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Jan Romaniszyn*, Bogdan Petru Niculică**, Ioan Ignat***

FUNERAL RITES ON THE SOUTHERN BOUNDARY OF THE KOMAROV CULTURE

ABSTRACT

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This paper is the result of Polish and Romanian cooperative investigations of the funeral rites in the Bronze Age in Carpathian area. The purpose of this paper is to present the results of archaeological investigations from the Northern Moldavia where cemeteries of Komarov culture have been excavated since the 19th century. All data were compared with the results from Komarov sites in the Upper Dnister area of the Ukraine that date to the first half of the 2nd millennium BC. The problem of how the Komarov culture has been classified is investigated, specifically how the classification of material culture and funeral practices have changed over time. The history of research in the northern Moldavia area is presented, followed by a description of Komarov cemeteries located in this area at the cemetery, grave, burial, and grave inventory levels. The graves and funeral rites in northern Moldavia and those in the Upper Dnister area and neighbouring regions are then comparatively analyzed.

Keywords: Komarov culture, Northern Moldavia, funeral rites, cemetery, mortuary archaeology
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INTRODUCTION

The Komarov culture, first identified by Sulimirski in 1936, was a very complex cultural phenomenon. Multiple lines of evidence from various disciplines have been employed to understand this cultural formation and continue to expand knowledge of the Middle

* Institute of Prehistory, Adam Mickiewicz University in Poznań, Poland; janrom89@wp.pl
** Bucovina Museum, Suceava County, Romania; niculicab@yahoo.com
*** "Gheorghe Popovici" Secondary School, Lozna, Botoşani County, Romania; ignatioan1981@gmail.com

Bronze Age in central and Eastern Europe. Two important problems in Komarov archaeology are 1) defining their territorial extent and 2) providing evidence for their interaction with the cultures that lived in neighbouring areas. Delimitation problems are complex and various criteria are utilized to distinguish and classify the boundaries. Traditionally, the Carpathian Mountains are defined as the south-west border of the Komarov culture, as they also separate the Carpathian Basin from the Pre-Carpathian area. The purpose of this article is to provide a comprehensive characterization and approximation of the southern boundary of the Komarov culture, which is argued to have extended into north-eastern regions of Romania (Fig. 1; 2).

Although the Komarov culture has been archeologically identified in north-eastern Romania, it is poorly represented in the Polish literature. Given the similarities in archaeological material and funeral rites in northern Moldavia and those in the upper Dniester area of the Ukraine, it is reasonable to propose that the Komarov cultural area extended farther south than previously recognized. To support this argument, the authors will first present and describe previously identified Komarov cemeteries dating to the first half of the 2nd millennium B.C. that are located on the foothills of the Carpathian Arc (Pre-Carpathian region) of northern Moldavia, between the Prut and Siret rivers. The authors will then compare and contrast these northern Moldavia cemeteries with Komarov ones in the upper Dniester region of the Ukraine that are better known in the literature (Bryk 1932; Sulimirski 1936; 1938; 1964; 1968; Siwkówna 1937; Rogozińska 1959; Makarowicz 2010; Makarowicz *et al.* 2013; 2013a; 2014; Lysenko *et al.* 2014; Romaniszyn 2013; 2015).

Polish and Ukrainian archaeologists have distinguished many manifestations of the Komarov culture, including the Eastern-Trzciniec culture (Berezanska 1967), Trzciniec-Komarov culture (Swiesznikow 1967; 1990; Berezanska 1967), as well as two completely separate cultures (Swiesznikow 1967) and have even considered them to be a large, interconnected cultural circle (Trzciniec-Sośnica-Komarov; cf. Dąbrowski 1972). The latest approach in interpreting this cultural phenomenon is to define the Komarov culture as a south-eastern part of the Trzciniec cultural circle (TCC; Makarowicz 2010). In Romanian literature, there is a similar situation; researchers use different terms when classifying material and naming the same cultural phenomenon. Probably the largest problem has been whether to consider similar archaeological material remains and funeral rites as either Komarov or Costişa cultures.

Since its discovery, the Costişa culture on the Romanian territory has been considered a local variant of the Komarov culture, belonging to this so-called 'Komarov-Bialy-Potok-Costişa' cultural complex, similar to Trzciniec type finds (Vulpe 1961, 119-120; Dumitroaia 2000, 127-128; Cavruc and Dumitroaia 2001, 13-22; Dascălu 2007, 40-41; Munteanu 2010, 41-55, 85-94, 108-111, 195-213). Recently, archaeologists have discussed the Komarov-Costişa group and the relations between the Bialy Potok, Komarov and Costişa groups (Chicideanu 2011, 432-433). In this regard there are two predominant theories; the first is that the Costişa and Komarov finds from Romania are considered to be either separate

Fig. 1. Trzciniec Cultural Circle (TCC – Makarowicz 2010) with Uplands version of TCC and 'Southern boundary' of TCC

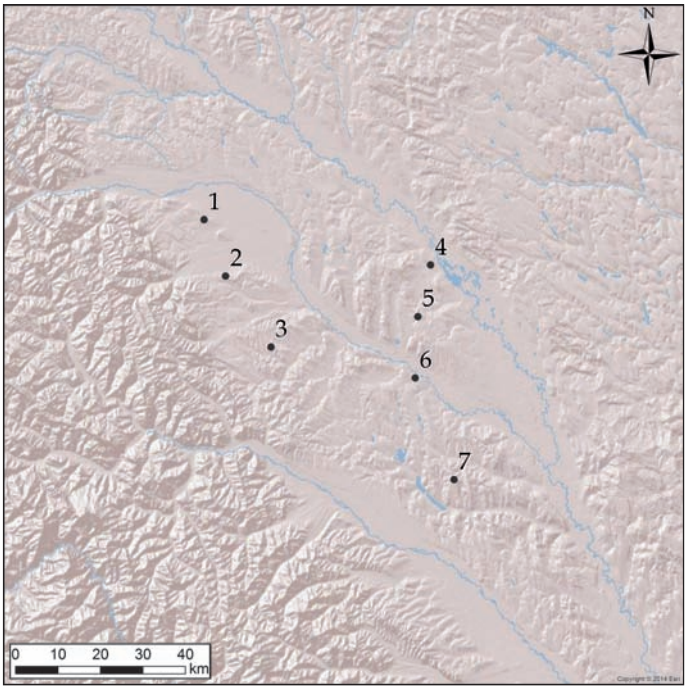

Fig. 2. Map of Komarov culture cemeteries in the Northern Moldavia area, 1 – Horodnic de Jos, 2 – Volovăţ, 3 – Cajvana, 4 – Serbăneşti, 5 – Adâncata, 6 – Suceava, 7 – Hârtop

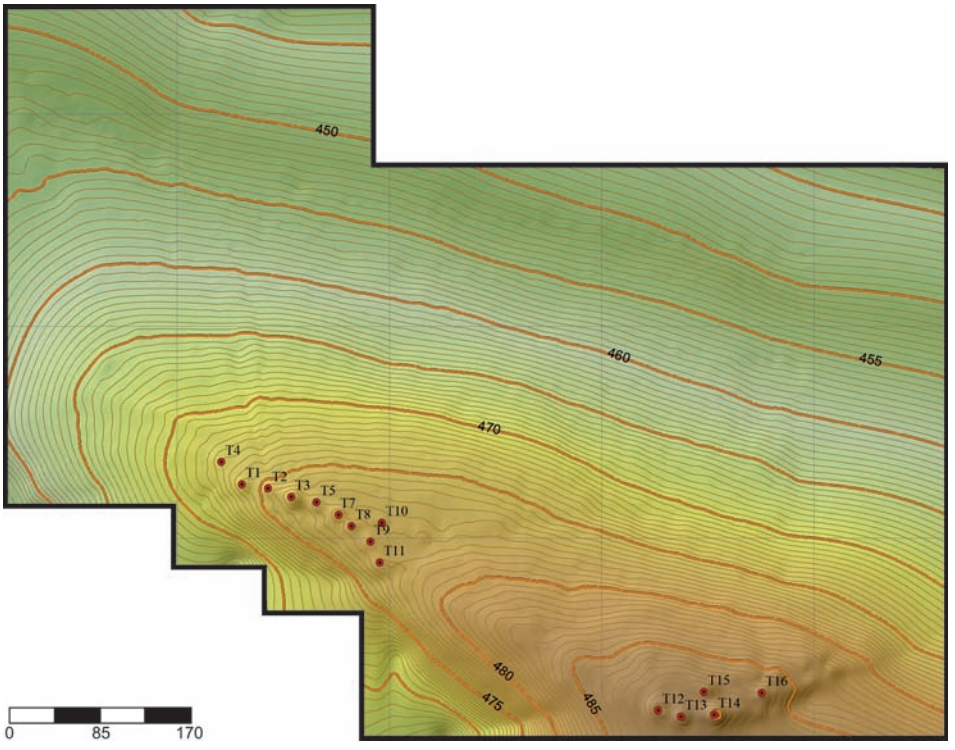

Fig. 3. Plan of barrow grave cemeteries in Horodnic de Jos, (16 tumuli pointed out in 2012 field researches: two linear groups (Niculică *et al*.; 2013; Niculică 2015)

Fig. 5. Plan of barrow grave cemetery in Volovăț – *Dealul Burlei* (based on Ignat 1978)

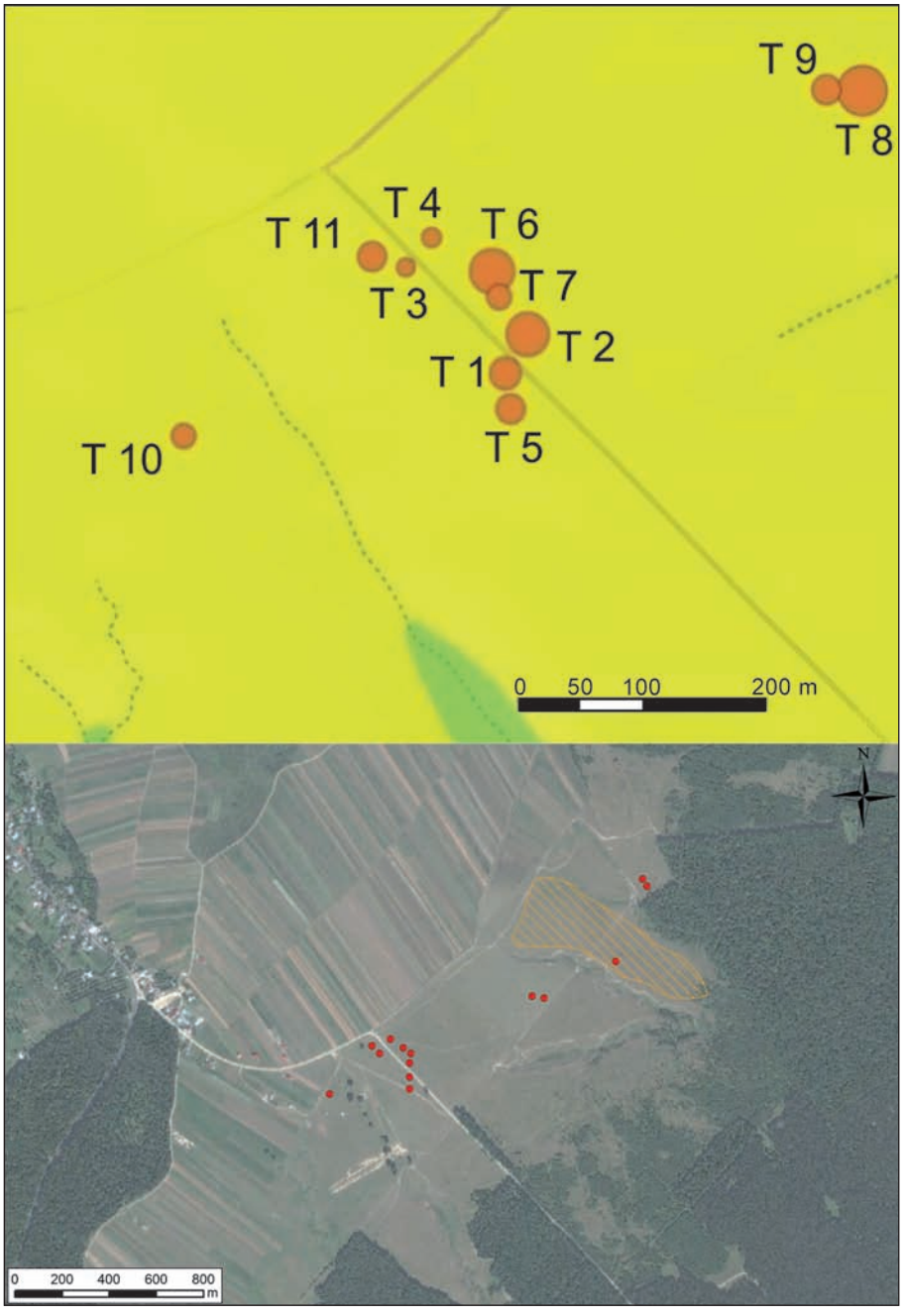

Fig. 8. The position of the barrow cemetery in Adâncata – *Imaş* with settlement position and distribution of the 11 tumuli researched (Budui, Niculică, 2013; Niculică 2015; based on Niculică 2015)

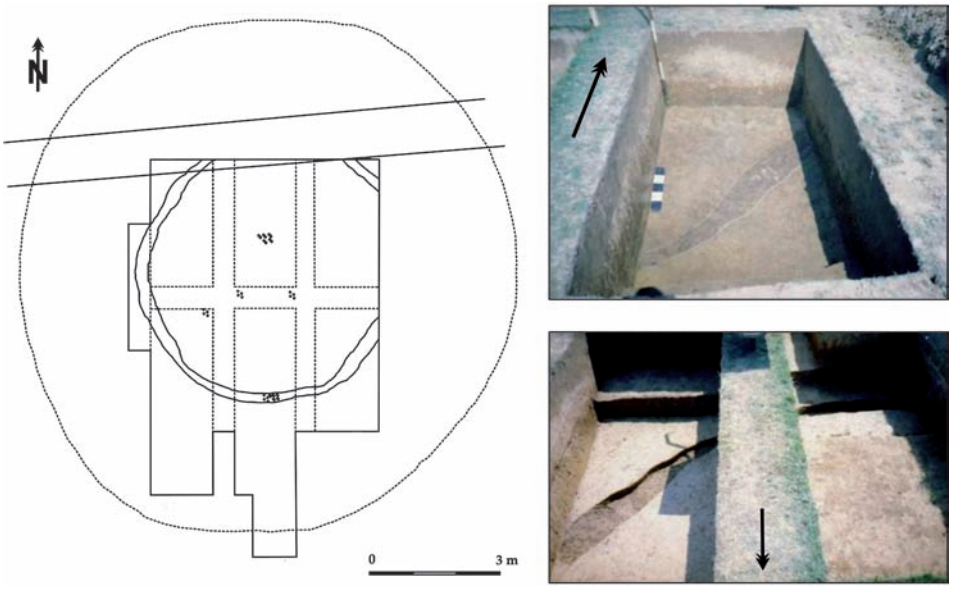

Fig. 9. Plan of barrow grave T5 in Adâncata – *Imaş* and pictures of ditch inside barrow (Niculică 2015)

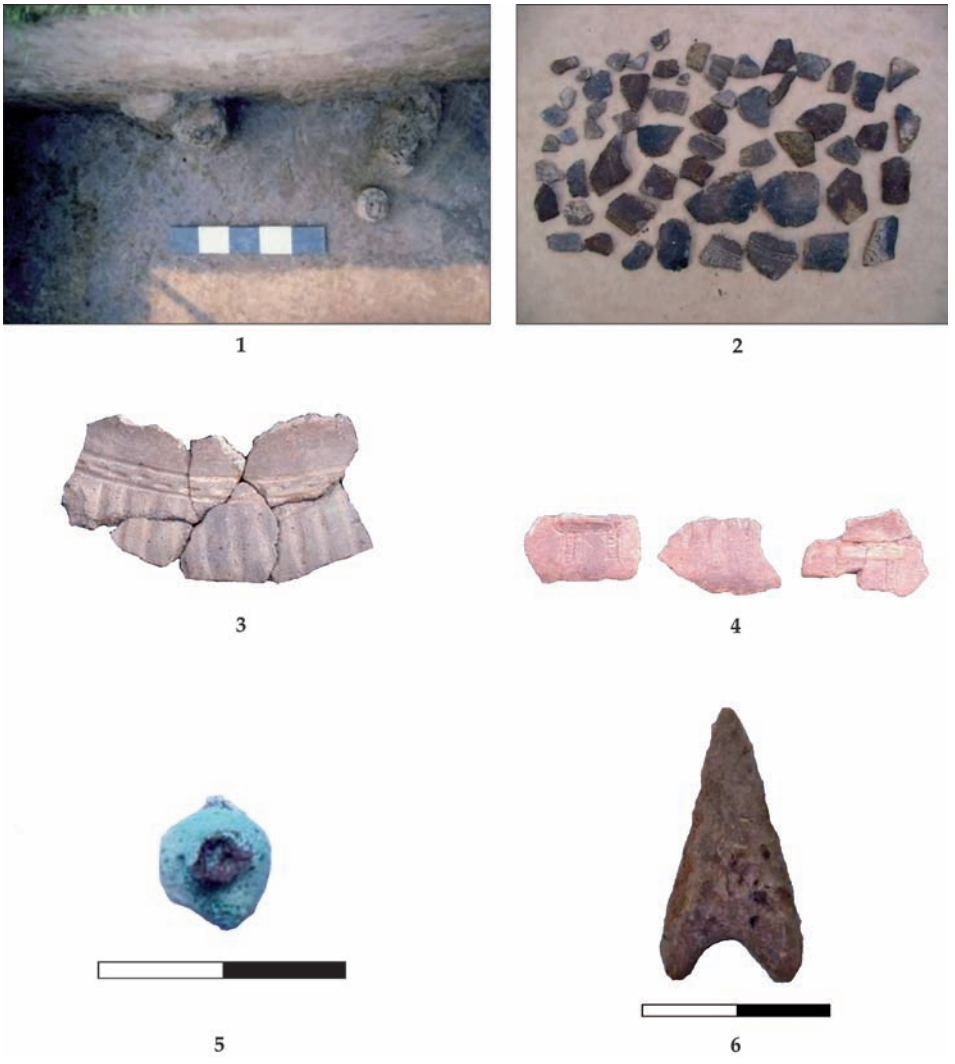

Fig. 10. Adâncata – *Imaş* – Inventory from barrow grave T6 – 1-4 pottery, 5 – copper/bronze earring, 6 – flint arrowhead (Niculică 2015)

Fig. 11. Adâncata – *Imaş* – Barrow grave T7 with radiocarbon date (Niculică 2015)

Fig. 12. Adâncata – *Imaş* – Barrow grave T8, 1 – stone axes, 2 – *in situ* one-handled cup, 3 – grave pit, 4 – grave pit with skeleton (Niculică 2015)

Fig. 13. Adâncata – *Imaş* – Pottery (1-7) from barrow grave T8 (Niculică 2015)

Fig. 14. Costana *Imas*- Pit grave M1 with skeleton and inventory from barrow grave T1 (Boghian *et al.* 2012, http://cimec.ro/arheologie/cronicaca2012/cd/index.htm)

cultures (Popescu 2005, 317; Munteanu 2005, 202; Munteanu 2010, 85-94; Niculică 2015, 121-265). Alternatively, some researchers have argued they are related cultures that had differing funeral rites and rituals but were sufficiently similar in terms of ceramic shapes and decor to have belonged to the same cultural complex (Ignat 2012, 501-510; 2013, 141-158).

It appears that several cemeteries from northern Moldavia demonstrate strong connections with or even homogenous features to the Komarov culture in the upper Dniester area. Similarities are visible not only in the archaeological records but also in the funeral practices at the cemetery, grave and burial levels. The Komarov culture in the Pre-Carpathian area is known only from funeral sites that occur as site concentrations. This situation is also characteristic in the upper Dniester area, where along a 30 kilometer stretch of the Dniester River many barrow grave cemeteries have been documented (Swiesznikow 1967; Sulimirski 1968; Romaniszyn 2013, maps 2, 3). It appears that an analogical situation occurs in north-eastern Romania, where along the Siret and Suceava rivers archaeologists have recorded several cemeteries with a significant number of barrows.

The landscape of the Pre-Carpathian region is full of hills and uneven land (up to 500 m above sea level). The countryside is hilly and traversed by meandering river valleys. The hills are arranged parallel to the Carpathian range (Jurecki 2001, 31-33; Figiel and Krzywda 2010) and the hilly countryside is traversed by meandering river valleys. The Komarov culture, characterized by funerary sites consisting of numerous burial mounds, is located at strategic, prominent vantage points along the banks of rivers (watersheds) in the Pre-Carpathian region (Romaniszyn 2013; 2015).

PREVIOUS RESEARCH OF KOMAROV CULTURE IN NORTHERN MOLDAVIA

The history of research of the Komarov culture on the territory of Romania can be organized in three main stages. Thus, for the Austrian stage, before the First World War, we must mention the research from barrow grave cemeteries of Horodnic de Jos – *Vârfu Colnicului* and *Dealul Brădet* between 1893 and 1894, respectively 1902, realized by Joseph Szombathy and Raimund F. Kaindl (Fig. 4). There were investigated in the two locations 36 tumuli with cremation and inhumation burials in simple pits and stone cists (Szombathy 1984, 18-19; 1895, 22; 1896, 133; Kaindl 1903a, 82-83; 1903b, 97-101; Niculică 2015, 138, no. 36; Niculică and Boghian 2015, 217).

For the second stage, the interwar one, investigations from the barrow grave cemetery of Volovăţ can be mentioned – *Dealul Burlei*, performed in 1937 by Gustav Mazanetz, a cemetery related to the Early Hallstatt period, but with Komativ type finds (Ursulescu and Ignat 1977, 323; Ignat 1978, 323; Ignat 1979, 107-140; Ignat 2003; 159-162; Andronic 2008, 130; Munteanu 2010, 55, nr. III.12; Niculică 2015, 139-140, no. 39).

The most fruitful stage of the history of Komarov culture research in the Romanian area is the post-war one when many of the previous discoveries were re-analyzed and included in

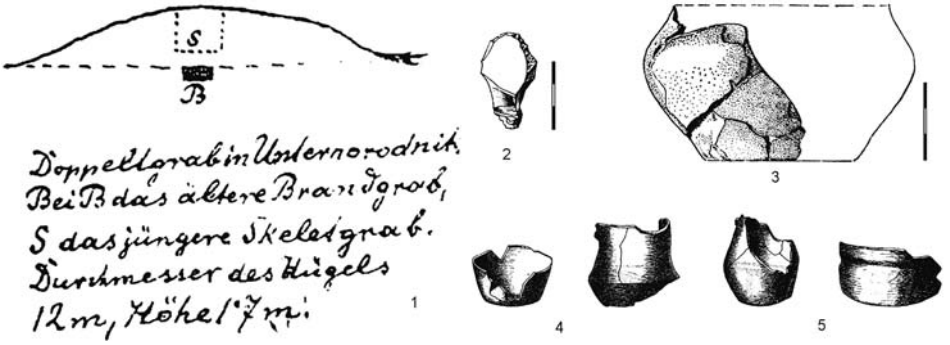

Fig. 4. Stratigraphy and discoveries from Horodnic de Jos – *Vârfu Colnicului* (1-4) and *Dealul Brădet* (5) barrow cemeteries (based on Kaindl 1896, pl. 2/17 [1]; Kaindl 1903, fig. 89-92 [4-5]; Ignat M. 1981, fig. 1/1-2 [2-3])

the Middle Bronze Age or new investigations were performed, some isolated, some as part of compact cemeteries.

We must enumerate here the inhumation grave from Vlăsineşti (Botoşani county) investigated in 1969 by Filaret Aprotosoaie (Păunescu and Şadurschi 1976, 297; Şadurschi 1994, 168, footnote 6; Dumitroaia 2000, 138, nr. 51; Munteanu 2001a, 54, pl. 55:4; Diaconu 2007, 6, Fig. 4:6a, 6b; Dascălu 2007, 42, 240, nr. 393; Andronic 2008, 126), the barrow graves from Cotârgaci (Botoşani county.) studied by Emil Moscalu between 1985 and 1986 (Moscalu 1989, 120-121, 122-123, 136-137), the slab cist stone grave researched in 1978 by Mircea Ignat and Dragomir Popovici in a large mound from Şerbăneşti (Suceava county – Ignat and Popovici 1980, 657-662; Dumitroaia 2000, 137-138; no. 43; Ignat 2000, 35-36, 37; Andronic et al. 2004, 151-152, nr. 163; Niculică 2005, 63; 2015, 139, no. 38; Dascălu 2007, 42), the slab cist stone grave from Hârtop (Suceava county) uncovered in 1982 by Nicole Ursulescu and D. Popovici (Ursulescu and Popovici 1987, 72-76; Dumitroaia 2000, 133-134, no. 25; Ignat 2000, 37; Niculică 2005, 63-64; 2015, 136-137, no. 34; Dascălu 2007, 42), the inhumation graves from Prăjeni (Botoşani county) researched by Ursulescu and Şadurschi in 1986 (Ursulescu and Şadurschi 1988, 48-52, Şadurschi 1994, 168, note 6; Dumitroaia 2000, 136-137, no. 39; 2001, 44; Burtănescu 2002a, 128-129; Dascălu 2007, 42, 244, no. 420; Andronic 2008, 126).

Likewise, in the same stage, Mircea Ignat restarted the excavations from Volovăţ barrow grave cemetery between 1971 and 1973 (Ursulescu and Ignat 1977, 323; Ignat 1978, 323; 1979, 107-140; 2003; 159-162; Andronic 2008, 130; Munteanu 2010, 55, nr. III.12; Niculică 2015, 139-140, no. 39), from Horodnic de Jos – *Vârfu Colnicului* in 1976 (Ignat 1981, 135-136) and accomplishes the research from the Hallstatt barrow cemetery of Cajvana/Codru (Suceava county) in 1989-1990 and 2001 with inhumation graves from the Komarov culture (Ignat and Ignătescu 2002, 80; Ignat 2003, 155-159, fig. 1/1-2, 4, 6; 2006, 13, 19-34; Andronic 2008, 130; Munteanu 2010, 52-53, no. III.4; Niculică 2015, 134-135, no. 32).

In the last 20 years, there were also included into Komarov culture boundaries the finds from Crasnaleuca (Botoşani county): 1996 – four inhumation graves investigated into the south-eastern peripheral area of a barrow (Dascălu and Burtănescu 1997, 15; Munteanu 2001c, 30-31, pl. 55: 1-2; Dascălu 2007, 42, 180, no. 93a; Andronic 2008, 126), from Ripiceni (Botoşani county), 1997 – human inhumation grave and another grave with burnt horse remains in a tumulus (El Susi and Burtănescu 2000, 257-263; Burtănescu 2002a, 7-10; 2002, 130-132, no. 28, pl. XL:2-5) and from Suceava – *Câmpul Şanţurilor* (Suceava county) – slab cist inhumation grave (Mareş *et al.* 2008, 292-293; Andronic 2008, 131, Mareş 2010, 45-72; Niculică 2015, 138-139, no. 37).

Also of importance are the excavations from the barrow grave cemetery of Adâncata – *Imaş* (Suceava county) where, between 2001 and 2005, eleven tumuli were investigated, showing incineration and inhumation burials (Budui and Niculică 2003, 79-86; 2012, 79-86; Niculică *et al.* 2005, 69-86; Niculică and Cojocaru 2006, 203-207; Andronic 2008, Simalcsik, Niculică 2012; Niculică 2015, 134, no. 31). In 2011-2012, two more mounds were excavated in the cemetery of Costâna (Suceava county) denoting incineration and inhumation burials (Boghian *et al.* 2012, 266-268, pl. 150; Boghian *et al.* 2013, 198-199, pl. 109A; Niculică 2015, 135-136, no. 33).

To complete the history of research we must take particular note of the last excavations realized between 2011 and 2013 at Horodnic de Jos – *Vârfu Colnicului* barrow grave cemetery (Niculică *et al.* 2013, 200-2002, pl. 110; 2014, 206-208, 526-527; Niculică 2015; 137, 152-158; 192-197; 186, nr. 35).

KOMAROV CULTURE CEMETERIES

The first Komarov barrow cemetery from Romania was researched at the end of the 19th century by Josef Szombathy, at **Horodnic de Jos** – *Vârfu Colnicului* (Horodnic de Jos village, Suceava county, Fig. 3). During the old excavations, as well as the surveys of 1976 (M. Ignat) and 2012-2013 (B. P. Niculică), tumuli were discovered incorporating a hard mound in two layers, made of gravels, and sometimes mixed with a lot of clay. The barrow T6/1894, researched by Josef Szombathy, contained an inhumation tomb in a stone case (cist), without grave goods. From 2012 to 2013 excavations lead to the identification of an extremely hard level made of compact gravel at the base of tumuli T1-T6, which was covered with earth containing less gravel. This arrangement has been interpreted as intentionally expanding the height and diameter of the funerary monuments (Szombathy 1894, 17-19; Szombathy 1895, 22; Kaindl 1896, 7-8; Kaindl 1903, 82-83; Kaindl 1903a, 98-101; Ignat 1981, 134-136; Dumitroaia 2000, 134, nr. 29; Burtănescu, 2002, 124-125, nr. 18, 206-209; Niculică 2010, 71-92; Munteanu 2010, 53, nr. III.6; Niculică *et al.*, 2013, 200-202; Niculică *et al.*, 2014, 216-218; Niculică 2015, 35, 152-158).

The second barrow cemetery from the **Horodnic de Jos** micro-region is located on another hill – *Dealul Brădet* (Horodnic de Jos village, Suceava county). In 1902, R.F. Kaindl

excavated 18 barrows, and found a scarcity of grave goods in the tumuli, although cremated bones, charcoal and potsherds spread within the barrow mounds. He also identified a layer of earth with considerable evidence of firing (firing/incineration in situ?) located at the base of the barrows at the level of the ancient ground surface (Kaindl 1903, 82-83; Kaindl 1903a, 98-101; Ignat 1981, 135; Burtănescu 2002, 130, nr. 27; Niculică 2010a, 88-91; Munteanu 2010, 16, no. 4; Niculică 2015, 138, 158-160).

The barrow graves cemetery from **Volovăţ** – *Dealul Burlei* (Suceava county) is located in the forest on a range of hills to the south of the village. Mounds were recorded in five groups along the hills (Fig. 5). The easternmost group is called *Dealul Burlei* and comprises 15 barrows in a group-lined arrangement along the highest crest of the hill. The diameters and heights of these mounds ranged from 8.0 to 30.0 m and 0.5 to 2.7 m, respectively. Seven barrows were excavated and two near one another were assigned to the Komarov culture (T2, T3), while the remainder were dated to the Hallstatt period. The smaller Komarov mound (T3) was investigated in the 1970's and was measured at 11.5m in diameter and 1.5m in height. No skeletal or cultural remains were recovered from either mound, excluding the fragments of two vessels, probably vases, recovered from T2, which has lead researchers to suggest these were cenotaph graves (Ignat 2003, 159-164; Niculică 2015, 139-140).

Two mounds were discovered in **Şerbăneşti** (Suceava county). A third was located approximately 40 to 50 meters from them but it was levelled prior to archaeological investigation. The barrows were located on the upper terrace of the Siret River. One was excavated in November 1978 and was found to be 25.0 m in diameter and 1.5 m tall. The researchers identified four layers in the profile: (1) 0-0.6 m layer of vegetable soil with yellow lenses, (2) 0.6-0.9 m layer of gray soil with yellow lenses, (3) 0.9-1.17 m gray soil layer and (4) 1.17-1.3 m yellow sterile soil (Ignat and Popovici 1980, 657-661; Niculică 2015, 139). Although no archaeological artefacts were recovered, at a depth of 1.0 m inside the mound researchers identified a stone construction built from 5.0 cm wide stone slabs that formed a tightly sealed space (*stone cist*).

In 1982, the results of excavations at the burial site of **Hârtop** – *Sub Plopi* (com. Preuteşti, Suceava county) were published. The site is located on the southwestern limit of the village, on a terrace on the left bank of the Ursul (Hârtop) creek, a tributary of the Şomuzul Mare River. The flat stone cist contained the cremated skeletal remains of humans comingled with those from deer, pig, sheep and horse, as well as, several potsherds from wide-mouth pots, cylindrical tumblers and shouldered dishes decorated with parallel incised bands and incised triangles (Fig. 6). Based on the context, archaeologists have argued that the cremation was carried out on site, followed by the gathering of the remains and the construction of the stone cist (Ursulescu and Popovici 1987, 72-76; Dumitroaia 2000, 133-134, nr. 25; Chicideanu 2011, 439; Niculică 2015, 136-137). The funerary construction was 1.4 m long and probably 0.6 m wide, with an N-S orientation. The average dimensions of the sandstone slabs used for building the cist are 15.0 by 20.0 cm / 18.0 by

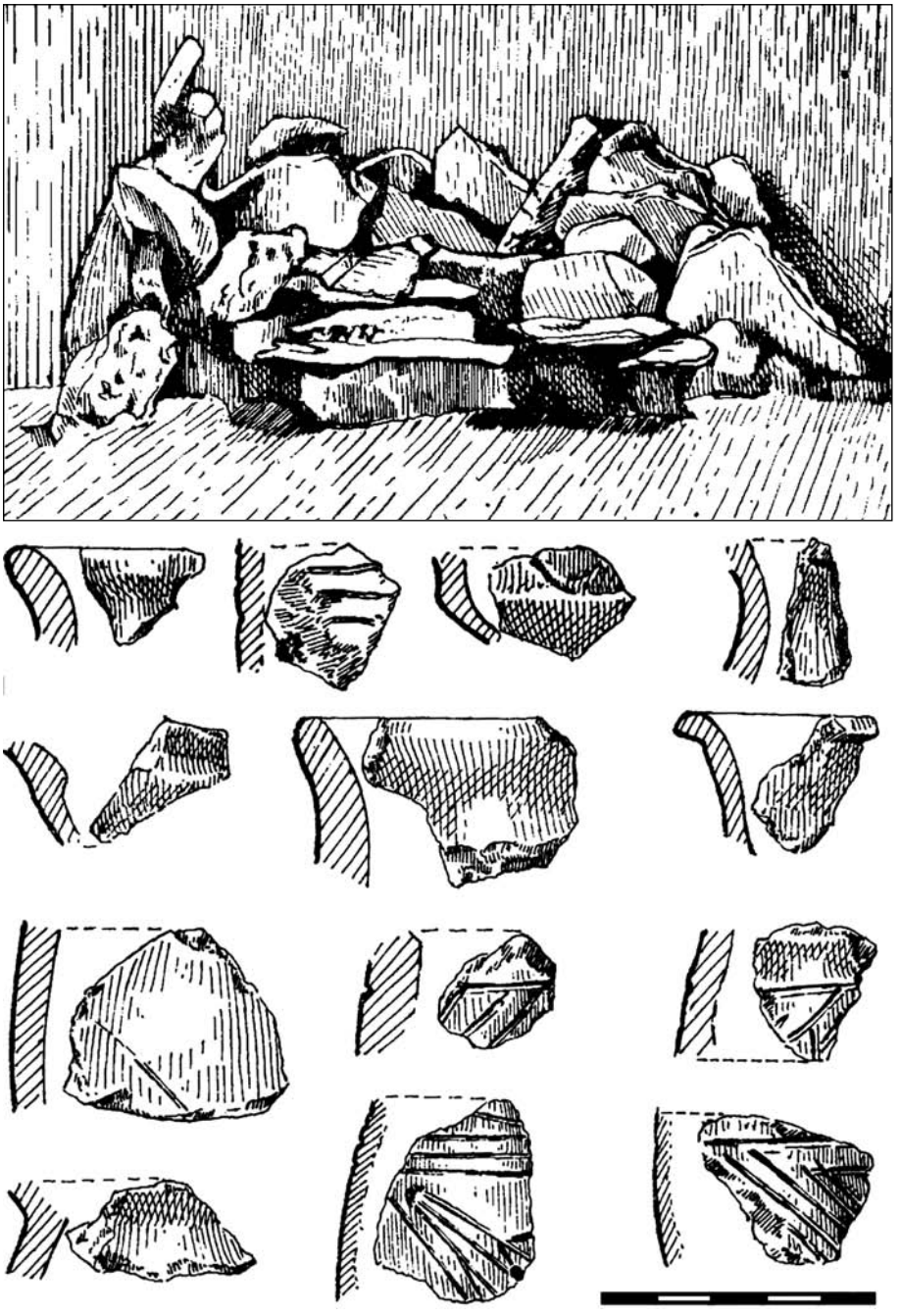

Fig. 6. Stone construction in Hartop-*Sub Plopi* and pottery discovered inside stone construction (Ursulescu an Popovici 1987, fig. 2, 3)

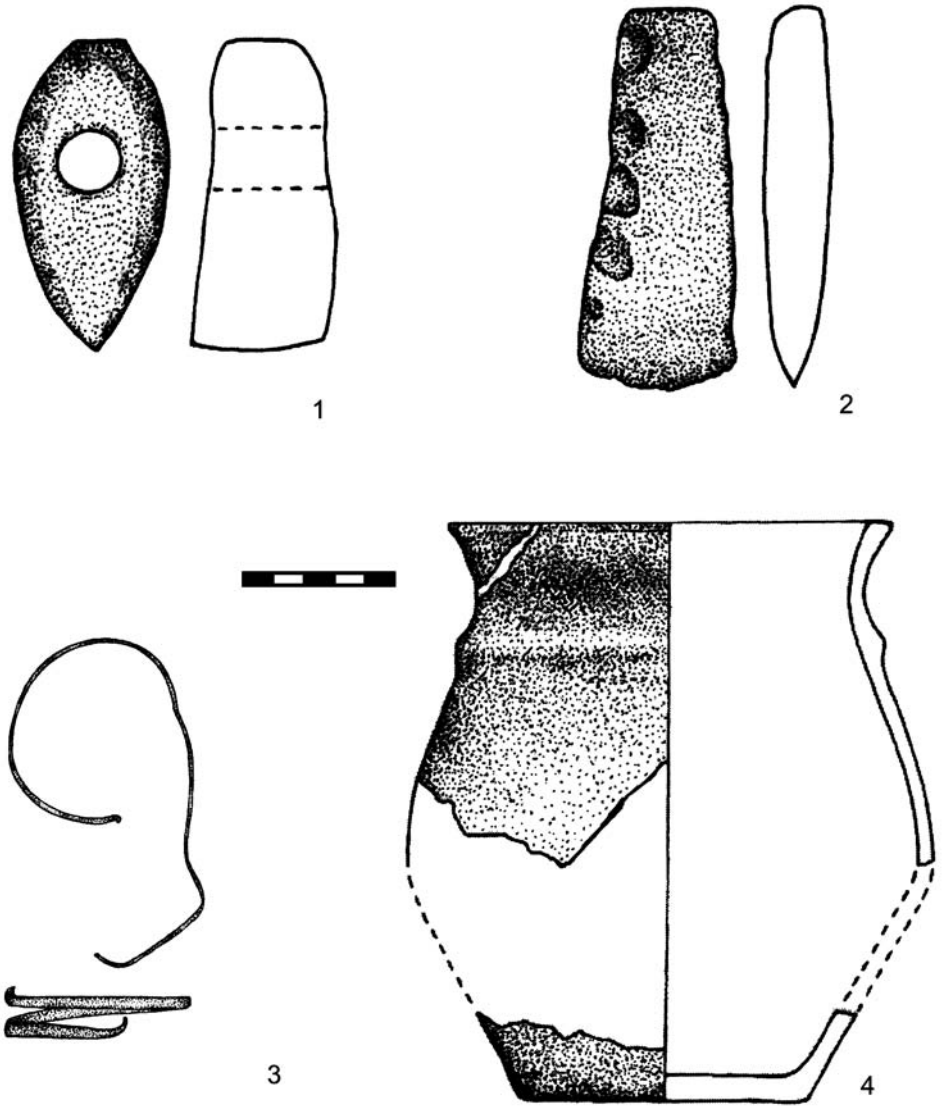

Fig. 7. Artefacts from barrow grave in Cajvana – 1, 2 barrow T2, 3, 4 barrow 12 (Ignat 2003, fig. 1)

24.0 cm, with a thickness between 3.0 and 5.0 cm. The slabs at the base and top of the cist measured between 40.0 and 50.0 cm in length. The joints and lining of the slabs were made of earth and smaller stones. The ceramic fragments and the cremated bones were distributed mainly in the centre and the northern part of the grave, inside the cist. Due to this fact, the authors of the find hypothesized that the cremation was carried out onsite, followed by

the gathering of the remains and construction of the stone cist. The following ceramic shapes were found: wide-mouthed pots, cylindrical tumblers and shouldered dishes. There was no ceramic fragment indicating the presence of 'teacups' with handles. The decoration includes parallel-incised bands and incised triangles. Regarding the cremated skeletal fragment, the authors show that the human remains were mingled with bone fragments from deer, pig, sheep and horse (Ursulescu and Popovici 1987, 72-76; Dumitroaia 2000, 133-134, nr. 25; Chicideanu 2011, 439; Niculică 2015, 136-137).

The next example of a barrow graves cemetery in this area is located in the **Cajvana** – *Codru* (Suceava county) hills where archaeologists investigated 60 barrows containing graves from the Bronze Age and Hallstatt period. Two barrows were excavated – T1 and T12 – and the archaeological material was assigned to the Komarov culture (Fig. 7). Barrow T1 was investigated in 1989 and was found to be 12.5m in diameter and 1.0 high (Ignat 2003, 157-159). Two layers were distinguished in the profile: an upper layer containing Hallstatt period cremation burials and a lower layer of constructions made of rather small sandstones, measuring 2.0 x 0.8m in size and oriented NNW-SSE. Inside the constructions, archaeologists observed a layer of black soil, approximately 0.1 to 0.2m deep that contained pieces of charcoal in the lower layer of the mound. The lowest layers contained the remains of two poorly preserved male individuals between the ages of 30 and 35 years and 40 to 45 years interred in the 'sleeping' position with a perforated andesite hammer-axe and an unperforated siltite axe (Ignat 2003, 157-159; Niculică 2015, 134-135). Barrow T12 was excavated in 2001 and was found to have a diameter and height of 16.0 m and 1.2 m, respectively. The barrow mound was built of two layers, the lower of which contained fired earth and charcoal remains. Many flints and flintstone flakes, as well as a fragment of a bronze bracelet and a vessel were excavated from the mound (Ignat 2003, 155-157; Niculică 2015, 134-135).

The most important Komarov culture cemetery in Romania is the site of **Adâncata** – *Imaş* (com. Adâncata, Suceava county) located between 10 and 12 km NE of Suceava, 6 km E of the Siret River valley and around 300 m SW of the Komarov settlement on the site of *Sub Pădure* (Fig. 8). The cemetery consists of 16 clustered burial mounds that cover an area of around 4 km^2 atop a flat plateau with a slight declivity, with a height of between 390 and 415 m, 11 of them was excavated from 2000 to 2005 (Niculică *et al.* 2001; Niculică *et al.* 2002; Niculică *et al.* 2002a; Niculică *et al.* 2005; Budui and Niculică 2012, 79-86; Budui *et al.* 2013, 733-740; Niculică *et al.* 2013, 145, 147; Niculică 2015, 158-173).

Barrow T 1: an approximately rectangular pit with an ESE-WNW axis was dug in the ancient treading level in the centre of the mound. The dimensions vary between 3.5 m and 3.8 m (E-W) by 2.0 m and 2.5 m (N-S) and the depth varies between 0.2 m and 0.4 m. Both cremated and inhumed bones, as well as artefacts / grave goods (flint arrowheads with concave bases, a perforated hammer-axe in basaltoid andesite and potsherds) were deposited inside the pit. The remains of at least five individuals were identified, three inhumed (two adults and one sub-adult) and two cremated (one adult and one sub-adult). Furthermore,

the human remains were mixed with burnt fragments of pig bones (*Sus domesticus*) and one fragment of unburned sheep/goat bone (*Ovis aries* or *Capra hircus* – Simalcsik and Niculică 2012, 120-122, Fig. 3; Niculică 2015, 162).

Barrow T 2: the construction system of grave T2 is both complex and unique for the Komarov culture in Romania. The initial phase of construction involved excavating a ditch 0.2 to 0.4 m wide and 0.12 to 0.3 m deep in the ancient soil within the construction of the central grave (M2) which delaminated a roughly rectangular area of 3,5 m (E-W) by 2.0 m (N-S). Excluding several small fragments of charcoal recovered from the bottom, there were no archaeological items found within the ditch construction itself.

The dispersed cremated and inhumed bones were placed within the area delimited by the ditch (at depths of 1.2 to 1.4 m), together with three flint points with concave bases. A construction of local sandstone slabs was erected over the cremated and inhumed remains, with an estimated length of 1.6 m based on the planned dispersion of the slabs. A cluster of skeletal remains was found within the E-W witness profile, which was deposed directly on the ancient soil and covered by a 'bedding' of sandstone slabs between 0.1 and 0.4 m per side mortared with cremated remains. Three vessels were placed on top of the slabs at the same depth of 0.5 to 0.65 m. Only one could be restored, as the others were too degraded. The restored vessel was biconical in shape with two slightly heightened handles and richly decorated with geometric motifs. The paste was rough, as quartz grains were used as a tempering material. The body of the vessel was decorated with incised hatch-filled triangles, arrayed in two parallel bends, with the apexes of the triangles touching. The areas beneath the handles were decorated with horizontal hatch-filled rhombuses, while the area under the rim was decorated with a bend of diagonal hatches.

This central feature was covered by a layer of light-grey soil and settled in the centre of the T2 mound, resulting in a slight depression that indicated to the archaeologists the existence of a hollow space in the substrate. It is likely that the settling occurred following the collapse of a wooden structure, the remains of which have not been preserved. The stone construction and the archaeological material generally follow the outline delimited by the ditch, and are assumed to have had a ritual role, because they contained the main grave i.e. the "sacred" burial area and certain areas of the stone bedding show traces of intense burning.

After the construction of the central burial structure and the laying of the mound of the barrow, an elliptical ring of local sandstone slabs measuring 11.7 (N-S) by 11.0 m (E-W) was laid on the upper level of the mound. The stones bear no traces of human modification (burning or polishing). The stratigraphy indicates that the ring was laid on the surface and was visible after the construction of the funerary monument was completed.

It is significant that most of the archaeological material in T2 was found within this ring of stones at various depths inside the barrow mound. T2 contained the skeletal remains of five inhumed individuals (two middle-aged adults, two mature adults and one teenager), while a sixth individual, of uncertain age and gender, was represented only by

cremated and partially cremated bone fragments. All the inhumed individuals were found within the stone construction inside the area contained by the rectangular ditch (Simalcsik and Niculică 2012, 122-124, Fig. 4-5; Niculică 2015, 163-166).

Barrow T 3: the outline of an ellipsoidal pit was found at a depth of 0.6 m in the centre of the T3 mound. The pit measured 1.1 m (N-S) by 0.9 m (E-W), with straight walls and flat bottom. At a depth of 1.48 m within the pit, several small bone fragments were found, together with a flake of dark flint and a small flat stone made of local sandstone. A feature containing a large artefact inventory was located in the lower level of the mound, right above the grave pit at a depth of 0.5 to 0.6 m). Grave goods included: one very fragmented average-sized but incompletely fired vessel, that was placed vertically (marked as 2) and could not be restored; one miniature biconical vessel (marked as 1), seated rim-down and filled with a very porous and light organic material; several fragments of a crumbly vessel (non-restorable) several small pebbles with very smooth surfaces (probably polishers); and two spindle-whorls with traces of secondary burning. The grave contained the remains of a child *(infans II)* aged 7 to 8 years at death, of indeterminate sex (Simalcsik and Niculică 2012, 124-126, Fig. 6; Niculică 2015, 166).

Barrow T 4: an ellipsoidal pit (marked G1) was dug into sterile soil in the centre of mound T4. A second pit of the same depth was found adjacent to G1 but slightly to the north, although it was rectangular in shape (marked G2). The fill of G1 was darker and more compact relative to the heterogeneous fill of G2. The G1 pit measured 0.85 m (N-S) by 0.7 m (E-W) while G2 measure between 0.6 and 0.8 m (N-S, on the extremities) and 0.7 m at the point of contact with G1, by 1.80 m (E-W). The flat bottoms are 1.5 to 1.55 m deep and the walls are slightly sloped. Skeletal remains were only identified at the bottom of G1, which consisted in bone fragments from an inhumed sub-adult *(infans II)* of indeterminate gender with an estimated age at death of between 7 and 14 years (Simalcsik and Niculică 2012, 126, Fig. 7; Niculică 2015, 166-167) There were no other archaeological remains found within T4.

Barrow T 5: a circular ditch was dug into T5 from the surface of the ancient soil and intercepted at depths of 0.55 to 0.7 m (Fig. 9). The ditch measured 6.0 m in diameter, between 0.35 and 0.45 m in depth and approximately 0.3 m in width. This ditch most likely served as a containment device for the central area of T5 and likely had a cultic, ritual or consecratory function, as well as serving as a foundation ditch for a circular wooden wall (Simalcsik and Niculică 2012, 126; Niculică 2015, 167). Archaeological investigations found the ditch to have almost vertical walls, with a flat bottom and very few cultural materials in the fill, which included minute charcoal and heavily burnt bone fragments that could not be identified (<2-3 mm), in the southern sector of the mound. The same type of material appeared inside the area delineated by the ditch at the base of the mound (Simalcsik and Niculică 2012, 126; Niculică 2015, 167).

Barrow T 6: a cenotaph barrow. Numerous cultural materials (Fig. 10) were located in the mound at varying depths, including pottery (entire vessels as well as fragmented

ones), flint points with concave bases and one bronze or copper piece of jewellery (probably an earring – Niculică 2015, 168-169).

Barrow T 7: a rectangular pit (marked G1) was identified at the base of the centre of the T7 mound oriented NNW-SSE. The fill of the southern third of the pit consisted of blackish earth mixed with dispersed small lenses of yellow clay and grains of limestone. The bottom of the grave pit was located at a depth of 1.5 m and its dimensions were 2.14 m (NNW-SSE) by 1.05m (E-W). At the bottom of the pit, the G1 grave contained the remains of an inhumed adult male, 25 to 30 years of age at death who had a probable stature of 1.69 m (Fig. 11, Simalcsik and Niculică 2012, 126-128, Fig. 8; Niculică 2015, 169-170).

Barrow T 8: the burial in tumulus T 8 was located at the base of the mound, slightly off-centre and was elliptical-circular in shape (Fig. 12: 3). The grave was 0.8 m in depth and its dimensions were 1.7 m (E-W) by 1.26 m (N-S), while the bottom of the grave was located at a depth of 1.3m. The burial in this grave (marked G1) contained a well-preserved skeleton of an inhumed adult female between the ages of 25 and 30 years at death with no grave goods (Fig. 12:4). The deceased was in a flexed position, laid on her left, directly on the bottom of the pit, along the E-W axis, with the face turned towards south. The left foot was laid over the right one and the knees were close to each other and the right arm was flexed at 90°, with the hand over the pelvis and over the left arm, which was laid along the body. In the mound were registered material of Komarov culture (Fig 12: 1, 2; Fig 13; Simalcsik and Niculică 2012, 128-129, Fig. 9; Niculică 2015, 170-171).

Barrow T 9: the T9 tumulus contained two graves, approximately rectangular in shape, both oriented on a NE-SW axis, located at the same depth (0.65 m). Grave G1 was the largest of the two, measuring 3.15 (N-S) by 2.05 m (E-W) compared to grave G2 which measured 2.5 (N-S) by 1.37 m (E-W). The finds within G1 included a thin layer of cremated bone fragments of an adult of indeterminate sex and fragments of sheep or goat (*Ovis aries or Capra hircus*), one fragment of a flint tool and one flint point with a concave base. The finds within G2 included poorly preserved bone fragments of an inhumed adult (probably male) with an estimated age of death between 20 and 30 years, and one perforated hammer-axe made of magmatic rock (dolerite – Simalcsik and Niculică 2012, 130, Fig. 10; Niculică 2015, 171-172).

Barrow T 10: T10 contained three graves, marked G1, G2 and G3. G1 was elliptical, oriented on a NNE-SSW axis and measuring 1.36 m by 0.81 m and 0.30 m deep but contained no archaeological material. G2 was oriented on a NNW-SSE axis and measured 1.5 by 1.0 m in shape and 0.25 m deep; it contained no archaeological material. G3 was oriented on an N-S axis, with a depth of 0.78 m and contained the remains of an older adult (40-50 years old) female (Simalcsik and Niculică 2012, 130-131; Niculică 2015, 172-173).

Barrow T 11: the ellipsoidal pit (marked G1) identified in the centre of the T11 mound was oriented on a NE-SW axis, measured 1.45 by 0.9 m and was 0.5 m deep. The pit's fill included small charcoal fragments, which were also present on the bottom. A second pit, marked G2, was oval-circular in shape, and measured 2.3 (N-S) by 1.7 m (E-W) and was

0.5 m deep, with vertical walls. Two unidentifiable and heavily burnt bone fragments were found interred in the yellow clay at the bottom of the pit (Simalcsik and Niculică 2012, 131; Niculică 2015, 173).

A very interesting example of funeral customs is that from **Suceava** – *Strada Parcului* (Suceava county). The grave was quasi-rectangular with rounded edges and was oriented NE-SW, although the context is difficult to access and archaeologists are unsure whether the grave was part of a plain or barrow grave cemetery. The grave was built of vertical stone slabs and likely had a wooden support "roof" that has not been preserved. Inside, a space measuring 2.4 x 0.6 m contained the skeletal remains of an adult male aged 20 to 25 years at death, with excellent dentition and no evidence of ante- or peri-mortem trauma or any severe bone pathology. The deceased was inhumed in a crouched position, on his right side and was oriented SW-NE with the head pointing to the SW, the feet to the NE and the face oriented to the south. Grave goods included potsherds and a fragmentary axe (Mareş *et al.* 2008; Mareş 2010, 45-72; Simalcsik *et al.* 2014, 59-75; Niculică 2015, 138-139).

In 2011 and 2012, on the site of **Costâna** – *Imaş* (com. Todireşti, Suceava county), two mounds of a group of five individuals were excavated. The cemetery is located on a flat piece of land along the left bank of Ilişeşti creek, straddling the Costâna – Părhăuţi road. The two barrows were marked T1/2011 and T2/2012.

Barrow T1, 1.0 m high and 25.0 m diameter, contained a funerary construction and a ring, both made of local sandstone. On the surface of the ancient soil a circular space was "reserved" by confinement within a ring of sandstone slabs measuring 6.0 m in diameter. Inside the ring, a rectangular pit measuring 1.6 by 1.0 m and 0.55, 0.6 m deep, oriented on a N-S axis, contained the burial of an inhumed individual (burial M1), with the head towards north and the face towards east. The deceased was laid in a tightly flexed position, on his or her left side, with the legs tightly flexed. South of the grave, between 0.6 and 1.0 m from its SW corner, three vessels were deposited on the surface of the ancient soil. After the grave was filled with earth, it was covered with sandstone slabs "simulating" a tombstone. It is worth mentioning that some areas of the grave walls were clad with stones. Another inhumation burial (M2) consisting of only long bones without the skull was uncovered outside the ring, 2.5 m southeast of the corner of grave M1. Inside the "sacred" space confined by the ring on top of the inhumation grave, several cremated bone fragments were found with possible grave goods that included a bone buckle, potsherds and flint arrowheads with concave bases (Fig. 14). The cremated bone fragments that have been identified as a possible sacrificial grave M3 were also found dispersed over the ancient ground surface. The first mound, measuring around 7.0 m in diameter and 0.5 m high was constructed over this funerary complex using materials taken from the upper ground layers of the area surrounding the barrow. Over this construction, a new layer of soil was deposited, resulting in the final dimensions of T1/2011.

Barrow T2/2012 measured 1.4 m high and 25.0 m in diameter and contained a single inhumation burial. The oval grave measuring 1.7 by 1.0 m was located at the base of the

centre of the mound, and the deceased was placed on their back, with their arms along the body and legs flexed on the right side. The head of the deceased rested on a layer of ochre, with the face turned towards south. The grave (and the deceased) was oriented on an N-S axis. A perforated stone hammer-axe was uncovered very close to the surface of the mound at a depth of 0.15 m and was probably deposed in the mound over the location of the grave and was disturbed after deposition (Boghian *et al.* 2012, 266-268; Boghian *et al.* 2013, 198-199; Niculică 2015, 135-136).

SIMILARITIES AND DIFFERENCES

A comparison of Komarov cemeteries in the northern part of Moldavia and the upper Dniester region has likely been overlooked by previous scholars because the area between them lacks any indication of Komarov cultural presence, suggesting a break in cultural continuity. However, this dearth of archaeological evidence may instead reflect the poor state of research in Chernovce Oblast or, more likely, that Komarov culture communities preferred lower altitudes than in the above area. The purpose of this study is to compare and contrast the cemeteries in northern Moldavia with those known from the upper Dniester area of the Ukraine, as well as with cemeteries from other parts of the TCC.

The landscape of both areas is very similar and in most parts is characterized by hilly countryside, reaching a height of more than 300 m above sea level and is the home of specific flora and fauna. The base of the Carpathians is strongly traversed by deep meandering river valleys (Tyczyńska 1970; Jurecki 2001; Zastawnyj and Kusiński 2003; Figiel and Krzywda 2010). These mountain rivers are characterized by rapid currents and rivers such as the Dniester, Prut, Siret and Suceava, which likely played an important role in the lives of Middle Bronze Age societies, as the mapped archaeological sites from this region tend to be concentrated along rivers or streams (Romaniszyn 2013, maps 2, 3). This region is also very rich in natural resources: good quality wood, stone and flint are easy to access and nearby there are deposits of copper, salt and gold (Boghian *et al.* 2012, 272-291). The wealth of natural resources is evidenced in archaeological material from Komarov cemeteries in this zone.

Along the more than 400 km extent of the Eastern Pre-Carpathians, there is an obvious trend whereby cemeteries are located on higher and exposed landforms. Both plain and barrow grave cemeteries were located on a variety of hilly locations, including the hilltop or just at its edge, on headlands, river terraces, watersheds and so forth. Cemeteries were most often established on the top of a hill on the highest point in the region (Bukówna, Komarów – upper Dniester area; Volovăț – Romania). However, settlements both in the northern part of Moldavia and upper Dniester regions are poorly represented and this is why it is difficult to associate the cemeteries with the communities that built them. It has been argued that a settlement was located 1 km south of the cemetery in Komarów, on the terrace of the Lukva River in Ukraine (Sulimirski 1968). The only known Komarov settlement from

Romania region is Adâncata – *Sub Pădure*, which is located 0.5 km from the largest concentration of aligned barrows (Ignat *et al.* 2007, 31-32; Niculică *et al.* 2013, 144-155).

In both upland areas the upper Dniester and north-eastern part of Romania, the spatial arrangement of cemeteries is similar in structure and occurs in lineal and group-lineal configurations along the highest landscape forms. For example, almost identical barrows groups located on hilltops are known from Volovăț (Romania) and Bukówna (upper Dniester). Furthermore, barrows are typically grouped and the few examples that occur individually are located between barrow groups (Ignat 1978, 107-140; Makarowicz *et al.* 2013, 104; 2013a, 153-157). The orientation of barrow arrangements varies and an established rule has not been identified at this time, although they are typically located parallel to watercourses (Romaniszyn 2013, 53-58).

In both regions, barrow grave cemeteries are more common than plain cemeteries. The exception in the upper Dniester area is the Bialy Potok group grave cemeteries (Kostrzewski 1928), which are concentrated in the southern Podolia region along the left bank of Dniester River, between the Siret and Koropiec rivers (This Siret River is the western branch of the Dniester River). To date, the only example of a plain cemetery in northern part of Moldavia was Hârtop – *Sub Plopi* (Ursulescu and Popovici 1987, 72-76). However, this cemetery is only represented by a single grave and further investigation should be carried out during subsequent field sessions. An analogical situation comes from *Strada Parcului* in Suceava (Mareş 2010), although the context is not well known and researchers are uncertain whether it was plain or barrow grave cemetery.

At this stage, it is difficult to compare the Bialy Potok group graves to plain graves from Hârtop – *Sub Plopi*. At Bialy Potok, group graves were observed in a repeated pattern and, excluding the grave from Beremiany that was situated within circle stone construction, all plain graves were constructed by setting slab stones into the ground's surface to make regular, rectangular shapes (Ossowski 1890; Kostrzewski 1928, 16-17; Swiesznikow 1967, 53-55). In contrast, the grave from Hârtop was more complicated in construction because it was made from many irregularly placed slab stones, arranged to make a tight cist larger in area than any from the Bialy Potok group, and human and animal remains were recovered from within (Ursulescu and Popovici 1987, 72-76). The context of the stone constructed grave from a second site in the Suceava Plateau in Romania, Suceava – *Câmpul Şanțurilor,* is uncertain and there are doubts as to whether it was a plain or barrow grave, although the stone construction was similar to the one from Hârtop. It was oriented NE-SW and its construction had a quasi-rectangular shape, the ends of which were slightly rounded. As for the construction, the slabs were built up horizontally and vertically and the plated roof was likely supported by a wooden scaffold that has not preserved (Mareş 2010, 45-72). It appears as though both graves from Romania, Hârtop and Suceava, were different than the plain graves from the Bialy Potok group in south Podolia (Ukraine).

The size of Komarov culture cemeteries also varies in the upper Dniester area and north-eastern Romania regions. To date, the knowledge of plain grave cemeteries in the

Pre-Carpathians is limited due to a lack of data. Much more can be said about the quantity of barrow grave cemeteries, although the number of preserved barrows has been reduced as a result of agricultural activity, new technology, deforestation, as well as infrastructure and expansion projects that have permanently destroyed and levelled many barrows. Barrow destruction is also a primary factor inhibiting interpretation of these sites. Despite the activities that contribute to the destruction of mounds, they are best preserved in the forest.

The number of mounds built in each cemetery is one of the essential differences between evidence of Komarov culture in northern part of Moldavia and the upper Dniester area. For example, the number of mounds per cemetery varies in northern Moldavia from a few (3 at Şerbăneşti; Ignat and Popovici 1987, 657-662), to over a dozen (16 at Adâncata; Niculică 2015, 160-173) or even several dozen (over 40 at Horodnic de Jos – *Vârfu Colnicului*; Niculică 2015, 152-158; over 60 at Cajvana). In contrast, the number of mounds in the upper Dniester area is much larger, forming cemetery systems containing more than 60 monuments that stretch several kilometres along the rivers. This is known, for example, from the Komarów-Kryłos-Wiktorów cemeteries where hundreds of barrows have been identified. Examples of smaller barrow cemeteries similar to this from northern Moldavia are known from the upper Dniester area (Wolica, Tenetniki). Conceivably, cemetery complexes similar to those identified in the upper Dniester area may also be present in northern Moldavia, but identification would require extensive field survey using non-invasion methods and detailed, widely-spaced field-walking.

Differences in cemetery use between the regions of interest are also visible in funeral landscape adaptations. In the Ukraine, there are many examples of barrow graves that included both Corded Ware and Komarov cultural contexts in the one cemetery (Sulimirski 1968), such as at Komarów, Wiktorów, Kryłos and Wolica. One theory argues that this is because the Middle Bronze Age societies adopted the funeral spaces of earlier cultures (Górski 1996; Makarowicz 2010; 2011, 151-152). Support for this hypothesis has been found in archaeological material from the cemeteries in the upper Dniester area, where neighbouring barrows may be from different cultures and single barrows contained both Corded Ware and Komarov cultural materials (Sulimirski 1968). To this time situation has not been identified in barrow grave cemeteries in Northern Moldavia, where researchers have not as yet registered characteristic material for earlier horizons (As yet, the situation has not been confirmed in Northern Moldavia. The radiocarbon dates from barrow T2 dated 23-22th and from barrow T8 29-27th; however it is necessary in making the next analysis to obtain a clear image of the cultural context in this area, because in Adâncata barrows, researchers have not registered material from horizons earlier than the Komarov culture).

Barrow size in both the upper Dniester area and north-eastern Romania is very similar, although the diameter and height of a barrow often depends on the degree of preservation, as well as environmental and anthropological levelling processes. In Komarov cemeteries, barrows have various dimensions, ranging from small to medium and large barrows at

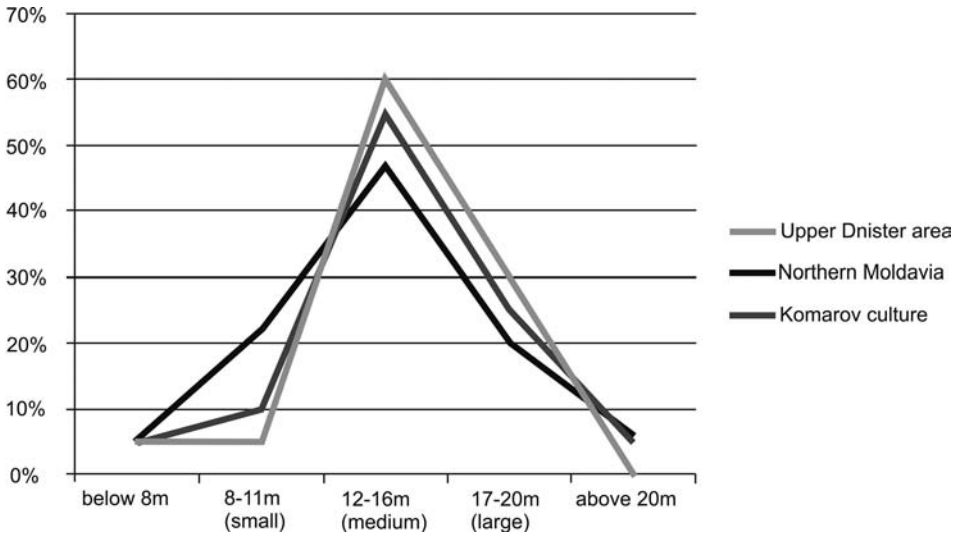

Fig. 15. Diameter of Komarov culture barrows Σ-82

cemeteries in both areas (Romaniszyn 2013, 82-83). The proportions of barrow diameter and height are also similar in both areas (Fig. 15). In all cemeteries, a higher barrow (over 1.5 to 2.0m) was observed (Romaniszyn 2013, 82-83); however, the majority of mounds vary in height from 0.5 to 1.0 m and have a diameter that ranges from 14.0 m and 18.0 m (Romaniszyn 2013, 82-83).

The presence of complex funerary construction in graves is generally uncommon in Komarov cemeteries. In both areas, the majority of graves were simple with minimal traces of funeral rites or burial pits and no evidence of funeral architecture. In both north-eastern Romania and the upper Dniester area, the frequency of apparent construction is very similar and is found in approximately 40% of all barrows (Romaniszyn 2013, 71, 84). However, much of this information was collected prior to the Second World War and the research methodology prevalent at that time did not include all the archaeological details that would be recorded today. The best Romanian examples of well-excavated simple graves come from Adâncata (Barrow t1 and T7), where rectangular burial pits were observed (Niculică 2015, 162-163, 169). Many examples of simple barrow graves come from the upper Dniester area, including Barrow 1 from Rakowa, Barrow 33 from Komarów and Barrow 3 from Krasów (Sulimirski 1968, 111, 127-128, 143, plan 10, plan 33).

Komarov barrows are characterized by the presence of a double burial pit in one barrow grave. This situation is known from Cajvana (T12) and Adâncata (T4, T9, T11) in northern Moldavia (Ignat 2003, 155-166; Niculică 2015, 166-173) and from Komarov (Barrows 28 and 46 – Sulimirski 1968).

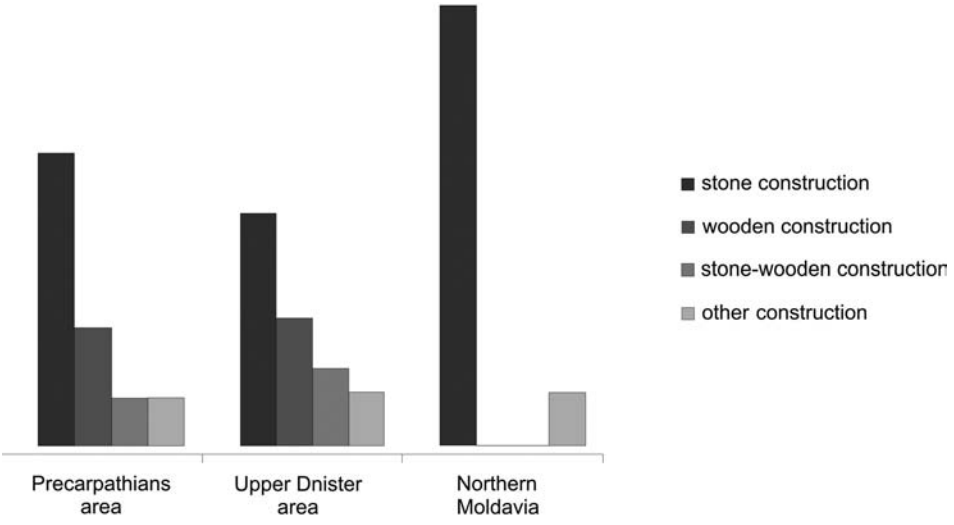

Fig. 16. Type of construction in Komarov culture barrows (Romaniszyn 2013)

When more complex funeral construction is present in Komarov graves, it is usually identified as 'funeral or sepulchral architecture'. However, some differences were noted in the raw materials used in grave construction (Fig. 16). To date, wooden constructions in northern Moldavia have not preserved, while in the upper Dniester area they constitute 40% of all funerary structures in Komarov graves (Romaniszyn 2013; 2015). An excellent example was Barrow 1 excavated in 2010 at Bukówna (Makarowicz *et al.* 2013), where three features constructed from wood, stone or a combination of both were recorded.

In northern Moldavia the most popular type of funerary constructions were built of stone (Romaniszyn 2013). For example, Barrow T2 at Adâncata contained a burial pit surrounded by stones, and the central sector was encircled by a ring of 40 stones (Niculică 2015, 163-166). This is the only example of a stone ring in the Komarov culture grave in the Pre-Carpathian area. Others constructions in this region are very similar and comparable to those from the upper Dniester area, where different types of stone are used to pave the grave, create a cist or they are otherwise intentionally situated within the grave. Similar constructions were found at Komarów (barrow graves 14 and 48) and Bukówna (barrow grave 1/2010). In some cases, stone has been identified on the top of a mound, which some archaeologists have interpreted as a stele to mark grave on the surface (Niculică and Boghian 2015, 87-88). This has been observed at Cajvana (T1) and Adâncata (T2, T11). Finally, Barrow T2 at Adâncata contained a rectangular ditch measuring 0.3 to 0.4 m deep and 6.0m in diameter dug into the surface. An almost identical ditch measuring 0.5 m deep and 6.0m in diameter was identified by Bryk in his excavation of Ostapie in

the Komarov culture barrow (Bryk 1936). Based on the available information, it appears that funeral constructions from both areas are very similar.

Komarov societies interred their deceased in both inhumation and cremation burials, and cases of bi-ritual burial are known from Cajvana (T1), Horodnic de Jos (T1) and Adâncata (T1 and T9) in north-eastern Romania and in the Upper Dniester area at Bukówna and Komarów (Ignat 2003, 155-166; Simalcsik and Niculică 2012, 119-133; Niculică 2015, 178-201; Makarowicz *et al.* 2013). Rituals were complex, as evidenced by the remains of the dead and archaeological traces of the rites themselves, such as charcoal, fired clay, and/or hearths (Makarowicz 2010, 263-269; Romaniszyn 2013). In some graves the remains were partially burned, perhaps indicating preparation of the body prior to burial (Makarowicz 2010). The use of cremation was very diverse some cremated remains were placed in the burial pit after funerary ritual, such as at Hârtop and Şerbăneşti while in other cases the deceased and all funeral constructions were burned within the barrow in situ, as observed at Adâncata in Suceava Plateau and at Bukówna and Komarów Barrow 33 in the upper Dniester area (Simalcsik and Niculică 2012, 119-133; Makarowicz *et al.* 2013; Niculică 2015, 178-201)

Collective graves containing the remains of more than one inhumed deceased are also well known throughout the TCC area (Makarowicz 2010, 244-253). Recently, many examples of this kind of grave have been recorded in the Pre-Carpathian area. For example, at Adâncata Barrow T1 contained five inhumation burials, while T2 contained both cremation and inhumation burials (Niculică 2015, 162-166). Similarly, two burial pits excavated at Horodnic de Jos contained the remains of a skeleton and a cremation, respectively (Niculică 2015, 155-158) Collective graves was observed in grave 1 of Barrow 6 in Bukówna where in *mortuary house* was burned skeletons (Makarowicz *et al.* 2014).

Another recurring feature of TCC cemeteries is the presence of intentional animal graves or the deposit of animal bones in the burials (Makarowicz 2010). At Hârtop in north-eastern Romania, the remains of deer, pig, sheep and horse were likely deliberately deposited, because the animal remains were interred alongside human remains within a stone tight cist (Ursulescu and Popovici 1987, 72-76). Similar deposits of pig bone were also recorded from barrow grave T1 at Adâncata (Simalcsik and Niculică 2012, 120-122; Niculică 2015, 162-163).

Cenotaph graves have also been identified in both the upper Dniester area and Romania regions. Such burials occur when stone constructions or traces of funeral rites are present but the remains of a deceased are not. Examples in the north-eastern Romania area include barrows from Adâncata (T6), Cajvana (T12), Horodnic de Jos (T3) and Volovăţ (Ignat 2003, 159-164; Simalcsik and Niculică 2012, 119-133; Niculică 2015, 134-140, 178-201); cenotaphs are known in the upper Dniester area at Bukówna, Komarów and Krasów (Sulimirski 1968; Makarowicz *et al.* 2013; Romaniszyn 2013, 126).

It is common to find archaeological material in various sectors of Komarov barrows. Statistical analyses have found 40% of all artefacts are recovered in the central part of the

barrow (Romaniszyn 2013, 111). Although the limited data precludes a similar analysis of barrows in the northern Moldavia area at this time, it appears that artefacts are most common next to the burials in this region. Quantitative analysis of artefacts from the barrows, has found the graves in north-eastern Romania to be poorly furnished relative to those in the Upper Dniester area. For example, bronze artefacts have only been recovered from three Romania sites: a bronze pendant was found in Adâncata T6, a bracelet fragment was recovered from barrow grave T12 at Cajvana, a pinhead was recovered from barrow grave T2 at Volovăţ (Ignat 2003, 159-164; Niculică 2015, 139-140). An older publication suggests metal artefacts were also found in Horodnic de Jos, but the specific details of these objects are unknown (Kaindl 1896; 1903). In contrast, bronze and gold objects have been documented in many cemeteries in the upper Dniester area, including Beremiany, Bukówna, Czyżyków, Komarów and Sarniki where they represent 8% of all recovered artefacts (Sulimirski 1968; Makarowicz *et al.* 2013; Romaniszyn 2013, 147-153).

In Romania, the variety of ceramic forms appears to be lower than in the Dniester area. This is due, in particular, to the current state of research that focuses on funerary contexts. As a result, the ceramic inventory is under-represented or non-existent, and where ceramics were identified, many could not be reconstructed due to a combination of poor preservation, high fragmentation, and the low manufacture quality of the pottery itself. Despite these limitations, similar ceramic forms to those from the upper Dniester region have been identified in Komarov graves from Romania, including bitronconic cups with one or two raised handles, small and medium-sized pots with globular bodies, conical, biconical and cylindrical pots, as well as tulip-shaped and miniature pots (Ignat 2012, 305-326, 501-510; 2013, 141-158). The Komarov tombs from Romania also contain whole or fragmented flint artefacts (based-concave arrowheads, Krummesser tools type, blades of different shapes and flakes) and various unperforated stone axes and battle axes (Ignat 2012, 456-465).

The above discussion has focused on comparing and contrasting grave type, location, form and construct, as well as the character of excavated burials and associated artefacts in Romania and the upper Dniester region. To confirm the comparison presented above, it is necessary to conduct further field studies and conduct accurate analysis on all existing and future artefacts site types.

DISCUSSION AND CONCLUSIONS

Based on the examples described above, the authors have demonstrated the similarities and differences between Komarov cemeteries in the north-eastern Romania area and upland TCC (mainly upper Dniester area) in respect to cemeteries, graves, burials and artefacts. The identification of this set of Komarov characteristics in north-eastern Romania has allowed the authors to connect Middle Bronze Age groups from this region with those who lived further north, in the upper Dniester area. Although not all features conform to the funeral rites recorded in the upper Dniester region, it is argued that Middle Bronze Age

cultural groups in north-eastern Romania practiced comparable funeral rites, practices and traditions, at least in terms of barrow grave cemeteries. A larger interpretative problem arises from the presence of plain graves at Hârtop and perhaps at Suceava, as this phenomenon is not known in the upper Dniester area. It is possible that the presence of these plain burials indicates contact with a second culture (perhaps Costişa culture) and analogies are likely present elsewhere in central and eastern Europe for this period in prehistory. Alternatively, it is possible that the plain graves represent funerary phenomena from a different chronological period.

The analogies between the Komarov material found in the territory of the Suceava Plateau (only the actual territory of Romania is included here) and the finds of Bialy Potok, Komarov, Loeva, Mahala and Bukivna (Kostrzewski 1928, 9-17, fig. 1-2, pl. IV; Kozłowski 1928, 165-217, tab. V; Rogozińska 1959; Swiesznikow 1967; Smirnova 1972, 12-30; 1976, 118-135; Krušelnicka 2002, 99-114; Munteanu 2010, 174; Ignat 2013, 147) are only a few of the more significant ones. In general, the ceramic inventory from grave T2 at Adâncata – *Imaş* and grave T1 at Costâna – *Imaş* shows numerous similarities with the pottery of the Bialy Potok group (Kostrzewski 1928; Kozłowski 1928). In this context we note the particular nature of the funerary finds pertaining to this group (rite of inhumation) that in the above mentioned cases located within the Suceava Plateau appears in barrows (Niculică 2015, 264-265).

The Komarov pottery from north-eastern Romania was compared to ceramics from other Komarov sites in Ukraine, Republic of Moldavia and upland TCC sites from Poland, as well as from other Romanian sites that have been previously attributed to the Costişa culture (cemetery of Prăjeni, Botoşani *et al.* – compare to Munteanu 2010, 198). The results of this comparative analysis indicate that the Komarov material from the Suceava Plateau can be generally dated between the 20th-19th and 16th-15th century BC. This has been confirmed using radiocarbon datings for example the radiocarbon dates produced from barrow 7 Adâncata – *Imaş*, indicate a date in the 17th century BC. (Niculică 2015, 259-260). Recent publications have presented radiocarbon dates from Costişa and Monteoru culture complexes in neighbouring areas to the south of the Suceava Plateau and located East of the Carpathian Basin (Bolohan *et al.* 2015). Based on the Bayasian analysis, the authors of this article agree on the date for three periods: MBA I, MBA II, MBA III. All date ranges fall within the first half of the 2nd millennium BC (Bolohan *et al.* 2014) and approximately correspond with dates for the TCC from the upper Dniester area, Volhynia and the Pre-Carpathian area, which range from 1850 to 1600 BC. (Makarowicz 1998, 141-155; Klochko *et al.* 1999, 279-280; Gorski *et al.* 2003, 253-306), from 1600 to 1400 BC (68,2%) and 1800 to 1200 BC (95,4% probability; Makarowicz 2011, 30-54, fig. 1.7, 1.13). Eight measurements were taken to date of the finds at Volhynia and the Pre-Carpathian region, including those from the Mahala I settlement (Chernivtsi region, Ukraine), all of which fall between 1760-1600 and 1510-1380 BC (Makarowicz 2011). The cemetery from Bukivna (Ukraine), which is very similar to that of Adâncata – *Imaş*, has been dated be-

tween 1620 and 1490 BC (Makarowicz *et al.* 2013, 169, tab. 1, fig. 1). However, samples that produced dates closer to the 20th century BC were taken from an oak, which is a long-lived species and may not accurately reflect the period the site was occupied (Popescu 2013). The result of radiocarbon dating from Barrow T7 in Adâncata corresponds with the MBA II period created by Bolohan, Gafincu, Stoleriu, providing a timeframe from the 18th-17th BC.

The barrows in both north-eastern Romania and upper Dniester regions were located on the highest landforms and represented a physical manifestation of the community's adherence to the territory in which they were built, as they were identifiers ('markers') of group identity (Górski 1996; Makarowicz 2010, 361-363; 2011). The placement of mounds in these specific locations also likely had another significance, for example as an integral part of long-distance routes (Gloger 1978; Makarowicz 2009). The linear arrangement of barrows on the hills along the Dniester, Siret, and Prut rivers therefore could have played an important role in facilitating contact between not only macro-regions within the TCC, but also with communities to the south. This is evidenced by the characteristic form of vessels and their decoration with triangles found along these rivers, which is distinctive of the Costişa culture. These routes were also used in the Neolithic by Globular Amphorae and Corded Ware communities (Kločko and Kośko 2011). Furthermore, communication between the Carpathian Basin and Pre-Carpathian area occurred in the Carpathian passes, which served as 'gates' to the Carpathian Basin 'world' where autochthons from two different regions cyclically met to barter (Bader 2001; Makarowicz 2010).

If we consider the reported findings from funerary installations, which imply the usage of various types of rocks, it becomes evident that these appear at the Late Trypillia CII/γ2 level. This time period is important in the analysis carried out by Ion Chicideanu, who emphasizes the moment of appearance of stone structures (cists, cairns, rings) and argues that these elements define a certain funerary standard and cover a large area, within which the finds in the Prut-Dniester region play an important role (Chicideanu 2011, 190-213). In Romania, particularly in the south-eastern part of Transylvania and the cultural area of Schneckenberg – Jigodin, *cists* have been identified within barrows and flat burials (Szekely 1997, 41-44; Chicideanu 2011, 292-299). Chicideanu (2011) argues that, within the Schneckenberg culture, the cists appear as a result of influences from the area of Globular Amphora culture. Similarly, cists have been identified in both barrows and flat cemeteries at the Early Bronze Age Dâmboviţa – Muscel site of Wallachia (Schuster 1997, 48, 126-128, 147-148; Chicideanu 2011, 300-304).

The key element in our analysis is the influence of the Globular Amphora culture, specifically in terms of the well-known funerary standard of inhumation within stone cists. These contextual finds are not specific to Poland or to the Ukraine, where a large number of such artefacts exist, but are also present in the Eastern Carpathians and the Siret River (Dinu 1961, 43-64; Sulimirski 1968, 39-48; Wiślański 1970, 178-231; Dumitroaia 2000, 68-78; Mihălescu-Bîrliba 2001, 157-217; Chicideanu 2011, 213-219). Consequently, the litera-

ture argues that the appearance of cists within the context of the Komarov culture is the result of cultural transmission. For example, Sulimirski (1968, 45) argues that cist burials were a funerary tradition that survived into the Middle Bronze Age (Komarov culture) in the Bialy Potok group of this community. In truth, numerous similar contexts have been identified in the literature (Rogozińska 1959, 100, 103-104; Swiesznikow 1967, 78; Berezanska 1971, 354-363; 1985, 428-437; Makarowicz 2010, 228-242, 442). The Sub-Carpathian group of the Corded Ware culture probably acted as a chronological intermediary between the Globular Amphora and Komarov cultures, as the finds include cist burials, which are regarded as direct influences from the Globular Amphora culture (Sulimirski 1968, 51-52; Swiesznikow 1967, 42-44; Dumitroaia 2000, 127, 155; Mihăilescu-Bîrliba 2001, 215; 2005, 75-124; Munteanu 2010, 110). Moreover, it is known that finds in the area of the Monteoru culture include cist burials, which is argued to have appeared due to the influence from the Globular Amphora culture (Chicideanu 2011, 394).

Although in small numbers, there are also cist burials found within the context of Yamnaya (Dergacev 1994, 124-126; Chicideanu 2011, 268-269) and Mnogovalikovaya (Sava 1994, 142; Chicideanu 2011, 554) cultures, while some pseudo-cist installations appear in the northern part of the Republic of Moldavia, within the context of the Edineț culture (Early to Middle Bronze Age – Dergacev 1994, 129, 137; Dergaciov 2010, 295). These finds suggest cultural contacts and a mixture of funerary traditions, in which the Globular Amphora culture persisted for a long period of time. These kinds of funerary structures might represent a feature of the social elite (Mihăilescu-Bîrliba 2001, 157-217) and, as such, a fashionable manifestation of hierarchy amongst the living. This is a reasonable hypothesis, given that cist burials were a sign of elite status in other cultures as well (Yamnaya, Schneckenberg, Mnogovalikovaya, Komarov and Monteoru).

Similar structural features to the gravel mound barrows, such as the one found at Horodnic de Jos – *Vârfu Colnicului*, were found in Early Bronze Age barrows in Transylvania, within the post-Coțofeni cultural groups (Ciugudean 1996, 130-132). In this region, the origin of this building practice is explained by the tradition of certain late Coțofeni culture barrows (Lazarovici 1997, 11-12, 27; Ciugudean 2000, 43-44), with the recent literature referring to some Yamnaya influences (Ciugudean 2011, 21-57). Certainly, one cannot oversimplify and the question remains valid as to whether this manner of barrow construction can be considered a general practice within the funerary behaviour of Komarov circles. It should be noted however, the elements of funerary structures discussed above (*cists*, *pseudo-cists* and *barrow structural features*) are directly linked to the Trzciniec culture, where the best analogies are to be found (Makarowicz 2010, 237-242).

As one last observation, it shall be argued cremation barrows are a significant feature in the territory of Bucovina and mark a transitionary stage in the funerary practices of Komarov communities. This is characterized by the presence of new forms of expression and constructive elements on both, the exterior and interior of the funerary monument (the mound), while retaining old traditions and influences that originated from the fu-

nerary behaviour of the Late Trypillia, Globular Amphora, Corded Ware, Yamnaya and Edineț cultures.

In the north-eastern Romania area, Komarov graves contained vases with handles above rims, which are characteristic of the Bialy Potok group in the upper Dniester area and have been recovered in graves at Bialy Potok, Beremiany, Horodnica and Żezawa (Kostrzewski 1928; Rogozińska 1959; Sulimirski 1968). Analogical vessels are known from Bukówna, Komarov, Okniany (Rogozińska 1959; Sulimirski 1968), although the inspiration for this vessel form probably originates to the south of the north-eastern Romania region.

In the preceding discussion, the authors argue that the complex funeral rites of barrow grave cemeteries in northern Moldavia are clearly connected with examples from the upland TCC (northern influence), specifically in the upper Dniester region of Ukraine. The last section illustrated how a number of features, including barrows, bi-ritual inhumations, partially cremated, and anthropologically prepared human remains, collective graves, funeral architecture and artefacts confirm a strong association between cemeteries in north-eastern Romania and the TCC. Specific examples of cemeteries from Adâncata, Horodnic de Jos, Cajvana and Volovăț are very similar to those in the upper Dniester area, including Bukówna, Komarów, Kryłos and Wiktorów.

Several conclusions arise from this comparison. First, the chronology in this region is poorly distinguished and there is a great need to develop updated and relevant periodization for future archaeological investigations. Second, the demonstrated connections necessitate international cooperation between Polish, Romanian and Ukrainian researchers. The use of interdisciplinary methods would also contribute to a better understanding of the various aspects of cemeteries in these regions. To conclude, a new approach that combines international and interdisciplinary projects will bring research closer to answering a myriad of archaeological research questions regarding the societies that lived in the upper Dniester and north-eastern Romania regions during the Middle Bronze Age.

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