
Launched percussion with heavy-duty tools in the Early Acheulian level (US4) of the Bois-de-Riquet site (Lézignan-la-Cèbe, Hérault, France).

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Résumé

The rich industry from level US4 of the Bois-de-Riquet archeological site (Lézignan-la-Cèbe, France), dated around 800 Ka, was made from blocks and cobbles of basalt, quartz and aplite collected from the local environment. The assemblage contains, alongside products made by different stone reduction concepts, a range of heavy-duty tools manufactured specifically in basalt. This heavy toolkit results from various production chains representing either the selection and shaping of blocks with specific morphologies, or, the production of *Large Flakes* that were also shaped according to varying degrees of technical investment. These tools have been the subject of a techno-morpho-functional analysis dividing them into five groups, based on the identification of sharp edges and flat surfaces with different orientations. The ergonomics and the mass of these tools suggest that they were employed for launched percussion activities using different gestures. In addition, several parts of the tools (active or prehensile) present removal negatives- often bifacial and alternate -which seem to result from uses according to this modality.

Specific experiments were set up to reproduce basalt tools using the same knapping methods

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and to use them for percussive activities in accordance to their different functional groups: bone fracturing and chopping fresh wood. Each activity was reproduced with 10 tools, while varying usage rates were counted in terms of number of blows carried. The resulting macro-traces were analyzed (*i.e.* position, repartition, distribution, initiation, terminaison and overlapping) using a stereoscopic microscope and results were interpreted in terms of the gestures employed, cutting edge type, material type and tool mass and results were compared with the archeological materials and other experimental references.

However, not all the stigmas observed on the archeological material were obtained in the experiments. Even though certain types of removal negatives observed on the archeological material were reproduced experimentally, thus supporting the hypothesis of the use of these tools for percussive activities, other kinds of negatives located on contact zones considered as prehensile, were not obtained during this first experiment. The use of these pieces as ‘sharp-edged anvils’ or as part of an indirect launched percussion gesture is the main hypothesis to be developed in future experiments. The identification of tools linked to activities carried out with a launched percussion gesture in the context of the Early Acheulean, informs us about a mode of action on the material that is often underestimated. Also, our contribution underlines the importance of this type of gesture in the activities practiced by hominins at the beginning of the Middle Pleistocene.

Mots-Clés: Middle Pleistocene, Basalt, Experimentation, Percussive activities