

established by Fridtjof Nansen. Sadly, one of the detachments of three men never returned, giving a tragic end to an otherwise successful expedition.

The Duke was also something of a naval hero in Italy, where he was one of the members of the royal family most popular with the Italian public. And he had other royal connections as well: in an extraordinary move not atypical of the machinations of the royal heads of Europe in the late nineteenth century, his father was actually the King of Spain for three years, including when the Duke was born, before abdicating.

All of this, combined with the fact that no previous biography of the Duke of the Abruzzi had appeared in English, seemed to promise that this book could be not only a riveting read, but a major scholarly contribution. Unfortunately, however, this was not to be the case. Although the book is entertaining, it is clearly a popular work rather than a scholarly one. It is unsophisticated historically, showing little understanding of modern historiography; of the social, military, or imperial history of Italy or the rest of Europe; or of the mentality of the popular press or the public, both of which are referred to often.

Nor, indeed, does this book fulfil the basic expectations of academic research. The bibliography gives the game away in this regard: there are no personal papers, letters, or diaries mentioned. Although it is pointed out in the preface that apparently the Duke's diaries were destroyed in the final days of World War II, no one with scholarly pretensions would produce a biography based, according to the citations in the book, totally on secondary sources. Neither author is, in fact, an academic; both are mountaineers and journalists. And, not surprisingly, the most in-depth and well-covered parts of the book are about the Duke's various climbing expeditions and the other major figures in climbing history with whom he was associated, such as Vittorio Sella and Albert Frederick Mummery. But the authors' lack of academic background does not excuse the lack of scholarly aspects of the book: such outstanding biographers as Roland Huntford and Frank McLynn have shown that one does not have to be an academic to be scholarly.

Thus, one of the problems that surfaces is that, despite (or because of) their obvious admiration for the Duke, the authors regularly overstate their case in an attempt to strengthen their points; yet regular, and obvious, exaggeration only makes the reader question if the authors' interpretation is accurate and sincere. Furthermore, certainly in a book with the subtitle 'An explorer's life,' there should be shown a serious understanding of exploration in the nineteenth century. But frequently the references to or asides about aspects of exploration are not quite correct: Nansen's farthest north of 86° 14' was not less than three degrees farther north than William Edward Parry had reached in 1827 (82° 45') (page 50), although it was less than three degrees farther north than the record Nansen broke (83° 24'), set by Lieutenant James Lockwood and

two others in May 1882. Furthermore, Nansen had not been carried to Greenland on *Jason* in 1893–96 (page 51); he was on his drift on *Fram* during that period. The publisher of *The New York Herald Tribune* did not send H.M. Stanley to find Livingstone (page 73); James Gordon Bennett, the owner of *The New York Herald* did, more than 50 years before *The Herald* merged with the *New York Tribune* in 1924. And the authors' understanding of the reasons for Nansen's success in Greenland (page 49) or of Stanley's Emin Pasha Relief Expedition (page 73) likewise show a limited understanding of the dynamics of those men and their expeditions.

All of this said, with little information about the Duke of the Abruzzi previously available in English, this book does give an introduction to a man who was a significant figure in mountaineering and exploration near the turn of the last century. Such an introduction is itself a valuable service. (Beau Riffenburgh, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

**FORTY YEARS ON ICE: A LIFETIME OF EXPLORATION AND RESEARCH IN THE POLAR REGIONS.** Charles Swithinbank. 1998. Lewes, Sussex: The Book Guild. x + 228 p, illustrated, hard cover. ISBN 1-85776-261-4. £25.00.

The geography of high latitudes is perhaps not too hazy for readers of *Polar Record*, but for ordinary mortals, where the places are and what form they take are often rather vague. However, many polar place-names are memorials to brave explorers and spell great adventure, especially to the schoolboys brought up on Scott, Nelson, and Christmas pudding. Charles Swithinbank was such a lucky individual, so he revelled in work on the ice cover, in the north over the Arctic Ocean, and in the south over the Antarctic continent.

After learning to navigate with the Royal Navy, Swithinbank survived Oxford geography and immediately served two years polar apprenticeship in the east Antarctic with the Norwegian–British–Swedish Expedition supporting Valter Schytt and Gordon Robin, penetrating ice with a core drill and with deep seismic waves of dynamite charges. He tells little of these crowded years, and says even less, which is disappointing, albeit courteously tactful, on the foibles of men of five different nations working in a polar environment. He mentions, but is otherwise silent about, his year, a decade later, at a Russian base farther east. It was sensible to learn the language of one of the most powerful nations, and to see their working methods, as permitted in outline under the Antarctic Treaty, but it was also exceedingly difficult to achieve. Swithinbank simply tells us it was a bit of cheek! It was absolutely remarkable, requiring a friend to put him on someone's payroll, although he was to be away for 15 months with the Russians. That tells how able, how self-confident, is Charles Swithinbank. It shines through this book: a sine qua non of explorers.

Increased sea traffic during and after the war was the reason that Canada wanted better to comprehend its ice-patched northern seas. The Scott Polar Research Institute was asked to recommend someone for the work, and Charles was the man. He visited all possible meteorological and maritime bases, went to libraries and museums for background research, and he sailed in the Canadian ice-breaker *Labrador* for practical observations on the distribution and density of sea ice for his *Ice atlas of Arctic Canada*.

More exciting is his discussion of the exploration for year-round transport of oil from the BP wells drilled in Prudhoe Bay. He sailed in the 150,000-ton tanker *SS Manhattan*, 306 m long, with her special naval architecture to break sea ice and push it out of her way. This last was the main problem, in spite of a high ratio in horse power to beam. The conclusions are quite remarkable in suggested ship design, such as a very narrow beam at the waterline or a submarine tanker. It is even more remarkable to read that the power of the press and allied big business preferred to build the Alaska oil pipe-line. There was no Greenpeace at the time, and Swithinbank doesn't conjecture whether a spill would have been more readily dealt with over land than in ice-bound waters.

Complementary to that record-breaking voyage on the ocean surface followed an equally exciting experience in the submarine *HMS Dreadnought*, making its first voyage under the sea ice to come up at the North Pole. The deep ice keels below the surface pressure ridges were quite a new phenomenon.

Cartography has changed markedly through the last half century, with the recording and interpretation of satellite signals. Medium-scale maps drawn from these, when cloud cover hadn't intercepted, permitted Swithinbank to plot the tracks of icebergs and the breakup of some of the small ice shelves.

The Scott Polar Research Institute has always gathered the most able people in polar history, literature, and science, unassumingly gathering old records, producing new scientific equipment, and proving this in exciting field results. Swithinbank traces some of this, with names that many readers of *Polar Record* will recognise from reference lists of international scientific journals.

Field observations from members of the Falkland Islands Dependencies Survey were worked up at different universities according to subject. Gathering this work into purpose-built laboratories and an administration centre in Cambridge gave Swithinbank the opportunity to join the consolidating polar crew under its new banner: the British Antarctic Survey. Remote sensing, mainly from De Havilland twin-engined Otters, rapidly advanced vertical sounding of ice and in some locations the slope and composition under the ice. Half the book has Swithinbank in the air advising on the snow surface or as co-pilot ensuring good navigation, while some young scientist pored over an oscilloscope, occasionally enjoying the dramatic landscape. Swithinbank emphasises that any

figure, be it ice depth or the strength of the Earth's magnetic field, is of little value without precise position.

Swithinbank revelled in the rise of the Natural Environment Research Council funding that followed the Falklands War, during which he and Ray Adie were summoned to an interview by the Prime Minister. Their names had been passed on by Lord Shackleton. Swithinbank seized the opportunity to increase the range of subject and distance, as BAS scientists had requested. This went further in sharing many field resources with the American National Science Foundation and, although not to the same scale, the Chilean programme.

Swithinbank spent much of his working life in hands-on administration and field support of these polar, physical developments, first from SPRI, later from BAS, and then privately. Not many men are fit enough in retirement to team up with an expedition to find and test bare-ice runways for wheeled aircraft. Four-engined planes, grading up through the Douglas DC-4 and DC-6 and the Lockheed Hercules are now flying tourists, mountaineers, and private expeditions to the Antarctic continent. This heralds a different concept of the polar regions.

Shipping routes and material resources attracted the early explorers. Resources, not known or not quantified, are an attraction to some governments today, but the Antarctic Treaty has frozen that for the present, and, fortunately, science is dominant, with tourism a much-debated appendage. Swithinbank's autobiographical account hints at some of these changes and ends in applause of wonderful people he met and the progress they have wrought between them.

It is all an exciting story, considerably helped by seven outline maps with every place-name, and by an excellent set of photographs, an index, and chapter notes. (Hal Lister, 4 High Park House, Oxenholme, Kendal, Cumbria LA9 7RE.)

**GLACIAL ANALYSIS: AN INTERACTIVE INTRODUCTION.** Jane K. Hart and Kirk Martinez. 1997. London: Routledge. CD-ROM. ISBN 0-415-15971-7. £39.99.

Many UK university geography and Earth science departments teach glaciology at some level. Many such courses are predominantly lecture-based. Ideally, however, there should be a requirement to undertake field studies in order to understand fully the processes active in glacial environments. Unfortunately, most glaciological courses are unable to provide glacial fieldwork. It is imperative, therefore, that a means other than fieldwork be used in which undergraduates can gain a general understanding of glacial environments outside the lecture theatre and library. To this end, Jane Hart and Kirk Martinez have compiled an interactive CD-ROM on a variety of subjects relevant to field-based glaciology. Although the CD cannot claim to replace fieldwork it is a very good introduction to the subject, and a necessary and worthwhile experience for those undergraduates who are unable to undertake field classes.