

Reviews

A CONTINENT FOR SCIENCE: THE ANTARCTIC ADVENTURE. By RICHARD S. LEWIS. New York: The Viking Press, 1965. (Distributed in Canada by The Macmillan Company of Canada Limited). 6½ x 10¼ inches, xx + 300 pages, photographs, maps, charts. \$9.95.

This book is written by a journalist-correspondent for a lay audience. The author does not say anywhere in the Preface or main body of the book that he has pitched the book at the lay reader, and the dust jacket states that the book was "Conceived as a labor of love after the author's two trips to Antarctica . . .", but the journalistic style of writing, the quasi-encyclopedic coverage of subject material, and the attempt to dramatize the work of antarctic scientists reveal the author's intent.

Mr. Lewis begins, in the first two chapters, by tracing the history of exploration of the antarctic continent from the time of its discovery in 1820 to the beginning of the International Geophysical Year in 1957. Following this, the author concentrates, in Chapters 3 and 4, on one of the main aims of the I.G.Y., the measurement of the thickness of the antarctic ice cap and the determination of the shape of the land beneath it. The author recounts the results obtained by I.G.Y. geophysicists during their traverses in mechanized vehicles across hundreds of miles of the ice cap and ice shelves.

In Chapter 5 the author deals with continental drift and Antarctica, while Chapter 6 tries to explain the reason why ice cores are important to glaciological inquiry and climatological history. Following this, Chapter 7 deals with antarctic meteorology, Chapter 8 with the aurora and whistlers, and Chapter 9 with the biological world of the southern continent and its surrounding ocean. The book ends with a chapter on the Antarcticans, the name given by Lewis to the men who carried out the various scientific and logistic tasks in the Antarctic during and since the I.G.Y.

The book contains no glossary but it is probably not needed since most scientific terms are defined when they are introduced in the text. The book contains 274 illustrations with captions but without numbers. Simplified maps and charts are included but several have no scale. The index containing nearly 1000 entries is highly useful but the list of references for each chapter leaves something to be desired.

There is no systematic treatment of entries; some items are identified only by title and author, or by title alone; and many are not dated. Some of the references leave the reader in the dark as to whether the entry refers to a book, article in a journal, or personal communication. Although most lay readers pay little attention to references, this is one place where the author could have exercised more professional acumen.

Lewis does a fairly respectable job of describing the scientific activities going on in the Antarctica under the auspices of the National Science Foundation. Some misstatements of fact are present, however. In accounting for the differences in past summer and winter snowfalls revealed in snow pit studies, Lewis says that "the darker bands represented summer snow, which is darker because it is denser and contains more dust blown in from the tropics" (p. 78). Most antarctic glaciologists would agree that tropical dust has little or nothing to do with the macroscopic difference between summer and winter snow layers. On page 169 he quotes Morton Rubin as reference for the contention that "The annual deposit of snow on the Antarctic ice cap has been estimated at 4.25 to 6.54 inches." He means, of course, the water equivalent of annual snowfall. On the same page he contends that melting of the antarctic ice cap would cause sea level to rise 240 feet, whereas most estimates place the rise at around 195-200 feet. The figure given by Lewis is closer for the amount of sea level rise caused by the melting of *all* glacier ice on earth. A non-scientist author can be excused for these garbled facts although it is unfortunate that they occurred because they tend to be propagated when other writers quote Mr. Lewis' book as a factual source of such information.

Mr. Lewis has tried to credit contemporary scientists, by name, with various of the ongoing research activities in the Antarctic. He does a reasonably good job of this but has erred in identifying some of the scientists with their respective institutions or professional callings. For example, Edwin Robinson is berthed at the University of Minnesota instead of the University of Wisconsin, and Erling Dorf at Michigan instead of Princeton. E. W. Marshall is cited as a University of Michigan faculty member instead of graduate student. Laurence Gould is correctly identified as a member of the 1928-30 Byrd Expedition and

a professor of geology at the University of Arizona but no mention is made of his years as one of Carlton College's most outstanding presidents. There may be others, not known personally to this reviewer, who also have been misidentified.

Mr. Lewis' idea of relating the scientific work in the Antarctic to the men who planned and carried out the research is a good one. Supposedly, this was done to 'humanize' the story as told by the author. The humanization does not come through very well, at least not to this reviewer. Names mean very little to a reader unless he can attach them to individual characteristics and personalities. The people named by Lewis in his book do not seem real, an unfortunate circumstance which only adds to an already mistaken concept held by laymen about scientists, namely, that they are cold, humourless stereotypes who subjugate their own personalities to their scientific work.

Because Mr. Lewis does not say what he was trying to accomplish by writing *A Continent for Science*, it is difficult for one to say whether he has succeeded or not. If the book is really 'a labor of love', as the dust jacket claims it to be, then Mr. Lewis will have to be his own judge. If it is offered to the public as an informative book for the non-scientist who wants to get an idea of what the Americans have been doing in the Antarctic, *A Continent for Science* is reasonably successful. Mr. Lewis had to do a considerable amount of research to be able to write this book because it does cover an enormous range of subjects that must have been quite foreign to a person of his professional background. Were it not for the unreliability of the author in reporting scientific facts and other information, this reviewer would have been more enthusiastic about *A Continent for Science*.

JAMES H. ZUMBERGE

LETTERS FROM HUDSON BAY 1703-40. K. C. DAVIES, editor, London; *The Hudson's Bay Record Society*, Vol. XXV, 1965. lxxiii + 455 pages.

This latest volume assembled from the Company's archives gives us in full the reports home from the posts of Albany, York, Churchill, and Moose in the early eighteenth century — scattered at first; regularly and annually at the end.

At the beginning only Albany was in the Company's hands; all other posts had fallen to the French. After the treaty of Utrecht, York Factory was handed back (quite cheer-

fully by the French Governor, as he had experienced nothing but difficulties and the buildings were in ruin). From this date on it was a period of expansion for the Company, but although French military activity was over, the competition of their trading posts inland and of their 'wood-runners' was considerable.

The letters give us an intimate picture of the stern monastic life at these tiny outposts. There were 27 men holding the remnant of the Company's empire in 1703, a number that was to grow to 530 by the end of the century, nearly 80 per cent of whom were then Orcadians (J. W. Anderson, *Fur Traders Story*, Toronto 1961).

A stern eye was kept by London on every matter pertaining to finance and discipline with an annual volley of detailed instructions, to which the harassed post managers replied as best they could. From Kelsey's biography we learn that his wages ceased the day he was captured by the French in 1694. And much writing is devoted to success or failure of the goose hunt on which the Company's men relied greatly for winter fare.

Despite what an authority such as Margaret Lantis has said recently in *The Arctic Frontier* (ed. R. St. J. Macdonald, Toronto 1966), there was considerable inter-Indian warfare, particularly conflicts between the Crees and Athapaskans. In 1724 the 'Southern Upland' Indians had massacred the 'Northern' Indians' families, while the latter were endeavouring, as urged by the Company, to increase their catch of small furs. (Beavers were beginning to glut the market, as the French were finding to their cost.) And there was always Indian hostility to the Eskimo. After one raid on the East Main a surviving captured Eskimo boy was purchased from the Indians by the Company for 1 pound tobacco, 1 gallon brandy, and 1½ yards of blue cloth!

The local managers were always endeavouring to curtail such strife for the sake of trade, sending men with interpreters to pacify the tribes, but further civilising attempts were frowned on — "The Company are very much displeased to hear that any Indian is taught to Write and Read . . . nor suffer any such practice in the future" (p. 102).

No, their job was to survive as best they could and trade. Many interesting details appear about this trade. We meet the comically anglicised terms for strange North American furbearers, quickhatches (wolverines) and veejacks (fishers). "White fox is of little value to us." (How different in the 1920's to 1940's) "Ye Rabbit and musk Ratt not worth sending home."