

SEQUENCE OF GRAVES IN BARROWS 4TH-3RD MILLENNIUM BC IN THE DANUBE-TISZA REGION*

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Rezumat: Cercetarea arheologică a movilei "Ciganska humka" din Šajkaš (Voivodina, Serbia) a fost efectuată în anul 2016. Au fost descoperite două complexe funerare datate 3000-2900 a.Chr., respectiv 2800-2600 a.Chr., aparținând comunităților stepice de origine estică. Mormântul mai vechi (numărul 2), dat fiind modul în care a fost amenajat, face trimitere la complexe funerare cu defuncți depuși în poziție întinsă, descoperite în Marea Câmpie Ungară, nordul Bulgariei și Muntenia. Mormintele de acest tip în regiunea dintre Dunăre și Tisa datează de la începutul mileniului al III-lea a.Chr. și sunt contemporane cu faza timpurie a culturii Yamnaya. În cele mai multe cazuri, tumuli cu morminte în poziție întinsă erau încă folosiți în prima jumătate a mileniului al III-lea a.Chr. de către comunitățile Yamnaya, care își plasau mormintele în centrul unor movile mai vechi. Diversele complexe indică faptul că modalitatea de depunere a defunctului, în poziție întinsă, era una din variantele folosite de populațiile diverse din punct de vedere genetic din faza mai veche a culturii Yamnaya.

Abstract: Archaeological research of the "Ciganska humka" barrow in Šajkaš (Vojvodina, Republic of Serbia) was conducted in 2016. It brought about the discovery of two graves dated 3000-2900 BC and 2800-2600 BC, connected with steppe communities of eastern origin. In terms of construction, the older grave (no. 2) refers to graves with extended inhumations, known from, among other places, the Great Hungarian Plain, northern Bulgaria, and Muntenia. Graves of this type in the Danube-Tisza region date

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back to the beginning of the 3rd millennium BC and can be synchronized with the early phase of the Yamnaya culture. In most cases, mounds with extended inhumations were still built up in the first half of the 3rd millennium BC by Yamnaya communities that placed their burials in the central part of an older barrow. Various features indicate that this specific type of body arrangement, in an extended supine position, was one of the variants used by the genetically diverse population of the older phase of the Yamnaya culture.

1. INTRODUCTION

The expansion of steppe communities from the North Pontic zone towards Central and South-Eastern Europe has attracted much scholarly attention in recent years. This is largely due to the results of archaeogenetic research indicating a large-scale migration of the Yamnaya culture community in the 3rd millennium BC which is responsible for the appearance of the R1a and R1b haplogroups of the Y chromosome characteristic of the modern population of Europe¹. These still very general models are today the starting point for research on both the biological background of the processes and their archaeological, i.e. cultural, contexts. Palaeobiological studies have often highlighted the incompleteness of the archaeological record and the lack of reliable studies of source materials. Therefore, in recent years there has been a tendency towards undertaking regional analyses summarizing the state of knowledge in particular regions of the Danube-Tisza range of the Yamnaya culture². Among other results, these works allowed for refining the criteria of identification and revealed a large number of barrows erected in the period pre-dating the expansion of the Yamnaya communities³. This put a spotlight on the multi-trend and multi-stage development of kurgan communities, something previously only assumed in general concepts which were not always correct⁴.

One of the funeral traditions with roots reaching back to before the Yamnaya expansion into the north-western Black Sea zone and further to the east are barrows with supine extended inhumations⁵. Such features have also been recorded in the area of the Danube-Tisza expansion of steppe communities of Eneolithic date⁶. The starting point for the following discussion of their most numerous, late-dated type are recent discoveries made in a barrow in Vojvodina, located at the confluence of the Tisza and Danube Rivers.

¹ ALLENTOFT *et al.* 2015; HAAK *et al.* 2015.

² e.g. ALEXANDROV 2019; DANI 2011; 2019; FRÎNCULEASA *et al.* 2015; HEYD 2011; KAISER & WINGER 2015; KOLEDIN *et al.* 2020.

³ e.g. ALEXANDROV & KAISER 2016; DIACONESCU 2020; FRÎNCULEASA *et al.* 2017; 2019; KOLEDIN *et al.* 2020

⁴ e.g. GIMBUTAS 1979

⁵ RASSAMAKIN 2004, p. 23-35; 2013a, 116

⁶ In this paper, the terms "Eneolithic" and "Early Bronze Age" have been used in accordance with the terminology used for the North Pontic area. For the regions analysed here, systems differing from each other are adopted and it is not possible to propose a single, universally accepted terminology.

2. THE STUDY OF THE BARROW IN ŠAJKAŠ AND THE PROBLEM OF THE DIVERSITY OF BARROW BURIALS IN VOJVODINA

In 2016, a Polish-Serbian expedition excavated the "Ciganska humka" barrow in Šajkaš, Opština Titel, Vojvodina, Republic of Serbia. The results of the field research have already been partially published⁷. The burial mound in Šajkaš was located on a right-bank loess terrace of the Tisza River and was part of a concentration of barrows in southern Bačka (**Fig. 1. 1**), in the Šajkaška region between Gardinovci and Bačko Gradište villages⁸. This cluster is the westernmost group of barrows from the 4th/3rd millennium BC located within the Eurasian steppe belt.

"Ciganska humka" had a diameter of 50 m and a height of 2.5 m. It was a two-phase barrow, and the two stages of its construction were connected with graves no. 1 (the younger mound) and no. 2 (the older mound). Both graves were situated in the central part of the mound, one above the other (**Fig. 1. 2**). Both the older and younger barrows were surrounded by a shallow but wide construction ditch. In the layers of the older barrow, numerous animal bones (probably connected with the funeral ritual) and less numerous, small fragments of pottery dating back to the turn of the Eneolithic and Bronze Age were discovered. The younger barrow has been eroded in the central part by modern ploughing. Its remains have been preserved mainly on the margins of the mound. Apart from graves 1 and 2, no other prehistoric features have been recorded within the barrow, only a few settlement pits from the modern period. A burial from the 2nd/3rd century AD, linked with the Iazyges, was found close to the barrow (grave no. 3 - **Fig. 1. 2**).

Grave no. 1 was dug into the mound of the older barrow. Its chamber was rectangular and its dimensions were approximately 220 x 100 cm. In terms of the construction features and the manner of arranging the burial, it represented a typical Yamnaya culture grave. It was located directly above the wooden chamber of grave no. 2. Soon after the burial was laid, the bottom of grave 1 collapsed into the empty chamber of the older structure (**Fig. 2. 1**). As a result, the burial of the Yamnaya culture slipped several dozen centimetres down. After this change of position, the anatomical arrangement of the bones of the skeleton remained legible, which allowed the reconstruction of the original position of the body (**Fig. 2. 2**). The deceased was buried on the back, with the lower limbs curled up and the knees raised upwards, with the right upper limb stretched out along the body, and the left one slightly bent and placed at the waist. Thus, it was an arrangement typical of the burials of the late phase of the Yamnaya culture in the Danube-Tisza zone. The grave must have collapsed shortly after it was dug into the barrow, as evidenced by the state of preservation of the articulation between the bone remains. No grave goods were discovered. There were only small lumps of red dye (ochre?) near the limbs and on the skull.

The older grave (no. 2) was a narrow structure of the dimensions of 250 x 90 cm, with a wooden box located at the level of the original humus (**Fig. 3**). The grave's height can be estimated up to about a meter. There were no traces of burial at the bottom of the pit. Apart from elements of the wooden structure, the

⁷ BUGAJ *et al.* 2016; KOLEDIN *et al.* 2020)

⁸ MEDOVIĆ 1998, p. 76, 77; KOLEDIN *et al.* 2020

presence of a whitish, limestone substance was recorded there, similarly to two other objects from Vojvodina: grave no. 1 from "Humka u Barnahatu" in Padej, and the burial at the burial mound "Japina koliba" in Novi Kneževac ⁹.

What is significant in the above description is that graves 1 and 2 are different in type. The younger feature is a burial typical of the classic Yamnaya culture, as indicated by the parameters of the chamber and the arrangement of the deceased. The older burial (no. 2), on the other hand, is distinguished by specific construction features of the grave: it is narrow, with wooden cladding and a floor. The timbers are arranged longitudinally, along the longer axis of the grave and closed on both sides by transverse beams or boards. At the bottom of the grave, a white, calcareous substance of unknown nature was found. Although the absence of bone remains makes taxonomic classification difficult, the construction of the grave is quite characteristic in itself. It finds analogies in a group of features known both from the Danube-Tisza zone and from the north-western Black Sea region (Fig. 4). These are primarily burials in an extended supine position, following an Eneolithic tradition called "post-Mariupol" (as defined by I. F. Kovaleva) or "Kvitiana" (following the proposal of Yu. Rassamakin¹⁰). A similar construction was recorded, for example, in grave no. 6 from Tiszavasvári-Deákhalom in the upper Tisza region (Fig. 4. 1), where a well-preserved inhumation burial was discovered¹¹.

A series of four radiocarbon dates, two for each of the graves from "Ciganska humka" in Šajkaš (Table 1; Fig. 5) allows for a refinement of the stratigraphic sequence. For the older grave, no. 2, the results indicate about 3000-2900 BC, a time coinciding with the older phase of the Yamnaya culture. On the other hand, grave no. 1 is dated around 2900-2700 BC, which is in the middle or late phase of the Yamnaya culture.

Grave no.	Dated material	Laboratory no.	Age ¹⁴ C BP	Calendar age BC (68,2%)*
1	human tooth	Poz-88664	4195±35	2885-2701
1	wood	Poz-88657	4170±40	2877-2676
2	wood	Poz-88659	4320±60	3014-2889
2	wood	Poz-93936	4385±35	3075-2923

*OxCal v4.4.2 program

Table 1 - Šajkaš, „Ciganska humka”. Absolute dating of graves nos 1 and 2.

The barrow from Šajkaš is therefore an example of a burial sequence: the older Eneolithic (or early Yamnaya) burial and the younger one, linked with the classic Yamnaya culture. Actually, it seems more accurate here to speak of the sequence of older (Eneolithic – following the taxonomy for the North Pontic zone)

⁹ GIRIĆ 1982, p. 103; 1987, p. 73

¹⁰ RASSAMAKIN 2013b; see also: IVANOVA 2015, p. 280, 281

¹¹ HORVÁTH *et al.* 2013, p. 157, fig. 5: 3, 4

and younger (Early Bronze Age) funeral traditions – irrespective of the taxonomic attribution of the older grave, no. 2.

3. BARROW GRAVES WITH EXTENDED INHUMATIONS

Considering its constructional features, grave no. 2 from Šajkaš is connected with a specific, Eneolithic funeral tradition. Extended inhumations characteristic of that tradition have been the subject of several studies concerning both the north-western Black Sea region¹² and the Danube areas¹³. At the beginning, it is necessary to point out the chronological depth of this funeral tradition, which in the steppe zone reaches the Neolithic period. A characteristic feature of the extended inhumations from the north-west Black Sea region has turned out to be their generally late dating as compared to those from areas further to the east¹⁴. Attention was also paid to regularities in the chronological variability of grave structures¹⁵. Among other things, a group of rectangular features with narrow proportions was distinguished, such as the grave from Šajkaš and the quoted analogies. Their relatively late age and contemporaneity with the constructions of the Yamnaya culture were indicated¹⁶. This view has been confirmed by radiocarbon dating, including the results obtained for central burials in barrows from the Danube-Tisza zone (Table 2).

Site	Grave no.	Dated material	Laboratory no.	Age ¹⁴ C BP	Calendar age BC (68,2%)*	Bibliography
Šajkaš, Ciganska humka	2	wood	Poz-88659	4320±60	3014-2889	KOLEDIN <i>et al.</i> 2020
Šajkaš, Ciganska humka	2	wood	Poz-93936	4385±35	3075-2923	KOLEDIN <i>et al.</i> 2020
Tiszavasvári -Deákhalom	6	human bone	Poz-39206	4350±40	3011-2910	
Tiszavasvári -Deákhalom	6	human bone	Poz-40857	4430±30	3310-2938	
Vitanești, barrow I	3	human bone	DeA-12800	4256±30	2907-2877	FRÎNCULEASA <i>et al.</i> 2017

*OxCal v4.4.2 program

Table 2 - Absolute dating of extended inhumations from the Danube-Tisza zone and from grave no. 2 in Šajkaš, "Ciganska humka"

The chronological position of the extended inhumations discussed here is determined, on the one hand, by radiocarbon dating and, on the other hand, by the stratigraphic evidence from barrows. Examples from the North-West Black

¹² including MANZURA 2010; 2013, p. 139-153; RASSAMAKIN 2013b; IVANOVA & TOSCHEV 2015, p. 350, 353

¹³ e.g. ALEXANDROV 2010; FRÎNCULEASA *et al.* 2017

¹⁴ RASSAMAKIN 2013b; IVANOVA 2015, p. 281

¹⁵ e.g. NIKOLOVA & RASSAMAKIN 1985; MANZURA 2013.

¹⁶ MANZURA 2013, p. 150-151.

Sea zone are particularly important here, as they indicate an earlier chronological position of burials of the late Eneolithic Zhivotilovka-Volchansk group. Such observations come from the barrows in Bursuceni¹⁷, Corlăteni¹⁸ and Shcherbaki¹⁹, all in northern Moldova. Based on the absolute dating of the Zhivotilovka-Volchansk group (generally approx. 3400-3100 BC)²⁰, as well as its synchronization with the Late Trypillian Gordinești group, it must be assumed that the extended inhumations from these sites (typologically referring to the examples from the Danube-Tisza zone discussed here) are dated to the turn of the 4th and 3rd millennia BC at the earliest. Such dating should be applied to burials in rectangular, narrow pits, with the upper limbs extended parallel to the body (e.g. the above-mentioned Tiszavasvári, Vitanești), or bent at the elbows and turned towards the head²¹. Thus, the late age of the burials described above, following the Eneolithic tradition of the extended supine position, is well confirmed both stratigraphically and by radiocarbon dating.

Currently, a difficult problem to solve is the possibility of dating extended inhumations in the Danube-Tisza zone of expansion of steppe communities to the 4th millennium BC. Such a chronology is suggested by the juxtapositions with the post-Mariupol tradition or the Kvitiana culture from the Dnieper zone, phenomena dated to the earlier phases of the Eneolithic²². Even the early-dated extended inhumations from the north-west Black Sea zone²³ are still clearly younger than the Kvitiana type and they correspond to the Repin culture finds in left-bank Ukraine. The materials of the Kvitiana type chronologically correspond to the finds of the Dereivka type and are regarded by N. Kotova as one cultural complex from the end of the 5th millennium BC and the first half of the 4th²⁴. Hence, it is difficult to point to genetic connections between the extended inhumations discussed here and the much older Eneolithic tradition.

Moreover, radiocarbon dating of extended inhumations from the North Pontic area indicate their diversified age, including the first half of the 4th millennium BC²⁵. Rassamakin points to the synchronization of most of these burials from the North Pontic zone with the period of the Usatovo culture (the second half of the 4th millennium BC), while questioning many examples assigned a late (Early Bronze Age) date, contemporary with burials of the Yamnaya culture²⁶. The discussion also concerns the correctness of the chronological division of the

¹⁷ YAROVY 1978; 2019.

¹⁸ COMȘA 1982.

¹⁹ LARINA 1989, p. 71-75.

²⁰ GOSLAR *et al.* 2015; PETRENKO & KOVALIUKH 2003, p. 108, Table 7; POPOVICI & KAISER 2020.

²¹ e.g. Goran Slatina, brave II/13, or Zeglartsi-Orliak grave 2/1 – KITOV *et al.* 1991, p. 59, fig. 34; PANAYOTOV 1989, p. 125-127, pl. 116, 118.

²² see IVANOVA 2015, p. 280-282.

²³ e.g. Sarațeni, barrow 2, grave no. 3; LEVIŢKI *et al.* 1996, p. 32; IVANOVA & TOSCHEV 2015, p. 353.

²⁴ KOTOVA 2013, p. 101-104.

²⁵ RASSAMAKIN 2013b, p. 19.

²⁶ RASSAMAKIN 2013b, p. 28, 29.

graves discussed here, taking into account the shape of the grave cut²⁷. The chronometric data currently available for the Danube-Tisza zone are more precise than the scarce and sometimes insufficiently stratigraphically documented data from the North Pontic zone. Among the latter, there are also burials dated late, as late as the graves of the Yamnaya culture. They come from the barrows in Vapniarka and Oleksandrivka, located between the Dniester and Southern Bug Rivers²⁸. The quality of these data does not make it possible to precisely determine their age, so a slight adjustment may be needed in the future. The relatively late age of extended inhumations is in some cases also indicated by the stratigraphic context, as in the case of the unpublished barrow in Oleksandrivka, where the late-dated burial no. 17 was younger than the graves of the Usatovo culture, and older than the graves of the Yamnaya culture²⁹. Therefore, it can be indicated that the dates from Šajkaš, Tiszavasvári or Vitanești make late dating of some extended inhumations from the western part of the North Pontic zone more likely.

Although the features of the Zhivotilovka-Volchansk group are characteristic of burials from the north-western Black Sea, in areas further to the west there is also a group of graves with the deceased placed on their side, in a contracted position, with the upper limbs bent at the elbows and turned towards the head³⁰. Absolute dates obtained for this type of burials point to ca. 3400/3300-3100 BC, which is exactly to the horizon of the Zhivotilovka-Volchansk group. This fact was noticed in the studies on barrows from Bulgaria³¹ and Muntenia³². In the context of the issues discussed here, a significant example is the stratigraphic situation recorded in barrow no. III in Goran Slatina (northern Bulgaria), where an older burial in a contracted position on the side was surrounded by a stone cromlech (grave no. 9), and then two oval pits with extended inhumations (graves nos 6 and 7) were dug into the barrow. A later phase is marked there by graves of the Yamnaya culture³³. Taking into account the differences in the characteristics of the grave cuts, burials 6 and 7 are possibly older than those of the Šajkaš (grave no. 2)–Tiszavasvári (grave no. 6)–Vitanești (grave no. I/3) type. In this case, the chronological position is not established by absolute dating, and only the local sequence of funeral traditions is confirmed. Interestingly, an extended inhumation placed in a narrow pit (grave no. 2) was also discovered in barrow III in Goran Slatina, most probably dug in the barrow and having a similar chronological position to that of the Yamnaya culture graves³⁴. This situation seems to confirm the different age of the features with extended inhumations and indicates that at least some of them can be dated similarly to burials of the Yamnaya culture.

²⁷ MANZURA 2010, p. 36-42; RASSAMAKIN 2013b, p. 28.

²⁸ RASSAMAKIN 2013b, p. 19.

²⁹ RASSAMAKIN 2013b, p. 17.

³⁰ i.a. FRÎNCULEASA et al. 2019; ALEXANDROV & KAISER 2016; ALEXANDROV in print.

³¹ ALEXANDROV 2010.

³² FRÎNCULEASA et al. 2019.

³³ KITOV et al. 1991, p. 62-74.

³⁴ KITOV et al. 1991, pp. 62-74; ALEXANDROV 2010, p. 280.

Another possibility of early dating of extended inhumations is shown by the situation documented in Polsko Kosovo, also in northern Bulgaria³⁵. In this case, the central grave was surrounded by a stone circle with a diameter of 9 meters. The situation is similar to the funeral rite of barrow communities of the 4th millennium BC (including the Usatovo, Foltești and Cernavodă I cultures) and even to finds associated with the Suvorovo group³⁶. As in Goran Slatina, however, also in Polsko Kosovo the chronometric data specifying the age of the central grave are lacking. Its early position was reportedly emphasized by burials nos 2 and 3 dug into the oldest barrow layer, which, due to the semi-supine position, might be linked to the funeral tradition of Cernavodă I³⁷. Without revision by means of absolute dating, however, it is also difficult to rule out the possibility of dating them to the first half of the 3rd millennium BC and a link with the late Yamnaya funeral rite. Therefore, Polsko Kosovo also fails to provide conclusive data on the presence of early-dated extended inhumations in the parts of Europe analysed here.

Regarding the Danube-Tisza zone, special attention was paid to the chronological relation of extended inhumations to the funerary ritual associated with the Cernavodă I culture, or more precisely with its barrow (Bessarabian) variant³⁸. This tradition also includes the previously distinguished Hadzhider type. In the Dnieper part of the steppe, it corresponds to the Nizhnaya Mikhailovka type, which Yu. Rassamakin regarded broadly, as a ritual unifying the areas between the North Caucasus steppe and the lower Danube basin³⁹. Although the chronometric data for this group of burials are sparse, its age – based on typological comparisons – is correlated primarily with the C/I phase of the Trypillia culture, and in the Danube region generally with the settlements of Cernavodă I culture. An attempt to discuss the relationship between extended inhumations and burials associated with the Cernavodă I culture was presented by S. Alexandrov, who pointed to various types of stratigraphic relationships⁴⁰. However, so far not a single such burial has been confirmed as belonging to the Cernavodă I circle, which would imply early dating of the barrow (to the first half of the 4th millennium BC). Taxonomic and chronological distinctions based solely on the arrangement of the burial turn out to be risky. Such findings are sometimes negatively verified, with the burials ultimately being dated to the first half of the 3rd millennium BC (meaning associated with the classical Yamnaya culture). As a result, there are currently no stratigraphic and chronometric data confirming the older age of extended inhumations in relation to the burials of Cernavodă I or of other funeral traditions from the 4th millennium BC.

Based on the above remarks, it can be concluded that the particular group of extended inhumations corresponds to the horizon of expansion of the Yamnaya communities (generally: not earlier than about 3100-3000 BC) both in the north-

³⁵ STANCHEV 2002.

³⁶ ALEXANDROV & KAISER 2016, p. 366.

³⁷ ALEXANDROV 2010, p. 284.

³⁸ MANZURA 2013, p. 130.

³⁹ RASSAMAKIN 1997, p. 288, 289.

⁴⁰ ALEXANDROV 2010, p. 283-289; see also ALEXANDROV & KAISER 2016, p. 365.

west Black Sea zone and in the regions further west. It is currently the only chronometrically determined group of such burials in the Danube-Tisza region. The key issue is the genetic relationship between these two apparently different cultural formations, representing different funeral traditions. It should be noted here that these two trends also share several similarities (including the presence of ochre, wooden covers, and mats at the bottom of the pits). A group of burials representing an intermediate variant, combining both traditions, can be distinguished as well.

Importantly, in terms of its construction features, grave no. 2 from Šajkaš refers not only to the group of sepulchral features with extended inhumations, but also to some graves associated with the tradition of the Yamnaya culture: burials in narrow pits in which the deceased were placed in a supine position with only slightly bent lower limbs. From the Vojvodina area, an evident analogy for grave no. 2 from Šajkaš is provided by burials 1 and 2 from the barrow of "Humka u Barnahatu" in Padej, in northern Banat⁴¹. This similarity applies not only to the shape, but also to the features of the wooden structure (**Fig. 6**). Radiocarbon dating confirms the early Yamnaya age of stratigraphically younger grave no. 2 from this barrow⁴². In the case of grave no. 1, the construction of the pit and the arrangement of the burial are similar to those in feature no. 2. Thus, unlike in "Ciganska humka" in Šajkaš, both phases of the barrow erection probably fall to the very beginning of the 3rd millennium BC, meaning they correspond to the older phase of the Yamnaya culture. The presence of a white, calcareous substance at the bottom of the pit, characteristic of features from this period, was also recorded in the above-mentioned graves in Padej (grave no. 1), Šajkaš (grave no. 2) and Tiszavasvári (grave no. 6).

In the case of the Padej graves, the constructional features of the graves, the arrangement of the burial and radiocarbon dating point to the early stage of the Yamnaya culture. On the other hand, the survival of an older Eneolithic tradition during the classic stage of the Yamnaya culture is demonstrated by the (central?) burial from the "Bucova Pusta IV" barrow in Sânicolau Mare in the Romanian part of Banat⁴³. In a narrow pit, with an atypical wooden construction at the bottom, a skeleton burial typical of the Yamnaya culture was found (**Fig. 7**). The radiocarbon dating of this feature (2883-2700 BC) corresponds to the age of grave no. 1 (i.e. younger) from Šajkaš⁴⁴. This example shows that older, Eneolithic principles were sometimes still used in the Early Bronze Age funeral ritual. At the same time, it emphasizes the genetic closeness between the Yamnaya culture rite and the late Eneolithic variant of extended inhumations.

Another group that stands out are graves with extended inhumations, in terms of burial ritual referring to the patterns of the Yamnaya culture. Burials of this type include, for example, grave no. 4 from barrow II in Goran Slatina in northern Bulgaria⁴⁵. The skeleton was placed in a narrow pit, equipped with a

⁴¹ GIRIĆ 1987.

⁴² GIRIĆ 1987, p. 73.

⁴³ KRAUß *et al.* 2016, p. 299, fig. 6.

⁴⁴ KRAUß *et al.* 2016, p. 298, Table 7.

⁴⁵ KITOV *et al.* 1991, p. 58, fig. 33.

lump of ochre, a golden hair-ring and a necklace of silver beads. Features of this type carry clues to both the dating (the first half of the 3rd millennium BC) and the genetic relationship between the ritual of extended inhumations and the burial rite of the Yamnaya culture.

Barrows with extended inhumations are sometimes part of those cemeteries which include mounds with central burials of the early Yamnaya culture. An excellent example here is the cluster of barrows in Ocnîța on the middle Dniester, where, together with four mounds most likely erected by the people of the Yamnaya culture, two others were discovered with central burials in an extended position⁴⁶. Thus, the continuity of use of the ceremonial-funeral complex is indicated here, most probably by one community using different arrangements of graves.

4. QUESTION OF THE CULTURAL SEQUENCE IN BARROWS

An interesting fact is the succession of the graves of the Yamnaya culture after the "Eneolithic" stage of barrow building. Younger burials were dug in the central parts of the mounds, near the Eneolithic central graves. The succession of the Yamnaya phase was recorded in barrows presenting various Eneolithic traditions, including frequent revitalization of mounds with inhumations in a contracted position on the side (generally referring to the Late Trypillian and Zhivotilovka-Volchansk traditions), and with the extended inhumations listed here. After a Yamnaya culture grave was dug into a barrow, the mound was significantly extended and most often reached its final size. In later chronological phases, subsequent graves were only dug into the existing barrow layers.

The repeatability of the succession pattern in Eneolithic barrows is noteworthy. There are also examples of stratigraphic situations that are almost identical to that recorded in the barrow in Șajkaș specified here. Grave no. 2 (of the Yamnaya culture) in barrow I in Vitanești in Romania was placed in a similar way, centrally above Eneolithic burial no. 3 (extended inhumation)⁴⁷. The only difference was the orientation of the Eneolithic burial (approximately NE-SW – **Fig. 4. A**). In some studies, this grave was linked with the older stages of the Eneolithic⁴⁸. However, the radiocarbon date obtained in recent years clearly determines the age of this grave as the first half of the third millennium BC⁴⁹.

Another example comes from the north-west Black Sea region: barrow no. 1 in Timkove on the middle Dniester⁵⁰. There, too, a Yamnaya culture grave was placed centrally above an Eneolithic burial (**Fig. 8**). In this case, the layout and orientation of the older and younger graves are identical to those from "Ciganska humka" in Șajkaș. In turn, features nos. 10 and 12 from the barrow in Dumeni in northern Moldova represent a situation very similar to that in Vitanești⁵¹. To sum up, the funeral ritual consisted in placing a grave of the Yamnaya culture in the

⁴⁶ MANZURA *et al.* 1992.

⁴⁷ LEAHU & TROHANI 1979; FRÎNCULEASA *et al.* 2017.

⁴⁸ e.g. BURTĂNESCU 1996, p. 22.

⁴⁹ Table 2; FRÎNCULEASA *et al.* 2017, p. 81.

⁵⁰ OSTROVERKHOV *et al.* 1993.

⁵¹ LARINA 1989, p. 66, fig. 2: 1; 4: 3, 6.

middle of the burial mound, directly above an older grave containing an extended inhumation. Then, the mound was symmetrically enlarged. It is not necessary to assume that by digging the younger grave the aim was to reach the ceiling of the older funeral structure (well-marked by the roof of the burial chamber). However, placing a new central burial in the middle of the older barrow and enlarging the mound symmetrically in all directions were no doubt intentional actions. The effect was "replacing" the old burial with a new one, creating a new axis of the barrow and sometimes also a point of reference for a future cemetery. This was one of the options for enlarging mounds implemented by the Yamnaya communities. Others consisted in digging the central burial for the new phase into the side part of a barrow. The mound was then enlarged asymmetrically, and its centre shifted to a new place.

5. CONCLUSION

The stratigraphic layout of the "Ciganska humka" barrow in Šajkaš became the starting point for an attempt to organize the data on late Eneolithic extended inhumations discovered in the barrow context.

1. Extended inhumations from rectangular, narrow pits, often with wooden box structures in the bottom part, date back to the early centuries of the 3rd millennium BC, similarly to the graves of the older phase of the Yamnaya culture.

2. Similar constructional features are also revealed by graves with burials on the back, with only slightly bent lower limbs (Padej, "Humka u Barnahatu"). In terms of the majority of ritual features, these burials link with the older phase of the Yamnaya culture.

3. The pattern of succession in which graves of the Yamnaya culture are dug into barrows hiding burials in extended positions is repeated in various regions of the western part of the steppe. It consists in establishing a new founding grave in the centre of a mound, often directly above the older central burial.

4. The features of the funeral rite and chronological data indicate the presence of at least two slightly different funeral traditions at the beginning of the 3rd millennium BC. They are represented by extended inhumations and by burials referring to the early stage of the Yamnaya culture (Fig. 9). The genetic background of these differences is as yet impossible to establish. Undoubtedly, the older Eneolithic tradition left its mark on the ritual of the Yamnaya culture and contributed to the differentiation of the funeral rite observed in barrows in the first half of the 3rd millennium BC. It cannot be ruled out that placing the deceased in an extended position on the back was simply one of the variants of the arrangement of burials used by the early Yamnaya communities.

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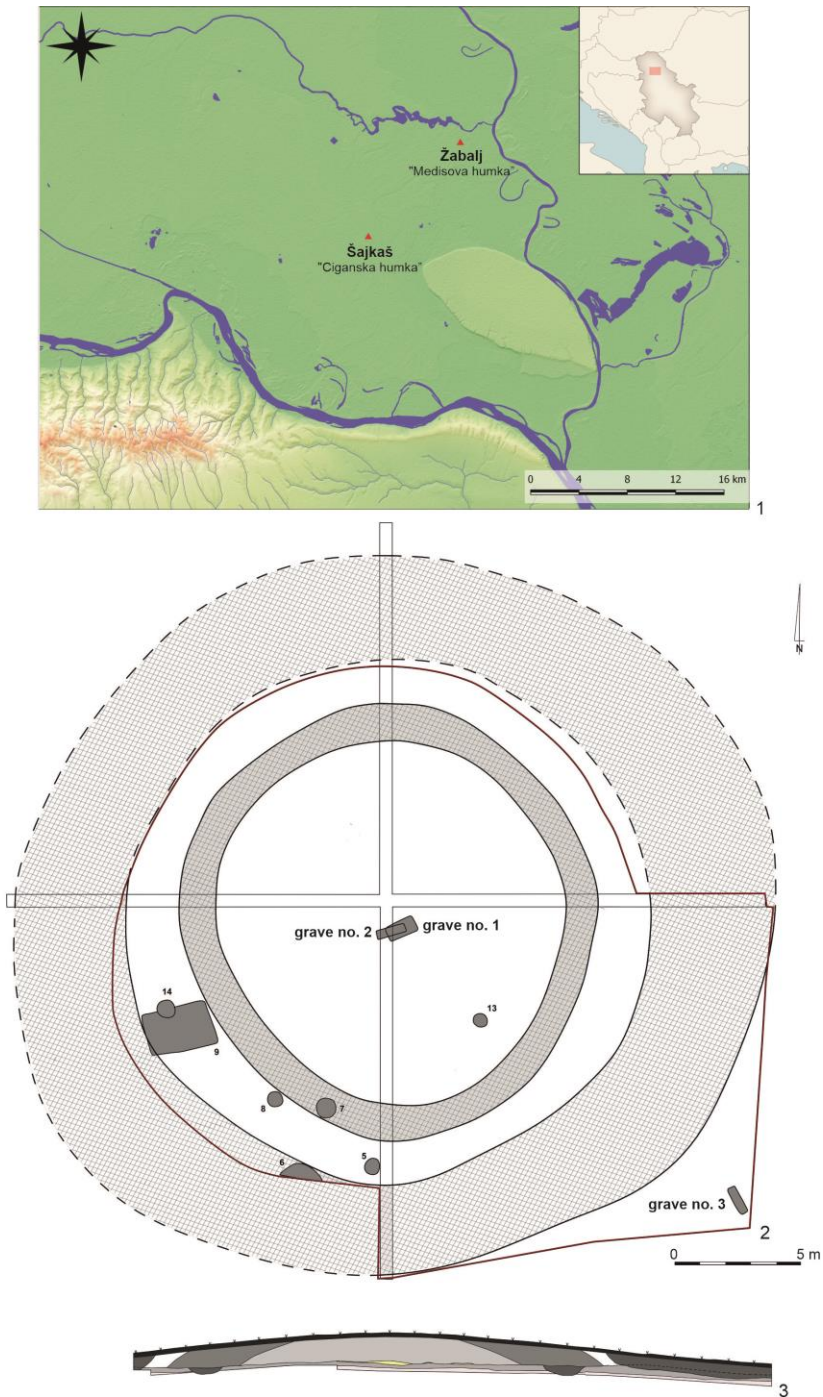


Fig. 1 - Šajkaš, „Ciganska humka” (Vojvodina). 1 – location of barrow, 2 – plan of barrow, 3 –profile W-E.



1

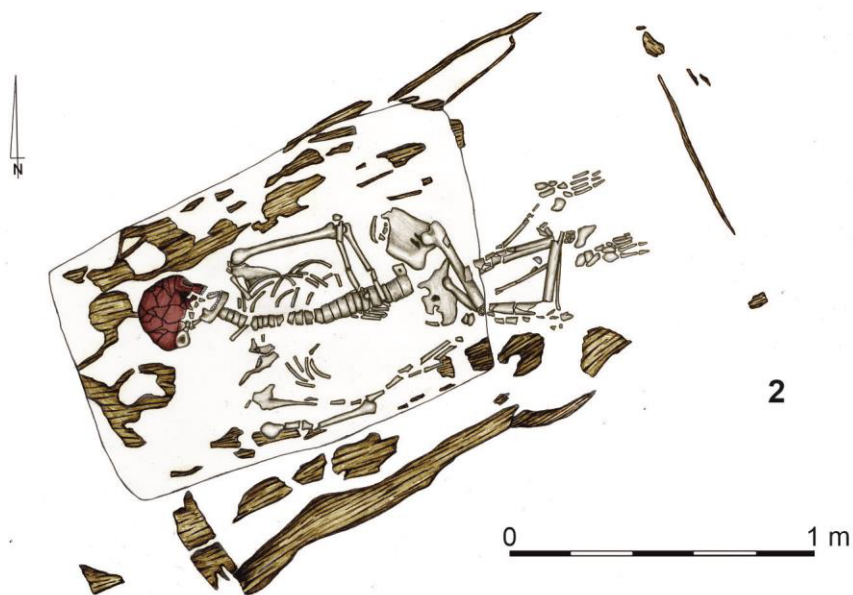
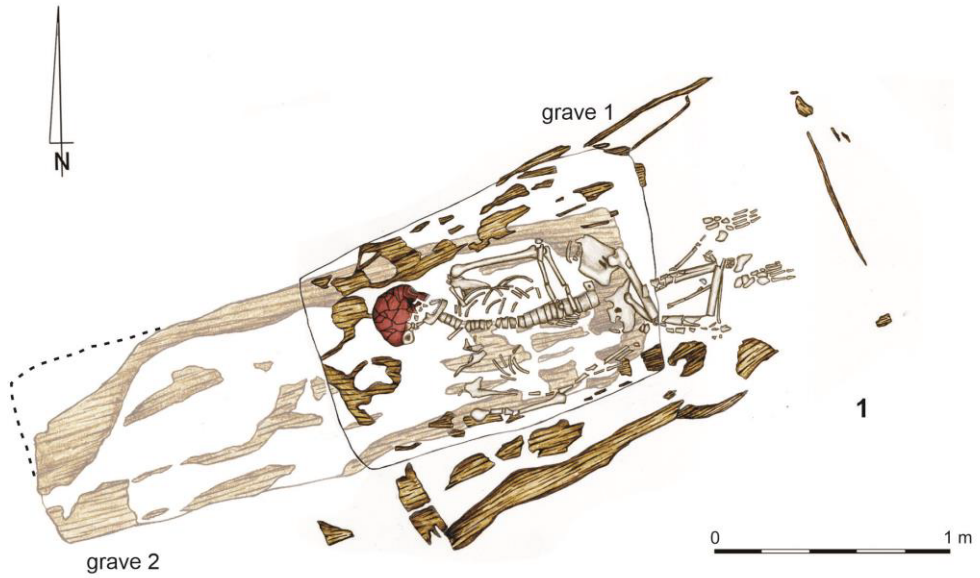


Fig. 2 - Šajkaš, „Ciganska humka”. Grave no. 1. Photo by Piotr Włodarczak, illustrated by Michał Podsiadło.



2

Fig. 3 - Šajkaš, „Ciganska humka“. Grave no. 2. Photo by Piotr Włodarczak, illustrated by Michał Podsiadło.

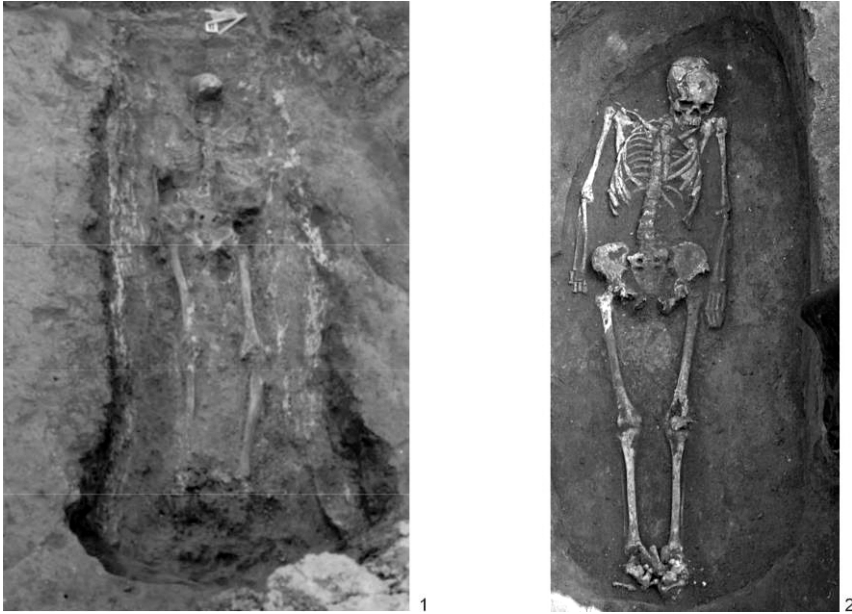


Fig. 4 - Elongated inhumations from Tiszavasvári-Deákhalom (1) and Vitanesti, barrow I (2). Acc. to DANI 2011 and Frînculeasa *et al.* 2017.

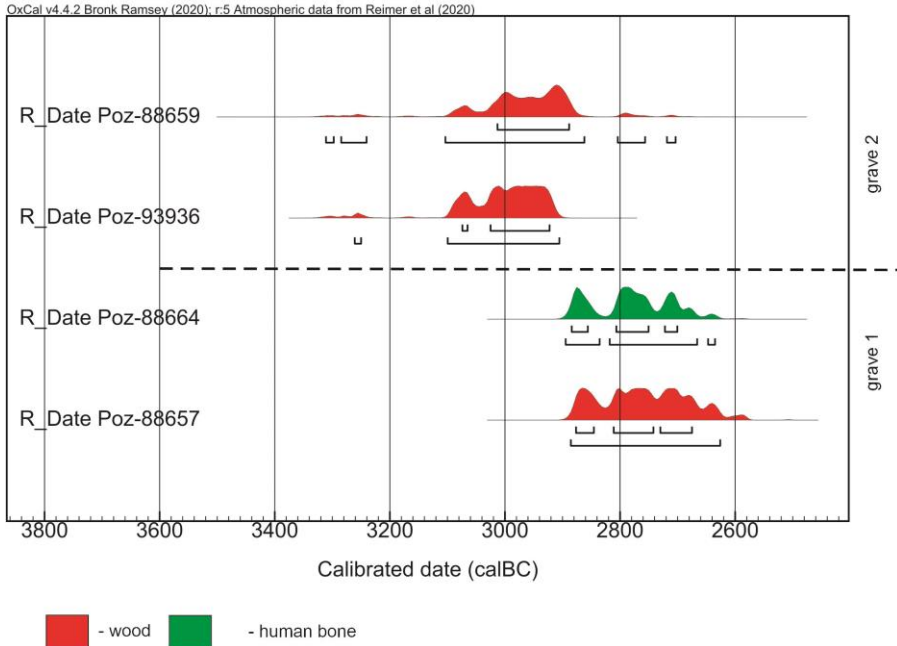


Fig. 5 - Radiocarbon dating of graves from "Ciganska humka" barrow in Šajkaš. Calibration done with OxCal v4.4.2 program of Ch. Bronk Ramsey from 2020.

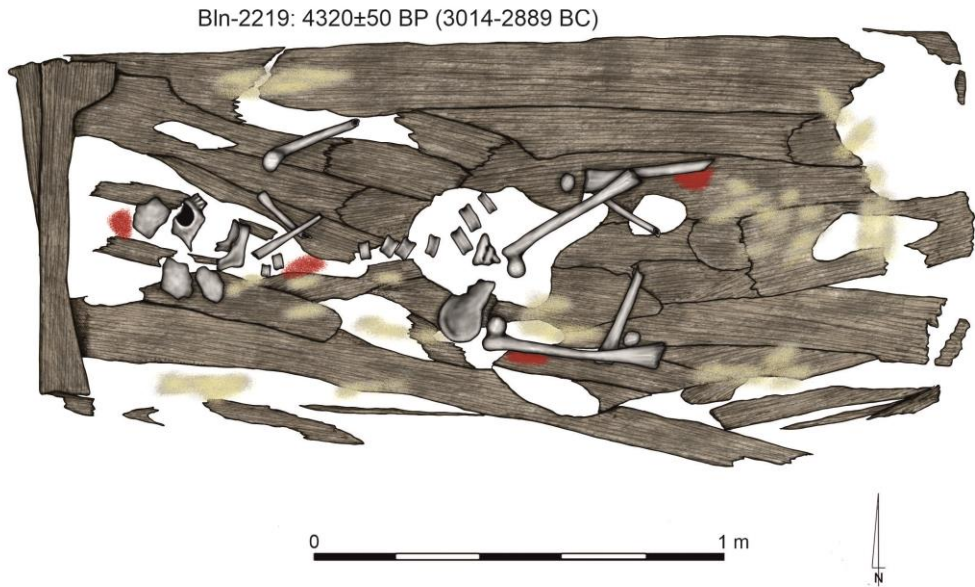


Fig. 6 - Padej, "Humka na Barnahatu", grave no. 2. Illustrated by Michał Podsiadło (based on field documentation kept at National Museum Kikinda).

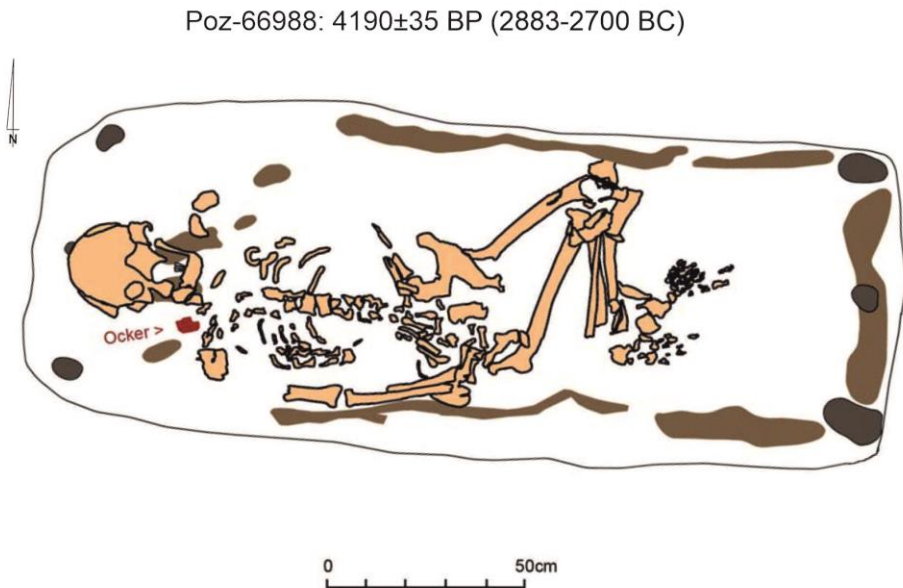


Fig. 7 - The Yamnaya grave from „Bucova Pusta IV” barrow in Sânicolau Mare (Romanian Banat). Acc. to Krauß *et al.* 2016.

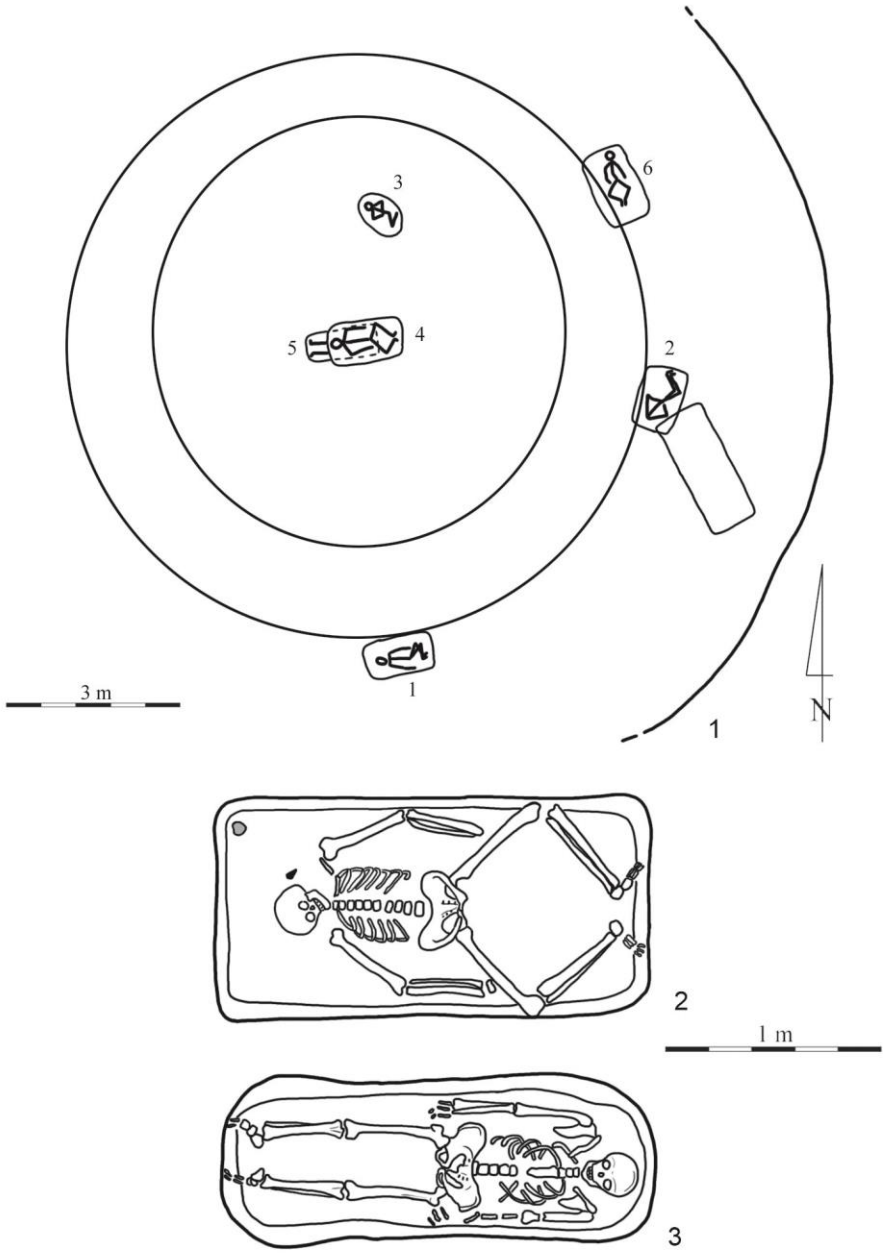


Fig. 8 - Timkove, middle Dniester region (Ukraine). 1 – plan of barrow, 2 – grave no. 4, 3 – grave no. 5. Acc. to OSTROVERKHOV et al. 1993 (changed).

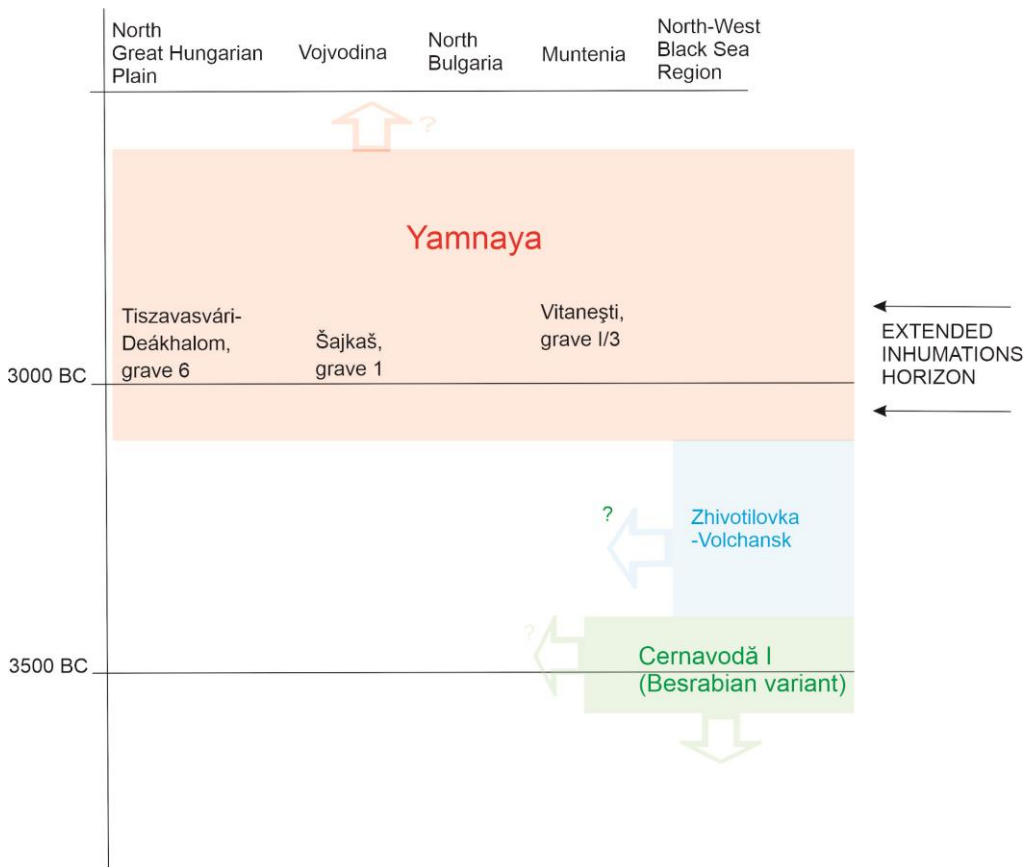


Fig. 9 - Chronological position of extended inhumations from the Danube – Tisza zone.