

cycles in continental (fluvial and lacustrine), transitional, and marine (epicontinental and geosynclinal) environments. Rhythm, cycle, and cyclothem are considered synonyms in this analysis, with the understanding that the last always refers to sedimentary deposits. The authors note that cycles have been recognized in units ranging in size from as small as silt and clay laminae to the order of geologic systems. To restrict the scope of their subject, geologic systems are excluded from consideration.

By and large, this book provides a very good source to find what is known—at least in what might be described as the Atlantic geologic community—about cycles in sediments, for surely all the important general papers are referred to in this book. In addition, many particular studies, the kind that are the hardest to find yet are often the very ones that are most useful, are described. Certainly the bringing together and organization of this literature is the most important contribution of Duff, Hallam, and Walton; the “why” of cycles, however, remains as difficult to assay as ever. In spite of this, the authors feel—and I agree—that “the search for and the discussion of cyclic sedimentation has an important role to play in understanding geological successions.”

The book is attractively printed, appears to be largely free of errors, and has some good illustrations, mostly line drawings. But at \$23.50 it is greatly overpriced.

PAUL EDWIN POTTER

*Department of Geology,
Indiana University, Bloomington*

British Chemist

Humphry Davy. HAROLD HARTLEY. Nelson, London, 1966. viii + 160 pp., illus. 35s. British Men of Science.

“Brilliant fragments”—so the Swedish chemist J. J. Berzelius described the contributions to science of Humphry Davy, pioneer of electrochemistry, discoverer of the alkali and alkaline-earth metals, and inventor of the miners’ safety lamp. If the fragments were brilliant, the man was even more so. The progress from a frugal provincial childhood to wealth, a baronetcy, and the presidency of the Royal Society; from obscure beginnings, through the friendship and encouragement of Wordsworth and Coleridge, to the company of cabinet ministers and royalty: this was no

ordinary path even for the most gifted members of the lower middle class in Regency England. Small wonder, then, that Davy continues to attract the biographers (at least two further studies are in preparation to add to the three already published in the last 15 years!).

The particular contribution of Sir Harold Hartley’s brief popular biography is to take Davy’s science seriously: “readers,” Sir Harold warns, “will find more chemistry than anecdotes in these pages.” Indeed they will, and Davy’s major experimental triumphs are fully and carefully described. That the description is set within the by-now-unfashionable reference-frame of “positive science” may disturb the purist, but not the sympathetic reader, who will enjoy the many perceptive asides that flow from Hartley’s 70 years of reflection on Davy’s colorful and complex character.

To criticize this present work for its failure to place Davy’s experiments in intellectual context, and to suggest that Boscovichean atomism was the essential key to his science, would show both a lack of sympathy with the author’s aim and an over-simple view of the currents of scientific thought in early 19th-century England. Yet, while savoring the enjoyable sketch the present work provides, one may certainly hope that the other biographers now at work will probe more deeply into Davy’s own scientific motives and explore more thoroughly the particular intellectual and social milieu that enabled him to become the first of a now-familiar line of scientific entrepreneurs and self-made men.

In such an enquiry his early contacts with Gregory Watt, Thomas Beddoes, and the extraordinarily gifted Lunar Society group would repay close examination. So would his exploitation of the Hotwells Pneumatic Institution, and the publicity value of the newly discovered “mind expanding” properties of laughing gas. His meteoric rise to fame at the Royal Institution also invites careful study, as do his persistent attempts to discredit French chemistry in the midst of the Napoleonic wars. But these are controversial matters, and require much detailed research. In the interim, Sir Harold’s book makes a welcome introduction to the fascination of Humphry Davy as man and scientist.

ARNOLD THACKRAY

*Department of the History of Science,
Harvard University,
Cambridge, Massachusetts*

Reptiles

Lizard Ecology. A symposium, Kansas City, Mo., June 1965. WILLIAM W. MILSTEAD, Ed. University of Missouri Press, Columbia, 1967. xii + 300 pp., illus. \$7.50.

Interest in the ecology and the physiological ecology of small reptiles has been increasing rapidly during the past few years. This apparently is due in part to the relative stability which has finally been achieved in systematic herpetology and the discovery that small reptiles lend themselves particularly well to field and laboratory investigations. The volume under review clearly reflects this increasing interest.

The symposium was well attended, and highly acclaimed by those who did attend. The names of the 15 persons participating by invitation in this symposium read like a Who’s Who of those active in this expanding field. The contributions are grouped in the three general areas where most current work in lizard ecology is now being done, Population Ecology, Social Behavior, and Physiological Ecology. Each section includes an introduction and three papers, followed by an edited version of the discussion that followed the formal presentations. The editing of the discussions has been most skillfully performed. The usual chaotic and ungrammatical flow of half-stated ideas and incomplete thoughts often delivered so effectively with gestures and facial expressions is not here. But the personalities of the speakers emerge clearly and they express themselves unreservedly on controversial ideas unsupported by adequate evidence. These discussions are particularly stimulating. Brief excursions are made into such subjects as “innate dispersers,” refractory reproductive periods, blazoning of gravid females, value of behavioral characters in the systematics of genera, compulsive feeding, nest-site territorialism, head-bobbing and stereoscopic vision, oxygen transport, and the value of thermal models.

Unlike those in most symposia, many of the papers present first reports of original research. There is, however, considerable variation in this respect. The opening paper, by Donald W. Tinkle, summarizes a tremendous amount of research reported on here for the first time, covering a five-year study of various facets of the population dynamics of the side-blotched lizard *Uta stansburiana*. A number of other papers are similar in scope, among them the exhaustive account by