Geophysical Research Abstracts
Vol. 19, EGU2017-2657, 2017
EGU General Assembly 2017

A new loess distribution map for the Carpathian Basin facilitates surface sediment transects and showing migration pathways for modern human dispersal

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Quaternary studies in the Carpathian Basin require a detailed knowledge of the distribution of surface sediments. Existing and often cited maps, such as Haase et al. (2007), are not detailed enough for various purposes and difficult in detail as a result of the basic input data and due to the used scale. In addition, many of the maps presenting the distribution of loess and other geological features in Europe display inconsistencies such as displacements, shifts or even abrupt delimitations of different geological units such as loess across national borders. In fact, if geoscientific data from different regions or countries are combined, national borders in many medium- and large-scale thematic datasets appear as artificial breaks. To create a higher resolution map showing the more detailed distribution of Quaternary surface sediments in the Carpathian Basin the spatial data from several countries were used and combined. Particularly some issues occurred because of the thematically content of the underlying international geodata, but also due to geodetical basics such as projections and linguistic barriers, respectively. In addition to maps, transects of surface sediments from the lowlands to the uplands are provided. Together these visualizations are used for discussing the loess distribution and possible origins. This map provides a valuable contribution to the potential migration route for the dispersal of the modern humans. We can show that the distribution of Aurignacian open air sites is connect to elevations between 200 and 500 m at the foothills of the mountains and often situated in loess environments.