

Preface

Africa, from Marine Isotope Stages (MIS) 6 to 2, approximately 190–12 ka (thousand years ago), witnessed our species' biological development and behavioral florescence. To date, archaeological, paleontological, and genetic research on this period has been dominated by efforts to classify “modernity” and chart the geographic spread of *Homo sapiens* out of Africa. While such themes remain important, reconstruction and explanation of the demographic processes that occurred within Africa from MIS 6-2 are issues that are consistently under-addressed. This is a major drawback given that population dynamics within Africa played a central role in our species' genetic and cultural evolutionary trajectories. Genetic analyses suggest that African populations experienced multiple bottlenecks over the last 200 ka, interspersed with population expansions (releases). The former almost certainly engendered population isolations, extinctions, genetic and cultural drift, and biological and behavioral adaptation; while the latter saw humans radiate and colonize, with some groups eventually dispersing from, and re-entering, the continent. Analogously, recent theoretical advances in cultural evolution suggest that demography was perhaps the single most important factor underlying modern human innovation.

Yet until these insights can be contextualized, dated, and elaborated using the increasingly refined archaeological and paleoenvironmental records for late Middle and Late Pleistocene Africa, they remain mere glimpses of the complex paleodemographic processes that made us what we are today. To begin redressing this problem, we held a conference at the McDonald Institute for Archaeological Research, University of Cambridge in July 2010, entitled *Africa from Stages 6 to 2: population dynamics and paleoenvironments*. This conference was a first attempt to explore the potential of using diverse African datasets—archaeological, paleoenvironmental, paleontological, and genetic—to reconstruct spatiotemporal population histories during MIS 6-2. The principal aim was to investigate continent-wide population dynamics during MIS 6-2 by fostering interdisciplinary discourse between experts working in ecologically comparable zones across Africa. Twenty-three leading researchers in African archaeology, paleoenvironments as well as genetics and paleontology were thus invited to present their work at the conference. The main issues that were raised included: (1) the impact of this glacial-interglacial-glacial cycle on human group sizes, movements, and distributions throughout the continent; (2) the macroevolutionary and microevolutionary processes underpinning our species' anatomical and behavioral evolution; (3) an initial assessment of the state of the relevant data for addressing these issues and; (4) setting an agenda whereby Africa can benefit from, and eventually contribute to, the increasingly sophisticated theoretical and methodological paleodemographic frameworks developed on other continents.

The scope of the conference was pan-continental. This was not because we expected to pin down population dynamics on this grand scale, but rather because we hoped to address three further objectives: (1) to encourage a more balanced geographical coverage than is typical in MSA/early LSA research (wherein eastern and southern Africa are focal points); (2) to facilitate trans-continental comparisons in order to evaluate the current status of the data; and (3) to foster discourse among and between researchers working in different regions and biomes of Africa. The conference was thus organized according to the biome in which the research was taking place, rather than according to a specific region or time period. This organization—wherein research results from the Kalahari, for example, were presented alongside those from the Sahara, or those from highland Lesotho discussed in relation to highland Ethiopia—proved fruitful. This book, therefore, is similarly organized according to the broad ecological zone into which the different authors' research falls. We have subdivided the papers into: (1) coasts; (2) deserts; and (3) grasslands, woodlands and rainforests. In addition to papers focusing on regional African archaeological and palaeoenvironmental records, we also include two broader scale papers by researchers with expertise in physical anthropology and genetics. This multidisciplinary breadth is essential for addressing questions regarding palaeodemography. In the final chapter of the book, Peter Mitchell raises a number of important theoretical issues and addresses how we can begin to model past population dynamics in Africa from MIS 6-2.

Scholarship on Africa has previously lagged behind that of other continents, particularly Europe, in generating models of prehistoric population dynamics that can be tested against high resolution archaeological and paleoenvironmental records. There are many reasons why this is so, some of which have clearly influenced the composition of this book. First, archaeological and paleoenvironmental research coverage on this enormous continent is extremely patchy, dictated by a host of factors including the variable preservation and exposure of ancient remains, differing research traditions and recurrent political instability. The prehistoric records of some areas (e.g., East, North, and southern Africa) are more thoroughly researched, and thus more highly resolved, than others (e.g., central and West Africa), making our chapter balance inevitably, and regrettably, skewed toward the former. A related reason for Africa's dearth of paleodemographic research compared to other continents is the relative paucity of African researchers working on MIS 6-2. Instead, most research teams and funds come from international institutions with geographically circumscribed research foci instead of trans-regional comparative aims or inter-project collaborations. Particularly rare in research on MIS 6-2 are black African scientists, who have generally tended to concentrate more on earlier (Plio-Pleistocene) or later (Holocene) periods of their continent's past. The result is another unavoidable imbalance in this book. By taking a pan-continental, trans-regional approach to the population dynamics of prehistoric Africans, however, we hope this book will inspire researchers in Africa to investigate MIS 6-2 not only in the continent's best researched regions and archaeologically more remote corners, but also, crucially, in the areas connecting these two extremes. For paleodemographic research in Africa, it is still early days. This book, while perhaps raising more questions than providing answers, takes a critical first step toward elucidating the demographic processes that underpinned our species' development during this formative evolutionary phase.

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Africa from MIS 6-2

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