

water content of clouds determined at 20 GHz and this effect were used to locate atmospheric fronts. The possibility of using these data to forecast the movement of cyclones and the determination of sea roughness parameters using the two-dimensional spectral analysis of radar images using side-locking radar was explored. The extra noise observed when the sea is storming was found to be reduced by signal averaging. Power spectral analysis was used to develop empirical models that can be used to distinguish between separate wave systems and can be correlated with direct sea roughness measurements. The role of wind speed was explored. The morphology and dynamics of the five types of sea ice cover were studied on a macroscopic scale and related to a variety of weather conditions ranging from strong anti-cyclonic to strong cyclonic. Dielectric and elastic measurements were performed on the various ice types and correlated with other physical parameters and temperatures from -1 to -15°C . Ice covered 74-90% of the study region and was only one year old or younger.

Clearly, very comprehensive measurements were made within the study area of all the physical and meteorological factors that could affect satellite microwave radiometric scanning of the earth's surface in the Arctic Ocean region. The results of these cooperative scientific studies made significant contributions to the state of our knowledge of satellite imaging ten years ago. Today they are primarily a historical record of this state at a time when there was a thaw in relations between the U.S.A. and the U.S.S.R.

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SONS AND SEALS: A VOYAGE TO THE ICE. By GUY WRIGHT. Newfoundland Social and Economic Studies No. 29. Institute of Social and Economic Research. St. John's, Newfoundland: Memorial University of Newfoundland, 1984. ISBN 0-919666-45-0. ix + 126 p. incl. annotated bib., 3 appendices. Softcover. No price indicated.

Sons and Seals is the most recent addition to a still small, but growing, body of social science literature concerned with the effects and consequences of the anti-seal hunting-animal rights movement on northern and Maritime rural and native communities in Canada. As most readers of Wright's work are aware, the spring hunt for harp and hooded seals off Canada's coast has become the focus of widespread public and scientific discussion. The larger reality, however, is that the controversy extends beyond the immediate geographic area and hunt discussed by Wright and others (see Coish, 1979; Lamson, 1979) to include all communities where a primary subsistence-secondary commercial dual economic strategy, as described by Berger (1977), is practiced.

Wright, in this book, has attempted to both describe and analyze anthropologically the social dynamics of contemporary Newfoundland sealing and, in so doing, present a counterpoint to the arguments of the hunt's opponents suggesting the hunt is motivated by purely crass commercial reasons and no longer holds any meaningful place in Newfoundland society. While these objectives are well aimed, *Sons and Seals* is not wholly successful on either count.

The anthropological technique employed by Wright is one well known to northern ethnologists, that of direct participant observation combined with a modified interview approach. Given the physical and socio-cultural setting in which the research was conducted, Wright wisely eschewed alternative formal methods. Much of the success of his research is attributable to his methodological approach. The major deficiency in this work with regard to the strength of the anthropological analysis and to the counter-arguments it provides is also, in part, due to the chosen approach.

While describing well the main aspects of the seal hunt and the bonding that occurs and continues between participants, the scope of the work suffers from a lack of broader perspective, especially one grounded in a cultural ecological approach. Wright touches in this direction when he asks the question "Why Do Sealers Seal?" in chapter seven, but by limiting the discussion primarily to examples of individuals with whom he shipped, he has lost the social context of a whole society. Thus while providing analytical depth to the research, along the way he removes some of the power from his counter-protest arguments.

These criticisms, however, should not detract from a basically well-conceived and executed research project, which was ambitious for a master's candidate. As already noted, the field methods used were most appropriate; indeed, many candidates bound for the field could well take notes here. Wright also provides a three-dimensional portrait of a micro-society, which has been lacking so far in the scholarly literature. Finally, in chapter seven some extremely important insights are offered into the Newfoundland society from which these sealers come. One last point concerns the appendices. The last, Paul Watson's letter to the sealers of Newfoundland, does not do justice to the varied and deeply thought-out views held within the animal rights movement.

Wright has written an important contribution to our understanding of the sealer's position within the current controversy. Along with Coish and Lamson, *Sons and Seals* helps form a reference core for the better understanding of a key area in an expanding confrontational situation.

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AN ARCTIC WHALING DIARY. THE JOURNAL OF CAPTAIN GEORGE COMER IN HUDSON BAY 1903-1905. Edited by W. GILLIES ROSS. Toronto: The University of Toronto Press, 1984. xi + 271 p. incl. maps, illus., glossary, bib., appendices. Hardcover Cdn. \$29.95.

The era of commercial whaling by whalers from New England and, to a lesser extent, Scotland in northwestern Hudson Bay was really quite a short-lived phenomenon in the history of the Bay, extending only from 1860 to 1905. Thus the whaling voyage of the *Era* described by her captain, George Comer, in his journal was in fact the last to be made by a New England vessel to the Bay. The causes of the collapse of this fishery were the almost complete extirpation of the stocks of bowhead whales (*Balaena mysticetus*), combined with the disappearance of the market for baleen. In publishing this edited version of Comer's journal, Ross has thus provided a valuable insight into the final phase of an extremely important chapter in the history of the Canadian Arctic. Significant, for example, was Comer's imaginative innovation of sending his whaleboats on prolonged independent, self-contained cruises, often while his ship was still in winter quarters, in an attempt to cover the maximum possible area in search of the few remaining, elusive whales.

Although brief, the period of commercial whaling in the bay had a profound impact on the various Inuit groups of the northern Keewatin. It resulted in significant changes in distribution patterns, seasonal movements, and especially in the material culture of the Inuit. Probably the most striking fact to emerge from Comer's journal in this connection is that whaleboats owned by and entirely manned by Inuit were actively engaged in whaling almost on a contract basis.

Over the decade in which he spent repeated winters in Hudson Bay, Comer developed numerous close friendships among the Inuit and went to considerable lengths to help them whenever possible. The depth of his feeling for them emerges clearly from the pages of his journal. Although entirely self-educated in the field, Comer was a keen amateur anthropologist, making plaster casts of the faces and hands of many of his Inuit friends, collecting artifacts, and taking some excellent photographs, from which Ross has made an excellent selection to illustrate the journal. Comer also published a number of scientific papers on the Inuit of this area in journals such as the *Bulletin of the American Geographical Society of New York* and the *American Anthropologist* and freely made his information available to anthropologists such as Franz Boas.

One of the ironies of the political history of the Canadian Arctic is that the Canadian government awoke to the possible dangers to Canadian sovereignty represented by the American whalers wintering in Hudson Bay and the Beaufort Sea when the danger had all but passed. It must have come as a rude shock to Comer to find in the fall of 1903 that his ship *Era*, practically the last of her breed, would be sharing her wintering harbour at Cape Fullerton with an official Canadian government expedition aboard the *Neptune*, led by A.P. Low, and including a detachment of the Royal Northwest Mounted Police under the command of the rather officious Inspector Moodie, who took very seriously his duties of maintaining surveillance of the trading and other activities of the American "intruders". During the following winter Comer and his men again enjoyed the mixed blessings of wintering in close proximity to an official Canadian government expedition, this time aboard the *Arctic* with Inspector Moodie in overall command. Published accounts of both these expeditions as seen from the Canadian viewpoint have long been available (Low, 1906; Moodie, 1905, 1906), and it is both illuminating and often entertaining to be able to compare Comer's descriptions of events with these earlier accounts — especially with regard to Moodie's attempts to influence or curtail the American captain's activities.

Ross is the acknowledged expert on this era of commercial whaling in Hudson Bay and he has a number of impressive scholarly works on the topic to his credit (Ross, 1975, 1976, 1977, 1979). In his acknowledgements he describes the task of editing Comer's journal as "a pleasant side trip from research" into this area. But this is not to suggest that he has in any way relaxed his usual rigorous scholarly standards. His introduction, some 35 pages in length, represents an excellent sketch of American whaling in the Bay at this period, with all its implications both with regard to the Inuit and to Canadian sovereignty; and his footnotes, which occur in just the right number to clarify without interrupting the flow of the journal, are of an equally high scholarly standard. As exemplifying the flavour that Ross has imparted to the work, one footnote deserves to be quoted at length. Footnoting the occasion in November 1903 when Inspector Moodie held a formal ceremony to impress upon the Inuit that they were citizens of Canada and subjects of King Edward VII, Ross writes:

Moodie then questioned the Eskimos about their practices of infanticide, parricide and cannibalism, to which they understandably gave evasive answers. Following his interrogation Moodie "with real ceremony presented a suit of woolen underclothes to each of the twenty-two adult Eskimos and a tuque, a pair of mittens and a sash to each of the boys."...The irony of the situation, although not apparent to Moodie, was abundantly clear to Borden, Comer, and most certainly to the Eskimos. Here were a people who had maintained intimate ties with foreign whalers for more than forty years being treated as simple, helpless, credulous savages. Here were men who possessed whaleboats, darting guns, shoulder guns, and all the sophisticated paraphernalia employed in the pursuit of bowhead whales, who hunted

with telescopes and powerful repeating rifles, and who normally wore American trousers, shirts, jackets, hats and sunglasses. Here were women who used manufactured domestic implements and containers, who made up clothes on sewing machines, who attended shipboard dances in imported dresses, and who bore children sired by the whalers. To these people an officious, uniformed stranger was distributing underwear as if it were a priceless treasure and lecturing them on morals and their allegiance to a big white chief. When Moodie suggested that the Eskimos might wish to travel 500 miles to Churchill to send joyful messages of thanks to the king, no one responded.

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EMILE PETITOT: UN CAPITOLO DI STORIA DELLE ESPLORAZIONI CANADESI. By SIMONETTA BALLO ALAGNA. Genoa: Libreria Editrice Mario Bozzi, 1983. 264 p. Softcover. (In Italian.)

The biographing of Arctic explorers is an expanding and highly rewarding area of research, being partly stimulated by such excellent reference aids as *The exploration of Northern Canada, 500-1928*. From such a work it is possible to gain some notion of the vast range of exploration in Canada and the need to acknowledge the achievements of those who, though not capturing the public imagination as completely as, say, Franklin did, nevertheless made an important contribution to the exploration of the Canadian north and its peoples. One such person was Fr. Emile Petitot (1838-1916), a man who lapsed into near obscurity well before his death but now seems to have been refurbished by a spate of publications in recent years. Petitot is in the long and generally honourable tradition of missionaries who involuntarily became discoverers; he also typifies the self-sufficient explorer who realizes he must master many skills. So it is that Petitot became a first-rate geographer and cartographer, filling in many blanks that still existed in the maps of northwest Canada in the late nineteenth century (for which he was awarded the Back Prize in 1883). He was a great linguist who not only learned to communicate directly with the native peoples but actually compiled and published a monumental dictionary of Athapaskan Indian languages. His gift for language is evident, too, in his detailed and graphic chronicles and journals, among the most entertaining of which is *Les Grands Esquimaux*, recently translated into English by E. Otto Höhn