

Book Reviews

Iwan Rhys Morus, *Frankenstein's children: electricity, exhibition, and experiment in early-nineteenth-century London*, Princeton University Press, 1998, pp. xiv, 324, illus., £32.50 (0-691-05952-7).

The title and subtitle of Iwan Rhys Morus' book indicate a divided loyalty. In making good the subtitle, he offers solid accounts of institutions and activities neglected by the few remaining historians of science who confine their business to an internalist chronicle of advances in high theory and fundamental experiment. Faithful to the usual canons of evidence and argumentation, Morus discusses the exploitation of electricity for amusement, the short life of the London Electrical Society, and the equivocal status of William Sturgeon, who tried to climb the slippery ladder from a gallery of science to the Royal Society and had the temerity to take on Faraday. Men who learned about electrical experiments in the popular galleries might go on to contribute to Sturgeon's respectable *Annals of electricity* or to participate in the first commercial applications of electricity. Morus' reviews of the early histories of electroplating and telegraphy are informed and informative. His briefer account of electrotherapy will be of particular interest to readers of this journal.

What has this to do with the children of Frankenstein advertised in the title? Apart from describing grotesque effects of galvanic batteries on freshly executed criminals, Morus realizes the monstrous connotation of his title by stomping on his material now and again to make it fit a currently popular historiographical programme. This programme forces the laudable and legitimate project of relating the practice and application of science to wider aspects of society far beyond the evidence. If this programme is a Frankenstein, then Morus' book is one of its children. Let us have some examples.

"Drawing on the resources of

contemporary science, [Mary] Shelley could convincingly portray [in *Frankenstein*] the problematics of the laboratory experimenter's attempt to carve space for himself in early nineteenth-century culture." Now, Shelley's story is set in the eighteenth century; the experiment takes place in an attic bedroom; the creator, the student Frankenstein, worked alone and secretly; the inspiration for his creation came from crazy old magicians, like Cornelius Agrippa, and the required technical information from the professors in a small German university. Morus' story takes place mainly in and after the 1830s; his experimenters work and demonstrate in rooms maintained for the purpose; they are not juvenile students of occult arts but grown men trying to make a living from their science; they are not driven by shame to keep their work secret; they have no time for Agrippa; they "carve spaces for [themselves]" in well-lighted, hard-headed England, not in dark, gothic Germany. Shelley set out to write a ghost story, not to portray the lot of Morus' experimenters.

"Maxwell in particular presented his electromagnetic theories as being the articulation in mathematical language of Faraday's experimental results. The integrity of the new physics thus [!] depended on the preservation and defense of Michael Faraday's reputation." Some think that the integrity of nineteenth-century electromagnetism, which was not a British monopoly, depended on the fact that laws like Faraday's adequately represented the phenomena. But no. "The outcome of an experiment depends as much on the process of negotiation among participants as it does on the successful manipulation of apparatus." To instantiate this fundamental law of the new historiography of science, Morus "attempt[s] a deconstruction by focusing on the ways in which Faraday constructed spaces for himself, so that he could fashion a career through experiment." Fair enough. But how could Morus'

deconstruction demonstrate his fundamental law or affect Maxwell's account of electromagnetic induction?

These are small potatoes, however, when you consider that "electrical experiments could mold politics as much as politics did electricity." Do not think that the meaning of this equality is that neither affected the other. No sirree. "Replacing the Newtonian philosophy with the electrical theory of the universe meant replacing the whole social, political, and religious order that underpinned early-nineteenth-century life."

A final grotesque. "By the 1830s the dominant ethos had shifted away from Enlightenment ideals [progress via association and co-operation]. Scientific discovery and progress were now held to emerge from the workings of isolated genius rather than from dubious cabals such as the Lunar Society with which Priestley had been associated." Let us leave aside whether the Royal Society, the Académie des sciences in Paris, the universities of Europe, and the republic of letters in the later eighteenth century were or are aptly characterized as dubious cabals. Was England in the 1830s distinguished for practising the cult of the isolated scientific genius? No. Then and there the greatest of all clubs for scientific men, the British Association for the Advancement of Science, was founded and waxed exceedingly. This peculiar clubbiness was so conspicuous that Dickens made it a subject of satire. Morus' extravagances deserve a place in the Proceedings of the Mudfog Association for the Advancement of Everything and the Transactions of the Pickwick Club, as an addendum to its president's theory of tittlebats.

J L Heilbron,
Worcester College,
Oxford

Jennifer Ford, *Coleridge on dreaming: romanticism, dreams, and the medical imagination*, Cambridge Studies in Romanticism 26, Cambridge University Press, 1998, pp. xii, 256, £37.50, \$59.95 (0-521-58316-0).

Since the Greeks the category *imagination* has been configured to belong to poets and gods—far from therapy-seeking doctors, although shamans among doctors interpreted the imagination's *dreams*; this proprietary status despite the more recent *medicalization of the imagination* (the article is crucial) as an anatomical region of the *corpora fabrica* in the Renaissance and Enlightenment. By the time of the French Revolution *the imagination* had been medicalized (i.e., mechanized, anatomized, physiologized, neuralized) to such degree that it was unthinkable to visualize its operations other than mechanically (these *were* visual conceptions or pictures in words) or apart from material foundations. Enter Charcot, Freud, and Jung and still another view predominates. Yet set the dials earlier or later and ask, who *owned* the discourses of imagination? The question is more difficult to answer. After c. 1500 no one group: not artists, not poets, not doctors. Proof of ownership and its consequences constitutes the genuine methodology of Ford's splendid book, although Samuel Taylor Coleridge (1772–1834), the polymathic Romantic thinker and theorist, is her alleged protagonist. Coleridge proves an excellent test-case considering that his notebooks have been neglected.

But Coleridge's organic and vitalist philosophy demonstrates that not even he could dislodge this European theory of imagination from its Enlightenment material-mechanic moorings. Moving forward (Coleridge died in 1834), philosophers regularly consulted his aesthetics, especially his dream theory placing dreams on a still more physiological footing than his materialist predecessors.