

# The Idea of Human Prehistory: the Natural Sciences, the Human Sciences, and the Problem of Human Origins in Victorian Britain

Matthew R. Goodrum

*Department of Science and Technology in Society  
Virginia Tech, 133 Lane Hall  
Blacksburg, VA 24061, USA*

**ABSTRACT** - The idea of human prehistory was a provocative and profoundly influential new notion that took shape gradually during the nineteenth century. While archaeology played an important role in providing the evidence for this idea many other sciences such as geology, paleontology, ethnology, and physical anthropology all made critical contributions to discussions about human prehistory. Many works have explored the history of prehistoric archaeology but this paper examines the conceptual content of the idea of “human prehistory” as it developed in the British scientific community. Both the natural and the human sciences contributed to what was in fact a complex collection of individual elements that together constituted the prevailing idea of human prehistory, although there were other competing conceptions of human prehistory endorsed by various scientists and critics of the new view of early human history.

**KEYWORDS** - Prehistoric archaeology, prehistory, Daniel Wilson, John Lubbock, William Boyd Dawkins, James Geikie, Three Age System

## **Introduction**

The Irish archaeologist Hodder Michael Westropp (1820-1884) enthusiastically announced at the height of the Victorian era that a

new science has dawned upon us, lighting up the earliest history of mankind. Pre-historic archæology is the latest to arrive of a series of luminaries that have dispelled the mist of ages, and replaced time-honoured traditions by scientific truths. The silent past has been made to speak, and the sea of unrecorded ages to render up its dead. Long buried things have become witnesses of the deeds and modes of life in the remotest times. Pre-historic archæology has opened up a long vista through distant historic periods, to the farthest and darkest ages. (Westropp 1872, ix)

This new science of prehistoric archaeology had emerged slowly during the first half of the nineteenth century. Antiquaries and archaeologists

throughout Europe were examining ancient monuments and excavating tombs, unearthing artifacts fabricated by the ancient inhabitants of the continent. Toward the middle of the century, geologists and paleontologists, working on entirely different problems from archaeologists, began to discover disquieting evidence suggesting that humans had lived on earth far longer than anyone had ever expected. Crudely chipped stone implements were found in geologic deposits containing the fossilized remains of extinct animals such as the mammoth and the cave bear. By 1860 a number of prominent geologists had come to accept that humans already existed during the geologic epoch called the Pleistocene, although debate over this and its possible implications continued for years (see Van Riper 1993; Cohen and Hublin 1989; Grayson 1983; Lyon 1970).

These researches and discoveries not only helped to produce a new discipline called prehistoric archaeology, even more significantly an entirely new concept appeared that unified all these new discoveries. This influential new concept was the idea of human prehistory. There has been a good deal of interest and historical research on the origins of prehistoric archaeology as a scientific discipline. Some histories have examined the methods used and discoveries made by early prehistoric archaeologists (Wahle 1950/1951; Daniel 1962; 1976; Kuhn 1976), while other histories have explored the social and institutional components of that history (Richard 1992; 1995a; 1995b; 2012). Very good studies exist for the development of prehistoric archaeology in the nineteenth century in Britain (Kehoe 1991; 1990; O'Connor 2007; Sommer 2007; Rowley-Conwy 2007) and France (Groenen 1994; Coye 1992; 1997). A number of authors have also investigated the invention and utilization of the words "prehistory" and "prehistoric" in various European countries and languages that demarcated a new subject of archaeological research (Chippindale 1988; Clermont and Smith 1990; Rowley-Conwy 2006). These latter works are particularly interesting and relevant to the project undertaken in this paper because these authors have recognized that the invention of the terms prehistory and prehistoric mark an important episode in the history of archaeology. More significantly these terms denote the formation of a new concept, a new scientific idea full of implications and significance. The studies of the history of prehistoric archaeology and of the invention of the word prehistory mentioned above, discuss the scientists and the discoveries that led to widespread belief in a period called prehistory and to the establishment of a scientific discipline of prehistoric archaeology. But they do not scrutinize the concept of human prehistory itself. The meaning of this word, its conceptual content, changed over time and gradually came to encompass a variety of distinct

interrelated ideas and interpretations of scientific data. This paper is an analysis of the conceptual content of the idea of human prehistory and of what precisely scientists during the last half of the nineteenth century meant by that term.

The historian of anthropology and archaeology Wiktor Stoczkowski (1993; 1990) has approached this question in several of his publications, where he focuses on the French context to the problem. His research offers interesting insights into the early formulation of the concept of prehistory in France during the nineteenth century, although his analysis does not capture all the meanings of this concept among European users of that term. This paper intends to offer a more thorough understanding of the elements that contributed to the formulation of the concept of human prehistory and to examine the collection of interrelated ideas that constituted this complex and powerful idea. It will focus on developments in Britain between the 1860s and the 1890s, or the period between Daniel Wilson's introduction of the word "prehistoric" and the acceptance of the evidence for the geological antiquity of humans, and the period when new scientific discoveries would once again demand a modification of the idea of human prehistory. This will allow us to delve deeply into the formulation of this idea within the British context, with the hope that future projects will investigate whether the conceptions of human prehistory formulated in France, Germany, or Italy differed in their specifics or were essentially identical. This, of course, was also the period when European scientists and intellectuals were responding to Charles Darwin's theory of evolution and the idea that humans had evolved from an ape-like ancestor. Theories of human evolution in the twentieth century take for granted the idea of human prehistory, but the relationship between these two powerful ideas during their formative periods is often misunderstood and needs to be more fully explored.

It is important to realize that there was no single agreed-upon conception of prehistory during the late-nineteenth century. Instead, there were numerous contending interpretations of the archaeological and geological evidence relating to early humans. Many key figures in this research agreed on certain fundamental elements of the emerging understanding of human prehistory while differing over specific elements or disagreeing on the precise interpretation of some evidence. In Britain, John Lubbock was influential in formulating a vision of human prehistory in his *Pre-historic Times* (1865), while in France the prehistoric archaeologist Gabriel de Mortillet composed his equally influential *Le Préhistorique: antiquité de l'homme* (1883). German researchers also contributed to the construction of an idea of human prehistory. Karl Vogt's *Vorlesungen über den Menschen* (1863) was an early attempt to survey the recent dis-

coveries in prehistoric archaeology and human paleontology within the framework of the geological antiquity of humans. Other German works soon followed, such as Wilhelm Baer's and Friedrich von Hellwald's *Der vorgeschichtliche Mensch* (1874), Johann Jakob Honegger's *Vorgeschichtliche Zeit* (1882) and Friedrich August Karl von Specht's *Allgemeine Einleitung und vorgeschichtliche Zeit, oder das Stein-, Bronze- und Eisenalter* (1870).

Yet there were also researchers who opposed or were skeptical of the emerging consensus view of human prehistory. Two illuminating examples of well-informed and systematic critiques of the geological antiquity of humans and the "primitive" culture of prehistoric humans, the first from Britain and the second from the United States, are George Douglas Campbell's *Primeval Man* (1869) and James Cocke Southall's *The Recent Origin of Man* (1875). There were other writers who accepted certain elements of the leading understanding of human prehistory but rejected other elements. A prominent example is the Canadian geologist John William Dawson, who offered his own conception of human prehistory in *The Story of the Earth and Man* (1873) and later in *Fossil Men and their Modern Representatives* (1880). There were, therefore, competing conceptions of human prehistory during the late-nineteenth century. This paper examines one group of researchers in Britain who took a lead in formulating the prevailing conception of human prehistory and whose views formed an important focus for discussion for their colleagues as well as the general public. This group includes John Lubbock, William Boyd Dawkins, James Geikie, and John Evans. These figures were chosen because they wrote comprehensive synthetic works on human prehistory in the critical period between 1860 and 1890 when the idea of human prehistory was being constructed from the elements of many recent discoveries in archaeology, geology, and human paleontology. They did not agree in all the specific interpretations of this evidence but they did share and promote a set of common central ideas about human prehistory that came to be widely accepted and formed the foundation for subsequent research into and discussions of human prehistory. The work of Daniel Wilson is also examined not only because he was the first person to use the term "prehistory" in English and was instrumental in developing the idea of human prehistory and promoting research into the subject, but also because he serves as a valuable contrast in some ways to his fellow British writers on human prehistory. This paper examines the conception of human prehistory in the British context, but future projects should examine the ways in which British, French, Italian, and German conceptions of human prehistory differed from one another in the formative years of this idea between 1860 and 1890.

What makes an examination of the origin and development of the concept of human prehistory so interesting and important is that it proved to be more than merely a collection of new discoveries or a novel theory. It marked a profound change in the way the human past was viewed and investigated. European scientists not only proposed a previously unknown period of the human past, they presented an entirely new picture of human history and of humans' place in nature that had lasting implications. They also laid the foundation for new ways of scientifically studying human origins. The idea of human prehistory took some time to crystallize and it did so within the context of both the natural sciences (primarily geology, paleontology, and biology) as well as the human sciences (primarily archaeology, anthropology, ethnology, and philology – each here understood in their late nineteenth-century definitions). But by the end of the nineteenth century the component parts of this concept had been assembled and a relatively firm picture of that remote epoch had emerged.

### **Demarcating the Historic from the Prehistoric**

Europeans at the beginning of the nineteenth century, who had been paying attention to the dramatic developments taking place in the natural sciences and in the historical and archaeological study of the human past, were aware that entirely new realms of knowledge were being opened and traditional understandings of the world and of history were rapidly changing. Geologists had vastly extended the age of the earth and were finding the fossilized remains of lost species. Archaeologists were excavating ancient sites known from classical and biblical history, but they were also unearthing crude artifacts made by the earliest inhabitants of Europe. All of these new discoveries could be reconciled, however, with the biblical account of human history and with the surviving historical documents of the ancient civilizations such as the Greeks and Romans, but increasingly other civilizations, too. Much was being learned, but most Europeans still subscribed to the idea that the first humans had been created by God and that human history did not extend back more than ten thousand years. Geologists and archaeologists agreed that humans first appeared on earth after the last great geologic catastrophe (although uniformitarians argued for a gradual transition instead) that had led to the extinction of the large mammals found in the most recent geologic deposits.<sup>1</sup> This meant that humans only appeared

<sup>1</sup> On the geological debate over the history of the earth and when humans appear in that history,

when the world had attained its current arrangement of continents and oceans with now existing plants and animals. It also meant that no remains of fossil humans should be found in geologically ancient deposits. Some uncertainty did exist about the nature of these early humans. Some scholars, drawing from historical and biblical sources, argued that early humans had possessed the moral and mental capacities of modern humans, while others believed that early humans had been ignorant and savage.

But there was one fact that most scholars and scientists had long agreed upon: that aside from the biblical account of early human history found in Genesis, as one reached further back in time the more scant the historical records became and that the earliest history of most peoples around the globe was largely unknown. The early architects of the idea of prehistory acknowledged this view but were now prepared to challenge it as archaeologists were unearthing certain elements of these early epochs.<sup>2</sup> This view was beautifully expressed by the Scottish archaeologist Daniel Wilson when he stated that there “is a certain remote epoch in most men’s ideas of the past, by no means uniformly denned, beyond which all becomes vague antiquity, and whatever it may disclose is assumed to have been contemporaneous” (Wilson 1862, I, 54). That other great originator of the idea of human prehistory, the English prehistorian John Lubbock also claimed

that the first appearance of man in Europe dates back to a period so remote, that neither history, nor even tradition, can throw any light on his origin, or mode of life. Under these circumstances, some have assumed the past to be hidden from the present by a veil, which time would probably thicken, but could never remove. Thus, the memorials of antiquity have been valued as monuments of ancient skill and perseverance, but it has not been supposed that they could be regarded as pages of ancient history; they have been recognized as interesting vignettes, not as historical pictures. (Lubbock 1865, 1)

As a Fellow of the Royal Society, a founding member of the X-club (early supporters of Darwin’s theory of evolution) and member of the Ethnological Society, Lubbock was intimately connected to the broader British scientific community. It was not only archaeologists and historians who realized the severe limitations of our knowledge of the earliest periods of human history. Geologists and anthropologists who confronted the problem of human origins in their own researches shared this opinion, too. Thus, we find James Geikie (1839-1915), a Scottish geologist who

see Rudwick (2005; 2008) and Grayson (1983).

<sup>2</sup> On the relationship between historical scholarship and archaeology in Britain during the nineteenth century, see Levine (1986) and Van Riper (1993, ch. 2).

began his career as a member of the Geological Survey and later became professor of geology at the University of Edinburgh in 1882, approached the problem of human prehistory from the perspective that it was

well known that when we try to trace the history of any nation back into the past, we sooner or later come to a period of myth and tradition, beyond which all seems impenetrably dark. If, for example, we take the case of Britain, how meagre, doubtful, and obscure, does the story become after it has carried us back to the days of the Romans! We may be able to determine with more or less probability whence the people came who were natives of Britain at the time of the Roman invasion; but beyond that, who can venture into the dark and hope to pick his way securely? It is just here, however, where myth and tradition fail us, that the archaeologist and geologist step forward to point out that all is not so irrecoverably lost as historians at one time believed. (Geikie 1881, 2)

It would be easy to enumerate similar statements made by scholars and scientists throughout the century, but these examples express the common opinion that from a historical and scientific perspective the earliest periods of human history lay in obscurity. However, by the middle of the century there was a growing hope that those epochs could be illuminated to some degree and that one could come to know something of humanity's beginnings. Recent advances in a select group of sciences generated this optimism. Ethnology, geology, paleontology, and archaeology were providing the evidence needed to reconstruct the earliest periods of human history and the British architects of the idea of human prehistory relied heavily on these sciences.

Daniel Wilson (1862, I, 88, 92-93) drew upon this particular range of sciences in order to investigate the question of human origins. He employed material from the "ethnological sciences," which deal with the "natural history of man." To that he added discoveries from archaeology and geology, both of which extract information about the past from evidence contained in the earth's surface. And he utilized the most recent paleontological data, which was revealing the history of life on earth. John Lubbock used material from this same collection of sciences in his *Pre-historic Times*, as we will see below. Perhaps the most eloquent expression of the role of these sciences as the sources of information about human prehistory comes from William Boyd Dawkins (1838-1929), professor of geology at Owens College in Manchester and a member of the Geological Survey. In *Early Man in Britain* (1880), Dawkins saw geologists and paleontologists as reconstructing the changes that had occurred on the earth and in the species of animals and plants that have lived in the past, "each connected with that which preceded it, and each becoming more and more highly organised, until man appears the last born as well as the highest and the noblest creature in the realm of geology."

Archaeologists begin where this research ends and provide “knowledge of the steps by which man slowly freed himself from the bondage of the natural conditions under which all other creatures live; of the successive discoveries of the use of polished stone, bronze, and iron; of the domestication of animals; of the cultivation of the fruits of the earth; of the introduction of the arts; in a word, of all those things by which man has become what the historian finds him” (Dawkins 1880, 1-2). Like Dawkins, James Geikie perceived that a significant shift had taken place because traditionally the earliest ages of human history were investigated by “chronologists and historians” who believed humans had originated recently. But now geologists and archaeologists were contributing to this research and generating a very different picture of human history (Geikie 1881, 3). The conception of human prehistory that emerged at the end of the nineteenth century, consequently, owed a great deal to the specific discoveries and theories prevalent at the time in each of these scientific disciplines.

Each of these authors had to confront the issue of the relationship between the prehistoric period and the historic period proper. The fundamental attribute of prehistory is its temporal status as a chronological epoch. The architects of the idea of human prehistory understood it to be a distinct period of the human past that in some sense preceded the historic period. Typically this meant the period prior to written records, but different people defined the chronological boundaries of this epoch somewhat differently. Prior to the introduction of the terms prehistory and prehistoric, the word “primeval” was frequently used to refer to the early poorly documented periods of human history.<sup>3</sup> John Lubbock conceived of prehistoric archaeology as a science that attempts to describe the “condition of man in primeval times,” by which he meant the period extending from the time when humans made the flint artifacts found with extinct animal fossils through the era of the construction of the European burial mounds called barrows or tumuli, the Danish *kjökkenmöddings*, and the Swiss lake dwellings (Lubbock 1865, vi). For a geologist such as William Boyd Dawkins it was equally necessary to situate the period of human prehistory within the accepted sequence of geologic epochs that geologists had been constructing over the last century. Dawkins located the prehistoric period toward the end of what geolo-

<sup>3</sup> The Danish archaeologist J.J.A. Worsaae’s *Danmarks oldtid oplust ved oldsager og gravboie*, published in Copenhagen in 1843, was translated into English as *The Primeval Antiquities of Denmark* (London, 1849) and British archaeologists at mid-century consistently use the term “primeval” to refer to what would later be called megalithic or Stone Age artifacts and monuments. Wilson bridges the era from the use of primeval to prehistoric. In *Prehistoric Men* (p. 46) he continues to use the term primeval but now it is associated with the period prior to the use of metals, or the Stone Age.



gists called the Quaternary period, the most recent of the geologic eras. Thus the Tertiary was followed by the Quaternary period (when humans first appear), the Prehistoric (“in which domestic animals and cultivated fruits appear, and man has multiplied exceedingly on the earth”), and the Historic (“in which the events are recorded in history”; Dawkins 1880, 9-10).<sup>4</sup> Thus, the “[p]rehistoric period covers all the events which took place between the Pleistocene age on the one hand and the beginning of history on the other (Dawkins 1880, 247). Geikie, whose theory of successive periods of glaciation separated by warmer interglacial periods Dawkins opposed, cites Wilson’s definition of the prehistoric as referring to a period that is known through archaeological artifacts rather than through written documents. But he was also concerned with locating the prehistoric period in relation to the Pleistocene, a period he saw as consisting of a pre-glacial, interglacial, and glacial period but that came to an end with the last glaciation. He suggested that the earliest human artifacts, by this time known as Paleolithic, extend back into the Pleistocene, at least to one of its inter-glacial periods if not even into the pre-glacial period, which would make the prehistoric period a very long one indeed (Geikie 1881, vi-vii).<sup>5</sup>

Thus, while each of these individuals was concerned with defining what they meant by a prehistoric epoch and locating it chronologically within the current understanding of earth history and human history, there were differences in their schemes. This applies equally to their conceptions of human prehistory. A group of prominent British writers on human prehistory agreed on the general outlines of what this idea meant. The specifics will be examined below, but generally speaking they agreed, first, humans chronologically appeared on earth far earlier than most historians and even archaeologists suggested, second, the prehistoric world inhabited by these early humans differed dramatically in climate, flora, fauna, and geography from the current world, third, the first humans were culturally and technologically primitive, fourth, there has been a progressive development of the cultural and material aspects of human life over time, and, fifth, the acceptance of the archaeological Three Age System, which argued that humans during the prehistoric period had developed from a Stone Age culture through a Bronze Age to an Iron Age culture. These were the key conceptual components of the idea of human prehistory. In other words, when many British scientists

<sup>4</sup> In this scheme Dawkins’s prehistoric period seems to correspond with Lubbock’s Neolithic period.

<sup>5</sup> There was a protracted and contentious debate among European geologists over the timing, sequence, and even of the existence of a glacial period. For a discussion of elements of this debate and its impact on ideas of human prehistory, see O’Connor (2007, chs. 2-4).

used the words prehistoric and prehistory during the later decades of the nineteenth century this is what they meant by this word. This was the collection of images that this word evoked. While the British architects of the idea of human prehistory agreed on these general components, they differed in some of the details. They also had their critics, who offered different interpretations of the evidence for some or all of the components mentioned above, or rejected them entirely. It is beyond the scope of this paper to discuss these critics and alternative conceptions of early human history. Rather, I want to investigate more deeply how and why these different but interrelated ideas came to be combined to form the concept of human prehistory among the proponents of the prevailing conception of human prehistory.

### **Daniel Wilson's Conception of Human Prehistory**

Daniel Wilson's role in the rise of prehistoric archaeology in Britain has been the subject of recent scholarship, partially in response to the historical perception of the centrality of the work of John Lubbock in this process (Kehoe 1990; 1991; Trigger 1994). Wilson was born and educated in Edinburgh at a time when the Scottish city was a vibrant intellectual center. After a brief period in London, Wilson returned to Edinburgh in 1842 where he became friends with various scientific figures including the phrenologist George Combe and the publisher Robert Chambers. Chambers acquainted Wilson with the Society of Antiquaries of Scotland and its museum in the 1830s and Wilson became a fellow of the Society in 1846. Wilson soon began his own archaeological investigations but also learned of the work of Jens Jacob Asmussen Worsaae and other Danish prehistoric archaeologists. Wilson's efforts to catalog the collections of the Society of Antiquaries of Scotland led to the publication of *The Archaeology and Prehistoric Annals of Scotland* in 1851, where he introduced the term prehistoric into English.<sup>6</sup> Unable to obtain an academic position in Britain, Wilson left Scotland in 1853 to become a professor at the University of Toronto (Canada) where he remained for the rest of his career.

Others have written about Wilson's contribution to the foundation of prehistoric archaeology as a science. But his ideas about human prehistory are of interest here. While his conception of prehistory shares

<sup>6</sup>Peter Rowley-Conwy (2006, 120-4) has traced the possible origins of Wilson's invention of this term to discussions Wilson had with Peter Andreas Munch, professor of history at the University of Oslo.

many features in common with those of his successors, he also retained many ideas about the deep human past common to historians and antiquaries from earlier in the century. What is most apparent in Wilson's descriptions of prehistory is his continued conviction that the biblical account of human history is relevant to scientific discussions of the subject. Scientists from various disciplines were adding new evidence that the archaeologist could utilize and this evidence might well demand a re-interpretation of traditional accounts of human history. But prehistoric archaeology did not require the abandonment of a biblical worldview, even though this worldview may need to be modified. Wilson makes this very clear in *Prehistoric Man*, when he states that there are many sources of information about the primeval period of human history.

Without looking for systems of science in the Bible, which it was never designed to furnish, either in relation to the organic or inorganic world, or to man himself: we nevertheless derive from thence incidental notices of the highest value in reference to the suggested inquiry. The geologist may turn aside from the Mosaic record as a book never designed for his aid, but the ethnologist cannot do so, unless he is prepared entirely to reject its authority; for man is its theme, and the earth's creation is only considered there in so far as it relates to him. Moreover, there, and there only, can he turn for any authoritative information relative to the origin of our race. If that is rejected, there remains for us only the vague inductions of science on a point beyond its ken; or the childish fables of tradition, in which the intellectual Greek and the untutored savage are on a par. (Wilson 1862, I, 44-45)

Both science and revelation, according to Wilson, should contribute to our knowledge of human beginnings. Elsewhere he states that history attempts to explain whence humans came from, while religion attempts to explain the ultimate fate of humans, whither they are going. But, "for the world's primeval history Nature also has her recorded revelations, though for well-nigh six thousand years they lay unheeded or misread. Yet the records of that geological history, pertaining to epochs long prior to the chronologist's date of the beginning of time, are not less, but more trustworthy than the great mass of historical chronicles" (1862, I, 89-90). This is a powerful claim and throughout his discussion of prehistory Wilson relied upon the latest discoveries made by the sciences but he also drew upon the traditional conceptions of human history that for centuries was based upon the Bible and historical scholarship.

Wilson formulated his views of human prehistory at a time when British archaeologists were debating the validity of the Three Age System being promoted by Danish archaeologists, which argued that ancient European artifacts could be organized and arranged in a chronological

sequence of Stone, Bronze, and Iron ages.<sup>7</sup> British and French geologists and archaeologists were also working out the implications of the discovery of crude stone artifacts found associated with extinct Pleistocene mammals.<sup>8</sup> The idea that humans had lived during such a geologically remote epoch was new and still contentious when Wilson published *Prehistoric Man* in 1862. These facts help to explain his particular conception of human prehistory and why he differed somewhat from later authors, who possessed much more archaeological and geological data that was also more generally accepted.

Like his successors, Wilson argued on the basis of the archaeological and geological evidence that human history would have to be extended further into the past than traditional history allowed. He acknowledged that the biblical account of early human history was unsatisfactorily brief and tended to mislead scholars regarding the true length of human history, which was now known to come at the end of a very long earth history. But while he urged a long period of human prehistory he warned against supposing that this meant that human history was extraordinarily long. "Time is the element most frequently required in the hypotheses of the ethnologist. The geologist, happily freed from the trammels of diluvial systems, takes to himself unlimited ages for the working out of the phenomena revealed to him in the earth's crust [...] but the ethnologist is restricted from such license by historical evidence, which he may critically elucidate, but which he dare not ignore" (Wilson 1862, I, 166). Prehistoric archaeologists, therefore, must still relate their discoveries to accepted historical evidence and must be wary of how they interpret the geologic evidence of human antiquity. Indeed, Wilson suggests that perhaps geologists have been tempted to propose an excessive antiquity for the earth and this may have led some to claim that the post-Tertiary deposits in which human artifacts had been found were older than they in fact are (Wilson 1862, I, 167).<sup>9</sup> Thus, while he accepted that the Stone Age lasted for a considerable period of time and that humans lived among extinct animals, he also wrote of reconciling the chronologies

<sup>7</sup> On the proposal of the Three Age System and its reception among British archaeologists see Daniel (1943) and Gräslund (1987). On the debates within Britain over the Three Age System, see Rowley-Conwy (2007).

<sup>8</sup> The groundbreaking papers of Joseph Prestwich, John Evans, Charles Lyell, and others on the evidence for humans living during the Pleistocene had only recently been published when Wilson's book appeared and their full impact, so important for later prehistorians, does not appear to have been fully incorporated in Wilson's thinking about human prehistory. Wilson devotes only one paragraph (104-105) to Prestwich and Evans's recent statements on the antiquity of humans. See Prestwich (1859-1860), Evans (1860), and Lyell (1860) as well as Grayson (1983) and Van Riper (1993).

<sup>9</sup> His target here is Charles Lyell and the supporters of a uniformitarian geology. Regarding the problems of establishing the age of the earth, see Burchfield (1975) and Haber (1959, chs. 4-5).

of science and revelation (Wilson 1862, I, 86-87, 96, 117-118).<sup>10</sup> Unlike later British writers on prehistory, Wilson did not ignore the biblical chronology but interpreted archaeological data in relation to a biblical scheme of history that he still took as a valid source of information about the human past.

While Wilson acknowledged the apparent need to extend human history beyond the approximately six thousand years generally accepted by orthodox Christians and historians he also adopted many ideas quite alien to that tradition, which he shared in common with later British prehistorians. He accepted the Three Age System, although he did not suggest that all early human cultures developed through a rigid sequence of Stone, Bronze and Iron Ages (Wilson 1862, I, 47-48, 87-88, 92). The archaeological evidence of an early human Stone Age, combined with his own observations of native cultures in North America, convinced Wilson that prehistoric peoples were culturally and technologically primitive.<sup>11</sup> The crude flint and bone artifacts from the "primeval stone-period" could still be reconciled with the biblical account of human history though. The Bible, Wilson noted, states that "there existed a period of some duration in the history of the human race, during which man tilled the ground, pursued the chase, and made garments of its spoils, without any knowledge of the working in metals, on which the simplest of all our known arts depend" (Wilson 1862, I, 46).

Furthermore, the fact that early humans were culturally primitive did not imply that they were spiritually or morally savage (Wilson 1862, I, 92). Wilson strenuously argued that while we must accept the archaeological evidence of an initial Stone Age culture it is still possible to retain the image of humanity held by theologians. He argued that we can be reassured of the "majestic genesis of our race" because of the "indispensable requisites of man's primary condition as created in the Divine image," which ensures our intellectual and moral purity (Wilson 1862, I, 56-57). Hence, while prehistoric humans were culturally primitive they were not amoral ignorant savages. In fact, Wilson explained the absence of advanced technologies among prehistoric peoples as the consequence of their not needing them, not because they were ignorant or ignoble.

<sup>10</sup> He even speaks in these pages of the need to revise our understanding of the Noachian deluge in the face of the new scientific evidence and of correlating the Stone Age with the era of the patriarchs before the Flood.

<sup>11</sup> The "primitive condition of man included none of those physical appliances of inventive skill indissolubly associated with all our modern ideas of civilisation and intellectual progress" (Wilson 1862, I, 45; see also 20). Europeans had utilized observations of the customs and material culture of New World peoples to imagine the way primeval humans may have lived ever since the seventeenth century, so Wilson was following a well-established tradition. On some aspects of this tradition see Meek (1976) and Gliozzi (1976).

Perhaps even more important, this explanation of the primitive condition of early humans diminished the need to hypothesize the kind of “extinct species of anthropoid animal” that had been “hastily invented by over-sensitive Mosaic geologists to meet the problematic case of pleistocene products of art” (Wilson 1862, I, 56-57).

Wilson formulated a conception of human prehistory drawn from the recent discoveries made by archaeologists and geologists, interpreted in light of historical records and anthropological data. In his scheme, the “historic period was preceded by an unhistoric one of long duration, marked by a slow progression from arts of the most primitive kind to others which involved the germs of all later developments” (Wilson 1862, I, 45). Human prehistory extended many thousands of years into the past, although exactly how far he did not speculate upon. However, it is clear that he did not envision the enormous spans of time that would be suggested by his successors. Human prehistory was characterized by its cultural and technological primitiveness, which was most evident in the absence of metallurgy and the use of only crude stone or bone implements. These early humans, although created in the image of God and, therefore, intelligent and moral, lived a form of life analogous to the indigenous inhabitants of the New World or Australia. Yet human prehistory was also marked by cultural and technological progress, as was indicated by the gradual invention of metallurgy and the introduction of bronze and later of iron implements.

This is the general conception of human prehistory proposed by Wilson. It is important because it was one of the first attempts to compile and synthesize the new archaeological and geologic evidence into a coherent picture of early human life. Later writers on prehistory would build upon Wilson’s foundation. Wilson’s image of human prehistory drew heavily upon conceptions of history derived from earlier antiquarian and historical scholarship as well as from traditional biblical accounts of human history. As a result, Wilson’s conception of prehistory reflects a view of early human history that differed from later descriptions of human prehistory, thus offering an alternative perspective that would appeal to many people who were unwilling to accept the ideas proposed by prehistoric archaeologists and geologists in the decades following the publication of his *Prehistoric Man*.

### **Solidifying the Concept of Human Prehistory**

In the years following the publication of Wilson’s *Prehistoric Man* new evidence pertaining to human prehistory became available. This

contributed to changing attitudes about human origins and helped to produce a more robust and detailed conception of human prehistory in Britain and France. One of the most significant factors that shaped the emerging idea of human prehistory in Britain was the gradual acceptance that humans had inhabited Europe during the Pleistocene epoch. Stone artifacts excavated at Brixham cave in England and examined by Joseph Prestwich, John Evans, and members of the Geological Society of London beginning in 1858, combined with similar researches in the Somme valley in France, culminated in numerous papers supporting the geological antiquity of humans. Charles Lyell's *Geological Evidences of the Antiquity of Man* (1863) signaled the start of widespread acceptance of this surprising idea while offering an overview of the evidence for the broader scientific and non-scientific reader (Van Riper 1993; Grayson 1983; Lyon 1970; Gruber 1965).<sup>12</sup>

The assertion that humans originated deep in geologic time was one of the key components of the emerging idea of human prehistory. John Evans, who was a prominent member of the Society of Antiquaries, the Geological Society of London, and the Royal Society expressed the sentiments of his peers when he stated that the "antiquity of Man in Britain seems to extend far beyond any of our ordinary methods of computation" (Evans 1897, 704). Lubbock was one of the first to integrate this idea with other archaeological discoveries in *Pre-historic Times* (1865). The Stone Age, which Lubbock modified by distinguishing an older Paleolithic and a more recent Neolithic period, now was seen to extend back to a time when mammoths and other extinct animals roamed the earth (Lubbock 1865, 313-28). There were many types of evidence that supported this radical and controversial notion. Dawkins (1880, 265) and Geikie both argued that the great changes that occurred in the climate, geography, and fauna in Europe between the Paleolithic and the end of the Neolithic would require "immense" periods of time. For Geikie (1881, 2-3, 114-116), this meant that geologists would have "to assign a far higher antiquity to man's first appearance than the old chronologies would allow." Evans agreed that the archaeological, geological, and paleontological evidence from cave and river deposits containing Paleolithic artifacts indicated a lengthy period of human prehistory (Evans 1897, 482, 521-525).<sup>13</sup> But exactly how deep into the geologic past human prehistory extended was the critical question and opinions on

<sup>12</sup>Grayson (1983) and Van Riper (1993) have described these events in great detail. See also Gruber (1965) and Lyon (1970).

<sup>13</sup>Evans's views also need to be viewed within the context of the emerging debate over the existence of eoliths in Tertiary deposits.

this question depended heavily on whether one was a supporter of the uniformitarians, who thought change occurred slowly, or of the catastrophists, who argued change could occur quickly.

Geikie acknowledged that human artifacts had not yet been found from the pre-glacial period, but he had a strong suspicion that they would be. He noted that artifacts had been found in the oldest Pleistocene deposits as well as deep in cave deposits, some of which might be older than the glacial epoch. From this evidence Geikie (1881, 343) thought it probable that humans had “entered Europe in Pliocene times.”<sup>14</sup> Just how much time was encompassed by these geological and archaeological periods was an extremely difficult question to answer. Geikie admitted that the evidence “described leave us in no doubt that an immense lapse of time intervened between the appearance and disappearance of Palæolithic man, and the changes which took place during the Postglacial Period likewise demand considerable time for their evolution” (Geikie 1881, 557). Lubbock (1865, 316-320) and Geikie (1881, 557-558) both cite the investigations of the Swiss archaeologists Charles Adolphe Morlot and Victor Gilliéron, who estimated that Neolithic artifacts in Switzerland were at least five to seven thousand years old. But Geikie (1881, 558-559) was convinced that the peat bogs and submerged forests of northern Europe that contained Neolithic artifacts required far more than seven thousand years to form and preceding all of it was the Paleolithic.

The geological, faunal, and climatic changes that occurred during the Pleistocene, when humans first produced Paleolithic artifacts, required far more extensive periods of time than the Neolithic. By assuming constant rates of erosion of valleys, deposition of deposits in caves, and numerous other mechanisms some researchers attempted to estimate the age of the Paleolithic. In the fourth edition of *Pre-historic Times*, Lubbock (1878, 421) reviewed these estimates before settling upon 200,000 years as a reasonable calculation for the amount of time separating the glacial epoch from the present. Geikie was skeptical of some of the methods used to estimate the age of the Pleistocene, although he was optimistic that improved estimates would soon be produced. He agreed with the estimate that the Pleistocene, and thus the Paleolithic artifacts found in these deposits, “must go back some 200,000 years ago; nor to those who are adequately acquainted with the vast changes which supervened during Glacial and Interglacial times will such an antiquity appear extravagant. On the contrary, many geologists, looking at the enormous

<sup>14</sup> He later (347) goes on to say that at present “all that we can safely say is that man was probably living in Europe near the close of the Pliocene Period, and that he was certainly an occupant of our continent during glacial and interglacial times.”



results that accrued from the action of the denuding forces in the Pleistocene Period, have been inclined to assign even a higher date to the commencement of the Ice Age” (Geikie 1881, 559). Indeed, Charles Lyell (1872, I, 287) had already suggested that the glacial epoch might have begun as much as 800,000 years ago.

Estimates varied widely regarding the amount of time that has elapsed since the beginning of the Pleistocene and not all geologists or archaeologists accepted such large figures. But as John Evans admitted, the time needed for rivers to excavate valleys to their current depth, for the extinction of Ice Age fauna, and the subsequent transitions from the Neolithic through the Bronze and Iron ages would require vast amounts of time (Evans 1897, 704-705). “On the whole,” Evans wrote, “it would seem that for the present, at least, we must judge of the antiquity of these deposits rather from the general effect produced upon our minds by the vastness of the changes which have taken place, both in the external configuration of the country, than by any actual admeasurement of years or of centuries. To realize the full meaning of these changes, almost transcends the powers of the imagination” (Evans 1897, 708). But it was clear that tens of thousands if not hundreds of thousands of years were required to encompass all the changes that had transpired during the period of human prehistory.

One of the strongest sources of evidence for human antiquity was the association of Paleolithic stone artifacts with the fossilized bones of extinct animals. These animal fossils, along with the geologic evidence of glaciations during the Pleistocene, implied that the prehistoric world inhabited by the first humans was quite different from the present world. This was a second key component of the emerging conception of human prehistory. Lubbock surely captured the attention of his readers when he noted:

Great as is the interest attaching to the existence of man at a period so much more ancient than that hitherto assigned to him, there is something which, to many minds, will appear even more fascinating in the presence of such a fauna as that which I have thus briefly indicated. For it must be regarded as a well-ascertained fact, that, even during the human period, the pleasant and sunny valleys of England and France have been inhabited by the gigantic Irish elk, two species of elephant, and three of rhinoceros, together with the reindeer, a large bear closely resembling the grizzly bear of the Rocky Mountains, a bison scarcely distinguishable from that of the American Prairies, the musk ox of Arctic America, the lemming of the Siberian Steppes, the lion of the Tropics, the hyæna of the Cape, and a hippopotamus closely resembling that of the great African rivers. (Lubbock 1869, 299-300)<sup>15</sup>

<sup>15</sup> This passage was added to this edition and did not appear in the first edition.

Dawkins, too, carefully enumerated the extinct species of animals, including mammoth, rhinoceros, hyena, and cave bear that shared the world with Paleolithic humans. Geikie devoted considerable attention to the geography, climate, and fauna of the early periods of human prehistory. Unlike Dawkins, he argued that the climate of the Pleistocene alternated between periods of intense cold when glaciers covered parts of Europe and other more temperate interglacial periods when humans and animals were free to move about the continent (Geikie 1881, 139, 169-170, 250, 263, 265). Early humans lived in an exotic world almost unimaginable by most late nineteenth-century Europeans. Like Dawkins, Geikie reveled in describing in the most dramatic terms the changes that had occurred in the climate, geography, flora, and fauna of Europe during the Pleistocene. He even went so far as to suggest that the Paleolithic races of humans that inhabited Europe had not survived the last glacial advance since Paleolithic tools had not been found in post-glacial deposits. Neolithic humans, he supposed, migrated into Europe with their new set of tools from some other part of the world (Geikie 1881, 346-56, 362). In surveying the entire expanse of human prehistory, Lubbock (1865, 237-43) emphasized the prevalence of extinct species during the Paleolithic period but noted how as one moved to the Neolithic period the animals and plants increasingly resemble those present today. Thus, an essential component of the conception of human prehistory proposed by these British authors was the notion that the first humans lived in a world dramatically different from the one we see around us today. Humans struggled to survive through the Ice Age with its giant mammals, and it was only during the Neolithic that the familiar world of today began to take shape and the first domesticated animals and plants appeared.

Not only was the climate and fauna of the prehistoric world different, but it was also agreed that the culture and manner of living of prehistoric humans were notably different as well. Lubbock noted that the “want of metal, of polished flint implements, and even of pottery; the ignorance of agriculture, and the apparent absence of all domestic animals, including even the dog, certainly imply a very low state of civilisation, and a very considerable antiquity” for the Paleolithic cave dwellers of Britain and France (Lubbock 1865, 255). Lubbock’s assessment was shared by Dawkins. From the artifacts left by the early Paleolithic “Cave Men” of Britain, Dawkins (1880, 205-206, 208, 210) concluded that they probably camped in the open and only occasionally sought shelter in caves. He thought they probably constructed huts out of branches or animal skins, much as Eskimos were known to do. They would likely have built fires by rubbing sticks together and cooked game on hot stones. He

supposed these men made flint tools that were used to hunt and cut meat, while the women prepared the animal skins for clothing. Dawkins argued that prior to these Cave Men there lived an earlier population of prehistoric humans, the River-drift men, who produced such crude stone implements that one could only conclude they lived much as the aboriginal Australians did at present. These people lived by hunting, but were “poorly equipped for the struggle of life, without knowledge of metals, and ignorant of the art of grinding his stone tools to a sharp edge” (Dawkins 1880, 163). The image that emerged from the archaeological and paleontological evidence was that these “Palæolithic tribes led a wandering feral life under feral conditions” (Dawkins 1880, 244). They were human but culturally, mentally, and technologically primitive humans. The similarity between the kinds of artifacts used in prehistoric times and the artifacts used by existing primitive peoples throughout the world made it easy to use ethnological accounts of modern stone tool using peoples as a model for understanding and imagining the culture of stone tool using prehistoric humans. This also meant that many of the prevailing ideas about race and the existence of inferior and superior races also entered the discussion of prehistoric humans. More will be said about this later.

Geikie and Evans present the same image of prehistoric humans possessing only a primitive culture. Geikie (1881, 17-19) agreed that Paleolithic Europeans lived by hunting and fishing, clothed themselves in animal skins sewn by the kind of bone needles found in many archaeological sites. It was clear that these peoples “lived in a low state of barbarism” with no agriculture or domesticated animals, frequently living in caves. Like Dawkins, Geikie thought Paleolithic Europeans lived much as Eskimos did in his own time.

We can picture them to ourselves feasting round their fires on reindeer-flesh, or splitting up the bones and sucking the juicy marrow. At other times, when perhaps reindeer-hunting had proved unsuccessful, they were content to catch such fish as they could in the rivers, or to capture lemmings, weasels, water-rats, and other small animals, and birds. Their tastes do not seem to have been very eclectic, and from the relics of their feasts we gather a pretty fair idea of the mammalian fauna of the lands they lived in. But, as we have seen, they seem to have had no domestic animals, nor have we any reason to believe that they knew anything of agriculture. The potter's art appears likewise to have been unknown. (Geikie 1881, 117)

There was no doubt in his mind about the nature of these prehistoric peoples, of their mentality and culture. “Palæolithic man,” wrote Geikie, “lived very much in the same state as the wild animals which he hunted” (1881, 379). Yet Lubbock (1865, 254-255), Dawkins (1880, 220-223),

and Geikie (1881, 18-20) were aware that these same peoples had also produced works of art. Fragments of bone and antler carved with the shapes of animals had been excavated in several sites in France, although what this implied about the spiritual or cultural attributes of Paleolithic humans was a matter of serious debate. However, regarding the question of the “condition and stage of civilization” of Paleolithic humans, Evans (1897, 657), like his colleagues, concluded they were hunters and probably nomadic, living under natural shelters where they ate game, sewed animal skin clothing, and manufactured ornaments out of perforated shells and animal teeth.<sup>16</sup>

Thus the idea that the first Paleolithic humans were culturally and technologically primitive was a fundamental component of the developing understanding of human prehistory. But connected with this was the idea that over time prehistoric humans gradually came to acquire the accoutrements of a higher material and mental culture. The most immediate archaeological evidence of this was the fact that crude Paleolithic artifacts (chipped flint axes, knives, and scrapers) were eventually replaced by much finer Neolithic artifacts, still made of stone but now they were finely polished and comprised a greater range of implements. The Three Age System (Stone, Bronze, Iron Ages), first proposed by Scandinavian archaeologists in the 1830s, served as the unifying scheme of cultural development for the prehistoric period, although there continued to be considerable debate over the validity of this system through the end of the century with some archaeologists rejecting it entirely and others arguing that they represented different cultures that coexisted at the same time.<sup>17</sup> Lubbock (1865, 2-3, 60) modified the Stone Age by identifying an earlier Paleolithic and a later Neolithic period but the idea that early humans lacked metal and the knowledge of forging metals and that bronze was used for a long period prior to the use of iron formed the framework for interpreting artifacts and understanding human tech-

<sup>16</sup> The degree to which this perception of Paleolithic humans was representative is indicated by the description given by Hodder Michael Westropp in his *Pre-historic Phases; or, Introductory Essays on Pre-historic Archæology* (1872) a synthetic and popular presentation of recent prehistoric research. Westropp stated (8) that “Living in a wild and uncultivated state, when his means of sustenance were too few and too precarious, man became a hunter from necessity, nomadic in his habits, and obliged to dispute his life with men, who, like himself, were scarcely less savage than the beasts of the forest.”

<sup>17</sup> A prominent British opponent of the Three Age System was Thomas Wright, who criticized the scheme in *The Celt, the Roman, and the Saxon: A History of the Early Inhabitants of Britain, down to the Conversion of the Anglo-Saxons to Christianity* (1861, vi-vii) and in *Essays on Archæological Subjects, and on Various Questions Connected with the History of Art, Science, and Literature in the Middle Ages* (1861, I, 10-11). Others, such as William Copeland Borlase, *Naenia Cornubiae, A Descriptive Essay, Illustrative of the Sepulchres and Funereal Customs of the Early Inhabitants of the County of Cornwall* (1872) practically ignored it all together. On the critics of the Three Age System in Britain, see Rowley-Conwy (2007).

nological and cultural development prior to the advent of written historical records.

Geikie (1881, 6-7) accepted that the prehistoric period should be divided into Stone, Bronze, and Iron ages. The archaeological evidence supported this scheme, but furthermore, those “who believe in the progressive development and improvement of our race” acknowledge that a long period of time was needed to discover the process of metallurgy and that bronze would naturally be used first due to the practical difficulties of working iron.<sup>18</sup> Evans (1897, 1-3), too, accepted the Three Age System but like Daniel Wilson before him, he thought it compatible both with the latest scientific discoveries and with the account of human history given in the Bible.<sup>19</sup> Implicit in this conception of human prehistory is the conviction that human material culture improved over time and that prehistoric humans gradually became more civilized. The idea of progress that was so pronounced in Daniel Wilson’s discussions of human prehistory pervades the accounts of prehistory formulated by Lubbock, Dawkins, Geikie, and Evans. The ascent “from a rude and barbarous phase to a more refined civilization” driven by an “invariable law of upward progress” was explicitly expounded by Hodder Michael Westropp in his popular book on prehistory but this sentiment was shared by many of his colleagues. Indeed, the idea of progress was pervasive in many aspects of nineteenth-century intellectual life and it is hardly surprising that this idea should appear in the realm of archaeology,<sup>20</sup> although it is important to acknowledge that there were also critics of the idea of a linear progression of prehistoric culture.

Thus another critical component of the conception of human prehistory being formulated at this time was the idea that prehistory was a period during which early primitive humans possessing only the simplest tools and rudest manner of living gradually invented new tools and new ways of life until they achieved the arts and sciences of a civilized people by the end of the Iron Age. Lubbock beautifully and succinctly captures this scheme in *Pre-historic Times* when he describes the transformations

<sup>18</sup> And in case anyone missed the chronological implications of this, he notes that “a true Stone Age to which the use of metals was quite unknown endured throughout the continent for a period so prolonged that we can but vaguely grasp its immensity.”

<sup>19</sup> “There are even biblical grounds for argument in favour of such a view of a gradual development of material civilization. For all, including those who invest Adam with high moral attributes, must confess that whatever may have been his mental condition, his personal equipment in the way of tools or weapons could have been but inefficient if no artificer was instructed in brass and iron until the days of Tubal Cain.”

<sup>20</sup> There is a considerable literature on the idea of progress in European thought generally and in the sciences specifically. See Spadafora (1990), Bowler (1989), Buckley (1967), Voget (1967), and Murphree (1961).

of prehistoric human culture from the Paleolithic caves of France to the Neolithic lake dwellings of Switzerland and the Bronze and Iron Age sites scattered throughout Europe.

We have seen evidences of a gradual progress in civilisation, and improvement in the arts, an increase in the number of domestic animals, and proofs at last of the existence of an extended commerce. We found the country inhabited only by rude savages, and we leave it the seat of a powerful nation. Changes so important as these are not effected in a day; the progress of the human mind is but slow; and the gradual additions to human knowledge and power, like the rings in trees, enable us to form some idea how distant must be the date of their commencement. (Lubbock 1865, 169)

Noticeably absent from discussions of human prehistory among these British writers is any substantial discussion of human biological evolution. This was a topic of great interest at the time and all of them were familiar with Darwin's theory. Lubbock was a close friend of Darwin and Darwin knew and corresponded with Evans and Dawkins. Dawkins refers to human evolution when he expressed skepticism about the possible existence of humans during the Miocene epoch. He noted that were "any man-like animal living in the Miocene age, he might reasonably be expected to be not man but intermediate between man and something else, and to bear the same relation to ourselves as the Miocene apes [...] bear to those now living" (Dawkins 1880, 67). The most explicit statement that the conception of human prehistory being proposed by geologists and anthropologists must also incorporate human evolution from an animal ancestor is expressed by Robert Munro in *Prehistoric Problems*, published in 1897. Munro studied medicine at the University of Edinburgh but became interested in archaeology and anthropology after he retired from his medical practice in 1886. For Munro, the idea of prehistory consisted of the geological antiquity of humans, the archaeological evidence for the Three Age System obtained from the study of Danish middens and Swiss lake-dwellings, as well as Darwin's evolutionary theory of human origins. Prehistory, in the broadest terms, becomes in his view an account of how humans were physically and mentally transformed from "*Animal brutum* to *Homo sapiens*." His argument that a modern science of anthropology should "trace the career of man through space and time, amidst the vicissitudes of his ever-changing environments, during the ages which have elapsed since he first diverged from his quadrupedal congeners" represents the kind of understanding of human prehistory that would come to prevail during the decades following the publication of his book (Munro 1897, 15).

Although the conception of human prehistory that was emerging in

the latter decades of the nineteenth century did not emphasize the evolution of humans as an essential component of that concept, there was widespread agreement that different races of humans existed during prehistory. The question of the origins of the different races of humans, of their migrations in the earliest ages of human history, and of the relationship of the different races to one another and their interactions in the remote past, were contentious subjects of discussion among archaeologists, anthropologists, and historians in the nineteenth century. The debate over the unity of the human species and the anthropological disputes between monogenists, who believed all shared a common origin, and polygenists, who believed the different human races had separate origins and were distinct species, was a major issue among anthropologists. Many members of the Anthropological Society of London, founded in 1863, were polygenists and it was in fact the dispute between monogenists and polygenists in the Ethnological Society of London that led to some members of this institution breaking away and forming the Anthropological Society. In France, the majority of the early members of the *Société d'Anthropologie de Paris*, founded in 1859, were also polygenists, although there were prominent supporters of monogenism in France such as Armand de Quatrefages. Philologists studying the history of languages identified language families, such as Indo-European or Semitic languages, that some writers linked to specific ancient human groups or races while archaeologists excavating ancient tombs and barrows examined the skeletons they contained in an attempt to identify the race these early inhabitants of Europe belonged to and from where they might have migrated. As a result, the study of prehistoric humans during this period would necessarily have to address the question of prehistoric human races and their relationship to contemporary Europeans and the other races of the globe (see also Delisle 2012).

Lubbock (1878, 343-347) noted the scarcity of human fossils from the Paleolithic, but from the fossils that were known one could determine from the morphology of the skulls that different human races already existed. Dawkins relied on fossil and archaeological evidence to suggest that a race of “River-drift Men” had migrated from their homeland in Central Asia into Africa and Europe during the early Pleistocene. He was convinced that this race became extinct during the Pleistocene and was succeeded by a new race of humans that he called “Cave Men.” This later race possessed the more advanced stone implements found in middle Pleistocene deposits (Dawkins 1880, 5, 172-173, 197-201). Similarly, Geikie (1881, 22-23) supported the assertions of the French naturalist and anthropologist, Jean Louis Armand de Quatrefages, that two human races existed in the Paleolithic, the Canstadt race and the

Cro-magnon race. The fossil remains of prehistoric peoples were scarce and they belonged to individuals who were fully human. As a result they were attributed to the most barbarous races yet discovered and contributed more to the anthropological problem of the origin of human races than to the biological problem of the evolution of humans from an ape-like ancestor. Within the British context, the debate over human evolution and discussions of human prehistory were not intimately connected and the process of integrating the one into the other only began toward the very end of the century.

### Conclusion

By the 1880s, a well-defined conception of human prehistory had emerged in Britain among a group of its leading scientists that contended with other alternative views of early human history. Archaeological research into the earliest periods of human history can be traced back into the eighteenth and even into the seventeenth century, but the idea of prehistory only appears in the mid-nineteenth century.<sup>21</sup> Yet, within the twenty-year period between 1860 and 1880 a general consensus had emerged, at least among the leading British formulators of the idea, regarding what the prehistoric period or human prehistory meant. Daniel Wilson led the way in outlining the conceptual content of this new word and this new understanding of human beginnings. But in important ways Wilson's understanding of human prehistory was superseded in the light of new discoveries. Wilson's views remained indebted to notions of human history derived from religious and scholarly traditions that some of his successors continued to agree with but that many of the leading later proponents of the idea of prehistory deviated from.

John Lubbock, William Boyd Dawkins, James Geikie, and John Evans expanded upon and modified Wilson's conception of prehistory. They deployed a range of complex but interrelated discoveries derived from archaeology, paleontology, geology, and ethnography in an effort to reconstruct the earliest ages of human history. In doing so they helped to establish, consolidate, and promulgate the idea of human prehistory. This idea consisted of a collection of separate but connected components, many of them originating from different scientific disciplines, but together they formed a powerful new concept. Their conception of hu-

<sup>21</sup> The investigation of prehistoric artifacts and antiquities during the seventeenth and eighteenth centuries is examined in Goodrum (2008; 2002), Schnapp (1993), Piggott (1989), and Klindt-Jensen (1975).



man prehistory consisted first of the geological antiquity of humans and, thus, of the necessity to believe that humans have inhabited the earth for many tens if not hundreds of thousands of years. This was a staggering idea that was contested by some scientists and many scholars and theologians throughout the late-nineteenth century. Equally disturbing was the recognition that accepting the idea of human prehistory meant accepting the notion that early humans had inhabited a world that was geographically, climatically, botanically, and zoologically very different from the present world. Humans shared the world with mammoths and cave bears in a landscape shaped by retreating glaciers. The idea of human prehistory also contained the claim that early humans were culturally and technologically primitive. We began as cave dwellers wielding clubs and crude stone tools and only after a long succession of ages were humans able to climb to the level of nomadic herders and later of agriculturalists. Progress lay at the heart of this view of human prehistory and the evidence of this progress was visible in the archaeological record, reflected in the fact that all of the British writers on prehistory adopted and utilized the sequence of Stone, Bronze, and Iron Ages. All of these elements comprise the conceptual content of the idea of human prehistory as it was formulated by one leading group of scientists in Britain at the end of the nineteenth century.

The idea of human prehistory challenged earlier accounts of human origins and human history, especially those based upon the biblical record and written history. It argued that human origins could only be investigated through archaeological, paleontological, and anthropological research because no other kinds of evidence existed for the earliest periods of human existence. What had traditionally been the domain of historical, philological, theological, or antiquarian research would from this point onward be the domain of new disciplines such as prehistoric archaeology and paleoanthropology, although these other disciplines continued to play important roles. Furthermore, the scientific and popular image of human origins and of human nature would be permanently changed by the idea of human prehistory. Darwin's theory of human evolution from an anthropoid ape ancestor would further alter and strengthen this developing idea of human prehistory during the late-nineteenth and early-twentieth century. Robert Munro's book on prehistory opened the way to a host of early twentieth-century books discussing not only prehistoric humans but also increasingly pre-human ancestors. The idea of human prehistory was combined with the idea of human evolution to lay the framework for an entirely new understanding of human origins in the modern era, but all too often the latter has overshadowed the former idea in modern accounts of human origins

research. It is anticipated that this paper will contribute to correcting this perspective.

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