no bad way to achieve clarity. He starts with an introduction giving the status of the field in 1902 which was of course dominated by the nervous-reflex theories of Pavlov. The first theme describes, with quotes from the original sources, the Bayliss-Starling experiments demonstrating secretin activity and Edkins' work (1905), shortly to be brought into serious question, describing gastrin activity; these are now of course two well-established, chemically defined hormones. The second theme deals with the first descriptions of "other hormones," some of which have fallen by the wayside. He then proceeds to develop the ways in which more rigorous criteria were established, how it became known that one hormone may have multiple effects while the same effect might be elicited by several hormones, and how other interlocking questions have either been resolved or at least defined. He recapitualtes by relating Bayliss and Starling's concept of target organs to the now very active business of receptor studies that are doing much to define the complex interactions in the heterogeneous tissues of the gastrointestinal tract. As a sort of coda he quotes A.G.E. Pearse in saying "the gastrointestinal tract is proving to be the largest and most complex endocrine gland in the body; and there would seem to be a certain justice in this outcome to the many barren years, since, after all, it was there that it all began." This is marvellously satisfying reading.

R.A. McCance's discussion of "Perinatal physiology" is a relatively straightforward working review of this area. As such it has by far the most extensive bibliography (13 pages following a 22 page text). Although some important observations had been made by Galen, Harvey, Boyle, Jenner, Lavoisier, Cavendish and other well-known scientists, this field did not really get underway until well into the 20th century. Many differences between fetal, newborn, and adult physiology have been catalogued and the exploration of responsible regulatory factors is well underway. This is indeed a pan-physiological field and McCance has been in on much of it. A recurring theme throughout his article, starting with a statement by Claude Bernard in 1865, is the question of ethics in human experimentation. McCance supports his own position, with specific examples, that the judgement of the responsible and ethical physician should be paramount, and he clearly deplores overregulation and a present-day litiginous and uncooperative public.

My recommendation of this volume to all physiologists, and not necessarily to all scientists, is in no way a deprecation of its outstanding quality. The Physiological Society's centenary has been described as a "family party" for British physiologists and their close foreign associates. The tone of most of these essays, rather than being globally oriented overviews, is very much that of one colleague describing to another how the present state-of-the-art achieved its status. Thus a reasonable knowledge of current physiological thought is required for understanding what several of the authors are so concerned with. Nevertheless, in each case the current status seems sufficiently well structured that such authoritative and informal histories are not only intensely interesting in 1981 but seem likely to remain so for some time to come. The American Physiological Society would do well to produce a comparable volume at its centenary in 1987.

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Respiratory Physiology. John A. Jacquez. Hemisphere Publication Corp. Washington, D.C., 1979. 433 pp., illus., index, $24.95.

This book was written for graduate and postgraduate level scientists and clinicians who are interested in respiratory physiology and grew out of the author's experience as an "interested outsider" in teaching this subject at the advanced level over the past decade. The book was intended to fill a void between introductory medical school texts and the extensive reviews found in the *Handbook of Physiology*. Whether a book of this size can achieve this goal is doubtful. Nevertheless, the author has achieved with this book what few others of its size and genre can claim.

This volume differs from other introductory texts of respiratory physiology in three signficant aspects. First, the primary emphasis is on basic physiologic mechanisms rather than on clinical applications and relevance. Second, the quantitative orientation of physiology is clearly illustrated by the frequent use of basic mathematical arguments and models. And third, the use of comparative aspects highlights the variety of solutions to physiologic needs that have arisen through evolution. To this reviewer, the latter two are of particular importance and should be a part of any advanced text in respiratory physiology.

The major fault with the book lies in its production--particularly, with regard to the figures. The gray-scale photographs (e.g. electron-micrographs) are poorly reproduced and hence, much of the detail and benefit of their inclusion is lost. Similarly, many of the black and white figures reprinted from other sources are difficult to read. This problem, related in part to the use of nonglossy paper, should be resolved if a second edition is contemplated.

Overall, this book is a well-conceived, well-executed treatise that provides a fairly even-handed coverage of the major areas of respiratory physiology without the usual heavy emphasis on the author's area of research interest. As with any book, some readers will expect more and will be disappointed, and those lacking mathematical training may find the going difficult, but as an introductory text at the graduate level, the book achieves most of its goals. It is a good book that should prove useful to those trying to appreciate the physiology of the respiratory system.

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ASELLI

Gasparo Aselli (1581-1626) Italian anatomist.

Professor of Anatomy and Surgery at Pavia, he is remembered chiefly for his discovery of the lacteal vessels in 1622. Although these curious vessels had been observed earlier, it was Aselli who described and named them in his tract "De Lactibus" which, however, was not published until 1627, the year after his death. This publication is one of the scarcest medical classics and is the first anatomical treatise with coloured illustrations. Later editions had small, uncoloured, copper plates.