

providing contextual as well as bibliographic information. Of particular value is the annotated biographical register (pp. 251–278) of all correspondents and most of the persons mentioned in the letters, as well as the detailed index. The editors have distilled from the larger *Correspondence* a fine sampling of the letters by and to Darwin during a particularly rich period of his life. One sees not only a superb scientist, but also an interested English citizen, a reliable friend, and a loving family man. Darwin's dry wit surfaces in these letters more than in his better-known treatises.

One glimpses Darwin's reactions to the very mixed early reviews of the *Origin*, then moves on to see his satisfaction at the growing number of supporters of his and Alfred Russel Wallace's theory of evolution by natural selection, especially among the younger scientists in France and Germany, by the end of the decade (p. 116). Even among his comrades, however, dissent often reigns. The differences—great and small—between Darwin and Thomas Henry Huxley, Charles Lyell, Asa Gray, Henry Walter Bates, and Herbert Spencer are on display. Darwin “is put into despair” by Lyell's and Gray's initial reluctance to grant “change of species by descent” (p. 82). Between Darwin and Joseph Dalton Hooker, perhaps Darwin's closest scientific colleague and friend, the precise means by which island flora were initially introduced—a significant aspect of species evolution—is contested (pp. 148–151). Of special interest are the letters between Darwin and Wallace in this decade. The precise nature of the relationship between the two, commencing with their correspondence in the decade just prior to the publication of the *Origin* (not in this volume), has long been the subject of scholarly speculation and proclamation. Though the nature of their relationship is surely not resolved in this volume, one does get an elaboration of their differing views on the importance of sexual selection as an adjunct to natural selection (pp. 103, 170–174, 178–179), on the niceties of human evolution (pp. 100–104), and on the role, or lack thereof, of natural selection in the moral development of humans (pp. 227–228, 240–241). Though this latter would be magnified with the publication of Darwin's *Descent of Man* (1871) and Wallace's writings on spiritualism in the 1870s, what emerges in the present volume is the generosity and high regard with which the two co-discoverers viewed each other. An exchange of letters in July 1866 shows the two as equally adroit in deconstructing the meaning(s) of those two famous terms, “natural selection” and Spencer's “survival of the fittest” (pp. 143–146).

Darwin's ambiguous religious views have remained a lively subject of scholarly debate. Here, in a 12 July 1870 letter to Hooker, Darwin admits that his “theology is a simple muddle: I cannot look at the Universe as the result of blind chance, yet I can see no evidence of beneficent design, or indeed of design of any kind in the details” (p. 247). In a few letters to Gray (1862–1865), Darwin writes of his abhorrence of slavery and his fervent hope that the North will triumph in the U.S. Civil War (pp. 43, 55, 88, 99). One gets a sense of Darwin's financial generosity both as a one-person funding agency for others' scientific research and travel (pp. 104–105, 152) and in his purchase of some books for Wallace (p. 222). Finally, readers wishing to commiserate with Darwin on his incessant poor health will find ample opportunity to do so with these letters. In all, *Evolution: Selected Letters of Charles Darwin, 1860–1870*, is a handsomely produced and well-conceived volume. The very modest price tag (\$28) is something of a welcome rarity in our day of often extraordinarily expensive academic books.

MARTIN FICHMAN

**Jim Endersby.** *Imperial Nature: Joseph Hooker and the Practices of Victorian Science.* 400 pp., illus., bibl., index. Chicago/London: University of Chicago Press, 2008. \$35 (cloth).

It was no simple matter to transform a living plant, laboriously picked by an experienced collector in a far-off land, into a clearly defined species available for reference in an authoritative taxonomic text. The torturous transformation was fraught with negotiation, requiring skills—traveling, collecting, corresponding, seeing, classifying, settling, publishing, charting, associating, and governing—that needed to be methodically learned. These skills, not by chance, also constitute the chapter headings of Jim Endersby's engaging study of the practices of mid-Victorian naturalists. In ten thematic chapters, Endersby dissects these seemingly innocuous practices in order to highlight the social tensions that inevitably arose when elite practitioners attempted to heighten the status of their science by distancing their work from that of amateurs. By recreating, with subtle detail, the day-to-day toil of Joseph Hooker and his colonial collectors, Endersby offers a unique perspective on hotly debated topics in Victorian science studies, including professionalization, the reception of Darwinism, and the role of empire in fashioning knowledge in the Victorian era.

Hooker and other devoted naturalists were caught in a quandary. They needed to make a

living from their work while simultaneously keeping intact their status as disinterested gentlemen. Historians of science have often assumed that Victorian practitioners desired to professionalize in a strategic attempt to counter this dilemma. Yet Endersby avoids the term “professional” because of its muddled use by historians and its negative connotations in the Victorian era. Rather, following the terms used by the historical actors themselves, Endersby contrasts “amateur” with “professed” or “philosophical.” To be a philosophical botanist, he explains, entailed a conscious move beyond the purely descriptive to larger questions of theory, such as the causes of the geographical distribution of species. By analyzing how Hooker relied on the intricacies of botanical practice to negotiate his own status within the scientific establishment, Endersby unveils the process by which philosophical botanists defined themselves and the boundaries of their science.

Hooker attempted to formalize his botanical practices in order to distance himself from amateur participation and to define his own heightened role, but only at a price. His insistence that collectors follow his classification system and naming practices reinforced Hooker’s own methods and, along with them, his definition of philosophical botany. Yet, paradoxically, these same practices also tended to blur the artificial boundaries Hooker was attempting to erect. Once learned, these standardized practices engendered confidence in colonial collectors, suggesting to them that they too could become philosophical and, thus, contribute to science beyond the confines of Hooker’s gaze. Hooker did not always escape this paradox unscathed, and Endersby uses his subject’s precarious hold on authority to demonstrate the fluid boundaries between the “center” and the “periphery” within the British Empire and between the “amateur” and the “philosophical” within the practice of botany. In the process, he is able to highlight the manner in which standardized, formalized practices actually shaped the resulting theories in botany, problematizing the assumption that theory largely directs scientific practice.

Owing to Endersby’s focus on practice at the expense of theory, Darwin makes only cameo appearances throughout the book. Yet Endersby spends most of the conclusion on Hooker’s acceptance of evolutionary theory. Though this belated Darwinian turn seems a bit out of place, Endersby uses evolution to draw out the implications of his text. An in-depth understanding of Hooker’s constant negotiations with both colonial collectors and scientific elites, he argues, is

required to understand Hooker’s thoughts, particularly his far-fetched speculations on distribution and his seemingly equivocal stance on evolutionary theory. As a philosophical botanist and agent of the state, Hooker was primarily concerned with mapping distribution in order to acclimatize species at Kew more readily. Thus, Endersby argues, Hooker accepted evolutionary theory only when it became obvious to him that common descent supported his method of practicing botany while still limiting the status of amateur participants.

Though the first chapter, “Traveling,” attempts to underscore the importance of travel in nineteenth-century botanical practice, only Hooker’s initial voyage to Antarctica with James Clark Ross is analyzed in any detail. Little is said about Hooker’s three-year imperial crusade to the heights of the Himalayas (perhaps because that material has been analyzed elsewhere). Endersby’s lack of focus on Hooker’s own travels, however, tends to portray him primarily as a naturalist negotiating his status from the confines of Kew. Hooker, however, used his firsthand experience to establish his credibility as a philosophical botanist and to convince himself of evolutionary theory. This represents a missed opportunity for Endersby, as Hooker also used his own fieldwork as one of the main arguments that he, not others, could ultimately remake nature in “empire’s image” (p. 314).

Throughout his career, Hooker pursued two complementary goals: to heighten the status of botany within the scientific community and to convince his network of collectors and scientific colleagues to support his own definition of what it meant to be philosophical. By the time of his death, Hooker had largely succeeded on both counts: he had created a space for himself as a philosophical botanist, despite his need for compensation, and he had raised the imperial status of Kew, “subordinating both metropolitan and colonial naturalists to its rule” (p. 309). As Endersby convincingly demonstrates, both goals required constant negotiation. By focusing on the finer details involved in the daily practices of naturalists, and ensconcing those practices squarely within the negotiations between Hooker and his colonial collectors, Endersby adds a social and cultural complexity to the science of botany that brings its practitioners vividly to life. In the process, *Imperial Nature* adds significantly to our understanding of the multifaceted and far from inevitable ascendancy of the professional scientist in Victorian culture.

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