
Climate change and site formation processes in a Neolithic lakeside settlement. Integration of geoarchaeological and palaeo-environmental data at La Draga (Girona, NE Iberian peninsula).

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Résumé

This paper is focused on the stratigraphic correlation between sectors with different sedimentary processes within the same archaeological site. The stratigraphy recorded from the excavated sectors at the Neolithic lakeside settlement of La Draga, Banyoles (Girona, Spain), reflects different formation processes, which may result from both social use of space and changes in the lake water level and/or sedimentary subsidence. Samples of two different sectors, one emerged (Sector A) and another (Sector D) partially covered by the phreatic level, have been analyzed. The analysis of the stratigraphic record includes palaeoenvironmental studies (pollen and NPP analyses), geomorphological and geochemical analyses and 3D correlation of stratigraphic columns. Palaeoenvironmental and geoarchaeological data enabled a detailed characterization of both different layers and phases as well as the reconstruction of local palaeoenvironmental evolution associated with climate change. In sector D, the oldest phase layers, show a humid environment and sedimentation in waterlogged conditions, while soil erosion episodes are recorded during the more recent phase in the context of deforestation processes. During excavation of sector A, those phases couldn't be clearly identified, so soil micromorphology is applied in thin sections, in order to detect probable different episodes of sedimentation. The integration of geoarchaeological and palaeoenvironmental data allowed assessing how climate oscillations affected landscape evolution and sedimentary processes involved in the formation of La Draga. While lake level regression in the context of a dry episode enabled the occupation of a newly exposed lacustrine beach, soil erosion episodes and sedimentary subsidence would have conditioned the use of space during the more recent phase of occupation, through the construction of a travertine stone pavement.

Mots-Clés: Stratigraphy correlation, formation processes, climate change, wetlands, pollen

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