Book reviews

Molecular Processes in Vision. Eds. EDWIN W. ABRAHAMSON and SANFORD EUGENE OSTROY. Pp. 431. US\$ 55.00. Academic Press: New York. 1981.

This volume is essentially a collection of published papers dealing with the biochemical basis of visual excitation, electrophysiology of the retina, and the relation of retinal events to responses in the visual cortex. There are also 5 articles written expressly for this collection. Each of the 6 sections has a brief editorial introduction setting the context for the papers which follow. Briefly, Part I deals with the biochemistry of rhodopsin, Part II with its photochemistry, and Part III with its disposition in the membrane of rod outer segments. Part IV covers the renewal process in photoreceptors and the role of the pigment epithelium, Part V biochemical studies of the transduction process, and the last part deals with electrophysiological observations from the photoreceptor level and leads up to a final paper on receptive fields in the striate cortex.

One may say at the outset that it seems an interesting notion to collect a series of important original contributions together in one place, although no doubt other editors would have made a different selection. We have a collection which will be useful for a scientist commencing work in this field who wishes to obtain a general idea of its progress during the last 20 years. That being granted, it must also be said that most of the papers reprinted should be available through any reasonable library and that in some instances, particularly where the original appeared in journals such as *Nature* or *Science*, the method of reproduction has led to some loss of quality in the text and in the half-tone plates. It is not easy to imagine what the readership for this book will be beyond that suggested above. Established workers in the field will already be aware of the contributions and will probably prefer up-to-date review volumes (and of course the current literature), and scientists outside the field may find the contents too specialised. This will inevitably restrict the appeal of the book.

D. F. COLE

Exterior Lighting for Industry and Security. By STANLEY L. LYONS. Pp. 321. £20.00. Applied Science Publishers: London. 1980.

This work should be judged in terms of its purpose as a sort of recipe book for designers of exterior lighting, with especial reference to security. It is unfortunately sloppy and inaccurate, especially where it strays from that area. For example, in the opening section on vision the version of the well-known cross-section of the eye as shown in Fig. 1 has a lenticular cornea and a flat lens.

The author may have intended to rephrase scientific and technical definitions in down-to-earth English. Unfortunately his loose style renders the notorious photometric units more confusing than ever. It is stated on page 33 that the lumen is derived from the candela, whereas

on page 34 the candela is 'accurately defined arbitrarily' in terms of the lumen.

These flaws must detract from the true worth of the book as a source of practical hints drawn from wide experience. There are details of various modern lamp types and their installation and maintenance as well as their applications in industrial areas. One has only to view a big urban area at night, especially from the air, to realise how important the subject has become, especially where there are security problems. The book meets a need for those who can pick through it critically.

D. A. PALMER

Human Factors in Lighting. By P. R. BOYCE. Pp. 421. £26.00. Applied Science Publishers: London. 1981.

This unique and well-written book deals with all aspects of lighting in the most up-to-date way. Light, by definition, is visible electromagnetic radiation and necessarily involves humans, whence the title. Almost every conceivable interaction between lighting and people is touched upon. Dr Boyce has crammed many themes into a single, well-balanced volume.

The subjects include interior and exterior lighting designs of all kinds—industrial, commercial, recreational domestic, professional, and clinical. The logic of the ordering is peculiar, under whimsical chapter headings, but the arrangement of such a vast array of material is bound to be somewhat arbitrary. The assumption is of a reader at graduate level in a scientific or technical subject. Thus this is a good reference book for lighting engineers and scientists, not a student textbook. There are ample references for the specialist who seeks even more details. There are no obvious misprints or misstatements of fact.

D. A. PALMER

All About Glaucoma. By WOLFGANG LEYDHECKER and RONALD PITTS CRICK. Pp. 76. £4.95. Faber and Faber: London. 1981.

This little book is written for the hypochondriac patient, to answer all his doubts and apprehensions. Indeed the authors also might be labelled as rather overcautious: in reckoning that, where there is glaucoma in the family, even young children should be tested every 5 years; that, after operation, 'patients can usually leave hospital after about a week'; that, of over-40s, 2% have glaucoma, when the percentage with true glaucoma (significant field loss) is nearer a tenth of this.

One could cavil too at odd linguistic assertions, like 'acute means sudden', 'acute=sudden' (actually acute means sharp-pointed), 'Glaukos means the Colour of the sea', and 'there is no special colour in a glaucomatous eye.' (Glaukos originally meant gleaming, then a light-grey colour, particularly of the eyes—as those of Athena—hence the 'glaucosis' applied by Hippocrates to blind eyes which looked murky, as they do in congestive glaucoma.)

It is rather chummy and personal in style ('we always recommend . . .'); and even if timolol is what they so often recommend, the authors do offer a fairly balanced picture.

and the book will doubtless find a wide circulation in our increasingly health-conscious population.

P. D. TREVOR-ROPER

Reference

- 1 Worthen D. Economic aspects of the management of ocular hypertension. *Surv Ophthalmol* 1980; 25: 206.

Documenta Ophthalmologica Proceedings Series 28. Third International Conference on Myopia, Copenhagen 1980. Eds. H. C. Fledelius, P. H. Alsbirk, E. Goldschmidt. Pp. 253. Dfl.135.00. W. Junk: The Hague, 1981.

The transactions of the Third International Conference on Myopia are reported, and deal with several aspects of myopia. The subject grouping would indicate that research is chiefly concerned with the correlations of myopia, education, heredity, and scleral rigidity. Animal studies in monkeys elucidate the possible mechanisms of accommodation and internal eye pressure changes. There are also some contributions on pathological myopia and treatments to arrest myopia.

MONTAGUE RUBEN

The Visual Fields: A Textbook and Atlas of Clinical Perimetry. 5th edn. By DAVID O. HARRINGTON. Pp. 437. £27.00. Mosby: London. 1981.

The first edition of this book appeared in 1956 and its excellence as a practical guide to the examination of the visual field was quickly recognised. The main factors which have contributed to its success are a common-sense approach to the subject and plenty of good illustrations. The whole text is brought to life by the enthusiasm of the author for a method of examination which he believes to be of great clinical importance and with which the ophthalmologist himself must be closely associated.

Much of the revision undertaken since the fourth edition in 1976 is concerned with the introduction of new apparatus and techniques for examining the visual field, but the general arrangement of the book, with part I dealing with procedures and part II dealing with interpretation of results, has been retained. As examples of the changes we may note that descriptions of the Ferree-Rand perimeter, the Lloyd stereocampimeter, and Estermann's scoring grids for the tangent screen have been eliminated or curtailed, and in their place there appear accounts of the Baylor visual field programmer, the Fieldmaster, the Perimetron and the Octopus. Due acknowledgment is thus given to the contribution of new technology to the examination of the visual fields, but one sees clearly that the author believes that the ophthalmologist must not allow complicated automated apparatus to weaken his own involvement in the performance and interpretation of visual field tests. There is little need for much revision elsewhere in the book, though there is an increase in the number of substances which have to be mentioned in the section on toxic amblyopias, and CT

scans have been added to illustrate cases in the sections on optic nerve, chiasma, and visual pathways.

Undoubtedly this edition maintains the high standard previously set.

J. GLOSTER

Intraocular Lenses. Ed. DALJIT SINGH. Pp. 225. £25.75. Praeger: New York. 1981.

Despite the fact that this book has been dedicated by the authors to 'the ophthalmologist who wants to learn more about intraocular lenses' it is really rather difficult to determine at which readers it has been directed. The book certainly gives an account of intraocular lenses and their usage up to 1979 and contains a lot of rather personal views in connection with the surgery. For an ophthalmologist already practising intraocular lens surgery it contains nothing new, and in fact the text is sadly out of date, as the subject has marched on a good deal since this book was assembled.

For the student seeking surgical guidance the text cannot be recommended, not so much because it is now behind the times but more because of some of the controversial material included. It is difficult to ignore statements to the effect that the superior rectus suture can be used to lift an eye out of a deep socket to facilitate surgery, but, more dangerously, the views expressed on indications and contraindications would be quite invalid in the UK.

A chapter is included on the insertion of intraocular lenses in very young patients, including infants, and I think that insufficient care has been taken to remind the reader that even in 1982 such views are not widely supported even in the United States.

This book deals in a way which is neither radical nor illuminating with a subject which has already been well covered in better texts, and I fear most purchasers would run the risk of being either disappointed or seriously misled.

A. D. MCG. STEELE

The Cranial Nerves. Eds. M. SAMII AND P. J. JANNETTA. Pp. 664. DM 180.00. Springer-Verlag: Berlin. 1981.

It is a great pity that the quality of this book is so patchy. It is an interesting attempt to synthesise anatomy, physiology, pathology, medicine, and surgery. Some of the reviews are very good (for example, Jannetta's chapter on the treatment of trigeminal neuralgia and hemifacial spasm), others are written in the most appalling English, which surely in a book written in English should have been corrected by the English-speaking editor, who should make sure that sentences like this do not appear: 'In newborns it is like a canal outlet to the intracranial side which in the mid-canal region and in the orbital exit looks like a rounded and on-point standing triangle or ellipse' (p. 77, referring to the optic canal). Unfortunately there are many other infelicities of style; arachnopathia pontocerebellaris may be perfectly meaningful to those of us who remember our Latin but not