

## **07: Environments and the Palaeolithic Cultures of Central Europe**

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**Involved subjects:** Archaeology, Earth Sciences

**Number of positions requested:** 1

### **Abstract:**

Central Europe has experienced significant environmental changes over the last 500,000 years, which are thought to have significant consequences for the history and evolution of hominin populations over time. The general environmental record has been investigated by climate scientists and earth scientists, and faunas from archaeological sites have been recovered. However, though a variety of mammals have been recovered from archaeological sites, very little detailed palaeoecological information from the faunas from archaeological sites have been obtained, limiting our understanding of ecological settings and the behaviour of human populations through time.

The aim of this interdisciplinary study is to apply isotope studies from mammal remains (e.g., bovids, ibex, horse, cervid, reindeer, beaver) on a key set of well-known archaeological sites in Central Germany, from the Middle Pleistocene (e.g. Bilzingsleben) to the Late Pleistocene (e.g. Teufelsbrücke, Oelknitz) in order to reconstruct on-site environmental and seasonality records. The isotopic information will provide direct information on ecological settings of archaeological sites, and will be assessed relative to other environmental proxies. The subsistence and prey selection patterns of hunter-gatherer behaviours will be investigated through the isotopic, faunal and archaeological information.

In addition to this, the application of sequential strontium isotope analysis to different prey types can provide insights into the mobility patterns of different animals and thus the potential strategies employed by different groups of hominins to procure them. Comparison of the mobility and hunting radius of populations occupying Middle and Late Pleistocene archaeological sites in Central Germany, alongside the environmental information, can provide insights into evolving hominin adaptations and their interaction with the wider landscape. This has the potential to significantly inform understandings of the capacities of different hominin species within Europe.

The applicants should have knowledge/expertise/background in archaeobiology with a focus on archaeozoology.