THE ANGLO-UKRAINIAN PROJECT "EARLY URBANISM IN PREHISTORIC EUROPE?" SENDS ITS TRAVELLING EXHIBITION TO CHIŞINAU

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Introduction to the Exhibition

One of the principal goals of the Anglo-Ukrainian inter-disciplinary Project, "Early urbanism in prehistoric Europe?: the case of the Trypillia mega-sites, Ukraine" was the dissemination of the results of the Project's research through an international travelling exhibition. The exhibition is structured around research questions rather than the artifacts which the Project made during its excavations. The exhibition has been designed by Christina Unwin, who sought to make the exhibition as accessible and interesting to members of the public as to Trypillia – Cucuteni specialists. The most obvious way of improving accessibility to the exhibition was to translate the text of the exhibition into all of the languages of the host museums and universities.

The exhibition was first opened at the Project's first international Conference - "At the Eastern frontiers of Old Europe" - in Kirovograd (Kirovograd Oblast, Ukraine), 12th - 14th April 2015. The exhibition then moved to the Varna Archaeological Museum, Bulgaria, for July and August before moving to Chişinău, where it was opened on Wednesday 9th September by the Director, Dr. Eugen Sava in the presence of Dr. Igor Manzura, High Anthropological School and colleagues from State University of Moldova and State Pedagogical University of Moldova. At the end of October, the exhibition will move to Budapest, where the School of Archaeological Sciences (Professor Pál Raczky), Eötvös Lórand University, will host the exhibition until the start of the New Year. In the penultimate move, the exhibition travels to the Christian-Albrechts University in Kiel, where it will be displayed in the Graduate School 'Human development in Landscapes', courtesy of Professor Johannes Müller until March 2016. The exhibition finally comes 'home' to Durham University in April 2016, when it will be opened in the Palace Green Library to coincide with the Project's second International Conference, on the theme of "First Cities", 15th - 17th April 2016.

In this short article, we present the results of the research project on Trypillia megasites through the medium of the text of the brochure which accompanies the exhibition. As with the exhibition, the brochure seeks to make this research as accessible as possible to general readers of 'Tyragetia', as to the professional archaeologists who make up an important part of its readership. Readers will therefore need to exercise tolerance with the over-simplifications in the brochure text, while hopefully benefitting from our general, and we believe innovative, approach to European urbanism well before the first cities of the Near East.

The Trypillia - Cucuteni groups (fig. 1)

The Trypillia-Cucuteni groups have been called 'the last great Chalcolithic civilization of Europe' (Monah 1997). Most other people in South East Europe were living in more mobile smaller communities with burial grounds and votive deposits of elaborate metalwork. Dating from 4800 to 2800 cal BC and extending for over two thousand square kilometres, Trypillia-Cucuteni was one of the largest and most enduring Old European groups (Mantu et al. 1997; Menotti, Korvin-Piotrovskiy 2012; Видейко 2004).

From the Carpathian Mountains to the River Dniepr, for two thousand years the Trypillia people maintained their traditions of house-building and house-burning, making anthropomorphic and zoomorphic figurines and fine ceramic wares. The Trypillia-Cucuteni group continued these clay-based practices to reinforce their strong sense of individuality long after other peoples of the Balkan-Carpathian region had ceased to use them (Monah 2012).



Fig. 1. Location map of Trypillia-Cucuteni groups, with some important sites (source: C. Unwin).

The house, the figurine and decorated pottery were the dominant themes of Trypillia everyday visual culture for two millennia. Houses were made to different scales and in different combinations, giving rise to the development of massive sites, or 'megasites', in certain areas of the Trypillia group (Burdo et al. 2013).

Pottery was produced on a larger scale in the late 5th millennium BC. Individual households contributed to the village economy, with communities co-operating in the production of ceramics (Ellis 1984). A standard dwelling house could be converted into a pottery workshop, as at Varvareuka (Маркевич 1981). In this way, specialized trades combining the work of many people were integrated into the domestic sphere. At Nebelivka, each neighbourhood may have made their own pottery, or perhaps several neighbourhoods formed a 'potting village' for the whole settlement. The potters of Trypillia made decorated pottery in both fine and coarse wares. In the West of the region they painted fine wares in different colours, while in the East they incised their designs in the clay. Coarse wares were mostly decorated with incised and impressed designs. Most of the objects used in the mortuary house-burning ceremonies were pottery.

The people of Trypillia expressed their worldview through the design of their houses. Comfortable and secure, their decorated homes were used to ritualize and monumentalize their sense of place for more than seventy successive generations (Burdo et al. 2013).

Over thirty thousand fired clay human and animal forms have been found in the Trypillia-Cucuteni group. Rare sets of complete figurines were placed in buildings interpreted as shrines, while fragmentary figurines – often deliberately broken – were deposited in houses, pits and elsewhere in the settlement (Monah 2012).

In contrast, very few metal objects of copper, silver or gold were deposited or discarded at megasites. The small gold hair ornament, found in the megastructure at Nebelivka during the 2012 excavation season, is a rare exception (Видейко и др. 2013, рис. 22/1).

Two international inter-disciplinary research projects are under way. Durham University and the Kyiv Institute of Archaeology are conducting a joint project (Chapman et al. 2014; 2014a), and a large-scale prospection project in Ukraine and Moldova has been initiated by the Romano-Germanic Commission in cooperation with both the Kyiv Institute of Archaeology and Christian-Albrechts University at Kiel in Germany (Rassmann et al. 2014). The research strategy of these projects provides a platform from which to integrate and interpret a large quantity of new data. The Kyiv-Durham Project's archaeology of the megasites has raised four crucial questions:

- What does a complete megasite plan look like?
- What role did houses play in Trypillia society?
- How did megasite plans develop through time?
- Can we detect a trajectory towards local, European urbanis

Towards a revolutionary methodology

Megasites were first discovered by aerial photography during the late 1960s (Videiko 2012). Subsequent excavations revealed burnt houses dated to the Trypillia cultural group. Since 2009 the results of more refined, larger-scale geophysical surveys have been combined with satellite imagery and reconstructions of the natural environment.

This new research has revolutionary implications for our understanding of megasites and sets an exciting new research and excavation agenda for the next twenty-five years (Chapman et al. 2014a).

Images taken from aerial photographs have been improved by data captured by WorldView-2 satellites. Details can now be seen below one metre at ground level. Potential archaeological features are identified within 25 kilometres of the Nebelivka megasite and then checked for datable pottery on the ground. This has enabled us to build up a sequence of settlement patterns in the immediate area of Nebelivka.

Multi-sensor gradiometers can now detect archaeological features over large areas. During the 2009 summer field season at Nebelivka the Durham team carried out a gradiometer survey over 15 hectares that identified new features in addition to all the main features of the megasite plan (Hale et al. 2010). A detailed geophysical plan of the entire 236-hectare settlement has now been produced (fig. 2). The Frankfurt–Kiel team began their research on Cucuteni Trypillia sites in Moldova in the same year. Both teams have demonstrated the structural similarities between the largest settlements of Nebelivka, Talianky and Majdanetske.

South-central Ukraine is now a dry forest-steppe zone with few wetlands suitable for the preservation of pollen. New insights into stream catchment areas mean that Durham University environmental scientists have been able to find pollen in sediments within two kilometres of Nebelivka. By concentrating the pollen grains in alluvial sediments our team has produced a diagram that has revealed the natural vegetation of the area before people arrived to settle there, the scale of the impact of their megasite, and how the vegetation recovered after they abandoned the settlement (fig. 3).

The Nebelivka plan (fig. 2)

The geophysics team from Archaeological Services, Durham University, have produced the first complete plan of a substantial megasite (Chapman et al. 2014). Nebelivka, which extends over an area of 236 hectares, is the third largest megasite known after Talianky and Majdenetske. The plan has revealed that the internal space was ordered in a far more complex way than was detect-

able before. It provides new information on the entire megasite, the quarters of its settlement, its neighbourhoods and its individual houses.

The plan shows that the megasite of Nebelivka was defined by a perimeter ditch. Excavation has shown that it was shallow in depth and was probably a symbolic enclosure (fig. 4). The 55-hectare area at the centre of the megasite may have been used by the people of Nebelivka for the maintenance of their animals. They may have cultivated garden plots in the 60 to 125 metre-wide space between the two main building circuits. The area between the outer main circuit and the perimeter ditch may have been where houses and pits were planned and built in a less formal arrangement. Nebelivka has a total of 1,370 houses and 22 larger buildings constructed over the 236 hectares, an average of between six and eight buildings per hectare.

The megasite has been divided into 'quarters', a model used in Near Eastern cities, based on the location of the assembly houses (Fig. 5). The quarters developed in markedly different ways with regard to their composition, size and spacing between assembly houses (fig. 6).

The neighbourhood was the basic building block of Nebelivka society. Over 160 neighbourhoods created the more intimate social spaces within the settlement, with smaller ones comprising three houses and larger ones made up of twenty-five buildings (figs. 7 - 8).

Houses, Assembly Houses and the megastructure

Trypillia archaeology is dominated by houses. Instantly recognizable on the ground by their remains of massive quantities of burnt daub, houses are the most frequently excavated features at megasites. The house was multi-functional and monumental – how it was built, how it was used and how it came to be burned down tell us a great deal about Trypillia society.

Trypillia households had crucial roles within their neighbourhood and their quarter, contributing to the provisioning and maintenance of the huge megasites. People collaborated in ritual practices and household leaders may have met in local groups to take important decisions and to resolve disputes.



Fig. 2. Simplified interpretative geophysical plan of the Nebelivka mega-site (source: D. Hale).

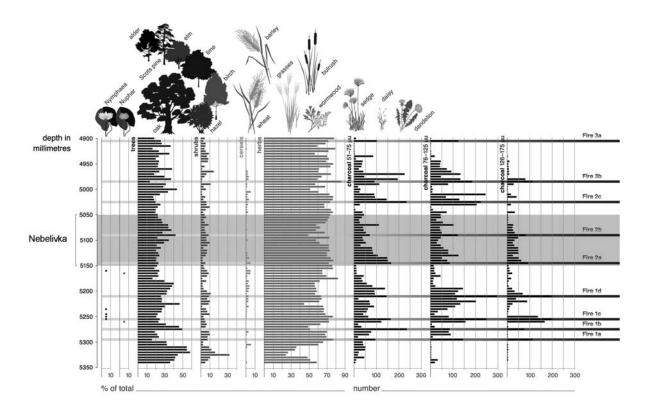


Fig. 3. Interpretative pollen diagram, with charcoal counts, for the Nebelivka 1B core (source: pollen counts: B. Albert; design: C. Unwin).



Fig. 4. Perimeter ditch, North East part of the Nebelivka megasite (source: V. Cherubini).

The inhabitants also shared household practices. Residents, visitors, ritual occupants and ancestors were all involved in the making of tools, food preparation, consumption and ceremonial activities. Such widespread and long-lived rituals often included the use of figurines and models of houses. This was crucial for the social integration of households within both their own neighbourhood and the entire megasite.

Dramatically, houses were deliberately burned at the end of their use. A common 'death-of-house' ritual was conducted by placing a 'dead house assemblage' of objects within the house before it was set alight. House-burning may have formed part of a complex mortuary rite for a person of significance within the community. During the course of this ritual other families placed objects within the house that reflected the status of the dead within wider Trypillia society. The Project built and burned down an experimental Trypillia house in 2014-2015 in order to understand the processes of house-burning in more detail (fig. 9).

The larger buildings at Nebelivka would have been 'Assembly Houses' where people gathered for public meetings. They were constructed around the two principal house circuits, either singly or in groups of two or in three, with floor plans ranging from 120 to 1,320 square metres in size (fig. 2).

In 2012, the largest house at Nebelivka was excavated (Chapman et al. 2014b; Videiko et al. 2013). This 'megastructure' was 22 metres wide and over

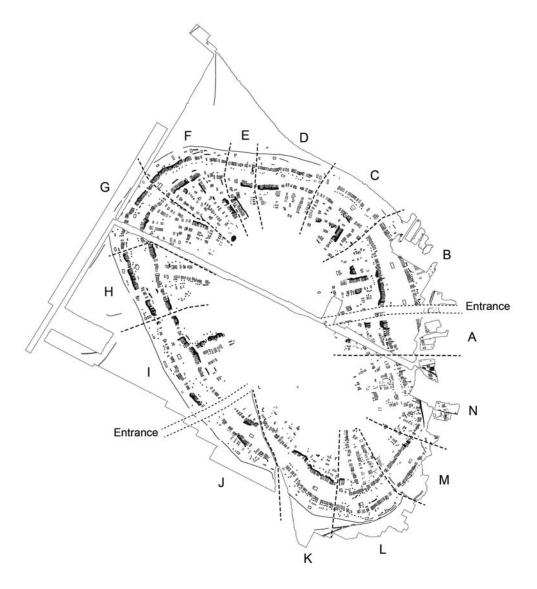


Fig. 5. Division of Nebelivka megasite into 'Quarters' (source: Y. Beadnell).

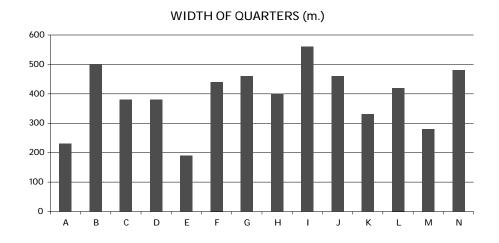


Fig. 6. (a) Spacing and (b) size of Assembly Houses, Nebelivka (source: J. Chapman).

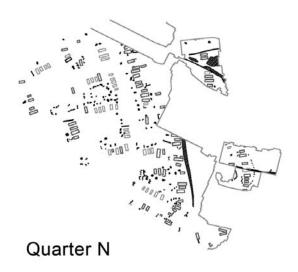


Fig. 7. Neighbourhoods in Quarter, Nebelivka (source: Y. Beadnell).

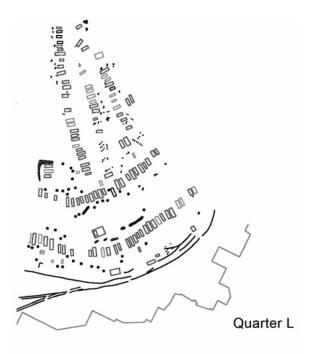


Fig. 8. Neighbourhoods in Quarter, Nebelivka (source: Y. Beadnell).

30m long, with an outdoor courtyard to the East (fig. 10). Objects placed within the house before it was burned included a set of twenty-five miniature vessels containing foodstuffs (fig. 11). A rich cultural layer including broken pottery, animal bones and clay figurines, was found around the building.

The Ukrainian interpretation of this megastructure comprises a fully roofed two-storey temple with timber walls. There were seven altars on the ground floor, and a podium the largest room on the upper floor. The rituals organized within the temple were reflected in the rich deposits of material.

The Durham side' interpretation is that the megastructure was a one-storey public building, partially roofed and with wattle-and-daub walls. There was a range of rooms at the west and the east end, with a central open space for assemblies (fig. 12).

Both interpretations agree that the megastructure was a larger expression of the household and that it co-ordinated the practices of its quarter. The labour required to build the megastructure was fifteen times that required for the construction of a standard dwelling house. The building was fitted with larger versions of the benches, platforms and bins to be found in most of the houses.



Fig. 9. The experimentsal burning of a Trypillia house reconstruction (photo: M. Nebbia).

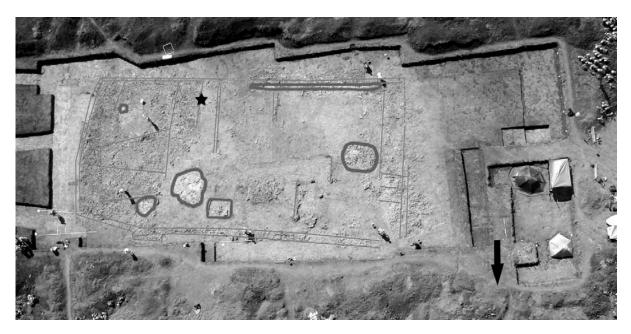


Fig. 10. Kite photo of the Nebelivka mega-structure during excavation (photo: M. Houshold).

About time

The Project has posed three specific questions about the time of the Nebelivka mega-site:

- How long did people live at the megasite?
- Did they burn houses of the same age at the end of their use and replace them with others?
- Or were most of the houses occupied together?

Finding answers to these questions will allow us to determine the population size of a megasite



Fig. 11. Miniature vessel, found near the East end of the Nebelivka mega-structure (photo: M. Videiko).

and to show how people lived there through time. To interpret the megasites, it is crucial to establish when the circuits, the radial streets, quarters and neighbourhoods were constructed and for how long each continued to be used.

Radiocarbon dating provides absolute dates for different parts of the megasites. Many samples are needed to date an entire megasite. The AMS (Accelerator Mass Spectrometry) technique can date very small samples, such as charred seeds or animal bone, usually to within sixty or seventy years. The Kiel team has excavated long, thin trenches across circuits of houses and their pits to date each house circuit.

An idea that is new to megasite studies suggests that Nebelivka may not have been permanently occupied. Thousands of people journeying from other places may have gathered there at particular seasons, probably from April to September, for both secular and ritual purposes. They may have exchanged pottery, personal ornaments and gossip, arranging marriage partners and conducting group ceremonies. Perhaps a small number of people remained at Nebelivka to maintain the megasite throughout the year.

Although the main features of the megasite seem to have been deliberately planned, at a smaller scale there are irregularities and quarters and neighbourhoods differ from each other. This sug-

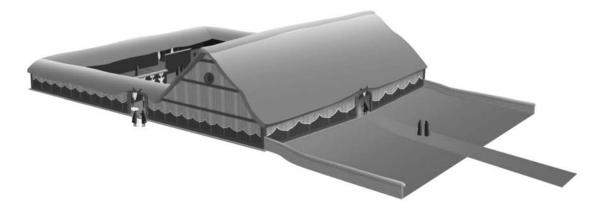


Fig. 12. Reconstruction of the Nebelivka mega-structure according to the Durham view (plan: S. Johnston; design: C. Unwin).

gests that small groups of people may have contributed to the overall plan of Nebelivka in their own way during seasonal gatherings.

This idea is supported by the pollen record. There is no evidence for the large-scale felling of trees

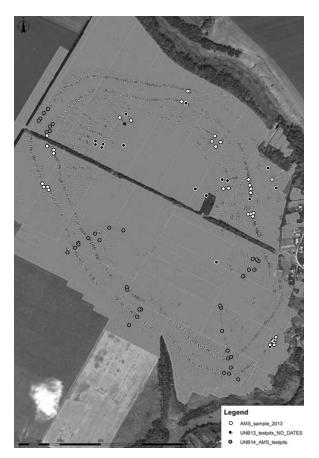


Fig. 13. Location of samples for AMS dating, Nebelivka megasite (source: M. Nebbia).

that would have been required to build the 1,370 houses at Nebelivka at the same time (fig. 3). Charcoal analysis also suggests that people carried out house-burning ceremonies throughout the life of the megasite and did not burn all the houses together at the end of their use.

The results of the AMS dating programme and pollen analysis for Nebelivka make us question whether megasites were permanently occupied by thousands of people.

At Nebelivka we have collected samples for AMS dating from different locations to give an overall picture of how the megasite developed. Over eighty test-pits were excavated where houses had been plotted on the geophysical plan (fig. 13). Deposits were sampled from before the houses were built, from their latest use, and from their destruction by fire. This should enable us to date many of the houses within the life of the megasite and to find out how long people lived in each. When people built and lived at Nebelivka has been calculated using mathematical modelling. The site is most likely to have been occupied for one hundred and seventy years, from around 3970 BC until 3800 BC (fig. 14).

Urbanism and megasites

For at least five thousand years, urbanism has been at the core of human development, yet the study of the subject is in crisis (Gaydarska, submitted). Specialists in geography, anthropology, history and archaeology cannot agree on the reasons for calling a site 'urban', which is how classical Graeco-Roman cities are defined. Alternative concepts such as the 'low-density city' may be

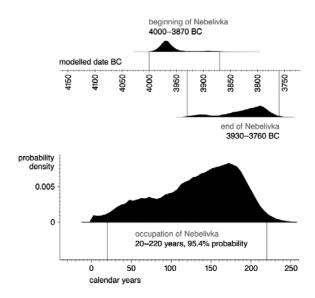


Fig. 14. Modelling of the start and finish of the occupation at the Nebelivka megasite (source: A. Millard).

useful for thinking about megasites (Fletcher, in prep.).

Our research has yet to produce a definitive answer to the number of people living at Nebelivka at any one time. The modelling of all the AMS dates, combined with architectural analysis of the Nebelivka plan, is still in progress. There may have been a few thousand seasonal inhabitants or up to nine thousand people living at the megasite. This large community may have been organized into a hierarchical society based on the thirteen quarters, 160 neighbourhoods and up to 1,370 households.

Leaders of these different groups would have emerged to organize the major logistical effort

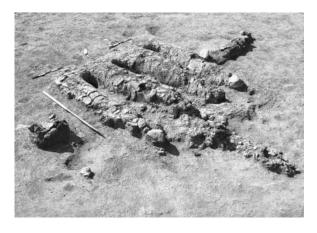


Fig. 15. Communal cooking facility, Nebelivka megasite (photo: M. Videiko).

required to acquire and distribute resources for such a large population. Elite individuals and groups at urban sites generally displayed their status with special objects or by building monumental buildings. However, at the megasites, the pottery, figurines and the houses are very similar and there are no prestigious metal objects. Perhaps the metal objects of the Trypillia populations were placed in an as yet undiscovered extramural mortuary domain?

There is little archaeological evidence so far from Nebelivka that the inhabitants specialized in crafts, but a very large area of the site is still to be excavated. In 2013, the Ukrainian side excavated an unusual fired clay feature which they interpreted as a pottery kiln (Videiko et al. 2015) but the alternative function which explains more of the form of the feature was that this was a communal cooking facility (fig. 15).

Community leaders may have placed objects in the ground in the same way as other people, but it is more likely that the whole community agreed to limit how hierarchy was expressed in accordance with their ancestral or religious beliefs.

Trypillia megasites can therefore be called 'complex non-hierarchical low-density settlements'. If their populations were made up of seasonal summer visitors or immigrants arriving at different times, then the megasites were not truly urban. If, however, their populations generally numbered up to nine thousand, then this would mean that the Trypillia megasites were the first examples of low-density urbanism in the world.

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Proiectul anglo-ucrainean "Urbanismul timpuriu în Europa preistorică?" aduce expoziția itinerantă la Chișinău

Rezumat

Proiectul anglo-ucrainean "Urbanismul timpuriu în Europa preistorică?: cazul mega-siturilor tripoliene" (2012-2016), finanțat AHRC, este un proiect comun organizat de către Universitatea Durham (prof. dr. John Chapman) și Institutul de Arheologie din Kiev (dr. Mihail Yu. Videiko). Expoziția itinerantă internațională care a ajuns acum la Chișinău a fost deja expusă în Ucraina (Muzeul de Istorie din Kirovograd) și Bulgaria (Muzeul Arheologic din Varna), apoi se va deplasa în Ungaria (Eötvös Loránd University Campus, Budapesta) și Germania (Universitatea din Kiel) înainte de a ajunge acasă, în Anglia (Universitatea Durham), în aprilie 2016.

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Передвижная выставка в рамках англо-украинского проекта «Ранняя урбанизация в доисторической Европе?» в Кишиневе

Резюме

Англо-украинский проект «Ранняя урбанизация в доисторической Европе?: феномен трипольских мегапоселений» (2012-2016), финансируемый Советом по исследованиям в области искусства и гуманитарных наук (АНКС), является совместным проектом Даремского университета (Дж. Чепмэн) и Института археологии НАН Украины (М.Ю. Видейко). Международная передвижная выставка в рамках проекта, которая сейчас прибыла в Кишинев, уже была представлена на Украине (Кировоградский исторический музей) и в Болгарии (Варненский археологический музей), а затем отправится в Венгрию (Будапештский университет им. Лоранда Этвеша) и Германию (Кильский университет). В Даремский университет выставка вернется в апреле 2016 года.

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