

Past changes of landscape due to increased dynamics of erosion processes in the Bezděz-Doksy region (Czech Republic)

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This study broadens the archaeological research of the the Bezděz – Doksy region in Northern Bohemia, Czech Republic (Dreslerová et al., 2013). Extensive field works between 2008 and 2012 showed that the region has been settled since the La Tène period. Survey of the alluvial plain of the Robečský stream revealed a record of two intensive erosion episodes in the catchment. We suppose that the first episode may be connected to land use changes and the beginnings of agriculture at the site in the La Tène period. The second episode may be connected to the foundation of the medieval village of Okna, which came into existence in the vicinity of the La Tène settlement. The accelerated erosion of former albeluvisols (on loess) led to significant changes of landscape in the region.

The aim of this contribution is to bring a reconstruction of soils, vegetation and relief at the site of Okna before the human occupancy and to detect landscape changes over the time. It focuses on the hypothesis that the accelerated soil erosion has been occurring at the site since the first anthropogenic influence like it is demonstrated by other studies in Europe (e.g. Leopold and Völkel, 2007; Boardman, 2013). An abrupt change of land use from forest to arable land is proved by palynological records. Simultaneously there are buried soil horizons and alluvial sediments which can be studied as geoarchives. The difficulties in reconstruction of relief and quantification of the historical erosion effects are faced by applying GIS and model approaches (Peeters et al., 2003).

References

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