



Plio-Pleistocene vegetation response on orbitally forced climatic cycles in Southern Europe – implications for early human environments

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The pace and causes of the early human colonization, in one or several migratory waves from Africa in new environments of the Eurasian continent during the Early Pleistocene, are still a matter of debate. However, climate change is considered a major driving factor of hominin evolution and dispersal patterns. In fact directly or indirectly by its severe influence on vegetation, physiography of landscape, and animal distribution, climate modulates the availability of resources.

Plant fossils usually are rare or even absent at hominin sites. Thus, direct evidence on local vegetation and environment is generally missing. Independent from such localities, pollen profiles from the Mediterranean realm show the response of regional vegetation on global climate changes and cyclicity, with distinct spatial and temporal differences. Furthermore, plant fossils provide proxies for climate quantification that can be compared to the global signal, and add data to understanding the regional differentiation of Mediterranean environments. In this presentation we will discuss various palaeobotanical data from Southern Europe to assess Early Pleistocene climate and vegetation in time and space as part of the environment during the first expansions of early humans out of Africa.