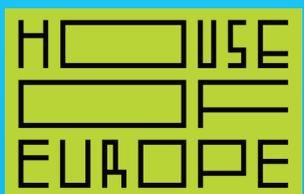


Pavlo **S**hydlovskyi
Marta **A**rzarello
Sara **G**arcês
Albert **H**afner
Marie-Hélène **M**oncel
Stéphane **P**éan
Marta **P**ołtowicz-Bobak
Iwona **S**obkowiak-Tabaka



International educational project "Nature and Society in Prehistoric Europe"

The project of the Center for Paleoethnological Research is supported by European Union by the House of Europe programme



The stressful situation caused by the pandemic has become a powerful factor for the introduction of new methods and forms of education. The field of archaeological education was no exception. In this educational year, teachers and students fully experienced both the advantages and disadvantages of distance learning in the field of archaeology and museum studies. Creating online courses in archaeology and prehistory has its own specifics, which is manifested in the complexity of transmitting information about artefacts and field objects remotely.

Modern archaeological and paleoecological research allows us to develop models of interaction between the environment and human society for different chronological facies. The development of such models is currently relevant, given the need to understand the processes of increased anthropogenic and industrial pressure on the environment in the modern world. Due to the significant expansion of scientific knowledge about the early stages of human culture, there is a need to include these data in the courses of higher education institutions using scientific experience and the latest achievements of European scientists in the field of prehistory and paleoecology.

Purpose of activity

The project is to create an English-language training course “Nature and society in Prehistoric Europe” through the creation of multimedia products such as video lectures, visual materials and online publications, which will widely present data and research results from Europe and Ukraine in particular. The main purpose of the course is to combine science and education through the interaction of student audiences with the professional environment by transmitting scientifically significant and relevant information about the interaction of society and nature from researchers to students and young scientists. In connection with the transfer of the learning process and the work of higher education institutions online, the project plans to develop multimedia materials that would provide professional delivery of knowledge and interaction between teacher and student.

Tasks of the project are:

- to include modern scientific knowledge about the interaction of nature and prehistoric societies in educational material for higher education institutions;
- to acquaint international audiences with the latest research in the field of prehistoric archaeology and paleoecology of Eastern Europe and Ukraine in particular;
- to acquaint Ukrainian students with modern research held by scientists and teachers from a number of higher education institutions in Portugal, France, Switzerland, Italy and Poland and to teach them modern English terminology in the fields of archaeology and paleoecology.

In course of implementation of the project, it is important to use international scientific experience and new scientific data on the prehistoric sites in the process of teaching, to involve students and young scientists in research in the field of prehistoric archaeology.

The training course will consist of several components, interconnected by internal logic: author’s lectures, seminars with leading European scientists, illustrative and textual material.

During the development of the course, a number of online seminars on specific topics will be held with leading scientists from educational and research institutions in EU, Switzerland and Ukraine. The seminars will discuss issues and consider relevant concepts relating to the interaction of nature and society in prehistory, presentations of current research. In addition, it is planned to hold joint discussions in which all participants will have the opportunity to express their thoughts on specific scientific topics.



The final editing of the video lectures using online presentations will be done by the production group Wild Fox Films
<https://www.youtube.com/user/wildfoxfilm>

The main participants of the educational course

The keynote speakers are renowned experts on the interaction of the environment and prehistoric societies of European and world level – professors of well-known scientific and educational centers and who are leaders of programs and projects to study the ancient past of Europe:

- Associate Professor *Pavlo Shydlovskiy* (Project Manager), Taras Shevchenko National University of Kyiv (Ukraine), Department of Archaeology and Museum Studies. Head of the Center for Paleoethnological Research, specialist in prehistoric archaeology of Eastern Europe.
- Prof. *Marta Arzarello*, University of Ferrara (Italy), Professor of Prehistory and Protohistory, Department of Humanities, General Secretary of the Executive Committee in International Union of the Prehistoric and Protohistoric Sciences (UISPP). Main areas of research: technology and economic behaviour during the Middle and Lower Palaeolithic in Italy; the first peopling of Europe; the Middle Palaeolithic cultures of the Sahara, Lithic technology and experimentation.
- Research fellow *Sara Garcês*, Polytechnic Institute of Tomar; Geosciences Centre University of Coimbra; Instituto Terra e Memória (Portugal), Quaternary and Prehistory Group (CGEO), Coordinator of the Rock Art Laboratory – Prehistoric Rock Art and the Sacred Tagus Valley Museum, Mação. Areas of Interest: rock art, prehistory, archaeological experimentation, experimentation in rock art, pigment analysis, 3D-photogrammetry, virtual heritage, virtual archaeology; rock art documentation.
- Prof. Dr. *Albert Hafner*, University of Bern (Switzerland), full professor for prehistoric archaeology and director, Institute of Archaeological Sciences and Oeschger Centre for Climate Change Research (OCCR). Leader of a number of projects to study climate change and the interaction of nature and society in Southern and Central Europe, a specialist in the field of Neolithic - Bronze Age archaeology.
- Director of research *Marie-Hélène Moncel*, CNRS, National Museum of Natural History (France). Scientific interests: first population in Western Europe, technical strategies and territories, regional cultural areas, first phases of the Acheulean -Neanderthal behaviours, impact of environmental conditions on strategies.
- Associate Professor *Stéphane Péan*, Muséum national d'histoire naturelle (France), Département Homme et Environnement. Head of research team Néandertaliens et Hommes anatomiquement modernes : comportements émergents, dynamique culturelle, mobilité territoriale (NOMADE), specialist in the field of Pleistocene zooarchaeology.
- Associate Professor *Marta Połtowicz-Bobak*, University of Rzeszów (Poland), Institute of Archaeology. Project manager for the study of Epigravettian sites in the Dniester valley. Specialist in the field of Upper Palaeolithic and lithic technology in prehistoric societies.
- Associate Professor *Iwona Sobkowiak-Tabaka*, Adam Mickiewicz University in Poznan. (Poland). The President of the Commission of Final Palaeolithic of Northern Eurasia at International Union of the Prehistoric and Protohistoric Sciences (UISPP). Research interests: Upper Palaeolithic and Mesolithic settlements, chronostratigraphy and environmental variables of settlement locations.

Young researchers from Ukrainian institutions are involved in seminars and lectures as experts:

- *Marharyta Chymyrys*, Taras Shevchenko National University of Kyiv, Interdepartmental Laboratory of the Faculty of History, specialist in Pleistocene zooarchaeology;
- *Ostap Tsvirkun*, National Museum of History of Ukraine, specialist in Upper Palaeolithic archaeology of Eastern Europe;
- *Yevhen Pichkur*, Archaeological Museum of the Institute of Archaeology of the National Academy of Sciences of Ukraine, specialist in Neolithic-Chalcolithic archaeology.

Participation in the project will allow these scientists to improve their own communication skills, deepen their knowledge of specialized terminology, and represent the results of their own research at the international level.

According to scientific interests, these lecturers fully correspond to the chosen topic of the course; they have all the opportunities to reveal the content in terms of time (from the appearance of humans in Europe to the Bronze Age) and territory. Presentations of research results will be presented in chronological order (Palaeolithic, Mesolithic, Neolithization processes, formation of agricultural communities), with analysis of the regional context (Western, Central and Eastern Europe) and the definition of conclusions on a European level.

Publication

In order to fully disclose the subject of the course, it is planned to publish a collection of scientific papers in English and Ukrainian, which would be more widely presented materials on each topic, with working title “**Dwellings of Prehistoric Europe : social adaptations in variable environments**”. Lecturers are invited to participate in the collection, which will give them the opportunity to more fully demonstrate the results of their own research and thoroughly argue their point of view.



Dwellings of Prehistoric Europe:
social adaptations in variable environments

This collection will be a guide for in-depth study of the course with the necessary references to modern scientific literature. The volume will be published in English and Ukrainian in online and printed versions by the Center for Paleoethnological Research in VITA ANTIQUA series, 2021: <http://vitaantiqua.org.ua/en/main> . Each article will have a DOI (digital object identifier) in the Crossref system.

Priority objectives of the project:

– Getting to know the professional cultures of the EU.

In the course of the project implementation, the presentations and lectures of key speakers — leading scientists and teachers of European higher education institutions will be listened to and considered. Constant communication, joint seminars and consultations will allow better understanding and feeling the peculiarities of teaching practices in different European countries, to see the ethics of communication between teacher and student, to learn from the best methods of developing lectures and presentations.

– Practices and principles of teaching in the EU.

In the process of creating a multimedia course, students and young prehistorians will have direct communication with outstanding scientists and teachers in this field, which will ensure the direct transfer of scientific experience and information to students.

– Foreign language learning and multilingual education.

When creating a course at the seminars there will be communication in English. In addition, the course itself will also be conducted in English. The participation of students and young scientists will help them to navigate in modern terminology and increase their ability to absorb information presented in a non-native language.

– Online education

The result of the project will be an online product in the form of a multimedia course, a gallery of photos and digital illustrations and an online publication of a collection of scientific articles.

Outcomes

The development and implementation of the curriculum of the course “Nature and society in Prehistoric Europe” will allow to attract more foreign audiences to study in Ukraine and will stimulate Ukrainian students to master modern terminological and methodological principles of paleoecology and prehistoric archaeology.

For the Center for Paleoethnological Research, the project will influence the expansion of international activities, will allow to reach the international level of cooperation, promote scientific and site protection activities of NGOs among students.

The publication of online materials in the journal of the Center for Paleoethnological Research VITA ANTIQUA will increase the role of this publishing house among colleagues and students in Europe.

This course will establish close cooperation with representatives of educational institutions in France, Italy, Poland, Portugal, Switzerland and Ukraine, which will in the future create a consortium of teachers specializing in the interaction of nature and society in different historical epochs.

All participants of the multimedia course will have free access to the results of the project — author’s lectures, illustrative material, online publications. It will be suggested to place a multimedia course on the websites of partner organizations.

“Nature and Society in Prehistoric Europe” educational project is supported by the European Union under the House of Europe programme
<https://houseofeurope.org.ua/en>



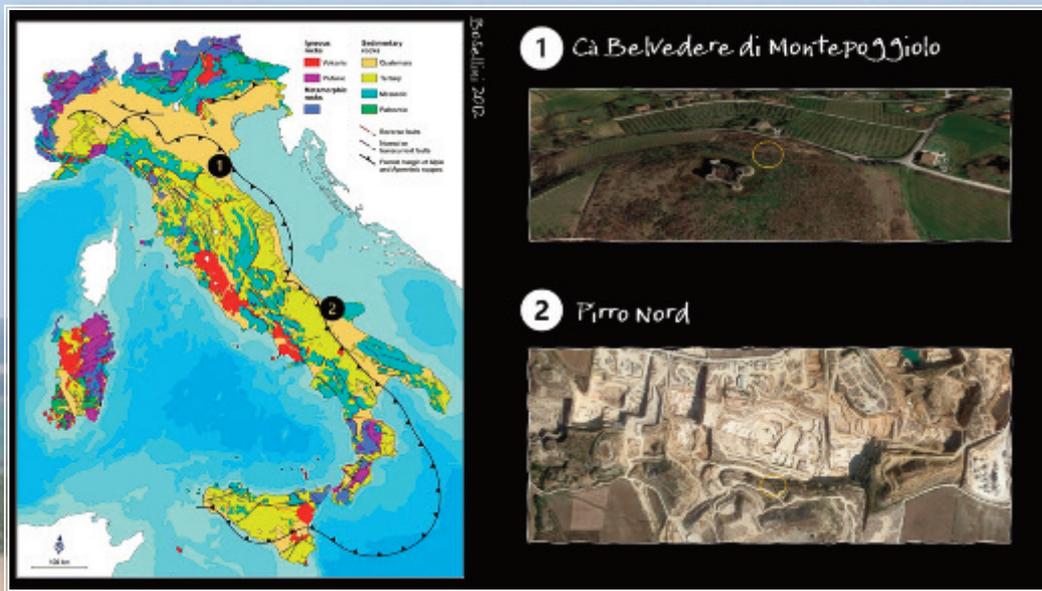
THE FIRST EUROPEAN PEOPLING: MIGRATION ROUTES AND BEHAVIOUR

The history of prehistoric Europe is relatively short if compared to Africa. The firsts well dated evidences for the out of Africa are the ones of the Dmanisi site in Georgia, dated to 1,8 Ma (Gabunia, 2000), but from about 1,5 Ma we begin to have several evidences of Homo presence in Italy (Arzarello et al., 2016; Arzarello and Peretto, 2017), France (Desprie et al., 2018) and Spain (Carbonell et al., 2008; Toro- Moyano et al., 2011). Based on the founding, is not easy to really define a technical behaviour of firsts Europeans but we can underlie some similitudes with the African Oldowain (even if in Europe the shaping is a marginal component of lithic assemblages) in what concern the methods and technique of flakes production. The oldest European sites, spanned in a chronological framework between 1 and 1,6 Ma, are united by the exploitation of local raw materials, by a lithic production mainly finalized to flakes debitage by multidirectional and centripetal methods and by relatively short reduction sequences.

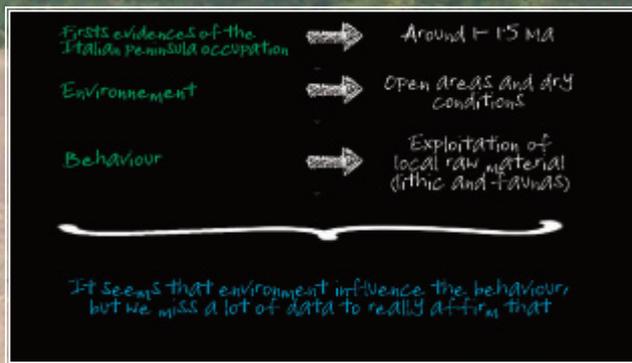
Although common trends are visible, the oldest Europeans are also characterized by evidence of local adaptation to the environment in terms of occupational patterns and supply areas.

From where those human groups were coming is still an argument of discussion, as the chronologies of the oldest sites in E and W Europe are very similar. The paleogeographic and paleoecological data, however, let us think that the most likely passage was that for the Near East.

Keywords: Homo dispersal in Europe; Lithic technology; 1,5 Ma; Piro Nord



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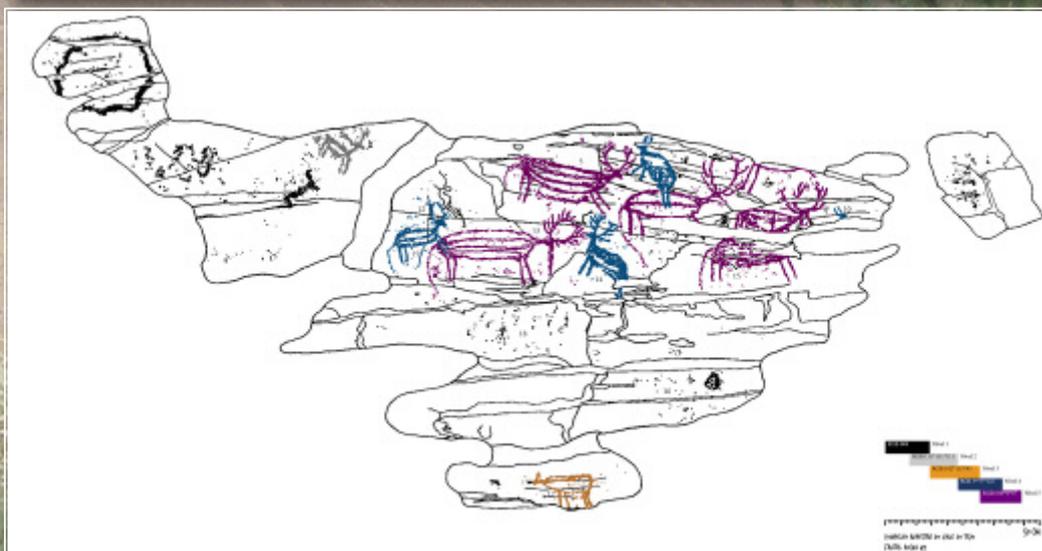
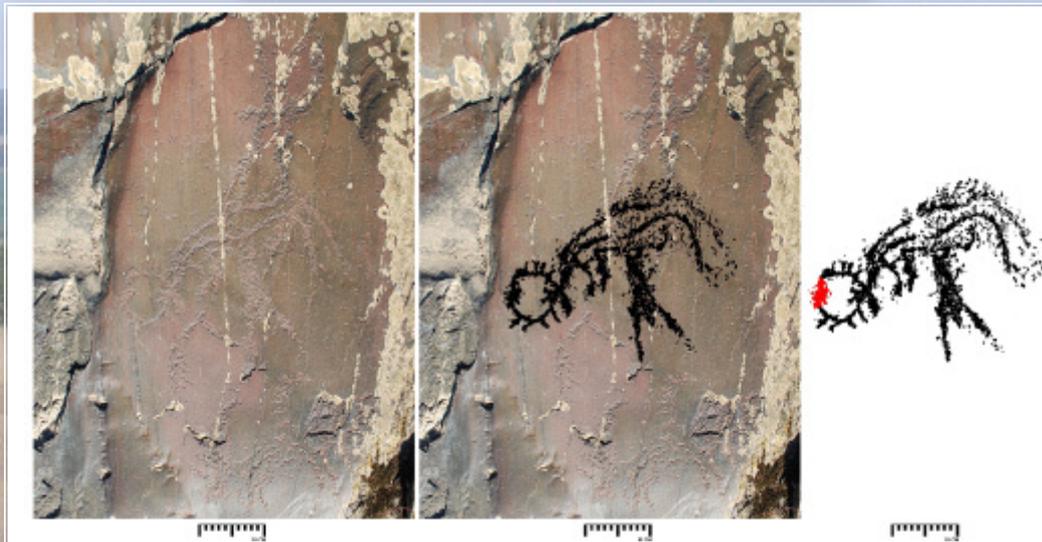
CROSSING BRIDGES, FROM MESOLITHIC TO NEW HORIZONS: IDENTIFYING CHANGES IN THE TAGUS ROCK ART TRADITION

The Tagus Valley Rock Art Complex covers an area of 120km in length. It has 12 rock art sites that extend roughly from the mouth of the river Ocreza downstream to the valley of the river Erges, upstream, in central Portugal. In 1974 a dam submerged over 90% of this recorded area.

These rock art sites include a set of 1636 rocks with 6988 figures of various typologies, whose chronology extends from the Upper Palaeolithic until the end of the Bronze Age roughly.

Taking into account recent studies, we will present the various methods of documentation used in the Tagus valley since its discovery and we present a proposal of the existence of an important set of figures recorded by the last hunter-gatherers of the region and how to understand the transition to the rock art of the early days of agriculture and pastoralism.

Keywords: Mesolithic; Neolithic; Schematic; Rock Art; Tagus



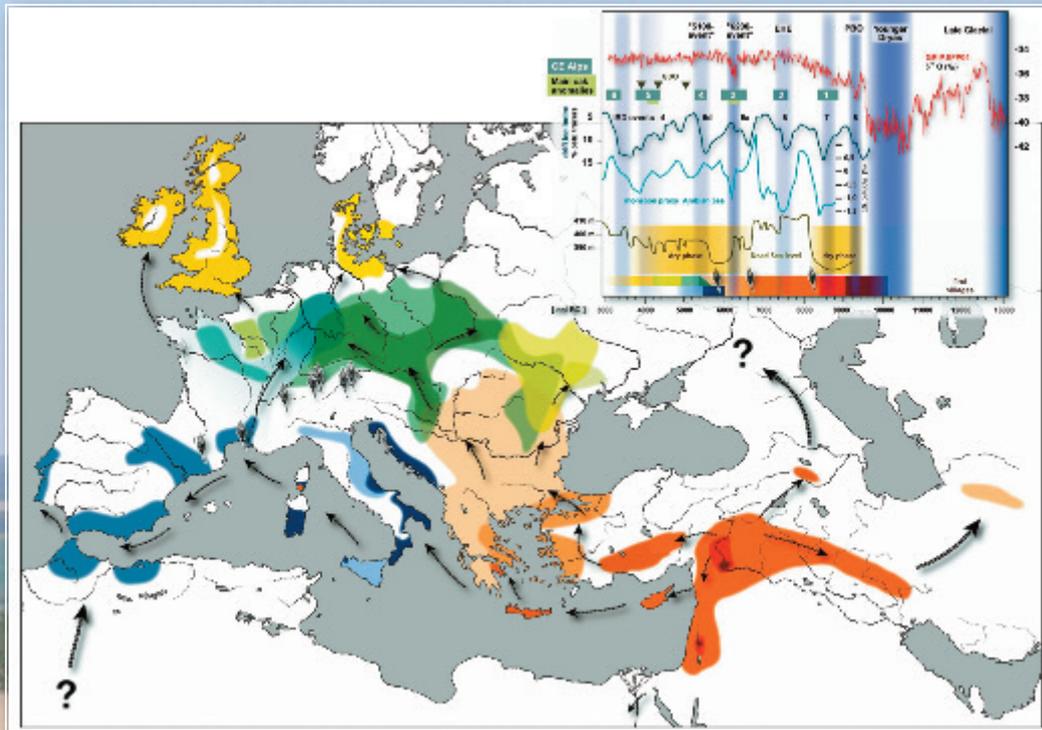
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TRACING HUMAN MOBILITY AND MIGRATION IN THE HOLOCENE

The prehistoric epochs can be reconstructed exclusively through material remains. Only in the last centuries before the turn of the millennium do written testimonies appear. The mobility of people and objects has therefore long been one of the major topics in archaeological research. The lecture will show which forms of mobility and migration can be proven with archaeological methods and what picture we can form today. The examples under discussion range from the earliest peopling of North America and the Neolithisation of Europe to the historically described migrations of Iron Age groups in the vicinity of the Alps. The lecture focuses on the archaeological evidence of mobility and migration and discusses the limits and possibilities of modern prehistoric research.

Keywords: Migration, mobility, Holocene, climate, paleogenetics



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STRATEGIES OF NEANDERTHAL OCCUPATIONS FROM THE MIS 5 TO 3 AT THE ABRI DU MARAS (SOUTH-EAST FRANCE)

The Abri du Maras yields recurrent occupations from the end of MIS 5 to MIS 3 under a large shelter collapsing over time. The technological study and the micro-wear and residues analyses, coupled to the study of the origin of the flint, refits and spatial distribution of the material, allow investigating short-term occupations with a fragmentation of the management of the tool kit. There is evidence of introduction of large pieces coming from a 30 km perimeter. An in situ debitage took place to complete the basic needs. The function of the tools indicates domestic and diversified activities and some artefacts, often irregularly shaped, were projectiles. Core technologies and ratio and types of flake-tools differ a bit between the MIS 5 and 3.

The faunal assemblages indicate over time recurrent human accumulations of ungulate carcasses, transported whole or by pieces. In the level 4.1 (MIS 3), multidisciplinary studies provide evidence of seasonal short-term occupations devoted to the major hunting of reindeer. In the levels 4.2 (MIS 3) and 5-5 upper (end of MIS 5), the faunal spectra are more various, with the predominance of reindeer, red deer, horse and bison. In these two levels, the phases of human occupations seem to be longer, up to a whole season in the level 5. In the three levels, there are in situ evidence of fire use, processing of meat and marrow and the use of some bone elements as retouchers.

Different scenarios are considered to explain variations in subsistence strategies over time: ecological and climatic impacts, duration and function of the occupations, various traditions. Neanderthals mainly occupied the rock shelter as a residential site.

Keywords: Neanderthals, technological analysis, faunal assemblage, residential site, seasonality



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Stéphane Péan, Muséum national d'histoire naturelle (France)

https://www.researchgate.net/profile/Stephane_Pean

stephane.pean@mnhn.fr

ZOOARCHAEOLOGICAL METHODS: RECONSTITUTE RELATIONSHIPS BETWEEN PALAEOLITHIC HUMANS AND OTHER MAMMALS

Among human societies of hunter-gatherers, animals play a central role, between subsistence, technical and symbolic spheres. Zooarchaeological methods include anatomical and taxinomial identification, and taphonomical study of extrinsic modifications of skeletal remains. Analyses show the use of animal resources, for both food and non-dietary purposes, in relation to the palaeoenvironmental and palaeoclimatic background.

Keywords: Palaeolithic, zooarchaeology, mammals, anatomy, taxonomy, taphonomy, palaeoenvironment



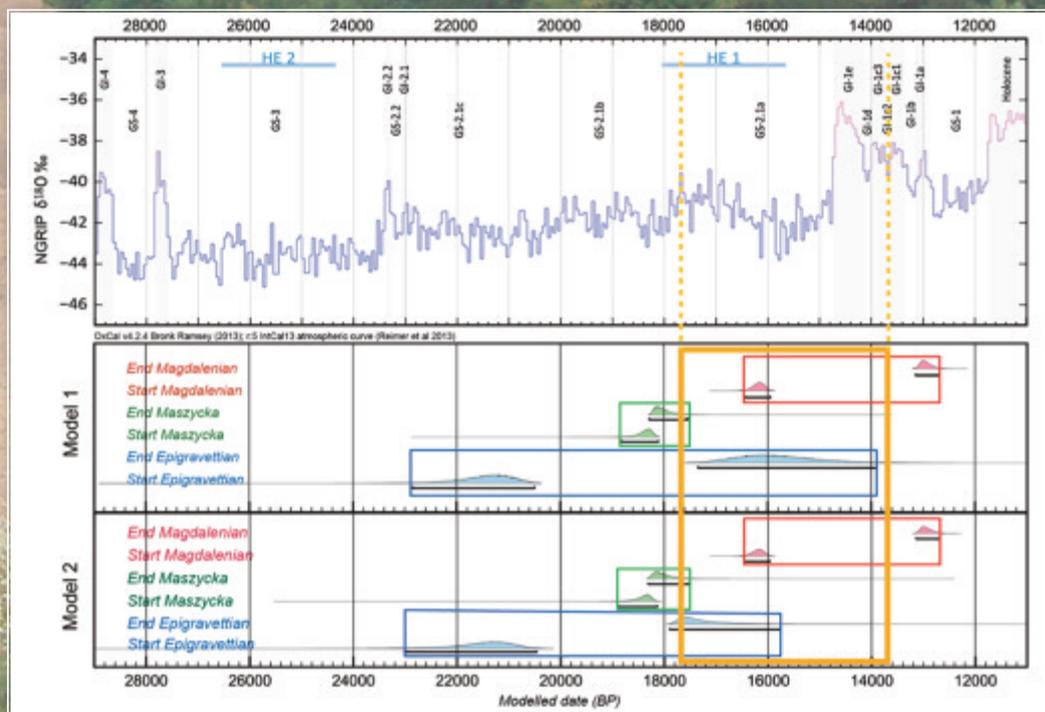
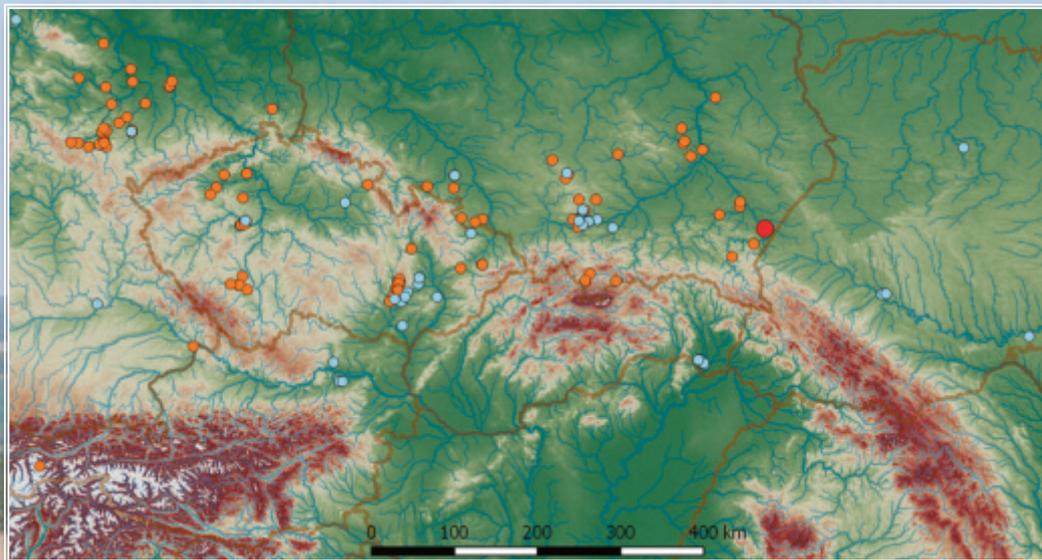
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ON THE CONTACT OF TWO WORLDS : EASTERN BORDERS OF THE MAGDALENIAN COMPLEX

The issue of the recolonisation of Central Europe after the end of the LGM is one of the problems that has been intensely discussed in recent years. The main topics of discussion include the problem of settlement in Central Europe during the LGM, the dynamics of settlement of these areas after the end of the LGM, cultural characteristics and the relationship between the two main complexes: Magdalenian and Epigravettian. The areas of Polish lands, situated on the borderline of two worlds: Magdalenian and Epigravettian and marking the eastern borders of the first one, are an extremely important area of research on this issue, all the more so as the recent years have brought about the development of research and growth of the source base, especially in the eastern part of Poland. The new chronological data, based primarily on absolute dating, show the dynamics of the spread of the Magdalenian settlement from the oldest episode from the Maszycka Cave to its very late traces, in connection with the nature of the settlement and its regional diversity, as well as posing the problem of directions and ways for the spread of the population and/or tradition that embraced the eastern part of Central Europe. An important problem is the identification of settlement centres and an attempt to interpret the importance of individual areas exploited by groups of hunters and gatherers. Also noteworthy is the issue of the eastern borders of Magdalenian and the question of possible contacts between Magdalenian and Epigravettian groups.

Keywords: Magdalenian, Epigravettian, settlement, chronology, eastern Central Europe



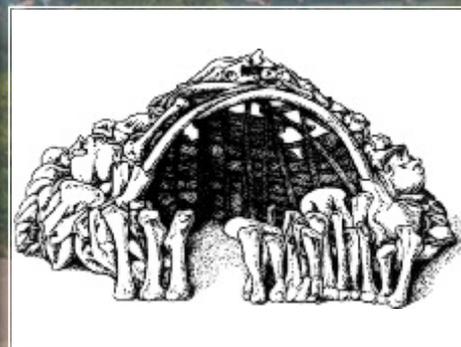
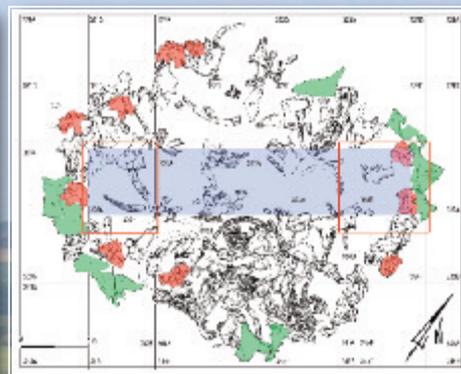
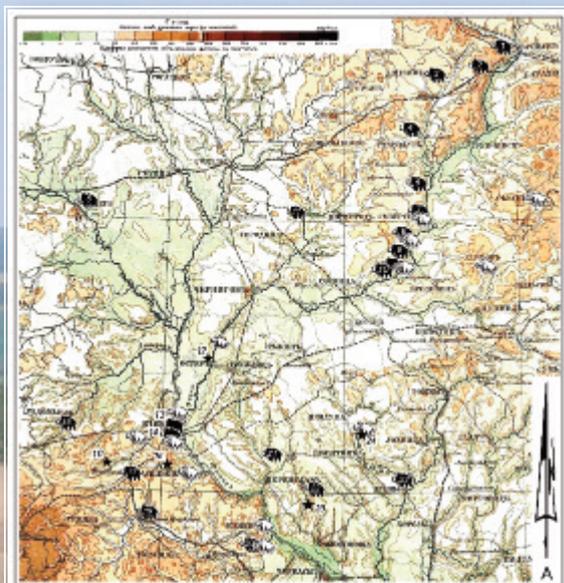
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MAMMOTH HUNTERS OF THE DNIEPER BASIN. HUMAN-ENVIRONMENTAL INTERACTION IN THE END OF THE LAST GLACIATION

The Upper Palaeolithic sites in the Middle Dnieper basin are attributed to the different cultural and chronological phenomena, i.e. Gravettian, Epigravettian and Final Palaeolithic. A part of Epigravettian vestiges refers to the Mezhyrichian type of industry and is dated in the rather narrow limits of 15 – 14 000 uncal BP. The conducted typological-technological analysis of lithic assemblages allows us to assert the unity of processing techniques within this type. These sites have different functional and seasonal characteristics, which create a unique opportunity to reconstruct certain aspects of life, seasonal mobility cycle, hunting strategy of a group in a common ecological niche. The base camps of Mezhyrich, Dobranichivka and Gontsy functioned mainly during the cold season, while in the warm season there was a more high activity associated with topographically higher relief areas. The logistic model of annual mobility implies the presence of basic camps in the centre of the movement of the group, in the most convenient places, given the availability of natural resources, on the one hand and short-term camps, kill-sites, gathering of flintstone places on the other. The spatial distribution of objects of the Mezhyrich type indicates the presence of a centralized structure of behaviour, which manifests itself at different hierarchical levels - at the level of dwelling, residential unit, base camp and microregion. The spread of ornaments made from the seashells of the Black Sea molluscs testifies to extensive exchange operations and links between synchronous Epigravettian communities – Mezhyrichian, Mezinian, Yudinovian.

Keywords: Upper Palaeolithic, East Epigravettian, mammoth hunters, base camp, residential unit



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LIVING ON THE EDGE. LATE PALAEOOLITHIC COMMUNITIES ON THE NORTH EUROPEAN PLAIN

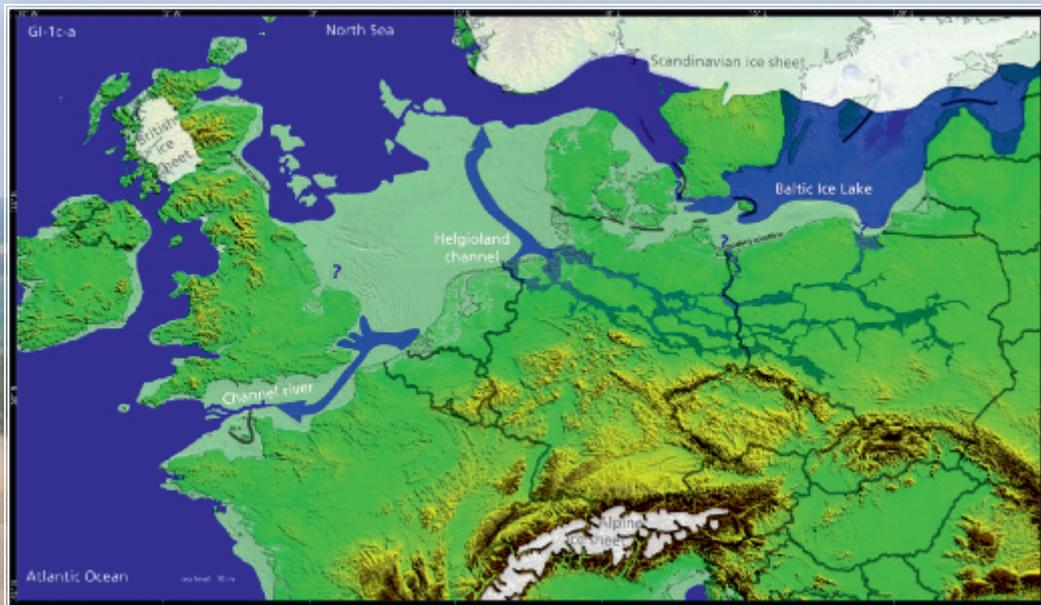
The northern part of Europe was glaciated ca. 100,000 years ago. The first signs of ice-sheet retreating north have occurred 20,000 years ago, while 15,000 years ago a migration of people from Franko-Cantabrian area has begun. They settled north-eastern France, Belgium, Thine area, Switzerland, southern Germany, Czech Republic, Moravia and southern Poland.

Pioneers, who recolonized the North European Plain, were related to Hamburgian culture, living in a tundra environment and based mainly of seasonally migrating reindeers, supplemented by small mammals and fishes.

After a short deterioration of climate condition, known as Older Dryas, the area from the Atlantic coast to the Bug river was occupied by hunter-gatherers, who used various backed pieces as projectile points. It is worth highlighting, that those groups inhabited also the area, sunken nowadays under the North Sea, so called Doggerland. The common name of this formation is Federmesser culture (Federmesser Gruppen) or more generally technocomplex with back arched points. They lived mostly in the Allerød climatic optimum of the Pleistocene. However, this warm period of late glacial climate development was interrupted by cold oscillations and Federmesser societies had to stand against them. Moreover, they came face to face with the biggest late glacial ecological disaster – the volcanic eruption in the western Germany.

The last Palaeolithic hunter-gatherers lived in a very cold natural conditions related to the Younger Dryas, lasting almost 1100 years. However, the harsh climate did not prevailed them to inhabit the vast area from the British Islands to Wolga river.

Keywords: Late Palaeolithic, Hamburgian, Federmesser, Swiderian, the North European Plain, hunter-gatherers, subsistence strategies



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