

# Book Reviews

## Europe's Teacher

**Herman Boerhaave.** *The Man and His Work.* G. A. LINDEBOOM. Methuen, London, 1968 (U.S. distributor, Barnes and Noble, New York). xxiv + 454 pp. + plates. \$22.50.

Albrecht von Haller once designated his teacher Herman Boerhaave as *communis Europae praeceptor*, the teacher of all Europe. Boerhaave's influence still survives today, since many 20th-century medical practitioners are his intellectual descendants. Yet how many medical students, and how many medical practitioners, are able to say more of him than that he was a great teacher?

Boerhaave was born just over 300 years ago, on 31 December 1668, near Leyden. He studied in the University of Leyden (though he took his degree in medicine at Harderwijk nearby), and he taught at Leyden from 1701 until his death in 1738. He was first lecturer in medicine (1701–1709), then, in 1709, was appointed professor of medicine and of botany. In 1718 he was appointed to a third chair, that of chemistry; he had been giving lectures in chemistry since 1702. In 1729 he resigned the chairs of chemistry and of botany, but he remained professor of medicine until he died. He also delivered clinical lectures at the Caecilia Hospital in Leyden from 1714 until 1738.

His *Institutiones Medicae*, published in 1708, summarized what was known of physiology and pathology; the pathology was considered from a physiological rather than a structural point of view. This was a highly influential textbook in its day, as was also his *Elementa Chemiae* (published in 1731 though dated 1732; an unauthorized, spurious edition had appeared in 1724). As a clinician, Boerhaave improved diagnostic methods; he was one of the earliest to use and to recommend the use of the thermometer. He laid strong emphasis on the importance of clinical observations at the bedside. As a chem-

ist he, among other things, separated urea from urine before 1729; the discovery of urea is usually attributed to Rouelle (1773). As a botanist he devoted great effort to the enrichment of the already splendid botanical gardens at Leyden; he also planted a pleasure garden of his own which Linnaeus called a Paradise. Perhaps his greatest contribution to botany was the considerable aid he gave to Linnaeus, who dedicated to him his *Genera Plantarum*. If a historian is one who studies history, he might also be called a historian; he produced an edition of Vesalius' works, and he resurrected the manuscript to publish posthumously Swammerdam's *Biblia Naturae*.

Linnaeus was not the only student to come to him from afar in Europe. Of the 178 students who took degrees in medicine under his aegis, only 76 were Dutch. Others included Haller, van Swieten, and Alexander Munro, through whom his influence spread from Edinburgh to our own medical schools via the University of Pennsylvania.

Short biographies of Boerhaave have been published from time to time (one by Fontenelle, others by de La Mettrie and Samuel Johnson). This is the first one to deal exhaustively with his life and his work. The biographer, himself a professor of medicine and a medical historian, is admirably qualified to write the book. Dutch is his native language and he is expert in Latin; the primary sources are mainly in these two languages. He has already published an extensive Boerhaave bibliography (1959), a Boerhaave iconography (1963), and two volumes of Boerhaave letters (1962, 1964).

The biography is complete in itself, and it is all that a biography should be. The first section of the book discusses chronologically the events of Boerhaave's life; the second part, somewhat shorter, takes up in turn his personality, his philosophy, and then his work in the various separate though related fields in which he proved himself so brilliant and

versatile. The English style is excellent; Lindeboom expresses gratitude on this and other accounts to E. Ashworth Underwood, who wrote the foreword. The text is satisfactorily annotated; the illustrations are excellent and delightful. The volume includes a 15-page list of references to works by and about Boerhaave, three short appendices (a *Commentariolus*, in Latin and English in parallel columns, compiled by William Burton from Boerhaave's autobiographical notes; genealogical tables; and a sale catalogue of some of Boerhaave's collections); it has good name and subject indexes.

Lindeboom in his preface expresses his belief that the biography is not definitive; this is the only place in the volume where we may question his judgment. The book is a monument not only to Boerhaave but also to the art of biography.

JANE OPPENHEIMER

*Department of Biology,  
Bryn Mawr College,  
Bryn Mawr, Pennsylvania*

## Lives of the Naturalists

**Eternal Quest.** *The Story of the Great Naturalists.* ALEXANDER B. ADAMS. Putnam, New York, 1969. 512 pp. + 16 plates. \$10.95.

The lives and accomplishments of a dozen or so of the major contributors to systematic biology are portrayed by Alexander Adams in a sequence of biographies. Each portrait seeks to present the character of its subject, his childhood and education, the intentions, successes, and shortcomings of his career, and something of his relationship to his times. The account of Linnaeus begins by detailing the origin and course of the wars of King Charles XII of Sweden. The descriptions of Buffon's work in developing the *Jardin du Roi*, Lamarck's failure to win students or secure an eminent position, and Cuvier's political activities tell much about the social aspects of science in France during a century of change. The history of travels by Humboldt, Darwin, and Wallace vividly portrays the difficulties of exploration and shows how their theoretical accomplishments arose from their observations. The other principal subjects are Alexander Wilson and Audubon, exemplifying the collectors (or field observers) on whom naturalists have