

## BOOK REVIEWS

PEPINSKY (R.), ROBERTSON (J. M.), and SPEAKMAN (J. C.), Editors.  
*Computing Methods and the Phase Problem in X-ray Crystal Analysis.*  
 London (Pergamon Press), 1961. 325 pp. Price 63s.

The organizers of this Conference took advantage of the 1960 International Union of Crystallography Congress in Cambridge to invite those members particularly interested in computing to meet in the Chemistry Department at Glasgow University. Papers were specially invited to cover almost all computers known to be used in crystallographic research, and the resulting book therefore gives an exceptionally good coverage of this rapidly expanding field. Increases in the complexity of structures that can be solved are now largely dependent on advances in computing techniques, and in automatic devices for accurate data collection, many of which are themselves controlled either directly or indirectly by computers.

At present mineralogists tend to be the beneficiaries of the progress made in very intensive crystallographic research largely done nowadays by chemists and physicists; this seems a fair return for the great contributions made to crystallography by mineralogists in its earlier stages. However, much work on inorganic structures has a direct bearing on mineralogical problems, and although only one of the contributors to this book is a practising mineralogist, any who are interested in single-crystal diffraction will probably find that this is the best available survey of recent advances in this field. It should be required reading for anyone contemplating the preparation of their own computer programmes. It will probably save them months of work.

H. J. MILLEDGE

ESCHER (M. C.). *The Graphic Work of M. C. Escher.* London (Oldbourne Press), 1961. 61 pp., 57 plates. Price 21s.

A review of an annotated collection of graphic art may seem out of place in a mineralogical journal, but M. C. Escher has been fascinated by symmetry, enantiomorphism, and space-filling patterns, all matters of direct concern to crystallographers: and apart from the interest of these plates in themselves, teachers of crystallography will find them of considerable value in illustrating their subject. The book is to be highly recommended.

M. H. H.