Zooarchaeological Evidence for Projectile Technology in the African Middle Stone Age

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The ability of Homo sapiens to kill prey at a distance is arguably one of the catalysts for our current ecological dominance. Despite the importance of projectile technology in human hunting strategies, there is no consensus on its origins. Many researchers have suggested it lies in the African Middle Stone Age (MSA) or Middle Paleolithic. However, evidence from the MSA is dependent on analysis of the stone points themselves. There is a growing body of research focusing on zooarchaeological projectile impact marks in European assemblages; however, comparable investigations are currently lacking for the MSA. The criteria for identifying projectile impact marks on bone are not standardized, and no large experimental studies exist that examine marks left by MSA points. Therefore, a clear analytical framework must be created through experimental samples. Using replica MSA prepared core points and Howiesons Poort segments – present during the southern African MSA – this paper defines the various forms of marks on bone caused by stone artifacts commonly considered to have been used as projectiles at this time. When applied to the archaeological record, these results suggest that the earliest direct evidence for hunting practices in southern African MSA deposits dates to ~90 ka.