



of an ongoing project will be introduced, where three electromagnetic techniques were applied in order to test whether a Stone Age wooden fishing structure (c 3200 BCE) would produce strong enough signal to be detected with the methods used. To validate the geophysical data and further understanding on the huntergatherer fishing methods, the work was followed by trial excavations, documentation, radiocarbon dating and palaeoenvironmental evaluation.

More research, experiences and testing with different methodologies are essential in securing the preservation and research potential of the exceptionally informative but vulnerable archaeological resource. Such approaches are also essential in evaluating the adequacy of archaeological sampling strategies and interpretation, as well as in expanding our knowledge of the human past.

ORAL

4. MORPHOMETRIC ANALYSIS TO EXPLORE THE SURROUNDINGS OF THE MELKA KUNTURE PREHISTORIC SITE

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The area of Melka Kunture (central Ethiopia) is one of the most important clusters of Paleolithic sites in Eastern Africa. The archaeological record spans from ca. 1.7 Ma onwards, with a number of stratified occurrences of Oldowan, Acheulean, Middle Stone Age and Late Stone Age industries, together with faunal remains and human fossils. However, the archaeological sites are affected by present day processes. These processes are mainly triggered by the climatic conditions and specific Paleo-landscape forms and features in the nearer surroundings of Melka Kunture and the upper Awash catchment. Hence, the main aims and objectives of this study are the assessment of the present day geomorphological and hydrological processes as well as the detection of Paleo-landscape pattern.

Based on fieldwork, aerial photo interpretation and a detailed DEM analysis we derived a geomorphological map of the Melka Kunture area. Furthermore, we assessed the major landscape forming process using physically based models and a detailed Terrain Analysis. For this study we utilized the SRTM-X with 25m resolution and ALOS/ PRISM DEM with 10m resolution.

The study reveals the spatial distribution of present day landscape forming processes. Especially surface runoff and soil erosion processes were analysed in detail. Moreover, we identified evidences for specific Paleo-landscape pattern in the surroundings of Melka Kunture. In part these features can be explained with tectonic activity, on the other hand they indicate specific pattern of the Paleo-drainage network.

ORAL

5. AERIAL MAPPING BY MEANS OF UAV TECHNOL-OGY IN ARCHAEOLOGICAL SITES IN THE BRONZE AGE AND THE FIRST IRON AGE IN THE MIDDLE-VALLEY OF THE EBRO RIVER (SPAIN)

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The present development of technology and social immediacy does not allow establishing a unique and complete documentation methodology for every kind of archaeological project, which are very variable in their aims and characteristics. Therefore, the way in which documentation technology is applied to archaeological sites, either for research or for didactics, is a complex issue.

In our project, we employ new documentation technologies and procedures for the research of the settlement patterns in the middle Ebro valley during the Late Pre-