

Abri Stendel XVIII, Lk. Göttingen –

Humans in the Late Glacial to early Holocene environment

In cooperation with the University of Göttingen and the project "CLIOdynamic ARCHaeology: Computational approaches to Final Palaeolithic/earliest Mesolithic archaeology and climate change - CLIOARCH" of the University of Aarhus, the Niedersächsische Landesamt für Denkmalpflege Hannover conducted a 14-day research excavation at the rock shelter "Abri Stendel XVIII" in the Rheinhäuser Wald, Lk. Göttingen, in October 2023 as part of the project "Climate Change and Early Humans in the North - CCEHN".

As early as 1989 Dr. Klaus Grote conducted a test trench at the wall of the rock shelter (Fig. 1-2), which provided Metal Age, Mesolithic and Paleolithic finds. Particularly exciting was the documentation of the Laacher See Tephra (LST), which originates from the eruption of the Laacher See volcano in the Eifel region about 13,000 years ago. In 1997 and 1998 two digger trenches were performed on the slope below the rock shelter by Prof. Dr. E. Brunotte, University of Cologne (Fig. 3). In the lower most part of one trench many reindeer antler remains and rib fragments from horses were documented at a depth of c. 2.4 to 2.7 m. Some of the bones showed cut marks and working traces. AMS-dates assigned the layer to 13 500 calBC. A few stone artefacts and various microfauna were also recovered from this find layer. The radiocarbon dates suggest a late Upper Paleolithic Magdalenian context for the finds.

There are only a few Abri sites in the Rheinhäuser Wald with a Magdalenian find layer and evidence for the supraregional marker horizon of the LST. The aim of the new excavation was to evaluate and sample the stratigraphy including the LST at the Abri. On the slope we wanted to analyze the context and extension of the find layer from the Magdalenian period. The trench at the rock shelter led to the discovery of several Mesolithic layers and confirmed the presence of the LST by a 25 – 30 cm thick layer of grey ash and grains of pumice (Fig. 4-5). Below the LST a brown layer was documented which can probably connected to the Allerød Interstadial (c. 12.000-10.800 calBC). Time did not allow to fully excavate the layer, which according to earlier observations contained Federmesser finds. In the slope trench it was also possible to record a complete geoprofile. Many large boulders probably protected the Late Glacial find layer. Some loess was found at the very bottom of the trench and the Late Glacial context could be confirmed by further antler and bone remains.

Different methods will be applied on the sediment samples such as micromorphology and aDNA-testing. Also, the macro- and microfaunal remains will be evaluated and the charcoal

samples will be determined for tree species by experts. Results will allow to characterize the palaeoenvironmental conditions when humans lived at the Abri Stendel XVIII in Late Glacial to early Holocene times. By doing so we contribute to the better understanding of the interplay of climate, environment and early humans and contribute to the aims of the CCEHN project.

Further information:

- K. Grote, Die Abris im südlichen Leinebergland bei Göttingen: archäologische Befunde zum Leben unter Felsschutzdächern in urgeschichtlicher Zeit. Teil 1,1 : Archäologischer Teil. Veröffentlichungen der urgeschichtlichen Sammlungen des Landesmuseums zu Hannover 43 (Oldenburg 1994).
- K. Grote, Grabungen und größere Geländearbeiten der Kreisdenkmalpflege des Landkreises Göttingen im Jahre 1997. Göttinger Jahrbuch 46, 1998, 181–192.
- K. Grote, Eiszeitliche Jäger in Südniedersachsen. Neues zur Erforschung der Besiedlung unter Felsschutzdächern (Abris). Archäologie in Niedersachsen 1, 1998, 50–53.
- U. Staesche, A peculiar composition of animal remains under a Magdalenian rock shelter south of Göttingen, Northwest Germany. *Munibe Antropologia-Arkeologia* (Homenaje a Jesús Altuna) 57, 2005, 265–277.



Fig. 2: The rock face of the Abri Stendel XVIII. In the background: the re-opening of the trench from 1989. Photo: T. Böckenförde.

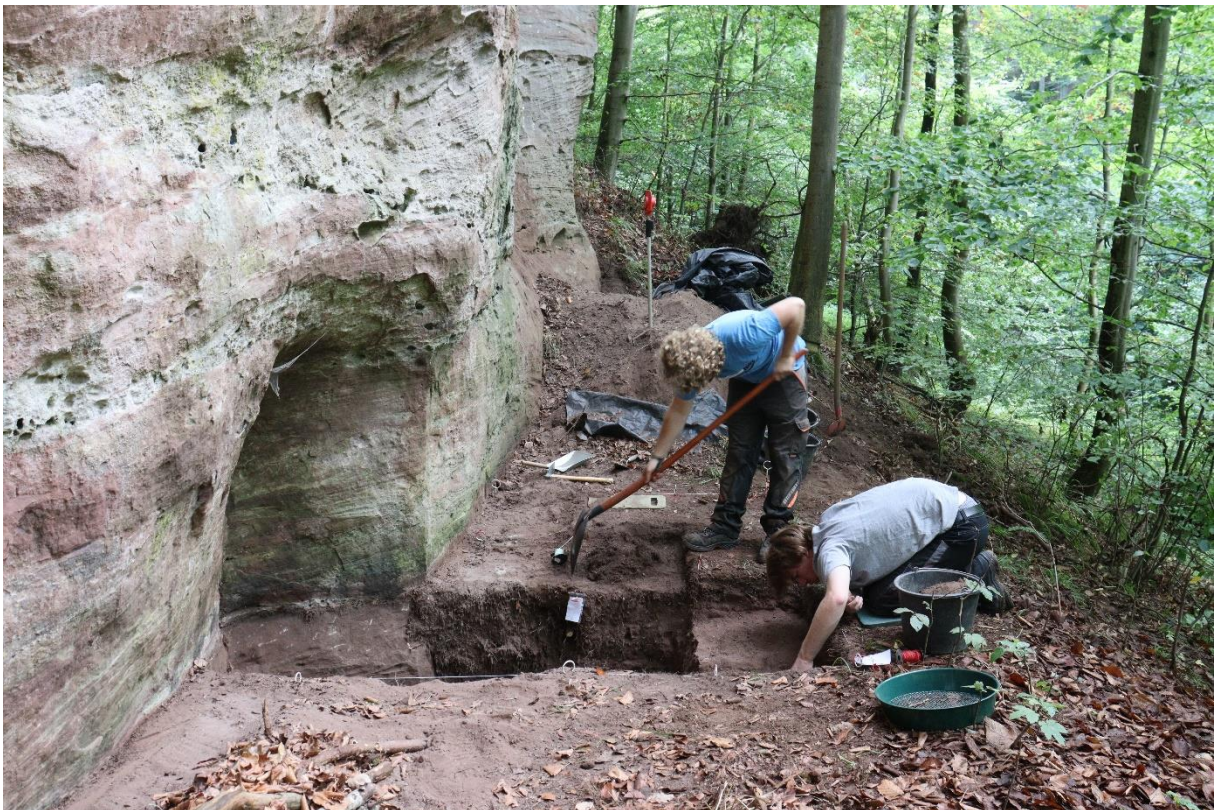


Fig. 1: The re-opening of the trench from 1989 at the foot of the rock face of the Abri Stendel XVIII. Photo: T. Böckenförde.



Fig. 3: The re-opening of the excavator trench from 1997 at the slope underneath the Abri Stendel XVIII. Photo: T. Böckenförde.



Fig. 4: The E-profile at the foot of the Abri Stendel XVIII. The Laacher See Thephra is the white layer in the bottom left corner. Photo: T. Böckenförde.



Fig. 5: The upper planum of the LST-layer. The grey sediment is the Laacher See Tephra. Photo: T. Böckenförde.