



Geoarchaeological research for Roman waterworks in the Rhine-Meuse river delta, the Netherlands

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It is known that Romans in the Low Countries at the northern margin of their empire were practicing diverse systems of water state management to maintain economic and above all strategic stability. In early Roman period Romans created a shipping route from the Rhine towards the north by digging canals and constructing dams. This was done in order to submit the northern part of Germania through the Waddenzee and the German rivers Eems, Weser and Elbe. During the middle Roman period the Romans had canceled their efforts to submit Germania. In that period we know the River Rhine as the limes, which not only was a borderline of the Roman empire, but can also be seen as a guarded transport route. The research area is situated in the eastern part of the Rhine-Meuse river valley/delta system. The area represents a highly dynamic geological history of erosion and deposition close to the river system's equilibrium point. In order to reconstruct the former landscape and investigate whether traces of Roman waterworks could be indicated or disproved geoarchaeological coring campaigns have been carried out with lithological, textural and palaeoecological analyses. The results of the research presented in this poster will be: 1) Assessment of the condition of the covered Pleistocene sediments in the area, 2) Identification of the buried gullies and levees in the vicinity of the remains of the Roman castellum 'Carvium ad molem', which should have been built at the bifurcation of the delta branches of Rhine and Waal, 3) Chronological control of gullies and levees, 4) Landscape reconstruction in different time periods. Finally based on the geoarchaeological results a comment will be made on the location of the Drusus dam in the study area, the landscape context of the castellum and its position on the apex of the Insula Batavorum.