I COULD HAVE RETCHED ALL NIGHT

Charles Darwin and His Body

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CELEBRATED VICTORIAN THINKERS usually knew how to arrange their ill health. A day in the life of one prominent man went something like this:

His custom was to work in his official room from 9 to about 2.30, though in summer he was frequently at work before breakfast. He then took a brisk walk, and dined at about 3.30. This early hour had been prescribed and insisted upon by his physician, Dr Haviland of Cambridge, in whom he had great confidence. He ate heartily, though simply and moderately, and slept for about an hour after dinner. He then had tea, and from about 7 to 10 he worked in the same room with his family. . . . He would then play a game or two at cards, read a few pages of a classical or historical book, and retire at 11.... He was very hospitable, and delighted to receive his friends in a simple and natural way at his house. . . . But he avoided dinner parties as much as possible—they interfered too much with his work—and with the exception of scientific and official dinners he seldom dined away from home. His tastes were entirely domestic, and he was very happy in his family. With his natural love of work, and with the incessant calls upon him, he would soon have broken down had it not been for his system of regular relaxation.1

We could be forgiven for thinking that this was a pretty accurate description of Charles Darwin grinding through his days at Down House in Kent. On the contrary, however, it was George Biddell Airy, the astronomer royal: the man who ran professional astronomy in the British empire, president of the Royal Society in 1871, Plumian Professor at Cambridge, director of the university observatory, and author of eleven books; a man who was often extremely ill but whose illnesses barely figure in our collective historical memories.

Anyone can find similar passages in the period's voluminous sets of lives and letters. A great number of Victorian scientists were unwell, some of them worse than Darwin, some less so. All of them, like Darwin, had to negotiate ways

1. Airy, Autobiography, 8-9.

to work while suffering from ill health. He was not alone. Yet even during his own lifetime Darwin's illnesses became something special, something unusual. How many contemporaries worried about Airy's physical troubles, for example? Or Thomas Henry Huxley's? Or Adam Sedgwick's? Darwin was not so much an invalid as a *famous* invalid. More than this, his fame became closely intertwined with what people thought about his invalidism and his intellect.

These intertwinings are still manifest. Few modern readers need reminding of the extensive literature published during recent decades on Darwin's illnesses, ranging from the flurry of interest in the 1950s in possible biological conditions such as Chagas' disease to the psychological and nervous conundrums of the late 1970s and 1980s. All of these come together as a decided genre in medical and historical writing.²

Nevertheless, much of the work on Darwin's medical state tends to limit it self, for one reason or another, to identifying or discussing the conditions from which he may have been suffering. Even the well-known notable exceptions, such as Ralph Colp, George Pickering, and Adrian Desmond and James Moore, focus mainly on the complex interrelations between ill health and Darwin's extraordinarily fertile inner life. Yet the whole question surely cries out for some broader attention to his ailing body as a cultural phenomenon along the lines set out in the other essays in this volume. How did ill health, celebrity status, and brains interlock in the nineteenth century, for example, and how did Darwin's very public life of the shawl mesh with Victorian cultural commitments of wider relevance? Some of the simplest inquiries along these wider lines can be revealing. When did the ordinary man or woman in the street, for instance, realize that Darwin was an ill man? Because their purpose mainly lies elsewhere, neither Pickering's Creative Malady nor Colp's To Be an Invalid can tell us. However, the first public announcement of his unhealthy condition, appropriately enough, seems to be in Darwin's On the Origin of Species (1859). In the introduction, after speaking of his return from the Beagle voyage and of the years spent puzzling over species, the mystery of mysteries, Darwin said his work was nearly finished.

^{2.} Any survey would include the psychological and psychosomatic interpretations as presented by Hubble, "Darwin and Psychotherapy"; idem, "Life of the Shawl"; Keith, Darwin Revalued; Pickering, Creative Malady; Kempf, "Charles Darwin"; and Colp's fine study, To Be an Invalid, which additionally surveys the preexisting literature. In Charles Darwin, John Bowlby opts for hyperventilation Johnston, "Ill-Health," discusses neurasthenia. Darwin's relations with his father are examined by Good, "Life of the Shawl," and Greenacre, Quest for the Father. Chagas' disease is discussed by Adler, "Darwin's Illness," and Bernstein, "Darwin's Illness," and disputed by Woodruff, "Darwin's Health," and Keynes, Beagle Diary, 263, 315. Multiple allergy is proposed by Smith, "Darwin's Ill Health" and "Darwin's Health Problems"; hypoglycemia by Roberts, "Reflections." Darwin would make a good subject for a historical analysis along the lines of Bynum and Neve, "Hamlet on the Couch."

"But as it will take me two or three more years to complete it, and as my health is far from strong, I have been urged to publish this abstract." Deeply symbolic in his choice of moment, Darwin made his bad health a primary reason for publishing the *Origin*, putting his precarious physical state well before any remarks about Alfred Russel Wallace's having arrived at "almost exactly the same general conclusions." Illness therefore became an integral part of the radical text that followed, a persuasive device of the first order. Such an announcement in the *Origin*—on the first page of the *Origin* no less—can take on real meaning in the light of the cultural uses of medicine.

This larger question about Darwin's health and his public renown surely hinges on the way his illnesses were simultaneously experienced, presented, and interpreted—on the way notable men and women apparently integrated their faltering states into more comprehensive campaigns for engaging the attention of the Victorian community. Darwin was certainly, on many occasions, horribly ill. But he was also adept at deploying nearly everything that came to hand for promoting evolutionary theory. This chapter therefore suggests a few avenues that might be explored by considering Darwin's sick body as one further professional resource in a rich repertoire of resources: not so much in the individual sense, where continued unwellness undoubtedly etched his character and notion of self-identity and contributed significantly to his dogged determination to publish, although these were profoundly significant in Darwin's case; and not really in the context of his immediate family environment, which positively reveled in ill health; but much more in relation to the demanding and multifaceted public eye.⁴ In other words, how did Darwin's afflictions enter into the construction of

social relations with his scientific colleagues, with his doctors, and with his readers? How did he feel about it all? Oddly enough, as Dorinda Outram points out in a recent essay, the one thing that is frequently ignored in accounts of bodies is the owner's subjective experience of just such an item.⁵ Darwin seems to have put his body under the Victorian spotlight just as concretely as he presented his mind through the *Origin of Species*. In the process, it seems that this "public" body gradually came to evoke the disembodied quality of thought. Darwin—and Darwin's body—consequently offer a good point of entry into some of the complex forces at play when we try to talk about the presentation of intellectual authority, authority that invariably reaches far beyond the usual framework of printed books.

■ The Illnesses ■

IN COMMON WITH most sick people, Darwin was noticeably conscious of his outer frame and never shy of describing its miseries to intimates. Though his symptoms came and went over the years and varied in intensity, they remained more or less within the same parameters. Putting it succinctly, these were predominantly gastrointestinal. "For 25 years," he wrote, "extreme spasmodic daily & nightly flatulence; occasional vomiting, on two occasions prolonged during months. . . . All fatigue, especially rocking, brings on the head symptoms cannot walk above ½ mile—always tired—conversation or excitement tires me most." 6

The truth was that, as he said to Joseph Hooker and Thomas Henry Huxley, he suffered from incessant retching or vomiting, usually brought on by fatigue; and from painful bouts of wind that churned around after meals and obliged him to sit quietly in a private room until his body behaved more politely. Reading between the lines, his guts were noisy and smelly. "I feel nearly sure that the air is generated somewhere lower down than stomach," he told one doctor plaintively in 1865, "and as soon as it regurgitates into the stomach the discomfort comes on." He was equally forthright with his cousin William Darwin Fox: "all excitement & fatigue brings on such dreadful flatulence that in fact I can go nowhere." When he did go somewhere, he needed privacy after meals, "for, as you know, my odious stomach requires that." 8

^{3.} Darwin, Origin of Species, 1. This sentence remained unchanged through all subsequent editions; see Peckham, Origin: A Variorum Text, 71. Ill health is not mentioned again in any of his publications until a footnote to the introduction to his Variation under Domestication, 1:2: "the great delay in publishing this work has been caused by continued ill health." Otherwise, Darwin rarely discussed his condition except in private correspondence, e.g., Burkhardt and Smith, Correspondence, vols. 2-9, passim. It is clear that he did not deliberately employ illness as a means of engaging public sympathy for his ideas, although the friends to whom he wrote undoubtedly made up a large proportion of the influential, elite scientific community. The image of him as an invalid seems to have been constructed more by the interweaving of private information, his own statements, his acquaintances' statements, and public interest. Reviewers certainly referred to his health in writing about the Origin: for example, W. B. Carpenter, "Darwin on the Origin of Species," in Hull, Darwin and His Critics, 92 ("as soon as his imperfect health should permit"); Heinrich Bronn, review of the Origin of Species, in ibid., 124 ("The author's poor health"); and an anonymous reviewer in the Athenaeum, 19 November 1859, 659 ("sicklied o'er with the pale cast of thought"). Such ill health was codified, as it were, for the public in Darwin's autobiography, in which he talked frankly about continued sickness, first published in F. Darwin, Life and Letters, 1:26-107. This was accompanied by Francis Darwin's reminiscences, which also include references to his father's ill health, ibid., 108-60, esp. 159-60.

^{4.} Described, for example, in Morris, Culture of Pain, and Taylor, Sources of the Self. For the Darwin family's ill health, see F. Darwin, Life and Letters, 1:159–60, and Raverat, Period Piece.

^{5.} Outram, "Body and Paradox." See also her Body and the French Revolution.

^{6.} Medical notes supplied by Darwin to Dr. John Chapman, 16 May 1865, University of Virginia Library, transcribed in Colp, *To Be an Invalid*, 83–84. By "rocking" Darwin means the motion of horse-drawn carriages and railway trains: a nineteenth-century version of travel sickness.

^{7.} Darwin to Chapman, 7 June 1865, University of Virginia Library.

^{8.} Darwin to W. D. Fox, 24 October 1852, transcribed in Burkhardt and Smith, Correspondence, 5:100; Darwin to J. D. Hooker, 17 June 1847, ibid., 4:51.

He also had trouble with his bowels, frequently suffering from constipation and vulnerable to the obsession with regularity that stalked most Victorians. He developed crops of boils in what he called "perfectly devilish attacks" on his backside, making it impossible to sit upright, and occasional eczema. There were headaches and giddiness. He probably had piles as well.⁹

Not surprisingly, when these debilitating signs of weakness arrived in a batch, Darwin felt terribly dejected, almost as if his physical shell was taking over. Despite all the care and attention he lavished on it, the body rebelled: illness was an alien presence that robbed him of his power over himself. "I shd suppose few human beings had vomited so often during the last 5 months," he gasped early in 1864. "It is astonishing the degree to which I keep up some strength. . . . I have had a bad spell vomiting every day for eleven days and some days many times after every meal." "I his body was not particularly pleasant for him to be with. Considerately, he tried to keep it out of other people's way as well. But he was often preoccupied with it to the exclusion of almost everything else in ordinary life. He was sure that such prolonged misery indicated a physiological disorder.

It fell to Joseph Hooker, his botanical friend at Kew Gardens who was previously trained as a physician, to ask the obvious question. "Do you actually throw up, or is it retching?" It was both, Darwin replied, but food hardly ever came up. "You ask after my sickness—it rarely comes on till 2 or 3 hours after eating, so that I seldom throw up food, only acid & morbid secretion." "What I vomit [is] intensely acid, slimy (sometimes bitter), corrodes teeth." Doctors puzzled, he added defiantly.¹²

Hooker did not venture a diagnosis. Nor did Huxley, or any other of Darwin's closest medically trained friends, although they offered constant sympathy and practical advice. They kept themselves out of what might be a difficult situation. Instead, they suggested the names of leading doctors he might wish to consult. Acting on this advice over the years, Darwin sought out a number of London physicians, most of whom he knew by reputation or through his scientific work; the two exceptions were his father, Robert Darwin of Shrewsbury, when he was alive, and Henry Holland, a second cousin on the Wedgwood side. With the usual prerogative of the wealthy classes, he tended to choose doctors with a reputation for having studied some topics in greater detail than usual. In

fact, the variety of Darwin's physicians through the 1860s and 1870s is an interesting theme in itself, one that the continuing publication of his correspondence will reveal in detail. ¹³ Darwin also had more doctors than might be expected, another perquisite of the rich. Like many patients searching for an acceptable diagnosis, he moved constantly among different medical men, trying their remedies and their diets, their purges, mineral acids, and magnesium salts for a couple of months before giving up and turning in despair to another expert and another treatment. In a medical world barely beginning to fragment into specialties, this movement was perhaps inevitable. It was certainly a regular feature of Darwin's life and also of others'.

Such constant medical attention was addictive. In his time, Darwin sought out physicians with an interest in stomachs, skin, urine, blood, nerves, and gout, and on one occasion the entrepreneurial publisher of the *Westminster Review*, John Chapman, who qualified at Saint Andrews medical school when his publishing business tottered and claimed to have found a cure for seasickness and nausea in icebags applied to the spine. ¹⁴ Darwin was very taken with Chapman and his therapy and was sorry when a month's application of icebags along his spine (three times a day for an hour and a half at a time) made no difference to his retching. "We liked Dr. Chapman so very much we were quite sorry the ice failed for his sake as well as ours," wrote Emma Darwin. ¹⁵ Apart from all the other things, Darwin's body was starting to represent an expensive medical investment. ¹⁶

These doctors mostly agreed that Darwin suffered from an intestinal or stomach disorder of a chronic recurrent nature, probably involving the nerves supplying the gut. Darwin's rapid trajectory through them reveals something of his own belief that his nervous system, his brain, and his stomach were uniformly implicated—if one doctor neglected to include all the elements he felt were failing he soon moved elsewhere for another opinion. From very early on, he believed that too much work brought on bouts of vomiting: that "the noddle and the stomach are antagonistic powers." As a Darwin aunt said, "his health is

^{9.} Darwin's symptoms, and the various remedies and treatments he tried over the years, are fully described by Colp, *To Be an Invalid*, esp. 109–44.

^{10.} Darwin to Hooker, 27 January 1864, Cambridge University Library, Darwin Archive (hereafter DA) 115:217. For illness as an alien presence, see particularly Leder, *Absent Body*, and Shilling, *Body and Social Theory.*

^{11.} Darwin to Hooker, 5 December 1863, DA 115:213.

^{12.} Hooker to Darwin, 5 February 1864, DA 101:180; Darwin to Hooker, DA 115:219.

^{13.} Burkhardt and Smith, *Correspondence*, vols. 1–9, which cover the years 1821 to 1861. The entire correspondence is listed in summary form in Burkhardt and Smith, *Calendar*, See also F. Darwin, *Life and Letters*, and Darwin and Seward, *More Letters*.

^{14.} Nausea (including seasickness), according to Chapman's theories, was caused by a rush of blood to the spinal cord. See Chapman, Sea Sickness and Neuralgia, for what he calls neuro-dynamic medicine, and Haight, George Eliot and John Chapman, 113–16.

^{15.} Emma Darwin to Hooker, 18 July 1865, DA 115:272v.

^{16.} From September 1862 to September 1863, for example, his expenditure on medical treatment was £129 11s. 6d. Compare this with around £50 for "Science," £10 for "Books," and £158 for "Manservants." The following year was less expensive at £56 4s. 10d. Darwin's Classified Account Books, Down House Archives, Kent.

always affected by his nerves." 17 Some physicians, like William Brinton, the eminent physiologist, called his condition dyspepsia and prescribed magnesium to counteract excess acid secretions. 18 Others, like Henry Bence Jones, thought the problem more to do with the physiology of digestion indicating an imbalance of acids and alkalies in the blood-what Bence Jones and Henry Holland called "suppressed gout," a state defined by them as too much uric acid remaining in the blood.¹⁹ So Darwin had his urine tested, followed Bence Jones's special diet, and dosed himself with colchicum, a dangerously corrosive specific for gout.20 Dr. Chapman treated the base of his spinal cord with ice. Dr. Gully at the Malvern water cure treated the top of it with cold water.21 Dr. Lane at Moor Park and then Dr. Smith at Ilkley sat him in freezing hip baths.²² Dr. William Jenner prescribed podophyllum and other drastic purgatives. Dr. George Busk thought the problem was primarily mechanical—the stomach did not push on its contents as rapidly as it ought to.²³ On the other hand, Dr. Engleheart, the physician in Down village, told Darwin to look to his drains. Almost despairing of a cure, he eventually sent some vomit on a slide to John Goodsir for him to search for pathogenic vegetable spores and was disappointed to hear there were none.24 It seems probable that toward the end he was suffering just as much from overmedication and a surfeit of conflicting advice as from his own special combination of physical disorders and medical neuroses.

Darwin's doctors also acknowledged the importance of his nervous system and tactfully dealt with his delicate mental constitution as well as they could. In the post-*Origin* years, they knew they were dealing with a famous thinking man, however modest and unassuming in personal demeanor. It was important for

17. Litchfield, Emma Darwin, 2:142.

18. Brinton was prominent in the field of stomach disorders. Darwin recorded paying ten guineas for a consultation on 22 November 1862 (Account Book, Down House Archives). See also Darwin to Hooker, 10 November 1863, DA 115:208.

19. Jones, On Gravel, discusses the role of diet in diminishing nonnitrogenous principles in the blood. See also his Animal Chemistry. Holland, Medical Notes, 239–69, discusses gout more generally. "Latent" gout was a common diagnosis in midcentury and was understood as a metabolic disorder characterized by raised uric acid in the blood with few obvious clinical features; see Colp, To Be an Invalid, 109–12, 236, and Porter and Rousseau, Gout.

20. Holland, *Medical Notes*, 258–69, and Scudamore, *Colchicum Autumnale*. On colchicum's injurious effects, see Rennie, *Observations on Gout*. William Jenner prescribed "enormous quantities of chalk, magnesia & carb. of ammonia"; Darwin to Hooker, 13 April 1864, DA 115:229.

21. Gully, The Water Cure, and Browne, "Spas and Sensibilities."

22. Colp, *To Be an Invalid*, and Burkhardt and Smith, *Correspondence*, vols. 6 and 7, passim. For general accounts of hydrotherapy, see Metcalfe, *Hydropathy*, Turner, *Taking the Cure*, and Rees, "Water as a Commodity."

23. Busk to Darwin, October 1863, DA 170.

24. Goodsir to Darwin, 21 August 1863, 26 August 1863, and 28 August 1863, DA 165.

both physician and patient to reach a diagnosis they felt mutually comfortable with; and that therapy should err on the side of professional caution. No one wanted to go down in history as the man who killed the Newton of nineteenthcentury biology. It was not so many years earlier that Sir Richard Croft, accoucheur to Princess Charlotte, had committed suicide after the princess's unfortunate death in childbirth in 1818.25 Bence Jones, for example, recommended the traditional upper-class remedy of a change of scene. Failing that, he said, Darwin should "get a pony and be shaken once daily to make the chemistry go on better." 26 This Darwin did, and enjoyed the exercise until a riding accident required that he should call it a day. Perhaps some yachting, Bence Jones blithely proposed a year or two later. Mental distraction, he thought, was a crucial part of the answer. Andrew Clark reiterated the same instructions in a different form. "Do not notice your own sensations . . . struggle to avoid self-scrutiny & selfconsciousness." 27 Above all, he said, try to relax and take time off from the punishing self-imposed schedule of scientific work. But Darwin dismissed these suggestions. His work, he claimed, was the only thing that took his mind off his sickness; and in later life, a game of billiards.

However prominent they were, these physicians evidently found it difficult to be blunt with him; in Darwin's case the customary negotiation between doctor and patient had to accommodate his intellectual status as much as anything else.²⁸ And naturally enough, the doctors wanted to keep Darwin's custom. Andrew Clark, for instance, in his eagerness to become a great man's physician, nearly overstepped the mark early in their medical relationship. In 1873 he felt it necessary to write an abject letter to Darwin apologizing for "pushing too close." Nevertheless, he said, he hoped one day to be of service.²⁹ During the late 1870s he achieved that aim in becoming Darwin's primary physician, warmly praised by Francis Darwin in his edition of Darwin's *Life and Letters*, and eventually attending Darwin on his deathbed. It must have been daunting, furthermore, for these men to find themselves simultaneously sucked into Darwin's scientific projects. "Can you persuade the resident doctor in some hospital," Darwin asked James Paget when consulting him on his own behalf, "to observe a person retch-

25. Price, Critical Inquiry.

27. Clark to Darwin, 8 July 1876, DA 210:21.

^{26.} Henry Bence Jones to Darwin, 10 February 1866, DA 168. See also Jones to Emma Darwin, 1 October 1867, and Jones to Darwin, 2 August 1870, DA 168.

^{28.} Detailed analyses of the interrelations between doctors and patients are given by Peterson, The Medical Profession, Porter, Patients and Practitioners, Digby, Making a Medical Living, and Oppenheim, "Shattered Nerves."

Clark to Darwin, 3 September 1873, DA 161. In the same letter he reports that Darwin's urine was loaded with uric acid but showed no albumin—a favorable diagnosis.

ing violently, but throwing nothing from the stomach." Darwin wanted to know whether tears came to their eyes, a trait he was investigating for the *Expression* book. "From my own personal experience I do think that this is the case." ³⁰ In his usual methodical way, he made his illnesses, and his intellectual project, inseparable from the more general problem of being treated by medical experts.

Still, as Pickering, Colp, and others have noted, Darwin's illnesses usually took the external form that would be most useful.³¹ A weak stomach was a very good reason for avoiding dinner parties, much better than an attack of rheumatism or unmentionable boils. Repeated vomiting after a train journey was well suited to avoiding trips to London. A night of retching after ten minutes' talk was a valid obstacle to prolonged social activity: half an hour with Ernst Haeckel, or even close friends like Hooker, Huxley, or Lyell, or any selection of agreeable Down House neighbors, could literally make Darwin sick. Many of Darwin's disabilities were, in this sense, socially relevant ones. Much of their circumstantial value lay in their diversity, applicability, and lack of diagnosis. Such illnesses, as novelists like Jane Austen and Elizabeth Gaskell readily recognized, act as a mode of social circulation as well as instruments of domestic tyranny. Perpetually ailing and complaining, *Emma*'s Mr. Woodhouse was the focus of some of Austen's most pointed observations.

Darwin took advantage of his versatile failings. In the most general manner, of course, his avowed need to stay quiet allowed him to keep apart from the controversies surging around the *Origin*. Ill health permitted him to discourage all but the most wanted visitors to Down House and to choose whom he saw when he went into London. It allowed him to fall asleep during piano recitals and novel readings. It excused him from boring evenings at scientific societies. It sanctioned his retreat after dinner (with the ladies) instead of sitting up with cigars and wine in masculine company. In these subtle ways, he let ill health carry the brunt of displaying a preoccupation with other, more intellectual concerns: a nineteenth-century counterpart to ascetic philosophers described here by Shapin (chapter 1) who gave themselves up wholly to the search for truth. Like them, Darwin's belly was at the opposite pole to mentality. The poet William Allingham got it just right when, after meeting Darwin in 1868, he said that: "he has his meals at his own times, sees people or not as he chooses, has invalid's privileges in full, a great

help to a studious man." ³² Other passing acquaintances were less impressed. "Why drat the man," said old Mrs. Grote at Chevening Court, "he's not as bad as I am." ³³

Ill health also helped turn Darwin's absences into a statement. It provided a reason for not going into London to receive the Royal Society's Copley Medal in 1864, the award that generated intense debate in the council on whether the *Origin* should be acknowledged or not.³⁴ If it was acknowledged, as Darwin's friends in the council demanded, Huxley believed there would be a public reprimand from the president about the book's dangerous opinions and promised Darwin that he would provide a spirited defense. Too ill to go, Darwin sent Hugh Falconer (his proposer) and his brother Erasmus Alvey Darwin along instead. They all knew why. "What a pity you can't be there," Erasmus wrote sardonically. "And yet if you were it could not be done so well." 35

Darwin employed the same panic-stricken tactic when his old friend and professor, John Stevens Henslow, was at death's door.

I write now only to say that if Henslow . . . would really like to see me I would of course start at once. The thought had [at] once occurred to me to offer, & the sole reason why I did not was that the journey, with the agitation, would cause me probably to arrive utterly prostrated. I shd be certain to have severe vomiting afterwards, but that would not much signify, but I doubt whether I could stand the agitation at the time. I never felt my weakness a greater evil. I have just had a specimen, for I spoke a few minutes at Linnean Society on Thursday & though extra well, it brought on 23 hours vomiting. I suppose there is some Inn at which I could stay, for I shd not like to be in house (even if you could hold me) as my retching is apt to be extremely loud.³⁶

Not many people could persist in asking Darwin to visit after receiving a letter like that. By staying away, the implication goes, he was helping Henslow

^{30.} Darwin to Paget, 4 June 1870, Wellcome Institute for the History of Medicine, London, Western MS 5703, item 38. For Darwin's theories of expression, see his *Expression of the Emotions*.

^{31.} Pickering, *Creative Malady*, 71, 77–80, Colp, *To Be an Invalid*, 122–26, 141–44. Useful accounts in this area are given by Berrios, "Obsessional Disorders," Bynum, "Rationales for Therapy," Inglis, *Diseases of Civilization*, Lopez Pinero, *Neurosis*, and Sicherman, "Uses of Diagnosis." See also Wiltshire, *Jane Austen and the Body*, and Bailin, *The Sickroom in Victorian Fiction*.

^{32.} Allingham, *Diary* (7 February 1868), 185.

^{33.} George Darwin's reminiscences, DA 112 (ser. 2): 23.

^{34.} Bartholomew, "Copley Medal," and MacLeod, "Of Medals and Men." See also F. Darwin, *Life and Letters*, 3:27–28; and Erasmus Alvey Darwin to Darwin, 9 November 1863, DA 105 (ser. 2): 13.

^{35.} E. A. Darwin to Darwin, undated 1864, DA 105 (ser. 2); 33. The proposal and citation were prepared by Falconer, who wished to mention Darwin's illness: "Dr Falconer... wants dates of your voyage. Also, what I should think would not be judicious to bring forward, when your sickness came on & how long it lasted & whether in consequence of it FitzRoy persuaded you to give up the voyage." E. A. Darwin's health was not mentioned in the published citation for the award.

^{36.} Darwin to Hooker, 23 April 1861, DA 115:98.

far more than if he arrived. In both instances, if only for a critical moment, his body's significance lay in its absence. There are many other examples in his correspondence.

It appears too easy then to write off all these complaints as mere hypochondria, although a strong dash of it definitely ran in the family. Darwin was as much aware of the family foible as anyone and perfectly capable of joking about it with his wife and relatives. His sister Caroline, he would say, was intensely irritating when she became heroic about her illnesses: he and Emma much preferred people speaking up.³⁷ Equally, it was Erasmus Alvey Darwin, Darwin's older brother, who was considered the irretrievable family hypochondriac, not Darwin. This Erasmus Darwin was a witty, cynical man, enjoying what he called his misanthropy in Marlborough Street. "I have been lying on the sofa in a state of utter torpor," he wrote once. "I mean to go out today to see if I am well or not . . . If the present beautiful weather continues I shall be compelled to go and be happy in the country but at present I prefer being miserable in London." ³⁸

Darwin's bulletins about his own symptoms need to be fitted into this gently self-mocking and intelligent family pattern. "Charles came up yesterday," said Erasmus, "and went out like a dissipated man to a tea party." We need to remember that people can have a sense of humor about illness, which they sometimes direct at themselves. When Darwin signs himself at the end of a letter as "your insane and perverse friend," he does not mean it literally.

It appears almost too easy, as well, to assume that all these illnesses were somehow a consequence of Darwin's deep-seated anxieties about evolutionary theory and its religious consequences. We seem to expect individuals with radical new ideas to be tormented by them to the exclusion of other anxieties—other anxieties we retrospectively perceive as having lesser importance. We are probably right to expect a great deal of that mental conflict to emerge as illness. But for the sake of argument, Darwin's nights of retching might just as well be related to financial preoccupations as to any known personal crisis about the metaphysical implications of his theories. Although he was rich, he invariably worried about where his next penny was coming from. The ups and downs of his investments in railway stock, the tortuous ramifications of family trust funds, and profit-sharing arrangements with the publisher John Murray, for example, often coincided with his best-documented bouts of sickness. One very bad attack came a year or two after establishing his eldest son, William, as a partner in

a privately owned bank in Southampton, which had required Darwin, as his father, to promise £10,000 as security against a run on deposits. In 1863, when Darwin became ill, an act of Parliament was passed allowing the establishment of joint-stock banking concerns that spread the risk and promised only limited liability for its members, a new state of affairs which jeopardized William's oldstyle partner-led syndicate. At the same time, railway amalgamations were creating vast, unregulated monopolies by swallowing up many of the smaller companies in which Darwin had a stake; and interest rates on cash capital that year were particularly unstable.³⁹ Darwin was a cautious investor, keen to avoid risks. The prospect of gambling his substantial fortune, and the future inheritances of his children, on the vagaries of the City of London and nebulous entities like public confidence was, to him, a very serious question. Only a few years before, his own London bank, the Union Bank, temporarily collapsed after an immense fraud carried out by a clever clerk.⁴⁰

Alternatively, or simultaneously, his illnesses may well have acted as a mediator in married life—something we are closely attuned to in accounts of literary couples like Robert and Elizabeth Browning, Thomas and Jane Carlyle, and Charles and Catherine Dickens but seemingly ignore when dealing with an evolutionist.⁴¹ He might have been dismayed about getting old, or going bald, or about the lack of future occupations for his unhealthy sons and daughters. There was the Civil War in North America and the implications of continued slavery to worry about. If Darwin had been a famous *female* invalid, moreover, like Harriet Martineau, Florence Nightingale, or Ada Lovelace as described here by Alison Winter (chapter 6), our interpretation of the disorders would also be very different.⁴² If he had been plain old Professor Airy, his illnesses would not be

^{37.} Burkhardt and Smith, Correspondence, 2:314.

^{38.} E. A. Darwin to Frances Wedgwood, Wedgwood/Mosely Collection, Keele University Library.

^{39.} English law confined the number of partners in a bank to six until the Joint Stock Banks and Companies Act of 1863 allowed some redistribution of the risk in the wake of the crashes of 1857–58. See Anderson and Cottrell, *Money and Banking*. For railways, see Barker and Savage, *An Economic History of Transport*, 87.

^{40.} These financial details are drawn from the Annual Register, 1863.

^{41.} See, for example, Markus, *Dared and Done*, and Checkland, *The Gladstones*. General analyses are in Wohl, *The Victorian Family*; Graham, *Women, Health and the Family*; Peterson, *Family Love*; Davidoff and Hall, *Family Fortunes*. In some ways Darwin and his wife reversed the customary roles of the "weak" woman and "strong" man while still expressing much of their relationship through the preoccupations of invalid and nurse. For comments on the ways in which ideas of male health were based on self-control and of female ill health on an inability to control the body, see Shuttleworth, "Female Circulation."

^{42.} For example, Cooter's study of Martineau, "Dichotomy and Denial," Pickering on Nightingale, Creative Malady, 122–77, and Micale, "Hysteria Male/Hysteria Female." See also Edel, Diary of Alice James, and Trombley, All That Summer She Was Mad. Interpretations of women's diseases are discussed in Bailin, The Sickroom in Victorian Fiction, 17–19, Digby, "Women's Biological Straitjacket," Wood, "Fashionable Diseases," Ehrenreich and English, Complaints and Disorders, and Figlio,

interesting in the wider sense at all. And have we really eliminated the possibility of a long-lasting subclinical problem or constellation of problems? It is not doing full justice to the richness and complexity of Darwin's situation to opt for one or another "cause" without careful analysis of what we really wish to claim about medical embodiment. As Rob Iliffe stresses in chapter 4, in the case of Isaac Newton, richly diverse sets of discourses can envelop one and the same individual.

■ The Body ■

NONETHELESS, DARWIN was acutely aware of his body and all its failings. It was the primary focus of his attention. It was the focus of his friends' and doctors' attention. It dominated the domestic arrangements of his wife and family. It was something he told the readers of the Origin about. And he found it a useful device for avoiding tiresome social obligations and unpleasant scientific controversy. Darwin's ill health was doing a lot of "work" in the modern sense. Yet at the same time it remains difficult to say precisely how this ill health materially contributed to his special genius. Personally, he recognized that too much study made him ill. But equally, he claimed that he was capable of dissociating himself from his physical disorders only through abstract thought.⁴³ In terms of the simple dualism that attracted and helped many Victorian invalids through their daily lives, Darwin, so to speak, invariably rose above the malfunctions of the flesh to engage in what his contemporaries celebrated as an extraordinarily active life of the mind. Where some intellectuals displayed their intellectuality by neglecting their bodies, as Shapin (chapter 1) and Iliffe (chapter 4) demonstrate, and the physicians described here by Christopher Lawrence (chapter 5) carefully evoked the physical image of a learned gentleman, Darwin's "disembodiment" emerged out of a determined, and in time heroic, conquering of his inadequate frame. As all the essays in this volume variously show, this too is what we would call "work." 44

Even so, few historians ask how far that idea of personal dissociation, the triumph of mind over matter, filtered into the public realm and became part of what people thought about Darwin. What were Victorian men and women offered in the way of visual information about his mind and body? Did they see intellect or illness?

Judging from the mass-reproduced photographs available in archive collections, they principally saw a well-to-do gentleman in dark, sober suits, a gentleman with little regard for fashionable taste (figs. 7.1–7.3). He always wears warm clothes, sometimes a cape or an overcoat on top, a waistcoat underneath, perhaps a scarf draped over the shoulders, a felt hat. He is mostly sitting down. There are no symbolic props to supply clues about the figure's special calling: no books open on the knee, no microscope, no dogs or plants beside his chair, no spectacles on the nose. His accoutrements, or his lack of accoutrements, tentatively suggest a philosopher—a careworn and modest philosopher at that.⁴⁵ Yet he could as easily be a member of any one of a number of solidly prosperous Victorian professions: a university don or schoolteacher, a member of Parliament, a banker, a lord, or a country gentleman.⁴⁶

Such photographs are not often reproduced in twentieth-century histories and biographies—they are not sufficiently striking to appeal to modern tastes or perhaps do not fully resonate with what is now expected of a Darwin illustration. But they were how Darwin presented himself to his public. Figures 7.1 through 7.3, for example, were taken expressly to cater to the surge of contemporary interest in portrait photography and served a specific public purpose. Darwin, as much as anyone, was gripped by the craze for exchanging cartes de visite with his correspondents. By 1865 or so photographic technology in Britain, France, and America had diversified sufficiently to allow the mass production of studio portraits on small cards, often incorporating a facsimile of the sitter's signature. Darwin posed several times for cards like these and made use of them as a kind of autograph to send through the post.

What is perhaps less well known is just how much commercial activity surrounded the carte de visite business.⁴⁷ Professional photographers naturally supplied the sitter with a few packets of cards for private use. But they also sold

[&]quot;Chlorosis and Chronic Disease." See also Bynum, "The Nervous Patient"; Micale, Approaching Hysteria; and Oppenheim, "Shattered Nerves." Authoritative studies of bodies and gender can be found in Ehrenreich and English, For Her Own Good; Schiebinger, Nature's Body, Vicinus, Suffer and Be Still; Gallagher and Laqueur, The Making of the Modern Body; Laqueur, Making Sex; and Jordanova, Sexual Visions.

^{43.} Leder, Absent Body.

^{44.} See particularly Haley, Healthy Body; Goffman, Presentation of Self; Gilman, Disease and Representation; and idem, Health and Illness. General studies of the field are Turner, Body and Society; and Porter, "History of the Body." See also Outram, "Body and Paradox."

^{45.} Clarke, The Portrait in Photography; Linkman, The Victorians; Piper, Personality and the Portrait; Fyfe and Law, Picturing Power; and Tagg, The Burden of Representation. Other forms of visual presentation are discussed in Adler and Pointon, The Body Imaged; Stafford, Body Criticism; Porter, "Bodily Functions"; Lynch and Woolgar, Representation in Scientific Practice; Goffman, Presentation of Self; Gilman, Seeing the Insane; and Cowling, The Artist as Anthropologist. Symbolism in early portraiture is analyzed in Gent and Llewellyn, Renaissance Bodies. Photographic imagery is thoroughly discussed in Fox and Lawrence, Photographing Medicine; Edwards, Anthropology and Photography; and Weaver, British Photography.

^{46.} Cunnington and Cunnington, Handbook of English Costume. The clothes of less prosperous groups are illustrated in Cunnington and Lucas, Occupational Costume. See also Hollander, Seeing through Clothes; and Harvey, Men in Black.

^{47.} The rise of commercial portrait photography is discussed by Bolas, The Photographic Studio; Prescott, "Fame and Photography"; and Darrah, Cartes de Visite. See also Lee, "Victorian Studio; Prescott, "Fame and Photography"; and Darrah, Cartes de Visite. See also Lee, "Victorian Studio; Prescott, "Fame and Photography"; and Darrah, Cartes de Visite. See also Lee, "Victorian Studio; Prescott, "Fame and Photography"; and Darrah, Cartes de Visite. See also Lee, "Victorian Studios, "Prescott, "Fame and Photography"; and Darrah, Cartes de Visite. See also Lee, "Victorian Studios, "Prescott, "Fame and Photography"; and Darrah, Cartes de Visite. See also Lee, "Victorian Studios, "Prescott, "Fame and Photography"; and Darrah, Cartes de Visite. See also Lee, "Victorian Studios, "Prescott, "Fame and Photography"; and Darrah, Cartes de Visite. See also Lee, "Victorian Studios, "Prescott, "Prescott,

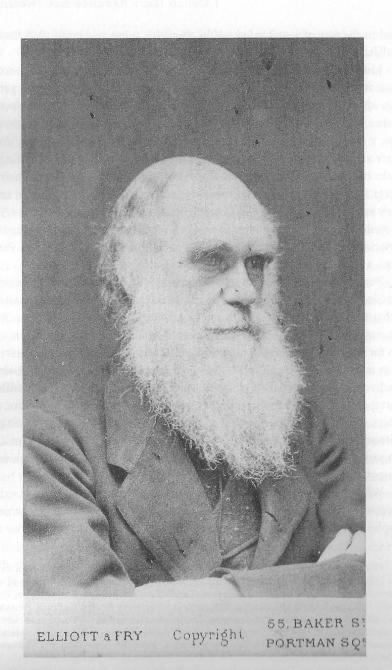


FIGURE 7.1. Charles Robert Darwin. Carte de visite by Elliott and Fry, ca. 1878. These cartes de visite became hugely popular after 1865 and brought likenesses of scientific authors before a wide general public. They were sold in photographic shops as well as distributed privately by the sitter. Note the copyright label. Courtesy Wellcome Institute Library, London. V0026271B00.

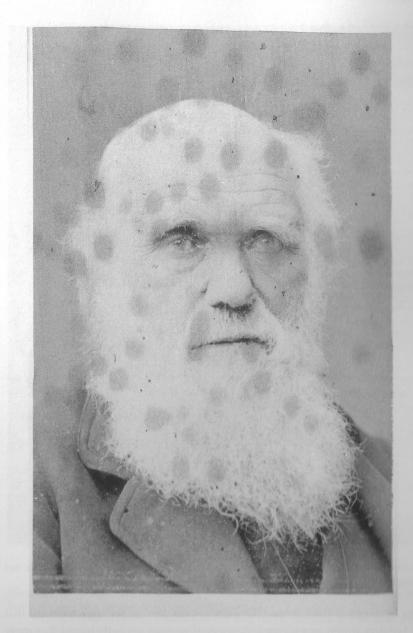


FIGURE 7.2. Charles Darwin. Carte de visite by Barraud, possibly December 1881. The photograph's condition is poor. Many agencies built up a lasting professional reputation by taking portrait photographs of famous Victorians. Courtesy Wellcome Institute Library, London. V0028472B00.

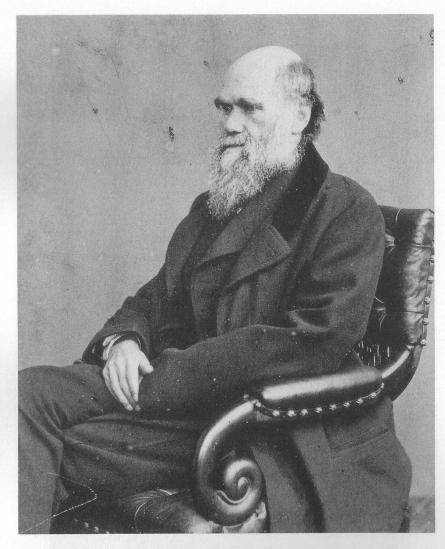


FIGURE 7.3. Commercial photograph of Darwin, copyright to the London Stereoscopic and Photographic Company. Courtesy Wellcome Institute Library, London. V0026271B00.

them for profit in their shops. The *Photographic Journal* for 1862 recorded that one London studio was selling £50 worth of portrait cards daily and that more than fifty thousand items passed through the hands of another dealer in a single

month.⁴⁸ "The public are little aware," said a surprised author in *Once a Week*, "of the enormous sale of the *cartes de visite* of celebrated persons. An order will be given by a wholesale house for 10,000 of one individual—thus £400 will be put into the lucky photographer's pocket who happens to possess the negative." ⁴⁹ Not surprisingly, a photograph of Darwin after the *Origin of Species* was published was a sound commercial proposition. In October 1862, the photographer Polyblank (of Maull and Polyblank) wrote to Darwin, via Erasmus, asking for general permission to reproduce and sell the one taken by the firm some years earlier. Erasmus reported to Darwin that "Polyblank says that for some he has a general order to sell & for others he requires special permission so I shd. think you might as well give a general order as it is a good photograph." ⁵⁰

Furthermore, the shop windows where these pictures were displayed, said one literary magazine, were better than the National Portrait Gallery (itself only opened in 1859)—more egalitarian, for one thing, where an engineer could be seen beside the queen of Naples, or Mrs. Fry cheek by jowl with Lord Brougham. Or Huxley and Samuel Wilberforce, if we did but know it. Coming to the same conclusion from a different angle, the *London Review* ran an article entitled "The New Picture Gallery" criticizing the lack of artistic merit in such cartes de visite.

Darwin resisted the craze for several years before capitulating to having his own cartes de visite made. Before then he sent out copies of a photograph taken by his son William, a keen amateur photographer whose hobby was financed by Darwin. But as the swapping and requests for pictures accumulated, he had his cartes made and updated them every few years thereafter. He also started his own album in 1864 for mounting the photographs sent in return by scientific friends.⁵¹ In the process, Darwin became aware of his own value as a public image, though unassuming and diffident about it on most occasions.

Even the earliest nonphotographic portrait of him was relatively widely distributed. The well-known study by Thomas Maguire, a lithographic print taken from life in 1849, was from the outset a commercial project (fig. 7.4).⁵² This was

dio"; Pritchard, "Commercial Photographers"; and Welford, "Cost of Photography." In 1856 Maull and Polyblank charged 5s. for an albumin print, 8×6 inches. Three cartes de visite cost 2s. 6d. from Ernest Edwards in the mid-1860s.

^{48. &}quot;Miscellanea," The Photographic Journal, 15 March 1862, 21.

^{49.} Wynter, "Cartes de Visite," 376. See also "Commercial Photography," *British Journal of Photography*, 2 January 1867, 47. According to anecdote, five thousand portraits of John Wilken Booth were sold after the assassination of Abraham Lincoln.

^{50.} E. A. Darwin to Darwin, undated, October 1862, DA 105 (ser. 2): 9. It is not clear to which photograph he refers although judging from the wide circulation of a number of subsequent reissues, it was probably the one with checked trousers (fig. 7.10). See note 56.

^{51.} The whereabouts of this album is unknown.

^{52.} T. H. Maguire, the Irish painter and lithographer, was appointed lithographer to the queen in 1851 and subsequently took portraits of Prince Albert and the royal children. Throughout his career he exhibited genre scenes at the Royal Academy, eventually issuing *The Art of Figure Drawing* in 1869.



FIGURE 7.4. Lithograph of Darwin, 1849, by Thomas Maguire for the British Association series, published 1851. Prints were produced in sufficient numbers to make the project a commercial one. Darwin's dress and pose emulate the masculine sobriety of his friends Henslow and Lyell in the same series (figs. 7.7 and 7.8). Courtesy Wellcome Institute Library, London. V0001461B00.

one of a series of fifty or so portraits of scientists taken in honor of a British Association meeting at Ipswich in 1851. The series was conceived by George Ransome, the head of the agricultural machinery company and local secretary of the association meeting, as a paying venture to mark the Ipswich occasion and the opening of the Ipswich Museum.⁵³ Some sitters were drawn twice; and multiple prints and sets were offered for sale both at that time and later. Prints were still circulating in the commercial sense as late as 1864 when Darwin was offered two "most beautiful" proof impressions of his own portrait for 7s. 6d.⁵⁴

In the Maguire portrait Darwin appears prosperous and confident, not at all ill in his outward appearance. However, more modish philosophical gentlemen of the period looked quite different, usually sporting a fashionably "lank" hairstyle, a shortened form of frock coat, and a stock fastened with a tiepin (fig. 7.5). In the same Maguire series, Edward Forbes, a romantic philosophical naturalist, adopted the latter style as a badge of his poetic predisposition, possibly also as a sign of his French and German scientific affiliations (fig. 7.6). In choosing the clothes and masculine pose that he did, Darwin patently aligned himself with the sturdy, no-nonsense faction of nineteenth-century scientific life represented by men such as Henslow, Sedgwick, and Lyell (figs. 7.7 and 7.8).

The first commercial photograph of Darwin was taken in the studio of Henry Maull in 1855 or so—the first readily reproduced photographic image of him, so to speak (fig. 7.9). This was semipublished in the sense that Maull released it as part of a set of photographs under the title of *Literary and Scientific Portrait Club* (published in parts from around 1854). Darwin thought it made him look "atrociously wicked," ⁵⁶ and it is not known if he ever ordered any duplicates for private use: there are none in the Darwin archive at Cambridge,

^{53.} There is no record of a direct payment to Maguire in Darwin's Account Book of 1849–51, although he recorded payment, on subscription, to the portraits of the bishop of Norwich and George Ransome in the same series. A sum of £1 6d. was paid to Lovell Reeve, the publishers of the series, on 17 November 1849.

^{54.} E. A. Darwin to Darwin, 9 April 1864, DA 105 (ser. 2): 25.

^{55.} Cunnington and Cunnington, *Handbook of English Costume*; and Lurie, *The Language of Clothes*. Shortland, "Bonneted Mechanic," addresses the theme of dress in greater detail.

^{56.} This set of photographs was issued on subscription, loose in a folder. A copy is preserved at the National Portrait Gallery, London. The exact date of the first photograph (fig. 7.9) is difficult to ascertain. Freeman, Companion, 97, gives a tentative date of ca. 1854. However, a sitting to Maull in 1855 is apparently confirmed in Burkhardt and Smith, Correspondence, 5:339, with a payment to Maull and Polyblank of £3 1s. 6d. in Darwin's Account Book, 31 December 1855, Down House Archives. The set is discussed in Prescott, "Fame and Photography." Some later engravings of this photograph incorporate the date 1854; this date cannot be independently substantiated. Francis Darwin thought the second photograph (fig. 7.10) was also taken in 1854 and reproduced it as such as the frontispiece to Life and Letters, vol. 1. For the dates of Maull's various partnerships, see Pritchard, Directory of London Photographers.



FIGURE 7.5. Costume plate, 1840. Note the longer hair, modish frock coat, and soft cravat, all indicative of poetic, intellectual style. From Cunnington and Cunnington, *Handbook of English Costume in the Nineteenth Century*, published by Faber and Faber Ltd. Copyright © The Estate of Cecil Willett Cunnington and Phillis Cunnington, 1959.



FIGURE 7.6. Edward Forbes. Lithograph by Thomas Maguire for the British Association series, 1849. Forbes's dress, which includes an academic gown, and his pose, including a plant, suggests his allegience lay with the poets, as in fig. 7.5. Courtesy Wellcome Institute Library, London. V0001959B00.

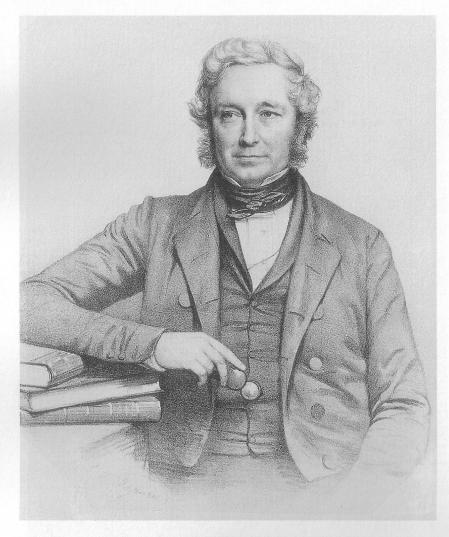


FIGURE 7.7. John Stevens Henslow. Lithograph by Thomas Maguire for the British Association series, 1851. Henslow looks every inch the sturdy university professor. Courtesy Wellcome Institute Library, London. V0002695B00.

for example, and very few sets of the original publication have survived. The second photograph, taken a short while later by the same firm, was generally the one he preferred and this, once taken, became something to send out to friends (fig. 7.10). The general effect of the second photograph is strikingly polychromatic. Darwin wears a necktie, waistcoat, and trousers in the noisy checks which

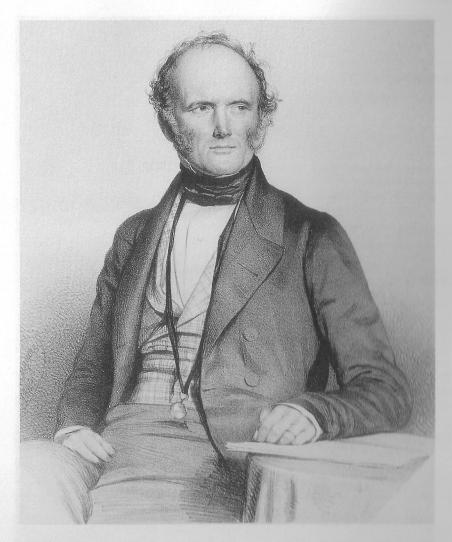


FIGURE 7.8. Charles Lyell. Lithograph by Thomas Maguire for the British Association series, 1851. In these Maguire portraits, Henslow, Darwin, and Lyell reveal something of their scientific calling by the glasses, either in hand or slung on a ribbon around their necks. Courtesy Wellcome Institute Library, London. V0003723B00.

were greatly favored toward 1860, usually dubbed "Great Exhibition" checks. Once again he did not bother with scientific props. Other men, perhaps less certain of their status, or with more avowedly polemic things to express, were less retiring. Richard Owen, the comparative anatomist, posed with a bone, Michael Faraday with his scientific apparatus and bench, Alexander von Humboldt in his

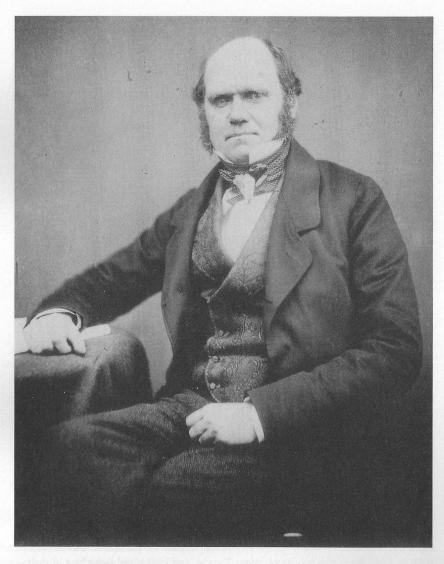


FIGURE 7.9. Charles Darwin. Photograph ca. 1855 by Maull and Polyblank. This was photographed for a series, and distributed by subscription in parts, with a brief accompanying letterpress. Darwin felt he looked "atrociously wicked." There are no complete sets left in existence. From Maull and Polyblank, *Literary and Scientific Portrait Club*. Private collection.

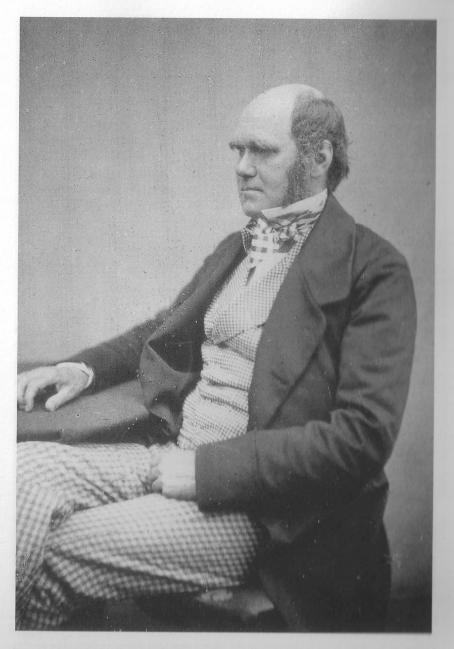


FIGURE 7.10. Charles Darwin. Photograph ca. 1857 by Maull and Polyblank. Darwin much preferred this photograph and purchased it in several sizes and formats over a number of years. Maull also made it into a commercial carte de visite after the *Origin of Species* was published. Courtesy Wellcome Institute Library, London.

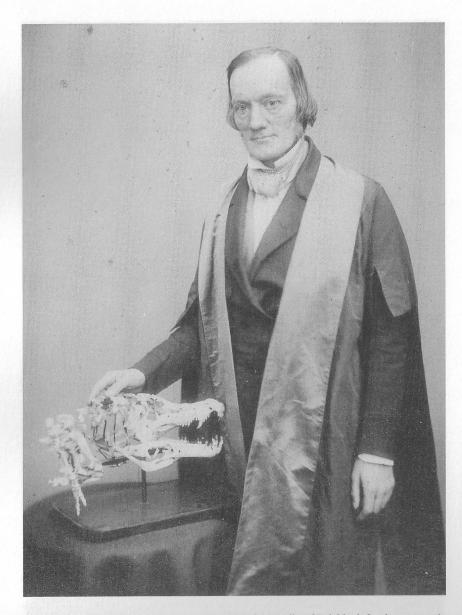


FIGURE 7.11. Richard Owen. Photograph ca. 1856 by Maull and Polyblank for the same series as fig 7.9. Conscious of his position in natural history circles, Owen invariably wore his Royal College of Surgeons gown in portraits. In this photograph he is also accompanied by an obvious tool of his trade. Courtesy Wellcome Institute Library, London. V0026949B00.

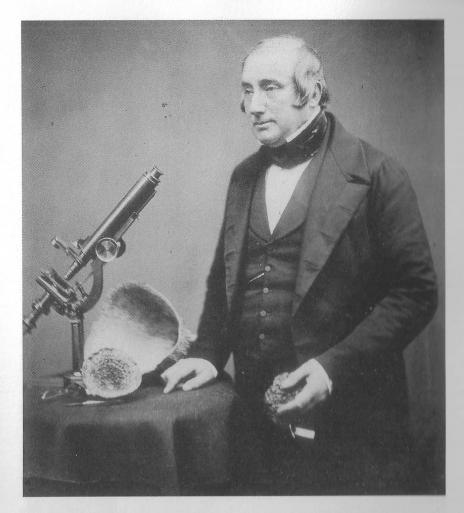


FIGURE 7.12. James Scott Bowerbank. Photograph ca. 1855 by Maull and Polyblank for the same series as figs. 7.9 and 7.11. Like Owen, but unlike Darwin, Bowerbank has gone to considerable trouble to convey his scientific interest in sponges and microscopy. Courtesy Wellcome Institute Library, London. V0027568B00.

study with traveling boxes and a large map of the world, Alfred Russel Wallace with a globe, and Ernst Haeckel amid a plentiful supply of natural history apparatus (figs. 7.11–7.14).

After the *Origin*, and with the major technical advances of the 1860s, commercial reproductions of photographs of Darwin proliferated. "Such heaps of

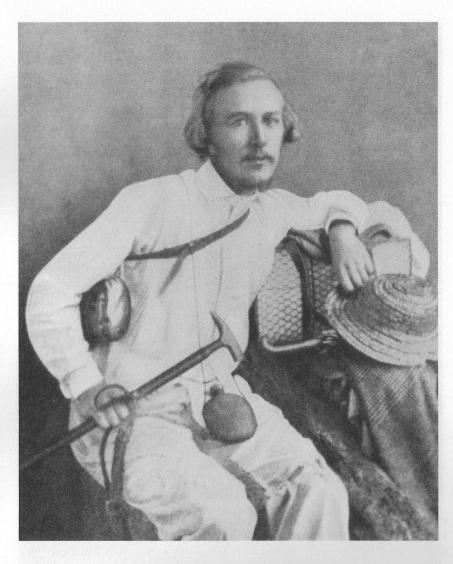


FIGURE 7.13. Ernst Haeckel in Italy, 1860. This depiction of Haeckel as a young natural-history collector is very different in tone from Darwin's presentation as a naturalist. From Ernst Haeckel, *Italienfahrt. Briefe an die Braut 1859–1860* (Leipzig, 1921). Courtesy Wellcome Institute Library, London. L0025212B00.

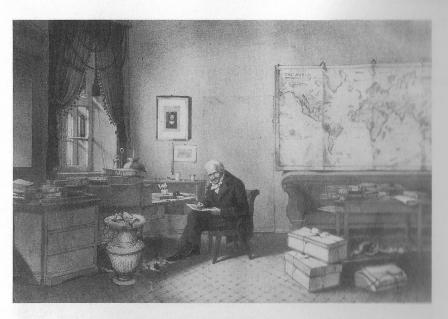


FIGURE 7.14. Alexander von Humboldt in his study. This is one of a pair of colored lithographs, published 1852. They capitalized on a widespread interest in seeing great men in their working environs. Humboldt's study displays the icons of a great traveler and philosophical writer. Author's collection.

people want to know what you are like," said Hooker. Yet he thought in general "the photographs are not pleasing." 57

In 1866, for example, Darwin was asked if he would sit for Ernest Edwards for a series of photographs and biographical memoirs edited by Lovell Reeve (a series soon taken over by Edward Walford, the genealogist from Balliol), called *Portraits of Men of Eminence* (1863–67), and he said he would be proud to do so. This book of portrait photographs was one of a number of lavishly produced albums issued around this time, mostly reissues and compilations of texts and previous studio studies by Walford and others. He sat again for another photograph (or possibly it was taken at the previous sitting) to be included

^{57.} Hooker to Darwin, 24 January 1864, DA 101:176.

^{58.} A copy of this Edwards photograph is in the National Portrait Gallery, London, neg. 28523. Prescott describes the publication of several such series, e.g., Mason and Co., *The Bench and the Bar*, and *The Church of England Portrait Gallery*, from 1858 to 1861; and J. E. Mayall, *Royal Album*, 1860. Darwin's picture is in Reeve and Walford, *Portraits of Men of Eminence*, vol. 5, opposite p. 49. A fee of £1 for Ernest Edwards, the photographer for this volume, is recorded in Darwin's Account Book, 2 March 1866, and another sum of £3 8s. 6d. on 5 September.

FIGURE 7.15. Darwin, photographed by Ernest Edwards for Edward Walford, Representative Men in Literature, Science and Art. Sitting for Edwards, later one of America's most famous photographers, Darwin shows the ravages of a long illness. The handle of his walking stick can be glimpsed bottom left. He grew the beard in 1862. Courtesy Wellcome Institute Library, London. L0024920B00.

in a selection reprinted by Walford in 1868, called *Representative Men in Literature, Science and Art*, each print available separately priced at 1 s. 6d. (fig. 7.15). This one is interestingly different from the pre-*Origin* photographs. Darwin looked less confident, less well dressed, more anxious, more like an invalid, especially when the handle of the walking stick is glimpsed on the left. Eventually Darwin became quietly aware of the fact that photographers hoped to make money out of his face. In 1869, when George Charles Wallich proposed that he should be included in a new edition of his *Eminent Men of the Day*, he politely refused.⁵⁹

Julia Margaret Cameron nevertheless managed to make capital out of him. Her famous photograph of Darwin (fig. 7.16), and its less famous mate (reproduced as the frontispiece to Richard Freeman's *Companion*), were taken by Cameron in July 1868, when Darwin was on holiday with his family and brother Erasmus on the Isle of Wight. The Darwins occupied a villa rented from the Camerons in Freshwater Bay, the fashionable artistic center that Julia Cameron and Alfred Tennyson had between them created. The holiday was hardly a secluded rest. During those six weeks Darwin was visited by Tennyson, Longfellow, and Thomas Appleton, as well as socializing with the Camerons themselves. Mrs. Cameron often took the opportunity of photographing any celebrated visitors. "She thinks it is a great honour to be done by her," said one guest. "Sitting to her was a serious affair, not to entered lightly upon . . . she expected much from her sitters." Mrs. Cameron also photographed Erasmus Darwin and Horace Darwin, Darwin's youngest son.

One of these photographs was the one Darwin liked better than any other portrait of him and he wrote a sentence to that effect (fig. 7.16). Eventually,

^{59.} Wallich, *Eminent Men*, issued in 1870. Wallich knew Darwin through his natural-history researches; see Darwin to Wallich, 18 April 1869, American Philosophical Society Library. Later, Darwin asked Wallich for photographs that he could use in his *Expression of the Emotions*; Darwin to Wallich, 24 February 1872, Cleveland Health Sciences Library, Ohio; and Darwin to Wallich, 20 March 1872, Northumberland Record Office. These arrangements suggest a certain amount of collaboration between sitters and photographers/publishers. Celebrity photography clearly generated its own rules.

^{60.} F. Darwin, Life and Letters, 3:92, 102; and Litchfield, Emma Darwin, 2:220-22.

^{61.} Hopkinson, *Julia Margaret Cameron*; and Hinton, *Immortal Faces*, 33. See also Cameron, *Alfred, Lord Tennyson and His Friends*; Weaver, *Julia Margaret Cameron*; and Woolf and Fry, *Victorian Photographs*. For Cameron's photographing of Erasmus Alvey Darwin and Horace Darwin, see Litchfield, *Emma Darwin*, 2:220. Cameron was not the only art photographer to photograph Darwin. In 1871 Darwin approached Oscar Rejlander for help with his studies on the expression of the emotions and established a close working relationship with him. See Browne, "Darwin and Expression of the Emotions," and Jones, *Father of Art Photography*. Rejlander made a fine portrait study of Darwin in or around 1871, ultimately engraved and reproduced in *Nature*, 4 June 1874. Rejlander taught Cameron and C. L. Dodgson something of their technique.

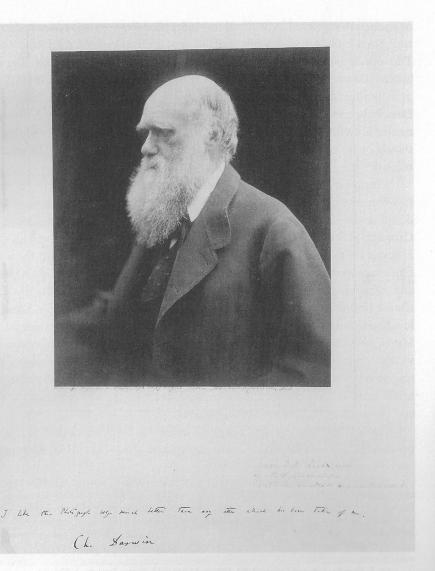


FIGURE 7.16. Darwin, photographed by Julia Margaret Cameron, 1868, during a holiday at Freshwater, Isle of Wight. Copies of this fine portrait photograph were available for sale through Colnaghi's London gallery, with its stamp (not visible here) at bottom left. Mrs. Cameron's inscription, bottom right, suggests that this copy was given away privately. Darwin's comments at the bottom read, "I like this Photograph very much better than any other which have been taken of me." The words appear to be mechanically reproduced. Reproduced by permission of the President and Council of the Royal Society, London.

either he or Cameron included the remark as a mechanically reproduced inscription at the bottom. ⁶² But Cameron was notorious for forcing her sitters into some kind of public endorsement along these lines, which she then used to promote sales of authenticated prints through Colnaghi's London gallery. The Cameron photograph was consequently just as much in the public arena as the cartes de visite Darwin employed—although more expensive and more artistic. It should further be noted that Darwin paid £4 7s. for this photograph, and other sums later on for various reproductions. ⁶³ During her time in England, Cameron's photographic sales were virtually her only means of supporting herself and her husband.

They were both excellent portrait studies. Julia Cameron subscribed to the "men of genius" school of thought, and her studies of other Victorian thinkers like Tennyson and Herschel showed a deep appreciation of masculine intellect. Her portraits of women and children made the reverse point rather more vividly, in that these rarely carried any proper names and the sitters were usually dressed or posed for some allegorical purpose—"Alethea," perhaps, or "The gardener's daughter." These sentimental *tableaux vivants* were often criticized and ridiculed in her own day. Furthermore, she tended to use a light color wash and give full rein to her special trick of fuzziness: "very daring in style," said the *Photographic News* reviewing her first exhibition in 1864; "out of focus," complained the *British Journal of Photography*. These images are a marked contrast to her other, far more rugged and individually named projections of notable men.

Yet despite the air of biographical transparency, Cameron's male sitters were just as carefully posed as her female subjects—she made John Herschel wash and fluff up his hair for his sitting, and draped Robert Browning in a velvet cloak. Darwin's costume was evidently his own and mostly conveys his careful precautions against the cold, especially on holiday on the British south coast in July. His dress was that of a respectable middle-aged gentleman: a man whose clothes signaled that, beyond going to a good tailor, he was relatively uninterested in clothes. On the whole, however, they are but a minor part of the composition. Because of her careful use of ceiling light, one could almost say that there is nothing in the photographs except Darwin's massive forehead, top-lit to emphasize the great dome of his skull, the brow creased in thought, and his luxurious

^{62.} The Royal Society copy, on the original Colnaghi mount, with blind stamp, is the only copy I have seen with this mechanically reproduced text at the bottom.

F. Darwin, Life and Letters, 3:102; and Classified Account Books, 19 August 1868, Down House Archives.

^{64.} Photographic News 8 (3 June 1864): 266; British Journal of Photography 11 (1864): 261.

^{65.} Hopkinson, Cameron, 68.

beard. As in classical paintings, the effect was of a softened, extremely wise, subject. More than anyone else Cameron created the visual image of Darwin as a great abstract mind.

Darwin's beard is one of the most interesting aspects of this kind of public representation. He grew it in the late summer of 1862 with the expressed intention of soothing his eczema: "Mamma [Emma] says I am to wear a beard," he told William in July. Constant shaving irritated his face. "Charles, Emma and Lenny slept here on Monday," Erasmus Darwin wrote to Fanny Wedgwood some months later: "Emma in a splendid wig, Lenny bald & Charles in a fine grey beard." 66

Its impact, however, was much more subtle and pervasive than a mere family event. When Darwin distributed a photograph of himself with this new asset (taken by his son William), Hooker replied immediately. "Glorified friend! Your photograph tells me where Herbert got his Moses for the fresco in the House of Lords—horns & halo & all. . . . Do pray send me one for Thwaites, who will be enchanted with it. Oliver is calling out too for one." Funnily enough, said Darwin, his sons declared it made him look like Moses too. The botanist Asa Gray agreed. "Your photograph with the venerable beard gives the look of your having suffered, and perhaps, from the beard, of having grown older. I hope there is still much work in you—but take it quietly and gently!" 68

It was a philosopher's beard, as Cameron, Hooker, and Gray plainly saw, with strongly religious overtones. Darwin was delighted with the idea: "Do I not look reverent?" he teased relatives. For himself, he hardly gave the possible motives for growing it or the symbolism of such a patristic outgrowth a second thought. 69 Yet at some fairly obvious level, it must have served as an external disguise on a par with his notorious personal shyness—a form of evading difficult confrontations by hiding behind a smokescreen of hair, not just a literal disguise, but a metaphysical one as well. The beard helped keep many of his thoughts pri-

vate in the same way as his autobiographical writings avoided any penetrating self-analysis.⁷⁰ Such a beard allowed him, if he wished, to become a sage or a prophet. Or a sphinx.

This beard came to be featured more and more in the photographs and their subsequent reproductions in magazines through the 1870s and early 1880s (figs. 7.1-7.3, 7.17). As it got larger, and more patriarchal generally, it began to codify many of the things Victorians were told or thought about Darwin: it represented precisely the paradoxical fact that he was simultaneously a gentleman and a revolutionary, with distinguished philosophical antecedents in Plato and Socrates.⁷¹ Such a beard made it clear that he was no fresh-faced radical, no dangerously groomed Frenchman.72 It was reassuring in its religious demeanor, its benevolence, its suggestion of a wise father and patient friend. Such a beard hinted at hermits and holy men, even the apostles. Popular depictions of ancient Greek philosophers invariably emphasized the same features of beard and expansive forehead (for example, fig. 7.18). Nor is it too far fetched to allude to Father Christmas, at the start of his mythical existence in Victoria and Albert's Ingland. It conveyed sagacity. It was, moreover, a dramatically masculine beard, a very visual symbol of the real seat of Victorian power, and one of the most obvious outward results of what Darwin went on to describe as sexual selection among humans.73 It was a gift to the cartoonists when they got to work on his theories of monkey ancestry. Above all, it signified intensely deep qualities of mind—those qualities of the Victorian masculine intellect that a set of whiskers could never hope to represent in a similar context.

By the 1880s, and the last two years of Darwin's life, virtually all that the

^{66.} Darwin to William Darwin, 4 July 1862, DA, 210.6; and E. A. Darwin to F. M. Wedgwood, 1 October 1862, Wedgwood/Mosely Collection, Keele University Library. Although Darwin may well have shaved intermittently, he had a full beard when his friends saw him again in 1864. He earlier sported a large black beard on the *Beagle* while surveying in Tierra del Fuego; see Browne, *Charles Darwin*, 217, 246. With regard to the wig, Emma and Leonard Darwin suffered from scarlet fever that summer and had been shaved during the skin-peeling period.

^{67.} Hooker to Darwin, 11 June 1864, DA 101:225. The attribution to William is in a letter from Darwin to Asa Gray, 28 May 1864, Harvard University, Gray Herbarium, 79.

^{68.} Asa Gray to Darwin, 11 July 1864, DA 165.

^{69.} As they became more common after the Crimean War, beards were often discussed in Victorian literature, e.g., Hannay, "The Beard." Something of the history of beards is given by Asser, Historic Hairdressing; Cooper, Hair; Corson, Fashions in Hair, esp. 398–461; and Reynolds, Beards.

^{70.} See Neve, *Charles Darwin's Autobiography*, introduction; and Colp, "'I Was Born a Natural ist'"; and idem, "Notes on Darwin's *Autobiography*." Berg, *Unconscious Significance of Hair*, summa rizes the psychoanalytic view.

^{71.} Constable, "Beards in History," surveys beards and hair from antiquity to the Middle Ages in the West. See also Reynolds, *Beards*, 48–49. Pliny speaks of the respect and fear inspired by the beard of Euphrates, a Syrian philosopher. The Roman satirists more usually ridiculed the relationship between beards and wisdom, e.g., Herod Atticus, "I see the beard and the cloak, but I do not see the philosopher." Williams, *The Hairy Anchorite*, discusses the religious symbolism.

^{72.} Reynolds, Beards, 267–68, on the seditious mustache; and Pointon, "Dirty Beau." In 1854, Hannay, "The Beard," 49, stated that the beard was at that time the symbol of "revolution, democracy and dissatisfaction with existing institutions... only a few travellers, artists, men of letters and philosophers wear it." Francis II of Naples forbade beards because of their association with Garibaldi.

^{73.} Darwin, Descent of Man, 2:317–23, 372, 379–80. See also Mangen and Walvin, Manliness and Morality; Roberts, "Paterfamilias"; and Shortland, "Bonneted Mechanic." Masculinity in art is discussed by Kestner, Mythology and Misogyny; and idem, Masculinities in Victorian Painting; and in science by Richards, "Darwin and the Descent of Woman"; and idem, "Huxley and Women's Place in Science,"

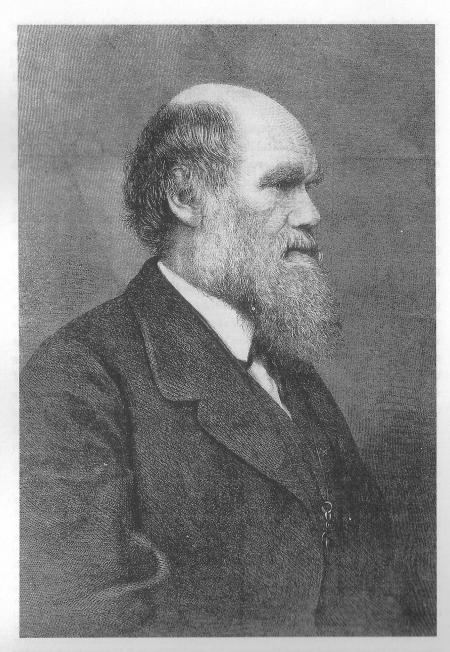


FIGURE 7.17. Wood engraving of Darwin from a photograph, *Illustrated London News*, 1871, p. 244. As reproduction techniques improved, pictures of Darwin and other famous individuals regularly appeared in the popular press. Courtesy Wellcome Institute Library, London. V0001462B00.



SOCRATES

FIGURE 7.18. Socrates, "the bearded master." Note the stylistic device of portraying ancient philosophers with a capacious forehead, bald pate, and beard: features that are also reflected in Cameron's study of Darwin, fig. 7.16. The vignette at lower right shows Socrates drinking the hemlock. From Thomas Stanley, *The History of Philosophy*, 3d ed. (London, 1701), 74. Courtesy Wellcome Institute Library, London.

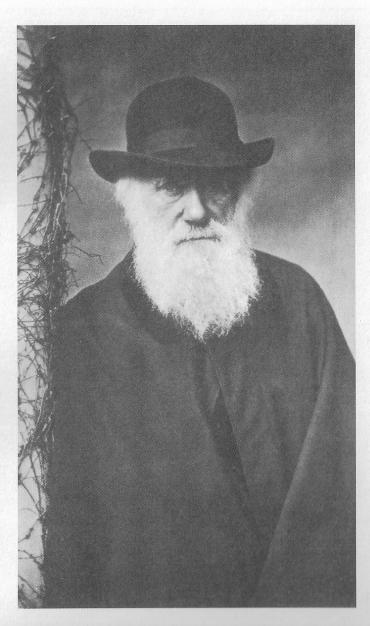


FIGURE 7.19. One of the last photographs of Darwin, taken by Elliott and Fry at Down House, 1881. This portrait shows Darwin at his most enigmatic. Private collection.



FIGURE 7.20. Darwin's study, after an etching by Axel Haig, 1882. The invalid couch and crowded tables clearly convey the two main features of Darwin's life. From A. C. Seward, *Darwin and Modern Science* (Cambridge, 1909). Courtesy Wellcome Institute Library, London, L0025093B00.

public saw in published photographs and photogravures were his beard, his hat, and his eyes (fig. 7.19). Darwin, as a physical presence, had almost disappeared. All that was left was the intense impression of mind. The final photograph of his life, probably taken by Clarence E. Fry, the senior photographic partner of the firm of Elliot and Fry,⁷⁴ who must have visited Down House in 1880 or so and taken at least three different portrait shots of Darwin on the veranda, speaks powerfully of wisdom and frailty combined, a last evocative statement in the gradual, progressive sequence of Darwin's disengagement from his malfunctioning body.

The process of focusing in, as it were, on mind, or what Christopher Shilling calls an absent presence,⁷⁵ reached its apogee with representations of Darwin's study (fig. 7.20). The place where his knowledge was created seems to have become as interesting to Victorians as the mental attributes and personality of the man himself; and magazine articles about his life and times often featured

^{74.} Hillier, Victorian Studio Photographs.

^{75.} Shilling, Body and Social Theory. The idea of "absent presence" relates in some degree to Foucault, The History of Sexuality, introduction; and Ostrander, "Foucault's Disappearing Body." The theme of death in visual culture is discussed in Llewellyn, The Art of Death. See also Elias, The Loneliness of the Dying.

pictures of his house, garden, greenhouse, and study, usually devoid of human figures. While making allowance for stylistic conventions in conveying domestic interiors, these empty places or spaces for generating knowledge suggest that Darwin's intellect was, by then, seen by the public as almost entirely disembodied. The room did not have Darwin in it. Instead, it is filled with signs of his mind at work—the plants, the papers, the books, the prints of scientific friends and family on the walls; and with signs of his unhealthy body—the fire, the shawl on the chair, the chaise longue. It would be quite a different kind of picture if Darwin were present, as in the engravings published in the *Illustrated London News* of Lubbock or Hooker bristling with activity at their desks. This picture depends on his absence.⁷⁶

Through a long and arduously medicalized life, Darwin had created an idea of himself in which, at the end, he could be recognized—and venerated—by an empty room.

76. One comparable scene would be Freud's study, of which photographs were issued in 1938, reproduced in Engleman, Berggasse 19. Discussions of the creation of intellectual spaces can be found in Smith, Making Space; Livingstone, "Spaces of Knowledge"; Shapin, "The Mind Is Its Own Place"; and Ophir and Shapin, "Place of Knowledge." The history of studies as places for generating knowledge is much neglected in the literature, although it is addressed briefly in Ophir and Shapin; Girouard, Life in the English Country House; and Thornton, Authentic Decor. Thomson, "Some Reminiscences," reproduces interesting photographs. Such private masculine spaces (for smoking, business papers, writing, and reading) were seemingly a Victorian development that went hand in hand with the diversification of room use and the division of labor in larger country houses, and are not as clearly related to the traditional use of academic spaces like libraries, monastic cells, and college rooms as we might perhaps expect. For Darwin's use of his study as a place of experiment, see Chadarevian, "Laboratory Science." See also Marsh, Writers and Their Houses.

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■ SCIENCE INCARNATE ■

Historical Embodiments of Natural Knowledge

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