

## **A MULTI-PROXY APPROACH TO RECONSTRUCT MID- TO LATE HOLOCENE ENVIRONMENTAL CHANGES IN THE LOWER DANUBE FLOODPLAIN NEAR THE COPPER AGE SETTLEMENT OF PIETRELE, SOUTHERN ROMANIA**

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East of Giurgiu (Romania) the floodplain of the lower river Danube widens to about 8 km. Since the Neolithic period this area has been settled and thereafter it must have been of importance for the traffic between the Black Sea area and central Europe. Most prominent is the Copper Age settlement mound Măgura Gorgana (4400–4250 cal BC) in the vicinity of the modern village of Pietrele, which has been excavated by the German Archaeological Institute, Berlin (DAI).

Due to drainage since the 1960s the former landscape of meadows with lakes, oxbow lakes and small water courses of a branching river system have almost disappeared. However, the floodplain still offers a variety of sedimentological archives whose investigations are promising for studying Holocene palaeoenvironmental history. The archaeological field work in Pietrele has been accompanied by geoarchaeological investigations. Palaeoecological and fluvio-morphological research has been conducted to reconstruct the Holocene floodplain development and the evolution of the fluvial system. Based on the evaluation of historical maps and satellite images, corings up to 17 m and geoelectric profiling have been carried out. For a better understanding of the dynamic wetland system, sediment cores have been examined in detail by an interdisciplinary team. The multi-proxy investigations of the presented core include analysis of pollen, plant macroremains, insects, charcoal and sediment, which allow the reconstruction of the local and extralocal landscape development in the centuries after the abandonment of the settlement mound. The results of the pollen analysis describe the changing vegetation of the surrounding area. To trace the local deposition environment and hydrological changes, plant macrofossils and insect records are applied. Our results so far show the close connections between changes of sediment and the local/extralocal palaeoenvironment.

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