



ADAM MICKIEWICZ
UNIVERSITY
POZNAŃ



Treasures of Time

Research of the Faculty of Archaeology
of Adam Mickiewicz University in Poznań



Location of the main research areas.
Numbering, compare the table of Contents.



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Mirosław, Greater Poland Voivodeship, site 37. Part of the burial equipment.
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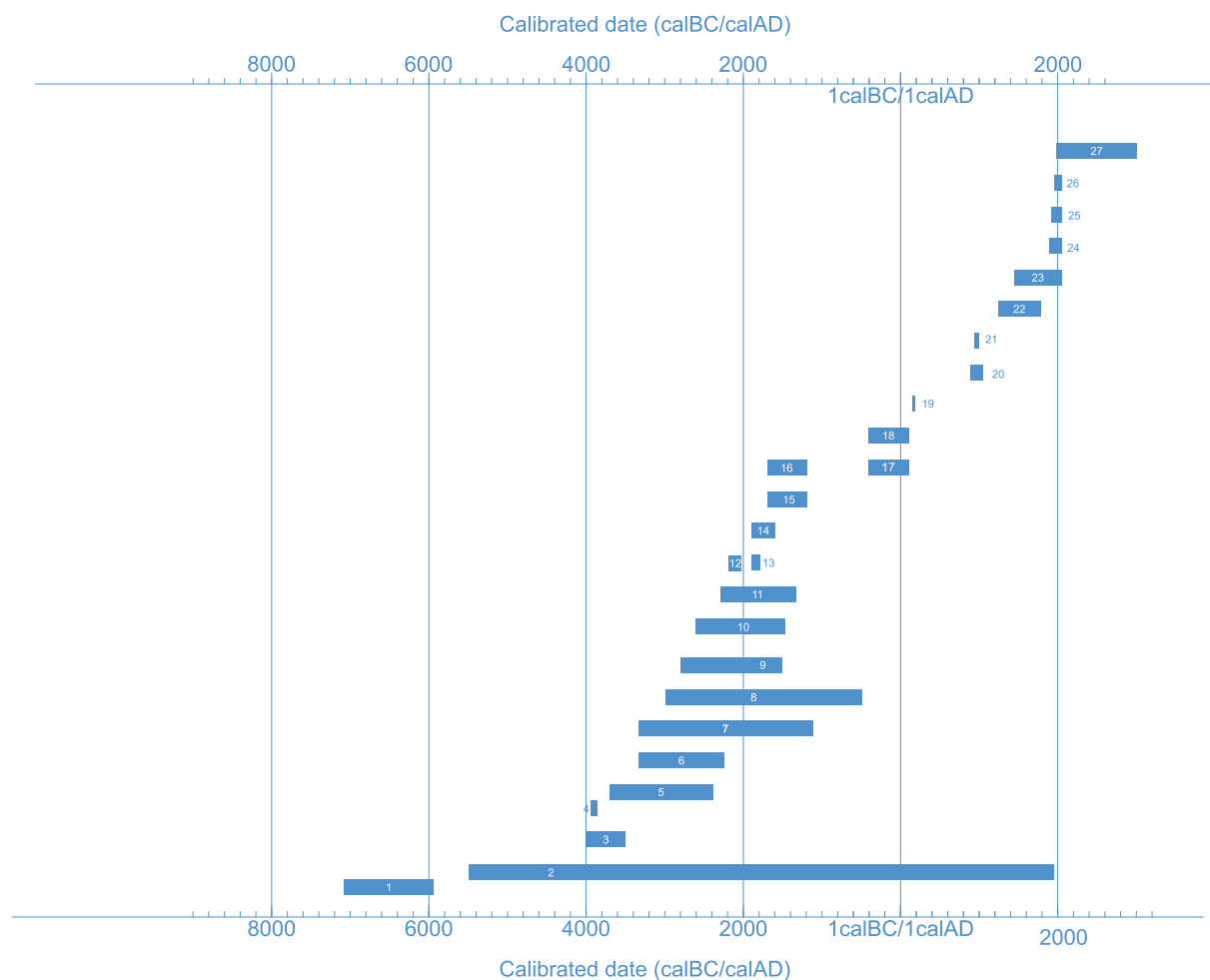
Treasures of Time: Research of the Faculty of Archaeology of Adam Mickiewicz University in Poznań

Introduction

In 2019, archaeology at the Adam Mickiewicz University in Poznań celebrated its honourable 100th anniversary! The establishment of archaeology at this university was associated with the strong influence of the authority of Prof. Józef Kostrzewski and a succession of eminent scholars, many of whom we today call Masters.

The year 2019 was a real breakthrough. We started the second century of existence within the Alma Mater Posnaniensis with a new structural independence and quality that the academic archaeology of Poznań had not yet known for its one hundred years of existence. This change, the formation of the first Polish Faculty of Archaeology, has opened new chances and possibilities of which we are now taking advantage.

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Currently, the Faculty of Archaeology of Adam Mickiewicz University is formed by a number of teams, each with their own leaders. In the majority of cases, these teams are united by interdisciplinarity, which integrates within selected projects the experience of many so-called 'auxiliary' sciences of archaeology. This trend is paralleled by the development of specialised laboratories armed with the latest equipment in the Faculty of Archaeology.

This publication presents the current scientific interests creatively developed by such teams at the Faculty of Archaeology of Adam Mickiewicz University. The research of these teams covers vast areas in time and space, summing up at least the last 9,000 years of prehistory. The following articles, arranged in chronological order, allow us to explore the prehistory of various areas.

The adventure begins around 7100 BC, in the Neolithic settlement of Çatalhöyük located in Turkey. Then, we move on to the loess uplands near Krakow, where the first farmers from the south of Europe had just arrived (5500 BC). A little later (4000-3500 BC), and a little farther north, in the area of Greater Poland, some of the first megalithic constructions in this part of the world were built. Around the same time, about 800 km to the southeast, a settlement

of the Trypillia culture remains in the phase of development (3950 BC). The end of the Stone Age in Poland was described in the history of Late Neolithic communities on a hill in the center of Kujawy region (3700-2400 BC). Farther east, in the forest-steppe area of Ukraine, significant cultural and social changes resulted in the formation of the Yamnaya culture (3350-2250 BC), beginning the Bronze Age.

Intense elements of this era can be traced in the area of southern Europe in the Greek Anthemous Valley (3350-1150 BC), in Attica (3000-500 BC) on the plains of the Hungarian Lowlands (2600-1450 BC) and to the Upper Dniester Valley, where numerous burial mounds were formed (2800-1500 BC). A similar chronological range is presented in the articles devoted to a unique site in Bruszczewo, Greater Poland (2300-1350 BC), which not only accumulates valuable metal artefacts, but is also the subject of interest of an interdisciplinary team focused on reconstructing its environmental context.

The next text take us far to the east, to the area of Iraqi Kurdistan, where we can appreciate the importance of Mesopotamian influences in shaping the picture of the Early Bronze Age (2200-2150 BC).

Subsequent texts describe the discoveries of Poznań scientists in Syria (1906-1787 BC) and in Greater Poland (1900-1600 BC). These two distant points describe various aspects of life in contemporary communities in the Middle and Early Bronze Age.

The characteristic archaeological materials of the later centuries of the Bronze Age (1800-1200 BC) reveal an intensification of military conflicts and migration processes (1700-1200 BC). The turn of the eras is illustrated in this volume by texts on the interpretation of representations on ancient Greek and Roman sculpture (400 BC-100 AD), as well as the cultural situation in the Polish lands (400 BC-100 AD).

We are introduced to the new era by an article on the funerary customs of communities from the Polish lowlands describing discoveries at the site of Mirosław (160-175 AD). Moments of the formation of elements of Polish statehood are referred to in texts describing towns at Grzybowo (919-1050 AD) and Poznań in the early Middle Ages (950-1000 AD).

Later parts of the Middle Ages are described by sacral monuments located also in the area of the contemporary city of Poznań: the Collegiate Church of St Mary Magdalene (1263-1802 AD) and the still extant Church of the Blessed Virgin Mary on Ostrów Tumski, founded around 1431 AD in the immediate vicinity of the previously described early medieval site of the 'origin' of the city of Poznań.

The final texts of the volume do not refer directly to a particular period of prehistory, but present the history of Polish archaeological research on the Iberian Peninsula, the contemporary perception of prehistoric art by the inhabitants of present-day Canada and Siberia, and the development of methodological thought among Poznań archaeologists.

The volume closes with a text describing one of the many perspectives currently faced by the staff of the Faculty of Archaeology of Adam Mickiewicz University in Poznań: the new ArchaeoMicroLab.

We look to the future with great hope that the Staff of the Faculty will provide ideas for many more volumes of Treasures of Time. We trust that this set of articles will present archaeology at the Adam Mickiewicz University in Poznań in its new structure as a Faculty and show its potential. We would thus like to encourage you to get acquainted with our Poznań perspective on archaeological studies, and to reflect on ways of exploring the past.

Andrzej Michałowski

Danuta Żurkiewicz



Location of the main research areas.
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2800-1500 BC

Treasures of Time:

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The barrow culture of the Upper Dniester Basin in the 3rd and 2nd millennia BC: The Polish-Ukrainian research projects

Przemysław Makarowicz, Jan Romaniszyn, Vitalii Rud

Abstract

Since 2009, the international Upper Dniester Expedition has conducted field research (field-walking surveys, non-invasive and excavation) and analytical studies in the Eastern Transcarpathia. These investigations are part of a broader research programme – a study of ‘The Biocultural Borderland between the East and the West of Europe’. The projects concern a comprehensive reconnaissance of barrow cemeteries dated to the 3rd and 2nd millennia BC, located in the mixed forest-steppe and forest belt in the basin of the Upper Dniester River. For almost 1500 years, this type of funeral architecture shaped the ‘mortuary landscapes’ of the communities successively inhabiting that area. Hence, the barrow cemeteries are an important source for understanding the mechanisms and trajectories of cultural development in this part of Europe, and consequently the subject of intensive studies within several research projects.

This article describes the aims and results of two already completed and one ongoing project in the Upper Dniester Basin. Thanks to the use of modern research methods, both in the field of archaeology and ‘archaeological sciences’, it has been possible to present a wide spectrum of regularities/principles concerning the ‘barrow landscapes’, the chronology of the creation of selected cemeteries, and the construction of regular, linear arrangements of barrows. Furthermore, the projects have and are providing large collections of archaeological (ceramic, lithic, metals, etc.), anthropological, archaeobotanical and archaeofaunal material for future analyses.

Keywords: Barrow cemeteries, Upper Dniester Basin, barrow landscapes, mortuary houses, Komarów culture

Introduction

Interest in Ukraine as a key region for field research and analytical studies by Polish archaeologists is an element of the strategy of a broader research programme – the study of ‘The Biocultural Borderland between the East and the West of Europe’ (Koško et al., 2022). It has been carried out for several years by a team of scientists, PhD students, and undergraduates from the Faculty of Archaeology (formerly the Institute of Prehistory) of Adam Mickiewicz University (AMU) in Poznań, Poland. The initiative to establish the Upper Dniester Expedition within the framework of the aforementioned programme originated among the Poznań prehistorians interested in the study of the Baltic-Pontic *Intermarium* in cooperation with the English-language journal ‘Baltic-Pontic Studies’ and the series ‘Archaeologia Bimaris’, publishing mainly in the national languages (Koško, 2001; Koško & Szmyt, 2006; Makarowicz, 2012).

Initiated in 2009 and continuing to the present day, the mission of the international Upper Dniester Expedition includes field research and analytical studies in the Eastern Transcarpathia of western Ukraine. In particular, it is concerned with barrow necropolises from the 3rd and 2nd millennia BC, located in the mixed forest-steppe and forest belt in the Upper Dniester Basin, within the administrative borders of the provinces of Lviv, Ivano-Frankivsk and Ternopil (Figure 1; Makarowicz et al., 2016a). The research is carried out by scientists from the Faculty

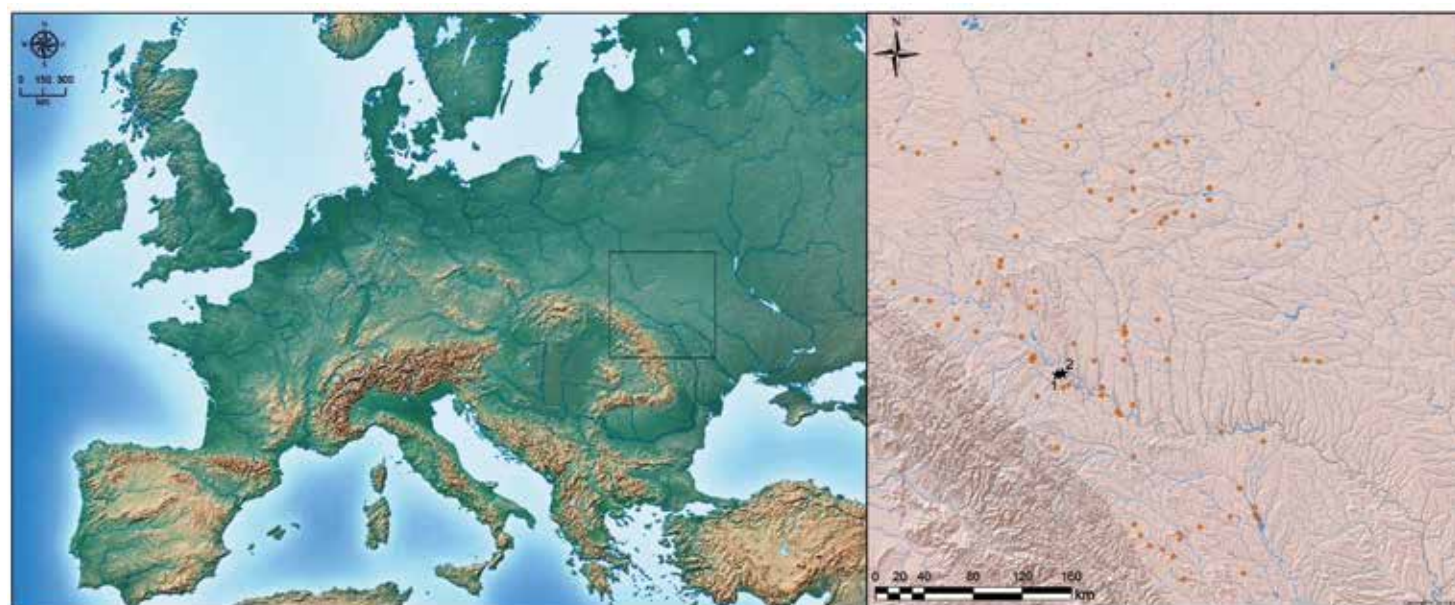


Figure 1. Spatial distribution of barrow cemeteries in the Upper Dniester Basin and the neighbouring areas (by J. Niebieszczański). An asterisk marks the necropolises under excavation: 1 – Bukivna, 2 – Milluvannya.

of Archaeology, Adam Mickiewicz University in Poznań jointly with scholars from the Institute of Archaeology of the National Academy of Sciences of Ukraine in Kiev and from the Department of Archaeology and Ethnology of the Vasyl Stefanyk Precarpathian National University in Ivano-Frankivsk, as well as museums in Ukraine. Two projects, funded by the National Centre for Science (NCN) and the National Programme for the Development of the Humanities (NPRH), have been already completed and the third one, funded by the NCN, is underway.

The barrow cemeteries on the Upper Dniester River form unique funerary landscapes. In this mixed forest-steppe and forest belt, tens of thousands of barrows were built from the beginning of the 3rd millennium BC, and at least several thousand are still preserved today, especially in the large beech and beech-hornbeam forest complexes at an altitude of 300-400 m. For almost 1500 years, this type of funerary architecture shaped the ‘mortuary landscapes’ of successive communities settling that area (Makarowicz et al., 2018, 2019; see Fontijn, 1996; Bourgeois, 2013). Both archival research and contemporary projects in the Upper Dniester Basin have confirmed that the mounds were built successively by the Corded Ware Culture communities (CWC), the Epi-Corded groups (both from the 3rd millennium BC), and finally the population of the Middle Bronze Age Komarów culture (first half of the 2nd millennium BC: Sulimirski, 1968; Sveshnikov, 1974; Kadrow & Machnik, 1997; Makarowicz et al., 2016a, 2018, 2019). As a result, necropolises forming extensive ‘barrow landscapes’ were created, which can be interpreted as *longue durée* structures. They are characterized by multidimensional symbolism and diverse functions: funerary, territorial, social and religious (Górski, 1996; Garwood, 2007; Bradley & Frazer, 2011; Bourgeois, 2013; Arnoldussen & Drenth, 2015; Makarowicz et al., 2019). The spatial arrangements of the cemeteries are similar: the barrows occur in linear or linear-group arrangements covering lengths of several hundred metres to dozens of kilometres (Makarowicz et al., 2016a).

The barrow necropolises in the Upper Dniester Basin have been the subject of intensive studies carried out for over a dozen years within the framework of several research projects.

The ‘Bukivna’ research project

The project ‘Bukivna’ aimed to provide a comprehensive bioarchaeological characterisation and a socio-cultural interpretation of a large barrow cemetery dated to the first half of the 2nd millennium BC in Bukivna (formerly Bukówna), Ukraine (Figure 2). Through field-walking surveys and the use of non-invasive techniques, more than 60 barrows were identified there. Together with the neighbouring necropolises located within a radius of 5 km, more than 150 of barrows, occurring mostly in linear and linear-group systems, were recorded (Makarowicz et al., 2019). The project addressed the following issues: the spatial organisation of the necropolis, the chronology of the documented barrow groups and selected monuments, the reconstruction of the dynamics of the cemetery’s development, the method of erecting the barrows, the techno-archaeological study of the archaeological material from the excavated mounds, the analysis of the palaeoenvironmental context of the necropolis (the Dniester Valley), and the study of the botanical and faunal sources obtained during the field survey, as well as the interpretation of the social structure of the users of the cemetery.

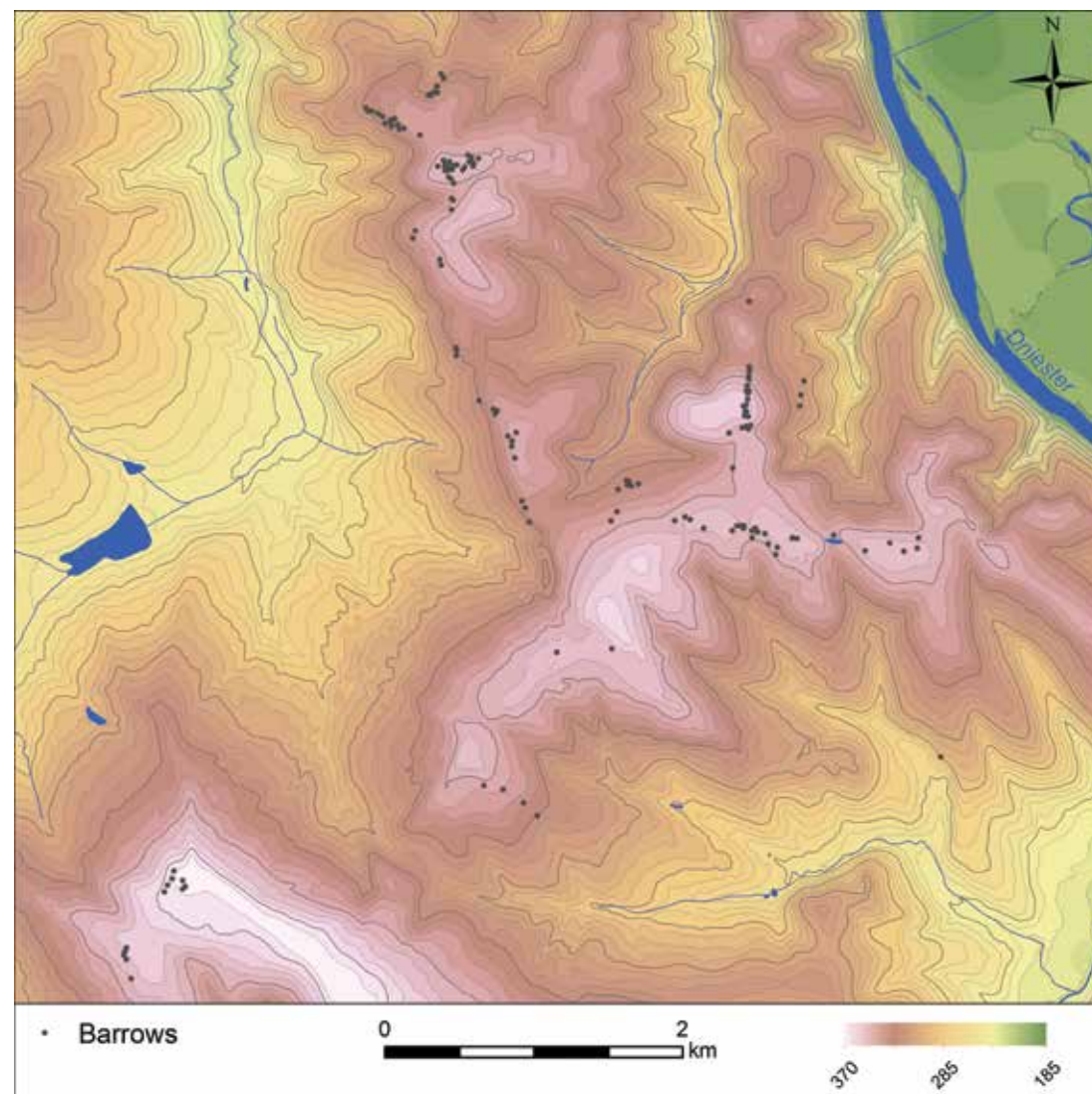


Figure 2. Bukivna and Milluvanna. The spatial arrangement of barrows in the cemeteries (after Makarowicz et al., 2016a).

The research confirmed earlier assumptions that the cemetery in Bukivna was an elite Middle Bronze Age barrow necropolis connected to the Komarów culture (Bryk, 1932; Siwkówna, 1937; Rogozińska, 1959; Swiesznikow, 1967; Sulimirski, 1968). This is evidenced both by under-mound architecture, i.e. monumental graves in the type of clay-and-wood mortuary houses (logs and planks made mainly of oak), cenotaphs built of glacial erratic boulders and wooden elements, and other structures accompanying the rites of passage like wooden platforms of various sizes built of oak planks (Figure 3) as well as prestige items recorded in a significant proportion of these burial contexts. These latter items include bronze and gold products (Figure 4) and numerous vessels found as ritual deposits under and outside the barrow mounds interpreted as a kind of 'tableware' for the dead or 'ritual space markers' (Figure 5).



Figure 3. Bukivna. A view and cross-section of barrow 1/II/2013 representing the Corded Ware culture from the 3rd millennium BC, and examples of the funeral under-mound architecture in the barrows of the Komarów culture (1800-1500 BC).



Figure 4. Bukivna. A gold adornment described as a gold earring of 'Sibin type' from barrow 3/II/2012 (Komarów culture), Middle Bronze Age.



Figure 5. Bukivna. Examples of deposits of vessels from the barrows of the Komarów culture.

In total, over 150 ceramic vessels of various types were discovered in the six investigated mounds. Earlier hypotheses about urn burials at the site, repeated in the literature after the first explorers of the cemetery in the 1930s, were verified negatively (Bryk, 1932; Siwkówna, 1937; Rogozińska, 1959; Swiesznikow, 1967; Sulimirski, 1968; Dąbrowski, 1972; see: Makarowicz, 2010). A series of publications presented the new information that *in situ* cremation was the most popular form of burial in the population of the Komarów culture from the first half of the 2nd millennium BC (Makarowicz et al., 2013a, 2013b, 2018, Makarowicz et al., in press; Lysenko et al., 2015; Romaniszyn, 2015; Makarowicz, 2019). While performing complex funeral rituals, the dead were buried in the mortuary houses individually or collectively. As the field observations and analytical studies have shown, some mortuary houses remained open for some time in order to add additional deceased. Before the erection of the mound, which was the final act of sealing the burial place, the wooden grave structures, which were usually dug into the primary humus, were burnt. Also, other funerary rituals have been discovered, such as scattering of small fragments of the cremated bones either within the above-mentioned wooden structures or at different levels of the under-mound space; urn-burning was incidental though (two cases). It seems likely that small (single) bones entered the containers during the burning process of the monumental wooden structures, during which the temperature reached 900-1000 degrees C.

The analysis of numerous AMS radiocarbon dates using Bayesian modelling and extensive multivariate statistics made it possible to establish the probable sequence of development of one of the unearthed groups of barrows. The mounds were built according to a specific spatial plan, with a new mound constructed on average every 35 years; however, they were not necessarily erected 'sequentially' in one direction (Makarowicz et al., 2018). The linear arrangements of the barrows were the final result of a long and complex process of cemetery structuring (Makarowicz et al., 2019). Specific studies (palaeopedological, lithological, geomorphological, and geochemical) confirmed the field observations about the construction of the mounds. They were made from lumps/cakes of turf cut near the barrows and placed side by side in layers with grass to the bottom (Hildebrandt-Radke et al., 2019).

These analyses, together with the palynological research and excavations, revealed that the first barrows in the cemetery were erected by the Corded Ware culture communities in the second half of the 3rd millennium BC. At this time, the area had already been significantly deforested and steppe vegetation was encroaching gradually upon it. When the subsequent mounds – after the 'Corded Ware' episode – were built by communities of the Komarów culture in the period 1800-1500 BC, the area was an open space dominated by meadow vegetation. The extensive systems of those features formed numerous linear groups stretching over several kilometres on the watersheds of the Dniester and its tributaries, in the higher parts of the landscape (Makarowicz et al., 2018, 2019; Hildebrandt-Radke et al., 2019). The investigations conducted using non-invasive techniques (digital elevation models of the cemetery in GIS, plans and profiles of individual mounds, magnetometric prospection, and drone photos) translated into a comprehensive presentation of the spatial layout of the cemetery and provided information about the characteristics of all monuments (also those not excavated), helping to

determine the extent of their damage and to document the under-mound architecture. Using GIS tools, the principles and specifics of the location of the particular cemeteries and the location of barrows, both in the natural and cultural landscape, were determined. A cumulative analysis of the visibility of the barrows revealed they were highly exposed. The visibility investigation of the Bukivna mounds from the level of the Dniester Valley was impeded by its right, high bank, while the barrows were clearly visible from the valleys of its smaller tributaries. The most important, however, was the intervisibility between individual barrow groups. From each group of mounds at least one other group could be observed, which could help determine the spatial distribution of the necropolis (Makarowicz et al., 2019).

Analyses of substances found on the walls of the vessels from the barrows showed the presence of fatty acid residues, indicating the consumption of meat from terrestrial animals, nuts and seeds by the 'Komarów' communities (Kałużna-Czaplińska et al., 2017).

Currently, an English version of the monograph on the cemetery comprehensively presenting the results of several years of the non-invasive and excavation research in Bukivna, is being prepared (Makarowicz et al., in press).

Project 'Catalogue' and landscape research

A second project concerning barrow culture communities, financed from NPRH funds, was entitled: 'Catalogue of the Komarów Culture Barrow Cemeteries in the Upper Dniester Drainage Basin (former Stanisławów Voivodship)'. Its aim was to make an inventory and catalogue of barrow necropolises known from the literature that were built in the 2nd millennium BC by the communities of the Komarów culture – the south-eastern fraction of the Trzciniec Cultural Circle – in the Upper Dniester drainage basin, within the boundaries of the former Stanisławów Voivodeship (currently mainly the Ivano-Frankivsk oblast in Ukraine). Thanks to a review of literature and documentation from the previous excavations of 'Komarów' barrow cemeteries in the Upper Dniester basin, field-walking studies conducted using modern geodetic tools and instruments (RTK, GPS), non-invasive prospection with the use of drone (photogrammetry) and magnetometer, and an analysis of old topographic maps (including the Friedrich von Mieg Maps from the 18th century, maps of the Military Geographical Institute from the interwar period, and Soviet ordnance maps) and modern satellite images, almost one thousand Bronze Age barrows were documented in cemeteries located within the administrative boundaries of 17 towns. Digital elevation models of the discovered necropolises were made using a laser total station (Leica TCR). In addition, geophysical surveys were used to investigate the under-mound architecture of a selected subset of barrows. Materials and documentation derived from excavations carried out by various archaeological institutions from the second half of the 19th century until the interwar period were comprehensively compiled and compared with information provided by literature. The dramatic events of World War II and the post-Yalta order in Europe resulted in many collections being dispersed and deposited in various museums in Poland, Ukraine, and Austria.

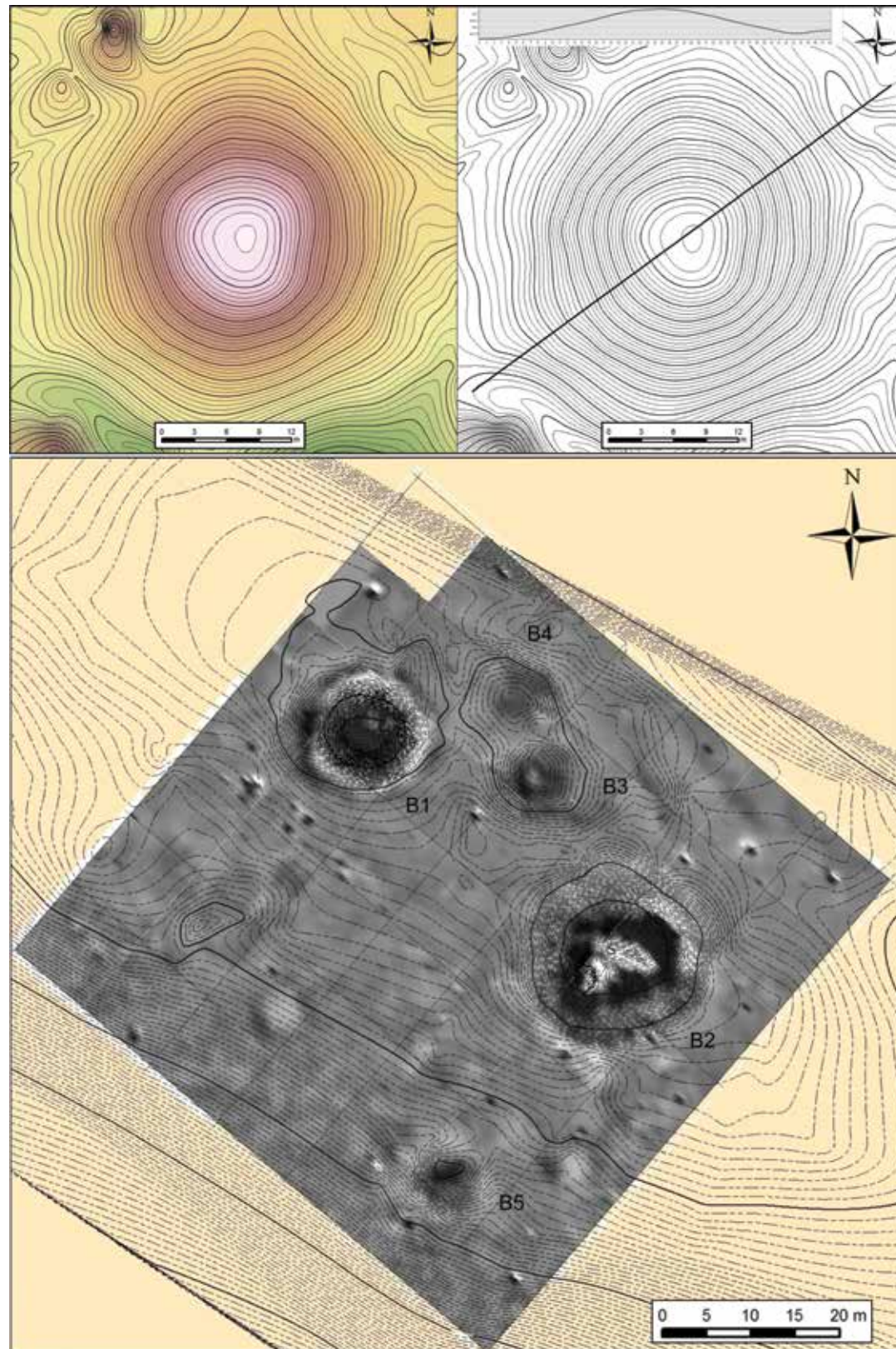


Figure 6. Examples of plans and cross-sections of barrows and their magnetometric images (after: Makarowicz et al., 2019).

The project resulted in the publication of the 'Catalogue of the Komarów Culture Barrow Cemeteries in the Upper Dniester Drainage Basin (former Stanisławów Voivodship)' in three language versions – English, Ukrainian and Polish (Makarowicz et al., 2016a, 2016b, 2016c). The catalogue contains the archival information and the results of the non-invasive field prospections including digital elevation models (DEM) of barrow cemeteries (scale 1: 10,000) and their groups, the situation-height plans and the cross-sections of single unexplored barrows, the standardised descriptions of the parameters of the mounds, the evaluation of the degree of their destruction, and the photographs and drawings of archival artefacts from the excavated monuments. For each barrow in the necropolises identified by field-walking, GPS coordinates, location on a satellite map, and photographs from different seasons as well as graphic representations of its current external appearance were provided. Also, the under-mound funerary architecture of some of the mounds was also revealed with the use of magnetometer (Figure 6).

Parallel to the 'Catalogue...' project, studies of barrow landscapes in the upper Dniester basin were conducted as an additional project. As a result, a number of regularities were recorded in the location of cemeteries and their structuring. Such principles as adaptation by the builders of the necropolises to the local geomorphological and hydrographic conditions, the specific linear or linear-group arrangement of barrows, and the continuity of cemetery formation in (gradual) stages can be mentioned here (Makarowicz et al., 2017, 2019).

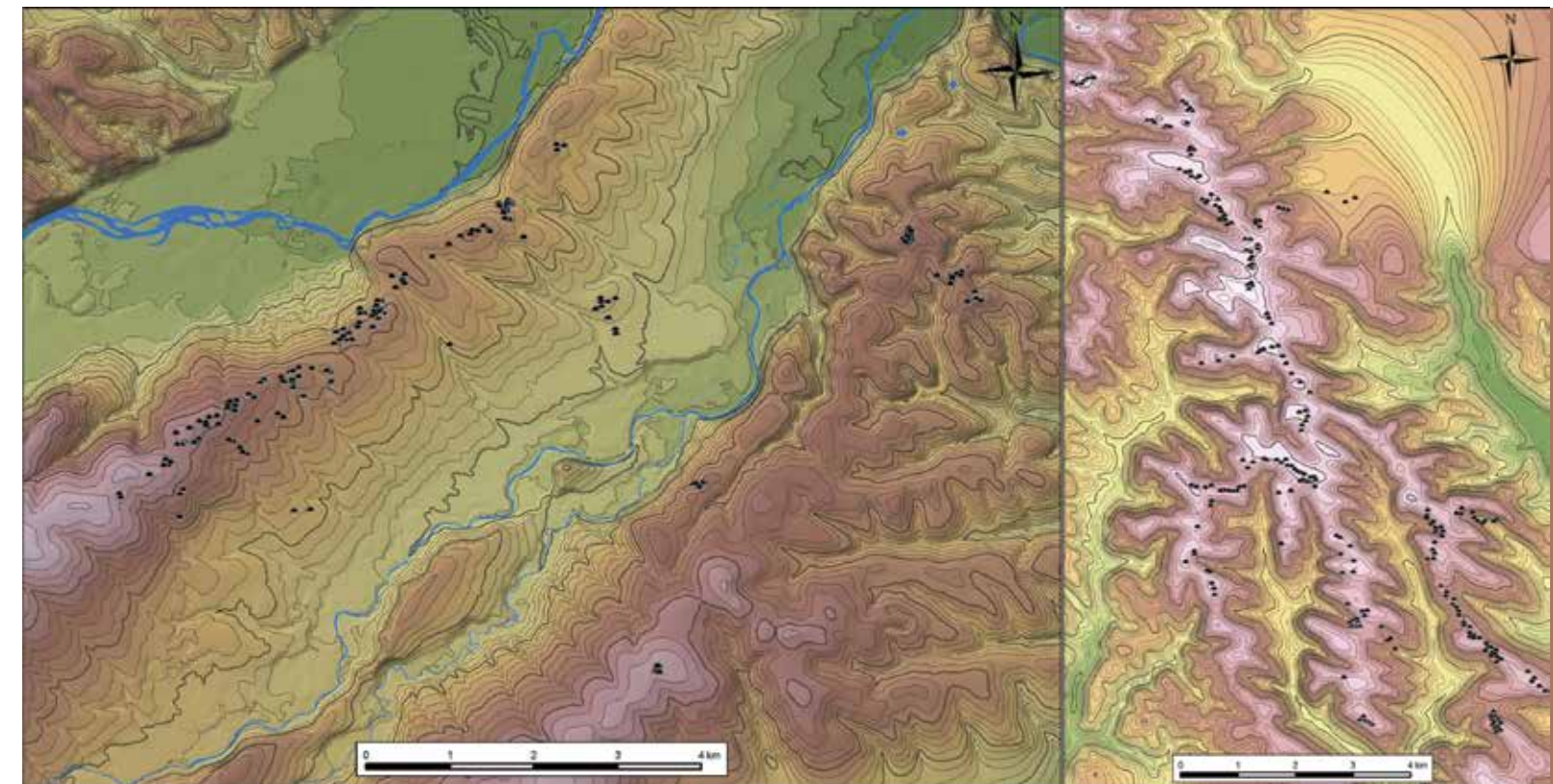


Figure 7. Komariv and Krasiv – the largest and most extensive Upper Dniester barrow necropolises from the Late Neolithic and the Middle Bronze Age (after: Makarowicz et al., 2016a).

The mound builder principle of adaptation to the local morphological and hydrographic conditions was commonplace. Cemeteries most often consisted of several segments separated by depressions or stream valleys (Figure 7). A recurrent rule was to build barrows in the zones of flattened hills and elevations, often in the watersheds of rivers or streams. Occasionally they were situated on gentle hillslopes; however, even in those cases they were on relatively flat surfaces (gradients of up to 5-8 degrees). Studies of barrow landscapes with the use of GIS tools revealed that mounds could only be observed from certain locations. Also from the barrows themselves it was possible to see only a certain part of the landscape (e.g. a stream valley). The most important thing, however, was the visibility between the mounds or groups of mounds (intervisibility) resulting from their topography and mutual proximity. Consequently, other barrows or the whole group could only be seen when walking along the line of barrows (Makarowicz et al., 2019).

The cemeteries discovered in the Upper Dniester basin were usually characterised by linear and linear-group arrangements of barrows, the longest of which – consisting of several hundred monuments – spread across several kilometres (Figure 7). This specific arrangement was closely connected with the terrain morphology. Linear alignments retraced the structural axes of the hills and cluster/group arrangements appeared wherever erosive incisions and denudation depressions made it impossible to build long lines of barrows (Makarowicz et al., 2019).

Barrow culture communities also regularly followed already existing layouts and arrangements of the features. In the majority of necropolises where larger groupings of barrows occurred, there was a noticeable custom of integration of the monuments of the Komarów culture from the Bronze Age into the pre-existing lines of mounds previously erected by the Corded Ware culture groups. As a result, these cemeteries formed a kind of 'palimpsest' created over more than a thousand years, with their final structuring taking place at the end of the first half of the 2nd millennium BC (Makarowicz et al., 2018, 2019).

Project 'Continuation and Change'

Within the framework of bio-cultural research programme on the borderland between the East and West of Europe, a NCN project entitled 'Continuation and change. Barrow culture communities from the 3rd and 2nd millennia BC in the Upper Dniester drainage basin in light of multidisciplinary studies' has been conducted. This project is undertaking the next stage of the studies on the prehistoric communities inhabiting the borderland between Eastern and Western Europe.

The aim of the project is to understand the mechanisms and trajectories of the socio-cultural development in the Upper Dniester Basin (Precarpathia, western part of Podolia) during the period 2800-1500 BC. Due to the lack of identified settlements from that period, the only source of information on the socio-cultural transformations in this part of Europe are barrow cemeteries. The mounds were erected in them by representatives of three successive communities from the Late Neolithic and Early and Middle Bronze Ages.

The core research problem of this project is to identify the periods of continuity and interruption in the construction of barrow cemeteries in the Upper Dniester Basin during the aforementioned time period. Among the questions it aims to answer is whether the cultural changes during the period in question were of a fundamental nature and related to an inflow of non-local people (migrants) or rather the result of long-term gradual changes (in stages) within the same, local population. Furthermore, what was the significance of the barrows for their makers: was the funerary/sacral function always the most important one, or – especially in the later period (the 2nd millennium BC) – was the social and political role of these monuments equally important? To answer these questions, the project aims to provide information on the chronology of the development of the selected cemeteries, stressing the regular linear alignments of barrows, as well as to propose a scenario for their construction and the arrangement of different barrow lines. Finally, an important issue addressed by the project is the question of transformations in the natural environment caused by the deforestation activity during the construction of these necropolises.

The adopted methodology combines modern research methods of archaeology and the natural sciences (archaeological sciences), used in the previously discussed projects.

As part of the project, in the autumn of 2019, field-walking and non-invasive surveys were conducted on several hitherto unexplored (or only fragmentarily studied before World War II) barrow cemeteries in the Ivano-Frankivsk and Ternopil Oblasts in western Ukraine. Using modern research methods including RTK GPS, drone photogrammetry, laser total station measurements, and geophysical prospecting with magnetometer, the monuments were recorded in the field and their under-mound architecture was explored. Digital models of cemeteries and their surroundings, plans, and cross-sections of the barrows were made. The coring of several mounds provided information about their stratigraphy and samples were collected for ¹⁴C dating. Based on the results of the non-invasive prospecting, excavations were implemented at three necropolises in the subsequent field seasons and, in 2020, they were carried out at the first necropolis – Miluvannya (see: Figure 2) – a cemetery adjacent to the necropolis in Bukivna.

As a result of this research, two barrows made by the Middle Bronze Age communities were identified (Figure 8). In one of them a burial of two horses with their heads and limbs facing each other and a few vessels of the Komarów culture, including a vase with 'Transcarpathian' features of the Otomani-Füzesabony culture, were recorded. The second, smaller barrow, yielded several under-mound structures, including a large mortuary house constructed from clay and wood with human remains cremated *in situ* (Figure 9). In the fill of the feature and its surroundings, at least 26 vessels of 'Komarów' style were found. Several hundred samples were taken from the barrows for, *inter alia*, palaeopaedological, lithological, geochemical and pH tests. Detailed work is currently under way to compile field documentation and investigate collected ceramic, lithic, archaeobotanical and archaeozoological materials.



Figure 8. Two barrows from Milluvannya during the excavation (Photo from a dron).



Figure 9. Mortuary house from barrow 260 in Milluvannya.

A tangible result of the project's implementation so far are articles about the landscape archaeology (Makarowicz et al., 2019) and geoarchaeology of the region, in which the results of prospecting and geomagnetics and their interpretation were compared with the excavation research. This in particular applies to the under-mound architecture of the 'double barrows', and especially to the graves with mortuary houses (Romaniszyn et al., 2021). Parallel to the field research, material from various studies covering the period of the 3rd and 2nd millennia BC are being selected in Western Ukraine for specialized analyses using modern methods of archaeological sciences.

Thanks to the realization of the above mentioned project's objectives, it will be possible to obtain comprehensive information, allowing formulation of a model of cultural development of the 'barrow culture communities' who inhabited the borderland of the forest-steppe and forest zone in the 3rd and the 1st half of the 2nd millennia BC in the Upper Dniester Basin.

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