What's the difference? Results of a functional study of Aterian and Mousterian tools from the site of Ifri n'Ammar (Morocco)

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Until today, the definition of the North African Mousterian has been based on a systematic comparison with the European Mousterian. Particularly the "Aterian" and its tanged tools have been widely discussed. Researchers considered the tanged Aterian tools as early indications of the existence of hafting techniques [1]. It is currently not entirely understood how the Aterian relates to the Mousterian in North Africa, whether tanged tools can indeed be linked with hafting, and whether non-tanged tools were also hafted, which could indicate that a variety in hafting techniques existed.

The site of Ifri n'Ammar presents an ideal chance to compare Aterian and Mousterian technocomplexes. The rock shelter is located in the eastern Moroccan Rif and has a rich and well preserved stratigraphy where Middle Paleolithic tools are abundantly represented [2]. At Ifri n'Ammar, the Aterian and Mousterian assemblages are inter-stratified, which means that the relationship of these industries cannot simply be explained in terms of chronological succession [2, 3]. The density of retouched artefacts differs between the Aterian and the Mousterian levels and tanged tools are present in the denser Aterian levels only. These levels also show a higher overall tool frequency.

We present the results of a functional study focusing on the artefacts from the upper levels ("Occupation supérieure") of Ifri n'Ammar, dated between 83 ± 6 ka and 130 ± 8 ka [3]. The functional study was combined with a specific experimental program designed to address questions raised during the analysis of the archaeological material, with a specific focus on hafting. Diagnostic microscopic wear patterns confirm that the tanged tools were used while hafted. Tanged tools did not prove to be related to hunting activities only, but various tool uses could be identified. They all fit, however, within the context of hunting and animal processing activities. The reuse of hafted armatures for other activities is not evident in the present sample.

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References

Clark, J. D., 1970. The prehistory of Africa. Thames and Hudson, London.

Nami, M., Moser, J., 2010. La Grotte D'Ifri N'Ammar. Le Paléolithique Moyen. In: Forschungen Zur Archäologie Außereuropäischer Kulturen, vol. 9. Reichert Verlag, Wiesbaden.

Richter, D., Moser, J., Nami, M., Eiwanger, J., Mikdad, A., 2010. New chronometric data from Ifri n'Ammar (Morocco) and the chronostratigraphy of the Middle Palaeolithic in the Western Maghreb. J. Hum. Evol. 59, 672-679.