Technological Decisions in an Acheulean Context:
Comparisons of East and Southern African Acheulean Assemblages.

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The period between 1.7 and 0.7 million years ago records some of the most dramatic behavioral changes in the Paleolithic record. This includes the first undisputed evidence of fire, the colonization of much of Asia and Africa as well as likely changes in the diet and subsistence activities of hominins. These changes are often associated with large cutting tools, that are diagnostic of the Acheulean Industry. Yet, we still do not have a clear understanding of how this dramatic change in tool technology relates to these associated behavioral changes. Here we describe patterns of tool manufacture, transport, maintenance and use across large expanses of time and space. Analyses of variation in tool forms from primary fieldwork at various sites in Koobi Fora, Kenya (1.4-1.5 Ma) and Elandsfontein in South Africa (.6-1.1 Ma) suggest that distinctive patterning in the landscape-scale distribution of artifacts are indicative of the Acheulean Industry which may reflect a technological and behavioral strategy that is potentially similar across many Acheulean sites. Some of these strategies may be reflected in earlier assemblages from the Karari Industry. Furthermore, technological analyses show that a dichotomy of technical systems is also a unifying feature of many Acheulean sites. We outline potential scenarios that may structure the landscape-scale use of technical forms during periods between 1.0 and 1.7 Ma. These models cannot be tested with the current archaeological record; however we provide preliminary data on the transport of tools that may offer insights into the geographical distribution of behaviors across landscapes during the Acheulean.

Keywords: Acheulean, Koobi Fora, Elandsfontein, Paleolithic, Archaeology, Large Cutting Tool