



## **Paleoenvironmental change as derived from loess sediment properties: Examples of last glacial loess sites from the Carpathian Basin**

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The project B1 within the CRC 806 "Our way to Europe" focuses on the "Eastern Trajectory" of modern human migration from Africa into Europe. The Middle East, and SE Europe constitute the principal areas to be investigated. SE Europe has become a special research focus since two early *Homo sapiens* individuals have been found at Oase Cave in the southern Banat. The fossils lack any stratigraphic context; cultural and environmental circumstances of these findings have remained unclear. In the neighbourhood of Oase Cave, however, several early Upper Palaeolithic sites, embedded in loess sequences were known since the 1950's. Some sites were re-investigated by our research team. Conceptually we are following the idea of upland-lowland interaction, which combines parameters as sedimentary transport, sediment distribution, and paleosol development in different altitudes, all influenced by paleoclimate in space and time. Furthermore, some detailed studies concerning site-formation processes and the quality of open-air sites (sedimentary development, paleoecology, multilayering, reworking, human impact on soils and sediments) are being conducted at selected localities. Recent investigations of the loess-paleosol sequences (LPS) in SE Europe provided important environmental information which differ from "classical" ecological approaches derived from other European loess provinces. New luminescence dating results provide a sensitive chronology of environmental changes recorded in the LPS from both upland and lowland positions, giving the potential to link these.