

Book Review of Handbook of Pleistocene Archaeology in Africa: Hominin Behavior, Geography, and Chronology

Amanuel Beyin, David K. Wright, Jayne Wilkins, and Deborah I. Olszewski (eds.)

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Not so long ago, Africa was considered by many to be a continent without a history. Except for the Nile Valley, African history was regarded as very late and partial, an inconsequential appendage to the histories of the great colonial powers. Although ancient stone tools had been discovered occasionally as far back as the 1850s, the prehistory of the continent was almost unknown as late as the 1920s, and this was especially true of the Old Stone Age – the Paleolithic. Comprising the work of 278 archaeologists recently or currently active in Paleolithic research¹, the *Handbook of Pleistocene Archaeology of Africa* aims to provide up-to-date, authoritative summaries of 116 sites and site groups irregularly distributed across 2.6 million years of time and 30,365,000 square kilometers of space. This is no mean feat. The Pleistocene is critically important for our understanding of human biological and cultural evolution. It saw the appearance of obligate bipedalism, thus freeing the hands for object manipulation, a large brain relative to body size, increases in group size that selected for prosocial behavior and cooperation, language, and the earliest evidence of social complexity. At 2194 pages divided into two volumes paginated consecutively, the book is the most ambitious single compilation of African Stone Age archaeological research so far attempted. It is, however, by no means the only such compilation.

At intervals of about a decade, compendia of African archaeology have appeared since the 1920s. Of varying temporal scope and with the sole exception of Leakey's *Stone Age Africa* (1936), these were regional syntheses describing cultural sequences, usually in terms of retouched stone tool types thought to mark identity-conscious social units, the rough equivalents of those known from ethnography. Up until the 1960s, these compendia summarized an archaeology that was largely inductive and strictly empirical – what we would call culture histories. The description of unconstrained pattern searches was the goal. During the next 30 years, there was a jettisoning of European classificatory systems and their replacement with a bewildering array of regional 'cultures,' a systematics that persists to the present. Superimposed on these, especially in south and east Africa, is a tripartite division into Early (ESA, 2.6 Ma – >280 ka BP), Middle (MSA, >300 – c. 40 ka BP), and Late Stone Age (LSA, c. 40 – <20 [12] ka BP). Dates for these stages vary from place to place.

Early on, much of this work was driven by human paleontology, particularly the discovery of the gracile (1924)

and robust (1938) australopithecines and the Broken Hill (Kabwe) cranium (1921), all in South Africa. While recognized to be of great antiquity, the South African fossils were not dated nor associated with stone artifacts, so the question of the relationship between the two did not arise. In East Africa, the situation was reversed. Although the Leakeys had been working in Olduvai Gorge since 1931, their archaeological discoveries attracted little attention until the discovery of *Zinjanthropus* (1959) in association with stone artifacts sparked interest in East Africa as a potential rival to the South. Like so many other things, Paleoanthropology – the systematic integration of Paleolithic archaeology and human paleontology – was born in Africa (Clark and Howell 1966).

The main criterion for including sites in the *Handbook* was their attribution to the Pleistocene epoch (2.58 Ma – 11.7 ka BP), either through radiometric dating or because of archaeological discoveries referable to that time span (e.g., Acheulean bifaces). The volume features a long, thoughtful Introduction by Beyin and Wright that outlines the history of research on the continent, the paleoenvironmental framework in which it occurs, and offers a candid assessment of the areas in which the project succeeded and those where it fell short of the mark. This is followed by 20 chapters (called Parts)², that contain 116 site entries grouped by the nations in which they occurred, arranged in alphabetical order (e.g., Algeria, Botswana, Djibouti, etc.). Chapter 21 summarizes methodologies (e.g., data recovery, archaeozoology, paleoecology, luminescence dating, lithic techno-typology, colorants, etc.). It also contains a somewhat anomalous continent-wide overview of the hominin fossil record. Chapter 22 consists of a survey of the Acheulean in the west African Sahel and a comparison of trajectories of culture change in northwest Africa and the Levant.

The objectives of the *Handbook* are (1) to promote a holistic understanding of Paleolithic research cross-cutting different research traditions and political boundaries³, (2) provide a basis for teaching courses on African Paleolithic archaeology, (3) allow for assessments of the state of research in the areas surveyed by the contributors, (4) describe recent methodological and conceptual advances in African research (e.g., geochronology, isotope geochemistry, etc.), and (5) make accessible to both professionals and the general public continent-wide Pleistocene site overviews, thus promoting Africa's place as a key player in the archaeology of human evolutionary research.

At the behest of the editors, the contributions are fairly standardized as to length and content. Every contribution was reviewed twice (sometimes three times), thus insuring a relatively uniform level of comparability. These are more than simple vignettes. The average contribution is about 18 pages long. Most go beyond strict adherence to the archaeology (unless the archaeology is all there is) and, where multidisciplinary teams are involved (a function of funding and a commitment to interdisciplinary research), can include chronostratigraphic analysis, geoscience, palynology, faunal analyses and, in some cases, settlement pattern studies, site contexts, site formation processes and landscape evolution). Practically all the contributions provide a regional synthesis of sometimes very sparse data. The extent to which it is possible to integrate natural science research with the archaeology is limited by political instability, education level, standard of living, poverty, access to funding sources, number of qualified researchers, development of universities and museums, opportunities to study abroad, and a host of other factors. In short, some nations have a developed infrastructure capable of supporting modern approaches to Paleolithic research, others do not.

As is true of all Springer Nature monographs, the *Handbook* is well-produced and illustrated with hundreds of figures, tables and plates listed by individual site entry. Given its size, the printed version of this 'weighty tome' (9.6 lbs) will find a home mostly in university libraries and museums, whereas the virtual edition will likely have a much wider distribution. In sum, the *Handbook* is an impressive achievement and the editors deserve much credit for persisting with what must have been a long, complicated and frustrating task (having edited books myself, the phrase 'herding cats' comes to mind).

It is always possible, of course, to 'pick nits' with any published work. A very minor 'nit' has to do with the Introduction, most of which is devoted to the historical context, objectives of the work, 'modern human' behavior, dispersals, and classification systematics. All appropriate, well-written, and impressive—a very large amount of material is compressed into a very few pages. That said, I found it curious that there was no 'Conclusions' chapter. The book just 'ends.' Given the highly variable character of the African archaeological record, the different research traditions of the colonial powers, the irregular pace of research both within and across regions and the different methodologies deployed, it would have been useful to have pulled all this together at the end of the book, rather than at the beginning. In place of a Conclusions chapter, we get the continent-wide *potpourri* of methodologies mentioned above. A concluding chapter in which the editors evaluate the overall effort and how it squares with modern research protocols and conceptual frameworks would have been a welcome addition.

Readers might also wonder why the editors arranged the site descriptions the way they did, according to the political boundaries of former colonies. As they note, this was a purely pragmatic decision because it made sites easier

to locate. There is no overarching geoscience and climatic picture for Africa as a whole, but one exists. Largely overlooked was J. Desmond Clark's spectacular *Atlas of African Prehistory*, a folio-sized series of 50 celluloid overlays and maps identifying more than 1000 archaeological sites spanning the Lower Paleolithic to the Neolithic and relating them to topography, geology, soils, present and projected rainfall, vegetation types, animal and human diseases; Early, Middle, and Late Pleistocene faunas, and human paleontology on a continent-wide scale (Clark 1967). Site locations are also identified by UTM coordinates, a rarity at the time. Although Clark's voluminous *oeuvre* is cited almost 500 times, the *Atlas* is cited only once. Since it was compiled almost 60 years ago, the distribution maps are less affected by anthropogenic factors than they would be today. The political boundaries of African nations are almost entirely artificial and cross-cut social units, language groups, geologies, topographies, precipitation regimes, vegetation associations, and faunal communities. It would be interesting to see how the sites reported here square with Clark's Africa-wide geoscience and climatic variables.

As the editors themselves make explicit, the *Atlas* is far from an adequate sample of the range of variability in Paleolithic research protocols and traditions (indeed, it is probably impossible to arrive at such a sample). Africa today comprises 54 nations, mostly states created by the colonizing empires. Only 19 of them (28.4%) are represented here (Figure 1). Readers will notice a marked discrepancy in the number of sites reported between former colonies of the British Empire, and those of France. A continent of high linguistic diversity, Africa has 1500–2000 indigenous spoken languages divided into four main groups. All those languages are considered 'official languages' by the African Union, and many countries have more than one (e.g., the RSA has 11), but all archaeological efforts since the 1850s originated with the colonizing nations. Consequently, English and French are the dominant languages of government, science, education, business, and finance, both nationally and internationally, in almost all African countries. Francophone conceptual frameworks and research protocols dominate northwest Africa (Algeria and Morocco—13 sites, site groups) and the vast expanses of French West and Equatorial Africa (7 sites). French is also the dominant language in the former Belgian Congo. Anglophone approaches dominate South Africa (RSA—38 sites), British West Africa (Kenya, Tanzania, Zambia, Zimbabwe, Sudan—23 sites) and Ethiopia, which was never colonized (17 sites)⁴. Why, then, the disparity? The editors attribute this to linguistic differences (i.e., the French do not read anglophone publications and vice versa), a disinclination to publish in English books and journals, and divergent fieldwork practices and approaches. One could add that much of francophone west Africa is so heavily forested or, in the case of the Sahara, covered in sand that the survey-driven methodologies used to locate sites in more open terrain simply will not work there.

But there is more to this than meets the eye. Despite an effort to cast the net as widely as possible, the editors

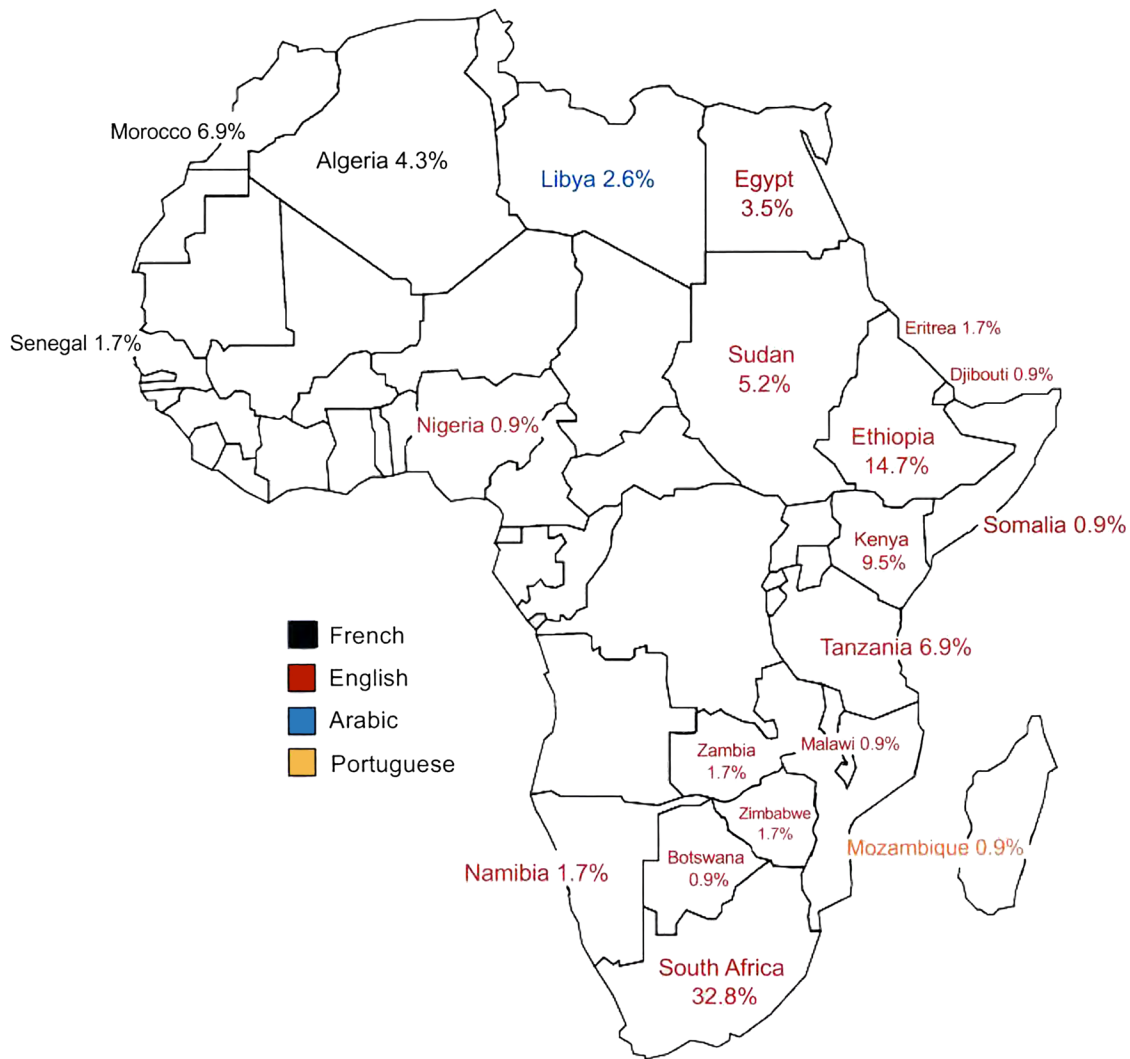


Figure 1. The map shows the percentage by country (19 countries, 28% of 54 countries) of the 116 sites represented in the book, color-coded by primary language of diplomacy, education, and commerce. Depending on how languages are defined, Africa is estimated to have one-third (c. 2500–3000) of the world's spoken languages. Despite the roughly equal areas colonized by England and France, the predominance of English in East and especially South Africa (33%) is obvious.

got far more submissions from anglophone (78) than from francophone countries (20). I suggest these differences are rooted in assumptions and preconceptions about the nature of the remote human past, vary with language, are largely implicit, and go much deeper than superficial differences in where, when, and with whom people publish. The French research traditions tend to emphasize cultural explanations and choose variables accordingly, whereas the anglophone traditions rely more heavily on linked systems of natural and behavioral variables that are distinct from those of francophone Africa. Put another way, different assumptions about the past largely determine what is considered relevant data, which questions are asked of the data, and—most important—how the data are interpreted and explained. However much new and innovative methodologies cross-cut research traditions, the 'holistic understanding' sought by the editors will remain elusive (Clark 1999).

ENDNOTES

¹By my count, 278 individuals contributed to the volume (pp. xxxiii-li), a significant number of whom are co-authors of more than one paper. About 10% list African institutions as their primary affiliation (cf. pg. xi for slightly different figures).

²A 'Part' (here called a Chapter) indicates a country (e.g., Part XVI is Sudan). For each Part, sites are listed alphabetically (e.g., Abu Hamad Reach, Khor Abu Anga, Sai Island [Site 8-B-11] are in Sudan).

³This objective is unrealistic since a continent-wide representative sample is unattainable.

⁴Except for a brief Italian occupation during the 1930s, Ethiopia was never colonized. Liberia was founded as a US colony in 1822 but no Pleistocene sites have been reported there.



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