

Network in Eastern European Neolithic and Wetland Archaeology

Scientific Cooperation between Eastern Europe and Switzerland

Albert Hafner
Ekaterina Dolbunova
Andrey Mazurkevich
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dating methods (NEENAWA)



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ted pile-dwelling settlement at Lake Ohrid, Ploča Michov Grad, North
Macedonia (photo: Marco Hostettler; University of Bern, 2017)

Photograph (back page): Underwater photograph of wooden piles at
Lake Ohrid, Ploča Michov Grad, North Macedonia (photo: Johannes
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Part I: INTRODUCTION, FRAMEWORK



I.1 The NEENAWA Project

The “Network in Eastern European Neolithic and Wetland Archaeology for the improvement of field techniques and dating methods” (NEENAWA) was an Institutional Partnership (IP) project between four archaeological heritage management and research institutions in Switzerland, Russia, North Macedonia and Ukraine. Project partners were the Institute of Archaeological Sciences of the University of Bern (Switzerland), the Department of the Archaeology of Eastern Europe and Siberia at the State Hermitage Museum in Saint Petersburg (Russia), the Taras Shevchenko National University in Kyiv (Ukraine) and the Center for Prehistoric Research in Skopje (North Macedonia). The project was led by Prof. Dr. Albert Hafner of the University of Bern together with colleagues from the above-mentioned institutions and included activities between 2015 and 2018. The IP consortium consisted of eight members coming from the four concerned countries in an equal way. A good gender and age mix was given (three senior researchers, five junior researchers; five male, three female researchers):

Switzerland:

Prof. Dr. Albert Hafner, University of Bern, full professor for prehistoric archaeology and director, Institute of Archaeological Sciences and Oeschger Centre for Climate Change Research (OCCR).

Prof. Dr. Ebbe Nielsen, University of Bern, honorary professor Institute of Archaeological Sciences, member of the working group Palaeoecology and Oeschger Centre for Climate Change Research (OCCR), vice-director of the Cantonal Archaeology unit Lucerne.

North Macedonia:

Asst. Prof. Dr. Goce Naumov, Goce Delcev University, Stip, lecturer.

Valentina Todoroska BA, Archaeological Museum of Struga, underwater archaeologist in pile-dwelling sites.

Russia:

Prof. Dr. Andrey Mazurkevich, The State Hermitage Museum, senior scientific researcher, general curator of the Department of Archaeology of Eastern Europe and Siberia.

Dr. Ekaterina Dolbunova, The State Hermitage Museum, junior scientific researcher, curator of the Department of Archaeology of Eastern Europe and Siberia.

Ukraine:

Yana Morozova MA, Taras Shevchenko National University of Kyiv, head of the university laboratory "Centre for Underwater Archaeology, Archaeological and Ethnological Research", archaeological heritage protection.

Prof. Dr. Pavlo Shydlovskiy, Taras Shevchenko National University of Kyiv, Department of Archaeology and Museum Studies, associate professor, lecturer and specialist in Palaeolithic and Neolithic archaeology.

Funding was provided by the SCOPES programme of the Swiss National Science Foundation (SNSF). The project was focused on the enhancement of scientific infrastructure and training of students and professionals dealing with prehistoric archaeology, especially the Neolithic and the settlements near lakes, rivers and marshes. Neolithic and Bronze Age wetland sites around the Alps (so called pile-dwellings, Pfahlbauten or palafittes in German/French) are of outstanding universal value (UNESCO-world heritage since 2011). Typical sites are located in lakes, rivers and bogs, dating between 5300 and 800 BC. Of common character is the perfect conservation of wood, textiles from plant fabrics and many other organic materials. Larger quantities of sub-fossilized wood, as in the peri-alpine sites, offer the possibility of high-precision dating by dendrochronology. Research in these wetland sites started in the mid-19th century. Through large scale rescue excavations since the 1970s and the evolution of underwater archaeology in the same period, Swiss archaeologists accumulated a thorough experience with these specific sites. Research in wetland sites is shared between cantonal institutions and universities and led to a worldwide unique accumulation of knowledge. Comparable sites exist outside of the Alpine area, but in much smaller quantities. Regions like Russia (small lakes in NW-Russia) and North Macedonia (medium to large size lakes in the border zones of North Macedonia, Albania and Greece) have a high scientific potential; rivers in Ukraine are supposed to have the same type of sites.

The general aims of the IP were to build up a scientific network in Neolithic and wetland archaeology and the transfer of knowledge from Switzerland, as one of the worldwide leading countries in this field, to the participating Eastern European (EE) countries. Further aims were to concentrate on an improvement of archaeological field techniques (mainly underwater archaeology/documentation under water/diving security) and dating methods. Dendrochronology is by far the most precise dating method available, but this method is not yet applied in Russia, Macedonia and Ukraine. The combined application of locally developed dendrochronological calendars and radiocarbon dating is most promising. All EE-sites have the potential to give new insights on the process of the Neolithisation of Europe. In order to achieve these goals, joint activities, such as workshops, seminars, public lectures, field trips, diving courses and study weeks, were organised in the individual countries within framework of the NEENAWA project.



I.3 Output, Dissemination

Scientific publications

Dolbunova, E., Hafner, A., Nielsen, E., Mazurkevich, A., Dolbunova, E., Naumov, G., Morozova, Y., Shydlovskiy, P. (2015). NEENAWA: Network in Eastern European Neolithic and Wetland Archaeology: first steps. *The European Archaeologist* 46, 68-70.

Mazurkevich, A., Kulkova, M. A., Dolbunova, E. (eds.) (2016). *Radiocarbon Neolithic Chronology of Eastern Europe in the VII-III millennium B.C.* Smolensk.

Naumov, G. (ed.) (2016). *Prehistoric Wetlands and Lakes: bringing forward dendrochronology in archaeology.* Book of abstracts from NEENAWA conference in Ohrid. Skopje: Center for Pre-historic Research.

Terpylovskiy, R.V., Shydlovskiy, P.S. (eds.) (2017). *Human & Landscape : Prehistoric Archaeology of Eastern Europe.* Collection of scientific works. *Vita Antiqua* 9. Kyiv: Center for Paleoethnological Research. <https://doi.org/10.37098/VA-2017-9>

Hafner, A., Brunner, M., Laabs, J. (2017). *Archaeology in Switzerland: research from under water to high-altitude mountains.* *Vita Antiqua* 9, 16-37.

Shydlovskiy, P., Diachenko, A., Dolbunova, E., Hafner, A., Mazurkevich, A., Morozova, Y., Naumov, G., Todoroska, V. (2018). *Prehistoric Networks in Southern and Eastern Europe.* Collection of scientific works. *Vita Antiqua* 10. Kyiv.

Morozova, Y., Shydlovskiy, P. (2018). *STEP AHEAD: NEENAWA 2017 International Scientific Conference report.* *Vita Antiqua* 10, 192-211.

Academic events

Archaeological field-week "Prehistory and underwater archaeology in Russia. Methods, history and perspectives of underwater archaeology", Serteya, Russia, 09-16.08.2015

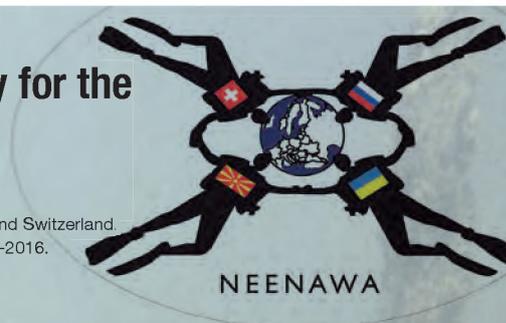
International Scientific Conference "HUMAN & LANDSCAPE: Geographical approach in the Pre-historic Archaeology", Kyiv, Ukraine, 03-05.02.2016
<http://vitaantiqua.org.ua/en/archives/200#more-200>
<http://vovkcenter.org.ua/en/2016-hl>

Archaeological workshop "Prehistoric Wetlands and Lakes: bringing forward dendrochronology in archaeology", Skopje and Ohrid, North Macedonia, 11-17.05.2016
<http://www.neenawameeting.cip-cpr.org/pages/program.html>

Network in Eastern European Neolithic and Wetland Archaeology for the improvement of field techniques and dating methods

(NEENAWA)

Scientific cooperation between Eastern Europe and Switzerland.
SCOPE Institutional Partnership program 2013-2016.



Bern, University of Bern, Main Building,
lecture room 106, 18:15

Kiev, Taras Shevchenko National University of Kyiv,
Red Building, Volodymyrska 60, room 349

14. 4. 2016

Valentina Todoroska, National Museum Dr. Nikola Nezlobinski,
Struga, Republic of Macedonia
Archaeological underwater excavations in lakes of Macedonia

Goce Naumov, Museum of Macedonia, Skopje,
Republic of Macedonia:
First Farming Societies in Macedonia and the Process of
Neolithization.

6. 10. 2016

Pavel Shydlovskiy, Taras Shevchenko National University of Kyiv,
Kiev, Ukraine
Early agricultural communities of the Southwest Ukraine
Ранньоземлеробські спільноти Південно-Західної України – укр.
Раннеземледельческие общности юго-западной Украины – rus.
Раните земјоделски заедници во Југозападна Украина – мкд.

Iana Morozova, Development and Challenges of Ukrainian Under-
water Archaeology
Развитие и проблемы подводной археологии Украины – rus.
Розвиток і проблеми підводної археології України – укр.
Розвиток і предизвици на українската подводна археологія
– мкд.

10. 11. 2016

Andrey Mazurkevich, The Hermitage State Museum,
St. Petersburg, Russia
Archaeology in The State Hermitage Museum
Археология в Государственном Эрмитаже.
Археологіјата во Државниот музеј „Ермитаж“

Andrey Mazurkevich, Ekaterina Dolbunova, The Hermitage State
Museum, St. Petersburg, Russia
Lacustrine settlements in North-Western Russia
(7–3 Millennium BC)
Озерные поселения Северо-Запада России (7–3 тыс. до н.э.)
Езерски населби во Северозападна Русија (7–3 милениум п.н.е.)

4. 2. 2016, 16:00

Albert Hafner, University of Bern, Bern, Switzerland
Archaeology in Switzerland between lakes and mountains. Public
evening lecture within the International Scientific Conference
HUMAN & LANDSCAPE: Geographical approach in the Prehistoric
archaeology, February 3–5, 2016, Kyiv, Ukraine
Альберт Хафнер, Бернський університет, Институт
археологічних досліджень, відділ первісної археології, Берн,
Швейцарія:
Археологія у Швейцарії : поміж озерами та горами. Вечерня
лекція в рамках Міжнародної наукової конференції «ЛЮДИНА ТА
ЛАНДШАФТ: Географічний підхід в первісній археології»,
3–5 лютого 2016, Київ, Україна
Археологіјата во Швајцари помеѓу езерата и планините.
Вечерно предавање во рамки на меѓународната научна
конференција ЛУГЕ и ПЕЈСАЖ: Географски пристап
во предисториската археологија, февруари 3–5, Киев,
Украина – мкд.

15. 10. 2016

Valentina Todoroska, National Museum Dr. Nikola Nezlobinski,
Struga, Macedonia
Archaeological underwater excavations in lakes of Macedonia
Археологічні підводні розкопки в озерних Македонії

15. 4. 2017

Goce Naumov, Museum of Macedonia, Skopje,
Republic of Macedonia:
First Farming Societies in Macedonia and the Process of
Neolithisation.
Перші землеробські суспільства в Македонії та процес
неолітизації

13./14. 9. 2017

Andrey Mazurkevich, The Hermitage State Museum,
St. Petersburg, Russia
Archaeology in The State Hermitage Museum
Археологія в Державному Ермітажі – укр.

Andrey Mazurkevich, Ekaterina Dolbunova, The Hermitage State
Museum, St. Petersburg, Russia
Lacustrine settlements in North-Western Russia
(7–3 Millennium BC)
Озерні поселення Північного Заходу Росії (7–3 тис. до н.е.) – укр.

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SWISS NATIONAL SCIENCE FOUNDATION



Yana Morozova, Taras Shevchenko National University of Kyiv

I.5 Centre for Underwater Archaeology

There is only one educational organization which combines both research and educational programmes on underwater archaeology in Ukraine: the Centre for Underwater Archaeology (CUA). The Centre was founded within the National Taras Shevchenko University of Kyiv in 1991. It is a research and educational university unit that focuses mainly on nautical archaeology throughout the Black Sea region and underwater archaeology in Ukraine in particular. The main aim of the CUA is to involve students, amateurs, sport divers and members of the general public in maritime archaeological field excavations and surveys, as well as educate them regarding this fascinating field and the preservation of underwater resources. Here they can study theory, methodology and the techniques of underwater archaeology, and acquire practical experience during summer excavations.

The Centre is currently carrying out its overview learning and training programmes for first year students, as well as developing a master's curriculum, which is a part of the general master's course in archaeology at the Department of Archaeology and Museum Studies. In addition, lectures on underwater archaeology are given to all interested members of the general public – amateur and professional divers alike. After attending the theoretical portion of the programme, they can actively participate in underwater archaeological expeditions carried out by the Centre. The expeditions are a very important part of the educational programme. While participating, the students who attended prior preparatory lectures and training sessions can implement their knowledge and practice their skills in a hands-on environment. For those participants who do not have a diving certification, attending the practical and theoretical classes provided by CMAS certified dive instructors is an excellent opportunity to obtain one.

The Centre works in close cooperation with the scientific committee of CMAS and the Ukrainian Federation of Underwater Sport and Underwater Activities.

Another significant undertaking of the Centre is the Underwater Archaeology Summer Field School. The field school participants learn how to excavate underwater and how to handle, preserve and record artifacts in the field. Students learn the practical aspects of underwater archaeology by taking part in the underwater excavation of the shipwrecks. All activities are held in shallow water under the supervision of professional underwater archaeologists and dive masters. Students are given lectures and are taken on excursions to various places of Ukraine.

Further information: <https://www.facebook.com/CUAKNU/>

I.6 Th. Vovk Center for Paleoethnological Research

The “Th. Vovk Center for Paleoethnological Research” is a non-governmental organization, founded in 2015. It groups young researchers: students, alumni and young scientists who have gathered together for solving scientific, education and heritage protection problems in contemporary archaeological, anthropological, and ethnological research and other adjacent disciplines. Young researchers are engaged in interdisciplinary investigations of human collectives’ activities and how they connected to the natural and cultural environment in the past. The Center is affiliated with the Department of Archaeology and Museum Studies of Taras Shevchenko National University of Kyiv, Ukraine.

Membership in the Center can be only voluntary and individual. According to the regulations, that young scientist can be a person up to 35 years of age. Statutes foresee that members of the Center above 35 years of age can be scientific consultants, if they have considerable scientific achievements.

The main tasks of the Center’s activity are archaeological research of prehistoric sites on the territory of Ukraine, popularization of the scientific results, preservation and protection of the cultural and natural heritage. Also, the Center strives to represent Ukrainian culture and nature, and to integrate Ukrainian social studies worldwide.

Tasks which the Center sets itself:

- Overcoming segregation in modern science, which is mirrored in the official institutions, and because of the high specialization research is becoming increasingly isolated from society. Because of this, paleoethnology provides integrated approaches to the study of historical events using the methods of natural sciences and humanities.
- Carry out complex studies of ancient societies to demonstrate relationships between human communities themselves and with the environment at different stages of historical development. Development of new ideas and views on modern society through the study of the history of its formation.
- Following the principles of research ethics in studies, which provides a complete rejection of dogmatism, indoctrination, authoritarianism and falsification of facts. Instead, in priority are the principles of teamwork, universalism, unselfishness and verification of the findings.
- Be actively involved in the process of protection of cultural and natural heritage in the territory of Ukraine through direct participation and in cooperation with state administration, scientific and other non-governmental organizations.
- Exchange the experience in field and laboratory research with colleagues from abroad; use international experience in the field of protection of cultural and nature heritage;
- Organizational joining the European and world organizations, whose purpose is the study and protection of monuments of prehistoric culture and environment.

Its members actively participate in field research on archaeological sites and reconstruction of living activities of prehistoric societies in their environmental context. The worldwide-known Mezhyrich site, an Upper-Paleolithic settlement of mammoth hunters, is one of the most interesting sites which the members of the Center have been investigating for a long period.

They also investigate archaeological sites of the Neolithic and Trypillya archaeological cultures. Such archaeological sites of the Neolithic - Bronze Age in the territory of Eastern Europe are of great interest for scientists in the context of the spread of agriculture and new technologies in the early Holocene. Already amazing discoveries have been made in the Middle Dnieper and Dniester

basins, and exploration goes on. Every year the Center's specialists carry out investigations of prehistoric sites of the Dniester river valley – Bernashivka, Vasylivka, and Ozheve. These sites demonstrate different stages of development of the Trypillian-Cucuteni cultural unity. The Center is involved in international cooperation and exchange of experiences in field and laboratory research. Its members organize exhibitions, take part in the international conferences with presentations, and work with their colleagues from abroad on the archaeological collections and data. Archaeologists and students from the Center participate in international projects and programs, and seek any good opportunity to gain and share knowledge in the field of protection and study of cultural heritage in future projects.

Recent activities of the Center are:

- organizing the exhibition “Ukrainian-French cooperation in the investigation of the Palaeolithic sites of Middle Dnieper region”,
- publishing a book “Prehistoric archaeology of Lower Desna region”,
- providing a course of video lectures “Popular Anthropology” etc.

Since 2016, the Center is founder and publisher of the periodical scientific journal VITA ANTIQUA.

More information:

<http://vovkcenter.org.ua/en/main/>

<http://vitaantiqua.org.ua>

<https://www.facebook.com/th.vovk.center>



I.8 Conclusion and Programmatic Statement

The 2015-2018 NEENAWA Institutional Partnership (IP) was the first and only SCOPES-funded project in the field of archaeological sciences. Up to this time, Swiss research was practically not engaged in Eastern Europe. With this IP important contacts could be made, and an extensive, sustainable Eastern European-Swiss network was established.

The IP project brought together the project partners in Eastern Europe and complements in the best way possible the strategic goals of the University of Bern to fulfill the role of a hub for archaeological research on prehistoric wetland sites in lakes and bogs. While Switzerland has been a leader here for decades, wetland archaeology in Eastern Europe is still in its infancy and will offer great scientific potential in the future. Before the IP project there were only very loose contacts in the Eastern European partner countries. As a result of the two workshops held in 2018, contacts were made with other countries, in particular the Baltic States, Belarus and Russia, but also Albania, Bulgaria, Serbia and Slovenia. In addition, a Starter Grant from the Swiss-Russian Science and Technology Cooperation, supported by the Swiss State Secretariat for Education, Research and Innovation, Leading House University of Geneva, was approved as of 27 June 2018 and was used to set up a Swiss-Russian summer school project in 2019. The NEENAWA IP can be regarded as extremely successful, especially with regard to the partners in North-East Europe (Russia, Ukraine) and the Balkans (North Macedonia). These contacts have meanwhile expanded into the larger Baltic region including Belarus and Finland as well as the Balkans region including Bulgaria, Albania and Greece. In regards to transition, the Eastern European partners are taking enormous steps forward by engaging in the IP-funded topics “improvement of field techniques and dating methods”, in particular the introduction of dendrochronology and improvements and the documentation of sites underwater and in bogs.

The activities described in this volume were to document and make available this intensive cooperation and the diverse exchange between the project partners and the emergence of a functioning network, i.e. from the introductory build-up phase up to the execution of the research and establishment of organization structures. The IP project was absolutely exemplary and is regarded by many Eastern European researchers as a unique form of support for the transition. It is therefore highly desirable that these four intensive years and the many activities are synthesized and presented in one compilation. At the same time, the activities were also intended to bring the efforts and research results of the scholars involved and the great commitment of the SNSF closer to a larger audience.

The documentation of the IP also takes on a political dimension. One consequence of the NEENAWA IP, for example, is the cooperation of archaeological research centres in the southern Balkans: archaeological research in the countries of North Macedonia, Greece and Albania tended to be rather isolated in previous years. Thanks to the connecting activities within the framework of NEENAWA events and the resulting contacts, an active exchange is now taking place for the first time, resulting in striking research outcome. All participants emphasize that the mediating role of the NEENAWA project played a decisive role in this. The documentation of these diverse activities would capture the great impact of the project, inspire other Eastern European countries and thus carry the development work of Swiss research beyond the duration of the project and not least also document the generous and targeted funding by the SNSF in the Eastern European areas of transition.

II.D.1 Regional Introduction: Neolithic of Ukraine

The study of the Eastern European Neolithic is impossible without the involvement of data on the territory of Ukraine, since Ukraine occupies a large part of the European continent. Due to a number of famous scientists of the twentieth century, it became possible to discover and study Ukrainian Neolithic sites. M. O. Makarenko, M. Ya. Rudynskiy, V. M. Danylenko and D. Ya. Telegin should be mentioned among many others who laid the groundwork for the modern periodization scheme of the development of culture in the early Holocene and gave a volumetric analysis of the outstanding complexes of the Neolithic period in Eastern Europe.

But a major flaw of the Soviet archaeological science was isolated from European research, often because of ignorance of the material from surrounding territories which caused biased approach to the origin and development of concrete archaeological communities. It was argued that all Neolithic communities in the southern and central parts of Ukraine had local roots and practiced reproductive forms of economy. Stadial approach has led to some absolutization of such terms as Neolithic and Chalcolithic that corresponds to the last stage of savagery and the first stage of barbarism by the scheme of Morgan - Engels, without considering environmental, migration specifics of the formation of cultures. For evidence of gradual, evolutionary development of culture in a particular area often used morphological similarity of artifacts, which indicates the transformation of a shape for a long time. Thus, the idea of the continuity of such early Holocene phenomena was developed, for example: "Osokorivka culture" (Final Palaeolithic) – Hrebenyky culture (Mesolithic) – Bug-Dniester culture (Neolithic) – Tripolie A – Tripolie B (Chalcolithic). At the present state of research, the development of Neo-Chalcolithic cultures of southwestern Ukraine and Moldova is somewhat different. The complexity of this process is evidenced by the various concepts and ideas offered by the researchers. Through the development of technological approaches in the analysis of material cultural remains, along with the experimental and traceology methods for the interpretation of artifacts and their functions, a significant contribution was made to the understanding of neolithization process in Eastern Europe. The comprehensive application of absolute and relative dating methods became a great impulse to create cultural and chronological schemes of the development of the Neolithic within the territory of Ukraine. Radiocarbon dating is still the most important method among others, both for archaeology and for the application of related disciplines such as paleobotany and archaeozoology. The application of geomagnetic survey methods allowed to understand the patterns of settlement structures that belonged to ancient farmers. The possibility of access to information from neighboring regions also has great value.

In recent years, a number of sites which belong to different agricultural communities of Neo-Chalcolithic times have been investigated in the south-western part of Ukraine and in Moldova. They all are located in the basins of the Prut, Dniester, Southern Bug and Dnieper rivers and demonstrate different variants of economic and cultural development in a particular region. Neolithic settlements include Sakarovka I in Moldova, Yosypivka I (the Upper Dniester), Dobrianka I-III, Pugach and Gard (Southern Bug), Romankiv, Pohreby (the Middle Dnieper), etc. Important conclusions were drawn from the studies of Trypillya settlements of Taliyanky, Maidanets'ke, Bernashivka I, Ozheve-Ostriv, etc. The peculiarity of studying these sites is the high methodological level of research, resulting in considerable series of various categories of material culture, including pottery, lithic, bone and antler products. This makes it possible to conduct a comparative analysis of the assemblages from the mentioned and other sites and to trace similar and distinctive features

in the processing technology for pottery and lithics. Studying Neolithic sites using up-to-date techniques has largely shed light on the features of each specific cultural phenomenon and raised questions about the polyvariant development of the Early Holocene communities, and about the necessity of taking into account environmental, economic, social, migration and ideological factors in the development of cultural complexes. Most of the modern research of Neo-Chalcolithic sites is the result of international cooperation between Ukrainian and European scientists. However, despite advances in methods of excavation and significant expansion of sources for research, understanding the processes of prehistoric cultures development mostly remains within the unilinear evolutionary approach, where one phenomenon has to “logically” grow in from another with the absence of abrupt change in between. But detailed analysis of the elements of material culture suggests no single-line development of each archaeological community.

The process of interaction between nature and society has a long history and is characterized by the multiplicity of adaptation strategies of human communities to the changing landscape and climatic conditions. However, the general vector of human culture development is gradually overcoming the natural and geographical determination, which is manifested in mastering of different natural niches and in broad inclusion of the external resources to the sphere of its own activity, gradually enhancing of anthropogenic interference in the ecological systems.

One of the most important issues in the study of ecological systems is to determine the nature of the changes that occurred during the transition from the Late Pleistocene to the Holocene. Prolonged existence of hunters in periglacial area in a relatively soft period of Late Pleistocene, around 18–13 k years BP, caused a high adaptation level of Upper Palaeolithic population to natural conditions. At this time there was flourishing of a culture of prehistoric societies, which was manifested in the spread of certain economic systems based on the availability of faunal resources and specific forms of architecture and original art. But significant landscape changes that occurred on the border of the Pleistocene - Holocene forced people to find new ways of managing and acquire new resources, which is reflected in the nature of material culture.

The process of neolithization that in some regions of the Oecumene took the character of a “Neolithic revolution” was one of the global processes that influenced the development of all mankind. The Neolithic era should be considered as a significant increase in the capacity to conduct various forms of societies’ life-sustaining activity as a result of the liberation from natural determinism in behavior after the fundamental changes in the natural environment at the end of the Pleistocene. If the formation of human society and culture took place in the conditions of the last Würm glaciation which stipulated strict dependence on the ways of husbandry of the environment, then a significant climate mitigation in the northern hemisphere, almost immediately led to development fanning out in all sectors of life. A vital point in the transformation of human culture, resulting in the formation of modern industrial relations and the active involvement of humanity in the transformational processes of the geosphere and biosphere of the planet, is the transition to productive forms of economy. The “triggers” to the explosive changes in human life, however, were catastrophic events in the environment at the end of the last glacial period.

With the disappearance of the mammoth faunal assemblage, transformations in the material culture of hunting groups occurred. Within the late Epigravettian groups a new method of hunting spread, which found its expression in the emergence of “early geometric microliths”; and a small number of sites with such traits in Eastern Europe suggest the demographic crisis among the population during the transition time. The upper limit of mammoth-hunters culture falls on the 13–12 k years BP (Semenivka III, Dobranychivka, Bugorok) and is associated primarily with the disappearance of the main object of hunting. The sharp decrease of sites on the territory of Dnieper Region in the Final Palaeolithic is recorded with the presence of only a few sites dated in frames 12–11 k years BP.

On the other hand, during the Early Preboreal Eastern Europe underwent complicated migration processes. Northern territories became an area of settling the cultures, associated with Final Palaeolithic - Mesolithic communities of Northern Europe – Swiderian, Kudlayivka, later – Janislawice cultures. Active settling of Dnieper area occurred during Mesolithic-Neolithic period. For Mesolithic times, the combining of material culture elements of Northern European (Kudlayivka, PISOCHNYI Riv type) and forest-steppe origin (Tatsenky, Zymivnyky) should be noted, which resulted in features of lithic industry of Mesolithic assemblages.

The Neolithic is an important archaeological period, belonging to the final stages of the Stone Age. It is a transitional epoch from the early and middle Stone Age with exclusively appropriating forms of subsistence compared to the era of early metals. The metal ages are characterized by widespread productive forms of farming, the appearance of craft, the formation of structurally complex societies, and in the most ancient centers of origin of agriculture and cattle breeding - the appearance of the first civilizations. The process of Neolithization is understood as the spreading of innovations in the economic, technological and cultural spheres, among which the domestication of plants and animals play a prominent role. This process is also characterized by early forms of farming and cattle breeding, the hereto linked transition to relative sedentism of prehistoric collectives, the emergence of stationary housing construction, various stone and flint processing techniques, and the spread of pottery. A specificity of life activity was reflected in complex world-view ideas and perceptions, which were materialized in vivid art objects and ornamentations.

During the Preboreal and Boreal, southern regions of Eastern Europe experienced a strong influence from the Near East, Balkanian and Central Asian centers of Neolithic cultures. If in the Near East and the Balkans abrupt changes in the natural conditions quickly caused a reorientation to productive economy and technology inventions related to it, then on the vast plain territories of Eastern Europe, the process of neolithization had a wave character of diffusion of innovations in a particular sequence.

The first wave is associated with proto-Neolithic groups with progressive pressure lithic processing technology, which allows obtaining a series of standardized blades that served as preforms for other tools and hunting weaponry. In the hunter-gatherer societies in Eastern Europe, this technology is actively used to provide primarily the hunting sector – the production of standardized microliths that served as elements of hunting weapons. This culture complex includes Hrebenyky, Kukrek and Donetsk archaeological unities, and technological equivalents which are also known in sites of the Near and Middle East. If the Hrebenyky community (8000-7200 BP) had direct analogies with the Balkan pre-ceramic complexes of the Initial Neolithic (Argissa, Ahilleon, Sesklo, Franhti), then the origins of the Kukrek (9700–8000 BP) culture in recent years were found in the pre-ceramic complexes of the Caucasus and Central Asia.

The second wave of neolithization associated with the penetration from the Balkans in Eastern Europe included the first skills of farming and domestication of animals, along with the tradition of ceramic production. The earliest assemblages in Eastern Europe that represent the culture of ancient farmers belong to the Krish culture of Moldova. The skills of agriculture correspond with the emergence of distinct series of tools related to harvesting operations. Among such are a series of attachments to sickles on the pressure regular blades, antler sickles and stone and antler elements of the hoes. Within the territories of the Dniester and Bug region, the synthesis of Neolithic Balkan traditions with the local Hrebenyky-Kukrek complex occurred, which resulted in the emergence of Bug-Dniester culture (7400–6000 BP) (fig. 1). In recent years, the assumption of agricultural skills in the bearers of this culture has been questioned. Given the topography of the sites, the absence of lithic inventory connected with agriculture and the analysis of plant remains from the BDK sites, it is possible to come to a conclusion about hunting-fishing orientation of representatives of this community.

The next wave associated with the penetration from the northern Carpathian Mountains to Ukraine representatives of the Linear Pottery Culture (6600–5800 BP), which has fully characterized the agricultural oriented farming, which found expression in the stationary architecture, flat-bottom thin-walled pottery and in a specific lithic assemblage. The lithic processing technology characterized by obtaining wide blades with using forced pressure, as the most suitable pre-forms for making sickle insets and knives (fig. 2). The appearance of the earliest Trypillia culture sites (5900–5600 BP) completes the formation process of a Neolithic farming package in the southwest of Eastern Europe.

These cultural unities are associated with a complete reorientation of the population on extensive agriculture that results in the spread of permanent settlements with clay architecture. In terms of lithic technology, a complete shift to agriculture in the economy is reflected in trying to get the regular blades as blanks for the sickle insets – dissemination of the technology of forced pressure with using simple mechanisms – levers. With the advent of agricultural communities in Eastern Europe, there are evidences of complex social relations and formation of network connections within cultural groups. Among such evidences is the transportation of high-quality raw materials at long distances to ensure the flint processing industry, which shows wide exchange links.

The literature has repeatedly expressed the idea of the genetic affinity of LBK, Tripolie A and Tripolie B, and therefore the similarity of their flint inventory. But detailed analysis of the elements of material culture suggests no single-line development of each archaeological community. Every culture develops its own technological tradition that is more pronounced in lithic inventory than in ceramic assemblages. If ceramic systems are often quite colorful phenomena, lithic assemblages demonstrate a high degree of unification, making it important for the cultural identification of the sites. The peculiarity of every cultural phenomenon seen in technology, which is characterized by a focus on a particular type of blank and design of tools primarily associated with the procuring of food resources – arrowheads and attachments for sickles. Comparative analysis of assemblages proves that there are no intermediate transition traditions between the technological vectors of LBK, Trypillya A1 and Trypillya B1 (fig. 3). We can indicate two main technology types – microlithic and macrolithic which are associated with two directions of Neolithic economy – a complex economy with large part of appropriating forms (the Bug-Dniester culture, Trypillya A1) and economy definitely focused on agriculture (LBK, Trypillya B1).

The Mesolithic sites of Middle Dnieper region are represented by several localities with a poor inventory consisting only of lithic artifacts, while fully populating of the landscapes of Middle Dnieper took place only in the Neolithic epoch. Here we can see “an explosion” in spreading of the sites of Kyiv-Cherkasska unity with different stages of development. Neolithic localities of Middle Dnieper have the “bush” disposition – by the concentrations of several sites on dune heights in the vast river valley. One of these concentrations is located at the opposite of the mouth of Pripet’ river, in the territory between Dnieper and Desna rivers: Pustynka 5 (Mnievo Lis), Novosilky on Dnieper, Oshytky, etc. The next concentration is connected with the mouth part of Desna River: Zazymie-Stanky I–III, Zazymie-Osynky, Pohreby-Keliiky, Pohreby-Musieva Dolyna, Pohreby-Lan, Vyhurivschyna, Troieschyna, Mykilska Slobidka I–IV etc. Another concentration is situated to the South of the previously mentioned on the right bank of Dnieper – Khodosivka-Zaplava, Romankiv, Vita-Poshtova. The fourth concentration can be seen to the south by the Dnieper flow – Protsiv, Vyshenky 1–14 etc.

The neolithization of Middle Dnieper region took place through the territory of Southern Polissia, the evidence of which we can see in early complexes Lazarivka, Khodosivka-Zaplava, Roslavske and Krushnyky with Kukrek lithic industry and Bug-Dniester ceramic. We can connect the Kukrek tradition in Middle Dnieper region with the earliest complexes of Kyiv-Cherkassy tradition which dates by ¹⁴C to 6900–6300 B.P.

The second group of ceramic is analogous to the materials from Romankiv I – “ceramic of Romankiv type”. The dating of this site by ^{14}C is 6130 ± 150 BP. This type of ceramic we can see at Zazymie-Stanky I-III, Pohreby-Keliiky, Pohreby-Musieva Dolyna, Pohreby-Lan, Vyshenky. The highest cultural development marked by the concentration of later sites of Kyiv-Cherkassy community in Middle Dnieper area, which is particularly associated with dune arrays and the first terrace above the floodplain of the Dnieper, Desna, Trubizh, Supii, and Ros rivers (fig. 4). The contacts of Kyiv-Cherkassy communities with a population of Chernihiv Polissia are marked by the presence of Pit-comb Ware culture in the region. On the last stages of development of Kiev-Cherkassy culture one can see the considerable influence of Late Trypillia population, which displayed syncretism in morphology and ornamentation of ceramic features. Difficult ethnic processes were taking place in the Neolithic-Chalcolithic era in the Dnieper basin, as demonstrated by anthropological materials which originate from the cemeteries of Mariupol type in Azov-Dnieper area (fig. 5).

The Chalcolithic period in the western part of Ukraine begins with inhabitation of Cucuteni-Trypillia population from the Dniester region which characteristic features were: domination of hoe-type agriculture, the emergence of copper artifacts with the domination of stone tools, clay architecture, distribution of female figurines and painted ceramics. The area of this culture in 4000 BC occupied the vast territory from Romania to West Volynia region on North-West and Chernihiv region on North-East (fig. 6). The earliest Trypillian settlements appeared in Middle Dnieper in 4300 BC. They are synchronous with Dnieper-Donets Neolithic culture settlements of middle stage. For some period of time Neolithic and Chalcolithic population coexisted on the Middle Dnieper territory. It is proved by syncretism of ceramics, especially on the late stage of Dnieper-Donets culture.

With the arrival of Trypillian population natural resources of Middle Dnieper area began to be used much wider. At the stages B II – C I, which continued from 4200-3500 BC, the culture shows the greatest development and demographic growth of population. It is connected with appropriate climate condition of Holocene middle stage - Atlantic period when prevailed climatic optimum. The Cucuteni-Trypillian community began to populate the Left Bank of the Dnieper about 3600-3500 cal. BC, near the modern Pereiaslav. Gradually they settled up the valley of Trubizh River, forming sites of Lukashivska group: Tsybli-Uzviz, Krutukha-Zholob, Lukashi and Svitylnia, and reached the Desna basin. Spatial organization of late Trypillian population of Left Bank region obviously shows the use of different parts of the Dnieper valley by separate territorial communities. In terms of topography, this population possessed high loess terraces along the right bank of the Dnieper and upland terraces on the left bank of the Desna. The existence of Trypillian seasonal settlements in floodplain is important fact. The growth of their amount shows the increasing role of fishing, hunting and distant-pasture cattle in the stage of C II.

At the end of Atlanticum and the beginning of Subboreal in the second half of 4th millennia BC the degradation features are seen and then Trypillia culture finally disappears at the beginning of 3rd millennia BC. The changes in culture and composition of population are connected with cooling and draining of climate at the beginning of Subboreal.

The livelihood of prehistoric societies was largely determined by the natural factors, due to the low level of productive forces. But through the process of the historical development, society gradually expanded its resource base, involving more and more natural resources and mastering different landscape levels to ensure and improve living conditions. The environment gave the possibility to practice different forms of economy within a certain region that directly affected on the location of Eastern European sites of the Stone Age.

The main results on the topic of neolithization of the territory of Ukraine are presented in a number of collections of scientific papers and abstracts, which were published with the assistance of the project:

Shydlovskiy, P.S., Lysenko, S.D., Kyrylenko, O.S., Sorokun, A.A., Pichkur, Ye.V. (2016). *Prehistoric Archaeology of the Lower Desna Region*. Kyiv (in Ukrainian). <http://vitaantiqua.org.ua/en/archives/432#more-432>

Shydlovskiy, P.S. (ed.) (2016). *International Scientific Conference "HUMAN & LANDSCAPE : Geographical approach in the Prehistoric Archaeology"* (February 3 - 5, 2016, Kyiv, Ukraine) : Abstracts. Kyiv : Vita Antiqua Library, 94 p. <http://vitaantiqua.org.ua/en/archives/200>

Morozova, Y., Shydlovskiy, P. (eds.) (2017). *Wetland Archaeology and Prehistoric Networks in Europe / NEENAWA International Scientific Conference, September 15th-18th, 2017*. Kyiv – Kaniv: Vita Antiqua Library, 78 p. <http://vitaantiqua.org.ua/en/archives/960>

Terpylovskiy, R.V., Shydlovskiy, P.S. (eds.) (2017). *VITA ANTIQUA, 9. Human & Landscape : Prehistoric Archaeology of Eastern Europe*. Collection of scientific works. Kyiv: Center for Paleoethnological Research. <https://doi.org/10.37098/VA-2017-9>

Shydlovskiy, P.S. (ed.) (2018). *VITA ANTIQUA, 10. Prehistoric Networks in Southern and Eastern Europe*. Collection of scientific works. Kyiv: Center for Paleoethnological Research, 2018 – 212 p. <https://doi.org/10.37098/2519-4542-2018-1-10>

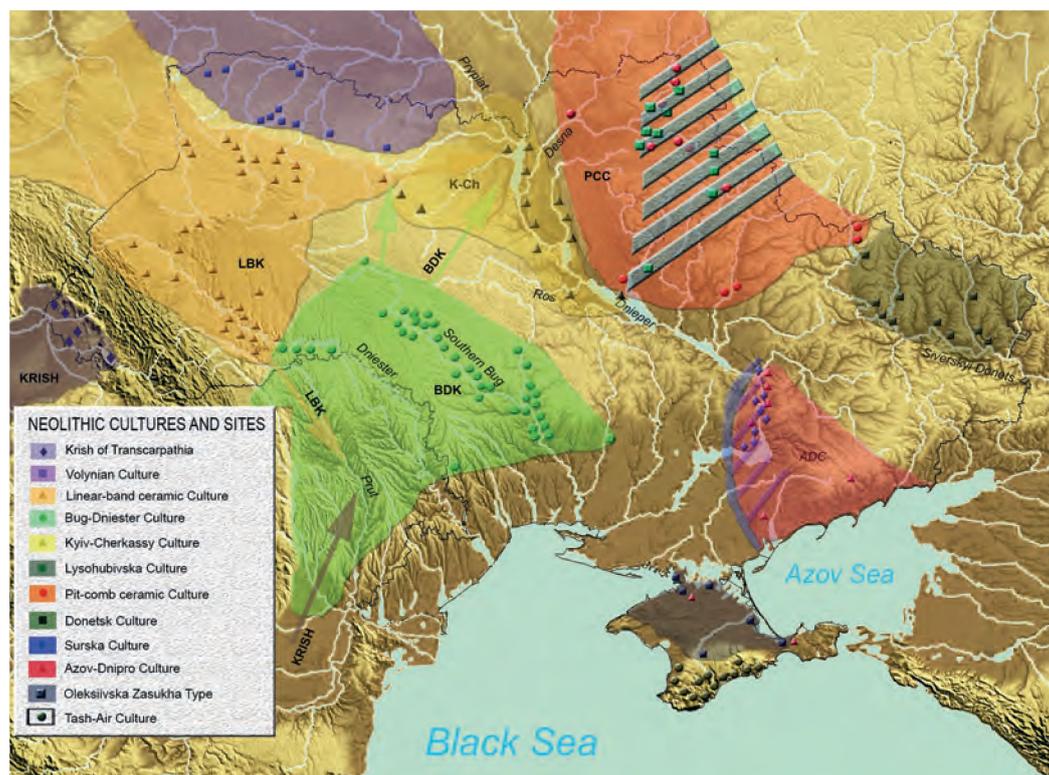


Fig. 1: Map of Neolithic cultures of Ukraine

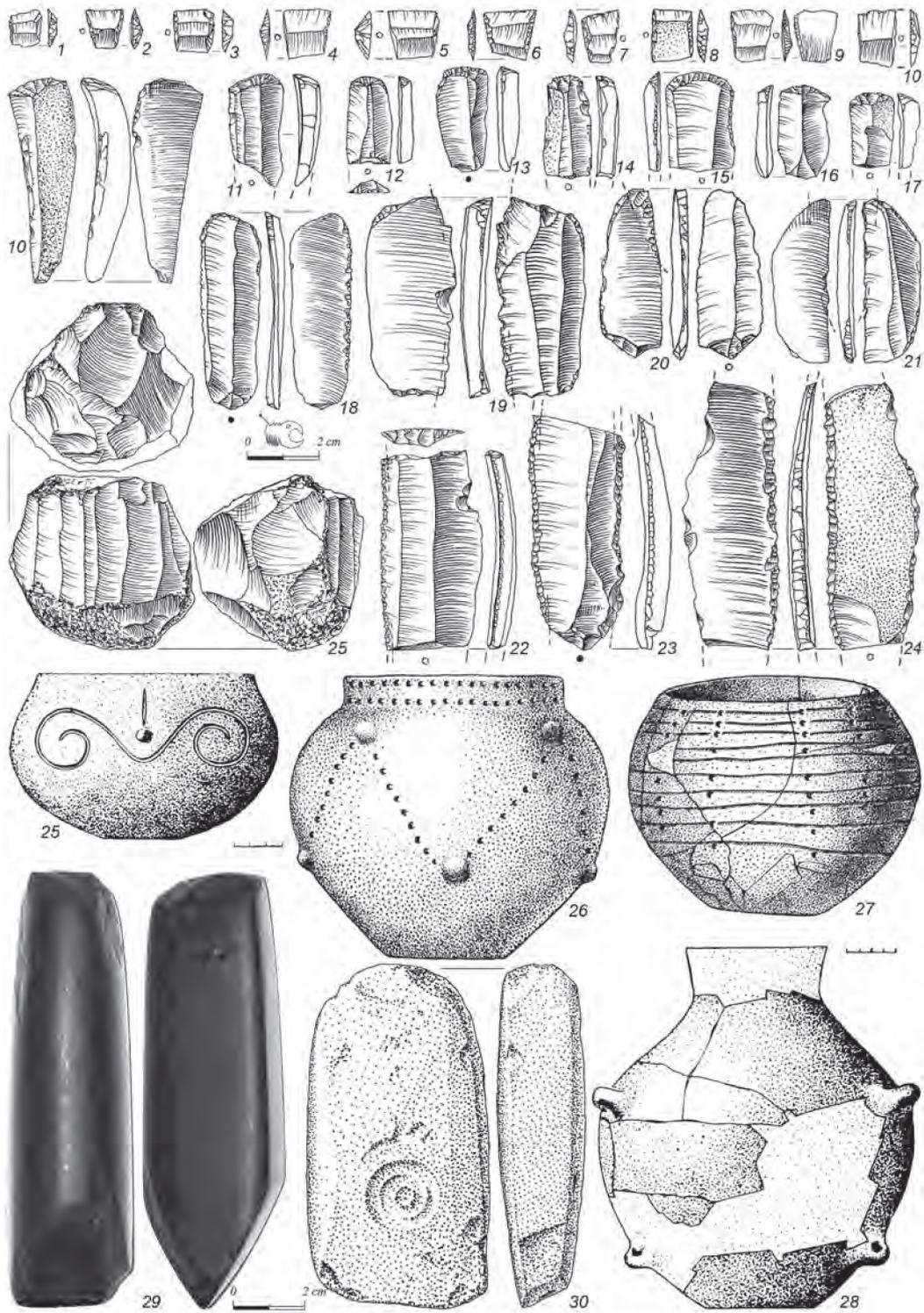


Fig. 2: Materials of LBK culture of Volyn and Middle Dniester area: 1-24 – lithic assemblage; 25-28 – pottery; 29-30 – stone tools.
 1-24, 30 – Yospivka I, 25, 28 – Rivne (after: Pyasetsky, Okhrimenko 1990; Chernovol et al. 2009; Shydlovskiy 2018)

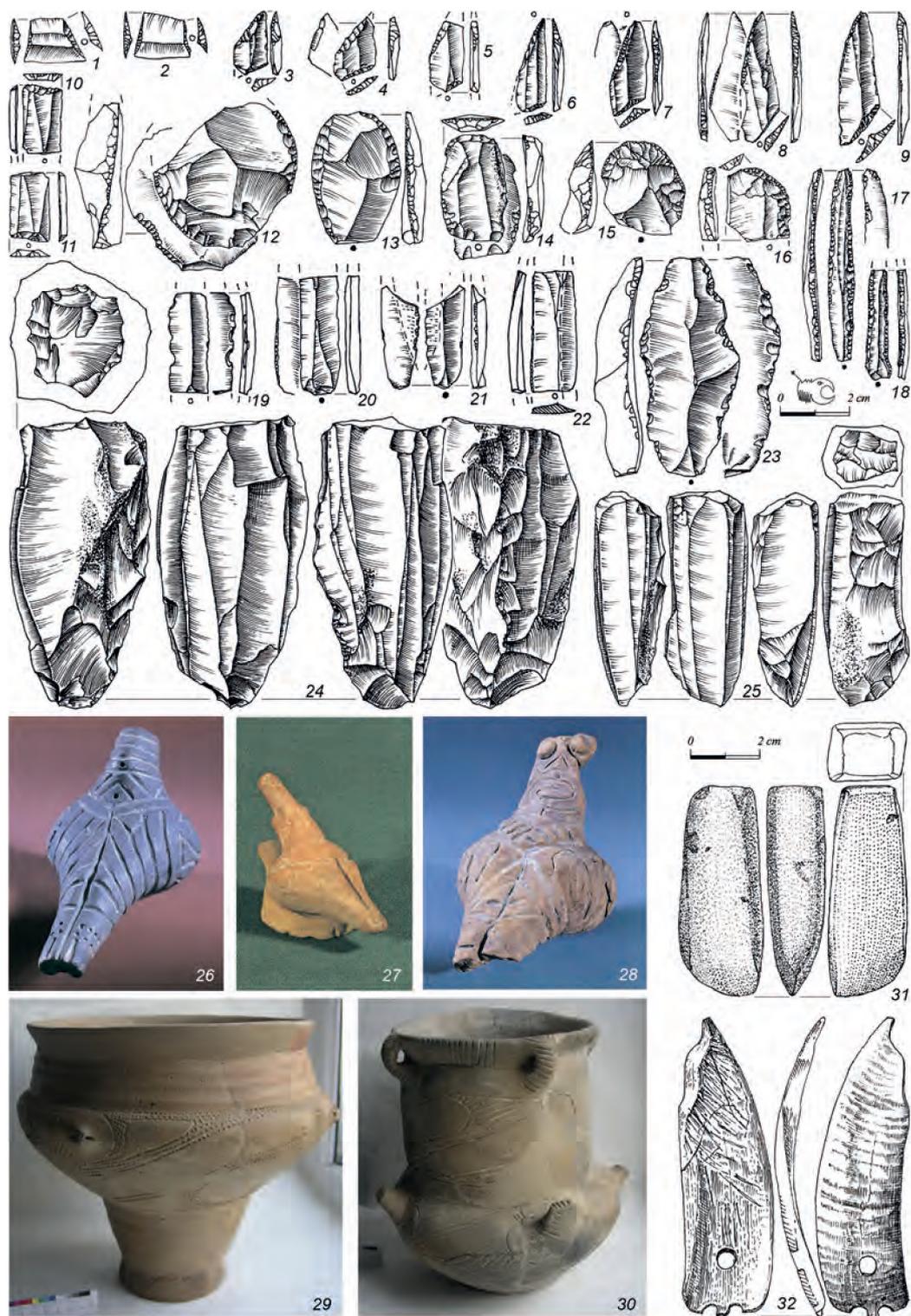


Fig. 3: Materials of Tripolie A culture of Middle Dniester area: 1-25 – lithic assemblage; 26-28 – female figurines; 29-30 – pottery; 31 – polished stone axe; 32 – a knife of the boar canine. 1-25, 31-32 – Bernashivka I; 26 – Oleksandrivka; 27-30 – Sabatynivka (Archaeological Museum of The Institute of Archaeology, NAS of Ukraine)

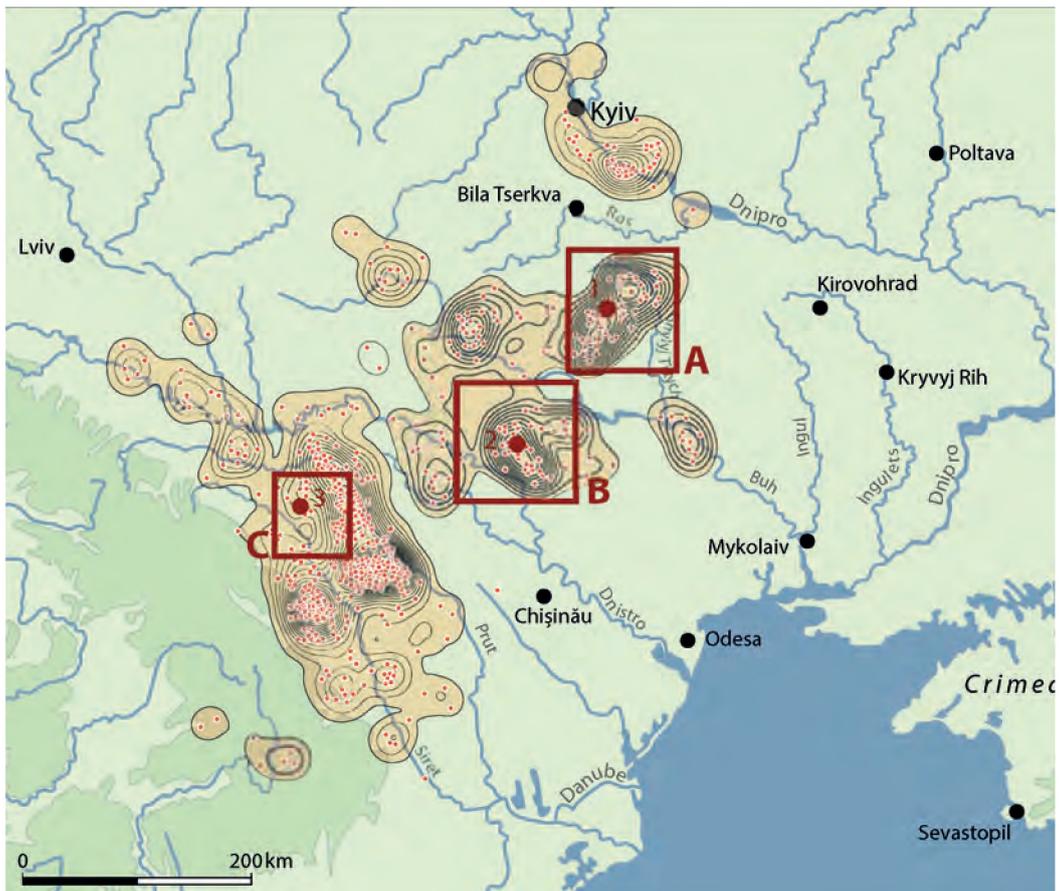


Fig. 4: The distribution of Trypillia C1 sites (kernel density; KDE radius 30 km): A) Southern Bug-Dnieper interfluvium; B) Dniester-Southern Bug interfluvium; C) Middle Dniester Region (after: Hofmann et al. 2018)

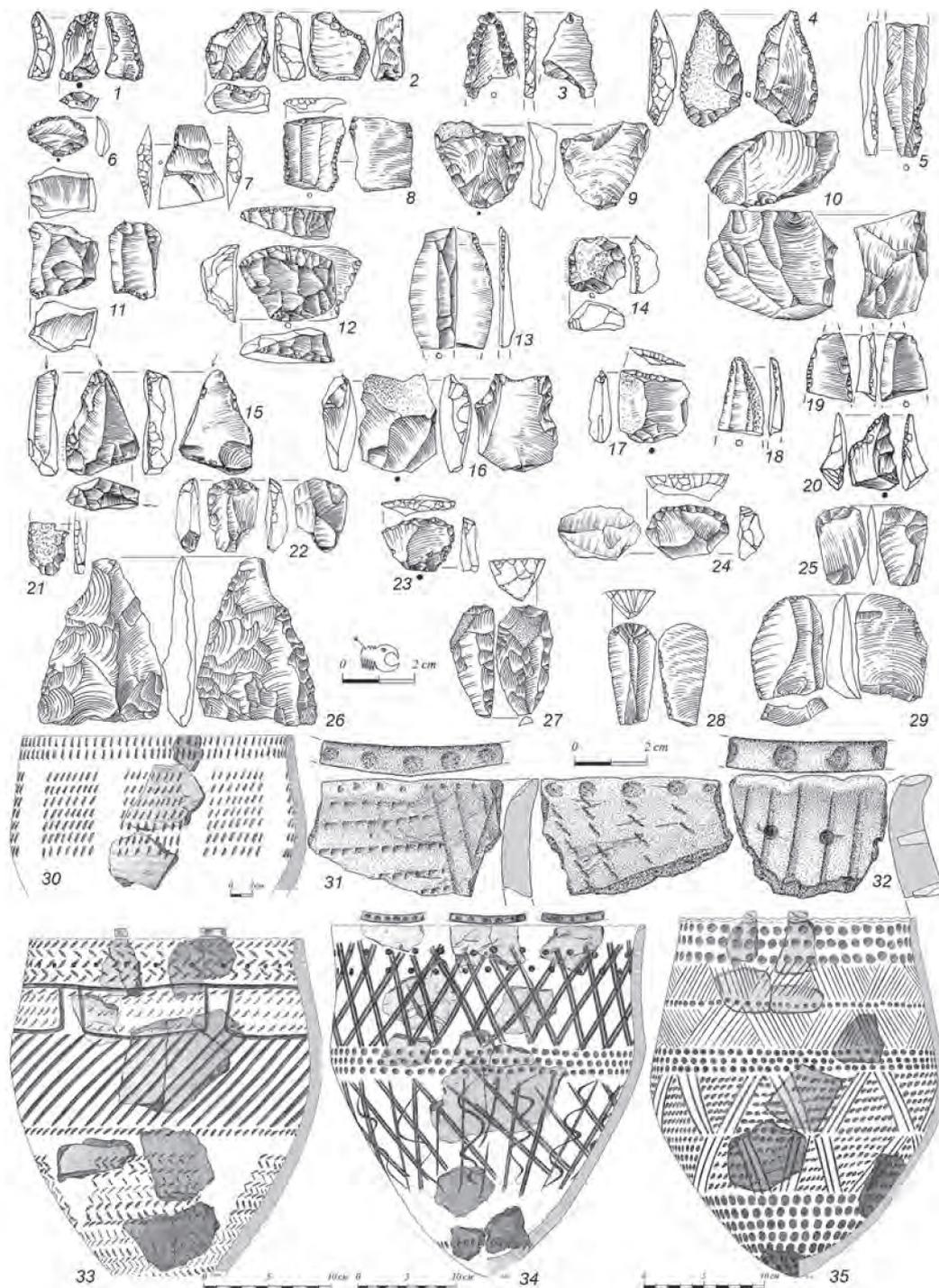


Fig. 5: Materials of Kyiv-Cherkassy Neolithic sites: 1-29 – lithic inventory; 30-35 – pottery. 1-5 – Khodosivka-Roslavske, 6-9 – Bodenky, 10 – Suvyd, 11-14 – Litky, 15-17 – Rozhny, 18-20 – Sobolivka, 21-32 – Pohreby-Lan, 33-35 – Mykilska Slobidka II (after: Sorokun, Shydlovskiy 2013; Shydlovskiy et al., 2016)

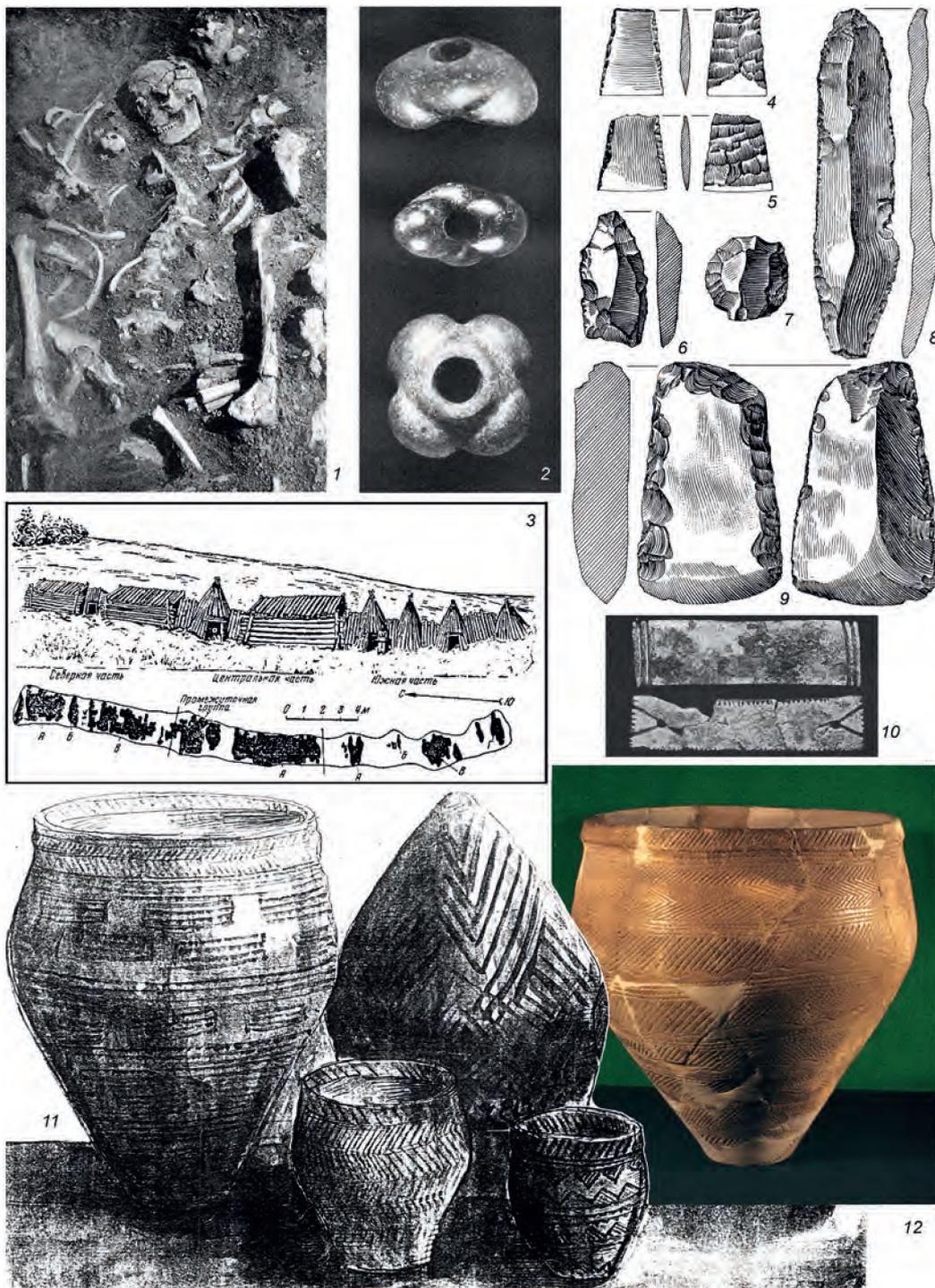


Fig. 6: Materials of the cemeteries of Mariupil type in Azov-Dnieper area: 1 – burial; 2 – stone maces from burials; 3 – reconstruction of Mariupil cemetery; 4-9 – lithic inventory; 10 – plates of the boar canines; 11-12 – pottery. 1-10 – Mariupil cemetery (excavations 1930-19320); 11-12 – Mykilsky cemetery (excavations 1959) (after: Makarenko, 1933; Archive of Department of Archaeology and Museum Studies KNU, exposition of The Archaeological Museum of The Institute of Archaeology, NASU)

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II.D.2 Report on Activities in Kyiv 2016-2017

One of the first steps towards the creation of an East European network for the study of pre-historic societies and processes of neolithization was the holding of the international scientific conference “Human and landscape: geographical approach in prehistoric archaeology” at Taras Shevchenko National University of Kyiv from 3 to 5 February 2016, which took place within the framework of the SCOPES programme NEENAWA and was supported by the Swiss and French embassies in Ukraine.

Due to the initiative of Department of Archaeology and Museology of the Faculty of History of the Kyiv National University and the Center for Paleoethnological Research the Organizing committee of the conference was created which included teachers and staff of the Department, among them Prof. R. Terpylovskiy, the Head of the Department, and Associate Prof. P. Shydlovskiy, as well as the head of Archaeological Museum of Taras Shevchenko National University of Kyiv L. Samoilenko. It was the first international conference to bring together archaeologists from Ukraine and experts on natural sciences researching interaction between nature and humanity in a wide spatial and time context. Specialists from university institutions in France, Belgium, Switzerland, Poland, Belarus and Georgia were invited following the aim of the conference to integrate Ukrainian research into the European space.

Topics which were highlighted on the conference cover issues of interaction between the environment and societies during prehistory: climate and landscape, natural resources, flora and fauna as factors for the development of human culture on the territory of Europe. Chronologically speaking, the presentations covered the period from the Paleolithic up to the Bronze Age. Speeches and presentations at the conference were divided into three sections, namely:

Section 1: History, theory, and methods of spatial archeology

Section 2: The interaction between nature and society in Pleistocene

Section 3. Cultural adaptation to natural conditions in the Early Holocene

The conference was accompanied by an exhibition of archaeological materials from the collections of the Department of Archeology and Museology at the Archaeological Museum of the University.

From 15 to 18 September 2017, the International Scientific Conference on “Wetland Archaeology and Prehistoric Networks in Europe” was held in Kyiv and Kanev, Ukraine. The Conference was jointly organized by the Taras Shevchenko University of Kyiv, the Center for Underwater Archaeology, and the Th. Voyk Center for Paleoethnological Research. The conference was the final event of the Institutional Partnership in the framework of the NEENAWA project.

The opening of the conference and the plenary meeting took place on 15 September 2017 in the Main Building of Taras Shevchenko National University of Kyiv (fig. 1), on which the vice-rectors of the University Petro Bech and Viktor Martyniuk, as well as the representative of the Swiss Embassy in Ukraine and Moldova, Holger Tausch, gave their greetings to the participants (fig. 2). The Dean of the Faculty of History Prof. Ivan Patrylak, associate professor Pavlo Shydlovskiy and head of the University Laboratory “Centre for Underwater Archaeology, Archaeological and Ethnological Research” Yana Morozova indicated the importance for the University and Ukrainian science of holding such events and the need for international cooperation in the field of archaeological research.

The NEENAWA-representatives also gave their welcoming words to the audience (fig. 3) before the official scientific programme started.

Within the framework of the conference, the opening of the exhibition “The first farmers and pastoralists on the territory of Ukraine” was held at the Archaeological Museum of Taras Shevchenko National University of Kyiv, accompanied by the presentation of two edited books:

Human & Landscape: Prehistoric Archaeology of Eastern Europe. - VITA ANTIQUA, 9. Collection of scientific works. Kyiv: 2017.

Wetland Archaeology and Prehistoric Networks in Europe. NEENAWA International Scientific Conference, 15-18 September, 2017. Eds. Y. Morozova, P. Shydlovskiy. Kyiv, Kaniv, 2017.

The next day, a trip to the Kaniv Nature Reserve took place, where the main part of the conference was planned (fig. 4). The scientific part consisted of presentations describing the current state of the study of neolithization processes in Europe and the achievements of prehistoric archeology in recent years. The conference brought researchers together working in Holocene European prehistoric archaeology, covering the time periods from the Mesolithic to the Bronze Age. Naturally, the focus of the conference was wetland and underwater archaeology as well as dendrochronology but material studies on pottery and bone tools were also presented. Two workshops on dendrochronology (fig. 5a, 5b) and underwater exploration (fig. 6) were conducted during the meeting.

The scientific programme was accompanied by excursions to archaeological museums (e.g. The Museum of Historical Treasures of Ukraine; Kyiv Regional Archeological Museum in Trypillia) so that the participants could personally experience the unique archaeological exhibits from Ukrainian prehistory to the Middle Ages. Besides, the participants could visit and experience the Ukrainian “wetlands” of Kaniv Nature Reserve on their own (fig. 7).

About 50 participants took part in the event. The majority of these came from the NEENAWA partner institutions. In addition, participants from other Eastern and Western European countries were invited. The conference itself was an exceptional opportunity to create a system of information and experience exchange in research about European prehistoric sites, to introduce up-to-date methodologies of documentation and analysis of archaeological material and to promote Ukrainian archaeological heritage in the European system of research. An important value was the participation of Macedonian, Russian, Swiss and Ukrainian students in this event that will help to develop their knowledge about current theoretical and practical European scientific research and promote their international mobility during their academic experience. In terms of public benefit, the conference will help to represent the Ukrainian cultural and natural heritage at a European level.

The organizers are convinced that during the conferences, young scientists, using acquired skills and knowledge, broadened their circle of professional contacts, put their creative ideas into practice for developing a liberal society, and became thus the most valuable resource for positive changes in the contemporary world.

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DOI:10.37098/2519-4542-2018-1-10-192-207



Fig. 1: Lecture Hall at the main building of Taras Shevchenko National University of Kyiv (photo: Pavlo Shydlovskiy)



Fig. 2: At Rector's office in Kyiv, from left: Prof. R.V. Terpylovskiy, head of the Department of Archaeology and Museum Studies; Dr. P.S. Shydlovskiy, Associate Professor of the Department of Archaeology and Museum Studies; Prof. I.K. Patryliak – head of Faculty of History; Prof. L.V. Hubersky, rector of Taras Shevchenko University of Kyiv; Prof. A. Hafner, head of Department of Prehistoric Archaeology of the Institute of Archaeological Sciences, Bern University, Switzerland; Prof. P.O. Bekh, pro-rector (International Relations) of Taras Shevchenko University of Kyiv (photo: Pavlo Shydlovskiy)



Fig. 3: Representatives of the NEENAWA project during their welcome speeches. a. Yana Morozova, b. Andrey Mazurkevich, c. Goce Naumov, d. Valentina Todoroska, e. Pavlo Shydlovskyi, f. Albert Hafner (photo: Pavlo Shydlovskiy)



Fig. 4: Lecture room at Kaniv Nature reserve (photo: Marco Hostettler)



Fig. 5: Dendrochronological workshop by and with John Francuz and wood samples (photo: Pavlo Shydlovskyy)



Fig. 6: Workshop on underwater exploration with Ekaterina Dolbunova, Johannes Reich and Sergii Zelenko (photo: Pavlo Shydlovskyy)



Fig. 7: Conference participants at floodplains in Kaniv Nature Reserve (photo: Liga Palma)

Part III: KNOWLEDGE TRANSFER, SCIENTIFIC EXCHANGE 2015–2018



Goce Naumov, Goce Delcev University, Stip,
Pavlo Shydlovskiy, Taras Shevchenko National University of Kyiv

III.8 Neolithic Seminar at the University of Bern

A significant component of NEENAWA project was the sharing of knowledge among mutually unfamiliar academic environments. As part of this process realized on various occasions during the project, also a Neolithic Seminar was initiated that intended to introduce Swiss students to the prehistory of an area that is not regularly included in their curriculum. The Seminar took place from 23 to 30 May 2017 at the Institute of Archaeological Sciences of the University of Bern and was focused on the Neolithic of East and Southeast Europe (i.e. the Balkans) where representatives of Taras Shevchenko University (fig. 1) and the Center for Prehistoric Research (fig. 2) gave lectures and assisted students in their work. The working language was English.

The Macedonian project partner (fig. 2) guided the students in their research of the Neolithic Balkans and chronology, pottery, identity, burials and human representations in particular. Prior to their final presentations in May consultation and preparation of their seminar works took place (fig. 3, 4). Students were focused on the Early Neolithic chronology of the Balkans and calibration of available dates, pottery production and their relationship with identity, as well as on research on intramural burials, anthropomorphic figurines and house models in Macedonia. For that purpose, a bibliography was provided for them which they used with particular interest in detail.

The second part of the seminar was devoted to the topic "Cucuteni-Trypillia settlements: material culture, chronology and space". The introductory lecture was given by the assistant professor of the Department of Archeology and Museology, Pavlo Shydlovskiy (fig. 5), followed by lectures from both Ukrainian as well as Swiss students. At the end of each lecture and especially after the seminar, there were lively discussions between lecturers (fig. 6) and students which resulted in valuable input for each side.

Students were dedicated in their work and demonstrated meticulous curiosity in exploring a new area of archaeological research and a new region. In matter of few months they prepared their written work with thorough text and images consisted of graphs as well. This confirms their analytical approach and willingness to understand systematically the Neolithic of the Eastern Europe and the subject areas they have chosen. Their seminar work was finalized with presentations in front of students and professors. During their presentations they clearly elaborated the results, self-confidently demonstrating the knowledge they obtained. In general, the seminar work was very successful and proved that Swiss students are talented and dedicated individuals that profoundly entered into a new sphere of archaeological research i.e. the Neolithic of Eastern Europe.

In addition, the Macedonian and Ukrainian project partners had the opportunity to use the well-equipped library of the Institute of Archaeological Sciences (fig. 7) and to visit museums in the cities of Bern and Geneva.



Fig. 1: Ukrainian researchers Ivan Radomskyi, Alyona Tron-Radomskaya and Pavlo Shydlovskiy in front of the Institute of Archaeological Sciences at the University of Bern (photo: Pavlo Shydlovskiy)



Fig. 2: Goce Naumov during his lecture on the Neolithic Balkans (photo: Pavlo Shydlovskiy)



Fig. 3: Swiss student Corina Gottardi giving a lecture on "Human Representations and Burials of the First Farmers" (photo: Goce Naumov)

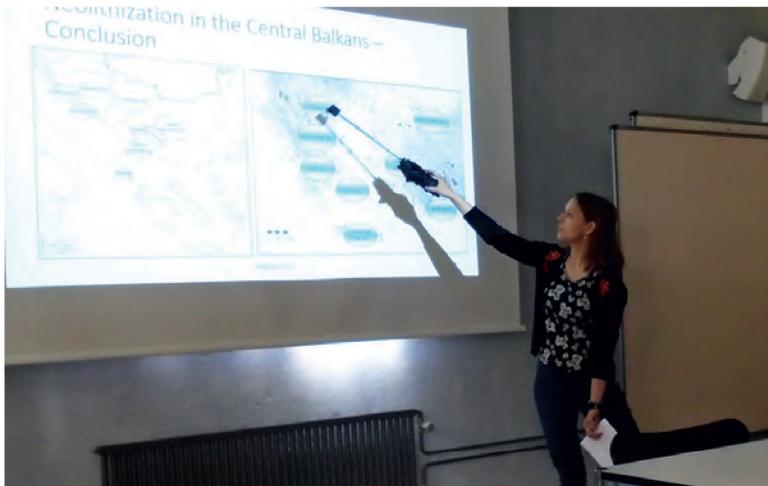


Fig. 4: Swiss student Lea Emmenegger giving a lecture on "The Process of the Neolithization in the Balkans" (photo: Goce Naumov)



Fig. 5: Pavlo Shydlovskiy during his lecture on Cucuteni-Trypillia settlements (photo: Pavlo Shydlovskiy)



Fig. 6: Discussion between Albert Hafner and Pavlo Shydlovskiy (photo: Pavlo Shydlovskiy)



Fig. 7: Ivan Radomsky in the library of the Institute of Archaeological Sciences (photo: Pavlo Shydlovskiy)

The “Network in Eastern European Neolithic and Wetland Archaeology for the improvement of field techniques and dating methods” (NEENAWA) was an Institutional Partnership between archaeological institutions in North Macedonia, Russia, Ukraine and Switzerland, funded by the Swiss National Science Foundation (SNSF). The project focused on the enhancement of scientific infrastructure and training of students and professionals dealing with Neolithic settlements near lakes, rivers and marshes.



The aim of this book is to document the activities performed during and arising from this project between 2015 and 2020. Activity and experience reports as well as scientific case studies keep record of the various actions and events that took place in the partner countries. They also witness to the scientific and structural development of wetland and underwater archaeology in Eastern Europe.

