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Cover image: *Homo erectus* holotype cranium and shell engraving, Trinil,
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Preliminary use-wear analysis results of the Early Acheulean site of Thiongo Korongo (Olduvai Gorge, Tanzania)

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African Early Stone Age lithic industries have been rarely analyzed through functional analyses [1-2] due, basically, to preservation issues and the absence of experimental references on use-wear development in non-flint raw materials. This situation has been changing in the last decade with the introduction of new experimental works and assemblage analyses [3]. These studies on lithic industry of African sites provide us an exceptional opportunity to analyse the economic activities development by the first hominids and, at the same time, to incorporate into the traceological discourse raw materials than have been scarcely studied.

In this work we will present the preliminary results obtained through the use-wear analysis of flakes belonging to the Early Acheulean from TK archaeological site (Upper section of Olduvai Bed II, ca. 1353 ± 0.035 Ma.). TK is an open settlement with several archaeological units characterized by the presence of Acheulean stone tools (i.e. LCT's and flakes) and large mammal's remains (i.e. *Sivatherium* and *Palaeoloxodon recki*). Our work hypothesis is that these lithic artifacts could be reflecting more activities than knapping and processing of animal carcasses [1]. These activities have been already revealed through the study of the chaîne opératoire [4] and the identification of some butchery marks on the faunal remains recovered at the site [5], but the variability of formats and tools suggest that other tasks could also have been made at the site (e.g. wood working, digging, tubers / vegetable processing, etc.). To verify our working hypothesis we have created a use-wear reference collection. For this we have used flakes made on the same raw materials found in the archaeological record of TK, Naibor Soit quartzite and basalt. These flakes have been used on different materials (i.e. *Quercus sp.*, *Bos Taurus* and tubers), performing also different kind of activities (i.e. cutting, scraping, slicing and peeling). This experimental program provides us the necessary information for the identification of use-wear on the archeological material results.

First results on archaeological materials have revealed, through the comparison with this experimental collection, the presence of butchery-related traces in quartzite and basalt flakes. These results confirm the evidence obtained from taphonomic analysis and suggest that the carcass processing activities were made at the site. Also, we have identified traces that could be related with vegetal processing, but further exploration on this line of evidence is needed to incorporate this kind of tasks to the repertoire of activities made at the site. These preliminary use-wear results offer new insights for the discussion about the function of early technology.

Our work carried out in the framework of The Olduvai Paleoanthropological and Paleocological Project (TOPPP). We are grateful to the Spanish Ministry of Culture and the Ministry of Science and Technology for the financing of the project (HAR2013-45246-C3-2-P). Finally, we would like to thank Centro Nacional de Investigación de la Evolución Humana (CENIEH) for providing us the facilities and technical equipment necessary for our study.

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