



## REVIEW

### *Wallace, Darwin, and the Origin of Species*

by James T Costa

Cambridge (MA): Harvard University Press, 2014. 331 pages

reviewed by Charles H Smith

Interest in the life and work of Alfred Russel Wallace (1823–1913), the “other man” in the history of the development of the concept of evolution by natural selection, continues to swell. The one hundredth anniversary of Wallace’s death occurred in 2013, and during that year more than a dozen books on him appeared, along with a considerable number of professional papers, full conferences, meeting sessions, and special journal issues. The tide has not entirely gone out in 2014 either, as this new volume by James T Costa indicates.

This is a very timely publication, as among other things it serves to counter recent writings by the historian John van Wyhe, who seems to be trying to undermine Wallace’s reputation and accomplishments. Through both books and articles (such as van Wyhe 2013a, 2013b; van Wyhe and Rookmaaker 2012), van Wyhe has sought to characterize Wallace as a not-very-well-regarded amateur who only stumbled on natural selection by chance. In his most recent article (van Wyhe 2014), he attempts to argue that because Wallace never *specifically* said that a main objective of his travelling to the Amazon and Far East was to discover the mechanism of biological change, we should conclude that this probably was not among his goals at that point. This, despite a famous passage in Wallace’s comrade Henry Walter Bates’s celebrated book *The Naturalist on the River Amazons* (1863) that does name this as a goal of their travels. Van Wyhe concludes, with no concrete evidence to back him up, that Bates’s statement must have been “fraudulent.” This can be construed as a lesson on how *not* to use a “no smoking gun” argument. Many within the Wallace studies community have become increasingly agitated at what they view as the promulgation of dubious trains of thought of this kind. Thankfully, and although van Wyhe actually makes a good point here or there, most of his remarks can be dismissed through counterarguments based on the facts.

A more telling version of the Wallace story may be found in James Costa’s new work. Costa, Director of the Highlands Biological Station at Western Carolina University, has himself been devoting much attention of late to Wallace’s early exploits; one of his recent efforts was an enhanced transcription of the most important of Wallace’s field notebooks from this period (Costa 2013). Having studied the materials (including the notebooks, correspondence, and Wallace’s publications) relevant to Wallace’s work in the 1840s, ’50s, and ’60s, he now presents an analysis focusing on Wallace’s development of the natural selection concept. Costa is a good writer, not overly demanding of the reader, and even a person not well-versed in the history of natural history should be able to keep up with the narrative. A quick sample:

Wallace, long a transmutationist by the writing of the Species Notebook, declares [in it] “here we must suppose special creations in each island of peculiar species though the islands are all exactly similar in structure,” but then concludes that “we can hardly suppose that islands would be left for ages to become stocked in this manner.” This commentary is part of the lengthy section critiquing [Sir Charles] Lyell. As will be evident by the end of this chapter, the interpretation of distribution is just one of Wallace’s many points of disagreement with Lyell. (page 74)

The organization of the volume is a little unusual, but nevertheless effective. The chapters wander a bit, but in so doing connect the history of events to the various elements of Wallace’s multidimensional intellect. All of the salient elements are treated, including Wallace’s comments in his notebooks (and how these relate backward and forward to allied thoughts and influences), the relations and differences between Darwin’s thinking and his, and the actual history of events connected to his submission of the famous “Ternate essay” on natural selection to Darwin (including a nice summary of the various disputes over the chronology involved). Usefully inserted is a 60-page segment presenting facsimile reproductions of the Ternate (Wallace 1858) and “Sarawak law” (Wallace 1855) essays matched to image-by-image explanatory notes on the facing pages. Recent attempts to come to grips with these various threads are reviewed, and placed in context. Several tables and appendices compile interesting information on various bibliographic subjects, such as “A sample of twenty books with ‘Darwinism’ in the title, published in London between 1869 and 1900,” “Works cited by Wallace in the Species Notebook,” and a listing of the excessive number of times Darwin refers to “my theory” (giving little notice of Wallace) in the *Origin of Species*.

Costa writes: “Wallace’s most important field notebook of the period—his Species Notebook—is to me, the best antidote for the malady of Wallace nay-saying, dismissal, or minimizing. It is also the finest document with which to tell Wallace’s story of discovery in those pre-*Origin* years” (page 277). Indeed. This is a very fine treatment of a complicated story; it benefits from being told by a scientist who understands the biology involved, and who has not taken liberties with documenting the history of Wallace’s thought process. This may well be the best single overview of this important episode in the history of thought yet produced, and I highly recommend it.

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