This new book of Dr Henry Marriott is intended for those interested in learning how to recognize and treat cardiac arrhythmias. The book, which includes 211 electrocardiographic tracings, is divided into three parts of increasing difficulty. Tracings and their interpretation are printed on opposite pages and ladderograms are added for explaining the most complex tracings. A subchapter ‘Special Points’ is typically associated with the authors’s interpretation and refers to the rationale for the diagnosis and mechanism of the arrhythmia. A subchapter ‘Treatment’ is also frequently included to indicate the guidelines recommended by the author to treat the discussed arrhythmia.

The electrocardiographic tracings are of excellent quality and represent a wide range of cardiac arrhythmias and conduction disturbances encountered in clinical practice. One may regret, however, the very small number of tracings of paroxysmal atrioventricular junctional tachycardia and preexcitation syndromes (only two tracings each). The interpretation of some tracings appears speculative due to the lack of intracardiac recordings (for example tracings No. 57, 92 and 165). Interpretation of others is incomplete: for example, the author did not discuss the possibility of atrioventricular nodal reentry in tracing No. 110 or that of atrioventricular reentrant tachycardia involving a retrograde accessory pathway in tracing No. 199. I do not agree with the author’s identification of the site of origin of ventricular arrhythmias according to their right or left bundle branch block pattern since cardiac mapping of ventricular arrhythmias has clearly shown that there is a poor relationship between the site of origin of an arrhythmia and its bundle branch block pattern, especially in patients with coronary heart disease. In addition, I think that the use by the author of the terms ‘type I’ and ‘type II AV blocks for designing ‘Mobitz type F and ‘Mobitz type IF blocks, respectively, may be misleading. Indeed, using for example the term ‘type I AV block’ without specifying that it represents one of the two types of second degree AV block may be erroneously interpreted as ‘first degree AV block’.

The above-mentioned reservations do not seriously detract from the educative value of this new book of Dr Henry Marriott.

Bernard Belhassen, Tel Aviv

Visvan Navaratnam Heart Muscle
Ultrastructural Studies
Cambridge University Press, Cambridge 1987
X + 213 pp.; US$49.50
ISBN 0-521-24965-1

The book ‘Heart Muscle: Ultrastructural Studies’ by Visvan Navaratnam is a timely updating of the electron microscopic findings in the mammalian heart. Although the author did not
intend to cover all the anatomicostructural aspects of the cord, he still brings a very good synopsis of the already known ultrastructural aspects and adds a number of new topics which have never before been discussed in a book.

The first aspects covered are the embryology of the mouse heart, the ultrastructure of typical myocardial cells, of the nexuses, T tubules and myocardial innervation. The chapters covering new aspects and findings discuss the atrial specific granules, the electron microscopic findings of the aging myocardial cell, and some aspects of the effects of ischemic arrest on the myocardial ultrastructure.

In addition to the electron microscopic findings, there is an excellent discussion of biochemical aspects of different ultrastructural findings. This angle adds the functional dimension to the anatomical coverage.

While all these aspects of the book are clear and updated, some important angles are absent or dealt with insufficiently, namely the sparse information and discussion of the elements which form the stimulus-generating and conducting system. Not only is the material not concentrated in a special, separate chapter, but very little is mentioned about it at all, and then only in relation to the T tubules and the sarco-plastic reticulum. Although the authors did not intend to give a systematic presentation of all the anatomical findings, it is a pity that such an important part of the cord is discussed so anemically.

In summary: this is a very good book on the fine structure of the heart and an important addition to our ultrastructural knowledge. This monograph is highly recommended to every scholar who is interested in the structure and function of the heart.

L. Sherf, Tel Aviv
Emanuel Stein

Clinical Electrocardiography
A Self-Study Course
Lea & Febiger, Philadelphia 1987
251 pp.; US$ 16.00

This self-study ECG monograph has unusually large and clear illustrations. They are well-labeled, and anatomic diagrams are frequently presented that correlate with the vectorial or scalar ECG presentation. The illustrative and narrative historic aspects of electrocardiography provide an elegant touch.

The introductory sections address the nomenclature and description of the components of the normal electrocardiogram, the delineation of the electrocardiographic leads and their relationship to the triaxial and hexaxial reference systems (to be used subsequently for analysis of electrocardiograms), and the guidelines for determining the positions of the P, QRS, and T vectors. The characteristics of the normal scalar and vectorial ECG components are presented.

Subsequent chapters describe the characteristics of and criteria for left and right ventricular hypertrophy, atrial abnormalities, repolarization abnormalities and their etiologies, myocardial infarction (including its localization and evolutionary changes), disturbances of atrioventricular conduction, bundle branch blocks and hemiblocks, preexcitation, and su-
praventricular and ventricular arrhythmias. Practice electrocardiograms (with nearby answers) follow each section and are also offered at the end of the monograph. This is an excellent stepwise guide for the beginning and intermediate student of electrocardiography, with the readily understandable vectorial approach enabling more reasoning and less memorization. I would have welcomed a brief discussion of the use of the ventricular gradient in differentiating primary from secondary T wave changes in the chapter on repolarization abnormalities, and perhaps some introduction to the approach to the pacemaker electrocardiogram to complete the excellent presentation of the commonly encountered electrocardiographic abnormalities. The volume is well-indexed; its easily understandable and usable format should assure its enthusiastic acceptance by those who teach and learn the understanding and reading of electrocardiograms.

N.K. Wenger, Atlanta, Ga.


This multi-authored text brings together leaders in the various fields of electrocardiography who have a succinct interest in newer body mapping techniques and the extension of these techniques to clinical electrocardiography and cardiac arrhythmias. Important basic concepts are explored and updated explaining the importance of several basic models based on sound biophysical principles. The authors attempt to generate body surface maps under both normal and abnormal conditions to clearly define alterations of the electrocardiogram. The chapters by Drs. Geselowitz and Plonsey bring into sharp focus the effects of cellular membrane processes and the generation of body surface potentials from these cellular sources. Again, the usefulness of the ventricular gradient has been resurrected for the study of recovery properties and as an index of the vulnerability to arrhythmias. Drs. Janse and Van Capelle have succinctly reviewed the arguments for and against reentry reflection as well as electrotonic influences on automatic activity of the heart. Readers will find interest in the autonomic nervous system regulation of the heart rate

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in the perinatal period. This chapter introduces the electrophysiologic properties seen in the pediatric age-group which become the essential thrust of this publication. The chapter by Dr. Vetter describing electrophysiologic studies in the pediatric group is especially important. Methodology and evaluation of the various electrophysiologic parameters in this age-group are clearly explored. Dr. Vetter has been extremely specific how each procedure is done and the indications for these procedures. The chapter on ventricular arrhythmias is especially important, since it discusses the ventricular arrhythmias seen in children, which until recently have been somewhat vague in the cardiac literature. Newer sophisticated techniques of diagnosis of the ventricular arrhythmias using body surface potential mapping as well as discussing newer therapy such as cryotherapy, fulguration and other types of ablative surgery will be especially important. Finally, the elec-
trocardiographic body surface potential maps of the QRS and T wave of normal children is especially intriguing and will offer important diagnostic parameters for future studies. The text is extremely unique in discussing pediatric and fundamental electrocardiography and will serve as an important reference source since each chapter is complete with an extensive bibliography and editorial commentary.