Book reviews

Atlas of Strabismus. 3rd edn. By GUNTER K. VON NOORDEN. 1977. Pp. 211, 135 figs., refs. Kimpton, London (£25.20)

The purpose of this book is to provide 'an introduction to oculomotor problems for ophthalmologists'. It gives a résumé of the relevant anatomy and physiology, and then describes in adequate detail the necessary tests to form a diagnosis. All sections are illustrated with clean and detailed diagrams, which provide a unique and excellent teaching method on this subject—true to the book title.

The author states that the text has been updated, for example, in Section 4, Fundus appearance in cyclo-deviations; Section 5 Estimation of generated muscle force, nystagmus compensation (blockage) syndrome, and skew deviation; and Section 7 Generalised fibrosis of extraocular muscles. There are 7 further references and some new figures. The book neither pretends to nor does deal with therapy or with detailed explanations and physiology of oculomotor problems. It recommends for further studies Burian and Van Noorden's *Binocular Vision and Ocular Motility*. It would certainly act as an adequate primer for this more comprehensive book. However, it serves as a useful and clear text book for ophthalmologists wishing to learn primarily the diagnosis of strabismus and oculomotor problems, with minimal reference to management.

Orthoptic students at the intermediate level will find it a useful textbook, and with these items of reference it is a comprehensive text. Those needing a deeper understanding (aetiology, treatment) would have to read further and more extensive literature, as the author states in the preface.

GORDON V. CATFORD

Argon Laser Photocoagulation. By H. CHRISTIAN ZWENG AND HUNTER L. LITTLE. 1977. Pp. 319, figs., tables, refs. Henry Kimpton, London (£34.00)

This book is compiled from the experiences of 2 of the foremost argon laser therapists. It describes the characteristics of lasers and their theoretical capabilities, briefly describes argon lasers now available, and gives the histopathology of laser lesions. The preparation of the patient for laser coagulation and the method of documentation of laser treatment are described.

The classification and indications for photocoagulation of macular diseases and retinal vascular diseases are described in considerable detail together with the results obtained from treatment. The authors also discuss the management of patients with rubeosis, tumours, diseases of the iris and conjunctiva, and also the complications associated with laser coagulation.

This book should be compulsory reading for anyone beginning to use the argon laser for either retinal or other treatments. It is an excellent catalogue of lesions that are potentially treatable with the laser, and most important of all, it gives the possible results obtained

from the correct use of this instrument. It provides an excellent reference book and should be on the shelves of any laser or potential laser therapist.

A. M. HAMILTON

Scientific Foundations of Ophthalmology. Edited by EDWARD S. PERKINS and DAVID W. HILL. 1977. Pp. 337, figs., tables, refs. William Heinemann, London (£25)

This well-illustrated book contains a collection of essays by 51 invited authors covering a variety of topics on structure, function and pathology, clinical investigation, and treatment. The subjects chosen supplement the established textbooks in matters which are of particular interest at the present time. The clear and concise presentation quickly advances the reader's knowledge. Well-chosen references give an excellent guide to further reading. The essays have great value not only to the established practitioner but also to those undergoing advanced training, since contemporary knowledge is examined in all higher qualifications.

The book does not claim to be comprehensive but provides insight into the scientific background of important areas of ophthalmology and shows how this science can be applied to clinical management. In some fields advance is so rapid that revision will be required quite soon. It is to be hoped that the authors will have the energy and selective skill to produce a new edition within a few years, when, without doubt, other subjects will need to be presented.

Sir Stewart Duke-Elder says in his foreword, 'This is a good, indeed, an excellent book . . . there need be no hesitation in recommending it warmly to ophthalmologists and neurologists who are interested in such subjects. It undoubtedly fills a much felt want.' With these comments I am in full agreement. In fact, readers from disciplines other than ophthalmology and neurology would also find much to interest them.

M. J. ROPER-HALL

Spatial Contrast. Report of a Workshop held in Amsterdam, January 1976. Edited by H. SPEKREIJSE and L. H. VAN DER TWEEL. 1977. Pp. 153, figs., refs. North-Holland, Amsterdam (US\$55.00)

This slim paperback of 153 pages is a report of a Workshop held in 1976 in Amsterdam. It was attended by 40 scientists, who contribute 36 chapters. During the last 2 decades a number of visual scientists have used sinusoidal grating patterns of specified spatial frequency and contrast to investigate visual function. The approach is powerful, for it permits Fourier analysis to be used in interpretation and modelmaking and provides a common conceptual framework for neurophysiologists, psychologists, and ophthalmologists. It has produced an impressive body of knowledge and has considerable further promise both for scientific and clinical investigation.

The chapters cover psychophysics, electrophysiology,

the cortical evoked response, development, and general models. The book is intended as a research aid. As such it is undoubtedly useful. It will also be useful to university teachers and to ophthalmologists as a well-produced introduction to an important subject. A. L. HOLDEN

Movements of the Eyes. R. H. S. CARPENTER. 1977. Pp. 420, figs., refs. Academic Press, London (£13.50)

Following after an interval of only 4 years Ditchburn's massive volume entitled *Eye movements and Visual Perception*, this book is based on a less phenomenological but more contemporary approach. If a recent article in the *Lancet* is anything to go by, then clinical workers may well be worried by Carpenter's philosophical basis of systems analysis. However, every time one tests eye movements one takes advantage of the existence of the system, and an understanding rooted in general principles (ably expounded in an appendix) must be of advantage to doctor and patient alike.

The author's account is one of total physiology, with pathology not getting much of a look in. There is little doubt that this will act as a deterrent to clinical workers, but they should resist being deterred. The descriptions of the afferent functional anatomy and neurophysiology are lucid, the relation between eye movements and vision instructive, and the survey of the organisation of the visuomotor system thoughtful and provocative. Though the unjustified line lengths play havoc with the reader's eye movements, he is still encouraged to read it from cover to cover. R. A. WEALE

Advances in Experimental Medicine and Biology. Vol. 77. Retinitis Pigmentosa: Clinical Implications of Current Research. Edited by M. B. LANDERS, M. L. WOLBARSH, J. E. DOWLING, and A. M. LATIES. 1977. Pp. 266, figs., refs. Plenum Press, New York (\$30)

The recent upsurge of interest in retinitis pigmentosa (RP) is indicated by the several symposia and many papers on various aspects of this topic that have been appearing in recent years. These are the proceedings of a symposium sponsored by the Association for Research in Vision and Ophthalmology in 1975, and are in three sections: natural history and diagnosis, research models, and current trends in therapy.

Any symposium on a topic such as RP which gathers together clinicians, research scientists, and social workers is to be encouraged. If any progress is to be made in our understanding of a group of disorders as complex as RP, it will only be by continuing discussion between members of different disciplines, each of whom must communicate the advances and the problems of his field of interest and indicate the manner in which these problems might be solved by the research of others. In 2 days it would have been impossible to cover all areas of research where advances have been made in our understanding of the

retina and of the dystrophies that afflict it. The papers in the section on research models review the advances in our understanding of retinal dystrophies in mice and rats; it is unfortunate that there were no contributions on the canine dystrophies.

The papers on current trends in therapy are thought-provoking and will present clinicians with problems of how, and if, patients with RP should be treated, particularly in relation to exposure to light, body temperature, and thyroid dysfunction. The section on the natural history of human RP was the least satisfactory. It is essential for clinicians to emphasise the heterogeneity of RP in any study of patients with this diagnosis. Lumping them together, as one contributor did, is meaningless, for RP is no more a single disease than is the pox or diarrhoea. It is also disappointing to read that sporadic cases most likely represent the autosomal recessive form of RP. They do not in Britain, and probably do not in many other parts of the world. Despite these criticisms, this record of the symposium is welcome. BARRIE JAY

Eye Movements. Arvo Symposium 1976. Edited by BARBARA A. BROOKS and FRANK J. BAJANDAS. 1977. Pp. 223, figs., refs. Plenum Press, London (£27)

The last decade has witnessed the publication of several excellent books dealing with eye movements, most of which have resulted from the collaborative efforts of neuro-ophthalmologists, engineers, physiologists, and psychologists, who have brought to the study a catholic and comprehensive treatment. The present volume, despite the all-embracing title and quality of contributions, is more restricted in scope than most. Essentially the book consists of 10, somewhat lengthy, specialised articles which could equally well have appeared as a supplement to an international journal, and much of its content is already accessible in the journals. Nevertheless, despite doubts about the book as a worthwhile investment, the standard of contribution is uniformly high.

An introductory chapter by David Cogan outlines some of the outstanding problems of ocular motility awaiting solution, each defined with clarity and brevity. In chapter 3 the Miami group provide a useful summary of several years' work otherwise available only in numerous scattered papers. A final chapter by David Sparks and Jay Pollack collates useful data on the role of the superior colliculus in the generation of saccadic eye movements. The remaining articles are more specialised, dealing with specific aspects of cerebellar function, neurophysiology of brain stem nuclei, optokinetic nystagmus, and congenital oculomotor apraxia. Perhaps of particular interest, almost as a lesson in the elegant application of physiology and anatomy, is the careful demonstration by Stephen Highstein that 'anterior' internuclear ophthalmoplegia is probably attributable to lesions of axons of abducens interneurons which ascend in the medial longitudinal fasciculus to innervate contralateral medial rectus neurones. M. GREYSTY