research highlights

ARCHAEOLOGY

Middle Stone Age thinking

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The earliest *Homo sapiens* in Africa (dated 200–350 thousand years ago (ka)) had brains comparable in size to modern humans and their fossil remains are often associated with the emergence of the more refined and diverse Middle Stone Age (MSA) stone-tool technologies. However, despite the apparent technological innovation, there is surprisingly little archaeological evidence from this early period for the types of complex behaviours that we might associate with modern humans, such as symbolic thought, long-term planning and extended social networks.

A paper by Alison Brooks, of George Washington University, and colleagues

describes archaeological evidence for complex behaviour as early as ~300 ka at the MSA Olorgesailie Basin site in southern Kenya. The site provides some of the earliest evidence to date for long-distance transport of obsidian for tool making and processing of decorative red pigments. The emergence of MSA technology on this site, therefore, appears to mark a transition to expanding social and trading networks and potentially to symbolic or ritualistic behaviour.

A linked paper by Richard Potts, of the Smithsonian Institute, National Natural History Museum, and colleagues indicates that the transition from earlier Acheulean tools to MSA technology occurred in an increasingly variable and unpredictable climate and landscape. This lends evidence to the hypothesis that *H. sapiens* expanded its behavioural repertoire partially in response to shifting environments, and contextualizes the biological–behavioural–environmental feedbacks active in human evolution.

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