## Tool use and hafting in the Middle Palaeolithic of Northern Africa. An on-going use-wear analysis on the Mousterian/Aterian assemblages of Ifri n'Ammar (Morocco).

The so-called "Aterian Culture" has received attention since the early days of prehistoric archaeology in Northern Africa. Several definitions were proposed, which triggered a debate around this cultural concept. In particular the presence of the tanged tools was a crucial element in these debates and the tangs were considered to potentially represent the earliest indications of hafting, or at least of intentional morphological adaptations in view of hafting. In contrast to numerous typological and technological studies of Aterian and Mousterian assemblages, use-wear analyses have been scarce up until today. However, for a better understanding of several aspects of these Middle Palaeolithic "cultures", functional data needs to be taken into consideration. Given the issue of tanged pieces, the potential of such detailed studies on production, hafting and use is high.

In this paper, the first results will be presented of an on-going use-wear analysis on tools from the Aterian/Mousterian assemblages of Ifri n'Ammar. This rock shelter presents an ideal case thanks to its particularly rich and well preserved stratigraphy. Around 200 artefacts have been selected up to now, based on their degree of preservation and without restrictions on the level of the tool types. Artefacts were examined macroscopically and microscopically in a search for evidence of their production, hafting and use and an experimental program was set up. Archaeological interpretations are based on new experiments, as well as on the existing large experimental reference collection available at TraceoLab at the University of Liège.

The long-term goal of the study is to use a functional approach to answer questions related to lithic assemblage variability. At Ifri n'Ammar, it is clear that the tangs occur on a variety of tools. Due to the presence of tangs in the Aterian and their absence in the Mousterian, it can be hypothesized that there was a shift in hafting techniques between the two cultures/periods. In order to understand whether this change was triggered by functional, cultural, or environmental factors, more functional data is clearly needed.

Keywords: Middle Palaeolithic, Ifri n'Ammar, Aterian, Mousterian, use-wear, hafting