

Functional studies of stone tools from the Mousterian site of La Roche-Cotard in Langeais (Indre-et-Loire, France). Preliminary result

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The site of La Roche-Cotard is located on the right bank of the Loire valley, about 20 km down-river from Tours. The site, discovered in 1846, was repeatedly excavated; 1912, 1975-1978 and an ongoing excavation opened in 2008.

The discovery of the "Mask of La Roche-Cotard," traces of painting in a cavity, different marks and punctuations make this site significant. After the original occupation by Neanderthals the cave's entrance was naturally sealed making it inaccessible until 1912. The site includes at least four inhabited loci where hominids left traces of their occupation in the form of lithic and very rare bone artefacts, fireplaces and small structures of stone blocks.

The topic of this poster is the on-going functional study of stone artefacts. Mousterian hunters visited the site several times and left behind hundreds of flint artefacts. These will contribute in defining different cave activities, not only the artistic. From a wider perspective, the subsistence strategies of Neanderthals in the region can also be investigated.

Method and Material

All examined stone tools come from the 4 loci and have been selected by their state of preservation (n=105). For this study, a series of experiments were conducted including working a variety of contact materials such as hide, antler, bone, wood, «tuffeau chalk» and chert (both the cave wall material).

A Leica stereomicroscope (up to x90) and a metallurgical microscope (optic ranging from 100 to x500) were used for the functional study of lithic implements, both experimental and archaeological. Digital photos were taken using Olympus Stream software for high power analysis and Leica LAS for photos up to x90 magnification.

Preliminary Results

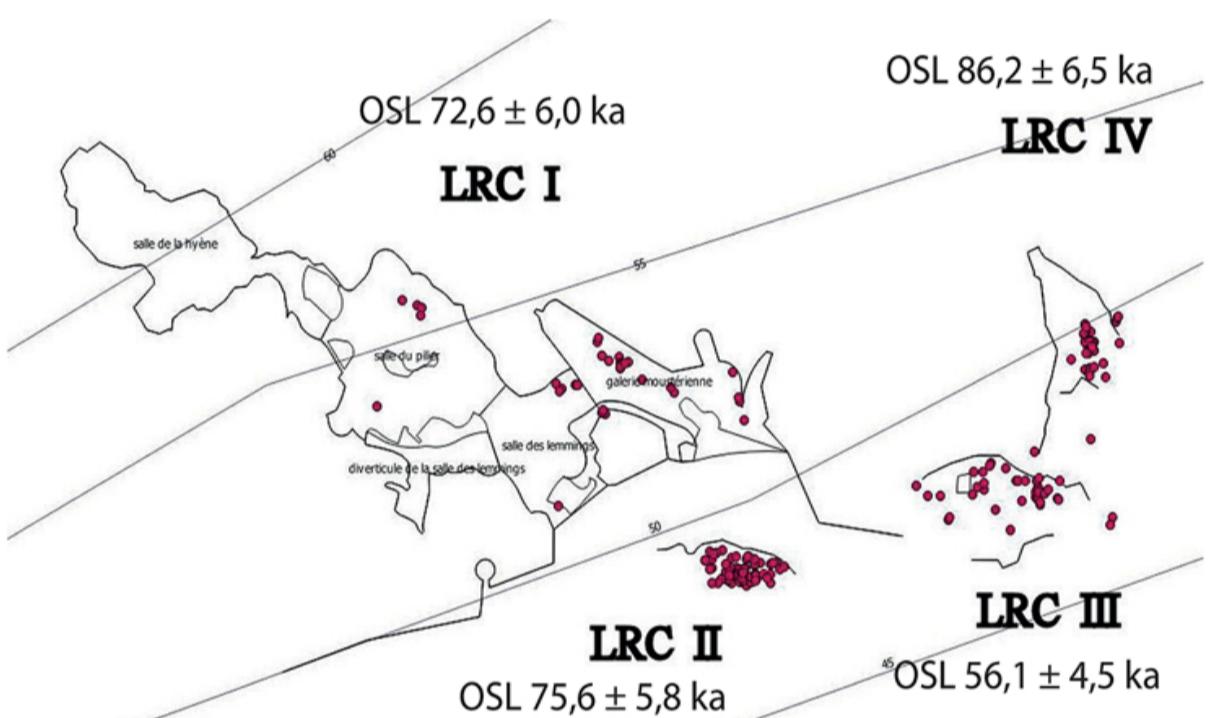
The majority of analysed pieces display the activities related to processing of animal and plant material and as such are evidence of on-site domestic activities.

However, some pieces showed traces of scraping mineral material: the chalk and chert presented on the site and could be related to symbolic activities.

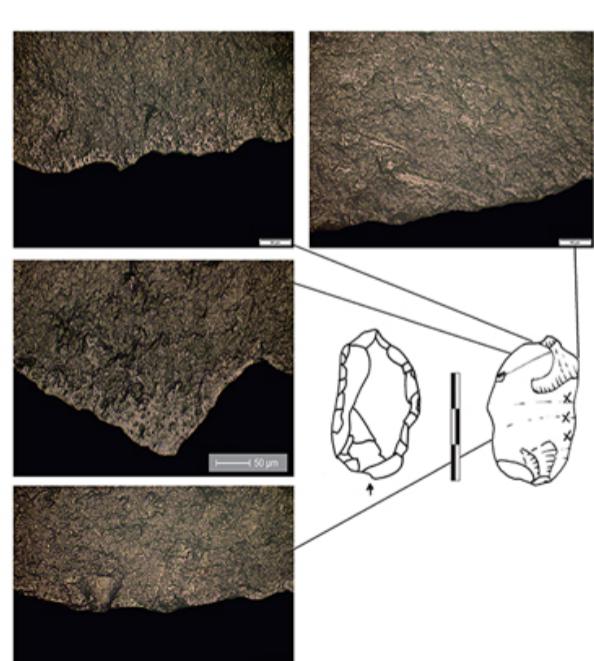
Furthermore a few pieces have been hafted and numerous present double patination indicating tool recycling.



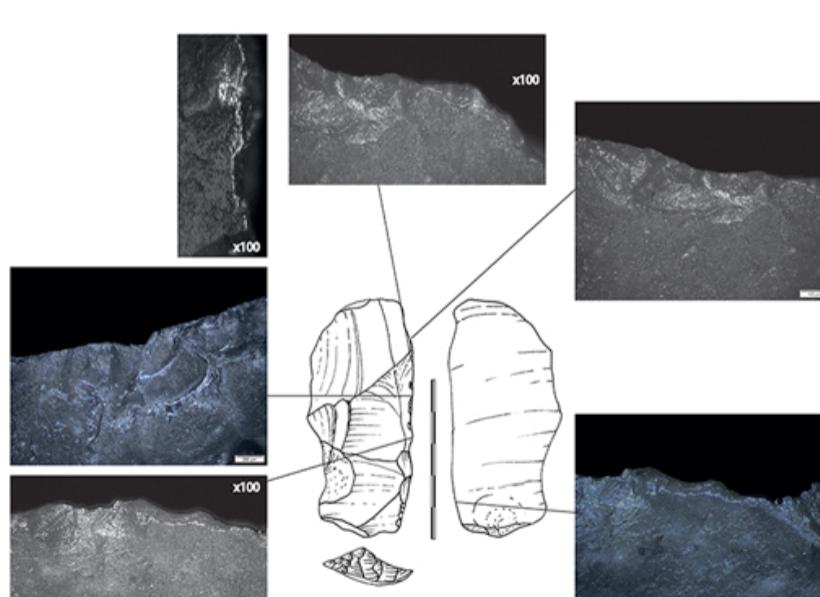
Horizontal distribution of stone artefacts in four loci (below)



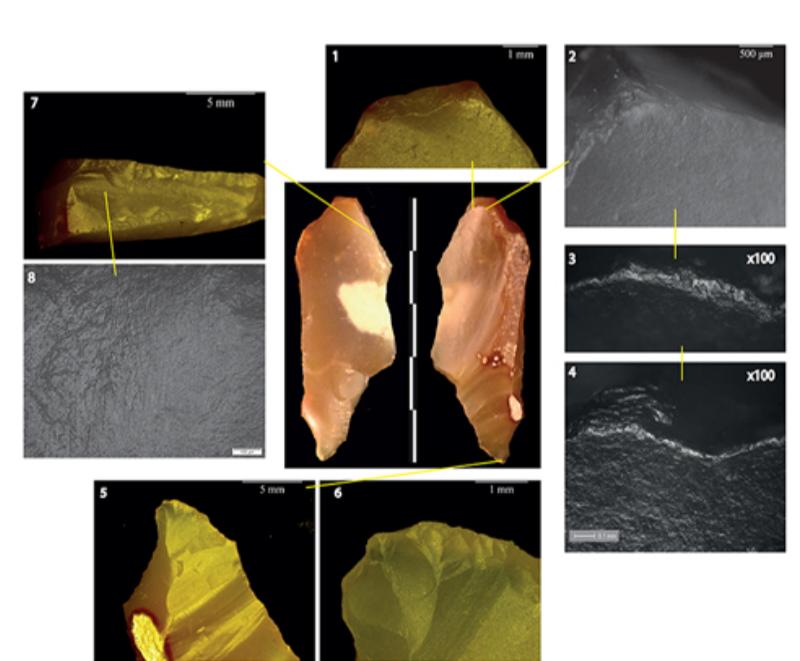
Vegetal (hafted item)



Butchery



Hide and Mineral



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