



## **Sodicho Rockshelter and 'Out of Africa II', SW Ethiopia: Initial geoarchaeological investigations**

Elena Amelie Hensel (1), Olaf Bubenzer (2), and Ralf Vogelsang (3)

(1) Institute of Geography, University of Cologne, Cologne, Germany (elena.hensel@uni-koeln.de), (2) Institute of Geography, University of Heidelberg, Heidelberg, Germany, (3) Institute of Prehistoric Archaeology, University of Cologne, Cologne, Germany

The Southwestern Highlands of Ethiopia play a major role for the evolution and migration of Anatomic Modern Humans across Africa and beyond. The Collaborative Research Centre 806 (CRC 806 – “Our Way to Europa”) focuses on this research to interpret and verify push and pull factors. Subproject A1 – where this doctoral research is integrated – aims to reconstruct Late Pleistocene paleoenvironment of northeastern African sites with archaeological and geoscientific methods. Since 2009 the cooperation between the CRC 806 and the Southwest Ethiopia Archaeological Project (SWEAP) documents and investigate prehistoric human settlement history as well as culture-environment interaction during the Late Quaternary in the Ethiopian Highlands, with the Mochena Borago Rockshelter as a key-site. The Holocene and late Pleistocene site Sodicho Rockshelter has the potential for the preservation of a comprehensive key stratigraphy, comparable to the depositional history of Mochena Borago. Current archaeological excavations at the site, directed by Dr. Ralf Vogelsang, exposed a diverse stratigraphy with several settlement layers dating to the end of the Late Pleistocene.

This poster points out the initial approaches for geoarchaeological and geomorphological investigations applied on the archaeological site as well as on surrounding archives. A first attempt to understand depositional processes is based on sedimentological and geochemical analyses combined with micromorphological observations at the sediment stratigraphy. A multi methodological approach will contribute to the mountain refugium hypothesis. This includes, amongst others, GIS satellite imagery analyses, comparative geoarchaeological studies with other sites like Mochena Borago, and tephrochronological studies as a chronostratigraphic tool. On this basis a conceptual, altitudinal model of the regional Ethiopian Highlands will be developed via modelling to enlighten human occupation history of – and cultural adaptation to – this diverse environment under the influence of climatic fluctuations in higher altitude.