



## **Landscape change in eastern Georgia (Transcaucasus) during the Late Holocene - documented by fluvial sediments, slope deposits and archaeology**

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The semi-arid Gareja region in the Iori Highland in the eastern part of the Republic of Georgia is characterized by an annual precipitation < 600 mm and shows an open steppic landscape today. As is known from historical sources, the landscape showed the same character already during the 6th century AD when the Gareja monastery located in the center of the region was founded by Assyrian monks. However, archaeological research carried out during the Soviet Period showed the existence of numerous settlements of bronze and iron age in this region almost devoid of water resources today, hinting to some sources of fresh water allowing people to live there during those periods. Furthermore, former archaeobotanical studies assume that the region was covered by forests instead of steppes during the past, although there is no final proof yet.

The goal of this study is to shed light on the development of the landscape during the prehistoric period and thus to address some of the issues described above. To do so, our work is based on the spatial pattern of prehistoric settlements derived from archaeological data of the Soviet period, as well as on the analysis of fluvial and slope deposits from the area using a multi-proxy approach. Altogether, these data indicate a dramatic palaeoenvironmental change in the Gareja region ca. 3 ka ago, leading to the recent steppe and almost unpopulated character of the landscape.