

RECENT CHRONOLOGY: CHALLENGING COPPER AGE HISTORICAL NARRATIVES IN CENTRAL, SOUTH-EASTERN AND EASTERN EUROPE

Theme: 7. From global to local: Baltic-Pontic studies

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Our session will address new insights concerning the chronology of Copper Age sites between the Black Sea and Central Europe. This vast region is characterised by various environments and historical landscapes, which led to an equally large variety of lifestyles and historical archives. The diversity of archives and different research traditions resulted in different ways of constructing chronology such as stratigraphic sequences of the lower Danube tell sites, ornamental styles and local groups of the flat Cucuteni-Tripolye settlements, or grave types in the North-Western Pontic. These different research approaches have built the basis for the establishment of various historical narratives, which often became fixed points of view. For example, current spatio-temporal understanding of 'Tripolye' was built up mainly on data obtained before late 1980s and the resulting models are partly used to date. Intensive research and dating have changed the 'local' situation dramatically in recent years. But often results of this work are confronted with established 'global' narratives that reflect 'regional research traditions'.

The aim of the session is to explore how these new data increasingly allow us to rethink the typology-focused chronological constructions and historical reconstructions based on them. In particular, we would like to have a closer look on transformations that took place in this region, e.g.:

- Establishment, transformation and disintegration of flourishing agricultural settlement systems in the Lower Danube (BPK V, KGK VI)) and the North-Eastern Carpathian region (Cucuteni-Tripolye),
- Expansion of human groups into the forest-steppe zone between Prut and Dnieper,
- Cucuteni-Tripolye population agglomerations with giant settlements,
- The development of mobile pastoralism with dispersed settlement pattern in the steppe and forest steppe north-west of the Black Sea
- Intensive interlinking of the Pontic-Baltic region through communication and exchange networks (Baden, Funnel beaker, Globular Amphora, Malice).

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Abstracts for session #470

POPULATION DYNAMICS INFERRED FROM SUMMED PROBABILITY DISTRIBUTIONS OF RADIOCARBON DATES DURING THE 5TH MILLENNIUM BCE IN THE LOWER DANUBE REGION

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Past population dynamics play a key role in integrated models of understanding socio-ecological change over time. However, despite the importance of deciphering population change through time, little analysis on this issue has been carried out for the prehistoric societies in the Lower Danube area. Here, we use summed probability distributions of radiocarbon dates (SPDs hereafter) to investigate potential regional and local variation in population dynamics.

Our study adopts a formal model-testing approach to the fifth millennium BCE archaeological radiocarbon (¹⁴C) record, performing a region-wide, as well as a comparative analysis of the demographic trajectories of the area astride Danube river. We follow the current backdrop of theoretical models of population growth and controlling for taphonomic loss, sampling biases and errors, and perform global and regional significance and spatial permutation tests on the data.

Specifically, we investigate whether populations astride the Danube follow a logistic pattern of steady growth or an exponential growth followed by a major decline over time. Finally, our analysis of local-scale growth will investigate whether considerable heterogeneity or homogeneity within the region may be observed over the timespan considered here. The results will help us understand how similar or different the population trends were across the area.

Our findings will be displayed in relation to the cultural characteristics that the Middle Holocene societies in the region experienced within the timeframe under scrutiny, and some future research directions will be also suggested.

Keywords

Population dynamics, Radiocarbon, Lower Danube, Fifth Millennium BCE, Middle Holocene

Note/comment

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TAKE THE WHOLE VALLEY! NON-INVASIVE SETTLEMENT ARCHAEOLOGY OF THE CUCUTENI CIVILIZATION IN THE NEAMȚ DEPRESSION OF THE MOLDAVIAN SUBCARPATHIANS (ROMANIA)

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The Neamț River's valley forms a natural path from the Carpathian Mountains to the Moldavian Plateau, part of the great eastern European plain. Where it leaves the mountains, it crosses the hilly Subcarpathian area, where also the Precucuteni and Cucuteni communities had to adopt to the less confined topographical settings. No longer restricted to small hillsides, they had the potential to evolve bigger sites and concentrate larger communities. But did they do this?

Since 2017, a joint project of the Neamț National Museum Complex (Romania) and the Institute of Pre- and Protohistory of the FAU Erlangen-Nuremberg (Germany) aims for the complete survey of all Precucuteni and Cucuteni settlements in the Neamț Depression. The main objective is to get reliable data on the organization of the settlements' plans and based on the number of houses, the settlement intensity, and further data to participate on the discussions of demographic estimations regarding the temporal sequence.

Long-term extensive field walking, which finally covers the whole area, located the sites, and lead the path to the gradiometer-survey. Nearly done for all sites, these surveys revealed the settlements' sizes, numbers of houses, fortification systems and the remains' current state of preservation. In addition, more complex structures than expected showed off, like overlapping ditch systems even on sites assumed to be only one-phased, based on the surface finds. To sharpen our understanding of the spatial-chronological processes of all these sites, a second project phase, based on intensive surface collections just started.

Keywords

Chalcolithic, Precucuteni-Cucuteni, Neamț Depression, Moldavian Subcarpathians, Romania, non-invasive surveys

Note/comment

Abstract #: 03

INTERACTIONS BETWEEN TRYPILLIAN FARMERS AND SREDNIJ STOG PASTORALISTS IN THE DNIEPER AREA AT THE END OF THE 5TH MILLENNIUM BCE

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Migration of Cucuteni-Trypillia farmers from the Carpathian region eastwards in the second half of the 5th millennium BCE subdivided the Trypillian complex into a number of relatively isolated local groups. At the same time, some of these groups came into contact with nomadic pastoralists of the Srednij Stog complex from the northern part of the Pontic steppe. At the Trypillian site of Kolomyitsiv Yar Tract in the middle Dnieper area, evidence of Srednij Stog influence on Trypillian kitchenware pottery (Cucuteni C) has been identified. Human remains uncovered at the site allowed to directly date the Kolomyitsiv Yar Tract settlement to the end of the 5th- beginning of the 4th millennium calBCE. The analysis of diet isotopes of the Kolomyitsiv Yar's remains suggests that the individual's subsistence was that of a pastoralist, such as a member of the Srednij Stog community. This finding further supports close relationships between Trypillia and Srednij Stog during the BI-II stage of Trypillia culture chronology.

Keywords

Cucuteni-Trypillia, Srednij Stog, Eneolithic, Ukraine, Cucuteni C pottery

Note/comment

THE CHRONOLOGY OF THE TRYPILLIA CULTURE AND THE BAYESIAN APPROACH

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The relative chronology of the Cucuteni-Trypillia culture was established first of all on the basis of pottery found in the settlements, taking into account both the shapes of the vessels as well as their ornamentation. Besides the main chronological phases, the sites with similar materials, usually clustered spatially, are grouped into so called local groups. The absolute chronology of Trypillia culture is still controversial despite the rather large amount of radiocarbon dates available. There are two main reasons for this problem. The first one is the quality of the available radiocarbon data, many of which were considered unreliable. Only in recent years the old pool has been supplemented by new sets of radiocarbon data. The second problem is the fact that there are almost no stratified settlements of the Cucuteni-Trypillia culture which would allow a more precise absolute chronology.

While the absolute chronology of the South-Eastern European tell settlements could be refined using the Bayesian approach, this method is not appropriate for the single-layered settlements of the Cucuteni-Trypillia culture. However, some research groups are working on the refinement of the chronology of particular settlements of the Trypillia culture applying the Bayesian modelling.

In my research I have followed a supra-regional chronological perspective of the Trypillia culture using Bayesian approach. The applicability of Bayesian modelling in the context of Trypillia culture was tested, based on relative chronology as prior information. In this paper I will show, that applying the Bayesian modelling on the radiocarbon dates of Trypillia culture has both possibilities and limits. But by and large this method can be used despite the absence of stratigraphic sequences in case of a well-established relative chronology.

Keywords

Cucuteni-Trypillia culture, Copper Age, chronology, Bayesian modelling, radiocarbon dating

Note/comment

TRIPOLYE MOBILITY PATTERNS, HOUSE DURATION AND DEMOGRAPHY: THE EVIDENCE OF RADIOCARBON DATING

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Numerous new ¹⁴C data from different Tripolye settlements enable settlement-related analyses on house, village and town biographies as well as information on the relationship of different Tripolye regions to each other. The results are correlated with archaeological data, primarily stratigraphy and typology of pottery, and the presence of imports. A reassessment of e.g. the data from Maidanestke, Nebelivka and Talianky informs about demographic and cultural processes.

We observe different processes. The emergence of megasites is linked to the depopulation of other regions and the concentration of population in a previously sparsely populated area. In the process, previously separate communities are obviously drawn together. There is also a strong demographic interaction between megasites, through which moments of fluid societies can be identified. In particular, the relocation of large settlements through gradual demographic exchange is discernible. Radiocarbon data can also be used to better assess different phenomena. Some mega-settlements, e.g. Nebelivka, were never settled and abandoned early, while others, e.g. Maidanetske, represent a typical populous mega-settlement. This explains some misinterpretations of the megasite phenomenon of the past.

Keywords

Tripolye, Radiocarbon dating, house duration, archaeo-demography, mobility patterns

Note/comment

TRANSFORMATION OF SETTLEMENT SYSTEMS AT DNEEPER REGION: FROM MEGA-SITES TO SMALL SITES AT TRYPILLIA CULTURE

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The “Age of mega-sites” in Trypillia Culture started at BI-II stage at the end of Vth Millennium BC. At this moment appeared first agglomerations at different areas: from Dniestr-Southern Bug interfluvium to Dnieper. At Dnieper area at the beginning settling system included one large site (Trypillia, near 60-70 hectares) and few small (2-4 hectares). For the next phase (the end of BI-II stage) we know two middle size sites (16-25 hectares) – Veremya and Kolomiitsiv Yar and few small. From the beginning of BII stage up to the end of CI at this area were only small size sites. On the one hand, we see the process of disintegration of the settling system, the central element of which was mega-site and a returning to the previous system, which included only small sites. The similar transformation of the settlement system we can see at the end of the CI-beginning of CII stages in the interfluvium of the Southern Bug and the Dnieper (Kosenivka local group). On the other hand, the return to the ancient system of settling on the Dnieper occurred at a time, when in other areas the “Age of mega-sites” became widespread and lasted for next several centuries. Different versions of the explanation of this phenomenon are possible. A return to the previous resettlement system could occur if the population of the mega-site could disperse over a large area. This model seems plausible given the gradual reduction in the size of central settlements. Another version involves military intervention by neighbors, which resulted in the destruction of the local mega-site as the center of power and the establishment of control by other chiefdoms. Further research in the region will allow us to study in more detail the history of the transformation of the settlement system and its probable causes.

Keywords

Trypillia, mega-site, transformation, Dnieper, Trypillia BI-II - Cucuteni AB

Note/comment

CHALLENGING POTTERY BASED CHRONOLOGIES AND NARRATIVES ON TRIPOLYE SOCIETIES

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Already since the end of the 19th century, the ceramics found in Tripolye settlements have attracted great interest among researchers both aesthetically and as a valuable source of information because of their elaborate ornamentation and shapes. Due to the almost complete absence of stratified settlements, style and techniques of ceramics became one of the most important material for chronological constructions, and even more, settlements with similar vessels started to be used for reconstruction of tribes. Thus, ceramics had ceased to be just dishes, but were equated with people. Thanks to the work of many generations of scientists, the archaeological remains in the enormous Tripolye distribution area was divided both temporarily and spatially into a number of accurate periods and 'local groups'. Unfortunately, there has long been a lack of independent sources to test the chronological relevance of the observed typological variability of pottery and interpretations based on it. In recent years, this situation has changed considerably insofar as different projects have systematically obtained a larger number of new 14c dates that can be used to review existing constructions based on pottery like chronological and others. In our paper we would like to discuss the question to what extent we need to revise and rethink existing narratives and in how far this opens up starting points for new approaches for the interpretation.

Keywords

Tripolye, Copper Age, Ukraine, Pottery style

Note/comment

FALL OF NEOLITHIC SOCIETIES IN CENTRAL EUROPE AND EXPANSION OF STEPPE POPULATIONS AT THE END OF THE 4TH MILLENNIUM BC

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The contribution presents the materials as well as the chronology and taxonomic position of the heterogeneous Wyciąże group from western Lesser Poland, dated to the 2nd part of the 4th millennium BC, which was the result of mixing of elements of Polgár and Baden cultures. The analysis of the presence of other heterogeneous cultural units in other regions of Central Europe (Mittelelbe-Saale-Gebiet and Kuyavia) showed that their existence was accompanied by crisis processes (Fall of Neolithic societies).

The source of a series of local crises in Central Europe at that time, resulting in a decreasing population and cultural hybridization (e.g. the case of Bronocic IV-V), seems to be local conflicts of a socio-cultural nature. They contributed to a serious weakening of the hitherto dominance of the FBC groups or the late Danube cultures. In the cultural sense, the element co-forming the heterogenization processes at that time was mainly the early Boleraz influence.

In periods of disappearance of hierarchical ties typical of the world system (Wallerstein), or the relationship between the center and the periphery (Braudel), horizontal network structures begin to dominate. The phenomena of poly(multi-)culturalism, heterogenization and multi-ethnicity appear (Maffesoli). Late antiquity (the spread of early Christianity) and modern times (Untergang des Abendlandes by Oswald Spengler or Le temps des tribus by Michel Maffesoli) are an excellent illustration of the flourishing of hybrid cultures in the conditions of a deepening socio-cultural crisis.

The end result of the long-term crisis of Neolithic communities was creation of space for new processes of cultural integration encompassing the entire continent in the form of the formation of the Corded Ware and Bell Beakers as well as the Yamna culture in the east.

Keywords

Eneolithic, FBC, late Danube, heterogenization, hybridization, polyculturalizm, Central Europe, Black Sea steppe, Carpathian Basin, crisis, conflict, fall

Note/comment

UNDERSTANDING CHANGES IN HOUSE CONSTRUCTION IN THE SECOND HALF OF THE 4TH MILLENNIUM BC IN THE EASTERN CARPATHIAN AREA

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Among most obvious research activities, the investigation into construction of dwellings, their spatial arrangements, and the nearest surroundings are particularly relevant in studies of functioning of archaeological phenomena. During the field campaigns undertaken so far at the Late Eneolithic fortified settlement in Gordinești Il-Stîncă goală (NCN Opus 15 project no. 2018/29/B/HS3/01166), we revealed and fully documented the relics of two dwellings and their directly adjacent economic zones. These dwellings together with their surroundings may be considered as basic units of production referred to as household clusters (Grygiel 1986; por. Flannery 1976; Kent 1984; Jongsma, Greenfield 2003). At the outset of our research some fundamental questions have been formulated: a) What type of dwellings were used by the occupants of this settlement?, b) How their interiors and the adjacent economic zones were arranged?, c) What was the function of the various parts of the household cluster units? In this talk, we would like to focus closer on these issues. Our goal is to present not only the key attributes of the dwellings, but also to show the results of the spatio-functional analysis of features and artifacts found in the context of the whole household clusters. We are convinced that detailed analysis of these units could be crucial from the perspective of general significance of this site in the broader context of the Eastern Carpathian area in the second half of the 4th Millennium BC.

Keywords

Late Eneolithic, dwellings, household cluster, Tripolye

Note/comment