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provides an excellent guide to the secondary literature on Einthoven, Lewis, and the electrocardiogram (ECG), as well as to available translations of Einthoven's papers. High-quality reproductions of several ECG tracings as well as of handwritten letters and diagrams not only make the book an aesthetic success, but also allow the reader access to primary source material. These documents are especially valuable for the historian interested in seeing the actual tracings and following the technical discussions.

The first group of letters are primarily concerned with instrumental details, as Einthoven and Lewis worked out the best method for recording the ECG. Next, the two discussed the proper interpretation of the wave; in the last period they attempted to understand its formation. These letters are central for understanding the history of ideas about the ECG.

But there is more than merely the history of the ECG in these letters, for the slim size of this volume belies its substantial value for historians interested in a broad range of topics in early twentieth-century medicine. Allbutt, Osler, Wenckebach, and many other leading physicians of the day crossed paths with Einthoven and Lewis. The frank, practical exchanges about arranging meetings in each other's country, addressing various societies, or meeting particular individuals give a fascinating insight into the class structure of British and Dutch medicine. Both Einthoven and Lewis had to deal with the impact of World War I on the conduct of medical research, and then with the issue of how to treat scientists who were former enemies. Historians of early twentieth-century medicine will want to spend a few minutes with this book; those interested in the development of cardiology will want to read it.

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MARY A. B. BRAZIER, *A history of neurophysiology in the seventeenth and eighteenth centuries: from concept to experiment*, New York, Raven Press, 1984, 8vo, pp. 239, \$81.00.

For nearly three decades, Molly Brazier as she is affectionately known, has made important contributions to the literature on the history of neurophysiology. At the same time, she has been accepted as one of the world's most eminent electrophysiologists of the nervous system, with a classic book on this subject now in seven languages. Her historical writings have covered all aspects of neurophysiology, but especially the role played by electricity in the functioning of the nervous system, and they continue to provide valuable and reliable sources of information.

Fortunately, Dr Brazier has now brought together her many researches on events in the seventeenth and eighteenth centuries in a book that is the first of two, the second presumably dealing with the nineteenth and twentieth centuries. The first volume is divided into two equal parts: neurophysiology in the seventeenth century; and the rise of electrophysiology in the eighteenth. Throughout, the chapters deal chronologically with individuals and their achievements, grouped by the schools or movements they represent, but not by the concepts with which they were grappling. There is an emphasis on the experiments carried out, and plates from the original reports frequently illustrate them. This is a most advantageous technique, and there are many excellent illustrations throughout the book. Dr Brazier's historical writings have been characterized by two features. First, she has always taken into account not only the evolution of neuroscientific thought, but also related contemporary events in philosophy, politics, literature, and art; second, she explores sources little known or previously unknown in the West, as she did, for example, in her scholarly study on the origins of the electroencephalogram. These historical methods, together with a pleasant style and adequate documentation, will make the volume an important contribution to the history of the neurosciences.

It is not without its faults, however. In view of the fact that Dr Brazier's history of neurophysiology covers the same period of time as Max Neuburger's classic essay of 1897, to which she makes no reference, it is natural that one would wish to compare and contrast the two works. Neuburger dealt only with the central nervous system, and he mustered a mass of scholarly data to demonstrate conclusively that the main neurological theme in the seventeenth and eighteenth centuries was the localization of function in the brain, introduced by Thomas Willis, mostly demolished by Haller, and resurrected by Gall in the last decade of

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the eighteenth century. Because of Neuburger's brief, he gives only a short but effective account of electrophysiology. Dr Brazier, although concerned with all of neurophysiology, has selected the reverse arrangement: little reference to brain localization with no account of Willis's important contribution, and great emphasis laid on nerve conduction. Even in Part I, the latter topic receives considerable space, at the expense of other concepts, and even if this provides an excellent prologue to Part II's account of neural electrophysiology, it results in an unbalanced survey of advances in the neurosciences. Perhaps some reference to the bias should have been given in the title of the book. Another criticism is that at times the non-scientific background, admittedly of vital importance, is given more prominence than it deserves. Thus, Haller, the greatest physiologist of the eighteenth century, is discussed in the same amount of space as Denis Diderot, who, even though an outstanding Enlightenment figure, does not warrant such treatment in this book. Neuburger gave Haller and his school a great deal of justifiable attention.

We can therefore recommend Dr Brazier's book to all those concerned with the practical and historical aspects of the nervous system in health and disease, but with the proviso that they are aware of the two main shortcomings described above. We look forward with anticipation to her second volume.

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Leonardo da Vinci. Anatomical drawings from the Royal Library, Windsor Castle, (essays by C. Pedretti and K. Keele, catalogue by Keele and J. Roberts), New York, Metropolitan Museum of Art; Oxford, Blackwells, 1984, 4to, pp. 166, illus., £30.50.

Recent Leonardo publishing has thrown up some curious and remarkable projects, none more so than the series of massively expensive facsimiles, capped by the *Corpus of anatomical studies in the collection of Her Majesty the Queen at Windsor Castle*, currently available for \$8,000! Now we have an exhibition catalogue, which began life at the Royal Academy in 1977 for £2.00, revamped for the Metropolitan Museum of Art at a price of £30.50.

What do we receive for the fifteen-fold increase in price? We are given a larger format, hardback binding, eight well-printed colour plates, and a more strongly printed set of black-and-white illustrations. A new "honorary" foreword and preface have been provided by the Museum Director, Philippe de Montebello, and the Royal Librarian, Sir Robin Mackworth Young. Otherwise, the apposite essays and informative catalogue entries have remained untouched. This minimal revision is particularly unfortunate with respect to the 'Bibliographical Note'. A good deal has happened in Leonardo scholarship in the last seven years, including Keele's own impressive *Leonardo da Vinci's Elements of the Science of Man*. The reader might reasonably expect more generous treatment from the publisher.

This is a great pity, since the catalogue continues to serve as an effective guide to the fifty magnificent drawings which have continued their regal progress around the world's museums. The most notable omission from the selection is the sheet illustrating Leonardo's characteristic analogy between the heart and a germinating seed, which provides an ideal key to the analogical thinking behind his interpretation of the forms and functions of man in the context of universal law.

As a memorial to the visual intensity, intellectual complexity, and inventive subtlety of Leonardo's studies, this volume contains much to delight and inform—but it is not all it should be at this price and at this time.

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FRANZ MERKE, *History and iconography of endemic goitre and cretinism*, translated by Dennis Q. Stephenson, Lancaster, MTP Press, 1984, 4to, pp. xi, 339, illus., £62.50.

This well-produced magnum opus, originally published in German in 1971, took Franz Merke, MD, twenty years to complete. The English version of this unique classic is particularly