
Spatial vegetation dynamics over the last 35,000 years in West Africa. The contribution of phytoliths in a multi-proxy study (Falémé valley, Sénégal)

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Résumé

In West Africa, palaeoenvironmental data covering the Upper Pleistocene are rare. The lack of reliable and integrated cultural data with well-dated sedimentary records prevents a sufficient spatial reconstruction to understand the climatic, environmental and human settlements dynamics that operated during this period. The recent discovery of particularly well-preserved deposits covering the last 70,000 years in the Falémé Valley (Senegal, Sudanian zone) offers new research perspectives. In particular, the very good preservation of phytoliths in the sedimentary records attributed to stage 2 (MIS 2, 24-12 ka. BP), in part contemporaneous with the last arid period at the end of the Pleistocene (20-12 ka. BP) and the transition to the Holocene, brings new information on palaeoenvironmental conditions during this poorly known period in West Africa. This communication aims at presenting the results for the landscape dynamics of the Falémé from 35 000 to 5000 years BP. Researches combine investigations conducted in the field (geomorphology, chronostratigraphy, archaeology) and in the laboratory with sedimentological, micromorphological and phytolith analysis of the deposits. This multi-proxy approach is particularly useful to reconstruct the complex taphonomy of the sites. The interpretation of more than 60 samples combined with a robust chronostratigraphical pattern (OSL and 14C dating) and abundant Palaeolithic discoveries provides (1) new and original information on the environmental changes from the Late Pleistocene onwards and (2) the opportunity to analyze the relations between environmental changes and human settlements for the last 35 ka.

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