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A good Darwinian? Winwood Reade and the making of a late Victorian evolutionary epic



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ABSTRACT

In 1871 the travel writer and anthropologist W. Winwood Reade (1838–1875) was inspired by his correspondence with Darwin to turn his narrow ethnological research on West African tribes into the broadest history imaginable, one that would show Darwin's great principle of natural selection at work throughout the evolutionary history of humanity, stretching back to the origins of the universe itself. But when *Martyrdom of Man* was published in 1872, Reade confessed that Darwin would not likely find him a very good Darwinian, as he was unable to show that natural selection was anything more than a secondary law that arranges all details. When it came to historicising humans within the sweeping history of all creation, Reade argued that the primary law was that of development, a less contentious theory of human evolution that was better suited to Reade's progressive and teleological history of life. By focussing on the extensive correspondence between Reade and Darwin, this paper reconstructs the attempt to make an explicitly Darwinian evolutionary epic in order to shed light on the moral and aesthetic demands that worked to give shape to Victorian efforts to historicise humans within a vastly expanding timeframe.

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1. Introduction

On 12 September 1871, the explorer and anthropologist W. Winwood Reade wrote to Charles Darwin that he was completing a 'sketch of the history of Africa in connection with Universal History' that would explicitly apply Darwinian principles to its understanding of human development.¹ Reade had been inspired by his correspondence with Darwin, beginning in 1868, to turn his rather narrow anthropological research on West African tribes into the broadest history imaginable. Eventually published in 1872, *The Martyrdom of Man* would tell the evolutionary story of human history from within the larger context of the origins of the universe. While Reade initially referred to his project as a 'universal history,' he ended up producing something more in line with what historians of Victorian science have identified as an 'evolutionary epic,' a genre that flourished in the second half of the nineteenth century

following the publication in 1844 of the immensely popular *Vestiges of the Natural History of Creation*, written anonymously by the Scottish publisher Robert Chambers.²

Vestiges told a romantic story of all creation, beginning with the origins of the solar system in the nebular hypothesis down to the birth of the human species and the evolution of the human mind, synthesising a wide array of sciences under the framework of a developmental theory of evolution. Several popularizers of science such as Grant Allan, David Page, Arabella Buckley, and Edward Clodd followed Chambers' lead in writing evolutionary stories of life, helping to establish the evolutionary epic as a legitimate genre of science writing. And even though such work appeared after the publication of Darwin's *Origin of Species* in 1859, authors of the evolutionary epic typically looked to non-Darwinian theories of evolution to tell their romantic and purposeful stories of all life.³

In this regard, the making of Reade's evolutionary epic is an interesting story in its own right because Reade explicitly set out to write a Darwinian universal history seemingly against one of the main conventions of the new genre. He believed, at least initially,

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that Darwinian evolution would offer a general consilience that could link together not just the human and life sciences but the physical sciences as well under the guise of a truly grand narrative.

This was, of course, an incredible undertaking but it was one that was originally conceived quite narrowly as a study of African human history that continued to expand as Reade found it difficult to make sense of any seemingly mundane fact without placing it in a universal, evolutionary context. And it was a project that very much took shape in correspondence with Darwin himself. As we will see, before Reade embarked on his trip to West Africa in the late 1860s, he was at a turning point in his vocational trajectory. He had been forced to resign from the Council of James Hunt's Anthropological Society of London (ASL) in 1865, and he was quite literally searching for a master. He eventually came into contact with Darwin and while pursuing many of Darwin's ethnological queries in Africa he found himself more and more convinced by Darwin's hypothesis as it related to the history of humanity. *The Martyrdom of Man*, therefore, began as an attempt to show natural selection at work within human and cultural history.

As Reade kept expanding his frame of reference to include wider, longer, and distinct timeframes, however, he was confronted by the possibility that Darwinian evolution, or natural selection at least, did not offer the best explanatory solution for a narrative beginning in the cosmic fire-mist of the nebular hypothesis and ending with the future perfection of man. In the final stages of writing his book, therefore, Reade determined that the primary law that governed the history of life was not natural selection but that of development itself, the very theory of evolutionary change that Darwin found so unsatisfactory in the *Vestiges of the Natural History of Creation*. In eventually turning away from the implications of natural selection for the history of life, Reade instead embraced a theory that could be much more readily imbued with a meaning that was conducive to late Victorian desires while allaying fears about a future absent human life—a future that Darwinian evolution could not promise.

This article, therefore, focuses on the making and unmaking of Reade's 'Darwinian' evolutionary epic. By exploring the diverse influences of Reade's broad conceptions of historical development—from Hunt and the ASL to Darwin and on to non-Darwinian forms of development such as that offered by E. B. Tylor and Robert Chambers—the article shows the way in which one Victorian intellectual was able to synthesise a diverse array of scientific and social theories in order to construct an evolutionary story of all life. While it is possible that Reade's eventual and sudden shift of evolutionary allegiance says something about the independence of his intellectual development, it may also more importantly say something about the centrality of developmentalism in the evolutionary epic genre itself, a theory of evolution that Reade found himself forced to embrace. Twentieth and twenty-first century iterations of the evolutionary epic, from H. G. Wells to Edward Wilson and on to David Christian and big history, tend to confirm that the evolutionary epic is a decidedly non-Darwinian genre of evolutionary history.

2. In search of a master and a purpose

W. Winwood Reade tried out several vocational personas before finally embracing one that seemed to suit both his ethnological observations and his broadly historical views along with his outspoken secularist ideology.⁴ In this regard, he came into contact with Charles Darwin and other scientific naturalists at a fortuitous turning point in his life. He was just about to embark on his second trip to West Africa and he was offering up his services to a select group of men of science who he deemed were at the forefront of scientific knowledge: Henry Walter Bates, Assistant Secretary of the

Royal Geographical Society of London, Joseph Dalton Hooker, Director of Kew Gardens, Thomas Henry Huxley, Professor of Natural History at the School of Mines, and Charles Darwin, the gentlemanly naturalist of the village of Downe.

Before approaching these masters, however, Reade had been alienated from James Hunt's Anthropological Society of London, which he had previously embraced as an exciting new society devoted to achieving practical results in the new Science of Man. He joined the ASL after returning from his first trip to Africa in 1863—a self-funded journey, the purpose of which was to establish himself as a first-rate explorer modelled on the celebrated and controversial travels of Paul du Chaillu.⁵ There was much excitement surrounding the newly-formed ASL, which originated as a break-away group from the Ethnological Society of London (ESL). While the reasons for this split are many and not worth detaining us here,⁶ Hunt argued in his opening address to the new society that it would be quite unlike the ESL whose leading members such as John Lubbock and Thomas Henry Huxley extended their claims far beyond what a truly Baconian induction could allow, such that monogenic theories and evolution were paraded around as proven facts rather than as hypotheses. Hunt called on his fellow anthropologists to abandon unfounded theories and mythologies and task themselves with the difficult work of discovering and examining observable facts.

At the time, what Reade found attractive about Hunt's vision for anthropology was likely his claims that 'Anthropology is ... the science of the whole nature of man.' Hunt argued that it was in a sense the most important science because it included 'nearly the whole circle of sciences' in its purview. 'Biology, anatomy, chemistry, natural philosophy, and physiology must all furnish the anthropologist with materials from which he may make his deductions.'⁷ Hunt also promoted the practical contributions that anthropology could make to society, arguing that 'there is no science which is destined to confer more practical good on humanity at large than the one which specially investigates the laws regulating our physical nature.'⁸ A few days after this address Reade excitedly wrote to Rosina Bulwer-Lytton about the new society that had 'sprung up ... for the study of man.' It was finally time, according to Reade, for 'the highest form of creation' to receive the attention it deserves. Reade argued that the older sciences such as botany and geology focused far too much on 'flowers and stones' rather than on the 'world's troubles,' and he hoped the new society would help rectify this problem.⁹

Reade eventually found, however, that his views differed from Hunt's racial theories in important ways. He at some point decided that Hunt's concept of polygenism did not mesh with his own observations of African tribes, even while he admitted that those observations were made not by an ethnologist but by a *flâneur*.¹⁰ This difference was brought into the open during the discussion period that followed Hunt's reading of a paper based on his book *On the Negro Place in Nature* (1863), as Reade challenged Hunt's central thesis that the Negro ought to be classified as a distinct species from that of the European by arguing that the Negro had in fact degenerated due to disease and climate.¹¹ But, ultimately, Reade found the ASL too beholden to conservative religious forces. This became apparent when Reade read a paper on the 'Efforts of Missionaries among Savages,' efforts that Reade argued were doomed to fail, largely because of the African practice of polygamy, which could not simply be undermined by promises of a future paradise. It was Reade's view that the 'Mohammadans' were more successful at actually converting 'savages' because of their lax approach to supposedly immoral activities.¹² Even though Hunt's own scepticism about the Christian missionary movement was well known, he challenged the empirical basis for Reade's 'vague assertions' and chastised Reade for the tone of his presentation, which relied on

'hard words and not facts.' The paper might have 'treated ... an important subject,' argued Hunt, 'but not in the manner that might be expected in a scientific body, and it must not be taken to indicate the tone which subjects are usually treated in that society.'¹³

As it would turn out, the wider reaction to Reade's paper would indicate that Hunt had good reason to promote a disinterested mode of scientific presentation during the meetings of the ASL. Not only had Reade himself spoken far too loosely about race, missionaries, and Christianity more generally, but he invited members in the audience to do the same in their commentary, thereby shining an unflattering light on a society that was seeking legitimation in the eyes of the larger interested public. And if some were unsure about the kind of work being promoted by the ASL under the guise of science, Reade's paper convinced many observers that it was far too prejudiced to live up to its president's scientific rhetoric. In order to show that the ASL did not approve of Reade's particular approach to the question of Christian missionaries, Reade was forced to resign from the Council and began turning away from the ASL.

He sought out advice from Huxley, whose *Man's Place in Nature* (1863) put forward a view of a historicised humanity that was diametrically opposed to that of Hunt, even while it was clear the two men shared similar observational practices and vocational strategies.¹⁴ Reade was eventually drawn into Huxley's orbit, reporting on the state of Darwinism in the United States during his trip there in 1867,¹⁵ which was ostensibly made to study anthropology with Louis Agassiz and Jeffries Wyman.¹⁶ Meanwhile Huxley tried to pull some strings to have one of Reade's essays on his encounters with gorillas published in the *Fortnightly Review*.¹⁷ Reade also clearly appreciated Huxley's outspoken approach against 'old fashioned prejudices,' which have 'croaked down science [for] so many centuries,'¹⁸ in such obvious contrast to Hunt, who tempered his views depending on the audience. By the late 1860s Reade had completely withdrawn from the ASL, because, as he told Huxley, there were no masters there to be found. 'I shall certainly have nothing more to do with a society so deficient in *masters* as the Anthrop[ological] Society,' he wrote to Huxley on January 1869. 'I hope the Ethno[logical Society] under your guidance will rise.'¹⁹

Therefore when an opportunity arose for Reade to travel once again to West Africa, it was not to his colleagues in the ASL that he turned but to Huxley, Hooker, and Bates. He essentially offered up his services to the three men and they each requested fairly specific information: Bates had Reade collecting insects; Hooker had Reade collecting botanical specimens; and Huxley had Reade searching for human skulls.²⁰

Reade was also advised by Bates to write to Charles Darwin, which he did on 19 May 1868, thereby beginning a correspondence that was central in shaping Reade's future work. After letting Darwin know about his upcoming trip, Reade wondered if Darwin 'would desire me to make any special inquiries either as to the habits of animals or of the natives.' Reade was forced to admit that his 'acquaintance with zoology' was 'merely superficial' but he wanted Darwin to understand that he was quite prepared 'to collect philosophically.' With that in mind he suggested that he was 'best capable perhaps and certainly chiefly desirous of making inquiries relative to the human race, and hope to be able to make measurements on a large scale. But I beg to repeat that I would give my best attention to anything which could aid in elucidating or affording evidence for those grand problems which you are engaged in expounding.'²¹

Darwin was, of course, delighted to take up Reade's offer. He was in the midst of his research on the nature of expression and had a prepared list of seventeen queries relevant to 'Expression in man and animals' that he had been sending to naturalists and ethnologists in 'various parts of the world' for the past two years.²² Reade responded with unguarded enthusiasm for taking on Darwin's list

of queries, that he would 'consider it an honour if I am able to contribute any materials for your next work...'²³ He therefore immediately began attempting to answer Darwin's queries once he arrived in Africa. But doing so proved more difficult than he anticipated. After months of sustained effort, Reade eventually confessed to Darwin that his 'queries about expression are too difficult for me to answer. I do not possess the faculty of seizing a fugitive change of feature especially when unprepared for it.'²⁴ He worried that all his efforts were in vain.²⁵

Reade's letters to Darwin also included observations about marriage and attraction that Reade thought might be interesting even while they had little relevance to Darwin's original queries about expressions. What Reade did not realise at the time was that these seemingly off-hand remarks were quite useful for Darwin, not for his work on expressions but for his research on sexual selection, which would be central to his soon-to-be completed book on human evolution, *Descent of Man* (1871). Indeed, upon his return to the coast of Africa after travelling in the interior for several months, Reade would find a now five-month-old letter waiting for him from Darwin describing in detail just how useful his observations had been. As Darwin promised, *The Descent of Man* would be littered with references to Reade's useful observations.²⁶ Knowing that he was proving to be a valuable asset for Darwin, his remaining letters in the field became much more detailed about those observations. Darwin found these letters 'full of curious observations: I shall be surprised if you do not make a very interesting book with an account of your Travels and observations on your return.'²⁷

Of course writing a book about his African travels was precisely what Reade had planned to do, along the same lines as his previous *Savage Africa* (1863). But now he began to have designs on a work that would be more important than simply a travel account, one more relevant to the kind of work he was doing on his current trip. He was no longer merely a *flâneur* but was, in fact, Darwin's ethnological observer. Reade even had a copy of Darwin's *Origin of Species* sent to him in Africa, which he set about 'studying' with reference to what he was observing in the field.²⁸ Such apparently had an affect on him. Indeed, once he returned to London he wrote to Darwin in November 1870 that he would only 'write a narrative of my travels except as part of a work on Africa generally. I am ambitious of doing for negro Africa what Tennent [1859 and 1861] has done for Ceylon...'²⁹ A few days later he suggested that he would write a separate account of his travels while first 'bringing out a volume on the history of Africa generally ... and on scientific questions connected with Africa—the ape and man question for instance—so as to make it a tolerably complete work on Negroland.' He easily could easily 'dash off an amusing [travel narrative] à la Hepworth Dixon in a few months,' Reade told Darwin, but now he wanted to produce something that would 'live.'³⁰

After spending a few days at Down House in January, finally meeting Darwin in person, and then receiving his signed copy of *Descent of Man* in February, Reade's project grew larger still. He was clearly very inspired to see his 'name in such a book' and informed Darwin that his 'sketch of Africa' was now to include 'a good deal of European & Asiatic history' as well as a section on religion.³¹ And within a few months the scope of his project had widened still further and he now proposed writing a 'history of Africa in connection with Universal History,'³² one that would account for the origins of both man and language. He admitted that this new project was something he initially thought about long ago when he first read *On the Origin of Species*. He felt at the time that a volume on 'The Origin of Mind' would be a useful follow-up to that profoundly important study. While he realised that such a study was beyond his capabilities he did think that he could examine the way in which the modern intellect originally 'derived from savage extremes. But I am merely picking at crumbs from your table.' While

Reade still seemed somewhat confused as to what exactly this future African universal history of mind would look like, he was adamant that it would be a 'Darwinian' study: 'My views will be called Darwinian; and the master is normally held responsible though of course unjustly for the views of his disciples.'³³ Reade wanted nothing more than to write a Darwinian universal history of life, but he was clearly aware that embracing the 'Darwinian' label did not necessarily mean that he would be an entirely accurate proponent of Darwin's views. At the time, however, Reade was thoroughly convinced that with Darwin's help he would be able to present a truly Darwinian evolutionary epic.

In this regard Reade began to refer to his book-in-progress as an application of Darwinism to universal history. A note in the 'Literary Gossip' column of the February issue of the *Athenaeum* said as much, referring to Reade's forthcoming work as 'The Dark Continent,' a book that would 'apply Mr. Darwin's principles in their full extent to history and religion.'³⁴ Reade wrote to Darwin that while he had no idea who penned this promotion for his still to be published book, he felt that 'It was very well put.... My obligations to your works are very great.'³⁵ But Reade's views about Darwinian evolution were never entirely settled, even as he was finishing the manuscript. He wrote the book without any firm idea about its structure, or what it would finally argue. This is perhaps superficially expressed in his inability to commit to a title. 'The Dark Continent' was only one of many falsely advertised titles, though he would eventually stick with *The Martyrdom of Man*. Moreover, the book's published form indicates that it was structured by Reade's ever-changing scheme. As he kept including more and more material into a book that originated as a history of Africa, pushing his narrative farther and farther back in time, Reade eventually realised that he could only tell the story of African history from within the context of the origin of the universe itself. But rather than revise the book to begin with the origins of the universe, Reade simply decided to include a final chapter that would recapitulate the history that his book had already narrated, but by beginning with the nebular hypothesis. 'In the last chapter of my book,' he wrote to Darwin, 'I give an outline of the human history from the nebular system to the present time.'³⁶ It is in this last chapter that Reade's book shifts from being a universal history to a full-blown evolutionary epic. But it is also in this last chapter that Reade's evolutionary views are most thoroughly explored and they proved to be decidedly non-Darwinian.

3. *The Martyrdom of Man* and cultural evolution

From the title page onwards, Reade wanted his book to be read as a contribution to Darwinism. Not only did Reade convince his publisher to model the title page on the *Origin of Species*,³⁷ Reade also claimed to attempt to appropriate Darwin's style of writing. He sought to do so by reading 'a little of the Origin of Species before composing—especially in the scientific parts.' By telling Darwin this, Reade was indicating that 'my obligations to you, in respect to this book, are greater than they are to any other writer, dead or alive, so I am more desirous of your approval for it than anyone else's....'³⁸ Given that 'My book is a child of your masterpiece,' Reade hoped at the very least that 'there shall be an outward resemblance at all events.'³⁹

But there were more than outward resemblances. In the preface, Reade sought to establish his authority, first by pointing out that much of the evidence contained in the book was directly observed during his recent two-year trip to Africa that was partly funded by the Royal Geographical Society. In describing how the conception for the book expanded from its origins as a history of Africa to its published form as a 'universal history,' Reade alluded to a second

authorial source: *On the Origin of Species*. Reade argued that when he originally read *Origin*, he was struck by the idea of writing 'The Origin of Mind,' and that 'One of my reasons for revisiting Africa was to collect materials for this work....' Darwin's recent publication of *Descent of Man*, however, had made publishing such a work unnecessary and instead he decided to 'merely follow in his [Darwin's] footsteps, not from blind veneration for a Great Master, but because I find that his conclusions are confirmed by the phenomena of savage life.'⁴⁰ He wanted the reader to understand that this was the work of a Darwinian disciple.

As was typical of Reade, he refused to include references throughout the text believing that they would clutter the narrative. Instead, after declaring his devotion to his master, he listed a series of sources that he relied upon throughout, suggesting that he borrowed from them 'not only facts and ideas, but phrases and even paragraphs....' The list is a telling one because it indicates the diversity of sources Reade relied upon but it also gives a sense as to the kind of intellectuals Reade wanted his work to be associated with. Most relevant are the figures listed under the headings of 'The Philosophy of History' and of 'Science.' Under the former, he mentions Herder, Buckle, Comte, Lecky, John Stuart Mill, and Draper; for the latter, he lists Darwin, Charles Lyell, Herbert Spencer, Huxley, John Tyndall, *Vestiges of the Natural History of Creation*, Alfred Russel Wallace, E. B. Tylor, and John Lubbock.⁴¹ These are all figures either associated with scientific naturalism or some form of progressivism, whether from positivist or organicist traditions. And *Martyrdom* would indeed synthesise these sources in its progressivist universal history. Interestingly, James Hunt did not make this list, despite his work on race that influenced Reade when he was writing *Savage Africa* and attending meetings of the early ASL, though Hunt's name would have surely looked out of place given that it had come to be associated with anti-evolutionism. This perhaps goes some way to suggest just how far Reade had come since the early 1860s as his new book signalled that he had now thrown his support behind Darwin and the scientific naturalists and their struggle to secularise knowledge. As would become apparent throughout, Reade believed that *Martyrdom of Man* would contribute to that endeavour by indicating just how to break through that final theological barrier in order to achieve a truly scientific understanding of human nature. It was in this way that *Martyrdom of Man* sought to contribute to humanity's future progress, and, indeed, was itself a sign of that progress.

Like several of the philosophers of history that Reade listed in his preface, he argued that human history in its entirety was subject to the same sorts of laws that governed the natural world. He effectively challenged the notion that there was a distinction between human history and natural history. 'Nature does not contradict herself,' Reade argued; 'the laws which govern the movements of society are as regular and unchangeable as those which govern the movement of the stars.'⁴² The law for Reade was of course that of evolution, though he was rather coy in explicating a mechanism that brought about the evolutionary change. In the first three (of four) sections of the book, Reade showed how humans had developed throughout the stages of history that he defined as 'war,' 'religion,' and 'liberty.' 'War' seemed to correspond to the era of ancient history, 'religion' to that of the middle ages, and 'liberty' to that of the modern era.

In the first stage of human society, that is the stage of war, Reade's debt to Darwin was most apparent. Driven by a Malthusian struggle for resources, humans were forced to take up arms against one another while establishing larger empires for the purposes of security.⁴³ And as soon as those empires began to consolidate their power and get rich, the societies themselves began to decay. Reade argued that this process was a natural one that would necessarily occur to any society in this early stage of development. But, he

argued, it was important to recognise that analysing a single empire during a particular period of time, would not truly grasp what was actually happening, that human history must always be put in a larger context. It was by grasping human history from a larger perspective that made it a science. By doing so, argued Reade, 'we are enabled to restore in faint outline the unwritten past, and by this we are assured that whatever the names and number of the forgotten empires may have been, they merely repeated one another. In describing the empire of Ninevah we describe them all.'⁴⁴

This was essential, according to Reade, because once it is understood that laws govern the processes of history, the universal consequences for seemingly particular and unique events will become apparent. For instance, the wars along with the rise and fall of empires during this period had unforeseen consequences that provide a sense as to the larger shape of the progressive nature of the historical process. For Reade, this was a brutal time in the history of the human species where morality seemed to play no role in shaping social relations while death and destruction were daily occurrences. But there were unintended consequences to these vicious and ruthless struggles, consequences that engendered human progress. In the early stages of human history that progress was entirely a by-product of necessity and resulted from immoral and violent struggle. Of course, if one were to examine specifically such events within the context of the time, they would appear horrific and would be largely inexplicable. But from the perspective of a wider timescale, one that extends to include even just a few hundred years, the positive albeit unintended consequences of the constant war of life become apparent. One of those unintended consequences was the invention of religion.

In describing the second stage of his universal evolutionary history, that of 'religion,' Reade followed closely the arguments that were at the time gaining the favour of monogenetic anthropologists. It is indeed noteworthy that in the year Reade was writing *Martyrdom of Man* along with the appearance of Darwin's *Descent of Man* came E. B. Tylor's formative study of cultural evolution. *Primitive Culture* (1871) set out to historicise the stages of human prehistory and history by relying on the comparative method, which assumed that there was a connection between contemporary indigenous societies and the early history of man. Reade borrowed from this work, as well as Tylor's previous and 'cleverly written' *Researches into the Early History of Mankind* (1865), in order to describe the way in which forms of religious thought originated and evolved over time.⁴⁵

In describing 'the origin of the religious sentiment and theory of savage life,'⁴⁶ Reade appropriated Tylor's theory of 'animism,' arguing that religion largely originated at a 'time when man lived in fellowship with nature, believing that all things which moved or changed had minds and bodies kindred to his own.'⁴⁷ Religion was a product, therefore, of early attempts at human reason. Reade argued that as the human intellect of men improved, and they turned their reasoning powers into themselves, it followed quite naturally from the state of those powers that there must be something 'which resides within them entirely independent and distinct from the body which it is contained.'⁴⁸ This led inevitably, according to Reade, to the notion that there are souls and therefore life after death.⁴⁹

According to Reade, believing that various forms of nature are imbued with otherworldly souls led to a belief in the afterlife as well as a natural world filled with supernatural occurrences. 'It is difficult for those who have not lived among savages to perfectly realise their faith,' argued Reade. 'His creed is in harmony with his intellect, and cannot be changed until his intellect is changed.'⁵⁰ This last point indicated a clear departure from Reade's earlier views of savage life. He no longer believed that Africans were degenerated from a previous state; but rather that they were at a

lower stage of development than that of Europeans. Moreover, he seemed to think that further intellectual development was possible, and that these religious beliefs, as backward as they may seem, were a sign of a burgeoning rationalism.

Animism, according to Reade (following Tylor), was therefore the first step in the development of a rational understanding of nature that led to the understanding that 'there is a unity of plan in nature.'⁵¹ This view of the natural world is apparently complementary to the rise in the belief in a monotheistic god. That is because no longer are natural phenomena viewed in isolation from one another, as the product of competing gods and spirits. Nature is subject to one set of rules established by one god. This is why Reade believed that 'the dogma of a single deity' was actually a progressive way of thinking about nature, at least at a particular stage in human intellectual development: 'Of all religious creeds it is the least objectionable from a scientific point of view.'⁵²

The connection between Reade's historicisation of religion and Darwinian evolution is not as clear as is Reade's discussion of man's early struggles for survival and security in his chapter on 'war.' While Tylor's *Primitive Culture* and Darwin's *Origin of Species* are often presented as offering complementary views of evolution, in Tylor religious thought does not arise out of a struggle for survival but rather out of man's first attempt at rationalising his existence. Reade followed more closely to the view of Tylor in this regard, though he used the language of natural selection to describe the choice indigenous societies often have to make between competing religious views. According to Reade, they will 'naturally select' the religious system that better accords with their own intellectual development. This was now how Reade interpreted why the Islamic religion was quickly outpacing Christianity in Africa.⁵³ Apparently it is better suited to the African mental development. 'There is a kind of Natural Selection in religion; the creed which is best adapted to the mental world will invariably prevail; and the mental world is being gradually prepared for the reception of higher and higher forms of religious life.'⁵⁴

It was in this way that Reade believed in the unity of mankind as he argued that so-called savages were clearly capable of progress, which is no better illustrated than in their enthusiastic adoption of a monotheistic religion. But, argued Reade, as scientific as the monotheistic religious view appears, it must be understood that it is still imperfectly scientific, and still bears a sign of its ultimate origin in animistic thought. While Reade did not use this term, it is clear that he was referring to what Tylor would call a 'survival,' which is an explanation for how certain modern ways of thinking can appear out of place because of their origins in past theories that at one time served a certain purpose. For Tylor and for Reade, monotheistic religion was certainly a progression from the animistic world of ghosts and a lawless nature, but it was still ultimately based on a profoundly imperfect understanding of nature. As Reade explained, 'it was not a Greek who first discovered or invented the one god, but the wild Bedouin of the desert.'⁵⁵

It followed, therefore, that Christianity was itself a survival from this distant past. While the morality of Christianity was certainly an improvement from previous stages of man's history, it was still marked by its ultimate origin from an animistic world of ghosts and spirits. The fact that the image of God has improved over time is simply a reflection of the society that gave shape to it, and it was therefore necessary to understand that 'A god's moral disposition, his ideas of right and wrong, are those of the people by whom he is created.'⁵⁶ But, Reade argued, in the stage of 'liberty' that Europeans had entered in the last few hundred years, where concepts such as reason, science, and justice began to overturn the previous alliance of religion and power,⁵⁷ Christianity itself had failed to reform. It was becoming a rather glaring survival in an advanced society that had clearly outgrown it.

It followed that Christianity was now a barrier to our understanding of the true laws of nature. Here again Reade diverged from Darwin by explicitly associating Christianity with anti-scientific thought. But Reade's purpose was not just to describe the stages in man's evolutionary and cultural history but more so to indicate the current barriers to future progress and therefore to help show the way to achieving that progress. And this more than anything indicates the difference between Reade's reliance on anthropology rather than Darwinian biology. Reade would have very much agreed with a sentiment Tylor expressed in *Primitive Culture*, that his study of early human history was not conducted 'merely as a matter of curious research, but as an important practical guide to the understanding of the present, and the shaping of the future, the investigation into the origin and early development of civilisation must be pushed on zealously.'⁵⁸ As Reade himself would state in *Martyrdom of Man*, his own exploration of man's history was 'only a means towards an end.' What he really had in mind was 'the welfare of the human race.'⁵⁹ This became most apparent in the final chapter of *Martyrdom* where the practical implications of Reade's universal history were explained as he expanded his history of life both backward to the origins of the cosmos and forward to the present circumstances and beyond.

4. The glorious futurity of *The Martyrdom of Man*

Just before *Martyrdom of Man* was published, Darwin kindly agreed to go over the manuscript to ensure that Reade had not said anything entirely inaccurate, particularly for the section Reade referred to as 'the Darwinian part.' 'I was just going to write to you to ask you not to hurry about reading the book and to suggest that you should begin by reading from 387 to 463—such being the true commencement of the book, and also the Darwinian part—it is a kind of free translation from yourself, I fear with some errors....'⁶⁰ Reade was referring to what would become his last chapter entitled 'Intellect,' the last stage of his evolutionary history of humanity. While this stage marked for Reade a period of scientific understanding that would bring about a new era of progress leading to human perfection, it was an era that Reade felt that he could only explain within the widest perspective imaginable in order to speculate about what the future will hold for the human species. Such a perspective would of course be an evolutionary one.

Reade began his discussion by admitting that while 'the method of development is still being actively discussed' the fact of evolution was no longer debated. In this regard, *On the Origin of Species* enacted a revolution in human thought whereby most naturalists now assume that the 'ancestors of man must be sought for in the lower kingdom.' Aside from all the physical evidence that proves that this is so, Reade argued that 'analogy alone would lead us to believe that mankind has been developed from the lowest forms of life.'⁶¹ By analogy Reade was essentially referring to what Ernst Haeckel would popularise as 'recapitulation,' the way in which the growth of the individual mimics that of the evolutionary development of the species as a whole, which is also a central analogy that is utilised in *Vestiges of the Natural History of Creation* to describe the evolutionary theory of development. 'For what is the history of the individual man?' Reade wondered. 'He begins life as an ambiguous speck of matter which can in no way be distinguished from the original form of the lowest animal or plant. ...At last the hour of birth approaches coiled within the dark womb he sits, the image of an ape; a caricature and a prophecy of the man that is to be. He is born, and for some time he walks only on all fours; he utters only articular sounds; and even in his boyhood his fondness for climbing trees would seem to be a relic of the old arboreal life.'⁶² This central analogy for Reade also made sense of the development of the human mind, which 'has also passed

through its embryonic stage. It is Nature's method to take something which is in itself paltry, repulsive, and grotesque, and thence to construct a masterpiece by means of general and gradual laws; those laws themselves being vile and cruel.' This was why, according to Reade, when we confront the continued existence of religious beliefs in a species, we need to understand that it is a sign that the human mind is still in an 'amphibious condition,' that it is still in the process of evolving into a 'higher form.' If we could conceptualise the history of everything as a drama, according to Reade, we were still in the planet's 'second act'. It was now his purpose to move backwards in time and 'endeavour to place the first upon the stage, and then passing through the second, shall proceed to speculate upon the third. The scene opens with the Solar System. Time uncertain say, a thousand million years.'⁶³

In other words, in order to explain just how the human mind has evolved to be in this transitory state, Reade argued that he had to put such a story within the context of the origins of the universe itself. But in order to tell this evolutionary story, Reade turned not to *On the Origin of Species* but to the *Vestiges of the Natural History of Creation*. The final chapter opened with a discussion of the creation of our solar system in the nebular hypothesis, and just like *Vestiges* Reade utilised an analogy with the growth of a human family to describe its evolution, with the sun as the father and the other planets as his children, each in various stages of development. He even employed the technique of humanising the vast scales involved by utilising the same metaphor of a horse-race begun at the time of Moses' birth that was originally used by *Vestiges*.⁶⁴ But it was not just the central metaphors of *Vestiges* that Reade borrowed in order to tell his similarly emplotted story, but the very theory of evolution that was promoted by that immensely popular book.⁶⁵

Reade's purpose in this final section of his book was to show how the processes at work in the origins of the universe were the same processes involved in shaping the contemporary development of humanity and he did this particularly by connecting the evolution of mind with that of matter.⁶⁶ By taking such a long view, Reade argued that he was able properly to put into perspective the early stages of the evolution of humans from primates. He argued that men, in the savage state, were entirely governed by the processes of natural selection, 'their lives being absorbed in the business of self-preservation and reproduction.'⁶⁷ That process of natural selection, however, eventually works to increase the reasoning powers whereby a consciousness concerning the basic needs such as food and reproduction become apparent. 'This intelligence [then] becomes in time itself a force, and gradually obtains to some extent the faculty of directing the forces by which the animal was once despotically ruled.'⁶⁸ It is intelligence, however, that allows humans to break free of the processes of natural selection, and shape their evolutionary future. This is perhaps best expressed by the fact that we are becoming 'conscious of the scheme of nature....' And by becoming conscious of that scheme, we put ourselves in a position 'to assist her by the methodical improvement of [our] mental powers.'⁶⁹

For Reade, therefore, natural selection was an important evolutionary process that functions at an early stage in the development of humanity, but it was essentially a secondary process that was eventually overcome by the primary evolutionary law of development. Reade was forced to admit as much to Darwin as he was in the process of writing this final section of the book. 'I am afraid you will not find me a good Darwinian,' Reade confessed to Darwin on 15 September 1871: 'for I am inclined to believe in Natural Selection being a secondary law.'⁷⁰ Reade later explained that he believed 'that the same laws which produced life, produced the development of life throughout all space from the lowest to the highest forms; that these are primary laws: and that natural selection is a secondary law which superintends and arranges all

details.' The origins of life, according to Reade, 'was a form of development independent of N. Selection.' It followed in Reade's mind that 'this development should continue independently of N.S.' What eventually convinced Reade about the secondary nature of natural selection was his realisation that 'man has the power of using and applying the developmental force of nature,' which should not be possible if natural selection was the primary law.⁷¹

Ultimately for Reade, natural selection was really concerned with details, not the big picture. It explained the inter-relations both within and between species, but it did not get at the larger story of life: it did not provide a meaning for the existence of life or show where the human species was headed. Reade's evolutionary epic was therefore written to partake in this endeavour, that is to uncover 'the method of nature's operations, [so that] we shall be able to take her place and perform them ourselves.'⁷² Natural selection, as an evolutionary process that 'arranges all the details,' simply cannot provide such predictive power. However, by enlarging the evolutionary story of human history to include geological and cosmic timescales, Reade argued that the true laws of life come into focus. 'If we take the life of a single atom, that is to say of a single man, or if we look only at a single group, all appears to be cruelty and confusion; but when we survey mankind as One, we find it becoming more and more noble, more and more divine, slowly ripening towards perfection.'⁷³

This ultimate message accorded perfectly well with that of *Vestiges*, which also argued that grasping the central role of development in the history of life will lead to 'higher types of humanity.'⁷⁴ Similarly, Reade argued that 'when it is fully realised and understood that the genius of man has been developed from a long line of unbroken descent from the simple tendencies which inhabited the primeval cell, and that in its later stages this development has been assisted by the efforts of man himself, what a glorious futurity will open to the human race.'⁷⁵ Unlike Chambers, however, Reade did not shy away from predicting what those higher types of humanity will look like, envisioning a futurity that will include such technological advancements as the invention of the automobile, passenger air travel, and laboratory manufactured food 'in unlimited quantities at a trifling expense.'⁷⁶ And, while *Vestiges* sought to show that a developmental view of life need not conflict with a theological one, Reade was insistent that future progress could only be attained by accepting an agnostic conception of the natural world. It is only once that is truly achieved, according to Reade, that 'the destiny of man will be fulfilled,' which is to 'exalt his intellectual and moral powers until he has attained perfection.'⁷⁷

5. Conclusion

In writing this evolutionary epic, Reade entirely ignored the temporal boundaries that were beginning to define the burgeoning historical sciences such as geology, archaeology, anthropology, and history. Reade also collapsed the distinction between the natural sciences and what we have come to call the humanities to construct what began as a history of Africa but actually ended up being an anthropocentric history of life from its beginnings in a nebular fire mist to the evolution of human society and mind up to the present and beyond. It was promoted as a contribution to Darwinian evolution but in situating human history within the broadest possible context, the secondary law of natural selection actually became a force that could be overcome thanks to the primary law of development that was built right into the original cosmic vapour at the origins of the solar system. Even though Reade wanted to write a Darwinian evolutionary epic, the Darwinian struggle for life only made sense to Reade if it was a struggle that could be overcome. And that struggle could only be overcome by understanding that

something far grander was at work in the long history of life, a developmental law that predicts the destiny of human perfection from an original seed event of the deep past.

Interestingly, Darwin was not terribly concerned about Reade's developmental perspective, if Reade's responses to Darwin's letters are any indication. Darwin did, however, have some concerns with Reade's confrontational tone, particularly in regard to Christianity. In the final pages of the book, Reade argued that 'Christianity must be destroyed' in order for civilisation to reach the next stage of progress.⁷⁸ '[F]or three centuries past human virtue has been steadily increasing, and mankind is prepared to receive a higher faith. But in order to build it we must first destroy.'⁷⁹ Darwin clearly warned Reade about such explicitly anti-Christian statements,⁸⁰ but Reade failed to take his advice in the same way that he did not follow Hunt's before. Rather than leaving his anti-Christian sentiments buried at the end of the book, Reade announced in his preface that he had refused to alter certain anti-Christian sentiments against the wishes of his friends and publisher. Continuing a trend in his career that began with the heretical novels of his youth and continued with his controversial lecture about Christian missionaries in the ASL, Reade announced that 'in the matter of religion, I listen to no remonstrance, I acknowledge no decision save that of the divine monitor within me.'⁸¹ Even though Reade did not actually state his religious views in the preface, by announcing that they were viewed even by his publisher as extreme, readers went looking for those statements in the main text of the book.

It was largely for this reason that *Martyrdom of Man* was met with a very hostile critical reception. *The Athenaeum* found it indecent and profane as well as being 'worthless' while *The Saturday Review* added that it was most likely blasphemous.⁸² Reade was disappointed that these early reviews indicated that the book would likely be a failure but he was unrepentant about its anti-Christian tone. As he explained to Darwin, 'I mean to devote my life to war on Christianity.'⁸³

Reade would have been validated to learn that *The Martyrdom of Man* would achieve new life in the twentieth century precisely because of the anti-Christian rhetoric. By 1910 it would reach eighteen editions, somehow becoming 'popular without having had one favourable review for over thirty years,' as F. Legge would note in the introduction to the new edition.⁸⁴ The book had become 'a sort of classic,' according to *The Saturday Review*, which now found it 'still alive in its best parts.'⁸⁵ It would be published by the Rationalist Press in the 1920s and would go on to sell copies in the hundreds of thousands becoming, according to W. E. Smith, a 'substitute bible for secularists.'⁸⁶ And, indeed, one could certainly imagine one of the New Atheists picking up the book and agreeing with its thesis about religion being the final barrier for achieving true scientific knowledge of the world.

Moreover, its attempt to promote a progressive view of futurity by situating human history within the evolutionary story of all life would inspire H. G. Wells to write his *Outline of History* in the wake of the First World War, thereby giving new life to the genre of the evolutionary epic in the twentieth century. Wells argued that humans needed to understand their own history within the context of all life, in order to push forward the evolution of humanity while avoiding future catastrophes like the Great War. He called for an educational revolution around the adoption of the evolutionary epic as the core curriculum.⁸⁷ Edward Wilson's sociobiology was established under similar motivations in the 1970s, as Wilson advocated the replacing of religious cosmologies with what he explicitly termed the 'evolutionary epic,' a secular story of all life that would help humans understand their place in the cosmos.⁸⁸ And, even more recently, the evolutionary epic has found its way into the discipline of history under the guise of 'big history,' which

is promoted as a novel interdisciplinary experiment to examine human history within the context of the evolution of life beginning with its ultimate origins in the Big Bang. And like Wells, practitioners of big history along with the financial help of Bill Gates have sought to establish a big history curriculum in high schools that promises to prepare students for the future challenges to our species.⁸⁹ Even in these more modern iterations, however, the form of the evolutionary epic is remarkably similar to its Victorian predecessor while the evolutionary theory that is promoted is decidedly non-Darwinian.⁹⁰ And also like its Victorian predecessor the grounds for choosing a non-Darwinian form of evolution seem to be based, as Hayden White might say, on moral and aesthetic preferences rather than epistemological ones.⁹¹

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References

- Amigoni, D., & Elwick, J. (Eds.). (2011). *Victorian science and literature, vol. 4: The evolutionary epic*. London: Pickering & Chatto.
- Anon. (1867). Anthropological news. *Anthropological Review*, 5, 240–256.
- Anon. (1872a). Literary gossip. *Athenaeum*, 147, 3 February.
- Anon. (1872b). A philosophy of the universe. *Athenaeum*, 587–588, 11 May.
- Anon. (1872c). The martyrdom of man. *Saturday Review*, 474–476, 12 October.
- Anon. (1910). The martyrdom of man. *Saturday Review*, 636, 14 May.
- Bowler, P. (1998). *The non-Darwinian revolution: Reinterpreting a historical myth*. Baltimore: The Johns Hopkins University Press.
- Bowler, P. (2013). *Darwin deleted: Imagining a world without Darwin*. Chicago: University of Chicago Press.
- Brown, C. S. (2007). *Big history: From the big bang to the present*. New York: The New Press.
- Burrow, J. W. (1967). Evolution and anthropology in the 1860s: The anthropological society of London, 1863–1871. *Victorian Studies*, 7, 137–149.
- Chaisson, E. (2006). *Epic of evolution: Seven ages of the cosmos*. New York: Columbia University Press.
- Chambers, R. (1844). *Vestiges of the natural history of creation*. London: John Churchill.
- Chambers, R. (1853). *Vestiges of the natural history of creation* (10th ed.). London: John Churchill.
- Christian, D. (2011). *Maps of time: An introduction to big history*. Berkeley: University of California Press.
- Darwin, C. (1871). *The descent of man, and selection in relation to sex*. London: John Murray, 2 vols.
- Driver, F. (2001). *Geography militant: Cultures of exploration and empire*. Malden, Mass.: Blackwell Publishers.
- Genet, C., Genet, R., Swimme, B., Palmer, L., & Gibler, L. (Eds.). (2009). *The evolutionary epic: Science's story and humanity's response*. Santa Margarita, Calif.: Collins Foundation Press.
- Hargreaves, J. D. (1957). Winwood Reade and the discovery of Africa. *African Affairs*, 56(225), 306–316.
- Hesketh, I. (2014 Fall). The story of big history. *History of the Present*, 4(2), 171–202.
- Hunt, J. (1863). Introductory address on the study of anthropology. *Anthropological Review*, 1(May), 1–20.
- Hunt, J. (1864). On the negro's place in nature. *Journal of the Anthropological Review*, 2, xv–lvi.
- Lightman, B. (2007). *Victorian popularizers of science: Designing nature for new audiences*. Chicago: University of Chicago Press.
- McCook, S. (1996). 'It may be truth, but it is not evidence': Paul du Chaillu and the legitimization of evidence in the field sciences. In H. Kuklick, & R. E. Kohler (Eds.), *Osiris, Vol. 11: Science in the field 2nd series* (pp. 177–197).
- O'Connor, R. (2009). From the epic of earth history to the evolutionary epic in nineteenth-century Britain. *Journal of Victorian Culture*, 14(2), 207–223.
- Reade, W. W. (1863). *Savage Africa* (2nd ed. 1864). London: Smith, Elder, and Co.
- Reade, W. W. (1865). Efforts of missionaries among savages. *Anthropological Review*, 3, clxiii–clxxxiii.
- Reade, W. W. (1867). The gorilla as I found him. *Belgravia*, 3(August), 230–239.
- Reade, W. W. (1872). *The martyrdom of man*. London: Tübnér.
- Reade, W. W. (1910). *The martyrdom of man*. Intro by F. Legge (18th ed.). London: Kegan Paul.
- Rue, L. (2000). *Everybody's story: Wising up to the epic of evolution*. Albany: SUNY Press.
- Secord, J. A. (2000). *Victorian sensation: The extraordinary publication, reception, and secret authorship of the Vestiges of the natural history of creation*. Chicago: University of Chicago Press.
- Sera-Shriar, E. (2013a). *The making of British anthropology, 1813–1871*. London: Pickering & Chatto.
- Sera-Shriar, E. (2013b). Observing human difference: James Hunt, Thomas Huxley and competing disciplinary strategies in the 1860s. *Annals of Science*, 70(4), 461–491.
- Smith, W. E. (1967). *The London heretics*. London: Constable.
- Spier, F. (2010). *Big history and the future of humanity*. Oxford: Wiley-Blackwell.
- Stasny, J. F. (1961). W. Winwood Reade's *The martyrdom of man*: A Darwinian history. *Philological Papers*, 13(December), 37–49.
- Stocking, G., Jr. (1987). *Victorian anthropology*. New York: The Free Press.
- Swimme, B., & Berry, T. (1992). *The universe story: From the primordial flaring forth to the Eozoic era—A celebration of the unfolding of the cosmos*. New York: HarperCollins.
- Taylor, E. B. (1871). *Primitive culture: Researches into the development of mythology, philosophy, religion, art, and custom*. London: John Murray, 2 vols.
- Wells, H. G. (1922). *The outline of history: Being a plain history of life and mankind* (3rd ed.). New York: Macmillan.
- White, H. (1973). *Metahistory: The historical imagination in nineteenth-century Europe*. Baltimore: Johns Hopkins University Press.
- Wilson, E. O. (1979). *On human nature*. New York: Bantam Books.

Endnotes

- ¹ Winwood Reade to Darwin, 12 September 1871, Darwin Papers 176: 47.
- ² There is a growing literature about what was called 'the evolutionary epic' in the Victorian period. See, for instance, Lightman (2007), chap. 5; O'Connor (2009); Amigoni & Elwick (2011); and, of course, Secord (2000).
- ³ Lightman (2007), chap. 5. On the centrality of non-Darwinian evolution in the post-Darwinian intellectual landscape see Bowler (1988, 2013).
- ⁴ Very little has been written about Reade but see Hargreaves (1957); Stasny (1961); and, most recently, Driver (2001). This biographical section relies extensively on Driver.
- ⁵ On the controversy of du Chaillu's African travels see McCook (1996).
- ⁶ On the founding of the ASL see Sera-Shriar (2013b); Stocking (1987), pp. 247–248; and Burrow (1967).
- ⁷ Hunt, (1863), p. 2.
- ⁸ *Ibid.*
- ⁹ Reade to Rosina Bulwer-Lytton, 21 May 1863, Lytton Papers, MS.Eng.lett.e.7: 98, Bodleian Library, Oxford, UK.
- ¹⁰ Reade refers to himself as a 'flâneur' in Reade (1864), Preface; and Reade to Andrew Swanzy, 10 March 1867, F. and A. Swanzy Ltd, Unilever Archives & Records Management (UARM), United Africa Company Archives (UAC), UAC/2/33/AG/6/1/1, Port Sunlight, Wirral Merseyside, UK.
- ¹¹ Quoted in Hunt (1864), p. xviii. This was also a central claim of Reade (1864).
- ¹² Reade (1865), pp. clxiii–clxxxiii.
- ¹³ Hunt quoted in Reade (1865), p. clxxxii.
- ¹⁴ See Efram Sera-Shriar (2013b).
- ¹⁵ Reade to Huxley, 24 March 1867, Huxley Papers, General Letters, Vol. 25, 40.
- ¹⁶ Anon. (1867), 244.
- ¹⁷ See John Morley to Huxley, 17 April 1867, Huxley Papers, Vol. 17, p. 10. While Huxley wrote to Morley after he had already rejected the piece, it would eventually be published in *Belgravia*. See Reade (1867).
- ¹⁸ Reade to Darwin, 4 March 1871, Darwin Papers 176: 46.
- ¹⁹ Reade to Huxley, 17 January 1869, Huxley Papers, Vol. 17: 43.
- ²⁰ Driver (2001), p. 102.
- ²¹ Reade to Darwin, 19 May 1868, Darwin Correspondence Database, <https://www.darwinproject.ac.uk/entry-6186>, accessed 8 Oct 2013.
- ²² Darwin to Reade, 21 May 1868, Darwin Correspondence Database, <https://www.darwinproject.ac.uk/entry-6754> accessed on 8 Oct 2013. See Sera-Shriar (2013a), pp. 170–172, for a discussion of how Darwin used this list of queries to guide ethnologists in the field.
- ²³ Reade to Darwin, 23 May 1868, Darwin Correspondence Database, <https://www.darwinproject.ac.uk/entry-6202> accessed on Tue Oct 8 2013.
- ²⁴ Reade to Darwin, 28 June 1869, Darwin Correspondence Database, <https://www.darwinproject.ac.uk/entry-6260> accessed on Tue Oct 8 2013.
- ²⁵ Reade to Darwin, 17 Jan. 1869, Darwin Correspondence Database, <https://www.darwinproject.ac.uk/entry-6558> accessed on Tue Oct 8 2013.
- ²⁶ Darwin (1871), vol. 2: pp. 247, 284–285, 357, 374.
- ²⁷ Darwin to Reade, 30 June 1870, Darwin Papers 96: 79–80.
- ²⁸ See Reade to Swanzy, 27 June 1869, 26 December 1869, 6 June 1870, UARM UAC/2/33/AG/6/1/1/12, 20, 25.
- ²⁹ Reade to Darwin, 6 Nov. 1870, Darwin Papers 176: 40.

- ³⁰ Reade to Darwin, 9 November 1870, Darwin Papers 85: A109–12.
- ³¹ Reade to Darwin, 21 Feb. 1871, Darwin Correspondence Database, <https://www.darwinproject.ac.uk/entry-7501> accessed on Tue Oct 8 2013.
- ³² Winwood Reade to Darwin, 12 September 1871, Darwin Papers 176: 47.
- ³³ Winwood Reade to Darwin, 12 September 1871, Darwin Papers 176: 47.
- ³⁴ Anon. (1872a), p. 147.
- ³⁵ Reade to Darwin, 16 Feb. 1872, Darwin Papers 176: 53.
- ³⁶ Reade to Darwin, 13 Feb. 1872, Darwin Papers 176: 52.
- ³⁷ See Reade to Darwin, 16 February 1872, Darwin Papers, 176: 53; and Reade to Darwin, 3 May 1872, Darwin Correspondence Database, <https://www.darwinproject.ac.uk/entry-8310> accessed on Tue Oct 8 2013.
- ³⁸ Reade to Darwin, 12 March 1872, Darwin Papers 176: 55.
- ³⁹ Reade to Darwin, 3 May 1872, Darwin Correspondence Database, <https://www.darwinproject.ac.uk/entry-8310> accessed on Tue Oct 8 2013.
- ⁴⁰ Reade (1872), p. iv.
- ⁴¹ *Ibid.*, p. v.
- ⁴² *Ibid.*, p. 31.
- ⁴³ *Ibid.*, p. 5, 30.
- ⁴⁴ *Ibid.*, p. 52.
- ⁴⁵ Reade to Darwin, 15 September 1871, Darwin Papers 176: 48.
- ⁴⁶ Reade (1872), p. 162.
- ⁴⁷ *Ibid.*, p. 164.
- ⁴⁸ *Ibid.*, p. 166.
- ⁴⁹ *Ibid.*, p. 167.
- ⁵⁰ *Ibid.*, p. 171.
- ⁵¹ *Ibid.*, p. 177.
- ⁵² *Ibid.*, p. 180.
- ⁵³ *Ibid.*, p. 282.
- ⁵⁴ *Ibid.*, p. 211.
- ⁵⁵ *Ibid.*, p. 179.
- ⁵⁶ *Ibid.*, p. 178.
- ⁵⁷ *Ibid.*, p. 466.
- ⁵⁸ Tylor (1871), vol. 1: p. 61.
- ⁵⁹ Reade (1872), p. 523.
- ⁶⁰ Reade to Darwin, 3 May 1872, Darwin Correspondence Database, <https://www.darwinproject.ac.uk/entry-8310> accessed on Tue Oct 8 2013.
- ⁶¹ Reade (1872), p. 390.
- ⁶² *Ibid.*, pp. 390–391.
- ⁶³ *Ibid.*, pp. 393–394.
- ⁶⁴ *Ibid.*, p. 395; and Chambers (1844), pp. 1–2.
- ⁶⁵ See Secord (2000), p. 526, for a comparison of the sales of *Vestiges* with that of *On the Origin of Species*.
- ⁶⁶ Reade (1872), p. 410.
- ⁶⁷ *Ibid.*, p. 414.
- ⁶⁸ *Ibid.*, p. 413.
- ⁶⁹ *Ibid.*, p. 414.
- ⁷⁰ Reade to Darwin, 15 September 1871, Darwin Papers, 176: 48.
- ⁷¹ Reade to Darwin, 18 September 1871, Darwin Papers, 176: 49.
- ⁷² Reade (1872), p. 513.
- ⁷³ *Ibid.*, pp. 521–523.
- ⁷⁴ Chambers (1853), p. 322.
- ⁷⁵ Reade (1872), p. 393.
- ⁷⁶ *Ibid.*, p. 513.
- ⁷⁷ *Ibid.*, pp. 466–467.
- ⁷⁸ *Ibid.*, p. 540.
- ⁷⁹ *Ibid.*, p. 542.
- ⁸⁰ Reade to Darwin, 16 May 1872, Darwin Papers 176: 60.
- ⁸¹ Reade (1872), p. vi.
- ⁸² Anon. (1872b), p. 588; and Anon. (1872c), p. 475.
- ⁸³ Reade to Darwin, 20 May 1872, Darwin Papers 176: 61. He later wrote that the book 'is a failure but not a discouraging one.' Reade to Darwin, 12 Sept 1872, Darwin Papers 176: 63.
- ⁸⁴ F. Legge in Reade (1910).
- ⁸⁵ Anon (1910), p. 636.
- ⁸⁶ Smith (1967), p. 5.
- ⁸⁷ Wells (1922), chap. 40, 'The Next Stage of History.'
- ⁸⁸ Wilson (1979), p. 200. Versions of the Wilsonian evolutionary epic include Swimme & Berry (1992); Rue (2000); Chaisson (2006); and Genet, Genet, Swimme, Palmer, & Gibler (2009).
- ⁸⁹ See, for instance, Brown (2007); Spier (2010); and Christian (2011).
- ⁹⁰ I discuss these modern iterations of the evolutionary epic in Hesketh (2014).
- ⁹¹ White (1973).

Bibliography

- Charles Darwin Papers, University Library, Cambridge.
- Charles Darwin Correspondence Database, <https://www.darwinproject.ac.uk/>.
- Huxley Papers, Imperial College London.
- Lytton Papers, MS.Eng.lett.e.7, Bodleian Library, Oxford, UK.
- F. and A. Swanzy Ltd, Unilever Archives & Records Management (UARM), United Africa Company Archives (UAC), UAC/2/33/AG/6/1/1, Port Sunlight, Wirral Merseyside, UK.