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Review

THE UNBELIEVABLE LAND: 29 EXPERTS BRING US CLOSER TO THE ARCTIC. I. N. SMITH, ed. *Ottawa: Queen's Printer for the Department of Northern Affairs and National Resources and the Northern Service of the C.B.C.*, 1964. 5½ x 8½ inches, 140 pages, 34 plates, 2 maps, \$2.50.

Among the numerous books and maps in the Arctic Institute Library at Montreal is a collection of tape recordings. They are a unique record of talks specially prepared for the Northern Service of the Canadian Broadcasting Corporation by government and university scientists on their work in the Arctic. Collected and edited by Mrs. Maja van Steensel-James of the C.B.C. with the cooperation of the Montreal office of the Institute, these broadcasts were so enthusiastically received that the Department of Northern Affairs sought to make them more widely available in book form. Inspired by Jim Lotz of that Department's Northern Co-ordination and Research Centre the volume of material was reduced, and the formidable task of editing was entrusted to the capable hands of I. Norman Smith, editor of the *Ottawa Journal* and a former member of the Northwest Territories Council. The potential of the book was soon realized, and Governor-General Vanier, himself a 6,000-mile visitor to the Arctic, wrote the foreword to *The Unbelievable Land* and its twenty-six authoritative articles on "science north of the trees." A concluding "Long Gaze" into the future is given by R. Gordon Robertson, formerly Deputy Minister of the Department of Northern Affairs and

National Resources and Commissioner of the Northwest Territories.

Editor Smith assures high reader interest (the book has had a fourth printing) by retaining scientific accuracy and the enthusiasm of the authors for their work. He couples this with a tinge of humour in his brief chapter introductions.

The book appeals to a wide cross section of readers as it not only introduces one to arctic research but broadens the knowledge of even those familiar with the North. It dispels some widely held misconceptions and provides details of recent research in specific fields. In setting the scene for the following sections, Trevor Lloyd's opening chapter on the human geography reminds us of the many differences within the North. These include: the distribution of the Eskimo in the tundra and the Indian south of the tree line; the economic differences offered by the minerals of the shield and the potential of coal and oil in the younger rocks to the west and north; and the differences of physical geography which affect accessibility. The latter helps explain why we have been slow and sometimes negligent in developing our North. Lloyd suggests we take a leaf from Russian and other northern notebooks and adapt their techniques to our needs, look upon the North as not being radically different from other parts of the country and intensify our research. The other twenty-five chapters show how we are doing this in our studies of man, of plants and wildlife, and of the land, waters, ice, and the atmosphere above.

Diamond Jenness tells of his personal admiration for the Eskimos and their adaptation to the harsh environment through the development of certain skills of survival not possessed by other native peoples. Graham Rowley writes of the change confronting the 60,000 Eskimos in the world, 12,000 of whom are in Canada. We can learn much from them, not only from the way they have survived but from their human relations, friendliness, teamwork, and interdependence. G.-R. Lefebvre notes how their language is threatened by its number of dialects and the spread of "southern" languages. Other aspects of the social anthropology of the North are examined by V. F. Valentine in his queries into the traditional hunting and trading economy of the natives compared to the conditions of those seeking wage employment in towns and mines. Elmer Harp regards man's arctic story in the broadest possible perspective and integrates it with his total culture history. J. A. Hildes' research concludes that man's survival in the Arctic is due to his mastery of the environment to provide himself with clothing, heat, and shelter, and not because of physiological adaptation to the extreme cold.

In the section on flora and fauna many facets of biological activity — from the hunting tactics of the wolf to the migration patterns of the caribou — are described and the importance of wise conservation practices is stressed. Little-known facts about the murre colonies, the migration of the gulls and terns and the wheatear thrush (which winters in Africa) invite detailed study of L. M. Tuck's article. Readers will find T. N. Freeman's studies of insect life most unusual and A. E. Porsild's explanations of the complex ecological factors influencing plant distribution skillfully summarized.

Equally absorbing is the research of the physical scientists which fills the second half of the book. Permafrost, whose intricate patterns are unique features of the landscape, influences the work of the geomorphologist, the engineer, the soil scientist, and the surveyor.

F. Muller and M. Dunbar remind us of the changing ice on land and sea as measured in deep shafts sunk into glaciers or on photographs from aircraft and satellites. Beneath the permafrost and sea ice lie two of the main resources of today — and tomorrow — the mineral wealth of the rocks and the marine life in the seas. New techniques of the geologists and biologists have increased our understanding of their potential to permit their wise development.

The scope of arctic science is illustrated in the closing chapters where W. Currie summarizes auroral phenomena, T. Harwood outlines the work of the International Geophysical Year, and T. Wilson talks of the ocean floor and the inside of the earth.

Gordon Robertson's "Long Gaze" defines progress as the broadening of human possibilities. Certainly the conquest of the Arctic presents a peculiarly Canadian challenge and it will be met as others join I. McLaren in unravelling its mysteries as a "task and a pleasure" in the years to come.

One of the unexpected values of the book is the biographical sketches of the twenty-nine authors, which indicate the type of men and women who have contributed so much to our knowledge of the North. The list includes three holders of the Massey Medal of the Royal Canadian Geographical Society "for outstanding personal achievement in the North", eight Fellows of the Royal Society of Canada and eleven Fellows of the Arctic Institute. Fifteen are native Canadians, which also destroys a popular belief and shows that some Canadians are deeply interested in their own North.

Arctic research and development require the close cooperation of many disciplines. This spirit is reflected in the book, which resulted from the collaboration of the Printer, the C.B.C., Northern Affairs, and the Arctic Institute. If it leads you to further studies, write to Northern Affairs for a detailed bibliography or consult the Institute Library where the tapes are.

R. NORMAN DRUMMOND