



Archaeopedological and archaeological analyses of Bronze Age land use practices in Southwest Germany

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What data can be collected to portray particular land use practices in Bronze Age (~2200-800 BCE)? And how can the Bronze Age agricultural society be described? Are small-scale movements and local impact on landscape ascertainable for these populations? Can differences and shifts between allegedly favorable and unfavorable regions be identified? To explore these questions, the authors combine archaeopedological and archaeological approaches in a project of the Collaborative Research Center 1070 RESOURCECULTURES. In order to grasp on distinctions in Bronze Age assessment and utilization of particular landscapes, three physio-geographically differing regions in Southwestern Germany are studied: the Baar and Western Allgäu (unfavorable) and the Hegau (favorable). In this respect, evolution and distribution of colluvial deposits in the landscape generally indicate patterns of human activity at various spatial and temporal scales (Henkner et al. 2017, Henkner et al. 2018). We investigate on- and offsite colluvial deposits located in the surrounding of Bronze Age settlements. A high resolution sampling strategy (5 cm depth increments within diagnostic horizons) and variety of (paleo-)pedological methods are applied. Besides the typological classification of archaeological finds, chronostratigraphic analysis is conducted using AMS14C and luminescence dating techniques to identify phases of soil erosion. Phases of pedogenesis are differentiated by pedochemical (calcium carbonate, pedogenic oxides, pH) and soil micromorphological indices (soil microstructure, small-scale soil formation processes). Further, we use heavy metals (Cd, Cu, Cr, Ni, Pb, Zn, Hg, As) and geobiochemical markers (black carbon, phosphorus, steroids, gallic acids) as activity indicators for land use practices such as metal processing, fertilization and livestock farming within the Bronze Age settlement areas. In our study area, strong erosion has often been stated for the Early Bronze Age, whereas settlement sites rather seem to multiply throughout the Middle and into the Late Bronze Age. Therefore, the archaeological approach comprises a source-critical evaluation and GIS-analysis of known sites as well as own prospections or smaller sondages. Among others, a yet unpublished Middle Bronze Age settlement in the Hegau, excavated on several hectares by the Cultural Heritage authorities of Baden-Württemberg during the last decade, serves as reference site and as initial point for the archaeopedological investigations. Our poster presentation comprises first pedological and archaeological mappings, their incorporation into the theoretical project framework and a reflection of research status concerning the formulated questions.

References

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