

I would not say I was enthralled by every approach taken in the volume. Distinguished historian of science Peter Bowler writes a chapter on the coming of evolutionary theorizing. He takes the opportunity to continue his 30-plus year offensive against Charles Darwin—that the naturalist of Down House was unimportant, that he was wrong, that he was ignored, that he was not ignored quite enough to prevent great harm, and so forth. Darwin’s influence was “superficial.” I expect opposition to Darwin from Christian fundamentalists. I am amazed at the opposition to Darwin in departments of the humanities—English, history, and I regret very much to say my own discipline of philosophy. I guess the idea of evolution through natural selection is deeply threatening. Perhaps Richard Dawkins is right and Darwin does show that life is all a cosmic joke. Distinguished professors have the same fear of the unknown as Bible-thumping evangelicals.

I do not want to end on a negative note. I think this is a terrific introduction to the history of science and would be a perfect gift to a bright teenager. Worth the cost in itself is a splendidly vulgar color cartoon of Sir Humphry Davy administering laughing gas to a volunteer—a gas that emerges immediately from, let us say, another orifice. This volume is highly recommended.

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EXPLORATION AND DISCOVERY: TREASURES OF THE YALE PEABODY MUSEUM OF NATURAL HISTORY.

By David K. Skelly and Thomas J. Near; photography by Robert Lorenz; Foreword by James Prosek. New Haven (Connecticut): Peabody Museum of Natural History (Yale University); distributed by Yale University Press, New Haven (Connecticut). \$27.50. x + 126 p.; ill.; index. ISBN: 978-1-933789-05-7. 2016.

I can fondly recall the first time I visited the Yale Peabody Museum of Natural History. I have always been fond of natural history museums and so as I began my freshman year of college at Yale, I immediately needed to visit. It was a wonderful experience as I took in all of the exhibits. In fact, I enjoyed it so much that I decided to apply for a student collections assistant position, which I held until I graduated four years later. And yet, as I read *Exploration and Discovery*, I realized there was so much of the museum that I had never seen, despite all of the time I spent within its walls.

The book, as the authors describe, was written and photographed in conjunction with the Yale Peabody’s 150th anniversary and a special exhibit at the museum titled *Treasures of the Peabody: 150 Years*

of *Exploration & Discovery*. Although the volume makes a point to include several of the specimens that are on display within the museum, the book is most interesting when it dives into the millions upon millions of specimens that visitors to the museum will never see. Over the 100-odd pages of the book, Skelly and Near have produced very short vignettes accompanied by nearly 200 fantastic photographs by Robert Lorenz. The vignettes and photographs have been collected into seven chapters that cover broad topics such as the history of the museum, expeditions, and conservation. Of course, it would be impossible to cover all of the specimens within the museum’s collections, but the volume does a valiant job of covering numerous fields such as astronomy, paleontology, and anthropology. Of great note are the stories that accompany many of the specimens on display within the book’s pages, which give readers a stronger understanding of their importance. The authors also stress, quite convincingly, the fact that these specimens remain as relevant today as they were when they were collected.

It is hard to find any faults with the volume. The photographs of the specimens and documents are beautiful, and the text is easy to follow and understand. Skelly and Near do a fantastic job of including numerous specimens and details about each of them. In fact, they do such a good job that I often found myself wanting more. Perhaps the book would benefit from more details in some cases, but they have included a short Further Reading section that serves as a modest source for more information for inquiring readers.

The content of the volume is extremely approachable, and I would easily suggest this book to anyone. Of course, as with anything, it is not a substitute for the real thing, and I would strongly recommend to any reader that they also visit the museum itself. Although the *Treasures of the Peabody* exhibit is no longer on display, the other exhibits remain as wonderful and relevant as ever.

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ORIGINS OF DARWIN’S EVOLUTION: SOLVING THE SPECIES PUZZLE THROUGH TIME AND PLACE.

By J. David Archibald. New York: Columbia University Press. \$65.00. xvi + 192 p.; ill.; index. ISBN: 9780231176842 (hc); 9780231545297 (eb). 2017.

One of the most challenging aspects of engaging with the thought of Charles Darwin—particularly his early work, as he first hashed out the outlines of what would become the theory of evolution by natural selection as presented in *On the Origin of Species*—is coming to grips with just how alien it is by contem-

porary biological lights. Many of Darwin's most significant influences are authors now seldom studied outside history and philosophy of science departments, and Darwin lacked some of the fundamental sources of data to which we now unthinkingly turn to for support for evolution, Mendelian genetics foremost among them. Nor are the common apocryphal stories correct—Darwin had no “eureka” moment on the Galápagos Islands in which evolution came to him in a flash.

The truth is far more complex, and is laid out in this lucid and enjoyable work by J. David Archibald. We begin with a careful depiction of Darwin's geological training, steeped in the work of Adam Sedgwick and Charles Lyell. Lyell's rehabilitation of the *uniformitarian* geological view—the claim that current processes, operating at current (and hence low) intensities, are responsible for all geological change throughout history—opened the door to the possibility of evolution. Lyell himself, however, saw in the fits and starts of the fossil record evidence for “centers of creation,” locations on the globe in which a long series of successive divine creations of species took place.

Darwin's massive respect for Lyell meant that he, in turn, took extremely seriously objections concerning the quality of the fossil record. Even as fossil discoveries (the most picturesque being that of *Archaeopteryx*) filled in candidates for transitional forms, Darwin still worried that we lacked the fine gradations of intermediate specimens in the fossil record that would truly offer evidence for evolution. And a number of British geologists, including Sedgwick himself, remained staunch opponents of Darwin.

How, then, did Darwin support his fledgling theory? Here enters a pivotal role for historical biogeography. The book does a fantastic job of reconstructing Darwin's collecting trips on the HMS *Beagle*, of both the fossil and living specimen varieties. His classifications of those specimens were adept and, although occasionally mistaken, still offered a number of compelling arguments for common descent. As those preliminary results returned to Britain and were corroborated and expanded by a number of colleagues, Darwin's conviction increased, and Archibald deftly narrates the movement of this defense of evolution from these publications to Darwin's notebooks and manuscripts sketching the first versions of his theory to their final form in the *Origin* and their reception by reviewers.

Although Archibald's book moves too quickly and with too much detail to be one's first introduction to Darwin's work, it would make a perfect companion for a second (or tenth) read through the *Origin*. Darwin's argumentative structure is illuminated, his process in developing the theory is detailed, and the

otherwise difficult to interpret roles and relationships of his South American finds become beautifully clear.

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THE QUOTABLE DARWIN.

Collected and edited by Janet Browne. Princeton (New Jersey): Princeton University Press. \$24.95. xxix + 348 p.; ill.; index. ISBN: 978-0-691-16935-4. 2018.

Harvard historian of science, Janet Browne, author of the standard two-volume biography of Charles Darwin (1995. *Charles Darwin: A Biography*. New York: Knopf), has put together a small book: *The Quotable Darwin*. This is, as its title promises, a potpourri of short passages from Darwin's letters and writings, published and unpublished. Organized into six parts, it starts with Early Life and Voyage of the *Beagle*. Next comes Marriage and Scientific Work, covering the great years of discovery (the end of the 1830s) and also recording the momentous personal changes, including getting married and falling sick. Third, we have the major years of the public coming of Darwin's theory of evolution through natural selection. This part, *Origin of Species*, is followed by a parallel section, Mankind, devoted to the content and reception of Darwin's work on our species, *The Descent of Man, and Selection in Relation to Sex* (1871. London (UK): John Murray). Penultimately we have a part, On Himself, about Darwin's thoughts as a human being—religion, politics, and so forth. In the final part, we have Friends and Family, a kind of wrap up, valedictory compendium.

I confess I have trouble with this one. I will not deny that, as you flip through—this is hardly a book for systematic reading—you come across some fascinating tidbits. I had no idea Darwin felt so strongly on the subject of contraception. He sounds like spokesman for the Vatican. “I believe that any such practices would in time spread to unsound women & would destroy chastity, on which the family bond depends” (p. 192). This, from a letter to Charles Bradlaugh—the prominent Victorian atheist—in 1877, about five years before his death (at the age of 73).

Overall, however, what is the point of this book and at whom is it aimed? It is obviously not much use to the serious scholar, for all that you might (like me) pick up something interesting that you might use later. There are very few quotes that you will not know already. Perhaps conversely, at the more general and public level, it is not going to be of great interest to those quite ignorant of Darwin and his achievements. So one presumes that the intended readership are those interested in Darwin if not full time. I suppose they might enjoy it, if only for a half