

Abstract

The Middle Stone Age (MSA) of Africa encompasses the archaeological background for the origin, early evolution and global dispersal of *Homo sapiens*. This dissertation project used behavioral information attained from the analysis of MSA stone artifacts, in concert with additional archaeological data and new theoretical concepts, to assess research questions pertaining to key issues in current MSA archaeology and human evolution: What is the nature of coastal adaptations during the MSA and how did they affect the evolution and dispersal of *Homo sapiens*? Did modern humans in southern Africa possess a less complex behavioral repertoire and inferior cultural abilities before and after the Still Bay (SB) and Howiesons Poort (HP) as suggested by the influential “Synthetic Model”? To what extent can analyses of stone tools from the late MSA inform early migrations of *Homo sapiens* out of Africa? Lithic assemblages from six southern African MSA sites, dating to MIS 5 and MIS 3, provide the principle empirical basis to answer these questions.

Concerning the first research topic, based on analyses on the site (Hoedjiespunt 1), regional (sub-Saharan Africa) and continental levels (Africa), the findings of this dissertation demonstrate the systematic, stable and long-term character of MSA coastal adaptations by at least MIS 5e. These behavioral adaptations had ample potential to affect the biological and cultural evolution of *Homo sapiens*. The ability to thrive in variable coastal ecosystems, and a general increase in behavior flexibility, constituted necessary prerequisites to disperse out of Africa along a mainly coastal route in a rapid and successful manner after ~130 ka.

Lithic analyses at the main study site of Sibudu revealed the presence of distinctive, sophisticated and structured stone artifact assemblages during MIS 3 which are used to refine the concept of the “Sibudan” as a new cultural-taxonomic unit of the MSA. Comparative analyses suggest increased regionalization of lithic technology in southern Africa during MIS 3, the maintenance of advanced lithic technology and complex cultural repertoires, as well as dense populations in some areas. These findings reject the dominant Synthetic Model by showing that complex behaviors were well-established in human populations before and after the HP and SB. The results also falsify ideas of cultural regression and demographic collapses after the HP.

Regarding the third major topic, the thesis shows how the phenomenon of convergence can confound the common approach by Paleolithic archaeologists to track large-scale dispersals of modern humans out of Africa by means of stone artifacts. The demonstration of an independent innovation of “Nubian” core technology during MIS 3 in southern Africa, with these artifact types having recently been used to monitor the earliest migrations of modern humans from north-eastern Africa to Arabia, provides a cautionary example that single core or tool types cannot adequately trace such dispersals on large temporal and spatial scales.

Apart from providing new insights into the evolution and dispersal of modern humans, the thesis highlights the need for novel approaches in lithic analyses and a holistic bio-cultural perspective on human evolution.