

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  $-15^{\circ}\text{C}$ . 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.

#### REFERENCES

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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.