

The Ferment of Knowledge: Studies in the Historiography of Eighteenth-Century Science. Edited by G. S. ROUSSEAU and ROY PORTER. Cambridge, England: Cambridge University Press, 1980. Pp. xiii + 500. Introduction, notes, index.

The eighteenth century is a problematic and understudied period in the history of science and in intellectual history in general. The editors of this volume characterize it as a "trackless bog" (p. 3), between the twin peaks of the scientific "revolutions" of the seventeenth and nineteenth centuries, and it is certainly true that historians lack an authoritative map of the terrain. Now G. S. Rousseau and Roy Porter have assembled twelve essays by leading scholars of eighteenth century science in an attempt to review recent achievements and to suggest novel perspectives. The editors have contributed a short introduction which is followed by three essays somewhat arbitrarily grouped under the heading "Philosophy and Ideas," four on "Life and Its Environment," and five on "The Physical World."

Many of the essays in this volume, such as Maurice Crosland's "Chemistry and the Chemical Revolution," are valuable as outline summaries of recent work. All offer excellent bibliographies; some, notably H. J. M. Bos's "Mathematics and Rational Mechanics," succeed in rendering intelligible what are often technically-demanding areas of science. There are limitations of course. The range of disciplines covered is admittedly selective, and the international scope is restricted to Britain, with some references to France and Germany. But the volume should be judged primarily in relation to its claim of providing "studies in historiography," and here the authors' success has been varied.

Among the better essays, Simon Schaffer's "Natural Philosophy" is both imaginatively-conceived and thorough in its review of recent work. If Schaffer's proposed application of recent thought in the philosophy of science is slightly questionable, his essay is nevertheless seriously responsive to a wide range of current debate, surely a prerequisite of successful historiography. W. F. Bynum, writing on "Health, Disease and Medical Care," also addresses a range of perspectives, from those of philosopher/historian Michel Foucault to the approaches of "the *Annales* School" (p. 251).

Other authors are less generous in their coverage of alternative historiographical approaches. Steven Shapin, in "Social Uses of Science," reviews a reasonable range of historical studies but is less comprehensive in his analysis of alternative theoretical perspectives on the relation between science and social practice. Instead, he argues one particular theoretical line consistently and imaginatively, but without much circumspection. Still less fair in his review of alternative approaches is J. L. Heilbron, whose "Experimental Natural Philosophy" is at times (e.g., p. 380n) cursorily dismissive of work with orientations of which he disapproves. Some of the essays are even less successful as historiography. That by Eric Forbes on "Mathematical Cosmography" makes no claim to being historiographical at all, and the departures from the normal modes of historical

argument, in Rom Harré's essay "Knowledge," weaken the editors' assertion that history of science is now "part of history itself" (p. 2).

One hesitates to blame the editors for the deficiencies of their contributors, but it appears that the authors' failure to engage in constructive debate is in part an effect of the division of the essays into different subject-areas. Thus, whatever Schaffer and Heilbron's different perspectives might have had to say to one another is left unsaid, and the essays are separated to different parts of the book, though their respective titles differ by only one word. In addition, the editors admit to having placed few restrictions on their authors, and although one would not want complete uniformity, it may be that there is a certain lack of a clear editorial perspective and direction. Rousseau's individual essay "Psychology" is diffuse and rambling. Porter's "The Terraqueous Globe" is stimulating, in its attempt to identify a unity among discourses about the earth, but fails to pursue the theoretical question of the specification and location of this unity. Furthermore, as Jacques Roger's "The Living World" suggests, attitudes to historiography are also in part attitudes to the recent past of history of science as a field. The account offered by the editors' introduction, of the recent "revolution" in the historiography of science (p. 2), is simply too brief and too sketchy to provide adequate orientation on historiographical questions.

As a series of review essays, *The Ferment of Knowledge* will unquestionably be of value, and it certainly demonstrates a lively historiographical diversity in current history of science. If one senses an unfortunate lack of productive interaction between the various approaches represented, one should perhaps refer to the dust-jacket, where it is said that the authors aim "to stimulate fresh debate." To this extent, the book may be as provocative by its failures as by its successes.

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The History of Marxism. Vol. I: *Marxism in Marx's Day*.

Edited by E. J. HOBBSBAWM. Bloomington: Indiana University Press, 1982. Pp. xxiv + 349. Notes, bibliography, index. \$25.00.

This is the first of a four volume survey of the history of Marxism which was originally published in Italy in 1978. Subsequent volumes will continue the survey up to the present time. Each will consist of a series of essays written from a Marxist perspective and oriented toward those "with a powerful desire to discover what, if anything, Marxist thought contributes to the solution of present problems" (p. viii).

In the opening essay, E. J. Hobsbawm discloses Marxism's indebtedness to pre-Marxist socialism and highlights