
Use-wear analysis in the Early Stone Age: the case of Olduvai Gorge, Tanzania

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Abstract

Use-wear analyses are based on the assumption that the different activities undertaken with lithic tools are reflected in a series of surface alterations that can be recorded and interpreted in order to determine the type of action and worked material. However, for ancient periods use-wear studies are significantly scant, due to a series of constraints, particularly related to conservation and post-sedimentary alterations.

This paucity of research is more remarkable for Early Stone Age archaeological sites in Africa. This contribution aims at presenting a number of use wear analyses carried out in some of the main archaeological sites, whose excavations are currently under way in Olduvai Gorge, Tanzania (SHK, FLKW, BK, DS). These sites are known to be some of the most exceptional examples in Africa for the study of human evolution and behavior. These sites contain both, Oldowan and Acheulean technologies, different varieties of raw materials (quartz, basalt and flint), different conservation status and represent a wide range of chronologies (between 1.9-1.2 m.a.) that make each site unique.

Animal carcasses are abundant in the archaeological samples, as the result of butchering processes to be corroborated, among other, by use-wear analyses. In addition, by means of the use-wear analyses, it is possible to identify other types of activities such as woodworking, vegetable-processing, or underground storage organs processing, in providing information about the possible functional variations of the lithic artefacts. Moreover, the results could help us to have a better understanding of the hominids activities carried out in these sites. Before the archaeological inspection, an experimental programme has been designed in order to go deep into the special features of the different archaeological raw materials. Their results are presented together with the preliminary results of the archaeological use-wear analysis.

Keywords: Use, wear analysis, Early Stone Age, Olduvai Gorge, Human Behavior

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