

# INTRODUCTION

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## FROM THE BEGINNING

*Human History Theories in Nineteenth-Century British Sciences*

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On the evening of 19 March 1858, the historian Henry Thomas Buckle (1821–1862) delivered a lecture at the Royal Institution (RI) on the topic of human history. Never before had Buckle delivered a public lecture, and there was so much interest in seeing his maiden disquisition that the doors of the RI were opened earlier than normal to accommodate a larger audience. In fact, demand for tickets was so high that even Buckle could not get enough tickets for his friends. Buckle’s biographer, Alfred Henry Huth (1850–1910), stated that “the theatre was crammed from floor to ceiling by a brilliant and excited audience,” which included some of the most influential gentlemen of science of the day such as Michael Faraday (1791–1867), Richard Owen (1804–1892), and Roderick Murchison (1792–1871). As he took to the stage, “the loud buzz of conversation was drowned in a burst of applause,” and Buckle went on to give a hugely popular address.<sup>1</sup>

Along with his two-volume work, *History of Civilization in England* (1857), this lecture at the RI helped to springboard Buckle into a celebrity status.<sup>2</sup> The spectacle surrounding Buckle’s lecture at the RI serves as a good example of

how nineteenth-century British science was engrossed in studies of deep time and human history.<sup>3</sup> This captivation with humanity's past was not just something that scientific and medical researchers were interested in; a larger popular audience had an insatiable appetite for the topic as well. As Peter Bowler has argued, the nineteenth century was "an age dominated by a fascination with the past. History offered the preferred way of understanding how both human society and the material world operated."<sup>4</sup>

The aim in this volume is to look at some of the ways in which nineteenth-century scientific and medical researchers historicized humans within Britain and its empire. The historicization of humans within the context of this collection means the process of constructing human histories for various scientific, religious, and sociopolitical purposes. When it came to historicizing humans, nineteenth-century scientific and medical practitioners were varied in their methodological and theoretical approaches, and they utilized data from all over the world. While these varied approaches indicate that there was no absolute consensus on humanity's past, there were some underlying questions and shared assumptions in all nineteenth-century investigations into human history. Even competing theories such as monogenesis (the single origin of humans) and polygenesis (the multiple origins of humans) intersected in fascinating ways, with new commitments to contingency and chance and older ones such as providence and progress. Some of the key questions to emerge were as follows: Did the various races living throughout the world develop from a single location, or were their physical and social differences evidence for their separate genesis? Was it even possible to trace the development of humans or had too much time passed since the dawn of their emergence? How did new types of evolutionary theories transform nineteenth-century understandings of human ancestry? In this volume the aim is to examine these core questions about human history through an imperial, multidisciplinary perspective.

The word "historicize" emerged during the nineteenth century. The political theorist and classical historian George Grote (1794–1871) was the first Briton to use the term, and it appeared in his twelve-volume work, *A History of Greece* (1846–1856).<sup>5</sup> His usage, however, was indebted to earlier Italian, French, and German historical writing by renowned figures such as Giambattista Vico (1668–1744), Michel de Montaigne (1533–1592), Georg Wilhelm Frie-

drich Hegel (1770–1831), and Karl Wilhelm Friedrich Schlegel (1772–1829).<sup>6</sup> Nevertheless, the practice of historicizing humans took on numerous forms during the nineteenth century, and there were many different ways in which scientific and medical practitioners throughout the British Empire attempted to understand human origins and construct racial histories. Some of these theories upheld the older narratives based on biblical scripture, while others challenged these models, claiming that they were overly simplistic explanations of the Earth's history and ignored newly discovered evidence. The examination of human history, therefore, provides an important historiographical focal point, because both science and religion were interested in the origins of life and often offered competing explanations of human development. Thus there were many instances where the lines between science and religion were blurred.<sup>7</sup> This alleged tension between science and religion will be explored in the chapters that follow.

At a theoretical level Mark Bevir has argued that there were three broad underlying forms of historicism in the writings of most nineteenth-century figures: Whig historiography, which argued for an inevitable progression toward greater liberty and enlightenment; Romanticism, which glorified the past; and Positivism, which articulated a system that saw European civilizations progress from a theological stage to a metaphysical stage, before finally arriving at a positive or scientific stage. I would add evolutionism to this list, though, as Darwin's concept of natural selection, with its emphasis on random variation, is a form of historicism that is distinctly different from the other three versions.<sup>8</sup> At an evidentiary level, Martin Rudwick has argued that nineteenth-century practitioners interested in human history drew their data from three primary types of sources: texts (i.e., historical records, scripture, travelogues, etc.), human anatomy (i.e., skeletal remains, anthropometric measurements, etc.), and archaeological artifacts (i.e., stone tools, ruins, totems, etc.).<sup>9</sup> In the chapters that follow, we can see the application of all of these theories of historicism, and evidentiary sources, in the works of nineteenth-century scientific and medical researchers. Furthermore, debates over which types of theories and data sets were to be given priority when tracing human history were widespread in the nineteenth century. Examples of these discussions will feature throughout the volume.

Chronological periods also differed in length depending on the nature

of an investigation. Many practitioners struggled to comprehend the implications of vastly expanded time frames. As John McPhee famously wrote, “Numbers do not seem to work well with regard to deep time. Any number above a couple of thousand years—fifty thousand, fifty million—will with nearly equal effect awe the imagination to the point of paralysis.”<sup>10</sup> Yet not every study in the nineteenth century looked at the deep histories of human groups, and there were many instances where researchers historicized people over only short periods of time—such as a few centuries.<sup>11</sup> By contrast, there were also some researchers who challenged human developmental and evolutionary theories altogether. Figures such as the ethnologist and anatomist Robert Knox (1791–1862), believed that too much time had passed since the dawn of humans. He argued that only examinations of the current state of races could be substantiated empirically.<sup>12</sup> In his infamous book *Races of Man* (1850), Knox stated, “How worthless are these chronologies! How replete with error human history has been proved to be.”<sup>13</sup> Regardless of their perspectives, though, the implication of all these investigations fed into larger discussions on human ancestry.

One of the core issues that was repeatedly discussed, challenged, renegotiated, and deconstructed, depending on new constellations of evidence, was special creation. During the nineteenth century, Britons witnessed a shift away from traditional biblical ideas about a separate human genesis toward naturalistic explanations that connected the races of the world to a shared organic origin with plants and animals. Scientific naturalists such as Thomas Huxley (1825–1895), Francis Galton (1822–1911), and John Lubbock (1834–1913) were central figures in championing this naturalistic model of the world.<sup>14</sup> The rise of secular modes of knowledge also had a tremendous impact on nineteenth-century theories of human history, sparking all sorts of new research programs. As an example, the positivism of the French philosopher Auguste Comte (1798–1857) transformed the ideas of many nineteenth-century researchers along secular lines.<sup>15</sup> In the case of human history theories, scholars such as Buckle, the philosopher of science Herbert Spencer (1820–1903), and the anthropologist, Edward Burnett Tylor (1832–1917), were indebted to Comte’s ideas. All of them articulated developmental models that saw human civilization progressing toward a scientific worldview.<sup>16</sup>

Large-scale changes to print culture from the early nineteenth century onward connected new forms of knowledge to wider audiences and further transformed scientific understandings of humanity's past. As A. B. Van Riper, James Secord, Peter Kjaergaard, and numerous others have discussed elsewhere, books such as James Cowles Prichard's *Researches into the Physical History of Man* (1813), Robert Chambers's *Vestiges of the Natural History of Creation* (1844), Charles Lyell's *Antiquity of Man* (1863), Thomas Huxley's *Man's Place in Nature* (1863), John Lubbock's *Pre-Historic Times* (1865), Edward Burnett Tylor's *Primitive Culture* (1871), and Charles Darwin's *Descent of Man* (1871), all expanded human history beyond the traditional biblical time frame of six thousand years and opened up new questions about human origins.<sup>17</sup>

There were also other significant transformations occurring during the nineteenth century that affected the historicization of humans in the British sciences. George Stocking, Janet Browne, David Livingstone, Adrian Desmond and James Moore, and myself have all shown that voyages of exploration were equally important in changing scientific notions of human diversity and history.<sup>18</sup> As Europeans encountered different types of people living throughout the world, they struggled to explain how these different races fit into the story of Adam and Eve as the original progenitors of all humans. This opened up new questions about human origins. Within these "contact zones" (as Mary Louis Pratt has called them), Europeans created racial characteristics and human developmental histories by juxtaposing their own languages, customs, habits, traditions, and physical features against those of the indigenous populations.<sup>19</sup>

The emergence of alternative chronologies of human history in Africa and Asia were equally significant in producing further challenges to those scholars who continued to uphold the Judeo-Christian narrative of the Earth's past, with some of these diverging time lines pushing human existence beyond thirty thousand years.<sup>20</sup> Archaeological sites in English caves—such as those found near Torquay in Devon between the 1820s and 1860s—also generated important questions about human history, with skeletal and archaeological remains being discovered below the limestone strata. This discovery indicated that there was human life beyond the customary biblical time line.<sup>21</sup> All of

these new types of evidence and theories brought the topic of human history to the fore of nineteenth-century British society. Within the context of British science and medicine, these discussions centered on the issue of human origins. What emerged from these heated dialogues were different types of explanatory models that aimed to describe human history and attempted to explicate the causes that created racial variation.

## HISTORIOGRAPHICAL CONTEXT

Because the focus of this collection is on the historicization of humans in nineteenth-century British sciences there are complementary works in several historiographical areas. The following chapters build on major themes in the history of evolutionary studies by scholars such as Peter Bowler, James Elwick, Robert Kenny, and Gregory Radick, who have looked at various forms of developmentalism in the nineteenth century.<sup>22</sup> There are also strong thematic links to the works of Stephen Jay Gould, David Oldroyd, Ralph O'Connor, and Martin Rudwick, who have discussed in detail changing understandings of geological time in nineteenth-century scientific texts.<sup>23</sup> During the nineteenth century, topics such as race and empire were intricately tied to discussions of human history; illustrative examples can be drawn from the historiography on Victorian anthropology by George Stocking, Henrika Kuklick, Chris Manias, and Douglas Lorimer as well as the secondary literature on nineteenth-century British imperialism by Catherine Hall, Andrew Thompson, Sujit Sivasundaram, and Daniel Headrick.<sup>24</sup>

This volume moves beyond previous work on nineteenth-century human history, however, in three important ways. First, rather than looking at studies of human history through one discipline such as geology or paleontology, this collection will explore and cross-compare multiple disciplines, including geology, paleontology, natural history, archaeology, anthropology, and physiology. No single research field adequately represents nineteenth-century human history theories, because most researchers approached the topic through multiple disciplinary perspectives. Moreover, the boundaries between these disciplines were still being negotiated. There was tremendous overlap between the research programs of fields such as geology, geography, and paleontology as

well as archaeology, anthropology, and history. A multidisciplinary approach, which considers the interconnections between various research fields, allows for a more nuanced examination of nineteenth-century human history theories.

Second, building on recent themes in imperial history, this book will take seriously the role of the colonial world in shaping nineteenth-century scientific understandings of human history. The aim is not to produce a complete global study. Instead, these chapters provide a selection of illustrative examples to show how imperialism shaped ideas on human history in various ways, depending on different colonial contexts. Correlations can be drawn between these different settings, while at the same time highlighting the distinct imperial conditions. Such an approach does not, therefore, necessitate a full coverage of every continent. Nevertheless, the volume does examine a broad range of geographical locations, including particular attention to Latin America, Canada, and South Asia.

A major reason for an emphasis on Latin America, featured in chapters 3 and 4 of the volume, is because its borders opened up to Britain after the collapse of the Spanish Empire at the beginning of the nineteenth century. This in turn brought Latin America to the forefront of British scientific and medical investigations. There were opportunities for British travelers of various shades to explore the area and collect new data, which transformed discussions on human origins and histories.<sup>25</sup> Canada, which is the focus of chapter 2, provides another interesting case study. Although Canada was firmly embedded within Britain's imperial network, the scientific research being carried out by some of its more high-profile figures was distinctly different from the approaches used by leading practitioners in Britain. This brings a key point to the fore: just because a particular method or theory was dominant in the metropole does not mean that it held the same importance in the peripheries. Science in the empire was diverse, and it was shaped by all sorts of local, national, and international influences. South Asia, which is examined in detail in chapter 5, was another significant location for Britain during the nineteenth century. Not only did it provide a wealth of materials and resources that fed the British economy at home and abroad, it also generated important scientific and medical information for researchers working in various disciplines (such as ethnology and anthropology) to utilize in their studies.<sup>26</sup>

As Catherine Hall and Sonya Rose have argued, you cannot fully investigate nineteenth-century Britain without considering its empire.<sup>27</sup> All aspects of British society during this period were affected by transformations occurring across the nation's vast imperial landscape. Every historical figure in this volume drew on Britain's imperial resources, whether they traveled abroad or stayed at home. Through the use of correspondence, travel reports, networks of colonial agents, or other means, the British Empire provided researchers with a wealth of material to incorporate into their investigations of humanity's past. There was also no monolithic conception of the British Empire during the nineteenth century. As Andrew Thompson has discussed in his book, *The Empire Strikes Back*, historians should start examining the pluralistic nature of the British Empire and consider how historical actors engaged with it differently depending on their personal circumstances.<sup>28</sup> Moreover, through a critique of the standard center-periphery model in British imperial studies, the essays in this collection will recognize the multi-directional nature of the traffic of ideas and influences between the metropole and colonial world.<sup>29</sup> In certain cases some of the essays will also cross-compare the British context with other European contexts. Some attention will be paid to nonspecialist understandings of human history through examinations of the general periodical press and other popular works.<sup>30</sup>

Third, the essays in this collection will look at the various forms of human developmental theories that were competing for scientific dominance throughout the British Empire in the nineteenth century. Darwinism will feature in some of them, but there will also be detailed analyses of other developmental theories from the nineteenth century—such as those derived from disciplines as diverse as philology and embryology. Building on Bowler's concept of the "non-Darwinian revolution," these chapters will push beyond the standard historiographical narrative that has prioritized Darwinian evolution, to show that there were other significant developmental models transforming human history theories in the nineteenth century.<sup>31</sup> All three of these historiographical points are not in themselves novel. However, by bringing these three disparate bodies of secondary literature into conversation and emphasizing important intersections, it is possible to construct a new historiographical narrative that deepens our understanding of human history theories in the nineteenth century, showing the subtleties and nuances that existed.



## HISTORICIZING HUMANS THROUGH CASE STUDIES

In his 1992 essay “Retrospective Prescriptive Reflections,” the historian George Stocking discussed how he often favored an approach that examined different “vignettes” that occurred during the disciplinary history of anthropology, because it allowed him to examine the “multiple contextualizations” of anthropology’s past. This historiographical method is particularly useful for a collection of case studies such as this one, as it affords an opportunity to cross-compare how a diverse group of historical actors from different geographical, disciplinary, and social contexts historicized humans. Despite these distinctions there were some underlying questions that pervaded all of these nineteenth-century practitioners’ research programs: What was the age of the Earth? Where and when did humans first appear? Who had the authority to speak about human history? Should priority be given to science or religion when discussing humanity’s past? What types of data should be used by researchers when studying human history?

Our study begins in the deep past, when humans lived among extraordinary animals such as woolly rhinoceroses. As Chris Manias discusses in chapter 1, the middle of the nineteenth century witnessed a time revolution, where naturalists were bursting the boundaries of human history. The races of the world were thrust back into prehistoric environments with strange and long-extinct beasts. These shifting conceptions of a deeper human history conflicted with traditional, religiously influenced understandings of the natural world and human-animal relations. As we will see in due course, scientific and medical figures responding to these temporal changes in human history began reevaluating humanity’s power over nature, and specifically, its interaction with prehistoric fauna. Manias argues that this opened up a series of new questions: What was the relationship between prehistoric humans and animals? How could primitive people survive among such fierce creatures? Were humans ordained with a special mastery over the organic world, or was there some evolutionary mechanism at work? What role did prehistoric humans play in the disappearance of these ancient animals? Whatever the results of these reconsiderations of human time lines were, one thing was clear: that human-animal relations were historicized in hitherto unknown ways.

The connection between science, religion, and human history is further brought to the fore in the next two chapters. In chapter 2, Nanna Kaalund looks at *Archaia* (1860), the first popular work by the Canadian geologist, paleontologist, and university administrator John William Dawson (1820–1899). *Archaia* was a monogenetic study that attempted to harmonize biblical and scientific narratives of human origins. As we will see in due course, Dawson proposed a day-age theory, where each of the seven days of creation marked a geological period of time. Kaalund explores Dawson's double commitment to science and religion, examining the types of strategies that he used to reconcile these two spheres in his writings from *Archaia*. Dawson was also a chief popularizer of science in Canada during the nineteenth century, and as Kaalund shows, he used his position as principal of McGill University to forward his particular vision of science—especially when it came to historicizing humans. Moreover, the Canadian context provides an interesting case study for showing differences between various scientific locations throughout the empire. Dawson's particular form of natural theology, for example, received far less criticism in Canada than in Britain, because scientific naturalism had less of a hold there.

In chapter 3 I look at the developmental writings of the ethnologist-turned-anthropologist Edward Burnett Tylor. In particular, I explore how Tylor historicized religious beliefs in his magnum opus, *Primitive Culture*. Through a detailed examination of this work, I discuss how Tylor constructed his theory of animism by exploring the various influences that shaped his writings both within Britain and throughout the empire. In contrast to Dawson, who tried to harmonize science and religion, Tylor wanted to naturalize all religions and explain their ontologies using scientific theories. He was not trying to reconcile science and religion but, rather, to bring religion under the domain of scientific understanding. However, despite Tylor's clear aim to replace religious explanations of the world with scientific ones, a close examination of Tylor's book exposes a complex and strenuous relationship between science and religion. Many of the sources that he used to exemplify extra-European religious practices came from the travel reports of missionaries and other types of travelers with strong religious convictions. Tylor was reliant on these firsthand accounts to substantiate the credibility of his writings. Even though he wanted to push religion to the margins of ethnological and anthro-

pological research, he was unable to avoid religiously influenced sources for his data completely. This raises some interesting questions about the alleged boundaries between the so-called two spheres of science and religion.

The influence of the British Empire in transforming understandings of human history is a major theme in the next two chapters of the volume. As Maurizio Esposito and Abigail Nieves Delgado show in chapter 4, among the many nineteenth-century scientific figures to find employment through travel was the British natural history collector and anthropologist William Bollaert (1807–1876). Though largely forgotten among English-speaking scholars today, Bollaert was one of the leading mid-nineteenth-century experts on South American indigenous peoples. His work, which historicized the races of the world through a polygenetic framework, was respected among members of the British anthropological community, and he presented much of his research at the Anthropological Society of London (ASL) in the 1860s, with several of his papers being published through the ASL's periodicals. Nevertheless, because Bollaert's primary income derived from natural history collecting, his investigations of South American peoples were largely motivated by monetary concerns. Esposito and Nieves Delgado, therefore, examine the significance of imperial networks of exchange in shaping Bollaert's anthropological writings.

In chapter 5, Thomas Simpson moves the focus further abroad to India, and he underscores the significance of the imperial periphery in shaping knowledge about human history. Two key themes to emerge in this chapter are those of authority and power. Who had the authority and power to construct conceptions of human history—especially in the colonial world? Simpson explores these issues by looking at geographies of knowledge. Simpson discusses how in colonial India, arguments over human origins and its diversity were distinctly different from similar debates occurring in metropolitan Europe. That is not to say efforts to historicize humans in India were isolated from those happening in Britain and elsewhere but, rather, that the specific colonial context had a direct bearing on the nature of the debates. For instance, as Simpson shows, internal squabbles between the main Indian centers of Calcutta, Madras, and Bombay played an important factor in local discussions of humanity's past, with each locale fighting for cultural hegemony in the region.

Efforts at tracing deeper human histories were a mainstay in nineteenth-century scientific studies of human origins, and these newer concep-

tions of time included examinations of not only the physical attributes of races but nonphysical ones as well. This aspect of human history theories is central to Gregory Radick's analysis in chapter 6, where he looks at Charles Darwin's attempt at historicizing human feelings in *The Expression of Emotions in Man and Animals* (1872). As Radick shows, Darwin's preoccupation with trying to establish a common origin for all humans was intricately linked to his views on slavery, and much of his writing on human evolution occurred in the wake of the American Civil War, when debates about monogenesis and polygenesis were coming to a head. This argument is well known among historians of Darwin, but Radick argues that the strongest evidence for it does not lie in the *Origin of Species* or the *Descent of Man*, as previously articulated in the historiography, but in *Expression of Emotions*. Furthermore, Radick's discussion reminds us that sociopolitical factors had a strong impact on how human histories were constructed in the nineteenth century, with claims of ideological neutrality being part of the vocational strategies of Victorian scientists.

Not all conceptions of human history in the nineteenth century looked at deep time, and in chapter 7, Helen Kingstone explores the theme of shallow time in the works of the historical novelist and playwright Walter Scott (1771–1832); the philosopher, essayist, and historian Thomas Carlyle (1795–1881); and the scientific polymath Francis Galton. Even when tracing shorter time periods, historical records could be sparse, and in dealing with this issue researchers relied on conjectural methods to fill in gaps. These methodological techniques were highly flexible, could be applied across short or long time frames, and were easily appropriated into either monogenetic or polygenetic frameworks. The comparative method was particularly advantageous for researchers attempting to connect disparate human groups across time and space, according to their levels of civilization. Studies of shallow time (with its commitments to conjectural and comparative methods) also could be useful in elucidating deeper understandings of the past; not merely in accounting for the transition from rude to civilized societies but also for understanding evolutionary and geological shifts in the natural world. Nevertheless, as Kingstone emphasizes in her study, there was another element in these historical frameworks, one that attempted to predict where more primitive civilizations were heading, based on the histories of European societies. This sort of futur-

ism was present in the works of many Victorian researchers interested in the historicization of humans.

In Chapter 8, Ian Hesketh further examines in overview the role of futurism in the works of a diverse cast of evolutionary writers from the 1860s to the early 1900s. His study includes the writings of Alfred Russel Wallace (1823–1913); Galton; the British explorer and anthropologist W. Winwood Reade (1838–1875); the classicist, poet, and psychical investigator Frederic Myers (1843–1901); the zoologist E. Ray Lankester (1847–1929); and the evolutionist and spiritualist John Page Hopps (1834–1911). Hesketh argues that, even though the religious views of these evolutionists ranged widely from agnostic to spiritual in nature, they all depended on notions of Christian eschatology in order to instill their evolutionary narratives with grand cosmic meaning. Thus, when it came to historicizing humans in the works of these evolutionary writers, the intersection of science and religion comes back into the frame, full circle.

In the afterword, Theodore Koditscheck provides some historiographical reflections on the significance of this collection for the larger secondary literature. Most notably, by drawing together the major themes and arguments from the various chapters, he shows how each author in this volume expands the standard historiographical narrative on nineteenth-century human history theories in hitherto unknown or overlooked ways. Koditscheck divides the secondary literature into two camps: “Historiography of Historicizing Human Origins 1.0,” which is represented by the older guard of scholars who pioneered studies on nineteenth-century human history theories, and “Historiography of Historicizing Human Origins 2.0,” which is represented by the newer generation of scholars who are broadening the analytical landscape. Taking them together, he envisions a bright future for the research field. With all of these historiographical themes in mind, let us now direct our attention toward the eight case studies, and consider how each chapter examines differently the historicization of humans in nineteenth-century British sciences.