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Charles Smith, James T. Costa and David Collard (eds.), An Alfred Russel Wallace Companion

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Michael A. Flannery, Nature's Prophet: Alfred Russel Wallace and His Evolution from Natural Selection to Natural Theology

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The year 2023 will mark the two-hundredth anniversary of Alfred Russel Wallace's birth. As the co-discoverer of the theory of evolution by natural selection with

Charles Darwin, Alfred Russel Wallace was also a man who advocated land nationalization and believed that polluting rivers or exterminating animals were so many moral offences and social crimes. The Victorian naturalist's numerous intellectual explorations have often been regarded as intriguing and even confusing for many scientists and historians of science who tried to grasp Wallace's thought. Charles Smith, James T. Costa and David Collard's edited collection of essays, *An Alfred Russel Wallace Companion*, and Michael A. Flannery's *Nature's Prophet: Alfred Russel Wallace and His Evolution from Natural Selection to Natural Theology* are two fairly recent examples of the renewed (or perhaps enduring) interest in and fascination with the Victorian polymath, who penned over a thousand writings and ten thousand pages of printed materials, and often dared depart from his own sphere of competence. Both books attempt to capture Wallace's holistic – transdisciplinary – understanding of his environment and his insight into the consequences of the Anthropocene.

An Alfred Russel Wallace Companion is a collection of twelve articles which focus on the naturalist's evolutionary cosmology, his biological studies (from systematics to natural selection and adaptation), evolutionary anthropology, social-evolution schemes and natural-science explorations (physical geography, biogeography, conservation and astronomy). Chapters 1 and 2, penned by C.H. Smith, explore Wallace's influences prior to 1858, in particular Humboldtian philosophy, and recall the naturalist's interest in phrenology and mesmerism, informed by years spent on the Malay archipelago, witnessing rituals performed by shamans and other medicine men. Tracing all the influences which could explain his adoption of spiritualism from around the end of 1866, Smith investigates the effect of spiritualism on Wallace's positions as a natural scientist, providing him as it did with 'a vehicle for understanding elements of the overall process of evolution that natural selection could not account for' (p. 61).

Wallace as a field collector is the subject of Chapter 3, by James T. Costa, which looks at the roles that his assistants, Charles Allen and Ali, as well as his agent, Samuel Stevens, played, from helping Wallace shoot, skin and sail specimens to negotiating with locals and offering him networks of colonial culture. Costa also looks at Wallace's notebooks (his illustrative sketches, tables, maps, etc.), and mentions his ideas on museum design and displays. Costa then compares and contrasts Wallace's and Darwin's evolutionary thinking, their similarities and differences regarding transmutation and natural selection, and explains the way in which the two naturalists corresponded regularly and shared their evolutionary ideas. Unlike Darwin, who incorporated both soft selection (competition) and hard selection (environmental factors) in his models for selection, Wallace focused more exclusively on hard selection. As Costa shows, Wallace's interchangeable use of the terms 'variation' and 'variety' (to refer to distinctive groups, variant individuals and minute variations themselves) is interesting, for it highlights how Wallace's work in the context of archipelagos helped him probe the differences between species and varieties and clarify what species really are.

In Chapter 5, Hannah M. Rowland and Eleanor Drinkwater analyse Wallace's views on the colours of animals and their role as anti-predator defenses, whilst Chapter 6, by Sherrie Lyons, presents Wallace's position on human evolution, which often reflected the time he had spent with native peoples, pointing out how Wallace's thoughts contributed to Darwin's reflections. Although, as they argue, Wallace's involvement with spiritualism resulted in his losing credibility as a scientist, his belief in spiritualism certainly shaped his views on humans' moral nature (which he saw as not resulting from natural selection).

Martin Finchman contends in Chapter 7 that Wallace's ideas on social economy and social justice first appeared in his writings on land nationalization in the early 1880s (Wallace declared himself a socialist in 1890); Finchman also evokes his rather

conservative views on marital and sexual matters as well as his position regarding positive eugenics, encouraging individuals whom he believed had superior traits to produce offspring. David Collard furthers the discussion on land nationalization in Chapter 8, highlighting Wallace's opposition to the overexploitation of natural resources and his criticism of deforestation, tourism and industrialization more generally.

The following three chapters, on Wallace's physical geography (Chapter 9) and biogeography (Chapters 10 and 11), shape Wallace above all as a geographer, whose main influences were Alexander von Humboldt and Charles Lyell, as well as Robert Chambers, whose anonymously published *Vestiges of the Natural History of Creation* in 1844 deeply impressed the naturalist. Wallace understood that the evolution and distribution of life on Earth could not be separated from the study of earth processes, both geological and climatological. His correspondence (and disagreements) with Darwin concerning the distribution of species is once again mentioned, as well as the evolution of his thoughts over time. As Costa underlines in Chapter 10, the model of geographical distribution that Wallace proposed in his landmark works, *The Geographical Distribution of Animals* (1876) and *Island Life* (1880), was formed by the mid-1860s, mainly – and arbitrarily – through observing animals (birds and mammals) only, a view which Wallace was still defending by the end of the century.

In Chapter 11, Mark V. Lomolino insists upon Wallace's insights into conservation and his 'enduring influence' (p. 342) on modern conservation biology. Humans' 'plundering' of natural resources, which Wallace condemned, especially in *The Wonderful Century* (1898), and his ideas on the morality of land use, informed developing conservation views, such as Aldo Leopold's land ethic, which interwove ecology, natural selection and evolution. Today, the term 'conservation biogeography' is directly indebted to what Wallace 'understood as an intensifying crisis in biogeography: the need to apply and advance the principles and tools of biogeography to discover, describe, and develop effective strategies for preserving species before they are "plundered" by humanity' (p. 353). The companion closes on Robert W. Smith's presentation of Wallace's views on extraterrestrial life (Chapter 12) and his application of evolutionary theory against extraterrestrials.

Wallace as a Victorian polymath lies also at the core of Michael A. Flannery's study. *Nature's Prophet: Alfred Russel Wallace and His Evolution from Natural Selection to Natural Theology* offers an in-depth study of Wallace's understanding of the natural and metaphysical worlds, with a view to explaining how these ostensibly antagonistic realms eventually became one to form 'a revised natural theology' (p. ix). Flannery's argument builds on the differences between Wallace and Darwin more than on their similarities. Attempting to revise the image of Wallace as 'a good scientist gone bad' (p. x) because of his views on phrenology, spiritualism, land nationalization, vaccination, women's rights or cosmology, Flannery proposes a portrait of Wallace as a 'theist pluralist' (p. 5), whose 'intelligent evolution' (p. 9, original emphasis) sharply contrasted with Darwin's.

In Chapter 1, Flannery starts his investigation with Wallace's 1864 address before the Anthropological Society of London, on 'The origin of human races and the antiquities of man deduced from the theory of "natural selection"' – a paper which may have prompted, as Joel Schwartz suggests, the publication of Darwin's *Descent of Man* (1871). Separating as he did man and beast, Wallace refused to see humans' mental capacities as mere instincts. His reaction to non-Western peoples differed, moreover, from that of Anglo-imperialists (Darwin's horrified account of the natives he encountered at Tierra del Fuego in 1832 is case in point). Unlike his Anglo-European colleagues, Wallace had lived for long periods of time with indigenous populations; moreover, his collaboration with the young Malay boy Ali, who helped him collect specimens, taught him the language of the natives and even cooked for him and looked after him, may have

explained, as has often been suggested, his differing views on human evolution. As Flannery explains in Chapter 2, whilst Wallace's 1864 paper emphasized the differences between Wallace's and Darwin's views of evolution, so did the two naturalists' papers that were presented to the Linnean Society on 1 July 1858. The chapter highlights how Wallace, unlike Darwin, saw evolutionary change in terms of 'group dynamic playing out in a spatiotemporal demographic', whereas Darwin 'focused on individual completion and adaptation' (p. 33).

In addition, Wallace's comprehensive biogeography (which brought together evolution, ecology, geology and glaciology to explain the geographical distribution and diversification of taxonomic groups) defined natural selection more through its power to subtract individuals or species than as a building process, as Darwin contended. Similarly, Wallace and Darwin differed on domestic breeding (which Darwin saw as analogous to the operations of nature), with Wallace refusing to see nature as both selecting and governed by chance. For Wallace, domestic breeding evidenced intelligent goals, hence his reintroduction of 'goal-directed purpose back into nature' (p. 54, original emphasis).

Wallace's interest in spiritualism, often seen as the most controversial aspect of his life, as well as in phreno-mesmerism, illustrated the man's 'disposition toward the teleological and the spiritual almost from the beginning' (p. 69). As Flannery argues in Chapter 4, Wallace shared an 'epistemological vision that ran counter to the emergent materialistic scientism of the era' (p. 69) with many other scientists and philosophers of the period, from Henry Sidgwick and Frederic W.H. Myers to Oliver Lodge. Flannery examines Wallace's *Darwinism* (1889), *Man's Place in the Universe* (1903) and *The World of Life* (1910) to understand why Wallace, who called himself more Darwinian than Darwin himself, yet limited natural selection in areas that, for Darwin (and the members of the X-Club) mattered most, from the origin of life to the nature of humankind. Evoking Wallace's views on gender equality and foregrounding Wallace's holistic thought and his 'Darwinian theism', which reconciled chance and Providence (Chapter 5), Flannery concludes his book with two chapters on Wallace's 'allies' and some of the individuals who enabled Wallace's vision to endure even until today.

Both *An Alfred Russel Wallace Companion* and Flannery's *Nature's Prophet* reveal the range and complexity of Wallace's reflections and ideas. Flannery's elegantly written, clear and insightful book forcefully challenges the mythology of the 'two Wallaces'; Charles Smith, James T. Costa and David Collard's edited collection provides a stimulating survey of the many aspects of Wallace's writings. The *Companion* may, perhaps, disappoint readers more familiar with Wallace: several chapters simply present overviews and summaries, and at times include very long quotes from Wallace's writings or from the contributors' articles themselves which could have been more convincingly woven into the main text. Still, both books will undoubtedly be very useful for students and scholars who wish to (re)discover Alfred Russel Wallace's fascinating *oeuvre*.

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