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Loess in the foothills of the western Carpathians and its importance for paleoenvironmental reconstruction towards the Carpathian Basin

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The CRC 806 „Our way to Europe“ focuses on the first arrival and dispersal of anatomically modern humans (AMH) from Africa to Europe. Within the second phase of this project, a subproject investigates the eastern trajectory of AMH dispersal through the Levant and Balkan Peninsula. Special attention is given to the Carpathian Basin and the surrounding foothills of the Carpathian Mountains. To this date, most Paleolithic sites in this region have been found in the foothills. To test the hypothesis whether this observation presents a valid pattern, or if it may be biased by the fact that the lowlands of the Carpathian Basin are covered by thick loess deposits overlying the archaeologic remains of AMH, beside improved archeological perspective it is also necessarily to understand the regional past climatic conditions from the time of the first AMH appearance in Europe around 40 ka ago. Loess-paleosol sequences (LPS) from the lowlands of the Carpathian Basin preserve almost continuous records of past environmental changes from this region. During the last decade, LPS were intensively investigated resulting in a good overall understanding of general paleoenvironmental conditions in the Carpathian Basin itself. However, short LPS from the surrounding mountains have only been studied in few localities and not well understood yet. This presents a challenge in understanding the past environmental conditions of the foothill areas which are hypothesized to be a preferred habitat of the AMH. As an attempt to bridge this gap, we are presenting the initial results from the Şanoviţa section (western Romania), located at the transition from lowlands to foothills of the Carpathians. Based on a multi-proxy study (grain-size, rock magnetism, color and geochemical analysis) of last glacial sediments, we improve the understanding of paleoenvironmental conditions between the Carpathian Basin and the western flank of the Carpathian Mountains. Şanoviţa is located at the upper end of a transect from the Carpathian Basin and the Western Carpathians, which also includes other localities investigated within the CRC 806 such as Semlac, Românești and Coşava.