

Reviews

COOK & PEARY: THE POLAR CONTROVERSY RESOLVED. Robert M. Bryce. 1997. Mechanicsburg, PA: Stackpole Books. xviii + 1133 p, illustrated, hard cover. ISBN 0-8117-0317-7. £35.00; \$US49.95.

There are three kinds of people in this world: those who are totally ignorant of the existence of the North Pole and of its significance; those who are aware of its significance but consider attempts at reaching it as exercises in utter futility since the site of the Pole is identical (apart from minor differences in the illumination regime and the ice-drift regime) to millions of other locations on the surface of the Arctic Ocean, out of sight of land; and those who find such attempts entirely rational and laudable, and the details of such attempts and of the lives of those who have indulged in them utterly absorbing. Clearly members of the first two categories will be in no hurry to purchase or read this book. And even the most committed of the third category will find their enthusiasm flagging before they wade through the 975 pages of text and 135 pages of endnotes. Ironically, Robert M. Bryce quotes Frederick Cook's daughter, Helene Vetter, when discussing the plans for publication of Frederick Pohl's book, *Return from the Pole*, as suggesting that the introduction might be too long because 'Readers can tire.' It is a pity that Bryce (and/or his editor) did not recognize the soundness of this advice.

Bryce was given free access to Frederick Cook's papers, and he has certainly made the most of this opportunity. But it soon becomes clear that this book is mistitled. While the polar controversy, namely whether Cook or Robert E. Peary was the first to reach the Pole, or, indeed, whether either of them reached it, is an important element, it represents only part of the plot. This is, in fact, an extremely detailed and painstakingly researched biography of Cook; as such it is an excellent piece of work. As a discussion of the polar controversy it falls short. One wonders if the editor persuaded the author to select a title that would sell more copies.

Bryce has covered almost every aspect of Cook's life and career in minute detail. Well-known aspects — such as his participation in Adrien de Gerlache's Belgian Antarctic Expedition of 1897–1898; his two expeditions to the Mount McKinley area in 1903 and 1906 (Bryce convincingly demonstrates that he did not reach the summit); his role in the Texas oil boom as president of the Petroleum Producers Association; his trial for fraudulent use of the mails in that role; his seven years' imprisonment in Leavenworth Prison; his writings and editorials as editor of the prison newspaper, *The New Era* — all these aspects and many more are dealt with in vastly more detail than ever previously. But, of course, these aspects have very little bearing on the 'polar controversy.' To be fair, however, Bryce presents such relevant aspects as Cook's

years on the lecture circuit, and his tireless efforts to have his claim of having reached the Pole before Peary entered into the *Congressional Record*, in equally exhaustive detail.

To give Bryce his due, his research cannot be faulted for thoroughness and completeness. But, to cite one minor example, what is the relevance to the story of a detailed description of what Mrs Cook was wearing at the Arctic Club of America's banquet at the Waldorf-Astoria on Cook's return to the United States in September 1909? On the other hand, aspects of Cook's career come to light that have barely, if ever, surfaced before, aspects such as his stillborn 'attempt' at Mount Everest in 1915, which was converted into an attempt at filming the 'wild men' of Borneo under the auspices of the Orient Film Company.

But for a book claiming to deal with the 'polar controversy,' Peary's various Arctic expeditions are dealt with in almost a dismissive manner. Any reader who does not have a fairly thorough grasp of the published sources on the various expeditions (by both Cook and Peary) involved in the controversy, would be well advised to do some serious background reading before tackling Bryce's book. Aggravating the situation is the almost total lack of maps (apart from the maps from Cook's and Peary's books reproduced on the inside covers).

Bryce's real coup was in uncovering a photographic copy of the critical field notebook, covering the period of Cook's attempt at the Pole in 1908; it had been made in Copenhagen on the occasion of the examination of all his notebooks by the Danish authorities in 1910. The original had been returned to Cook, but had subsequently disappeared — it was not to be found among Cook's papers. Bryce has studied this copy of the all-important notebook in detail; the section dealing with Cook's journey up to the point some 85–90 miles from land is written with wide spacing, but is full of deletions, insertions, and falsifications of the dates. The part thereafter is written very neatly in extremely small handwriting but lacks any such alterations. Bryce argues, convincingly, that this change represents the point at which, having embarked on an honest attempt at the Pole, Cook realized that he could not possibly attain his goal, and decided fraudulently to claim that he had done so. Bryce concedes, correctly, that the subsequent sledge trip south to Hell Gate and the trip east to Cape Sparbo, and especially the trip from Cape Sparbo back to Annoatok the following spring, represent very impressive achievements. But he also points out that the description of the 'primitive' winter at Cape Sparbo, when Cook claimed he had only two cartridges left, so that he and his two Inughuit companions had to lasso muskoxen and shoot hares and muskoxen with bows and arrows, was a fabrication, in that they still had ammunition.

Bryce thus presents very compelling evidence that Cook did not reach the Pole, but had decided to make a fraudulent claim to that effect long before he left the Arctic. Moreover, as regards Peary's claim, Bryce points out that 'based on his own papers, there is compelling circumstantial evidence that he did not [reach the Pole].'

Bryce has an important message to impart, but it is almost lost in the overwhelming mass of detail, often completely irrelevant to that message. He is clearly a master of archival research and a tireless burrower in files and stacks. But the occasional glaring error of fact tends to shake the reader's faith in the rest of the text. Thus, in the prologue, the depth of the Arctic Ocean is stated to be in excess of five miles, when in reality it nowhere attains even five kilometers. And on page 877, the reader finds the bafflingly erroneous statement that the traditional Inuit sledge 'was not designed for travel over sea ice, since the Eskimos feared it greatly,' when in reality the sea ice for millennia was the habitat of most of the world's Eskimos all winter and every winter.

Despite these slips, however, Bryce has made a very important contribution. One can almost guarantee, however, that the members of the two opposing camps, the Cook faction and the Peary faction, will not agree with him that the controversy has been resolved. One may safely predict that neither side will be satisfied with his conclusions and that yet more books on the subject will appear. (William Barr, Department of Geography, University of Saskatchewan, Saskatoon, Saskatchewan S7N 5A5, Canada.)

ANTARCTIC METEOROLOGY AND CLIMATOLOGY. J.C. King and J. Turner. 1997. Cambridge: Cambridge University Press. xi + 409 p, illustrated, hard cover. ISBN 0-521-46560-5. £55.00; US\$90.00.

Studies of Antarctic atmospheric behavior are emerging from a relatively quiescent period. This change is being driven in part by the increasingly global scale viewpoint of 'Earth system science.' Also, there are developments that are specific to Antarctica. On the observational side, automatic weather stations (AWS) and satellite remote sensing are revealing the spatial and temporal complexity of atmospheric events. The observational challenge for the future is to depict the vertical variations. Numerical modeling and more simplified theoretical approaches are providing the tools to understand the phenomena depicted by the limited observational arrays. Against this backdrop, King and Turner have set themselves the ambitious goal of surveying this rapidly expanding field and have succeeded admirably.

When schoolchildren come to visit our research center, we regale them with statistics about Antarctic weather that illustrate the notions of it being the 'highest, coldest, driest, and windiest' continent on Earth. This book does not serve as a source for such information about this land of extremes. Rather it outlines and explains the major components of the atmospheric behavior over and around Antarc-

tica. The first part of the book introduces the physical environment of the continent along with the instrumentation used to monitor the Antarctic atmosphere (chapters 1–3). This is followed by a long section that deals with the processes that make up the observed climate, from the large-scale circulation (chapter 4) to synoptic-scale features (chapter 5) and mesoscale phenomena (chapter 6). The last part is concerned with climate variability as depicted by the comparatively short meteorological records, and the prospects for a significant climatic perturbation in conjunction with 'global warming' (chapter 7). Rather than discuss each chapter sequentially, a selection of chapters is made for detailed appraisal that the general scientific reader may be more likely to consult.

Chapter 2 on observations and instrumentation is a particularly strong and somewhat novel contribution that draws on the long history of the British Antarctic Survey (BAS) in making reliable weather observations in this demanding environment, and that follows from BAS participation in the FROST project sponsored by the Scientific Committee on Antarctic Research's Working Group on Physics and Chemistry of the Atmosphere. The instruments used to measure pressure, temperature, humidity, wind velocity, precipitation, radiation, and upper-air parameters are described and their typical limitations outlined. This is followed by a detailed exposition of AWS, primarily based on the program run by Charles Stearns at the University of Wisconsin–Madison. The hardware and data collection are summarized, as are the processing and distribution of the data, the spatial distribution of AWS sites, and some typical applications of the observations. A similar summary is given for oceanic drifting buoys. After a brief presentation on surface-based remote sensing (for example, acoustic sounders), a long section covers satellite remote sensing. Visible, infrared, and passive microwave imagery are introduced along with satellite sounder observations (for example, from TOVS). Satellite-derived wind data over the ocean are considered next. The section concludes by describing the satellite receiving stations and outlining the future developments. A particularly useful section, but one that will quickly become obsolescent, details available data sets and specifies from where they can be obtained. The following data sets are outlined: conventional surface and upper-air data; AWS observations; data from drifting buoys; raw satellite data; surface and upper-air analyses; sea-ice observations; sea-surface temperatures, and ocean observation.

Chapter 3 focuses on the physical climatology of Antarctica, and starts with an overview of the shortwave, longwave, and net radiation components of the surface energy budget. This is followed by a detailed discussion of temperature: spatial distribution of the annual mean surface values; the seasonal variation of surface temperature; the surface temperature inversion; and a limited depiction of tropospheric temperatures. The important circulation section on surface pressure, geopotential height, and winds is unfortunately rather abbreviated. An exten-