In the objective electrophysiology – the electroretinogram, slow potentials, and spike activity, lateral geniculate and cortical response, receptive fields, etc. – which occupies the first three of the eleven chapters of the book, the author's researches dovetail with much current work, and he gives an interesting and detailed review of the present situation as he sees it.

In all, this is a book that every library concerned with the visual sciences will need to have.


In this stimulating work, the authors deal with disturbances of primary wound healing from both bacterial and other more mysterious causes. When accurate records of careful observations are analysed they find an overall figure of 10 to 15 per cent. abnormality in healing. It is most important to rely on careful statistics and not estimates and subjective impressions, and the examination of records of over 30,000 general operations cover series both before and after the second world war. The incidence of complications shows no change despite the introduction of antibiotics which may indeed have led to less strict asepsis in surgery. The role of bacteria and antibiotics is detailed and other factors are considered. The age of the patient and acuteness of the condition concerned are important; time of year is not. Figures vary with the nature of the operation but the statistics for different series of the same operation are consistent. Although the patient's age and the duration of the operation are two factors which have worsened recently, improved anaesthesia and earlier mobility have countered them. The references and index are good and the editor's observations on the principles of sound wound healing, and especially his insistence on the need for continued asepsis, will apply to ophthalmic surgery as much as to the general surgery he considers.


The author surveys the physiology of vision and the relation of the physiological data to the perception of light and colour. He believes that only under unusual conditions are the perceptions strictly related to the stimulus and the physiological processes in the retina and the optic pathways. Under normal familiar circumstances, the impressions are modified by psychical adaptation, especially by verbal associations mediated from Broca's centre. The author calls this auditory cooperation a “verbal reflex”. It appears difficult to distinguish between normal and unusual circumstances. Further, the reviewer calls as witness Duke-Elder who stated that “the vision of colour in normal illumination is no less problematic than vision in abnormal illumination”. The combination with tactile impression, which the author recommends for the re-education of a faulty localization after squint operations, has been practised for a long time. The statements that psychological adaptation can succeed in perceiving as upright an image which has been inverted by a “prism” and that a nervous impulse is travelling up to a “meningeal” centre are obvious mistakes. The author believes in the generally accepted three-cone colour theory of Young-Helmholtz. The explanation offered by this theory for the phenomenon of simultaneous and successive contrast, and that of complementary-coloured after-images is not very convincing, though it has to be admitted that Hering’s teaching of dissimilation and assimilation is also open to criticism. The old conception that different sense perceptions have to make use of different nerve fibres is controversial, since it has been demonstrated that elements in the optic nerve and in the lateral geniculate body react differently to an “on” stimulus of light waves than to an “off” stimulus. It is conceivable that the same cone reacts in eliciting a different colour sensation by different wavelengths of light. Hitherto even the electron microscope has shown no anatomical difference between the cones which are supposed to react independently on red, green, or blue light waves. The author describes with remarkable certainty,