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The Early Britannica: The Growth of an Outstanding Encyclopedia by Frank A. Kafker; Jeff Loveland

Review by: By Richard Yeo

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star researchers, is neglected. There is little about the growth of a self-conscious scientific community, finding jobs, salaries, and grants as men of science rather than grandees became patrons; cheap postage facilitated the rapid circulation of letters, offprints, and *cartes de visite*; and railways and steamships promoted conferences and congresses. Nor do we follow the use of assistants and the growth of multiple-authored papers: in 1807 the Royal Society was nonplussed, unable to award the Copley Medal to William Pepys and William Allen for their joint paper because research was envisaged as voyaging in strange seas of thought, alone. But one cannot have everything: and one of the strengths of *Natural Science in Western History* is the due and important place given to religion. The simple “warfare” story beloved of John William Draper and Richard Dawkins finds no support in Gregory’s sensitive and contextual handling.

The chapters are thematic, but within a broadly chronological framework. It is not easy to make the reader aware of the contemporary developments in different sciences, especially in less specialized times, when people were active in what today would seem widely diverse sciences, and given that interesting things tend to happen on the artificial frontiers erected (and often well policed) between disciplines. But here again Gregory manages to keep the reader moving forward as the sciences develop into a major feature of Western culture and economic life. He is good at explaining why people in the past thought and worked as they did, odd though it might seem to us; and he includes some “heresies” like phrenology, mesmerism, and the evolutionary ideas put forth in *Vestiges of the Natural History of Creation* (1844). He is particularly strong on the biology and the physics of the nineteenth and twentieth centuries, for which he is a lucid guide.

He does not (despite his title) insist upon it, but the westward course of scientific development is evident in his story, as he takes us from Mesopotamia to Greece and then to Italy, Germany, France, and Britain, finishing up in the United States in the final chapters: the rest of the world is not part of Gregory’s story. Like every human activity, science has its frauds and plagiarisms, its quarrels and prima donnas, but it is special, with its simultaneous discoveries and consequent priority disputes and its progressive character. Such progress has not been linear; and Gregory is good at conveying the strangeness of the past, its difference from the present. He indicates what reasonable people thought was happening in their experiments, and why, while

being aware that we think we know what was “really” happening. Textbooks are a dull genre, and on moving from chemistry into history of science half a century ago I rejoiced in getting free of them; but given that we now have them too, Gregory’s is a good and judicious one. A newspaper in England used to advertise itself as “readable, reliable, and realistic”; it wasn’t, but Gregory is.

DAVID KNIGHT

Frank A. Kafker; Jeff Loveland (Editors). *The Early Britannica: The Growth of an Outstanding Encyclopedia*. (SVEC 2009, 10.) xiv + 349 pp., illus., bibl., index. Oxford: Voltaire Foundation, 2009. \$115 (paper).

During his exile in Turkey, Leon Trotsky wrote to the London office of the *Encyclopaedia Britannica*: “I hesitate till the last moment to trouble you with my demand but the 13th Edition of the Encyclopaedia Britannica is not obtainable in Constantinople” (Trotsky to Lawrence H. Dawson, 10 July 1929, Houghton Library, Harvard University, bMS Russ 13.1 7703). Trotsky’s disappointment was a sign of the *Britannica*’s global reach: he expected it to be there. By this time it had become the best-known general reference work in the English-speaking world. As this volume shows, it had been in print since the first, less than impressive, three-volume edition (1768–1771), which was hardly more than a collation of textbooks and was dwarfed in every sense by the great *Encyclopédie* (1751–1772). However, the *Britannica* quickly gathered substance and reputation, so that the third edition (1788–1797) with its supplement (1801) reached twenty volumes. It was soon able to boast that its “universal” coverage of subjects was matched by an imperial, if not universal, geographical footprint.

The approach of this volume is closer to that of the “history of the book” than to the history of science. Each chapter is devoted to one of the editions and deals with the method and personality of the various editors, the role of contributors, page layout, price structure, content, readership, and reception. After their editors’ “Introduction,” Frank A. Kafker and Jeff Loveland are joined in other chapters by Kathleen Hardesty Doig, Dennis Trinkle, William Morris, and Marion Brown. This collective effort produces extremely useful detail, marking the changing content of successive editions and thus giving clues to what was seen as novel or in need of revision. Although insistence on regular updating was as much a market device as an

intellectual stocktaking, the *Britannica* managed to do this without altering its basic format. As Kafker suggests in the final chapter, this may have been a factor in its great longevity compared with the *Encyclopédie*.

The period covered coincides with the emergence of new disciplines and a recasting of the very idea of science. The authors are aware of this, and, consequently, the volume contains material of interest to readers of this journal. The label “Dictionary of Arts and Sciences” featured in the subtitle of all editions; and while this demarcated the work from the genre of “historical” dictionaries (such as that of Pierre Bayle and Louis Moreri), it cast subjects such as algebra, law, and music as “sciences,” along with astronomy, botany, and chemistry. These were among the eighteen subjects (in the first edition) discussed in “Treatises” that the editors claimed as an innovative improvement over the shorter entries in Ephraim Chambers’s *Cyclopaedia* (2 vols., 1728; later editions by Abraham Rees). Notoriously, William Smellie, editor and one-man compiler of the first edition, confessed that he wrote the treatises on such “capital sciences” by using “a pair of scissors [*sic*], clipping out from various books a *quantum sufficit* of matter for the printer” (pp. 20, 23). Later editors recognized that specialist knowledge was required, perhaps especially for the natural sciences: hence the involvement of the chemist Thomas Thomson and the natural philosopher John Robison in the third edition. This conviction was more fully enacted in the *Supplement* (6 vols., 1815–1824) to the fourth through sixth editions, under Macvey Napier. He recruited not only Scottish and English experts but troublesome Frenchmen, such as François Arago and Augustin Fresnel. A treatment of Napier’s edition would be a natural concluding point for this volume, but I suspect that space did not permit this.

Most chapters include a survey of the *Britannica*’s reception in the periodical press. Some reviewers were sensitive to the organization of encyclopedias, comparing the *Britannica* favorably or otherwise with both Chambers’s *Cyclopaedia* and the *Encyclopédie méthodique* (1788–1832). In 1802, the *Critical Review* suggested that there should be an additional volume providing “a descriptive picture (*tableau raisonné*) of science in general, pointing out in each branch its dependence on, and connexion with, every other, and referring in every step to the articles in the dictionary” (p. 295). Such a call implies that encyclopedias were not yet regarded merely as receptacles of information but were expected to offer some account of histor-

ical or intellectual relationships. Of course, this is precisely what Chambers and Diderot had attempted—and the editors of the *Britannica* had claimed that it was unnecessary. We might ask whether rapidly advancing *natural* knowledge, or specialization across *all* subjects, was making such maps or trees of knowledge more difficult to achieve before they eventually became largely irrelevant. Direct answers to such general questions cannot be expected from a study such as this, but with its painstaking detail and awareness of the Scottish Enlightenment context, *The Early Britannica: The Growth of an Outstanding Encyclopedia* provides a valuable basis for future comparative work on the European encyclopedic project.

RICHARD YEO

Christine Keiner. *The Oyster Question: Scientists, Watermen, and the Maryland Chesapeake Bay since 1880.* (Environmental History and the American South.) xx + 331 pp., illus., bibl., index. Athens: University of Georgia Press, 2009. \$44.95 (cloth).

For nearly a century, resource conservation has been a chief arena for the application of science to environmental affairs. But historians have also shown how conservation has implied more than merely science-based, progressive management for the greater good. The “hidden history” of conservation encompasses the exclusion of indigenous and other marginalized communities from their traditional resources, as well as the perpetuation of class and ethnic conflicts as resources are managed for the benefit of more powerful interests. In *The Oyster Question*, Christine Keiner adds depth and nuance to this more complex view of conservation. Tracing the history of scientific research and the oyster fishery in Chesapeake Bay, she demonstrates how science and conservation must be understood as local phenomena that are shaped by specific environmental and social contexts.

As Mark Kurlansky showed in *The Big Oyster* (Ballantine, 2006), his history of New York from the oysters’ point of view, these remarkable creatures have at times embodied the ecological and social identity of an entire region. This was also true of Chesapeake Bay. Yet the bay was also an anomaly, with Maryland the only major oyster-producing state in which watermen until quite recently maintained traditional harvesting practices and the ideals of individual self-sufficiency and access to the commons that these embodied. They did so even as scientists like the Johns Hopkins morpholo-