

**Postdoctoral position in Computational (Zoo-)Archaeology
(EG 13 TV-L)**

Full Time for 1,5 years

The Römisch-Germanische Zentralmuseum Mainz (RGZM), an institutional member of the Leibniz Research Association and the MONREPOS Archaeological Research Centre and Museum for Human Behavioural Evolution, is seeking to appoint a postdoctoral researcher working on computer simulations of population dynamics of last Interglacial (Eemian, ~125,000 years before present) large mammal thanatocoenoses from Neumark-Nord (Saxony-Anhalt, Germany). This position is part of the project "Understanding the "Anthropocene": human alteration of ecosystems in our deep history (AlterEco) funded by Leibniz Association – Leibniz Collaborative Excellence (K283/2019).

Project description:

Neumark-Nord is amongst the largest sites from the Middle Palaeolithic with an extensive research record from the mid-1980s onward. Fine-grained basin deposits build up a high resolution palaeoenvironmental archive including lithic scatters in lake margin deposits and excellently preserved remains of hundreds of large mammals throughout the ~ 11,000 years of the Eemian. Recently our research at Neumark-Nord provided the earliest evidence for landscape modification in the Palaeolithic. The AlterEco project moves on to study and to model human hunting pressure as a potential contributor to alterations in the biocoenosis and food web structure during the Eemian. The interdisciplinary and international research team is composed of leading researchers in the field of Palaeolithic (Zoo-)Archaeology (Roebroeks, Gaudzinski-Windheuser, Kindler), Isotope Analyses (Tütken) and Palaeogenetics (Hofreiter), and highly motivated young PhD candidates and Post-docs, promoting and encouraging teamwork key elements, such as communication, innovation and creativity. For the modelling of the population dynamics and Neanderthal impact on the large mammal fauna from Neumark-Nord we want to combine the zooarchaeological, isotope and genetic data collected by the research team.

Responsibilities:

The work is exclusively computational and focuses on the simulation and modelling of the changes in the faunal community, i.e. species abundance, presence and absence of taxa, age and sex, feeding habits and genetic data during Eemian at Neumark-Nord against the background of environmental development and Neanderthal hunting. The position involves data handling, programming and custom-tailored statistical analyses as well as population viability analyses. The Post-Doc is expected to disseminate the results of the analysis together with the research group through presentations and scientific publications.

Requirements:

- You have a PhD in Archaeology, Palaeoecology or any related field as well as a creative and significant track record on innovative computational approaches to model and simulate hominin behaviour in Pleistocene environments.
- You have a background in applied mathematics and statistics. You have experience with tools for population viability analysis used in conservation biology (e.g. Vortex).
- You have the ability to publish peer-reviewed papers, handle multiple co-authors, and coordinate and collaborate with external data holders.

We offer:

- Employment according to the collective agreement for civil service employees (TV-L)
- Payment based on the rates 13 TV-L if the candidate satisfies personal and tariff criteria.
- Additional company pension (VBL)
- Concessionary ticket for public transport (Jobticket MVG tariff area 65)
- Starting date: 1st January 2023, later dates are negotiable.

About the RGZM:

The RGZM is a research institute for Archaeology. Since its inception in 1852, the RGZM dedicates itself to the material legacy of humankind in the Old World, with the goal of understanding human behaviour and action, human activity and thought, and the development and transformation of societies. The concentration of archaeological, scientific, restoration and IT expertise allows it to examine human material remains from different perspectives over a period spanning the last 3 million years. To this end, the RGZM maintains a variety of research infrastructures, including archaeological collections consisting of both originals and detailed copies, scientific reference collections, and an extensive image archive, in addition to laboratories for archaeological science and restoration. This infrastructure supports research, teaching, and knowledge transfer equally in both national and international levels. Research at the RGZM is currently organized both chronologically by competence areas (e.g., Roman, Early Mediaeval, Prehistory, etc.) as well as thematically by Research Fields (e.g., "Culture Contact", "Cultural Practices", "Becoming Human", etc.).

About MONREPOS:

The MONREPOS Archaeological Research Centre and Museum is a part of the RGZM. The Centre examines the historical processes of the evolution of hominin behaviour through the contextualized and interdisciplinary study of Pleistocene and early Holocene material remains. The institute has been located at the Schloss Monrepos (from the French "my repose") for more than 30 years. Overlooking the Rhine river and the city of Neuwied from its hilltop location, it forms part of the recreational landscape between the UNESCO World Heritage sites „Oberes Mittelrheintal “and „Obergermanisch- Rätischer Limes “(Roman frontier). Department languages are English and German.

Further information to the post:

For further information about the project and job position please contact Dr. Lutz Kindler (lutz.kindler@rgzm.de).

Please send your application by email (bewerbung@rgzm.de) in a single .pdf of less than 10 MB, including:

- Motivation letter (1-2 pages) describing your expertise, and research interests, stating why you see yourself as a good fit, and where do you see yourself and your research in the future.
- Your CV including your publications and any other relevant or interesting outputs (code repositories, reports, your personal website, etc.).
- Contact details for 2-3 academic referees, e.g. your former supervisor, boss, or collaborator.

Review of applications will begin on the **1st of November 22**, and will continue until the position is filled.

We promote equal opportunities for women and men as well as the compatibility of family and work. Severely disabled applicants with equal qualifications and aptitude will be given preferential consideration (please enclose documentary evidence).

Costs incurred in association with your application cannot be reimbursed.