



## **Cultural and environmental evolution at the peripheral area occupied by Homo sapiens during the Upper Paleolithic (MIS 3 – MIS 2)**

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The climatic changes during the Weichselian glaciation influenced the demographic development and opened up or closed down colonization routes and areas accompanied with geomorphogenetic active and stable phases. In this context, the human environmental interaction in the target area (the Northern Rhineland and the Westphalian Basin) builds the main focus of this investigation.

During the Upper Paleolithic, the area of the Northern Rhineland was either totally depopulated or functioned as a part of the northern periphery of the human settlement area, whereas there is almost no evidence for human occupation from Westphalia prior to the establishment of the Late Paleolithic Federmessergruppen.

The study will focus on two different time periods concerning human migration into and within the study area: The initial colonization by modern Homo sapiens, represented by the Aurignacian between 35,000 and 30,000 a BP and the recolonization after the Last Glacial Maximum (LGM) between 20,000 and 14,000 a BP by Magdalenian hunter gatherers. Concerning the Rhineland, there are fundamental gaps of knowledge for both time periods due to the scarcity of known sites as well as the lack of regional modeling. Prior to 2012, Lommersum was the only unquestionable Aurignacian site in the study area. The Magdalenian has been known so far from three open-air sites in the southwestern part of North Rhine-Westphalia (Alsdorf; Beeck; Kamphausen). In addition, some cave sites at the northern fringes of the Sauerland suggest an Upper Paleolithic occupation although the inventories are small and/or the evidence is questionable. The lack of Upper Paleolithic sites from the Westphalian Basin indicates that large parts of the investigated area have not been populated until the emergence of the Late Paleolithic Federmessergruppen, leaving a seemingly unpopulated area between the Magdalenian and Hamburgian occupation zones for over 1000 years.

Recent inspections of private surface collections although have shown the potential for the discovery of new sites from both time periods, enlarging the database and enabling the possibility for detailed investigations of land use systems and/or raw material procurement. Combined with detailed knowledge of the landscape history, its processes and chronologies, it is expected to obtain important new insights to describe the interdependence of environment and culture in time and space during the Upper Paleolithic in a rather peripheral area of human occupation.

This PHD project is embedded in the CRC 806 - Our Way to Europe, analyzing the dispersal of Homo sapiens from East Africa into Central Europe as well as secondary occurrences of expansion and retreat of our species, in the context of climatic, environmental or cultural changes.

### References

Holzkämper, J. & Maier, A. (2012). Neue Ergebnisse zur jungpaläolithischen Besiedlung Nordrhein-Westfalens. *Archäologie im Rheinland* 2011, 58-60.