while the isogyres are referred to as parabolas and are shown as moving in and out bodily, that is, not pivoting about the melatopes. Again, in distinguishing between uniaxial and biaxial crystals, the statements are made that a uniaxial crystal has two refractive indices and a biaxial crystal three, without making clear that these are the principal refractive indices and that they are not (with the exception of ω) necessarily presented by a random section, and that certainly no biaxial section presents three indices as the beginner might infer.

When dealing with that part of chemical microscopy which may perhaps be described as ordinary chemistry in miniature, the author is on firm ground, and the treatment is all that could be desired. So too is that in the introductory chapters on the principles, construction and use of the compound microscope and its accessories. The book is on the whole well produced, though consideration might be given in any future edition to improving the clarity of some of the photomicrographs of typical crystalline precipitates. Except for those parts criticized above, the book is a useful addition to the literature of chemical microscopy, particularly for the beginner.

N. H. Hartshorne

NATIONAL MUSEUM OF VICTORIA

Collections of a Century

The History of the First Hundred Years of the National Museum of Victoria. By R. T. M. Pescott. Pp. xii+186+18 plates. (Melbourne: National Museum of Victoria, 1954.) 30*s*. (Australian).

IT is proper that museums, in common with other traditional institutions, should pause at intervals and examine critically their past achievements, and from their failures or successes formulate their policies for the future in accordance with past experience. The present volume is a painstaking compilation by the director, Mr. R. T. M. Pescott, of the history of the first hundred years of the National Museum of Victoria. Dedicated to the memory of that great geologist, Frederick McCoy, the book forms a permanent record of the Museum. It also contains such pertinent remarks and observations that it has much of value for the whole museum profession and indeed for all those interested in museums. In an apt foreword, Sir Russell Grimwade, chairman of the trustees, stresses the especial responsibility of Australians to preserve a knowledge of the past in a country which, at any rate in its natural history aspects, has seen so many violent changes in the historical past.

In common with many museums, the National Museum of Victoria owes its origin to a local philosophical society and individually to an English army officer, Captain Andrew Clarke, R.E., who had the vision of a comprehensive museum in the colony of Victoria. Incidentally, it was he who gave it the right type of initial policy and insisted that its main function was to instruct rather than bewilder with a confused jumble of curiosities. In 1854 McCoy accepted the position of professor of natural science in the University of Melbourne and in 1858 was appointed director of the Museum. He remained in this position until his death in 1899. At the outset, he clearly differentiated between university museums, which exist for internal teaching purposes, and national museums, which contain material of national value for the instruction and recreation of the community. By means of wise purchases and other acquisitions McCoy amassed material, and the present comprehensive state of the natural history collections owes much to his foresight and vision. For example, the original description of the gorilla did not appear in print until 1847, when a skull only was included, yet by 1863 McCoy actually had specimens of these animals on display in his Museum. Of outstanding importance was the purchase in 1863 of the famous John Curtis collection of insects with many types, both British and foreign, offered, strangely enough, by Dr. J. E. Gray, of the British Museum.

In 1870 eighteen trustees were appointed to control the Museum, and McCoy had a particularly difficult time in obtaining funds. He complained of frustration in the execution of his plans, and it is to his credit and indomitable courage that he carried on with the Museum and eventually completed forty-three years of service, collecting some 510,000 specimens valued at more than £40,000.

After the death of McCoy, the Government of the State of Victoria turned naturally for advice on the future policy of the Museum to Prof. (later Sir) Baldwin Spencer, who had been appointed to the chair of biology in the University of Melbourne in 1887. He was appointed honorary director, and the Museum was moved from the precincts of the University to the Public Library buildings. The first result of the new policy was the inclusion of anthropology in addition to the sections of natural history, and secondly, the arrangement of the collections on an evolutionary rather than a geographical basis. Spencer resigned in 1928 in order to write up his earlier, and conduct new, researches, but in 1929 he died of a sudden heart attack.

James Kershaw, previously curator, was appointed director after the Museum had been served by two honorary directors (McCoy and Spencer) for a period of seventy-five years—surely a unique record. Kershaw brought to his new position a wealth of experience in the service of the institution. Since 1925 the Museum had unfortunately experienced a decline in public interest, and one of Kershaw's first acts was to introduce dioramas and habitat groups—the first to be seen in Australia. He also planned a special aboriginal art exhibition. In 1931 Kershaw severed his official connexion with the Museum—closing a record of more than seventy years continuous service of father and son—and Mr. D. J. Mahoney was appointed director. Mahoney placed an emphasis on the function of research in museums and immediately set about the reorganization of the *Memoirs of the National Museum*. He also advised the strengthening of the small staff by the appointment of honorary workers.

It was in 1944 that the present director was appointed, and during the ten years he has been in office it is evident that he has devoted much attention to the educational aspects of the Museum. He has already laid down how an educational objective could be achieved in a new building on a site which was reserved in 1948.

This well-produced volume closes with a chronological history of the institution and a list of the present trustees and staff. It is no dull monotonous historical record but a vivid—in some cases day-by-day—recital of the activities of a live institution. Moreover, it contains much that will serve as an inspiration to Mr. Pescott's museum colleagues throughout the world.

F. S. Wallis

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