BJHS **47**(2): 363–367, June 2014. © British Society for the History of Science 2014
doi:10.1017/S000708741400020X

Essay review

Unsuitable for ladies?

Frederick Burkhardt, James A. Secord, Janet Browne, Samantha Evans, Shelley Innes, Alison M. Pearn and Paul White (eds.), *The Correspondence of Charles Darwin*, vol. 19: *1871*. Cambridge: Cambridge University Press, 2012. Pp. xliv + 1062. ISBN 978-1-107-01648-4. £90.00 (hardback).

Frederick Burkhardt, James A. Secord, Janet Browne, Samantha Evans, Shelley Innes, Francis Neary, Alison M. Pearn, Anne Secord and Paul White (eds.), *The Correspondence of Charles Darwin*, vol. 20: *1872*. Cambridge: Cambridge University Press, 2013. Pp. xxxix + 862. ISBN: 978-1-107-0384-48. £90.00 (hardback).

In January 1871, Darwin wrote to his closest friend, the botanist Joseph Hooker, to tell him he had just finished the proofs of his latest book. 'The work half killed me', he complained, '& I have not the most remote idea whether the book is worth publishing'. Most readers of the *BJHS* will sympathize with his sentiment, although I suspect that fewer will share his conviction that 'it seems that it will sell very well' (vol. 19, p. 29). The book was, of course, *The Descent of Man, and Selection in Relation to Sex*, Darwin's long-anticipated work on human evolution. His expectations for its sales were correct; the first edition of 4,500 copies had sold so well that by March another thousand were already being printed, and another thousand were required soon after. Hooker told Darwin that he had heard, 'Ladies think it delightful reading, but that it does not do to talk about it, which no doubt promotes the sale – the only way to get it being to order it on the sly!' (vol. 19, p. 221).

When it comes to assessing Darwin's impact on his society, 1871 is as important as 1859, so these volumes of the magisterial *Darwin Correspondence* (which also cover the period up to the publication of Darwin's *Expression of the Emotions in Man and Animals*) will be of more than usual interest to Darwin scholars, as well as being essential reading for anyone with an interest in the debates about human origins and uniqueness that played such a large role in the Victorians' rapidly shifting sense of their place in the cosmos.

The editing and organization of these volumes is, as always, superb; the Darwin Correspondence really does set the standard against which all comparable projects have to be measured. In addition to a wonderfully erudite editorial apparatus (the footnotes alone contain a wealth of invaluable information), all the surviving letters Darwin received are published, alongside those he wrote, and all are indexed by correspondent

https://doi.org/10.1017/S000708741400020X Published online by Cambridge University Press

as well as by dates, topics and so on. (Such high-quality, professional indexing seems, sadly, to be disappearing from academic books.) The organization of the volumes allows the reader to follow a conversation, such as that between Darwin and Hooker, each of whom wrote more letters to the other than to anyone else (there are seventy just in these two volumes). The two men ranged over an extraordinary variety of subjects, from the origins of life – whether 'in some warm little pond' (vol. 19, p. 53), or via meteors, a speculation that Hooker condemned as 'highly unphilosophical' (vol. 19, p. 525), as damning a verdict as was possible – via the health of their children and friends, to their holidays, and the prehensile tails of tame field mice. Naturally plants were the most frequent topic; although Darwin's name is usually associated with barnacles and pigeons, he devoted far more time to botanical research than to all his zoological interests combined. Like every other member of Darwin's global network of correspondents, Hooker was always being asked for help, whether it was to identify some unknown species for Charles, or to recommend a new azalea for Emma's garden (Hooker not only sent her one from Kew, but included instructions for its cultivation). Occasionally Hooker asked Darwin for plants, including some hazel cuttings from the trees alongside Darwin's well-known 'thinking path', but the plant traffic more usually flowed from the Royal Botanic Gardens at Kew, of which Hooker was director. During the period covered by these volumes, Darwin was particularly interested in carnivorous plants (he published his book on them in 1875) and asked Hooker to use the resources of Kew to 'raise for me 1 or 2 plants of Drosophyllum [a kind of sundew] . . . for experiment to see if at this early age it acts like Drosera, though the old plants are such beasts they will do nothing' (vol. 19, p. 202). He later complained that 'Drosera has almost been the death of me: indeed all work of all sorts now-a-days half kills me, but idleness kills me still more cruelly' (vol. 20, p. 427). One of Darwin's key botanical interests was in 'such beasts' as plants whose behaviour seemed to bridge the gap between them and the lower animals. Some devoured insects while others not only moved but could apparently sense objects they could climb up. These animal-like traits suggested plausible links between life's two great kingdoms, providing essential evidence for the common evolutionary origin of all organisms. Flowers also gave Darwin a way to pursue a long-term interest in the effects of cross- and self-fertilization (he was convinced that nature abhorred perpetual self-fertilization and worried about the effects of inbreeding, not least because his own marriage to cousin Emma seemed to have produced some rather sickly children). A decade after his first book on the topic (the snappily titled *On the Various Contrivances by which British and Foreign Orchids are Fertilised by Insects, and on the Good Effects of Intercrossing*, 1862), he was still asking Hooker questions about orchid fertilization and would produce a second edition of his book in 1877. (Young scholars looking for good PhD topics should note that Darwin's botany is crying out for more detailed study – and the *Correspondence* provides the perfect starting point.)

Clearly the significance of these volumes for Darwin scholars hardly needs labouring. However, other stories emerge from their pages that make them invaluable to anyone interested in the Victorian period. For example, on 26 March, Hooker explained that his planned trip to Morocco would allow him to recover from 'the life that insensate

https://doi.org/10.1017/S000708741400020X Published online by Cambridge University Press

brute & fool Ayrton has led me' (vol. 19, p. 222). Ayrton was his political master, commissioner of the Office of Works, and the two men had clashed over various details of the running of Kew. Hooker's comments on the dispute with Ayrton not only reveal a great deal about him, but illuminate the wider world of Victorian science, particularly the vexed and long-debated question when, why and how science became a profession. When Ayrton became responsible for Kew he insisted that positions at the gardens be filled by qualified candidates after competitive civil service examinations (the same procedure that was gradually being adopted for all other government positions). Hooker was incensed, convinced that he alone was best placed to select the ideal candidate; he told Darwin that appointments 'are taken out of my hands, & thrown open to *open* competition by Mr Ayrton' – Hooker's emphasis, in the original, clearly reveals what irked him about the process – and added, 'just fancy selecting your Gardeners by such a means' (vol. 20, p. 40). Whether consciously or not, he had equated the government-funded national botanical garden with Darwin's private back garden at Down. Although both were used for botanical research, Hooker seemed to regard Kew as his personal property, perhaps because he had effectively inherited it from his father, William Jackson Hooker, who was the first director of Kew once the government took over its running. William more or less bribed the British government into appointing Joseph to succeed him by promising to leave his enormous herbarium collections to the nation if his son was given the job of caring for them. (In an 1849 letter to his father, Joseph had – presciently – referred to the herbarium as being 'as much my future estates to be cared for by me, as if they were landed property'.) Joseph became director in 1865, following William's death, and continued his father's practice of employing a trusted firm of builders to do whatever work was required at the gardens. Ayrton again ruffled the autocratic botanist's feathers by insisting that all such work be put out to competitive tender and Hooker – predictably – took umbrage, insisting that only he possessed the expertise to specify the botanical requirements for a new hothouse heating system.

In Britain in the nineteenth century (and, arguably, ever since), natural history was generally a lower-status science than the mathematical or physical sciences. Botany (largely thanks to its associations with apothecaries, gardeners and lady flower-painters) was the lowest of the natural-historical sciences and Hooker was extremely sensitive to any slight – real or imagined – either on his reputation or on that of his science. Convinced that Ayrton was out to undermine both, he told Darwin in October that he had 'officially denounced' Ayrton to the prime minister, William Gladstone (vol. 19, pp. 610–611).

Many of the Hooker–Darwin letters in these volumes concern what would become known as the Ayrton affair and they reveal a good deal about the changing Victorian scientific world. Hooker has usually been regarded as one of the young professionalizers of science, a close ally of Thomas Henry Huxley in his campaign to rid the scientific world of patronage and turn it into a meritocracy. Yet Hooker's succession to Kew's directorship was anything but meritocratic (and his son-in-law William Thiselton-Dyer would 'inherit' Kew in due course). And in his campaign against Ayrton, Hooker resorted to the traditional back-door paths of patronage and connections, asking Darwin to use his acquaintance with the royal physician, Sir Henry Holland, to convey

https://doi.org/10.1017/S000708741400020X Published online by Cambridge University Press

a personal letter to his friend Gladstone. Darwin acceded gladly, telling Holland that Hooker was the 'best & oldest friend I have in the world', who had been treated 'shamefully' by Ayrton (vol. 19, p. 642). Meanwhile, Darwin urged Hooker not to resign, telling him, 'I think your duty is to hold on, & bear, as far as a gentleman can, [Ayrton's] rule' (vol. 19, p. 644).

However, Hooker was unable to contain his own rage (even Darwin would later describe him as 'impulsive and somewhat peppery in temper').[1] He told Darwin that he had accused Ayrton of 'telling the Prime Minister a *direct falsehood*' (vol. 19, p. 657, original emphasis). This proved a grave error. Hooker had complained throughout the affair that Ayrton was no gentlemen and did not know how to act like one, yet no gentleman would ever accuse another of lying. Hooker's misjudgement was shaped by his conviction that his scientific status must make him invaluable to the government, but Darwin was less sure; he warned Hooker that politicians 'care so little about scientific men, that they will throw any one over board even for such a scamp as Ayrton' (vol. 19, p. 702). (The contrast between Hooker's description of Ayrton as an 'insensate brute' and Darwin's 'scamp' speaks volumes about the two men's temperaments.)

Darwin was to be proved right. In the summer of 1872 a group of Hooker's friends (led by Huxley, John Tyndall, George Bentham and John Lubbock, whose petition to Gladstone is included in volume 20) brought the Ayrton affair before Parliament. In May, Hooker had told Darwin that his friends were acting with his full knowledge and support, yet 'I so dislike having Kew's dirty linen washed in public' (vol. 20, p. 194). (Again, one senses that he saw Kew as his private garden rather than a public institution.) Darwin's reply was uncharacteristically aggressive: 'Good God how I do hope that they will in the House of Lords pitch into that accursed fellow' (vol. 20, p. 202). A later letter closed with the words 'may all your enemies be cursed, is my pious frame of mind' (vol. 20, p. 256). Hooker was confident that Gladstone would prefer to settle things quietly, rather than have the correspondence published, since in it 'I have officially accused Ayrton of having deceived him (the PM) in a public document' (vol. 20, p. 203). However, a month later he was worried that the prime minister was 'utterly out of temper with my affair', yet vowed to 'hold to my old motto "Servate animam æquam" [keep a cool head] with what tenacity I can, but I need hardly conceal that my mind is hardly philosophical, under the circumstances of the last few weeks!' (vol. 20, p. 256). Hooker should have kept his old motto in mind throughout; despite the press's support for his cause, his accusation that Ayrton had lied resulted in him being forced to apologize and Ayrton's rule continued unaltered. (Hooker gained a distinctly pyrrhic victory in 1874, when Ayrton lost his seat at the general election and never gained another.)

What is fascinating about the incident is that it was clearly Ayrton, not Hooker, who was the professionalizer, keen to cleanse government of any hint of old corruption through competitive examinations and open tenders. By contrast, Hooker resorted to using friends in high places to defend his right to run Kew as if it were his own fiefdom.

1 *The Autobiography of Charles Darwin* (ed. Nora Barlow), London: Collins, 1958, p. 105.

https://doi.org/10.1017/S000708741400020X Published online by Cambridge University Press

(In 1878, the *Garden* magazine complained that 'for years Kew Gardens have formed a snug little preserve – a sort of happy hunting ground for the scientifically inclined members of the Hooker family'.) These letters suggest that Britain's road to a modern, professional society was more crooked and uneven than historians sometimes make it out to be. As this small example shows, the importance and usefulness of these volumes go well beyond the world of Darwin, or even studies of the many forms of nineteenth-century evolutionism. No Victorianist should be without them.

Jim Endersby
University of Sussex

https://doi.org/10.1017/S000708741400020X Published online by Cambridge University Press