Current Disputes in the Theory of African Archaeology

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Abstract

Africa has the oldest evidence of human habitation on the planet. As such, most of its history is open to interpretation by paleoanthropologists. Today, intense disputes occur over the path of human evolution as well as the theory of the field itself. These disputes are discussed.

Keywords: *out-of-Africa, multiregional, colonialism,* Homo*, art*

1 Introduction

Housing the geographic origin of humans and their primate relatives, Africa has the oldest archaeological record of anywhere on Earth (Holl, 2010). Archaeological discoveries taken as markers of human society, such as tool manufacturing, symbolism, and agriculture, find their earliest occurrences in Africa. The Rift Valley of East Africa alone is home to nearly all stone tools claimed to be the oldest (de la Torre, 2011). The draw of archaeologists and their students to Africa can be attributed to this uniquely ancient, uninterrupted history of human evolution and society. As such, the practice and theoretical underpinnings of African archaeology have existed in a state of intense debate and change, evolving at a faster pace than its subjects. Little is settled fact in this discipline, from the earliest history to the present day.

2 Western and Colonial Influence on the Development of African Archaeology

African archaeology is inexorably marked by its relationship to the Western colonial project and global capitalism. As a scientific discipline, archaeology arose from the era of Enlightenment in Western Europe, and developed from the era's understanding of history. As such, the underlying paradigms often conflict with the needs and historical conception of African societies (Schmidt, 1995; Shepherd, 2002).

2.1 The Colonial Era

Colonialism in Africa served to provide labor and resources to Western capital, and anthropologists on the continent were primarily Western Enlightenment-era thinkers, employed by the colonial administration or European universities. Archaeology served as a tool of the colonial government, whose findings coincidentally served as justification for the right of Europeans to rule over the continent. European archaeology denied the extant African population the right to claim as their heritage any complex social structures discovered in the

archaeological record, and used this denial to explain the "backwardness" of Africans and thus the necessity for European conquest (Koff, 1997).

An exemplary example of this is that of Great Zimbabwe, a series of stone ruins in southern Africa. The South Africa Company in its initial commissions for study of the site specified the necessity to find evidence for their European origin, and denied from the outset any claims Black Africans' claims to the heritage. Early archaeologists and colonial architects thus attributed the site to ancient peoples of the Levant rather than the resident African population, and would defend this conclusion virulently. The company's results were used to justify their own conquest of southern Africa as a return to their homeland. Professional archaeologists, many of whom took opposing viewpoints on the origin of Great Zimbabwe and on other southern African historical dilemmas, found themselves censored by the colonial administration (Koff, 1997; Shepherd, 2002).

2.2 Archaeology in Independence Movements

During and after independence, the practice of African archaeology reflected a new social and political system. Some African nationalist movements sought to reclaim the prehistory of the continent, taking their ancestral history back from the colonial empires. Today's majority-ruled Republic of Zimbabwe, for instance, gets its name from the archaeological site which had been the subject of colonial falsification. Likewise, Nigeria, Senegal, Ghana, and Zambia all introduced archaeology to the students of their new national universities, allowing Africans to voice their own histories (Koff, 1997).

Other nationalist movements were slow to adopt archaeology as a discipline. In Kenya, archaeology outside that of early human evolution has failed to see the light of day, with most archaeologists being Europeans following in the footsteps of the Leakeys (Koff, 1997). Schmidt (1995) has argued that this white-dominated focus on paleoanthropology is an ideological choice by the government: the Kenyan ruling elite is threatened by the land claims of the country's ethnic groups, many of whom had their traditional land holdings replaced with prejudice against each other by the British "divide & conquer" strategy.

> Archaeology, if allowed to flourish at a regional level, can easily be identified with an attempt to valorize the history ... of one ethnic group at the perceived expense of others. The state's deep investment in the white intellectuals' pursuit of ancient human ancestors has been an ideal way to neutralize regional histories ... it focuses on a 'population' devoid of ethnicity – indeed, devoid of humanness.
>
> – Schmidt (1995, pp. 128–129)

Just as archaeology served the ideological goals of the colonial empire, post-independence scholarship continues to reflect the dilemmas within African political spheres.

3 Rise of *Homo sapiens*

Despite the African continent's undisputed status as the geographic origin of early primates and hominins, debate still arises over the particulars of how members of the genus *Homo* interacted with one another and spread throughout the world. Paleoanthropologists are certain that *H. habilis* lived exclusively in Africa, followed by populations of H. erectus, *H. heidelbergensis*, and presently *H. sapiens*, all of whom appear to have had significant presence on the Eurasian continent (Wenke & Olszewski, 2007). How these populations interacted and evolved is uncertain.

3.1 Early Hominin Expansion

Homo erectus was most likely the first hominin to venture off the African continent, with a range of sites from southeast Asia to the Iberian Peninsula. Compared to *H. sapiens*, *H. erectus* had more protruding jaws, smaller cranial capacity, and larger brow ridges (see Wenke & Olszewski, 2007, fig. 4.2). *H. erectus* likely lived in caves and used fire, suggesting adaptability to the cold climates outside Africa. Evidence strongly suggests *H. erectus* manufactured tools, with *H. erectus* sites containing tools dating to .6 Ma in Europe and over 1 Ma in Africa. Various improvements in toolmaking may have allowed *H. erectus* to adapt to the wide variety of climates and ecosystems encountered throughout the species' historical range. Specifically, the Acheulian

hand-axe shows a creativity in its craftsmanship, requiring forethought and an implicit understanding of stone flaking behavior. Its widespread range suggests a versatility in use unmatched in preceding hominin technology (Wenke & Olszewski, 2007).

H. neanderthalensis (sometimes *H. sapiens neanderthalensis*) emerged around .5 Ma in Europe and Central Asia, with a physical structure vastly similar to that of anatomically-modern humans. *H. neanderthalensis* showed some adaptations compared to *H. erectus* to the cold weather of their native Europe, with more massive and muscular bodies. The species also appears to have practiced burials and manufactured specialized stone tools, a marked similarity to *H. sapiens* in comparison to *H. erectus*.

The lack of a direct line of hominin remains showing flows of single populations, as well as the phenotypical similarities and gradients within the remains of early hominins, make it difficult to pinpoint the origin of anatomically modern humans. Theories have thus arisen to explain the genetic and phenotypical differences current *H. sapiens* shows across geographic regions.

3.2 Out-of-Africa II

The replacement model, better known as the "out-of-Africa II" hypothesis, proposes that *H. sapiens* originated exclusively in Africa and spread to Eurasia recently. This wave of emigration drove the already-present Eurasian *Homo* populations, who had migrated nearly a million years beforehand in "out-of-Africa I," to extinction, "replacing" them. In the 1980s, paleoanthropologists accepted the idea of *H. sapiens* appearing around .2 Ma and rapidly spreading outside Africa, completely replacing populations of hominins without any population mixture (Kendrick, 2014).

The oldest *H. sapiens* fossils have all been found in Africa, with Richard Leakey's Omo River Valley fossils dated to 195 ka. Further, transitional fossils have only been found on the African continent, with absences of any transitional remains in Eurasia or Australasia. Morphologically, African fossils show the greatest internal diversity as well as the greatest difference from all non-African populations. Even without genetic testing, replacement theory was accepted as the story of human evolution by the 1980s (Kendrick, 2014).

Recent genetic evidence provides further support for this second migration of humans. Because mitochondria have their own genetic sequence and are passed down exclusively maternally, geneticists have been able to hunt for a maternal ancestor of all living humans. Cann, Stoneking, and Wilson (1987) studied the mitochondrial DNA sequences of 147 people and, extrapolating from the known rate of mutation of DNA, concluded that all living populations today derive from one ancestor who lived approximately .2 Ma, likely in Africa.

3.3 Multiregional Hypothesis

The multiregional or regional-continuity hypothesis proposes that modern *H. sapiens* are the result of contact and interbreeding between disparate human populations across Eurasia. What is now one human species is seen as the result of convergent evolution from different members of the genus *Homo* who interacted and – at least partially – united globally.

Multiregionalists point to the presence of unique genes in European *H. sapiens* populations, attributed to interbreeding with *H. neanderthalensis*. Thus, it is likely that what came to be *H. sapiens* is the result of mergers between formerly distinct hominin populations. Conversely, they criticize the use of mitochondrial DNA by replacement theorists, citing it as based on unfounded assumptions (Kendrick, 2014).

Morphologically, the extant peoples of Eurasia and Africa are quite distinct. Followers of multiregional theory use this discrepancy as evidence for distinct evolutionary paths, which gained distinct genetic traits from separate species of *Homo* (Kendrick, 2014).

4 Prehistoric African Art

Some of the earliest evidence for anatomically modern humans is the art they left behind. Cave paintings, pottery, and beadwork are all major classes of artifacts in African archaeology. Especially with rock art, the existence of these have long enthralled European archaeologists; however, the European conception of art brings with it cultural baggage (Arnaut, 1991). Postmodern criticism of these research topics have questioned the veracity of whether we can "know" anything about what the creators of such creations were thinking at

the time. It is tempting to consider these from the standpoint of the Western conception of art, yet it is impossible to know what a hominin to which we have no social connection could have ever thought during its lifetime.

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