

Dissent With Modification: Human Origins, Palaeolithic Archaeology and Evolutionary Anthropology in Britain 1859–1901

John McNabb

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John McNabb's (2012) *Dissent with Modification: Human Origins, Palaeolithic Archaeology and Evolutionary Anthropology 1859–1901* explores discoveries and debates relating to human origins between the publication of Charles Darwin's (1859) *On the Origin of Species* and the death of Queen Victoria (1901).

Beyond a summary of who found and said what when, the book seeks to contextualize archaeological, anthropological, and paleontological data in their broad intellectual and social contexts. McNabb explains that the book grew from an original focus on the 'eolith' controversy, more on which below, broadening into the complex nexus around this debate which took the author to the core of the emerging concept of the Paleolithic in Victorian times. While the book is wide ranging, it is motivated by a number of central themes (p. 3). These include the origin of Paleolithic archaeology as a discipline and its relationship with other academic foci, the concept of race and its role in evolutionary and historical narratives, the relationship between studies of human origins and climate change and, finally, public perceptions of such debates. It is a large and diverse book, so this review can only sketch broad outlines. After discussing the structure of the book, some examples of some of the book's major themes—the idea of progress, the antiquity of humans, and the eolith debate—will be discussed.

The overall character of the book is a review and discussion of the published arguments of Victorian scholars, from the perspective of a modern archaeologist. A whole other story remains to be told in terms of unpublished arguments, such as those found in correspondence. Given the propensity of the Victorian gentleman to avoid argument and offence—consider Darwin's (1859) scant discussion of human evolution in *The Origin of Species*, something certainly widely considered by the 'thinking public' of his time—the published record presumably offers but a shadow of true opinions. McNabb opts to start with his conclusions, which are presented in Chapter 1. The rest of the book then consists of an explanation and expansion of these points. From this basis the book flows in a logical and broadly chronological fashion through the subject matter. Throughout the book, boxes provide summaries and definitions of key points and outlines of debates, providing useful accompaniments to the text. Simple graphs of the subjects of papers in various eminent journals are used to provide insights into the changing *zeitgeist* and a partial quantification of the points made by McNabb. The book is

authoritatively but engagingly written and can be understood by someone with no previous knowledge of the subject area.

A recurring theme throughout the book is the Victorian notion of progress. Changes in both biology and culture were seen as being unilinear and constantly improving. In the 19th century, narratives of change were typically presented in terms of 'race,' reflecting, McNabb argues, both the lack of an alternative frame of reference and an extension of debates on slavery. In 1859, the geographical extent of the known Paleolithic consisted of southern England and northern France (p. 82). Soon afterwards this grew from the chalk area to the limestone regions of Britain, southern France, and Belgium. In the mid-1860's, Tyler (1865) could only offer two examples of Paleolithic-type lithics from outside western Europe, both from the Middle East. In the absence of more evidence, spatial variation in modern ethnicity substituted for temporal variability. The *philosophical* concept of progress provided a theoretical framework.

These issues remain important to modern scholars. The recognition of the role of contingency in the evolutionary process, such as the extermination of around 75% of species in the Cretaceous-Tertiary extinction event, demonstrates that there is no straight line in evolution. A similar pattern seems to characterize the archaeological record. Despite this, the constant quest for the earliest, so beloved by the top journals—be it in terms of fossils, blades, evidence for 'symbolism, etc.—plays a significant role in the paleoanthropological literature. Once the earliest of something has been found interest often moves on elsewhere, yet there seem to have been all manner of evolutionary trajectories in the Paleolithic (e.g., Hovers and Kuhn 2006). Against a cyclical process of environmental change, particular features of material culture came and went. A focus on the earliest, particularly given frequently poor chronological control, is a problem today, and, in part, a reflection of the hangover of progressivism. Things today are at least not as extreme as they were in the past. McNabb provides the example of Harrison's (1880) claim that, given the existence of flint-knapping for gun-flints at Brandon in Norfolk, the local inhabitants represented a continuous population from the Neolithic onwards (p. 195).

By Victorian times, the considerable age of the world was increasingly clear, but frustratingly imprecisely pinned down. Stratigraphic sequences could show relative chronology, and fossils offered some hope of correlations,

but beyond this there were difficulties. Victorian scientists, for some reason, insisted on seeing the archaeological and paleontological discoveries of the 'drift' as being older than those of caves. But, in terms of broad outlines, McNabb emphasizes the understanding of scholars such as Charles Lyell (1863) and shows that the geological sequence was seen in broadly similar terms to today (in terms of succession if not chronology). The question was how humans fitted into the geological sequence. The idea of an ancient 'ice age' was in itself a radical idea, but for much of the Victorian era British scientists clung to the idea that there had been a single glacial. Much debate then centered on whether humans appeared before or after this glacial. Before ~1859 the earliest human antiquity was seen as being the Neolithic, as we call it today. Through the Victorian period evidence continued to accumulate on the ancient existence of humans. McNabb sees an initial period of empirical accumulation and an increased focus on theorization towards the end of the 19th century.

While with the 'Darwinian Revolution' there was an increasing sense of deep time, this was neither quantifiable nor universally accepted. By the 1860's, Lord Kelvin's estimate, derived from the very empirical-sounding laws of thermodynamics, that the earth could be no older than 100 million years was certainly an improvement on Rev. James Ussher's claim that the world was less than six thousand years old. As McNabb discusses (p. 191), this was felt to not allow enough time for evolution in the way Darwin had envisaged it, and this was reinforced when Kelvin reduced his estimate to just 60 million years. Such factors were part of the reason for a popular adherence to broadly Lamarckian ideas in Victorian times. This reminds us that the development of ideas on human evolution did not occur in a straight line. Looking back at the 19th century, it is all too easy to claim, without real justification, that ideas such as those of Darwin were rapidly accepted by rational minds and scientists have merely carried on accumulating data. In reality, paleoanthropology originated in a cauldron of debate and polemic.

The global Paleolithic record is dominated by lithics. The book is full of important information on the origins of lithic analysis. The Moulin Quignon affair (p. 45), for instance, is an instructive example, rather like that of the later Piltdown scandal, where a mandible and 'handaxes' were buried by mischievous workmen at a quarry in northern France in the 1860s. This was an important test for emerging Paleolithic archaeology. The character of the lithic artifacts was critical in demonstrating the fraud, with scholars recognizing that the edges of the bifaces were too sharp, the flake scars appeared rather different from those produced by a hammerstone, and they lacked patination. The demonstration of the hoax was seen as triumph for the methodology of the English school.

The eolith controversy was a long-running debate between workers who felt that 'eoliths,' while crude, demonstrated human manufacture and, in some cases, retouch into 'types,' and those who felt such pieces were natural rocks. The debate reflects both the notion of progress and

the idea of the antiquity of humanity. Theoretically, there *should* be lithics which were more primitive than the finely crafted bifaces of the Acheulean. Practice followed theory and eolith enthusiasts found what they wanted to find. The simplicity and crudity of these geofacts were seen as what we would expect to find in such a remote period. Characters such as Benjamin Harris, a "partially deaf obsessive compulsive local shopkeeper" (p. 244), were passionate enthusiasts for eoliths, who found support from, for instance, the highly respected geologist Joseph Prestwich. In reply, John Evans and other scholars listed numerous objections to the eoliths (p. 222), from observations on geological position to the demonstration that natural forces could produce the 'retouch' they sometimes displayed. Between the extremes there was a middle ground. Pitt Rivers, for instance, accepted the eoliths as artifactual but felt uneasy about their typically surface provenance. From the eolith controversy, Paleolithic archaeology emerged on strong footings. To this day students have to learn to be able to differentiate natural from human modification.

McNabb picks up many other threads relating to the early phase of lithic analysis which remain pertinent today. For instance, Lane Fox (later Pitt Rivers when he inherited the estate of a distant relative) debated J.W. Flower on the meaning of handaxe typology. To the latter the shape of the artifact was pre-determined by the will of the knapper, while to the former the character of the original flint nodule played an important role in influencing final form (p. 143). Likewise the debate about the role of Levallois points has some heritage. In both South Africa and the Levant, examples have been found embedded in faunal remains, perhaps supporting a hunting interpretation, but already in the 1850s a Levallois point had been found apparently associated with a mammoth skeleton in London (p. 179).

It can be argued that paleoanthropology has a tendency to slip towards a 'naive empiricism.' As this book shows, however, the context of discovery is of great importance. The recovery of *Homo erectus* fossils in Java by Eugene Dubois in 1891, for instance, was an example of discoveries following the theory, in this case of the 'missing link.' Likewise, McNabb, in the final two chapters, explores the relationship between emerging ideas of topics such as human origins and fictional literature. In outline, he argues that the role of writers in the latter was primarily to tell people what they thought they already knew. In the context of Victorian society, the books painted an evolutionary process dripping in blood with human society in mortal danger should 'competition' be slackened.

Paleoanthropologists spend much time thinking about what we do and how we do it, less about why we do certain things. High level theory is often poorly developed, and frequently does not extend beyond a catch-all reference to something like 'ecology.' The Victorians were not always so restrained. General Pitt Rivers, for instance, declared that the 'law' that nature "makes no jumps" could be taught to the masses "in such a way as at least to make men cautious how they listen to scatter-brained revolutionary suggestions." He also deliberately situated a museum

in the heart of working class East London and arranged the exhibits in a way to encourage a belief in gradualism (p. 151). More widely, the influence of Malthus on Darwin and the latter's insistence on gradualism, for instance, can be seen as at least partly 'ideological.' We like to think that we are more neutral today, but we must at least recognize that the trajectories which define modern methods and areas of interest do not merely reflect neutral science.

On the whole I would disagree with very little of this book. The absence of scales on some photographs aside, the production and editorial qualities are excellent. McNabb's book is both an interesting read and a passionate analysis of the roots of modern paleoanthropology. This may be a book about 'history,' but it is a history which defines how paleoanthropologists operate today.

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