## BOOK REVIEWS

**Colour Theory and Its Application in Art and Design**. G. A. AGOSTON, 137 pp., illus Springer Verlag, New York, 1979, DM 49.

As its title suggests this book is mainly directed towards artists and designers, but the author's intention is that it should be suitable for anyone who is interested in colour. It aims to be relatively non-technical by avoiding equations and using many graphs. On the other hand, the series' editor argues reasonably that the book is "not condescending or trivial" and should appeal to "knowledgeable scientists". This is Volume 19 of the Springer Series in Optical Sciences edited by David L. MacAdam.

It would be unreasonable to expect a book of 137 pages, 55 figures and six colour plates to be totally comprehensive or even expect it to live up to everyone's idea of a balanced view of colour. The author's background is in engineering as well as art and art education, and this has clearly influenced the mixture presented. There is very little on historical theories and the physiology of colour, although suitable references are given. The book concentrates on psychology and physics. The account is up-to-date including a short description of the Optical Society of America's Uniform Colour Scales. My main quibble is that there is nothing on the psychology of colour aesthetics. This is an area which would be of interest to the artist and designer but it is not even served by references. On the positive side there are good introductions to areas which optometric students and others should be more aware of including, for example, the Munsell Colour System and the ISCL-NBS colour names. In connection with the latter it seems strange that the author should devote 11 pages to an admittedly novel table which, while partially duplicating the information of the appropriate colour dictionary, still requires a Munsell Colour Set in order to be interpreted.

The brief introductory chapters lead up to explanations of the concepts of hue, saturation, brightness, lightness and brilliance. After this the author deals first with colour and light -wavelength; spectral and non-spectral hues; light from the sun, lamps, lasers and standard illuminants; and eye brightness sensitivity. A chapter follows on pigments and dyes; opaque, transparent and fluorescent materials; metamerism and matching colours; colour mixture by addition, subtraction and averaging; the primaries; and colour circles. The CIE Chromaticity Diagram is fully described along with its applications including discussions of colour names for lights; complementary colours; light mixing; "white light"; colour limits for materials; fluorescent paints; mixing paints; colour television and pointilistic paintings; colour differences; and colour temperature. After listing 20 colour sample sets the final chapter goes on to describe four — the Munsell, Ostwald and Natural Colour Systems, and the OSA Uniform Colour Scales.

This is probably a useful book for the student of colour.

C. N. FRENCH