



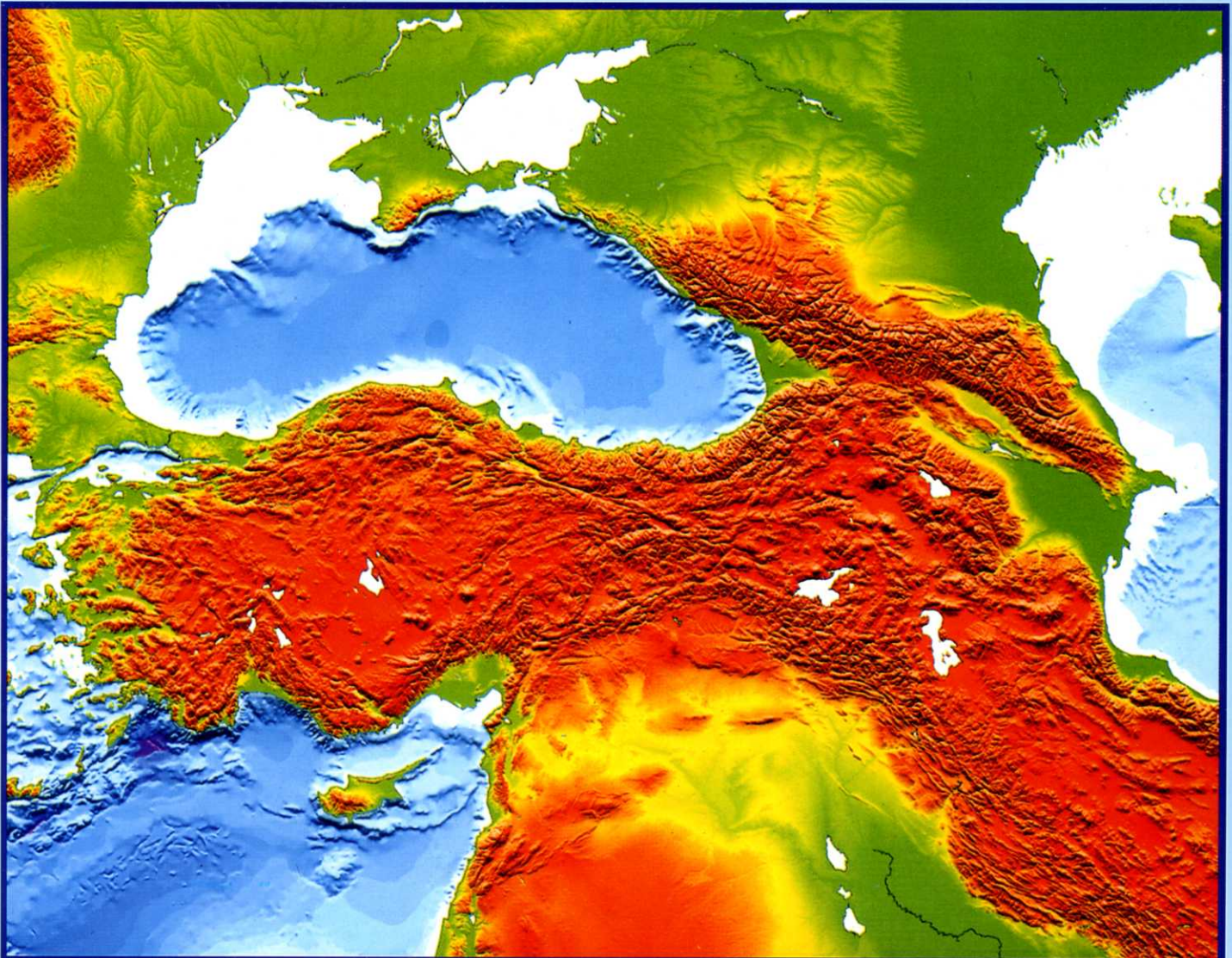
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EXTENDED ABSTRACTS

**2nd PLENARY MEETING AND FIELD TRIP OF PROJECT IGCP – 521
BLACK SEA-MEDITERRANEAN CORRIDOR DURING THE LAST 30 KY:
SEA LEVEL CHANGE AND HUMAN ADAPTATION (2005–2009)**

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Early Neolithic radiocarbon chronology and obsidian circulation in the central Balkans

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Introduction

During the last three years a programme of radiocarbon dating of the Early Neolithic Criş Culture sites of the Central Balkans has been developed thanks to a Leverhulme grant from the Institute of Archaeology of London University, together with the scientific analysis of the ceramic vessels and the obsidian provenance and trade in the provinces of Transylvania and Banat. While a few of the results regarding the first two main topics have already been published (Biagi and Spataro, 2004; 2005; Biagi et al, 2005; Spataro, 2003, 2004, 2006) those from the obsidian hydration analyses are still unknown to most of the scientific audience.

Radiocarbon results

The new radiocarbon results, mainly obtained from bone samples, have shown that the spread of the early Neolithic throughout the entire study region, from eastern Transylvania, to the Great Hungarian Plain, was a rapid phenomenon which most probably took place in less than two hundred years.

They indicate that the earliest Criş Culture settlements of this region were settled during the last century of the eighth millennium uncal BP; similar dates have been obtained also from some of the oldest Körös Culture sites of southern Hungary (Whittle *et al.*, 2002). The earliest Neolithic Transylvanian ones are systematically located close to salt sources. Their pottery assemblage is characterized, among the types, by vessels with white-on-red painted patterns. Among these, the multi-layered site of Miercurea Sibiului-Petriş, near Sibiu, a few km west of the upper course of the Olt River, is the only one at which excavations are still in progress (Fig. 1).



Fig. 1. Location of the Neolithic site of Miercurea Sibiului-Petriş (RO) in the centre of the photograph (by M. Spataro).



Fig. 2. Chipped stone artifacts from Miercurea Sibiului-Petriş (RO) among which obsidians in the centre of the photograph (by P. Biagi).

Obsidian results

The analysis of the poor chipped stone assemblage from Miercurea Sibiului-Petriș has shown that the earliest inhabitants exploited mainly local sources to produce their tools (Fig. 2), although exogenous materials were already imported, among which is obsidian from both Carpathian 1 (Slovakia) and Carpathian 2E (Hungarian) sources. The identification of the provenance of the obsidian sources from other Early Neolithic sites of the same region have yielded a similar pattern: both the Slovak and Hungarian sources were exploited on a small scale between the end of the eighth and the beginning of the seventh millennia uncal BP.

The picture changed radically during the Middle Neolithic Vinča Culture, when obsidian is abundant and obtained almost exclusively from the Slovak source Carpathian 1. By this time also Volinian flint, whose outcrops are located in present-day northwest Ukraine, began to be utilized.

Discussion

The occurrence of obsidian artifacts from Early Neolithic sites located a few hundred kilometers south-east of the original sources is of great interest because it raises the question of the radius of exploration of the local inhabitants who, most probably employed scouts to investigate the surrounding environment. Although some authors suggest that, by the end of the eighth millennium uncal BP, the obsidian sources were controlled by the local late Mesolithic bands of the last hunter-gatherers (Bánffy, 2004), this fact does not seem to be supported in the present-day evidence. In effect the Late Mesolithic in the region is restricted to only two, poorly documented sites, whose material culture assemblage has not been obtained from the neighboring obsidian sources (J. K. Kozłowski, personal communication, 2006).

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