Geophysical Research Abstracts
Vol. 14, EGU2012-14329, 2012
EGU General Assembly 2012

The Palaeolithic site of Hummal and its potential for paleoclimatic reconstruction

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The region of El Kowm, situated in the arid interior of Syria, is an extraordinary example of continuous human occupation in a steppe environment throughout the Pleistocene. Essential key-resources such as water from artesian springs, lithic raw materials and animals were permanently available, thus human interaction can be inferred in detail throughout time. Excavations at the well-site of Hummal were carried out by a joint Syro-Swiss team (University of Basel and Directorate of Antiquities and Museums, Damascus). At present, the site is 14 m deep and a succession of limnic and terrestrial sediments are exposed. This sequence spans over the entire Pleistocene epoch and encompasses all major Palaeolithic complexes currently known in the Middle East. Preliminary paleomagnetic as well as paleontological results indicate an Early Pleistocene age for the lower part of the sequence, TL-Dates about 250 Ka are present in the lower parts of the Middle Paleolithic layers, dating of additional samples is in planned. On account of the rich archeological record the site of Hummal has a unique potential for studying human behavior in relation to climate change. A multidisciplinary approach in a variety of fields including paleontology, micropaleontology, geoarchaeology and geochemistry aims at generating a comprehensive paleoclimatic data archive for the El Kowm region. Preliminary results demonstrate the exceptional potential of this site for reconstructing past climatic events and for directly linking these to the archeological record.