

Daniel Wilson and the Scottish Enlightenment*

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ABSTRACT

The career of Daniel Wilson (1816–1892), the English-speaking world's first scientific archaeologist, embraced two continents and drew on his other skills as an artist, antiquarian, anthropologist, and university teacher. While Wilson's approach to archaeology was based on the work of the Scandinavian archaeologists Christian Thomsen and Jens Worsaae, his understanding of human behaviour was shaped by the popular culture of early 19th-century Edinburgh, especially the thinking of Scottish primitivists and Common Sense philosophers and the romanticism of Sir Walter Scott. Like 18th-century Enlightenment philosophers, Wilson believed in cultural evolution but retained a creationist view of human origins and regarded human nature as unchanging. He reluctantly accepted biological evolution, but his refusal to adopt an evolutionary view of the origin of the human mind led him to reject the racism that was introduced into studies of cultural evolution by Darwinians such as John Lubbock. By advocating the integration of aboriginal peoples into what he hoped would become a multiracial society in North America, Wilson continued to champion the concepts of the Enlightenment at a time when such ideals had become unfashionable.

INTRODUCTION

Comparing Daniel Wilson's *Prehistoric Man*, published in 1862, with John Lubbock's *Pre-historic Times*, which appeared three years later, one is struck by their contrasting views of aboriginal peoples. Lubbock portrayed such peoples as dirty, ignorant, and immoral savages, and for the rest of his life considered them to be biologically incapable of adapting to modern ways and hence doomed to extinction or permanent subordination as European civilization and settlement spread round the globe. Wilson did not romanticize aboriginal peoples, but respected them for their many accomplishments and continued to believe that as individuals they had the capacity to develop and flourish within the new societies that were evolving as a result of European expansion. Wilson's opinions seem far more like our own than do Lubbock's repellently racist ones. This paper seeks to examine the context in which such very different views evolved and persisted through the latter half of the 19th century.

Since the days of R G Collingwood (1946), archaeologists have known that the past exists for them only as they imagine it. It would be the height of arrogance to claim that, even with the most complete evidence, anyone can fully comprehend the complex realities of the past. Yet all reconstructions of the history of archaeology are not of equal value. The more we know about the social and cultural contexts in which individual archaeologists worked, the more likely we are to

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understand how and why these archaeologists interpreted their evidence as they did. Success also requires that we avoid presentism: imposing our own values on the past.

WILSON THE ENIGMA

Wilson was born in Edinburgh in 1816, and published *The Archaeology and Prehistoric Annals of Scotland* in 1851; he was appointed Professor of History and English Literature at University College, Toronto, in 1853, President of that college in 1880, and President of the University of Toronto, of which University College is a part, in 1887. He had a fiery, but controlled, temper and fought tenaciously for those principles in which he believed.

Wilson is widely remembered as one of the leading figures in higher education in Canada in the latter half of the 19th century. He detested the sectarianism he encountered in Ontario and championed a non-denominational system of higher education, where people from different religious backgrounds could intermingle and learn to co-operate. He also supported the Scottish model of higher education, which offered a broad range of subjects including options that would prepare students for particular professions (Berger 1990, 1111–12). In Wilson's approach to education we can observe his deep commitment to the humanistic ideas and values that he had acquired as a young man in Edinburgh.

By the early 1860s, Wilson was generally assumed to have settled down as a regular Canadian. Yet we know from his diaries and letters that he had not wished to come to Canada and, like many Scottish immigrants, was never totally reconciled to remaining there. He accepted a teaching post at University College only after it became apparent that no similar position was likely to become available in Scotland, and he never ceased to regret his separation from Edinburgh friends and libraries. He applied unsuccessfully for the Chair of History at St Andrews in 1861 and of English Literature at the University of Edinburgh in 1863, and said that he was prepared to make financial sacrifices to return to Scotland. In the early 1880s he was planning to retire to Scotland, but was persuaded to stay on as President of University College (McCardle 1980, 35, 56–7). The landscapes that Wilson continued to paint into the late 1880s document his growing aesthetic appreciation of the North American continent. This suggests that he gradually came to understand his new home with his heart as well as with his intellect.

Yet Wilson's relations with his Canadian colleagues remained difficult. In his final years, he was criticized by some younger staff for his failure to support the preferential hiring of Canadian academics (McCardle 1980, 61; McKillop 1987, 81–2). In 1889, he wrote in his diary: 'The aspect in which I find myself viewed by this pack of self-seekers as a foreign intruder is comical. I am the last of the hated Hyksos kings. If they only had me safe in my sarcophagus the reign of the true native Pharaohs would begin' (McKillop 1987, 91). He esteemed as the greatest honour of his life being granted the Freedom of the City of Edinburgh in 1891, at which time the portrait that now hangs in the Scottish National Portrait Gallery was painted by Sir George Reid. By contrast, he was persuaded only with some difficulty to accept the knighthood he received in 1888 on the recommendation of the Ontario and Canadian governments. He regarded it as an insult to all scholars that he should be made a knight bachelor, an honour that was of lower standing than the KCMG which local politicians routinely awarded to each other. Even after he had formally accepted the title, Wilson never used it (McCardle 1980, 70, 165–6); a convention that I shall respect in this paper.

Among Wilson's contemporaries, his reputation as a scholar was variable. His archaeology and anthropology books sold well in North America and Europe. The eminent English historian Henry Hallam recognized the first edition of *The Archaeology and Prehistoric Annals of Scotland*

as being the most scientific treatment of the archaeological evidence of ‘primitive history’ written so far, in a review that greatly assisted Wilson to secure his position at University College (Hale 1893, 259; McCardle 1980, 13). Yet, from the late 19th century, his archaeological work seems to have been little remembered in Scotland. Joseph Anderson, whose approach to Scottish prehistory was very different from Wilson’s, made few references to him and, in his syntheses of Scottish prehistory, V Gordon Childe appears not to have been aware of him (Clarke 1981, 136–8; Childe 1935, 1946). Wilson’s work was also generally considered to be of little interest by 19th-century English palaeolithic archaeologists who were attracted to the ideas of Charles Darwin.

The American anthropologist Frederick Starr described *Prehistoric Man* and *The Archaeology and Prehistoric Annals of Scotland* as training books for a generation of scholars, and Horatio Hale, who ranked Wilson among the ‘beacon-lights’ of his age, pointed out that his work had been especially influential among German ethnologists (Starr 1892, 307; Hale 1893, 260, 265). In 1907, the American archaeologist Arthur C Parker (1907, 460) claimed that, with the writings of Wilson, Lewis Henry Morgan, Ephraim Squier, and Edwin Davis ‘a new epoch’ had dawned in American anthropology. On the other hand, the American historian Justin Winsor (1889, 377), while generally praising Wilson’s work, complained that *Prehistoric Man* was ‘not well fortified with references’. The posthumous pronouncement from his own university was that his scholarship was ‘more diffuse than accurate’ and that had he remained primarily a scholar rather than an administrator ‘the real man would have been submerged’ (Langton 1901, 204–5). The latter comment tells us more about the talent-starved Canadian society in which Wilson lived than about Wilson himself.

Wilson’s more recent archaeological and anthropological reputation has been similarly mixed. He is perhaps most widely remembered as the first archaeologist to use the word ‘prehistory’ in the English language, although for more than 30 years it has been debated whether he actually invented this term (Chippindale 1988; Clermont & Smith 1990). Over the years, physical anthropologists have commented favourably on Wilson’s cranial studies. Sir Arthur Keith recognized his work on prehistoric Scottish skulls as the first application of craniometry to British archaeology (Simpson 1963, 2), while Aleš Hrdlička (1914, 532–3) acknowledged his American work as being good for its day, and more recently American physical anthropologists have approved his refutation of Samuel Morton’s claims that the skulls of all American aborigines belonged to a single type (Stewart & Newman 1951, 22, 28). In the 1960s, James Griffin (1961, 71) noted favourably Wilson’s study of aboriginal copper mining around Lake Superior.

In Canada, Wilson was widely recognized in the 1960s as that country’s first anthropologist (McIlwraith 1964; Trigger 1966). Great pride has been expressed in the likelihood that, beginning in 1857 with his course on ‘Ancient and Modern Ethnology’, Wilson may have been the first university teacher anywhere in the world to offer a course dealing exclusively with anthropology (McCardle 1980, 22). He continued to teach this course annually for the rest of his life and after 1882 bore the official title of Professor of History and Ethnology at the University of Toronto.

Yet, while Wilson’s name regularly appears in recent histories of archaeology, it rarely does so in more general histories of anthropology. In his *Victorian Anthropology*, the American historian George Stocking (1987, 73, 180) described Wilson as an engraver turned anthropologist whose work quickly faded from view. Yet Stocking (1987, 181) also identified him as ‘one of the leaders of Canadian anthropology’.

Many modern Canadian anthropologists believe that Wilson’s obscurity resulted from his working far from the centres of academic power, others that his reputation fell victim, beginning in the 1880s, to the efforts of the young German-American anthropologist Franz Boas to erase the last vestiges of cultural evolutionism and to rebuild North American anthropology on Herderian

principles of cultural relativism (Cole 1973; Maud 1982). This resulted in a general amnesia among North American anthropologists concerning the pre-Boasian past of their discipline. More recently, the American anthropologist Alice Kehoe (1991, 473–4) has argued that Wilson, rather than Lubbock, Tylor, and Morgan, laid the basis for systematic archaeology and anthropology in the 19th century. She believes that he was robbed of his deserved reputation not by Boas but by Lubbock and other English aristocrats. Wilson the anthropologist is clearly in danger of becoming a highly politicized cultural construction.

It is impossible to assess Wilson's contributions as an archaeologist and anthropologist without referring to his many other intellectual and artistic achievements. At various stages, he was a talented artist, a professional engraver, a published poet, a writer of popular historical works, an antiquarian, and a literary critic. Most of these activities were closely intertwined. His skills as an artist played an important role in his antiquarian studies and his book *Caliban: The Missing Link* (1873) combined anthropology and literary criticism in a distinctly post-modernist fashion. Wilson least enjoyed having to teach history, and as a result paid much attention to anthropological topics in his history courses (McCardle 1980, 21–2). His daughter, Sybil, described ethnology as his favourite study and the bulk of his publication was in that field and archaeology (Wilson 1892, vi; for his bibliography see McCardle 1980, 168–92). Yet, in 1881, he stated that his single favourite book was his biography of Thomas Chatterton, the young, 18th-century English poet who, like Wilson, had sought his fortune in London (Wilson 1869; Berger 1990, 1111).

INTELLECTUAL BACKGROUND

The Edinburgh of Wilson's youth was a centre of intellectual ferment, its literary circles having been less traumatized by the French revolution than English ones had been. Scottish culture remained broadly humanistic and philosophical; regarding the general as more important than the particular and the whole as more than the sum of its parts (McKillop 1979, 24–5). While the English establishment, in its efforts to defend traditional values, reiterated Newton's reluctance to enquire into 'ancient causes', Scottish intellectuals continued to ponder how and why social institutions evolved. Wilson's archaeology and anthropology have to be considered in relation to at least four specific trends in Scottish intellectual life in the early decades of the 19th century, although there is no evidence that Wilson ever studied or considered these trends systematically.

The first and most important of these was the philosophy derived from the French Enlightenment, which had acquired deep roots in 18th-century Scotland and was reflected in the works of the so-called Scottish primitivists, including James Burnett (Lord Monboddo), Adam Ferguson, Henry Home (Lord Kames), John Millar, and William Robertson. The ideals of the Enlightenment corresponded both in France and in Scotland with the aspirations of the rising middle class and appealed to landed advocates, university professors, the 'moderate' clergy, and literary men (Stocking 1975, 65).

Enlightenment philosophy was dominated by the belief that cultural progress was the primary characteristic of human history. It was accepted that all human groups shared a similar nature and level of intelligence. Hence, while less developed societies were often characterized as ignorant, superstitious, and savage, all peoples were believed potentially capable of contributing to, and benefiting from, cultural and intellectual progress. Human groups in different parts of the world were also thought able to progress along similar lines independently of one another, although knowledge could spread from more developed nations to their less advanced neighbours. Independent invention and diffusion thus were complementary rather than antithetical processes.

Progress was also believed to transform all aspects of culture, bringing about improvements in social and political institutions, morality, and intellectual life, as well as in technology.

The human condition was improved through the application of rational thought. This not only enabled human beings to control the natural world more effectively but also perfected human nature, not by altering it, but by eliminating ignorance and suppressing superstitions and violence. The Enlightenment was the first philosophy which in modern times ascribed to human beings the power to control their own destiny. It also based itself, rightly or wrongly, on a belief in the decency and good sense, rather than the sinfulness, of humanity (Bryson 1945; Meek 1976).

The Enlightenment philosophers of the 18th century lacked archaeological evidence to support their theories. Yet they believed that, if all human societies developed from simplicity to complexity along essentially similar lines, it should be possible, by arranging existing societies from around the world in a similar order, to delineate the general stages through which Western European nations had evolved. This was the procedure, adumbrated as early as 1689 in John Locke's claim that 'in the beginning all the World was America', that Dugald Stewart was to label 'theoretic' or 'conjectural' history (Slotkin 1965, 460). In 1777, William Robertson applied these ideas in his *The History of America*, where he argued that, despite the absence of sustained contact between the eastern and western hemispheres, prehistoric human societies in both regions had evolved from savagery through barbarism to civilization, even if the native American civilizations had not achieved the same heights as had those of Europe (Hoebel 1960; Keen 1971, 275–85). Like other Enlightenment philosophers, Robertson attributed the different levels of culture achieved by various peoples to environmental influences rather than to unalterable biological differences, although that did not mean that environmental factors did not result in short-term and reversible biological differences between peoples. By emphasizing the developments that had produced irreversible social and intellectual changes in societies, conjectural history helped to lay the basis for the development of social, as opposed to dynastic, history.

Scottish primitivism was also deeply influenced by the Common Sense philosophy of Thomas Reid and his followers. This movement attempted to make good the limitations of pure reason as an explanation of human behaviour by demonstrating that all human customs and relations were grounded in specific aspects of human nature. In opposition to Thomas Hobbes' and John Locke's idea that the human mind is a *tabula rasa* on which sensations are recorded, the Common Sense philosophers argued that human beings were born with innate moral and intellectual faculties, comparable to those of seeing and hearing. These faculties included a capacity for making moral and aesthetic judgements. They were believed to resemble language, which was grounded in an innate capacity that permitted speech but did not determine the specific form of any language (Stocking 1975; McKillop 1979).

The universality of such faculties suggested that all human beings would tend to judge things in a similar fashion and hence provided an explanation for the parallelisms in cultural development that had been noted by the primitivists. It also suggested that most aspects of human behaviour could be explained by means of personal introspection. By extending the uniformity of human behaviour well beyond simple calculation of personal self-interest, this approach largely eliminated the need to consider cultural relativism when explaining human behaviour. This appealed in particular to those who wished to believe in the universality of Christian values. Common Sense philosophy became very popular in North American universities in the mid-19th century. McKillop has argued that, while this philosophy had played a liberalizing role in Scottish intellectual life, it became a support for religious orthodoxy in North America (McKillop 1979, 25). Wilson's awareness of Common Sense philosophy in this latter variant may have increased after he came to Canada.

A more radical set of revolutionary ideas were the concepts of biological evolution that were widespread in Edinburgh medical circles. These were derived from the writings of the French biologist Jean-Baptiste Lamarck. Adrian Desmond (1989, 19) has observed that Lamarck's ideas were popular among radicals who interpreted the notion of human societies evolving naturally from atoms rather than by divine decree as support for the proposition that governments should derive their authority from the will of the people. Such a 'bottom-up' view of the natural and social order was anathema among the London establishment prior to the 1850s. In Edinburgh, however, the publisher, Robert Chambers, gave these views a certain degree of middle-class respectability when he anonymously published his *Vestiges of the Natural History of Creation* in 1844. By viewing evolution as a process that occurred by lawful means, Chambers was able to strike a responsive chord among less radical elements of the middle classes who looked to lawfully constituted change as a source of betterment (Desmond 1989, 7).

A final movement that is relevant for understanding Wilson's work was romanticism, especially as it was represented in the work of Sir Walter Scott. Romanticism began on the Continent as a conservative reaction to the French Revolution, with which the rationalism of the Enlightenment had become identified. It positively valued emotions, sentiments, cultural diversity, and patriotism. While Scott believed in the universality of human nature, he was fascinated, as Marinell Ash (1980) has reminded us, by the variation in human behaviour from one culture and one period to another. In his novels, he showed the past filled with men and women caught up in circumstances very different from those which confronted his readers. If in continental Europe romanticism tended to be politically reactionary and élitist, in Scotland it was associated with a more broadly based patriotism.

WILSON THE ARCHAEOLOGIST

In Denmark, in the early 19th century, a combination of nationalistic romanticism and Enlightenment evolutionism had given rise to scientific archaeology through the work of Christian Thomsen (Klindt-Jensen 1975). We must now consider how Thomsen's work and these same intellectual movements shaped the archaeological and anthropological thinking of Daniel Wilson. Wilson was born into a middle-class Edinburgh family. His father, Archibald, was a tea, and later a wine, merchant. His mother, Janet Aitken, the daughter of a prosperous land surveyor from Greenock, encouraged the intellectual development of her children. According to Wilson, from an early age, he and his brother George, who was to become Regius Professor of Technology at the University of Edinburgh, were interested in collecting artefacts as well as geological specimens (McCardle 1980, 7–9). Wilson became apprenticed as a steel engraver to William Miller between 1831 and 1837, at the same time attending lectures at the University of Edinburgh. He spent the next five years working in London as an engraver and a self-styled hack writer, after which he returned to Edinburgh where he opened an artists' supplies and print shop, which he owned until 1848. In Edinburgh, Wilson continued to support himself with his writings, which included the book *Oliver Cromwell and the Protectorate* (1848a). With the support of the publisher Robert Chambers, Wilson was elected a Fellow of the Society of Antiquaries of Scotland in 1846 and became Honorary Secretary of the Society the following year. Over the next few years, Chambers and Wilson worked together to transform the Society into a significant research institute (Ash 1981).

Wilson's first major antiquarian publication was his *Memorials of Edinburgh in the Olden Time* (1848b). Wilson had long been troubled by the destruction of the buildings of old Edinburgh as a result of urban renewal. He made pencil drawings of these structures and began to record

whatever of note he found when one of them was demolished. In 1846, he identified St Margaret's Chapel, which for many years had gone unrecognized and been used to store gunpowder (Simpson 1963, 3). In *Memorials of Edinburgh*, Wilson published a large number of his best sketches, accompanied by a rambling account of the history of the city. This work was clearly conceived in the romantic tradition and, as Marinell Ash (nd) observed, was inspired by Robert Chambers' classic collection of local lore, *Traditions of Edinburgh* (1825), and by the work of Wilson's friend, the engraver John Wykeman Archer, which would culminate in Archer's *Vestiges of Old London* (1851).

Memorials of Edinburgh established Wilson's credentials as a leading antiquarian and represented a crucial step in his transformation into a prehistoric archaeologist. He later recollected how his studies of old Edinburgh had encouraged his interest in prehistoric artefacts found in and near the city (Wilson 1878). This may explain why, in 1851, he patriotically, but rather inaccurately, hailed Scott as the father of scientific archaeology throughout Europe (Wilson 1851, xi). Wilson's antiquarian interest in Scottish history continued for the rest of his life. In Canada he was delighted to find and publish for the first time an accurate description of the crozier of St Fillan, a priceless relic of the Celtic church. In 1877, he arranged for the crozier's hereditary guardian to entrust it to the keeping of the National Museum of Antiquities of Scotland (Simpson 1963, 5). The following year, he published *Reminiscences of Old Edinburgh* (1878), a second book recounting the history of the city and his youthful memories of it.

The next step in Wilson's intellectual development resulted from his becoming involved in a project to transform the collections of the Society of Antiquaries of Scotland into a modern National Archaeological Museum for Scotland. The model chosen for reorganizing these collections, even prior to Wilson's work, was the three-age one Christian Thomsen had devised for the Danish National Museum of Antiquity in Copenhagen, which had opened in 1819. In the course of mounting his collections, Thomsen had devised the technique of seriation, which permitted him to assign prehistoric artefacts made of any material to chronologically successive ages of Stone, Bronze, and Iron. This sequence had subsequently been confirmed by Jens Worsaae's stratigraphic excavations in Denmark (Gräslund 1987).

Scottish antiquaries had long had close relations with their Scandinavian counterparts. As early as 1829, Scottish antiquarians who visited Scandinavia had been reading and publishing papers about what was happening there in the archaeology of prehistory (Ash 1981, 93, 98–9). Worsaae visited Edinburgh in 1846 and was made a corresponding member of the Society of Antiquaries of Scotland. Thomsen's guidebook was published in an English translation for the first time in 1848 and Worsaae's *The Primeval Antiquities of Denmark* in 1849. Under these circumstances, it is not surprising that the Society of Antiquaries of Scotland adopted the Scandinavian system for arranging its collections (Stevenson 1981, 78–80). Wilson was also encouraged by the Norwegian antiquarian, Peter Munch, to make all possible use of historical documents, inscriptions, place names, and oral traditions in interpreting these finds and not to accept uncritically the nationalistic interpretations of the Danes (Ash 1981, 108–9).

As an Honorary Secretary of the Society of Antiquaries of Scotland, Wilson visited sites and corresponded with people throughout Scotland. The result was not only a new display modelled on Thomsen's principles but also a catalogue of the collection published in 1849 that constituted a first step towards *The Archaeology and Prehistoric Annals of Scotland*, which was published in 1851 and reissued in an expanded and improved edition in 1863. This book not only provided the first comprehensive treatment of the Scottish past relating primarily to material culture but also was the first comprehensive study of prehistoric archaeology published in the English language. Wilson's work was based mainly on his investigation of museum collections and records of

prehistoric monuments rather than on systematic excavations. It therefore resembled Thomsen's pioneering research more than it did the excavation-based archaeology of Worsaae.

Implicit in Wilson's work, as in Thomsen's, was an acceptance of cultural evolutionism that did not exclude diffusion and migration as factors bringing about cultural change. This was rooted in French Enlightenment philosophy, which was familiar and acceptable to reform-minded individuals in both Denmark and Scotland. Wilson divided his book into four sections, which he assigned to the periods of Stone (Primeval), Bronze (Archaic), and Iron (Teutonic), and to the Christian period. Within each section, chapters were devoted to different classes of data – tombs, fortifications, dwellings, weapons, vessels, ornaments, art, religion, and domestic life. In the more recent sections, historical data increasingly supplemented the record of material culture.

Not all of Wilson's work was evolutionary in nature. He observed that artefacts from Scotland differed in shape and decoration from those of the corresponding period in Denmark, especially during the Iron Age. Worsaae had already noted similar differences between Denmark and Ireland (Ash 1981, 102). Such attention to local differences in material culture accorded with the nationalist sentiments that were encouraging the study of prehistory throughout Northern Europe. Wilson also examined prehistoric human skulls, the varying shapes of which suggested the presence of a different people in Scotland prior to the arrival of the Celts. His regret that many scholars rated philology ahead of physical anthropology as a means for tracing historical connections among human groups tended to align him with anthropologists who supported the polygenist theory that the various human races represented separate creations. Yet Wilson's sympathies, in all other respects, were much closer to those of the monogenetic ethnologists (McCardle 1980, 88). They accepted the biblical assertion that all human groups shared a common ancestry and believed that in most respects human groups were behaviourally very similar. Scandinavian archaeologists exhibited a similar interest in craniometric studies (Morlot 1861, 310–12).

Like the Scandinavians, Wilson adhered to a biblical chronology which suggested that human beings had been created only about 6000 years ago, although he accepted geological evidence which indicated that the world itself was much older (McCardle 1980, 40). He also accepted the biblical account of early human history, which, like many other believers in Enlightenment philosophy, including Antoine-Ives Gouget, Lord Kames, and John Millar, he squared with cultural evolution by maintaining that, as human groups had moved away from the Middle East, they had lost their knowledge of metallurgy, which they had to recover in the course of later cultural development (Wilson 1851, 16; Bowler 1989). Yet in this book Wilson (1851, 697) presented a more purely evolutionary narrative than he would do later in *Prehistoric Man*.

Wilson also urged that the British Museum should be reorganized according to the three-age system. His call long fell on deaf ears among English antiquarians who were reluctant to implement this foreign innovation (Daniel 1963, 58–9). He also argued that to prevent the destruction of artefacts made of precious metals, Scottish treasure-trove laws should be revised along Danish lines to assure adequate compensation for the surrender of finds. He noted that less than 10 of some 200 gold relics known to have been discovered in Scotland could be located at the time of his study (Trigger 1966, 9; McCardle 1980, 12; Ash 1981, 107).

It does not detract from what Wilson accomplished that he utilized methods that had been pioneered by Scandinavian archaeologists. Nor is it to the discredit of either that they continued to adhere to a biblical chronology. By a curious coincidence, Scandinavia, Scotland, and Switzerland (the third region of Europe where scientific archaeology was to develop prior to the 1860s) had all been glaciated during the last Ice Age; hence the archaeological record of a human presence in these countries was, and still remains, close to that of the traditional biblical chronology.

Wilson's book was distinguished by its careful organization and by its elegant, if by today's standards rather florid, literary style. One of its major accomplishments was to distinguish between history and prehistory not merely as time periods but as different approaches to studying the past. Others may or may not have used the term prehistory to denote the period of human existence prior to written records, but Wilson played a pioneering role in delineating the special characteristics of prehistory as a discipline. Because he had worked as a popular historian and then as an antiquarian investigating historical Edinburgh, he was well equipped to understand the differences between studying the past with and without the aid of written documents. In particular, he objected to the traditional antiquarian practice of labelling any archaeological assemblage that appeared rude or barbarous as native, druidical, or British and attributing anything that appeared to be more advanced to the Phoenicians, Romans, Danes, or Normans (Wilson 1851, xiv–xv). He believed that his craniometrical analyses had demonstrated that there had been movements of peoples in prehistoric as well as historical times and hence that it was unrealistic to attribute all prehistoric artefacts to the ancestors of peoples who were recorded as occupying particular areas in the early historical period. The study of prehistory involved working out movements of peoples in prehistoric times as well as tracing the general processes by which technology, social organization, and religions had grown more complex. While he saw many innovations coming from the Middle East, which he regarded as the cradle of humanity, Wilson (1851, 357) believed that iron-working might have been invented in Scandinavia.

Wilson viewed every artefact as the embodiment of an individual's knowledge, skill, and taste and believed that by studying the archaeological record it was possible to learn something about the habits, thoughts, and beliefs of specific prehistoric peoples (Wilson 1851, 336). Temples and burials provided evidence of prehistoric technology, social organization, and religious concepts. Wilson (1851, 337–8) even suggested that it might be possible to determine the social position of women in prehistoric times by comparing the amount of luxury goods buried with each sex. He was later to demonstrate how far he believed the study of prehistoric religions might be pursued with his attempts to infer from archaeological data the religious beliefs and practices of the prehistoric 'Moundbuilder' cultures of the Ohio and Mississippi Valleys (Wilson 1862, I, 370–85, 484–8). The result of such studies would not be a traditional history based on the words and deeds of individuals but an account of cultural changes that had occurred in prehistoric times. The objectives of prehistoric archaeology were thus the same kind of knowledge that ethnologists sought by employing Dugald Stewart's conjectural history. Yet only prehistoric archaeology offered a means to study directly the history of humanity prior to the invention of writing (Wilson 1851, 695–6). Wilson might not have invented the methods of prehistory, but, in *The Archaeology and Prehistoric Annals of Scotland*, he made a contribution towards defining the goals of the new discipline that would remain relevant into the 20th century.

WILSON THE ANTHROPOLOGIST

Even in the first edition of *The Archaeology and Prehistoric Annals of Scotland* Wilson had exhibited an interest in the prehistoric cultures of the Mississippi Valley, Mexico, and Central America. This interest had been stimulated at least in part by exotic material in the collections of the Society of Antiquaries of Scotland. After he moved to Canada, Wilson discovered in the New World a laboratory of European prehistory (Wilson 1862, I, 1–4; 1863, I, xv). He soon encountered Indians who were living exactly as he imagined prehistoric Scots had done and observed that, if aboriginal pottery unearthed in Ontario were 'mixed with what you find in Scottish barrows, it would puzzle you to say which was American and which Scottish' (Wilson cited in Piggott &

Robertson 1977, entry 71). Less prosperous European settlers were living in a fashion that Wilson believed had regressed in many essential respects to the level of the early Dark Ages, while Africans, involuntarily brought to the New World, were being forced to adapt to an alien geographical and social environment under the worst possible social conditions. Like William Robertson, Wilson hoped to learn something about the 'essential characteristics of human beings' by comparing indigenous cultural developments in the Old and the New Worlds, and by examining the movements of peoples and the clashes of cultures that had been occurring in the western hemisphere since the time of Columbus. The findings of this research were published in 1862 in *Prehistoric Man: Researches into the Origin of Civilisation in the Old and the New World*. This book is important even for those who are interested only in Wilson's Scottish archaeology because it spelled out many of Wilson's ideas that had remained implicit in *The Archaeology and Prehistoric Annals of Scotland*.

It is important to make an inventory of the kinds of research that Wilson carried out between 1853 and 1861. Kehoe (1991, 472–3) has argued that his understanding of native people was based on more extensive contact than Lubbock and other armchair anthropologists had enjoyed. Yet a contemporary Canadian naturalist, Henry Youle Hind, expressed the opinion that Wilson himself was an armchair anthropologist who relied excessively on the observations of others (Berger 1990, 1111). The truth seems to lie somewhere in between.

In 1855, Wilson made a 'summer ramble' to the western end of Lake Superior, where he examined prehistoric copper mines, visited prosperous racially mixed communities, and briefly encountered a few native bands (Wilson 1862, I, xiii; 1873, 32–3, 104–5). The following summer he visited the Ohio Valley, where he viewed the prehistoric earthworks that had been constructed there. Over the years, he also visited various Indian communities in southern Quebec and throughout southern Ontario and may have examined enough archaeological sites in Ontario to earn the mocking comment of Egerton Ryerson, superintendent of education for Upper Canada, that 'in his leisure moments in this Country [Wilson] has devoted himself to disembowelling the Cemeteries of the Indian tribes in seeking up the Tomahawks, Pipes and Tobacco . . . and writing essays upon them' (Harris 1976, 87). Yet Wilson published no systematic accounts of these activities. One of his main preoccupations was to measure Indian heads. He was disconcerted to discover that, because of what he viewed as their primitive superstitions, most Indians were reluctant to submit to such an examination (Wilson 1862, II, 259). While Wilson may have had more direct contact with native peoples than did Lubbock, he almost certainly had less than did Morgan or Tylor. Experience alone does not account for his relatively favourable views of native people.

Most of Wilson's research for *Prehistoric Man* was carried out in the course of visits to scholars, libraries, and museums in Washington, Philadelphia, New York, Boston, and Albany. He examined numerous archaeological and ethnological collections and measured many human skulls gathered from various parts of the Americas. He noted with gratitude the willingness with which American institutions and individuals put their collections at the disposal of visiting scholars (Wilson 1862, I, xiv). He also obtained information from Canadian travellers who visited Indians in the west, especially the artist Paul Kane, and, with the support of Sir Edmund Head, the Governor General of British North America, he distributed to Indian agents and missionaries a questionnaire concerning the effects of racial mixture (Wilson 1862, I, xv–xvi).

When he came to Canada, Wilson recorded that it was his ambition to become a Canadian antiquary. He immediately began to collect artefacts for a Canadian Museum, often with the help of students, and arranged for the chemical analysis of some prehistoric copper objects found in southern Ontario (McCardle 1980, 16; Wilson 1862, I, 260–2). Yet, despite sporadic efforts in the

1850s and 1860s (Wilson 1855), he did not establish a significant collection of Indian artefacts, and the informal archaeological and ethnographic fieldwork that he carried out diminished sharply in the 1860s. It was left to a younger Scotsman, a former teacher and bookstore owner, David Boyle, to build the archaeological collection of the Ontario Provincial Museum (now the Royal Ontario Museum) and become the first salaried archaeologist in Canada in 1887. By the time he died, in 1911, Boyle had assembled over 32,000 artefacts. While undoubtedly influenced by Wilson, there is no evidence of close contacts between these two men, such as might have been expected as a result of Wilson's interests (Killan 1983).

Prehistoric Man was based on the assumption that there had been little, if any, direct contact between the Old and the New Worlds after the initial aboriginal settlement of the Americas and that the parallel development of civilization in the eastern and western hemispheres resulted from common human instincts. Wilson believed that, in addition to reason and moral sense, these instincts included specific propensities for religion, language, tool making, the construction of buildings, art, the use of fire, and even boat-building. Every human being possessed the rudimentary drives and abilities that could be used to construct cultures of varying degrees of elaboration. These propositions came directly from the work of William Robertson and other Scottish primitivists, as well as from Common Sense philosophy.

Wilson was especially anxious to refute the claim of the American anatomist Samuel Morton that the American Indians represented a uniform and separately created species of human beings. He did this by demonstrating craniometrically that there was considerable variation both between and within American Indian populations. This led him to abandon his earlier belief that skulls provided a very slowly changing, and hence reliable, indicator of racial and ethnic identity (Wilson 1862, II, 199–288; McCardle 1980, 137–8).

Wilson believed that the ancestors of the American Indians probably had reached the New World across both the Pacific and Atlantic Oceans as well as by traversing the Bering Strait. In postulating transoceanic migrations, he was following Alexander Bradford, who in 1841 had derived the high civilizations of Mesoamerica from southern Asia by way of Polynesia, as well as the still earlier ideas of Constantine Rafinesque (Bradford 1841; Williams 1991, 101). Wilson believed, however, that the first arrivals were few in number, had failed to bring any domesticated plants or animals with them, and, as a result of this and of subsequent dispersals, must have lost whatever skills they initially possessed. Hence they had to start again at a primitive level and create the civilizations of the New World in isolation from those of the Old.

Retrospectively, it seems hard to reconcile Wilson's belief in various transoceanic voyages in early times and in the later isolation of the Americas from outside influences. He went to considerable trouble to refute the many false claims being put forward in support of Hebrew and Phoenician visits to the New World and Viking penetrations deep into North America (Wilson 1862, II, 155–98).

Influenced by William Robertson and by the American writer Robert Wilson, who had recently published *A New History of the Conquest of Mexico* (1859), Daniel Wilson concluded that William Prescott and others had grossly exaggerated the cultural achievements of the Incas and Aztecs. Yet he concluded that the Aztecs and Incas had reached the level of the earliest civilizations of the Old World and suggested that, if they had had more time to develop, the native peoples of the New World might have equalled or excelled the achievements of Western Europeans (Wilson 1862, I, 423). Wilson maintained that civilizations initially developed in mild climates and, for reasons that are still acceptable today, judged the Mayas of Central America to have been the most advanced aboriginal civilization in the New World. He pinpointed Peru as a centre for the development of metallurgy, but did not believe either the Inca or Aztec civilizations to be old ones.

Wilson argued, echoing the thoughts of the English historian Henry T Buckle (1857; Keen 1971, 443–4), that, because of the easy conditions under which they developed, tropical civilizations tended towards despotism, pomp, and sensuous display rather than promoting the mental and moral progress of the masses (Wilson 1862, II, 63–4). More progressive civilizations developed only later and in harsher climates, and so far had evolved only in the Old World. Wilson suggested that the Moundbuilders had made some progress in that direction and that, if they had been left to evolve longer, peoples such as the Micmacs and Iroquois might have become the French and English of the New World (Wilson 1862, II, 86–7). Such environmental theories were typical of Enlightenment explanations of cultural diversity. The idea of the superiority of northern climates for cultural development was to play a major role in nationalist thought in Canada in the late 19th century (Berger 1970, 128–52).

Like other Scottish primitivists, Wilson believed that all human beings shared a common origin, were inherently good, and were able to progress by exercising their powers of reason (Wilson 1862, I, 45). He also believed, in keeping with Enlightenment philosophy, that human nature could not be permanently altered by the natural environment or by changing levels of cultural development. Yet he allowed that both intellectual development and brain function might be influenced for better or worse by environmental factors such as climatic conditions, social class, diet, education, and state of health. He maintained that, since the potential that was inherent in human nature was most completely realized in a civilized society, an adult European, having been raised in materially and culturally superior circumstances, would soon learn to hunt better than an Indian who had done it all his life (Wilson 1862, II, 411, 434). The extent to which powers inherent in human beings were realized could be diminished by abuse or enhanced by cultivation. By means of cultural development, societies have an opportunity to realize human nature to its fullest capacity, just as an individual does in the course of growing up.

Wilson denied the longstanding belief that degeneration constituted an overall pattern in human history, but accepted it as something that happened not infrequently to individuals and specific societies. The Stone Age thus represented not simply an early stage in cultural development, but a base level to which individual human societies from time to time declined and from which they then had to reascend (Wilson 1862, I, 144, 183).

Wilson did not confuse inherent ability with cultural development. He pointed out that, under culturally propitious circumstances, the Anglo-Saxons, Hungarians, and Arabs had evolved from barbarism to civilization in only a few generations. He further argued that ferocity and aggressiveness probably did more to facilitate such a transition than docility would have done and that European scholars often construed the savage customs of their ancestors as evidence of ‘primitive vigour’ (Wilson 1862, I, 10). On these grounds, he denied that cannibalism or human sacrifice indicated the lack of ability to become civilized (Wilson 1862, I, 209, 301). Wilson believed, as did all 19th-century evolutionists, that cultural progress occurred more quickly as a result of human beings having more leisure time to use their intellects to control their environment more effectively. Because it provided a larger number of people with greater leisure and healthier living conditions, civilization constituted a basis for accelerated intellectual and physiological development.

Wilson also observed that when peoples at different levels of development encountered one another, this almost always resulted in the rapid degeneration and collapse of the less evolved society and the integration of its surviving members into the more advanced one (Wilson 1862, I, 229; II, 333–63). He believed that this process of contact and of cultural and biological mixing was one of the most important ways in which cultural progress came about. Wilson has been accused of failing to distinguish clearly between the biological and cultural factors that accounted for these

processes, but this seems to me to have been more a problem of terminological than of conceptual confusion. Wilson maintained that the conditions that were destroying the North American Indians would kill off any European group that found itself in a similar situation (Wilson 1862, II, 388). He also viewed all races as temporary and believed that new ones came into existence as a result of interbreeding between existing races (Wilson 1862, II, 418–20). He looked forward to the creation of a new North American people, in whom the blood and cultural achievements of Indians and Blacks, as well as Europeans, would become mixed. As evidence of what Afro-Americans had already accomplished, he pointed out that, even though they had been treated like domestic animals, former slaves had managed to establish a modern-style nation state in Haiti (Wilson 1862, II, 413). He also insisted on the normality, and possible superiority, of ‘half-breeds’, such as the Metis of Western Canada, and maintained that interbreeding had already occurred in North America to a much greater extent than was generally acknowledged (Wilson 1862, II, 340–54). He reminded readers that it was agreed that throughout British history progress had resulted from new peoples entering the country and mingling with its existing inhabitants. In Wilson’s opinion, only ‘primitive’ peoples were likely to be pure-blooded (Wilson 1862, II, 451).

These views have been decried in recent years as constituting a justification for the expropriation of Indian lands by the Canadian government (McCardle 1980, 129–31). It is true that in *Prehistoric Man* Wilson greatly exaggerated the amount of warfare among aboriginal groups prior to the arrival of the Europeans, ignored the oppression of Indians by White settlers, and exaggerated the tolerance of White society towards intermarriage with aboriginal peoples. It was also contrary to fact for him to suggest that the barrier between Indian and White society was one that native people themselves had erected as a result of their desire to resist change (Wilson 1862, II, 327–8). These ideas accorded with a myth that Canadians of European origin had created in the mid-19th century to the effect that their relations with the Indians were more humane than those which prevailed in the United States (Trigger 1985, 3–49). Yet Wilson repeatedly stressed the need to treat Indians without prejudice and provide them with employment if amalgamation were to succeed (Wilson 1862, II, 434). This suggests that he may have been more aware of the problems facing native people than he was willing to admit. Like other anthropologists of his day, he did not realize to what a great extent the demoralization of native people and their subordination to White control resulted from massive population declines brought about by repeated epidemics of European diseases against which native people had little immunity (Dobyns 1983; Crosby 1986; Ramenofsky 1987).

If Wilson is to be judged fairly, he must be judged by the standards of his own day, not our own. In the mid-19th century, most American anthropologists and historians viewed Indians as being biologically inferior to Whites and unable to adopt a European style of life. Hence they were believed doomed to extinction as European settlement spread across the Continent (Bieder 1986). This view was already established in the United States by the late 18th century and Darwinism merely provided it with a new and scientifically attractive rationale (Vaughan 1982). Indian reserves were justified as places where Indians could remain until most of them died out and those who survived had integrated as best they could into the lower echelons of White society.

Wilson’s vision was a more generous one. He believed that Indians were able to adapt to change and could participate in bringing a new and distinctive people and culture into existence in North America. His goal in advocating assimilation was that of the Enlightenment, to enhance the potential for development that was present in all human beings. It was for this reason, politically naïve though it may have been, rather than to justify the despoiling of Indians, that he opposed keeping them on reserves and under Euro-Canadian tutelage, just as he opposed separate schools for Black children.

Wilson continued in 1862 to adhere to a biblical chronology, attributing little significance to the Palaeolithic finds that had been made in France and southern England in the 1850s (Wilson 1862, I, 49–52; II, 475). He appears to have accepted a conventional primitivist developmental sequence that ran from hunting and gathering through pastoralism to agriculture and eventually civilization. Yet, in accord with the widespread belief that most North American Indians who grew crops remained fundamentally hunter-gatherers, he ascribed little importance to the development of agriculture. Degeneration, while rejected as a general scheme, remained a significant feature of human history (Wilson 1862, I, 92–3).

Above all, Wilson rejected an evolutionary view of human nature as having developed from an animal one. He greatly admired Charles Darwin's scholarship and welcomed Darwin's studies of variation within animal species as support for a monogenist position, but saw no reason to accept the idea of biological evolution, especially as it applied to human origins. Instead, he continued to maintain that human nature was fixed, although it could either be perfected by increasing knowledge or lapse, as a result of moral failures, into savagery (Wilson 1861; 1862, II, 410–11). It has recently been suggested that Wilson acquired his knowledge of cultural and biological evolution from his friend Robert Chambers (Kehoe 1991). Yet it is clear that his thinking about cultural evolution accorded with the Scottish primitivist tradition as a whole, not specifically with that of Chambers, and that he accepted neither Chambers' nor Darwin's theories about biological evolution. Later he was to allow the antiquity of human beings and the likelihood that the human body had evolved from an ape-like higher primate (Wilson 1876, I, 21–63; 1890). In his book *Caliban*, published in 1873, he even regarded as interesting Darwin's suggestion that this might have happened on some large island that was relatively free from predators (Wilson 1873, 41–4). He also removed all references to a biblical chronology from the third edition of *Prehistoric Man*, published in 1876. In evaluating Wilson's cautious response to evolutionists' claims, it must be remembered that, prior to Eugene Dubois' discovery of the remains of *Pithecanthropus erectus* in Java in the 1890s, there was no fossil evidence of human beings more primitive than the Neanderthals, whose cranial capacity was as large as that of modern peoples.

Yet, while Wilson slowly and reluctantly became reconciled to the idea of humans being physically descended from other animals, he continued to object to what he perceived as the materialist assumption that human beings were little different from apes. For Wilson, the possession of reason and moral sense clearly differentiated human beings from all other animals. He insisted that the transformation from ape to human had been an instantaneous one which involved a soul being infused into an animal body. His description of this transformation as a process analogous to water turning into steam left open the question of whether he now viewed it as a natural or a supernatural event. He also maintained that there must be not one, but many, missing links between ape and human and that 'degraded' Australian Aborigines or Andaman Islanders did not suffice to fill the gap (Wilson 1873, 13–38). His was clearly a belated and carefully qualified acceptance of an evolutionary explanation of human origins. In matters dealing with biological evolution and its relation to the origins of culture, Wilson was, from 1859 on, a reluctant follower not a leader.

Wilson was unlikely to be pushed towards a more enthusiastic acceptance of biological evolution by Canadian colleagues. Only two other prominent scholars were interested in anthropology. One, John William Dawson, the Principal of McGill University, was a geologist who, until his death in 1899, opposed the ideas of biological and social evolution (McKillop 1979, 100–4; Berger 1983). The second, Horatio Hale, had been a disciple of the early American ethnologists Henry Gallatin and Peter Duponceau. He had conducted extensive fieldwork in the Pacific between 1837 and 1842 and, after a career as a businessman in Ontario, turned in the late

1860s to the study of the Iroquois. A product of the American Enlightenment, Hale believed in the inherent equality and creativity of all peoples. He hailed the *Iroquois Book of Rites* as a North American equivalent of the Veda and maintained that the Iroquois, although a tribal society, were neither intellectually nor morally inferior to any historically recorded people (Hale 1883; Gruber 1967; Cole 1973; Bieder 1975; Fenton 1990).

After 1876, Wilson (who had been born left-handed) published the results of his studies of left-handedness, which he concluded was hereditary and related to the dominance of one hemisphere of the brain (Wilson 1891). He also wrote a number of anthropological essays, the best of which were revised and published as a book the year he died (Wilson 1892). There is, however, no evidence that he made any other major discoveries or of any fundamental changes in his thinking during those years.

LEGACY

Contrary to Kehoe (1991), the original edition of *Prehistoric Man* was not the prototype, or even the inspiration, for Lubbock's *Pre-historic Times* or for any of the other works of evolutionary archaeology or anthropology that began to be published in the 1860s. Wilson was at that time a cultural evolutionist but not a biological evolutionist. That made his position very different from those of Lubbock and other Palaeolithic archaeologists, as Lubbock made clear in a detailed and perceptive review of Wilson's book (Lubbock 1863, 26–30). Although the existence of the Palaeolithic era was established prior to the publication of the *Origin of Species* in 1859, Darwin's exposition, during a period of relative social tranquillity, of a theory of biological evolution based on Malthusian ideas about individual struggle that were acceptable to the professional and industrial middle classes, challenged archaeologists to seek to learn more about how human beings and their cultures had evolved from the higher primates (Desmond 1989, 405–14).

Darwin's belief in slow, incremental change in the natural world reciprocally challenged his followers to elaborate the old concept of the chain of being to provide living evidence of an easy transition between apes and humans. This was done by arguing, for example, that there was less difference in cranial capacity between the most advanced apes and the least evolved human beings than there was between the highest and lowest humans (Huxley 1863, 122). Lubbock took up the challenge of demonstrating that modern human societies ran the gamut from nearly bestial hunter-gatherers to civilized Europeans. Primitive peoples were portrayed as inevitably few in number, unintelligent, dirty, unable to control their emotions or to follow a fixed course of action, and addicted to abusing wives, children, and weaker individuals, murdering aged parents, eating human flesh, and practising human sacrifice (Lubbock 1865). These differences were attributed with increasing insistence to the operation of natural selection, which, it was believed, had made Europeans irreversibly superior to all other human groups (Lubbock 1869, 1870; Bowler 1992, 726). Lubbock argued that, even within European nations, the poor and the criminally inclined were biologically inferior to the middle and upper classes. Hence a single biological explanation accounted for social inequality in Western societies and for the alleged superiority of Europeans over other human groups. In his desire to promote evolutionism, Lubbock was a fierce opponent of all doctrines of degeneration and treated cultural evolution as an essentially irreversible process.

The American anthropologist Loren Eiseley has argued that the greatest gesture of intellect and humility in human history was for humanity to accept its animal origins (Eiseley 1958, 257). Jacob Gruber maintains that the revelation of human antiquity was as important a discovery as Darwin's theory of evolution (Gruber 1965; Trautmann 1992). If accepting these ideas, which

became established in the late 1850s, is a measure of intellectual achievement, the original edition of Wilson's *Prehistoric Man* fails on both counts. Many historians of archaeology have distinguished between the work of the Scandinavian prehistoric archaeologists of the early 19th century and the Palaeolithic archaeologists of the 1860s and 1870s in a way that I believe has grossly slighted the accomplishments of the former (Daniel 1950; Grayson 1983; cf. Trigger 1989, 73–109). There are, however, major differences between the approaches of these two groups. What primarily distinguished them were their views concerning human origins and human nature. The original archaeologists of prehistory, including Wilson, accepted a creationist view of human origins and retained an Enlightenment belief in the essential fixity of human nature. The archaeologists of the Palaeolithic adopted an evolutionary view of human origins and believed that human intelligence and nature, no less than the human body, had slowly evolved from a non-human prototype. Throughout his life, Wilson remained convinced that an unbridgeable chasm separated human beings, both morally and intellectually, from all other animals. Archaeologists of the Palaeolithic were devoted to bridging this gap.

It is clear from Wilson's diaries that his religious faith remained strong throughout his life (Berger 1983, 68–9). This must have predisposed him to support a traditional Christian view of human origins. He accepted the widespread belief of his time that science studies God's revelation of Himself in His works and frequently expressed the hope that science and faith would be found to correspond in most instances (Wilson 1861; 1862, II, 475). Yet, at the same time, he strongly defended the principle that scientific questions could receive only scientific answers and anathematized theological constraints on scientific debate as medieval and unacceptable (Wilson 1862, II, 456). While he rejected Darwinian evolutionism in the early 1860s, he insisted that Darwin's theory deserved careful discussion and allowed that current minglings of science and religion might appear one day as foolish as the identification of mammoth bones as those of a biblical giant by the early New England philosopher, Increase Mather (Wilson 1862, I, 113–14). Wilson's open-mindedness allowed Lubbock (1863, 30) to taunt him for perhaps not believing as firmly in creationism as he professed to do.

One might contend hypothetically that Wilson's views about human origins reflected his class position. As a public figure of respect and authority, especially in religiously conservative southern Ontario, Wilson was bound to pay attention to religious sensibilities. Wilson had been raised as a Baptist, but in England had become an episcopalian. He therefore might have been inclined to accept the Anglican doctrine of temporal power being conferred from above, which until at least the 1850s was popularly associated with an anti-evolutionist position. On the other hand, his strong belief that talent should count for more than status might antithetically have inclined him to accept evolutionism (Desmond 1989). One could argue therefore that, as a consequence of these conflicting positions, Wilson embraced evolutionism only slowly and reluctantly, and, as it referred to human beings, never without qualification. Yet to dismiss Wilson as a conservative scholar whose ideas were swept aside by the impact of Darwinism on the study of human behaviour not only is highly speculative but also fails to take account of some of the most important facets of Wilson's thinking.

Alfred Wallace, the co-discoverer of the concept of natural selection, was, like Wilson, unable to accept Darwin's claim that primitive peoples were biologically as well as culturally inferior to Europeans, or, as one evolutionist put it, were races seeming 'less human than our dogs and horses' (quoted by Eiseley 1958, 347). Four years' working as a beetle and butterfly collector in the jungles of South America and another eight years in the Malay archipelago had brought Wallace into close contact with native peoples. This in turn had convinced him that these peoples possessed the same emotions and powers of reasoning as did civilized ones. In 1855, he wrote:

'The more I see of uncivilized people, the better I think of human nature and the essential differences between civilized and savage men seem to disappear' (Eiseley 1958, 303). All of the information that Wilson collected about the behaviour of peoples of African, European, and Amerindian origin in the New World seemed to confirm his belief in the essential similarity of human nature and human abilities and convinced him that individuals from all these groups were able to participate in fashioning a new society in North America. Wilson has been criticized for corresponding with various acculturated Indians across Canada, while not doing more to study and help those who were living in traditional fashion (McCardle 1980, 20–1). Yet this reflected his special interest in the 'progressive' changes that were occurring among native groups and must have reinforced his faith in the abilities of native people in general.

No one realized in the late 19th century how long human evolution had taken and hence how wide was the gap between all living apes and humans. It is now accepted that what human beings are today, both intellectually and emotionally, has been shaped by natural selection operating for millions of years on scavengers and hunter-gatherers who lived in small groups. Hence it is not surprising that the biological basis for human behaviour is everywhere much the same, even if human beings in different parts of the world have come to look different from one another as a result of natural selection adapting them to various environments. Wilson and Wallace recognized this behavioural similarity and rejected a Darwinian explanation for the evolution of human intelligence and morality. Darwin actively opposed the mistreatment of non-Western peoples, but, in his efforts to make an evolutionary origin of human beings seem plausible, he maintained that peoples with less complex cultures were biologically inferior to civilized ones and hence constituted examples of what developed peoples had been like, both physically and culturally, in prehistoric times. Darwin's followers, most notably John Lubbock and Thomas Huxley, gave respectability to the polygenist contention that human races differed significantly from one another in behavioural terms by replacing polygenism's discredited multiple creations with an explanation based on natural selection. These ideas influenced the thinking of many late 19th-century anthropologists, such as Augustus Pitt Rivers and Lewis Henry Morgan. Even Edward B Tylor, who, like Wilson, had believed initially in the uniformity of human nature, eventually embraced a racial explanation of cultural differences (Bowler 1992, 726). Thus, in its efforts to make the evolutionary origins of human beings seem probable, Darwinism initiated a new approach that erroneously attributed behavioural differences to biological ones. This approach was based on a highly selective reading of the ethnographic evidence available at the time; one which ignored the judgement and creativity of hunter-gatherers and tribal agriculturalists and stressed their brutality and folly. Through Ernst Haeckel and the German Society for Racial Hygiene, Social Darwinism was eventually to provide a pseudo-scientific rationale for the National Socialist racial propaganda that culminated in the horrors of Belsen and Dachau (Stein 1988). In Britain and North America, in the late 19th and early 20th centuries, the biologization of human behaviour inspired the eugenics movement and campaigns to sterilize various disfavoured groups (Gould 1981).

Wilson, guided by his religious beliefs and by the Enlightenment and Common Sense ideals with which he had become familiar in the Edinburgh of his youth, interpreted evidence about human behaviour in a way that is far more in accord with modern thinking than are the racist views of Darwin and Lubbock. Yet racist thinking, rationalized within the framework of natural selection, was to pervade social scientific thought in Western Europe and North America from the 1860s until the 1940s (Barkan 1992). Hence, in historical terms, Wilson's thinking must be judged to have been not ahead of his time but behind it (Trigger 1985, 42; Berger 1990, 1111). The paradigms that guided his analysis of archaeological and anthropological data had been formulated in the 18th century, at a time when the middle class, seeking power for itself, was prepared to

proclaim that all human beings could participate in building a better way of life everywhere in the world. The Darwinist view of humanity reflected the concerns of a more mature phase of capitalism, when imperialism and growing social problems in Western Europe made the middle classes less sanguine that all human beings could, or even should, share in their success. This was the long-term intellectual equivalent of what had happened politically in France over half a century earlier, when the middle class welcomed the support of the *sans-culottes* to make a revolution, but systematically deprived them of power once this goal had been achieved.

From this seeming paradox, several lessons may be learned. What Wilson believed as a scientist was influenced in part by what he believed to be true about human nature. This was also so with Darwin and Lubbock, and no doubt remains true of all social scientists. Yet, if Wilson's old-fashioned beliefs made him less reluctant than most of us are today to accept an evolutionary explanation of the origin of human behaviour, they also led him to resist the biologization which produced Lubbock's racist caricatures of 'primitive' behaviour. Hence, when Wilson came to study native people in Canada, even though his commitment to cultural evolution prevented him from appreciating to the extent that Hale would do the wisdom and cultural achievements of aboriginal societies, he was able to comprehend something of their potential for development. I believe that Wilson went as far in this direction as anyone approaching anthropology from prehistoric archaeology could have gone in the middle of the 19th century. By contrast, on the outward voyage of the *Beagle*, Darwin had close and sympathetic contact with Fuegians, but by the 1850s his desire to demonstrate a living continuum from ape to human was so great that he forgot that he had once been able to entertain hopes for their advancement (Bowler 1992, 722–5; Desmond & Moore 1992, 132–48).

The second lesson is that knowledge, especially when it concerns human behaviour, does not necessarily develop in a linear fashion. For many different reasons, what is believed today may not be what is believed tomorrow, even in the absence of new evidence that might account for such a transformation. I am not subscribing totally to the hyperrelativism represented by the sociologist Barry Barnes (1974, 1977) or by archaeologists such as Michael Shanks and Christopher Tilley (1987). Yet a historical perspective indicates that Wilson's old-fashioned beliefs helped him to ascribe enduring meaning to much that he observed concerning human behaviour, while the Darwinists were led by their very different perspective to ignore or misinterpret the same evidence. Both Wilson and Wallace insisted on the importance of observations that the new archaeological and anthropological paradigms of the late 1860s failed to take into account. Much of the enduring value of Wilson's work can be linked to ideas he had acquired in the Edinburgh of his youth and which in his own mind continued to be associated with the city that throughout his life he loved and venerated above all others, and which in turn continues to honour his memory.

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with Nature', a special exhibition of his watercolour paintings at the Royal Museum of Scotland, and to discuss those paintings with Mrs Antoinette Watkins, the exhibition organizer. The paper was written while I was on sabbatical leave from McGill University.

REFERENCES

- Archer, J W 1851 *Vestiges of Old London*. London.
- Ash, M 1980 *The strange death of Scottish history*. Edinburgh.
- Ash, M 1981 "A fine, genial, hearty band": David Laing, Daniel Wilson and Scottish archaeology' in Bell, A S (ed), *The Scottish antiquarian tradition*, 1981, 86–113.
- Ash, M nd Manuscript of three chapters for a projected biography of Daniel Wilson.
- Barkan, E 1992 *The retreat of scientific racism: Changing concepts of race in Britain and the United States between the world wars*. Cambridge.
- Barnes, B 1974 *Scientific knowledge and sociological theory*. London.
- Barnes, B 1977 *Interests and the growth of knowledge*. London.
- Bell, A S (ed) 1981 *The Scottish antiquarian tradition: Essays to mark the bicentenary of the Society of Antiquaries of Scotland and its museum, 1780–1980*. Edinburgh.
- Berger, C 1970 *The sense of power: Studies in the ideas of Canadian imperialism, 1867–1914*. Toronto.
- Berger, C 1983 *Science, God, and nature in Victorian Canada*. Toronto.
- Berger, C 1990 Wilson, Sir Daniel, *Dictionary of Canadian biography*, 12, 1109–14.
- Bieder, R E 1975 'Albert Gallatin and the survival of enlightenment thought in nineteenth-century American anthropology', in Thoresen, T H H (ed), *Toward a science of man*, 1975, 91–8.
- Bieder, R E 1986 *Science encounters the Indian, 1820–1880: The early years of American ethnology*. Norman.
- Bowler, P J 1989 *Theories of human evolution: A century of debate, 1844–1944*. Oxford.
- Bowler, P J 1992 'From "savage" to "primitive": Victorian evolutionism and the interpretation of marginalized peoples', *Antiquity*, 66 (1992), 721–9.
- Bradford, A 1841 *American antiquities and researches into the origin and history of the red race*. New York.
- Bryson, G 1945 *Man and society: The Scottish inquiry of the eighteenth century*. Princeton.
- Buckle, H T 1857 *History of civilization in England*, Vol I. London.
- Chambers, R 1825 *Traditions of Edinburgh*. Edinburgh.
- Chambers R 1844 *Vestiges of the Natural History of Creation*. London.
- Childe, V G 1935 *The prehistory of Scotland*. London.
- Childe V G 1946 *Scotland before the Scots*. London.
- Chippindale, C 1988 'The invention of words for the idea of "prehistory"', *Proc Prehist Soc*, 54 (1988), 303–14.
- Clarke, D V 1981 'Scottish archaeology in the second half of the nineteenth century' in Bell, A S (ed), *The Scottish antiquarian tradition*, 1981, 114–41.
- Clermont, N & Smith, P E L 1990 'Prehistoric, prehistory, prehistorian . . . who invented the terms?', *Antiquity*, 64 (1990), 97–102.
- Cole, D 1973 'The origins of Canadian anthropology, 1850–1910', *Journal of Canadian Studies*, 8 (1973), 33–45.
- Collingwood, R G 1946 *The idea of history*. Oxford.
- Crosby, A W 1986 *Ecological imperialism: The biological expansion of Europe, 900–1900*. Cambridge.
- Daniel, G 1950 *A hundred years of archaeology*. London.
- Daniel, G 1963 *The idea of prehistory*. Cleveland.
- Desmond, A 1989 *The politics of evolution: Morphology, medicine, and reform in radical London*. Chicago.
- Desmond, A & Moore, J 1992 *Darwin*. Harmondsworth.
- Dobyns, H F 1983 'Their number become thinned': Native American population dynamics in eastern North America. Knoxville.
- Eiseley, L 1958 *Darwin's century: Evolution and the men who discovered it*. Garden City, New York.
- Fenton, W N 1990 Hale, Horatio Emmons, *Dictionary of Canadian biography*, 12, 400–3.

- Gould, S J 1981 *The mismeasure of man*. New York.
- Gräslund, B 1987 *The birth of prehistoric chronology*. Cambridge.
- Grayson, D K 1983 *The establishment of human antiquity*. New York.
- Griffin, J B (ed) 1961 *Lake Superior copper and the Indians: Miscellaneous studies of Great Lakes prehistory*. Ann Arbor.
- Gruber, J W 1965 'Brixham Cave and the antiquity of man' in Spiro, M E (ed), *Context and meaning in cultural anthropology*, New York, 373–402.
- Gruber, J W 1967 'Horatio Hale and the development of American anthropology', *Proceedings of the American Philosophical Society*, 111 (1967), 5–37.
- Hale, H E 1883 *The Iroquois book of rites*. Philadelphia.
- Hale, H E 1893 'Sketch of Sir Daniel Wilson', *Popular Science Monthly* 44 (1893), 256–65.
- Harris, R S 1976 *A history of higher education in Canada, 1663–1960*. Toronto.
- Hoebel, E A 1960 'William Robertson: An 18th-century anthropologist-historian', *American Anthropologist*, 62 (1960), 648–55.
- Hrdlička, A 1914 'Physical anthropology in America: An historical sketch', *American Anthropologist*, 16 (1914), 508–54.
- Huxley, T H 1863 *Evidence as to man's place in nature*. New York.
- Keen, B 1971 *The Aztec image in western thought*. New Brunswick, New Jersey.
- Kehoe, A B 1991 'The invention of prehistory', *Current Anthropology*, 32 (1991), 467–76.
- Killan, G 1983 *David Boyle: From artisan to archaeologist*. Toronto.
- Klindt-Jensen, O 1975 *A history of Scandinavian archaeology*. London.
- Langton, H H 1901 'Sir Daniel Wilson', *Review of historical publications relating to Canada*, 5, 199–217.
- Lubbock, J [Lord Avebury] 1863 'North American archaeology', *Natural History Review*, 3(1863), 1–30.
- Lubbock, J 1865 *Pre-historic times, as illustrated by ancient remains, and the manners and customs of modern savages*. London.
- Lubbock, J 1869 *Pre-historic times*. 2nd edn. London.
- Lubbock, J 1870 *The origin of civilisation and the primitive condition of man*. London.
- McCardle, B E 1980 *The Life and Anthropological Works of Daniel Wilson (1816–1892)*. MA thesis, Department of Anthropology, University of Toronto.
- McIlwraith, T F 1964 'Sir Daniel Wilson: A Canadian anthropologist of one hundred years ago', *Transactions of the Royal Society of Canada*, 4th series, 2 (1964), 129–36.
- McKillop, A B 1979 *A disciplined intelligence: Critical inquiry and Canadian thought in the Victorian era*. Montreal.
- McKillop, A B 1987 *Contours of Canadian thought*. Toronto.
- Maud, R 1982 *A guide to B.C. Indian myth and legend*. Vancouver.
- Meek, R L 1976 *Social science and the ignoble savage*. Cambridge.
- Morlot, A 1861 'General views on archaeology', *Annual Report of the Smithsonian Institution for 1860*, 284–343. Washington.
- Parker, A C 1907 *Excavations in an Erie Indian village and burial site at Ripley, Chautauqua County, New York*. Albany.
- Piggott, S & Robertson, M 1977 *3 centuries of Scottish archaeology*. Edinburgh.
- Ramenofsky, A F 1987 *Vectors of death: The archaeology of European contact*. Albuquerque.
- Robertson, W 1777 *The history of America*. London.
- Shanks, M & Tilley, C 1987 *Social theory and archaeology*. Cambridge.
- Simpson, W D 1963 'Sir Daniel Wilson and the Prehistoric Annals of Scotland: a centenary study', *Proc Soc Antiq Scot*, 96 (1962–3), 1–8.
- Slotkin, J S (ed) 1965 *Readings in early anthropology*. New York.
- Starr, F 1892 'Anthropological work in America', *Popular Science Monthly*, 41 (1892), 289–307.
- Stein, G J 1988 'Biological science and the roots of Nazism: The promotion of racist doctrines in the name of science', *American Scientist*, 76 (1988), 50–8.
- Stevenson, R B K 1981 'The museum, its beginnings and its development, part I: To 1858: The Society's own museum' in Bell, A S (ed), *The Scottish antiquarian tradition*, Edinburgh, 31–85.
- Stewart, T D & Newman, M T 1951 'An historical résumé of the concept of differences in Indian types', *American Anthropologist*, 53 (1951), 19–36.
- Stocking, G W, Jr. 1975 'Scotland as the model of mankind: Lord Kames' philosophical view of civilization', in Thoresen, T H H (ed), *Toward a science of man*, 1975, 65–89.

- Stocking, G W, Jr. 1987 *Victorian anthropology*. New York.
- Thomsen, C J 1848 *A guide to northern antiquities*. London.
- Thoresen, T H H (ed) 1975 *Toward a science of man: Essays in the history of anthropology*. The Hague.
- Trautmann, T R 1992 'The revolution in ethnological time', *Man*, 27 (1992), 379–97.
- Trigger, B G 1966 'Sir Daniel Wilson: Canada's first anthropologist', *Anthropologica*, 8 (1966), 3–28.
- Trigger, B G 1985 *Natives and newcomers: Canada's 'heroic age' reconsidered*. Montreal.
- Trigger, B G 1989 *A history of archaeological thought*. Cambridge.
- Vaughan, A T 1982 'From white man to red skin: Changing Anglo-American perceptions of the American Indian', *American Historical Review*, 87 (1982), 917–53.
- Williams, S 1991 *Fantastic archaeology: The wild side of North American archaeology*. Philadelphia.
- Wilson, D 1848a *Oliver Cromwell and the protectorate*. London.
- Wilson, D 1848b *Memorials of Edinburgh in the olden time*. Edinburgh.
- Wilson, D 1849 *Synopsis of the museum of the Society of Antiquaries of Scotland*. Edinburgh.
- Wilson, D 1851 *The archaeology and prehistoric annals of Scotland*. Edinburgh.
- Wilson, D 1855 'Hints for the formation of a Canadian collection of ancient crania', *Canadian Journal*, 3 (1855), 345–7.
- Wilson, D 1861 The presidential address, *Canadian Journal*, 6 (1861), 101–20.
- Wilson, D 1862 *Prehistoric man: Researches into the origin of civilisation in the Old and the New World*. London.
- Wilson, D 1863 *The prehistoric annals of Scotland*. 2nd edn. London.
- Wilson, D 1869 *Chatterton: A biographical study*. London.
- Wilson, D 1873 *Caliban: The missing link*. London.
- Wilson, D 1876 *Prehistoric man*. 2nd edn. London.
- Wilson, D 1878 *Reminiscences of old Edinburgh*. Edinburgh.
- Wilson, D 1890 'The book of nature', *Canada Educational Monthly and School Chronicle*, 12 (1890), 41–4.
- Wilson, D 1891 *The right hand: Left-handedness*. London.
- Wilson, D 1892 *The lost Atlantis and other ethnographic studies*. New York.
- Wilson, R A 1859 *A new history of the conquest of Mexico*. Philadelphia.
- Winsor, J 1889 *Narrative and critical history of America*, Vol I. Boston.
- Worsaae, J J A 1849 *The primeval antiquities of Denmark*. London.