Without scale.

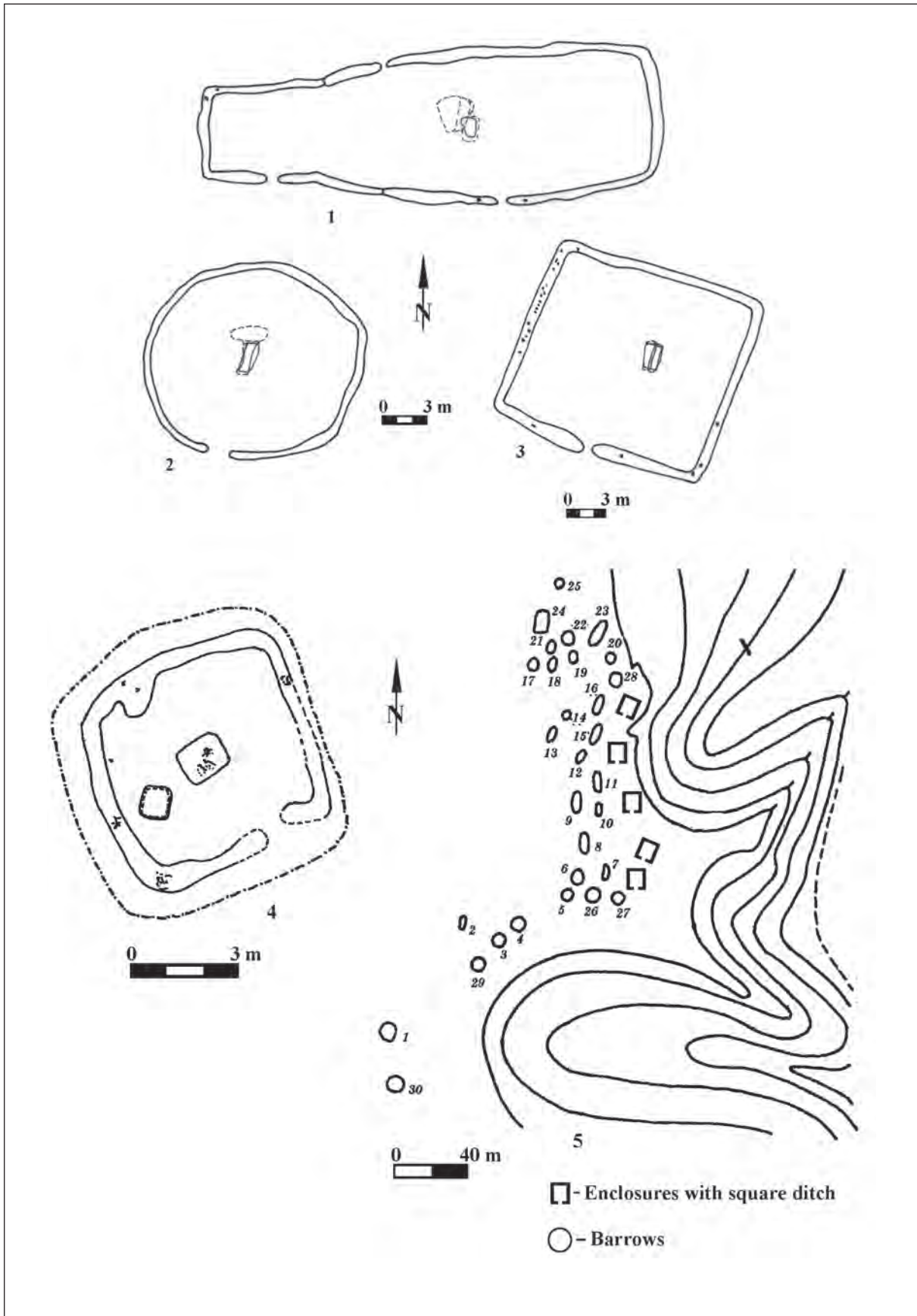


Fig. 7. 1-3. Funerary ditched enclosures following various ground plan shapes in the barrow necropolis from Zhuravka (after Bezuglov, Zakharo 1988); 4. The square ditched enclosure in Chertovitski II; 5. Ground plan of the barrow necropolis of Chertovitski II (after Medvedev 1990 and Simonenko 2003).

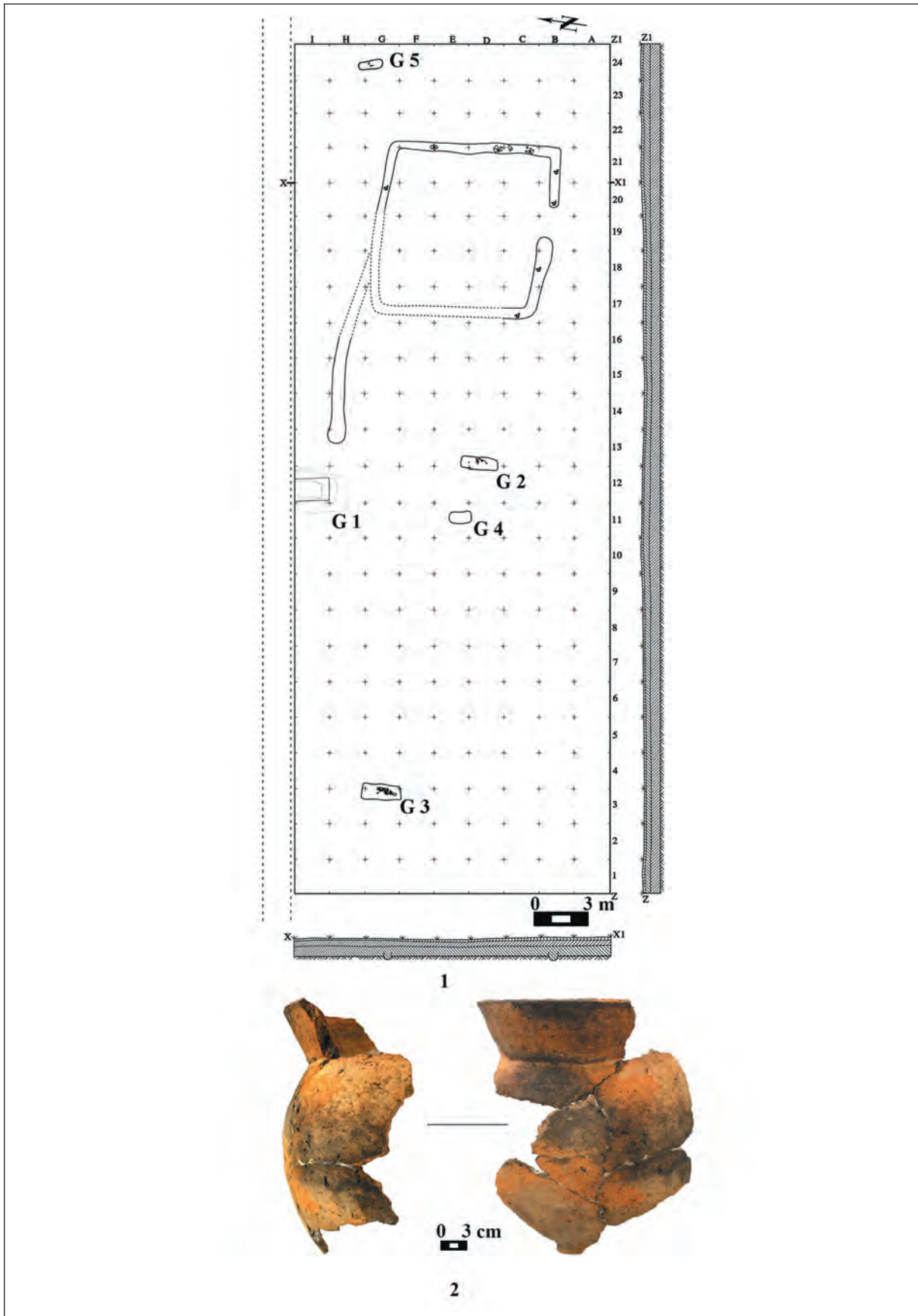


Fig. 8. The square ditched enclosure in Medeleni (1) and the handmade clay pot from the fill of the ditch (2) (after Vornic, Bubulici, Popovici 2016).

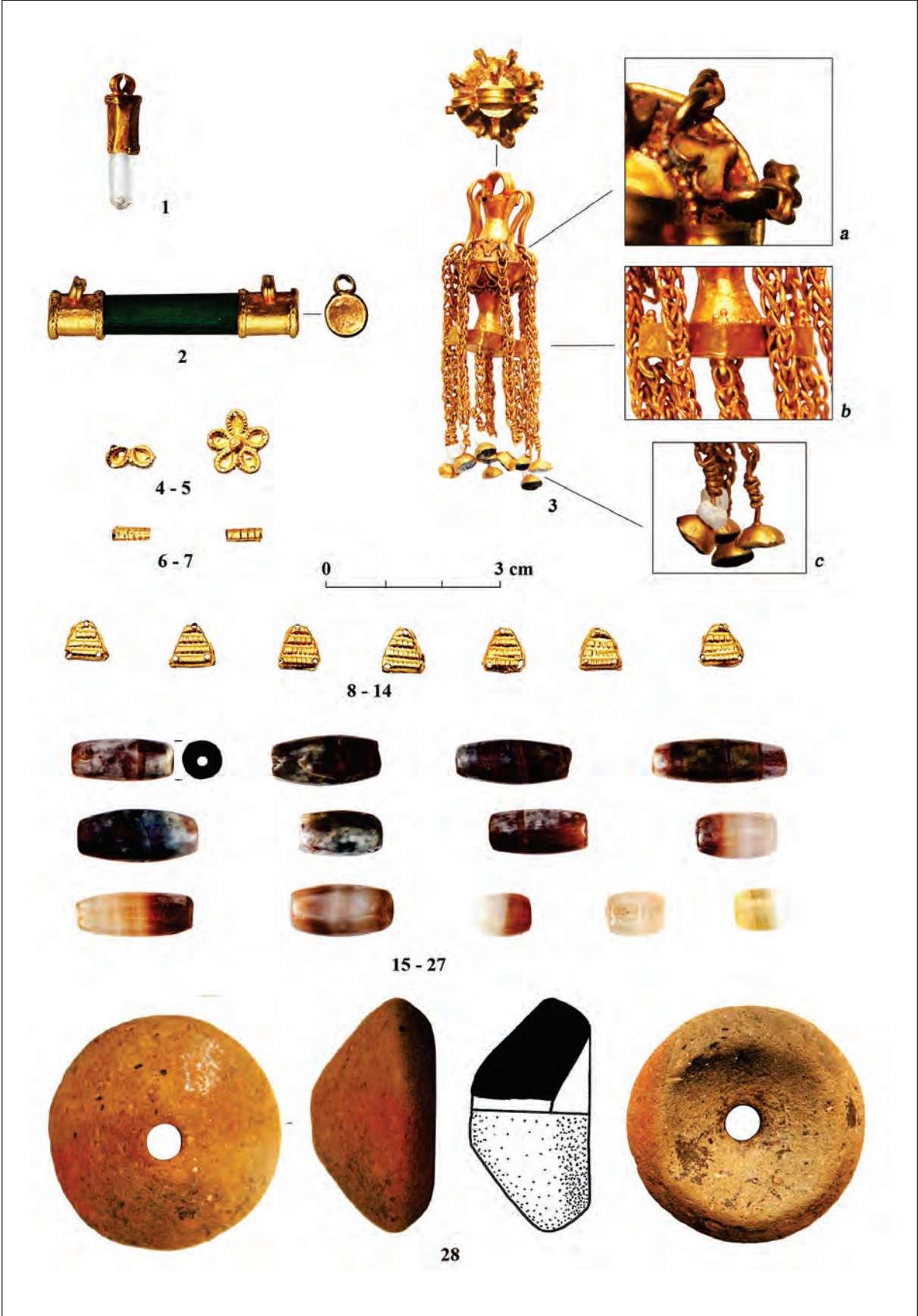


Fig. 9. The inventory of G 1 in Medeleni (after Vornic, Bubulici, Popovici 2016).

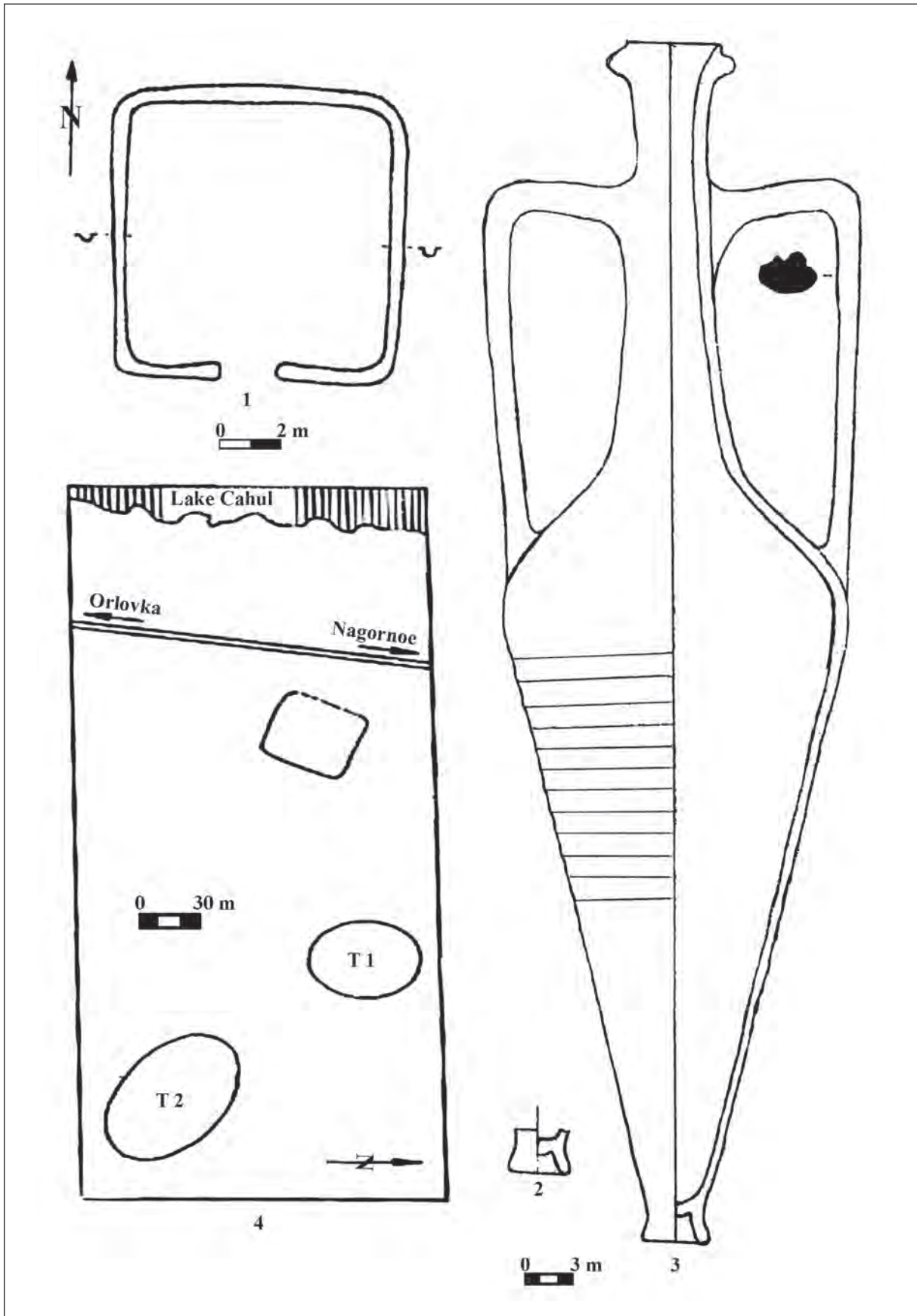


Fig. 10. 1. The square ditched enclosure in Palanca; 2–3. The amphora and amphora foot fragment from the ditch (after Kurchatov 1990); 3. The barrows and the square ditched enclosure in Nagornoe (after Gudkova, Fokeev 1984).

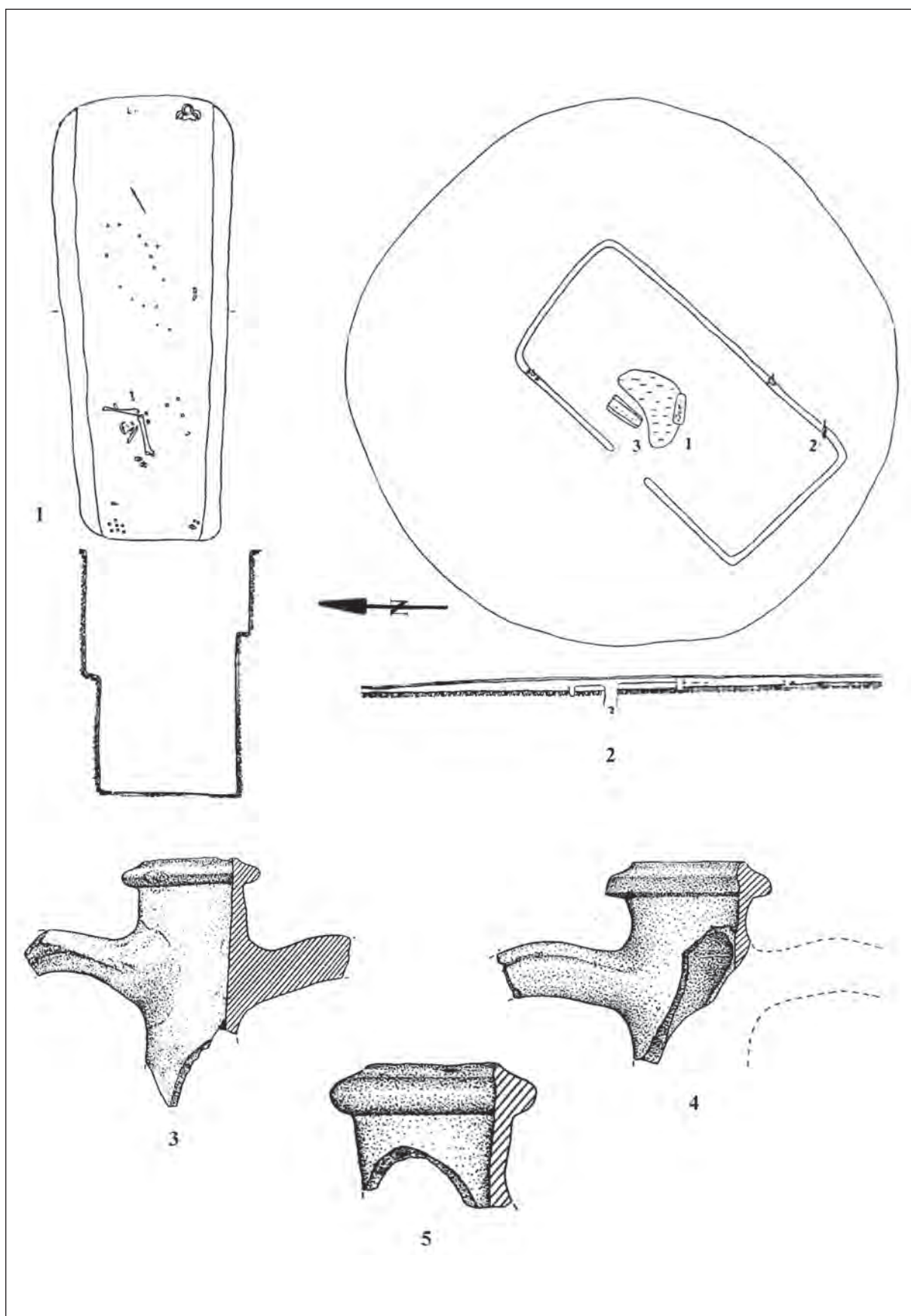


Fig. 11. The funerary rectangular ditched enclosure under T 1 from Cazaclia (2), the grave pit (1), amphora fragments from the fill of the ditch (3-5). Without scale.

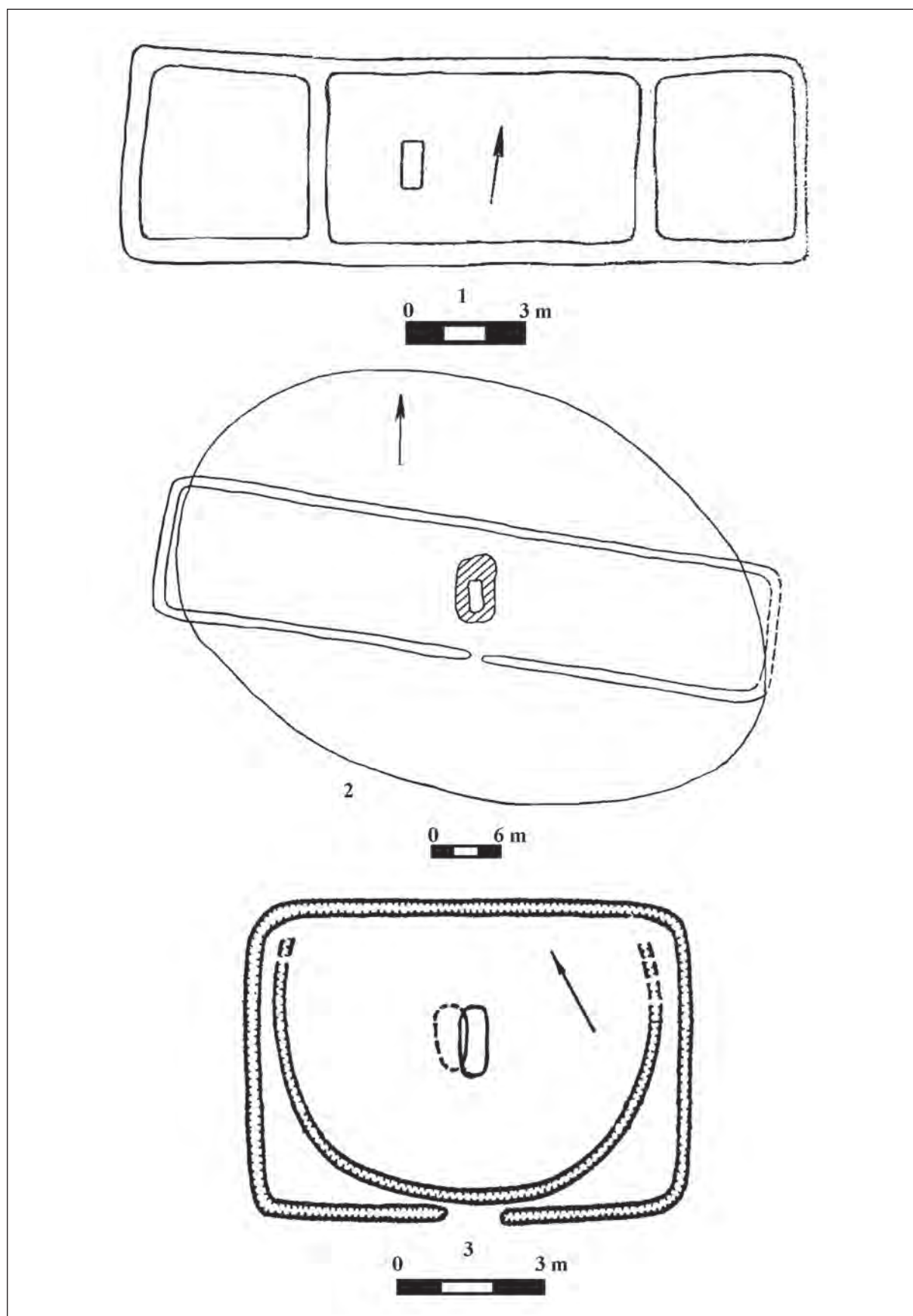


Fig. 12. Rectangular ditched enclosures. 1. Dzinilor; 2. Nagornoe (after Gudkova, Fokeev 1984); 3. Kubej (after Subbotin, Dzigovskij 1990b).

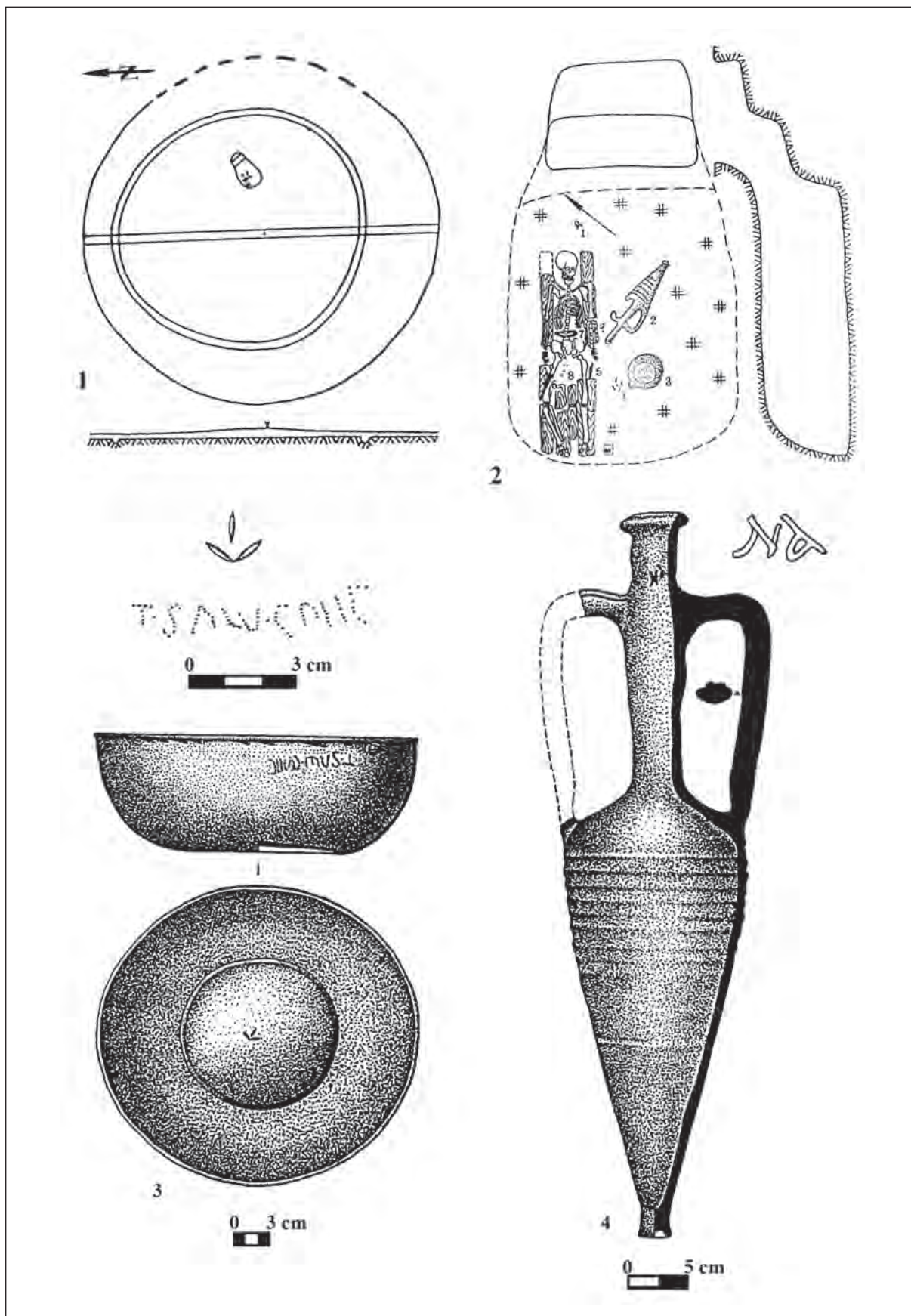


Fig. 13. 1. The circular ditched enclosure under T 10 in Cazaclia; 2. Grave ground plan and profile; 3. Bronze bowl; 4. Amphora (after Agulnicov, Bubulici 1999).

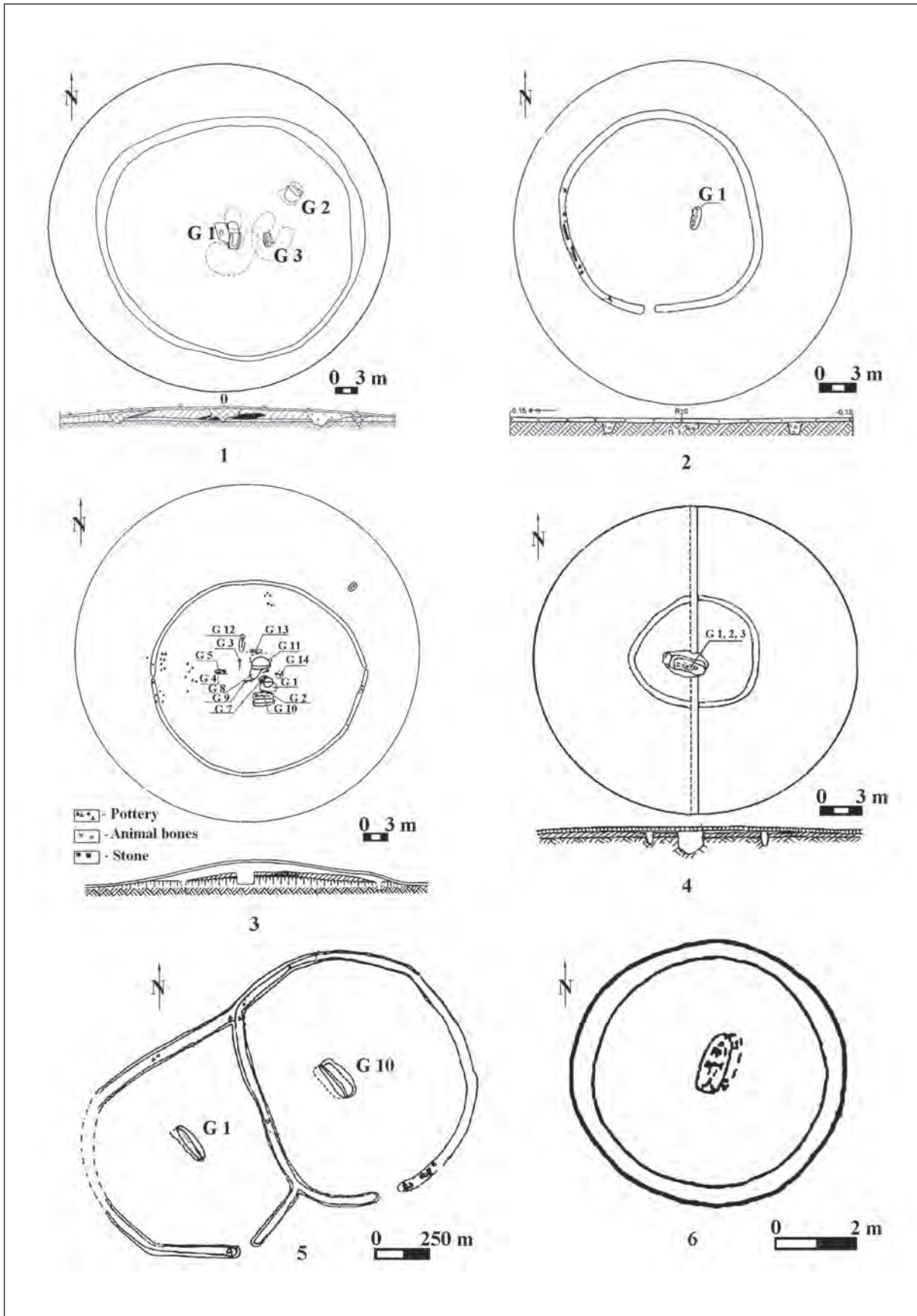


Fig. 14. Circular ditched enclosures. 1. Valovj I, T 4 (after Bezuglov, Glebov, Parusimov 2009); 2. Valovj I, T 10 (after Bepalyj, Bepalaya, Raev 2007); 3. Vysochino V, T 10; 4. Vysochino I, T 18 (after Bepalyj, Luk'yashko 2008); 5. Kobyakova (after Larenok, 2016); 6. Brilevka, T 139 (after Simonenko 1993).

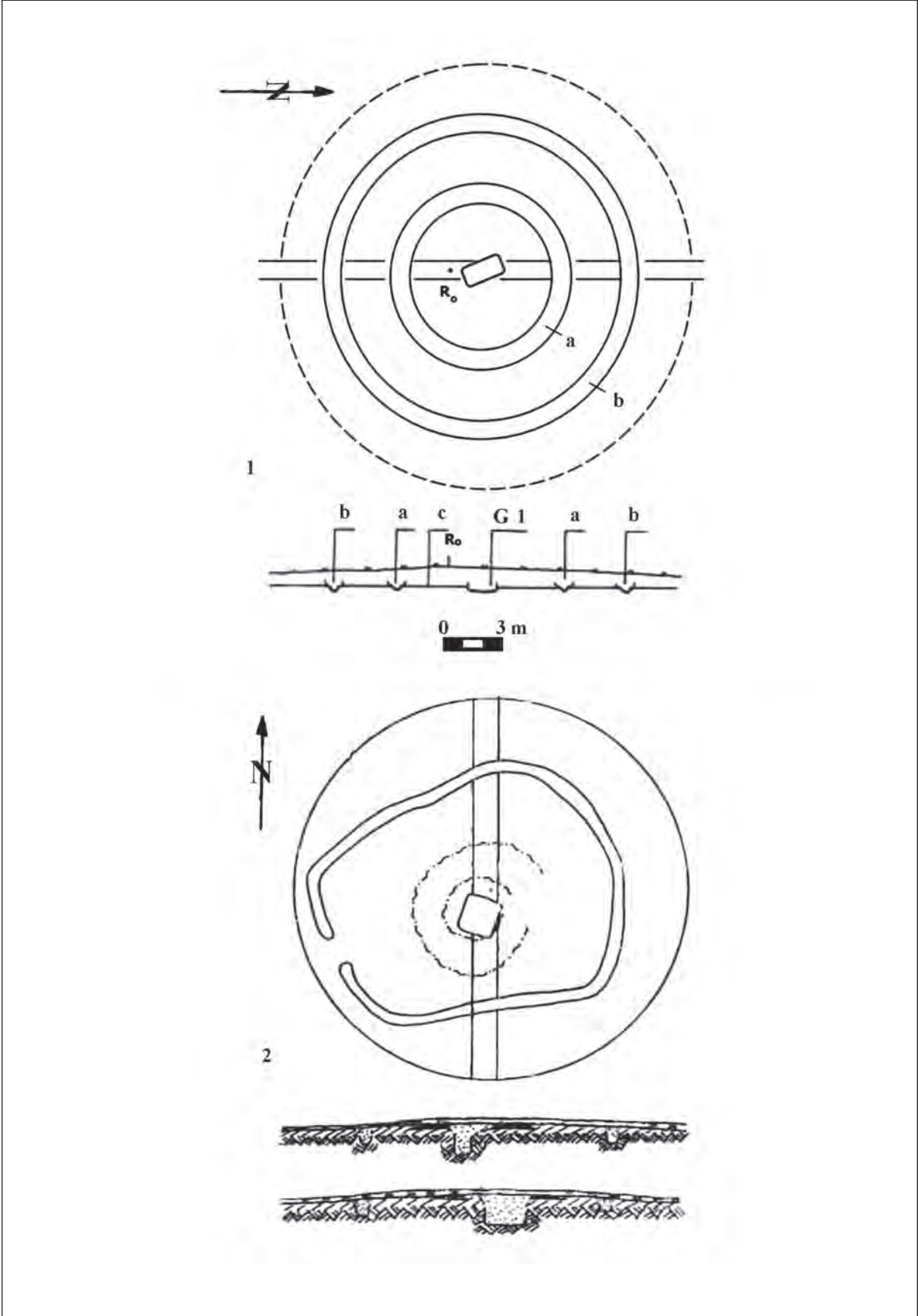


Fig. 15. 1. The circular ditches under T 6 in Zel'ts (after Ivanova, Petrenko, Vetchinnikova 2005); 2. The trapezoidal ditched enclosure under T 6 in Krasnogorvka I (after Bespalyj, Luk'yashko 2018).

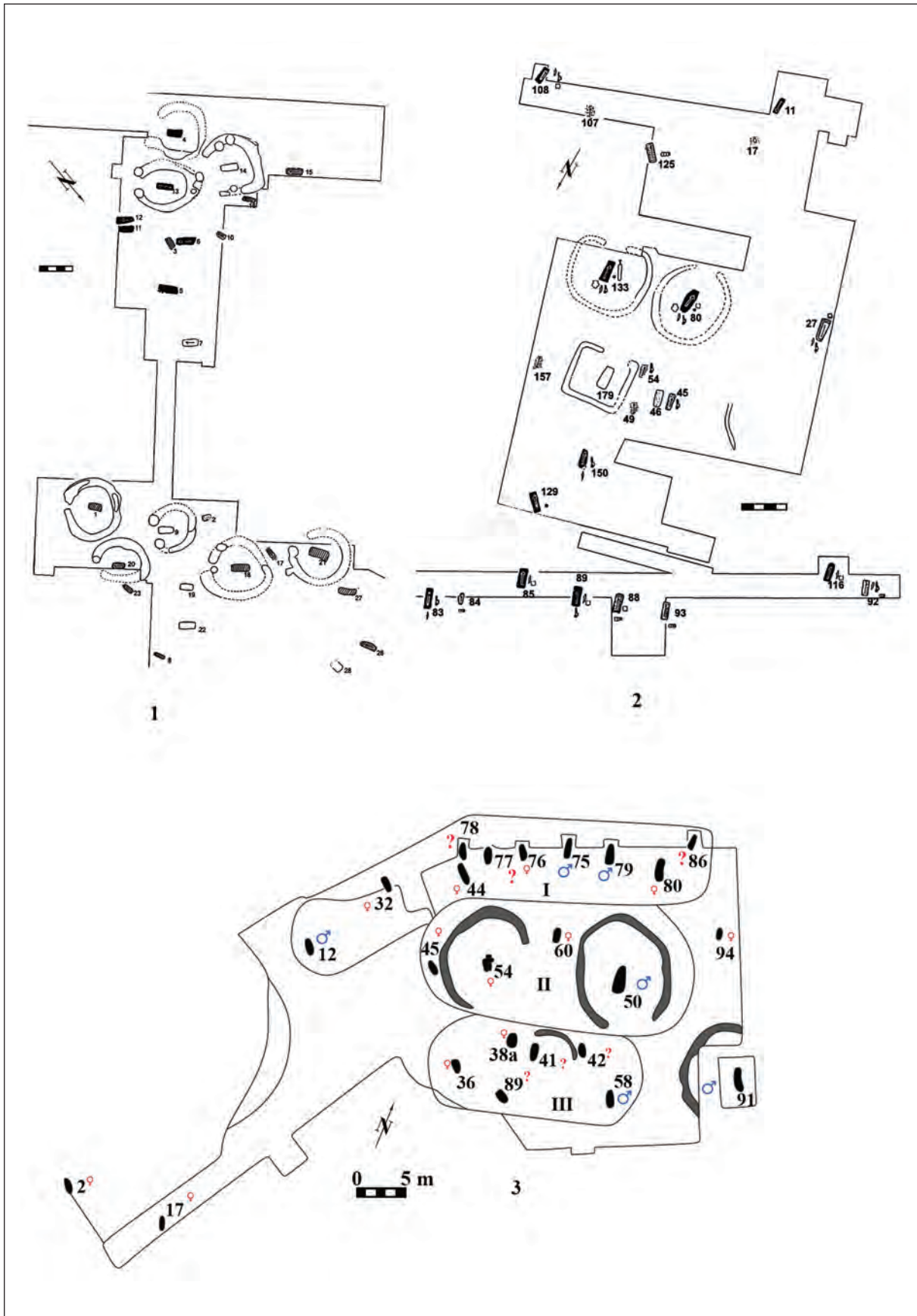


Fig. 16. Necropolises with graves surrounded by ditches, in the Sarmatian environment from the Pannonian Plain. 1. Lajosmizse-Kónya major (after Kulcsár 1998); 2. Endrőd-Szujókereszt (after Vaday, Szöke 1983); 3. Törökszentmiklós-Surján-újtelep (after Vaday 1985).

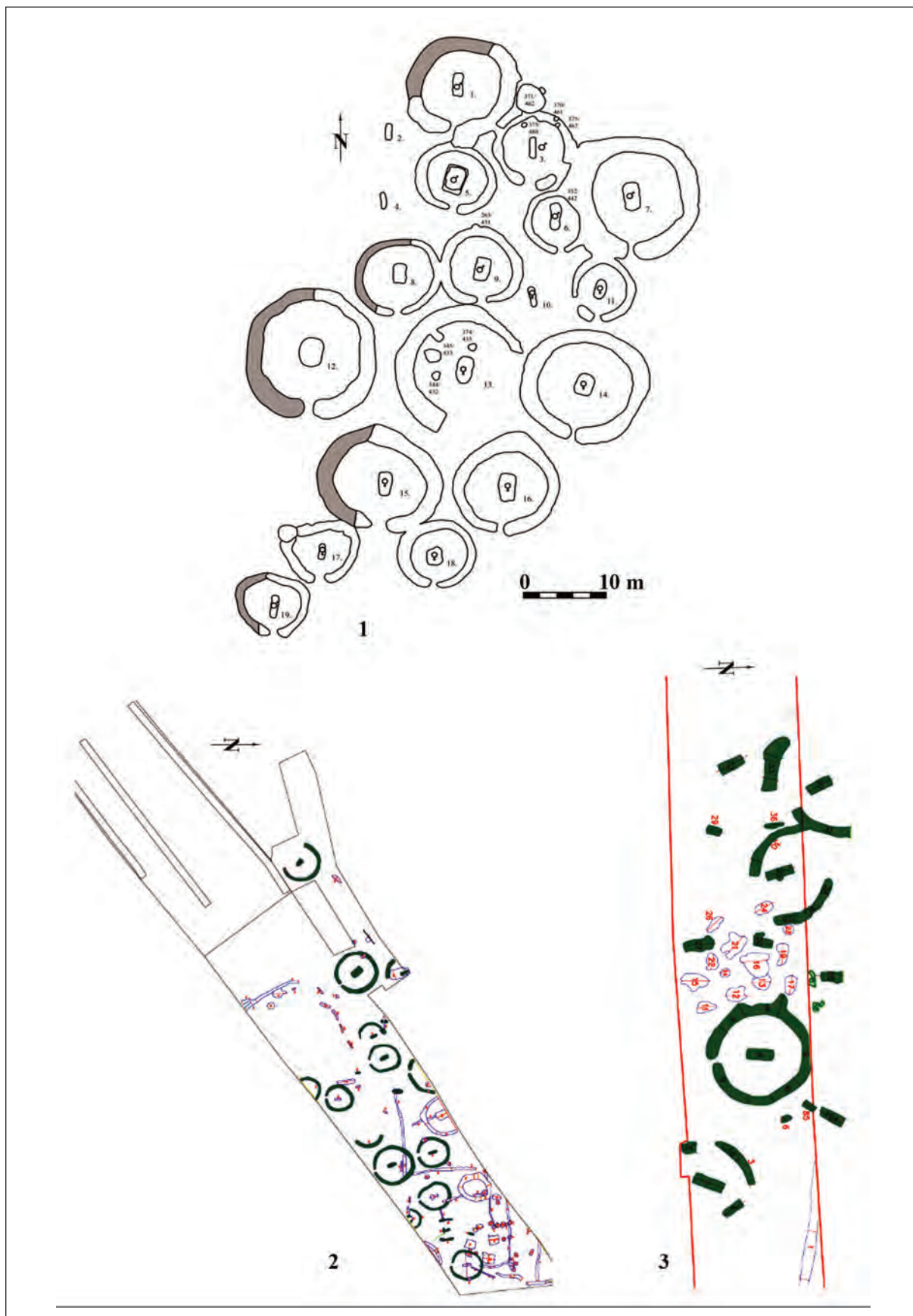


Fig. 17. Necropolises with graves surrounded by ditches, in the Sarmatian environment from the Pannonian Plain. 1. Pócspetri (after Hullám 2012); 2. Abony 48; 3. Cegléd (after Gulyás 2011). 2–3. Without scale.

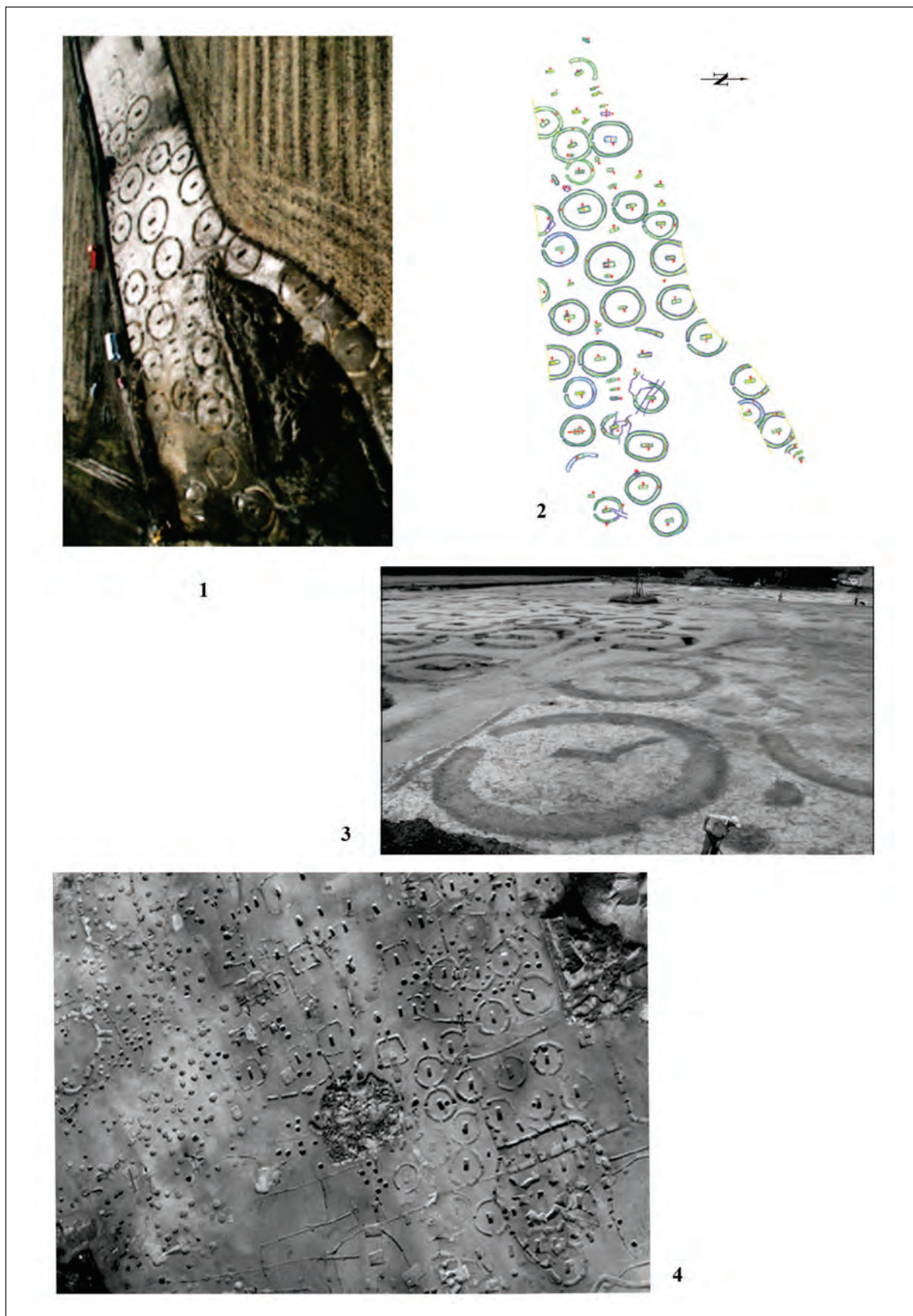


Fig. 18. Necropolises with graves surrounded by ditches, in the Sarmatian environment from the Pannonian Plain. 1–2. Abony 39 (after Gulyás 2006; Gulyás 2011); 3–4. Site BP 002-003, M 0 Budapest ring road (after Korom, Szilas, Terei 2010).

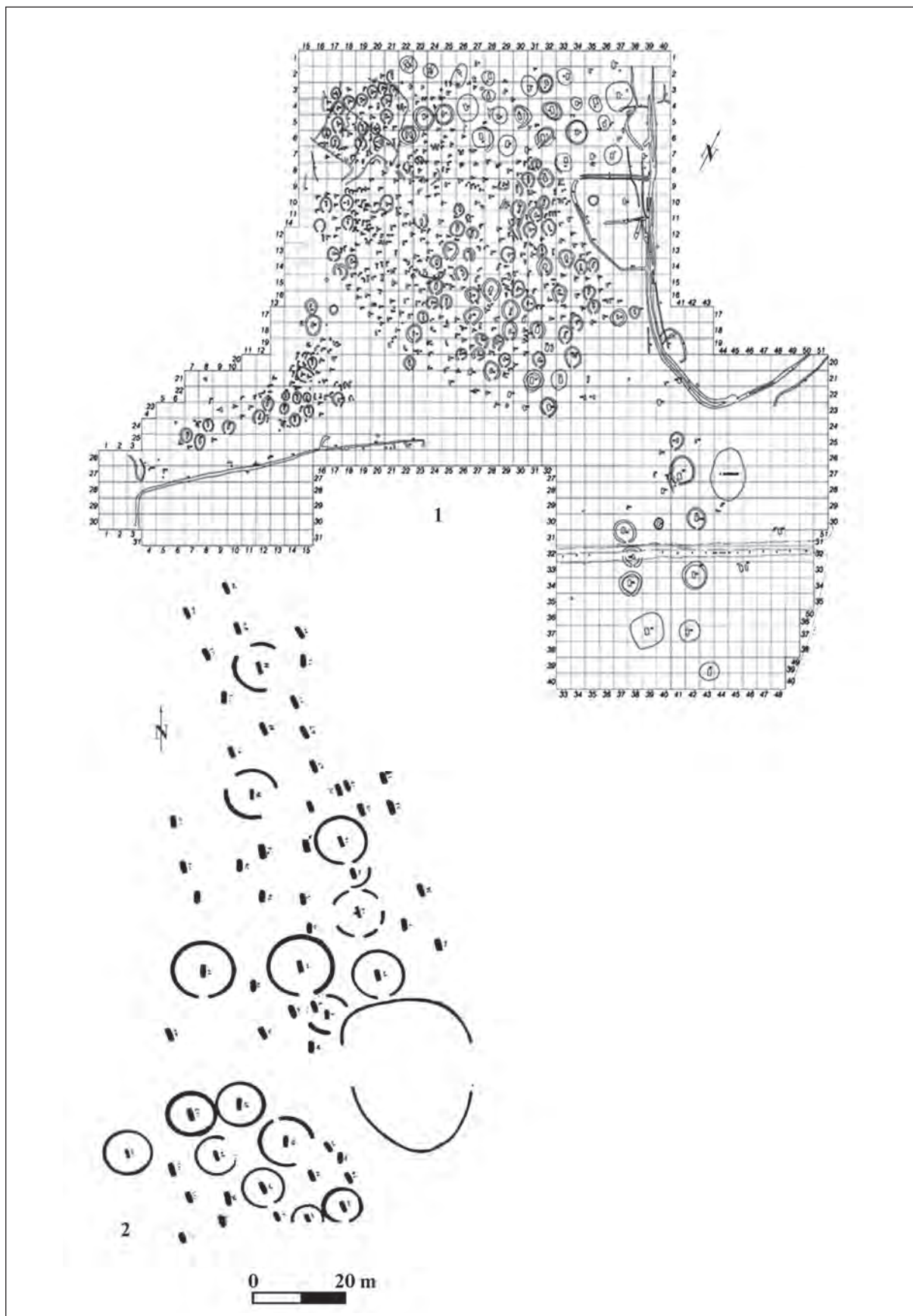


Fig. 19. 1. Ground plan of the necropolis in Madaras-Halmok (after Kőhegyi, Vörös 2011);
 2. Ground plan of the necropolis in Subotica-Verušić (after Sekeres 1998).

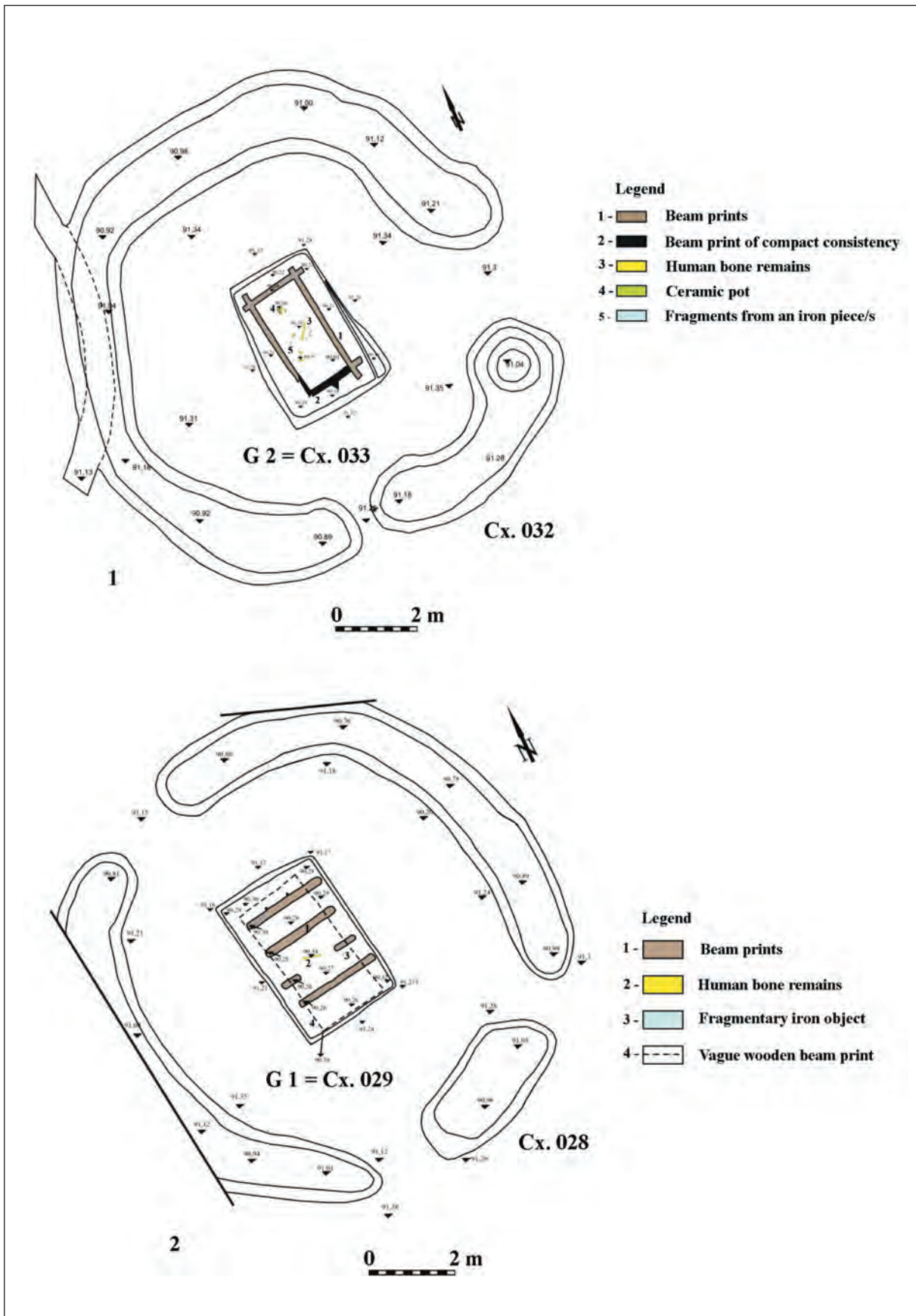


Fig. 20. Funerary enclosures with circular ditch and graves in the inner area in Nădlac (Site 1 M) (after Bărcă, Cociș 2013).

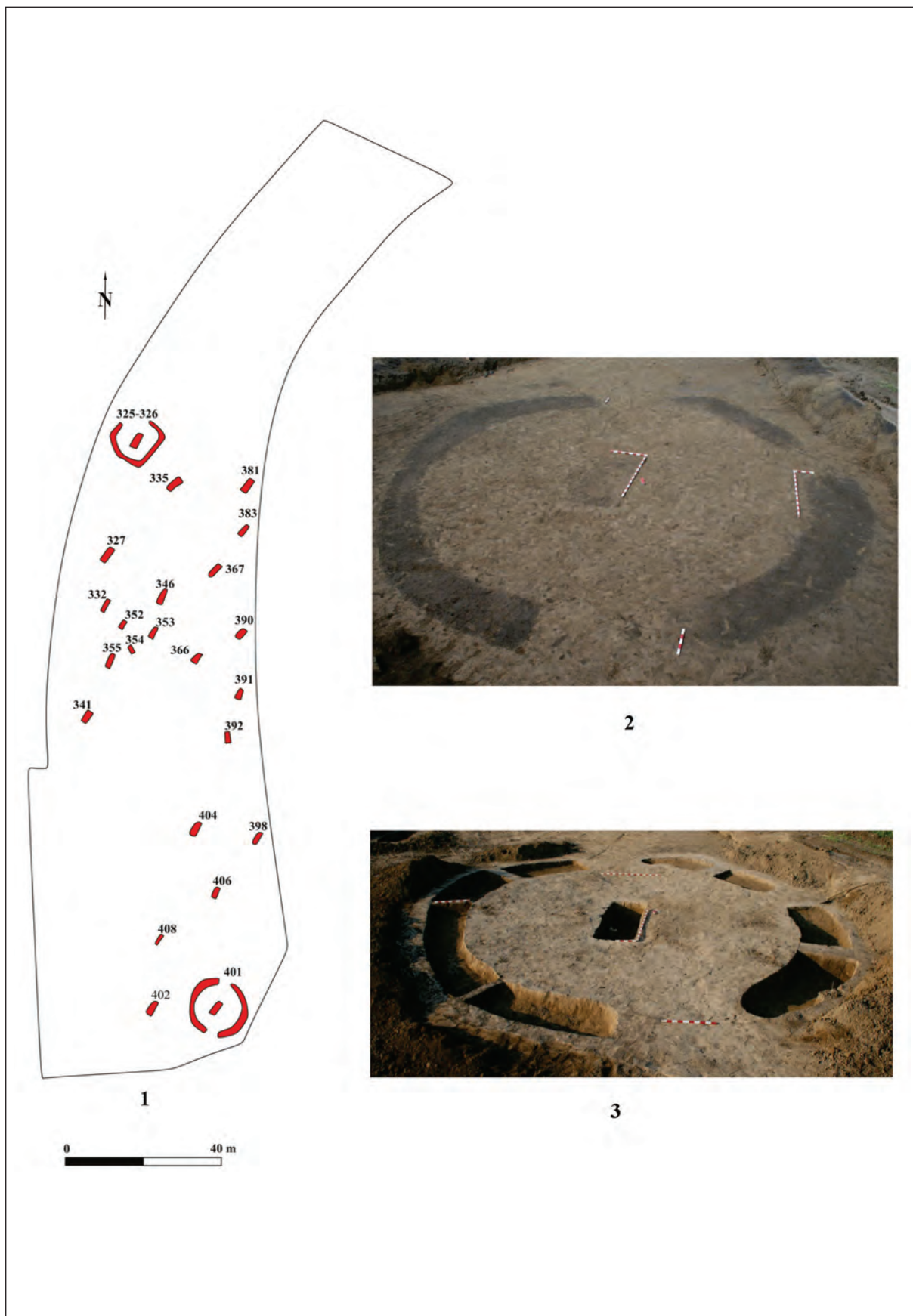


Fig. 21. 1. Ground plan of the site of Nădlac 3 M Nord researched in 2014; 2-3. Funerary enclosure with circular ditch and grave from the inner area (Cx 401) of Site 3 M Nord in Nădlac (after Grumeza, Ursuțiu 2016).

Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae.
AAC	Acta Archaeologica Carpathica, Cracow.
ActaMN	Acta Musei Napocensis, Cluj-Napoca.
ActaMP	Acta Musei Porolissensis, Zalău
AnArchRessoviensia	Analecta Archaeologica Ressoviensia, Rzeszów.
AAS at CEU	Annual of Medieval Studies at CEU, Budapest.
Apulum	Acta Musei Apulensis – Apulum, Alba-Iulia.
Alba Regia	Alba Regia, Székesfehérvár.
Antaeus	Antaeus, Budapest.
Arrabona	Arrabona, Győr.
ArhMed	Arheologia Medievală, Cluj-Napoca, Brăila, Reșița.
ArchBaltica	Archaeologia Baltica, Vilnius.
Arch.Inf	Archäologische Informationen.
ATS	Acta Terrae Septemcastrensis, Sibiu.
ArchÉrt	Archaeologiai Értesítő, Budapest.
Banatica	Banatica, Reșița.
BBMÉ	A Béri Balogh Ádám Múzeum Évkönyve, Szekszárd.
BUFM	Beiträge zur Ur- und Frühgeschichte Mitteleuropas.
BCMI	Buletinul Comisiei Naționale a Monumentelor, ansambluri situri istorice. București.
CommArchHung	Communicationes Archaeologicae Hungaricae, Budapest.
CCA	Cronica Cercetărilor Arheologice, Comisia Națională de Arheologie, București.
CIL	Corpus Inscriptionum Latinarum, Berlin.
CMA	Complexul Muzeal Arad.
Dolgozatok	Dolgozatok az Erdélyi Múzeum érem- és régiségtárából, Cluj.
Dolg.	Dolgozatok a Magyar Királyi Ferencz József Tudományegyetem Archaeologiai Intézetéből, Szeged.
Dolg. ÚS	Dolgozatok az Erdélyi Múzeum Érem- és Régiségtárából, Új Sorozat. Cluj-Napoca / Kolozsvár.
EphNap	Ephemeris Napocensis, Cluj-Napoca.
HOMÉ	A Hermann Ottó Múzeum Évkönyve. Miskolc.
JAHA	Journal of Ancient History and Archaeology, Cluj-Napoca.
JAM	Jósa András Museum, Nyíregyháza.
JPMÉ	Janus Pannonius Múzeum Évkönyve.
JRGZM	Jahrbuch des Romisch-Germanischen Zentralmuseums, Mainz.
KRRMK	Kaposvári Rippl Rónai Múzeum Közleményei, Kaposvár.
LMI	Lista monumentelor istorice, updated in 2015.
MittArchInst	Mitteilungen des Archäologischen Instituts der Ungarischen Akademie der Wissenschaften.
MOL	Magyar Olaj- és Gázipari Részvénytársaság / Hungarian Oil and Gas Public Limited Company
Marisia	Marisia, Târgu Mureș.
NyJAMÉ	A nyíregyházi Jósa András Múzeum Évkönyve, Nyíregyháza.
PBF	Praehistorische Bronzefunde. Berlin.
Przegląd Archeologiczny	Przegląd Archeologiczny, Wrocław.
Rad	Jósa András Museum, Archaeological Archive
RégFüz	Régészeti Füzetek, Budapest.

RKM	Régészeti Kutatások Magyarországon/Archaeological Investigations in Hungary, Budapest.
RAJ Arad	Repertoriul Arheologic al Mureşului Inferior. Judeţul Arad. Timişoara 1999.
RAN	Repertoriul Arheologic Naţional.
Sargetia	Sargetia. Acta Musei Devensis, Deva.
SCIV(A)	Studii şi Cercetări de Istorie Veche şi Arheologie, Bucureşti.
SGB	Studii de Geografie a Banatului, Timişoara.
SIB	Studii de Istorie a Banatului, Timişoara.
Slavia Antiqua	Slavia Antiqua, Poznań.
SlovArch	Slovenská Archeológia, Nitra.
SMK	Somogyi Múzeumok Közleményei, Kaposvár.
SovArh	Sovetskaja Arheologija, Moskva.
SRTM	Shuttle Radar Topography Mission.
StudiaUBB Historia	Studia UBB Historia, Cluj-Napoca.
SzKMÉ	A Szántó Kovács Múzeum Évkönyve, Pécs.
Századok	Századok, Budapest.
Terra Sebus	Terra Sebus. Acta Musei Sabesiensis, Sebeş.
Tibiscum S. N.	Tibiscum S. N., Caransebeş.
TransRev	Transylvanian Review, Cluj-Napoca.
ZalaiMúz	Zalai Múzeum, Zalaegerszeg.
ZSA	Ziridava. Studia Archaeologica. Arad.
Živa Antika	Živa Antika, Skopje.