

and appropriate, therefore, to find the explorer's young grandson, François de Gerlache de Gomery accompanying the main party. Since those heroic days Brabant Island has remained virtually unexplored. Given the necessary guidance there is much that amateurs, as these young men largely were, can usefully do in the scientific line, and there are resuméés at the back of this book of the geological, geomorphological, meteorological and zoological investigations carried out. But adventure was really the name of the game. From the base at Metchnikoff Point parties set out to explore the length and breadth of the island, on skis and manhauling with the logistic support of skidoos. At latitude 64°S the elements tend to be unsympathetic to man, but in the face of rain, snow, fog, blizzards and lurking crevasses the explorers succeeded, by and large, in fulfilling their appointed tasks. The existing map of the island was adjusted; numerous virgin peaks were bagged, including the highest, Mount Parry, and Cdr Furse's 'personal holy grail', the Solvay Mountains, was achieved. All this was accomplished living rough in tents and snowholes. Base huts were eschewed with the single exception of a small cabin made of cardboard. In the concluding phase of the expedition a circumnavigation of the island was carried out in canoes and inflatable boats. The miracle, in all the circumstances, is that there were relatively few accidents; a man bitten by a seal, two broken legs, various tumbles in crevasses, some carbon monoxide poisoning and a duodenal ulcer were the chief medical problems. Fortunately radio links with nearby British Antarctic Survey bases provided a valuable lifeline.

This well-produced quarto volume is a delight to handle and compulsive reading. It is clearly printed, and embellished with magnificent colour plates and legible, helpful maps. Among the appendices are to be found a history of the island, potted biographies of personnel, and evaluative lists of equipment and tables of rations which should be helpful to future expeditions. (H. G. R. King, Scott Polar Research Institute, Lensfield Road, Cambridge CB2 1ER)

HISTORY OF ARCTIC EXPLORATION

UNVEILING THE ARCTIC. Rey, L. (editor). 1984. Leiden, Brill. 291p, illustrated, hard cover. ISBN 90 04 07843 6. Guilders 200.

The 28 papers in this volume were presented in 1981 at a conference in Rome, entitled 'The history of the discovery of the Arctic regions as seen through the descriptions of travellers and the work of cartographers from early antiquity to the 18th century'. The conference was the third in a series of meetings organized by the Comité Arctique International, Monaco. The publication is a joint venture of the Comité, the Arctic Institute of North America, and the University of Alaska. It has been published simultaneously as an issue of the journal *Arctic*, 37(4): 321–612, of which the pagination and index references have been retained. In the main the papers presented are concerned with the history of Arctic cartography and the main trends of exploration which led Europeans gradually to modify their theoretical imagery of the North. They range from early perceptions of northern regions in late antiquity, through the quaint conceits of the later middle ages to the increasingly sophisticated delineations of the 16th, 17th and 18th centuries. A few presentations focus on more specific topics such as the development and achievements of Dutch and Scandinavian cartography, concepts of pre-discovery Alaska in the work of European cartographers, and the early cartography of the Bering Strait region. Cartography and exploration are complementary and there are a number of papers devoted to the main exploratory thrusts which led to the opening up of the Arctic, especially the search for a sea route to Siberia and the Orient via a Northeast Passage,

and the prospect of reaching the Pacific via a Northwest Passage. Nor was the polar route itself excluded, as Ann Savours shows in her paper on the Phipps expedition of 1773. Commerce played a great part in all this, and there are specialized papers dealing with the activities of the Basque whalers in Labrador, the Dutch whalers in Spitsbergen and French whalers from Harfleur in the Arctic. Dr John Bockstoe's review of American Arctic whaling leading to the beginnings of the Bering Strait fishery in the 1840s constitutes a valuable summary of his research in this field. With the flag sometimes went the Cross, as Louis Rey, editor of these proceedings, reminds us in his opening paper on the early Church in Greenland. Guy Mary-Rousselière takes the theme to modern times with his concluding paper on the evangelization of the Canadian North. In the general context of exploration history it is appropriate to consider early concepts of the law of the sea and notions of sovereignty; two papers deal with these themes. Nor are the native inhabitants of these polar lands entirely overlooked. There are papers concerning two reindeer herding peoples, the Koryaks and Saami, and a third paper considers the paleo-history of circumpolar paleolithic peoples adapting to the vagaries of the climate in the periglacial zone during the last glaciation.

Unveiling the Arctic, though inevitably arbitrary in its coverage of the topic and with a certain amount of overlapping of subject matter, nevertheless represents a valuable review of Arctic history at international level. Especially welcome to English readers are the translations of the French language contributions, and there is an invaluable index. (H. G. R. King, Scott Polar Research Institute, Lensfield Road, Cambridge CB2 1ER.)

THE ARCTIC OCEAN: SPECIAL NUMBER

OCEANUS, 29(1), Spring 1986. The Arctic Ocean.

The journal *Oceanus*, published quarterly by Woods Hole Oceanographic Institution, can be described as a marine science analogy to *Polar Record*. Each issue is filled with a diverse selection of beautifully presented articles, of interest to the specialist who wants to read around his subject, but also of value to the non-specialist seeking to widen his experience of scientific and non-scientific facets of the world's oceans. The *Polar Record* analogy becomes even more obvious with this special issue of *Oceanus* dedicated to the Arctic Ocean. Inside a front cover depicting an unspoilt Arctic of extreme beauty, and a back cover illustrating the impact of Man, one finds a collection of articles offering a broad overview of current polar matters. Each article is well illustrated with photographs, tables and figures. The motivation for our sudden interest in this wild and inhospitable area is explained by Young in his paper 'The age of the Arctic', which deals with military implications, and by Curlin and Johnson's paper 'Arctic offshore petroleum technology'. An introduction by Zumberge provides some insight into policy. As well as their educational content, the various zoological articles included in the volume have a common theme—take care or you'll ruin it for later generations. However, as Dunbar points out in his paper 'Arctic marine ecosystems', the Arctic marine ecosystem is probably no more fragile than anywhere else. Sea ice, a commodity of abundance in the Arctic, is described by Untersteiner in his rather oddly titled article 'Glaciology—a primer on ice', by Newbury who considers biological implications, and to some extent by Weeks and Carsey who write about ice from the remote sensing standpoint. The Arctic Ocean has considerable effect on climate, and conversely, is influenced markedly by changes in climate; these aspects, and especially CO₂ warming, are dealt with by Baker in his paper 'The Arctic's role in climate'. Finally, Brigham writing on US, Soviet and Canadian icebreakers, and Horn and Johnson on MIZEX (the Marginal Ice Zone Experiment), remind us that active