

The Crvenka loess-paleosol sequence (Vojvodina, Northern Serbia)- a record of continuous domination of the Late Pleistocene grasslands

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In this study we present a comparison of two independent paleo-environmental evidences: novel n-alkane biomarkers and traditional land snails assemblages, associated with widely used proxy records such as the low field magnetic susceptibility, grain size and various isotopic and geochemical indices. These paleo-environmental proxy records provide evidence for the continued predominance of the different grassland vegetation types during the entire Late Pleistocene. The results presented in this study highlight the spatial differences in the environmental conditions during the Late Pleistocene across the European loess belt. Contrary to other European loess provinces characterized by high diversity of the Late Pleistocene environments (ranging from tundra-like to deciduous forest habitats), our investigations indicate a continued dominance of grassland-dominated ecosystems in the southeastern Carpathian Basin. This uninterrupted presence of Late Pleistocene grassland zone in the southeastern part of the Carpathian Basin may have played an important role in the preservation of exceptional biodiversity of the Balkan region, as well as in the migration of anatomically modern humans into Europe.