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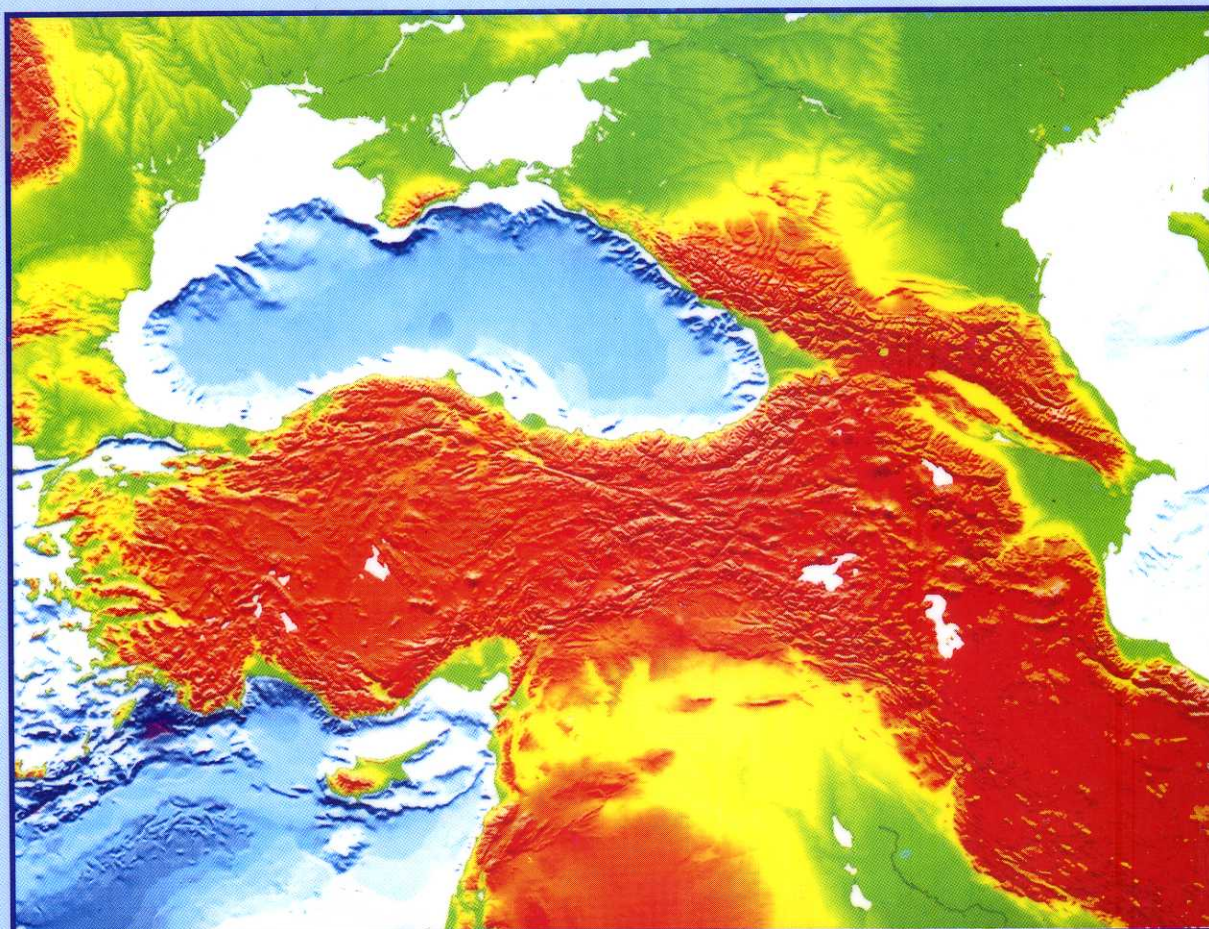
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EXTENDED ABSTRACTS

IGCP 521-481 JOINT MEETING AND FIELD TRIP

**IGCP 521 "BLACK SEA-MEDITERRANEAN CORRIDOR DURING THE LAST
30 KY: SEA LEVEL CHANGE AND HUMAN ADAPTATION (2005–2009)**

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OLD PROBLEMS AND NEW PERSPECTIVES FOR THE RADIOCARBON CHRONOLOGY OF THE UKRAINIAN MESOLITHIC?

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Introduction

Ukraine is one of the richest countries of eastern European, regarding the high number of Epipalaeolithic and Mesolithic sites, which are distributed all over the territory. Some 15 different cultural aspects are supposed to represent these two subsequent periods. This is one of the main reasons why the cultural and chronological sequence of the Final Pleistocene/Early Holocene archaeology of the country is still partly unsolved.

Furthermore the palaeopedological conditions have not favoured the preservation of organic remains in the sandy soils on which many Mesolithic sites of Ukraine are located, making their absolute dating a difficult task to achieve. Nevertheless it is incorrect to think that there are no radiocarbon dates for the Mesolithic settlement of Ukraine, given that more than 200 results are already available for study (Zaliznyak 2005). Unfortunately some of the old dates, especially those from Kiev radiocarbon laboratory, yielded questionable results. This is the main reason why we believe that the old absolute dates from the Ukrainian Mesolithic sites need to be rechecked through the help of new determinations from other isotope laboratories.

Results

The scope of a new project, promoted by P. Biagi, Ca' Foscari University, Venice (I), L. Zaliznyak, Institute of Archaeology, Ukrainian Academy of Science, Kiev (UA), and S.K. Kozłowski, Warsaw University (PL), is to answer some questions regarding the unsolved problems of the absolute chronology of the Ukrainian Epipalaeolithic and Mesolithic cultures. In 2006, 10 bone samples have been submitted to Groningen isotope laboratory (NL) for (Table 1).

Table 1. AMS radiocarbon dating of the Ukrainian Epipalaeolithic and Mesolithic cultures.

Lab. number	Site, structure/layer	Uncal BP date	Cal BC date 2σ
GrA-33115	Dobryanka 3	4400±35	3280-2920
GrA-33117	Dobryanka 3	3595±35	2090-1830
GrA-33112	Igren 8, dwelling 4	8695±45	7910-7600
GrA-33113	Igren 8, dwelling 8	8880±45	8220-7820
GrA-33160	Vyazivok 4a, dwelling 2	10,540±50	10,800-10,410
GrA-33114	Vyazivok 4a, dwelling 4	11,430±50	11,450-11,240
GrA-33118	Skelyasty, layer 3	12,360±50	12,850-12,150
GrA-33119	Skelyasty, layer 3	12,390±50	12,900-12,150
GrA-33123	Osokorivka IIIB	12,640±50	13,250-12,650
GrA-33122	Buran-Kaya III, cut 5	31,750±290	out of range

The new dates from the famous site Igren 8 would help clarify the chronology of the long-lasting and widely-distributed Ukrainian Mesolithic Kukrek Culture. Until 2006 only a few

Early Mesolithic (Boreal) and many Late Mesolithic (Atlantic) Kukrek Culture ^{14}C dates were available. The absence of Kukrek sites chronologically attributed to the Boreal period in the steppe zone, and the number of encampments of this culture carbon-dated to the Atlantic, seemed to draw at least a partly unreliable picture of the real situation. The Kiev laboratory had already produced six radiocarbon assays, from bone, all around 7000-6800 uncal BP (Timofeev *et al.*, 2000: 43; Zaliznyak, 2005: 163). The new Groningen laboratory dates, from dwellings 4 (GrA-33112) and 8 (GrA-33113), are older than the previous ones. They would help build up a more reliable absolute chronology curve for this cultural aspect.

The new dates are also important for the chronology of the Crimean Azilian, otherwise called Shan-Coba Culture. Thirty Kiev laboratory dates, ranging between 11,000 and 8700 uncal BP, and 3 OxA dates (11,620, 11,750 and 12,820 uncal BP) (Yanevich *et al.*, 1996), all from bone samples, were already available for the Azilian occupation layer of Skelyasty rock-shelter in the Crimean mountains. The Groningen AMS dates (12,360 and 12,390 uncal BP) are rather similar to those obtained from Oxford (OxA). These results give us a further opportunity to attribute the Crimea Azilian to the Bølling and Allerød interstadials, which is in contrast with the younger results from Kiev laboratory.

A new date from Osokorivka (12,640 uncal BP) confirms the chronological attribution of this site to the Bølling interstadial. This fits into the data provided by both the bones and the typology of the material culture remains from this site.

Unfortunately some bone samples yielded somewhat unexpected results.

Two dates have been obtained from Vyazivok 4a, which is one of the most important Mesolithic sites of Ukraine (Figure 1, 2): 10,540 and 11,430 uncal BP. The first fits into the second half of the Dryas III, and the second into the middle of the Allerød interstadial.

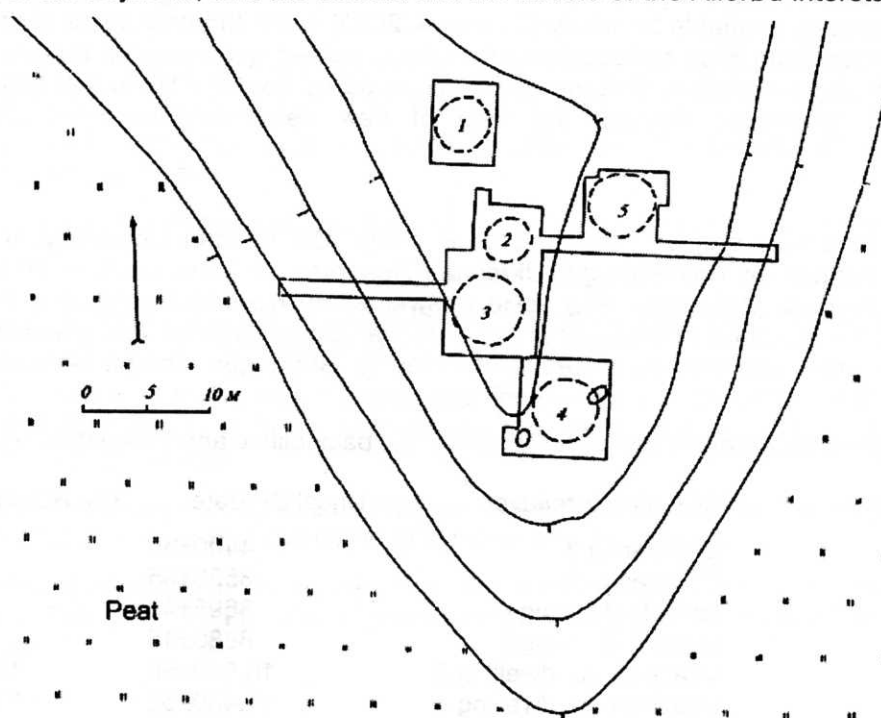


Figure 1. V'yazivok 4A site plan with the location of the habitation structures (1 to 5).

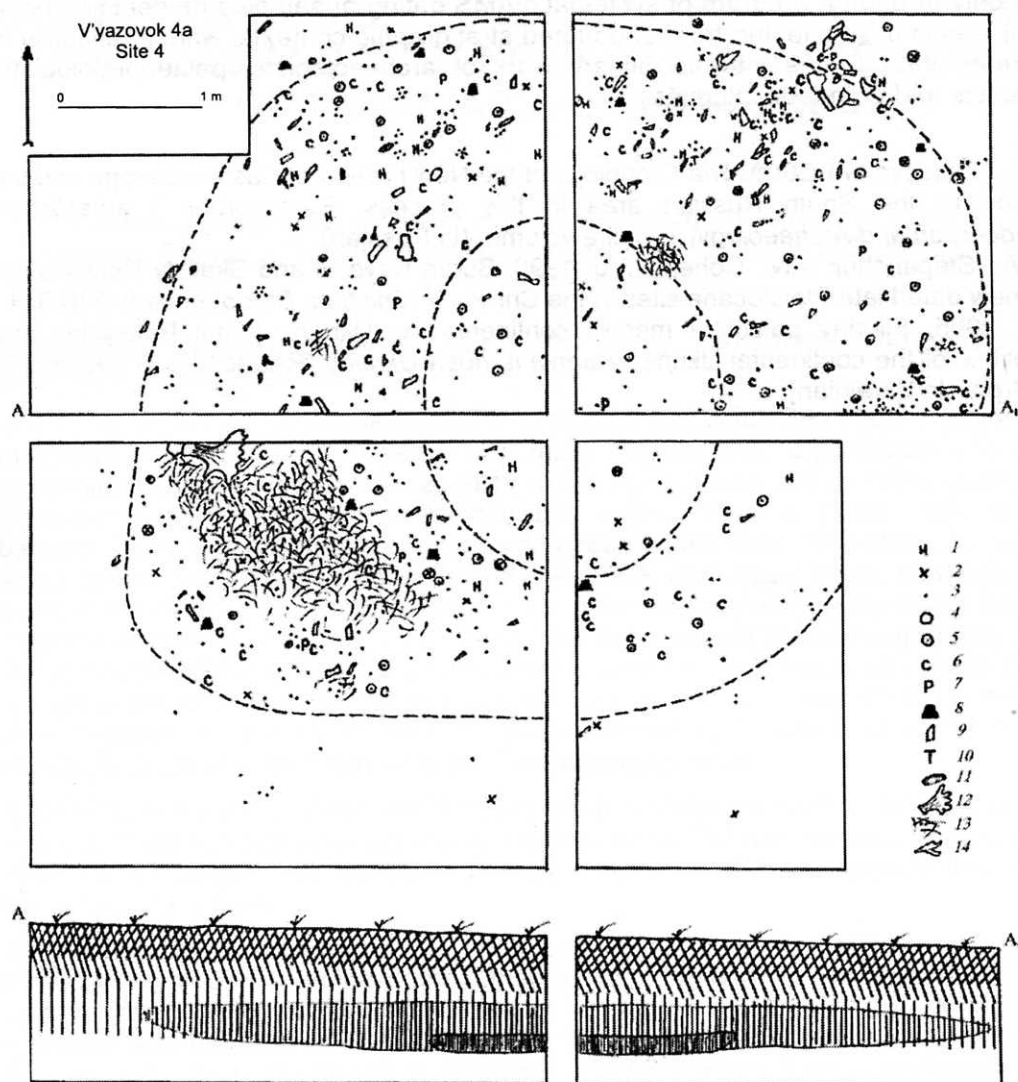


Figure 2. Vyazivok 4A: plan and profile of dwelling 4. 1, cores; 2, blades; 3, flakes; 4, retouched blades; 5, retouched flakes; 6, scrapers; 7, burins; 8, trapezes; 9, oblique, retouched points; 10, axes; 11, stones; 12, horns; 13 fish bones; 14, animal bones; 17, flint "treasure"; 18, mirror image. Sequence from the top to the bottom: 1, modern soil; 2, light-grey clayey layer; 3, brown clayey layer (Early Holocene deposit); 4, dark deposit: dwelling; 5, black deposit of the central part of the dwelling; 6, loess.

Five well-preserved pit dwelling structures found at this site were excavated into a Holocene soil. They contained bones of beaver, aurochs, red deer, elk, pig, horse, fox, wolf, hare, pike, and carp and no Pleistocene specimens. The microlithic flint tools, among which are several trapezes and small circular scrapers on flakes, seem to contrast the chronological attribution of this site to the Epipalaeolithic.

It is difficult to comment on the result obtained from the Crimean rock-shelter Buran-Kaya III, layer 5, Azilian occupation layer, which yielded a very old, unexpected date of 31,750 uncal BP.

To conclude: the absolute chronology of the Ukrainian Mesolithic is still one of the most intriguing problems of the archaeology of the country. The goal of solving this problem could

be achieved only through a program of systematic AMS dating of samples of identified bone and charcoal specimens collected from undoubted stratigraphic contexts, whose reliability is to be confirmed through the interdisciplinary work of archaeologists, palaeopedologists, archaeobotanists and archaeozoologists.

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