ROSS IN THE ANTARCTIC. The Voyages of James Clark Ross in Her Majesty's ships *Erebus & Terror* 1839-43. By M.J. Ross. Whitby: Caedmon of Whitby Press (9 John Street, Whitby, Yorkshire, Y021 3ET, England), 1982. ISBN 0-905355-27-X. 276 p. £12.50.

Captain Sir James Clark Ross died in 1862. Less than a century later his tomb at Aston Abbots was neglected, leaning in a lopsided way, with the inscriptions on the way to being indecipherable. That was a measure of the extent to which Britain's outstanding polar naval officer had been forgotten.

Until the age of 34, Ross was a subordinate in the six Arctic expeditions he joined, receiving little notice in the narratives. To some extent the fault lay with the authors of those books, though the absence of an account of his sledge journey to Lord Mayor's Bay may have been his fault, or that of John Ross, or of both; but to a large extent the blame lay with Ross himself. When he wrote about his three seasons in the Antarctic, he did so in a dull way that did not attract readers. His last expedition, in 1848-49, was a failure, though a good performance for man of his age; he wrote nothing but an official report. In the last thirteen years of his life, he "went to pieces" and wrote nothing.

What has long been needed is a new account of his voyage of 1839-43, based on additional sources of information, written by an author who could put life into the story. Since Ross's day, M'Cormick had published his odd autobiography. The letters of Joseph Dalton Hooker, Ross's Assistant Surgeon and naturalist, which throw an interesting light on the human side of the voyage, have been published. Some of the official papers at the Public Record Office have become available, as have the archives of the Hydrographic Office. Some of James Ross's letters and other sources have appeared.

As the author of this account, we have M.J. Ross, one of the great-grandsons of James Clark Ross, who has spent 37 years in the Royal Navy, and so is well placed to tell the story again. He has written a most readable narrative, enlivened by quotations from contemporary sources, describing the day-today events through the eyes of the men who went through it, and so much more interesting than Ross's official narrative.

In addition, there are service biographies of some of his officers, some of whom either had served in the Arctic or were later to do so. The most interesting of these young men was Joseph Dalton Hooker, young and newly qualified but with a sound scientific training under his father, Sir William Hooker, already distinguished for his work in botanical gardens. As it happened, the Surgeon, Robert M'Cormick, was a genial fool, and most of the biological work fell to young Hooker. During the voyage (with the help of Ross himself) and afterwards, he took exceptional pains in collecting, sorting, classifying and describing the specimens he found. That was useful in itself, but more important was that this prepared him for his support of Darwin when the theory of evolution through natural selection startled the scientific world. Hooker went on to become one of the outstanding botanists of the nineteenth century.

The scientific results appeared in dribs and drabs, in many journals and publications, for there was no central authority to publish them as there was thirty years later for the *Challenger* expedition. A welcome feature of this book is the chapter on the results, including terrestrial magnetism (a special interest of Ross's after having reached the North Magnetic Pole), oceanography, marine biology, botany, zoology, and geology. It summarizes the work and assesses their value, a feature long neglected.

It is for this reason, among others, that this book is most welcome, bringing James Clark Ross out of comparative oblivion. It brings him out as a scientific naval officer, the best that the nineteenth-century Royal Navy had.

The book is well produced. There are seven clear maps, three dozen pictures; Ross's charts of the south polar regions and the Ross Sea (often missing from available copies of his book) have been reproduced. There is an index.

It is a great pity that the material no longer exists for a full biography of James Ross, covering his sixty-two years. That would show his real stature beyond doubt.

FROM SEA UNTO SEA: ART & DISCOVERY MAPS OF CANADA. Edited by JOE C.W. ARMSTRONG. Scarborough, Ontario: Fleet Publishers, 1982. \$45.00.

In its early stages, the cartographer's image of the Canadian landmass was as much a product of his artistic vision as his geographical knowledge. From Sea Unto Sea visually illustrates this truth through a collection of 38 maps of Canada published between 1556 and 1851. The maps are from the author's personal collection and are accompanied on facing pages by remarks on the historical, aesthetic, and geographical background of the particular plate. Arranged chronologically, the charts invite the viewer to join in the Age of Discovery, bearing witness as the outlines of Hudson Bay and the Great Lakes take on their now-familiar contours. The series opens with Giacomo Gastaldi's woodcut of "La Nuova Francia", an imaginative interpretation of geographical discoveries made by Giovanni da Verazzano in 1524 and Jacques Cartier in the next decade. Curiously, Gastaldi's map ignores the discoveries made by his countryman Giovanni Caboto, who is perhaps more familiar by his anglicized name, John Cabot. Clearly, Gastaldi saw the map as far more than a technical outline of the known coasts of the New World; it is a concept, a humanized image peopled with Indian figures, its seas alive with ships and monsters and with the Grand Banks lying off the coast like a giant serpent.

"Septentrionalium Terrarum Descriptio", one of the 19 colour plates, was created by Gerhard Mercator in the late sixteenth century. A forerunner of the modern method of rendering spherical geography (appropriately termed the Mercator Projection), the map is as rich in speculative fantasy and design sense as it is mathematically innovative in the science of cartography. California extends as near to the North Pole as does Greenland, and at the exact center of the polar sea stands the "magnetic rock" of Mercator's fancy. The values of sixteenth-century cartography were unquestionably not those of the modern surveyor.

Of special arctic interest are those maps graphically displaying the gradual unfolding of Hudson Bay and Davis and Hudson straits. Although southern Canada provides the focal point of From Sea Unto Sea, the collection gives a solid notion of the puzzle that confronted the early searchers for the Northwest Passage, and it was this quest, of course, that ultimately brought the light of geographical knowledge to all but the most northerly of Canada's arctic islands. Cornelis Van Wytfliet's 1597 map "Estotilandia et Laboratoris Terra", for example, shows Frobisher Bay as a "strait" across the southern tip of Greenland and Cumberland Sound as an inlet in the North American mainland

Also particularly relevant to the Arctic are the maps of Samuel Hearne's and Alexander Mackenzie's explorations. Typical of the man's character, Hearne's map of the region between Hudson Bay and the Coppermine River is unadorned. Mackenzie's map, drawn up by cartographer Aaron Arrowsmith, is remarkably accurate and lacks the compasses, rosettes, and gargoyles of an earlier style, thus reflecting changing priorities. Nevertheless, it maintains a pleasing aesthetic quality absent in most modern charts.

I was at first surprised to see a collection of early Canadian maps that did not include a sample of David Thompson's work. But as I looked through the book and thought back on the Thompson maps I knew, I realized that Thompson earned his celebrated reputation as a surveyor. In a technical sense, his work significantly advanced the survey of Canada, but his maps had little intrinsic value as art. Thompson's life, which spanned the eighteenth and nine-teenth centuries, would not exclude him from the historical scope of this collection, but his maps were harbingers of our modern age and values.

The comments accompanying Joan Blaeu's 1662 map of eastern Canada conclude with these lines from Robert Herrick's "A Country Life":

But thou at home without or tyde or gale,

Canst in thy Map securely saile:

Seeing those painted Countries; and so guesse

By those fine Shades, their Substances:

And from thy Compasse taking small advice,

Buy'st Travell at the lowest price.

Considered from Herrick's perspective, the \$45.00 tag on From Sea Unto Sea is a bargain. Stirred by the creative power of these maps, the reader's imagination will carry him not only to such exotic places as Lago de Conibas and New North Wales, but transport him to a land where "baroque" and "rococo" hold as much sway as parallels of latitude and longitude.

A.G.E. Jones The Bungalow Bayhall Road Tunbridge Wells Kent TN2 4UB England

Richard C. Davis Department of English University of Calgary Calgary, Alberta, Canada T2N 1N4