

Hafting in the Palaeolithic

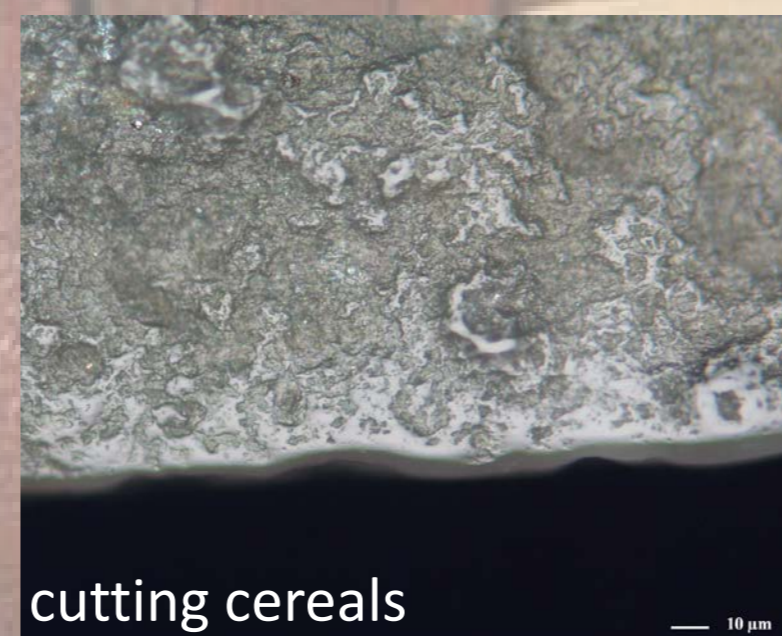
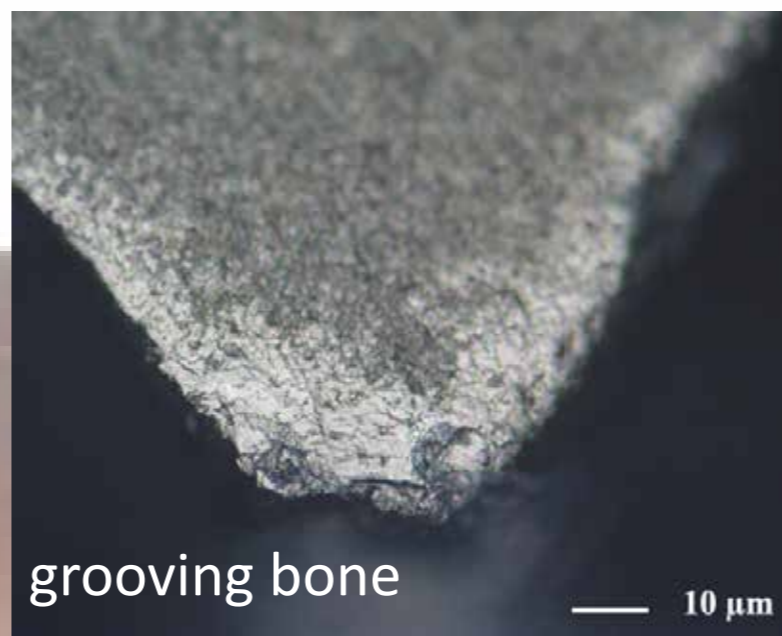
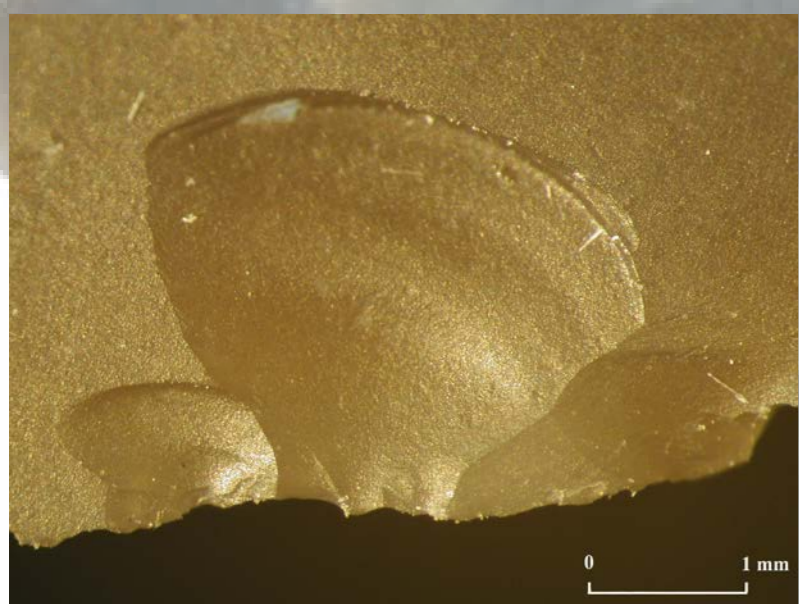
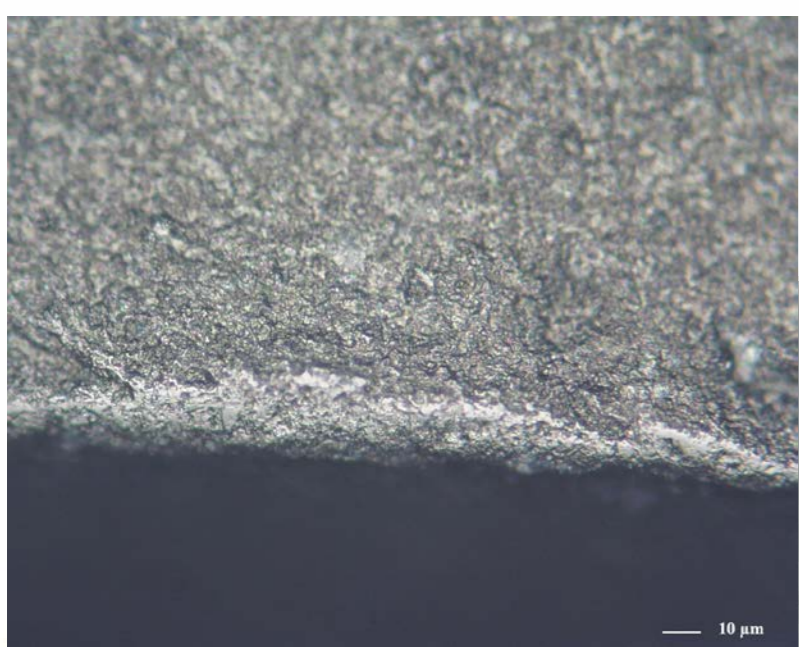
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Stone tool hafting is an important innovation in human evolution with major potential for understanding technological and cognitive evolutions.



In the Palaeolithic archaeological record, stone artefacts dominate. However, only part of these artefacts were selected for use. While stone tools can be used in the hand, many were first mounted in a handle to facilitate use. These handles were manufactured from organic materials with poor preservation chances.

Given the poor preservation of organic materials, a microscopic examination of wear traces and residues is the only way to gain insight into this component of prehistoric technology.

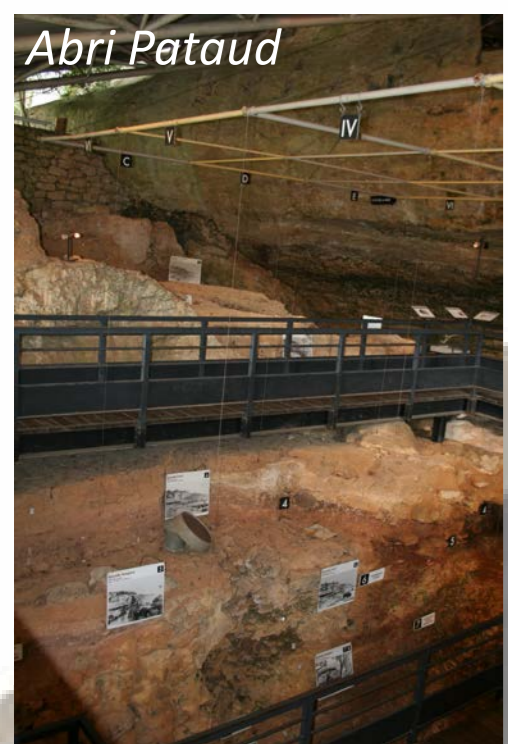


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Tool use results in macro- and microscopic traces on edges and surfaces, which are diagnostic for a particular worked material and use motion. In a similar way, the friction of a stone tool within a handle results in traces diagnostic of hafting and of a particular hafting mode. Hand-held and hafted tools can be distinguished and even hafting modes can be identified.

Experiments are essential for this type of research. Stone tools are produced, hafted and used under likely prehistoric conditions. Archaeological traces are interpreted based on their analogy with experimental examples. A large reference collection is needed for reliable interpretations. It currently consists of nearly 2000 experimental artefacts.



Different archaeological assemblages are examined within Europe (e.g., *Schöningen* (D), *Maastricht-Belvédère* (NL), *Maisières-Canal* (B), *Biache-St-Vaast* (F), *Therdonne* (F), *Bettencourt* (F), *Hohle Fels* (D), *Vogelherd* (D), ...), Africa (e.g., *Sibudu Cave* (S-Afr), *Mochena Borago* (Eth), ...) and the Near East (Isr: *Hayonim*, *Kebara*, ...), within a large comparative framework.

The detailed analysis of wear traces and residues will allow gaining insights into the appearance, variability and evolution of Palaeolithic stone tool hafting in Europe and the remaining Old World. As such, this research will contribute to our understanding of archaeological assemblages and their variability, and of past human behaviour and its evolution through time.

