



Landscape and soil development in Lower Lusatia - results from archaeological and soil-geomorphological investigations on a small dune field nearby Jänschwalde (Brandenburg, Germany)

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Within the apron of the opencast mine Jänschwalde (SE Brandenburg, Germany) archaeological excavations on a multiple populated small dune were complemented with soil-geomorphological investigations in the vicinity. Archaeological findings in the dune stratigraphy (especially cremation graves) are intercalated within aeolian sediments and/or buried soils and thus give a record of the Late Quaternary geomorphodynamic and soil development.

The archaeological results confirm the presence of Mesolithic and Neolithic populations at the study site. The Mesolithic to Neolithic factory sites are preferably located on slightly elevated places like the remnants of late glacial dunes. On these late glacial aeolian sediments subsequently a podzol formation took place, indicating stable environmental conditions. At the excavation site, this soil was buried by aeolian drift sands in which a cemetery was found. According to grave goods and grave type the excavated bi-ritual cemetery was created at the end of the 3rd and used until the early 5th century AD (Late Roman Iron Age to Migration Period). Within this period the aeolian activity, proven by about 1 m deep drift sands, increased and a small dune was formed wherein 4 inhumation and approx. 26 cremation graves (Schichtgräberfeld) were documented. The cremation graves were mainly recorded as small reddish/gray 5-20 cm thick sandy layers which were separated by the drift sand layers. Soil-geomorphological investigations, two kilometers north of the excavated cremation and settlement site corroborate the detected phases of morphological stability and aeolian activity in this time period. Our complementing investigations indicate that the Late Roman Iron Age to Migration Period population had affected the landscape due to deforestation and agricultural land use.