Geophysical Research Abstracts
Vol. 20, EGU2018-3659-2, 2018
EGU General Assembly 2018

Geomorphology and archaeology of the Moldavian Plateau - Geoheritage site Bahluieț Valley at Costești village

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Rivers and landslides are widespread geomorphologic processes that shape the earth surface and are creating specific landforms. These processes are geomorphological hazards with negative effects on human society. The Moldavian Plateau is a lowland hilly area representative for Romania where landslides are a chronic phenomenon and coexists and have feedbacks with the river incision. In this area the landslides are very old, from the Holocene or even the Pleistocene period, and were reactivated intensively during the Holocene and in recent times, during the Anthropocene. The landslided areas are a space where many villages or cities developed during the time, and this is the reason why the destructive potential of landslides could have negative influences on human society. In the same time, in ancient periods landslides have shaped a landscape with inaccessible escarpments tens of meters high, providing to the old populations panoramic and naturally defensive places to build their fortified settlements, used to assess the relative chronology of landslides during the Holocene. These locations are important heritage sites for Romanian prehistory, where landslides developed after the population disappearance and rivers represent a major risk factor for these archaeological sites. Considering these conditions is of a real scientific and practical interest to study the complex interactions that existed between archaeological heritage sites, rivers and landslides. This study describes the geomorphological and archaeological context of the Bahluieț Valley at Costești village. Here the valley hillslopes where affected by two massive slope failures that created a landslide body which was incised by the Bahluieț River .The river incision created a floodplain in the hummocky topography of the landslide body, which later was filled by sediment to create a floodplain. A second stage of the incision created a narrow channel which segmented both the floodplain and the landslide deposits and created two meander cutoff islands. One of the islands hosted a Chalcolithic fortified settlement which after 1920 was continuously eroded by the migration of the channel, exposing the internal structure of the island in the river bank. This polycyclic evolution have the potential to be the most complete geomorphological suite from the Moldavian Plateau from the last 50 000 years, respective from the Upper Pleistocene to the Holocene. The geomorphological mapping and the absolute dating with radiocarbon and OSL methods of every temporal step of the evolution will increase the scientific value and would allow the classification of this geoheritage site as a protected area of national interest, from a geographical an a archaeological point of view. In the same time it would be the first paleogeographical reconstruction of the mentioned period from the Moldavian Plateau, giving valuable contribution to the geomorphologic evolution of the Romanian and European quaternary evolution in the global quaternary framework.