

## Postdoctoral position in technological and functional analysis of prehistoric engraved stones

(EG 14 TV-L)

Full Time for 2 years

The Römisch-Germanische Zentralmuseum Mainz (RGZM), institutional member of the Leibniz Research Association and the newly established Laboratory for Traceology and Controlled Experiments (TraCEr) located at the MONREPOS Archaeological Research Centre and Museum for Human Behavioural Evolution, are seeking to appoint a postdoctoral researcher working on technological and functional analysis of Upper Palaeolithic art, i.e. engraved schist plaquettes from the Magdalenian site of Gönnersdorf (Germany). This position is part of the project *“Household art and activities, Palaeolithic style: the psychology of 16000-year-old domestic culture at Gönnersdorf (Rhineland) and Oelknitz (Thuringia)”* (funded by the UK- German Funding Initiative in the Humanities: AHRC-DFG Cooperation).

### Facilities and equipment:

- The Laboratory for Traceology and Controlled Experiments (TraCEr) runs under the research umbrella of the MONREPOS Archaeological Research Centre and Museum for Human Behavioural Evolution, namely, understanding the evolution of our behaviour during the early history of humanity. Functional studies are of major importance in order to determine and understand artefact use, and thus to address fundamental questions about the evolution of human behaviour. The main scope of TraCEr is to carry out ground-breaking research that combine 1) methodological development (controlled experiments, measuring raw material properties, macro and microscopic methods and techniques, and high-resolution 3D quantification methods), and 2) fundamental research on Pleistocene and Early Holocene archaeology in different geographic areas.
- The research team is composed by highly motivated young researchers, promoting and encouraging teamwork key elements, such as communication, innovation and creativity. The lab is equipped with state-of-the-art imaging equipment, such as a 3D Laser Scanning microscope (Zeiss LSM800), 3D Digital microscope (Zeiss Smartzoom 5), 3D optical high-resolution scanner (Aicon SmartScan-HE R8), and Scanning Electron Microscope (Zeiss EVO-25). One of the key research aims of the lab is to develop a digital reference library in open-access format, including 3D models, microscopic digital data, experimental data, statistical analysis data and metadata. This approach is crucial in archaeological research and will be fundamental to reinforce open science in Archaeology.

### Responsibilities:

The postdoctoral research will work on the development of methodological advances in traceological analysis in combination with the experimental testing the ease of engraving, erasing and re-engraving schist plaquettes. The research project aims to build up a database for the MONREPOS traceology lab (identical engraving on slate a quantified number of times to test for techniques, strengths, depth, width of engravings and nature of image composition order). This will assist on establishing and codifying the saliency/visibility of fresh engravings in day- and low-light; undertake traceological characterisation of figurative engraved plaquettes and of the experimental replicas and compare the two in the light of their context, use and visibility.

### Your job profile:

You have a Ph.D. and a creative and significant track record on innovative approaches to technological and traceological analysis with applications to Pleistocene and early Holocene archaeology. An openness to conducting both controlled and replicative experiments and a dedication to the

development of rigorous and open standards is essential. Prior experience with controlled experiments, tribology, advanced microscopy techniques, and computer programming is desirable. The applicant should be familiar with archaeological digital data, such as 3D models, reference collection databases, and online digital repositories.

**We offer:**

- Employment according to the collective agreement for civil service employees (TV-L)
- Payment based on the rates 14 TV-L if the candidate satisfies personal and tarif criteria.
- Additional company pension (VBL)
- Concessionary ticket for public transport (Jobticket MVG tarif area 65)

**Further information to the post:**

**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 allow it to examine human material remains from different perspectives over a period spanning the last 2.6 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 at 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), famous for their landscapes, archaeology, numerous castles and quality wines. Department languages are English and German.

For further information about the project and job position please contact Univ.-Prof. Dr. Sabine Gaudzinski-Windheuser ([gaudzinski@rgzm.de](mailto:gaudzinski@rgzm.de)). To know more about the TraCEr laboratory please contact Dr. Joao Marreiros ([marreiros@rgzm.de](mailto:marreiros@rgzm.de)) (TraCEr Research Group Leader).

We look forward to receiving your complete application by mail ([bewerbung@rgzm.de](mailto:bewerbung@rgzm.de)) by 08.07.2021 .

We promote equal opportunities for women and men as well as the compatibility of family and work.

Severely disabled applicants with equal qualification and aptitude will be given preferential consideration (please enclose documentary evidence). Costs incurred in association with your application cannot be reimbursed.