way he could demonstrate the potential of aviation to prospectors, to miners, and to isolated villages.

As Harkey puts it, Wien 'did not envision founding an airline that has grown from biplane to Boeing jets, or pulling a primitive land from the stone age to the air age, or becoming a certified international hero. He wanted to fly, only to fly...He saw instead people, the good people of the Great Land, those rich and poor, old and young from whom the warmth of good will and love radiated during adversities to make bearable the almost unbearable life on the icy frontier.'

Wien and his three brothers — he taught them all to fly—each played a major role in Alaskan aviation history, but it was Noel who paved the way. He was the first to open a commercial service from Fairbanks to Nome and from Fairbanks to Seattle, the first to fly from Anchorage to Fairbanks, and the first to fly and land beyond the Arctic Circle.

In March 1929 he flew a rescue mission from Alaska to a fur-trading schooner beset in ice off the Siberian mainland opposite Ostrov Vrangel'ya. The only suitable aircraft to cover the distance was the Wien company's flagship, a metal single-engined, high-wing monoplane that had not been paid for. Neither Lloyds nor any other insurer would cover the flight at any price. Taking off from Nome, he carried an automobile mechanic because no aircraft mechanic was available. The engine oil vent pipe repeatedly froze and the mechanic had to stretch out of the cockpit window to clear it - in an air temperature of -40°C. If they had gone down, nobody would have come looking for them. Finally, after 600 miles, they found the schooner Elisif and landed nearby on a rough lead. Unavoidably using old and inferior Russian fuel for the return flight, the engine ran alarmingly rough the whole way to Nome. But they had succeeded — it was headline news throughout the world.

On one occasion Wien took off with crossed aileron controls, an airframe fitter's error that commonly leads to a fatal crash. Few pilots ever recognize the problem in time to land their machine intact: Wien did. In the course of his long career he knew many of the great aviators of the day: Sir Hubert Wilkins, Carl Ben Eielson, Wiley Post, Floyd Bennett, and Richard Byrd. Bernt Balchen offered him a job as pilot on Byrd's 1929 expedition that flew over the South Pole, but Wien's heart was in Alaska.

Sometime in the 1930s Wien had polio, and he later became blind in one eye after an accident in his house. Concealing both conditions from the CAA, which would have grounded him, and from passengers, who would have sought another pilot, he carried on flying anything up to the company's largest aircraft, a Ford Trimotor. Limping and blind in one eye, he flew DC-3s through the 1940s and 1950s. It is said that there are old pilots and bold pilots — but no old bold pilots. Wien was the exception — he had close calls, as did every bush pilot in those days, but he lived to a ripe old age.

For anyone interested in the pioneers of northern avia-

tion, Starkey's beautifully told story leaves the reader aghast at the hazards that these airmen routinely faced and as routinely overcame. Flying was, to them, a vocation—not just a way of earning a living. (Charles Swithinbank, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

THE CENTENNIAL OF S.A. ANDRÉE'S NORTH POLE EXPEDITION. Urban Wråkberg (Editor). 1999. Stockholm: Royal Swedish Academy of Sciences. 212 p, illustrated, soft cover. ISBN 91-7190-031-4. SEK 150; £11.00.

On 11 July 1897 Salomon August Andrée and two colleagues, Nils Strindberg and Knut Frænkel, left Virgohamna on Danskøya, off northwest Spitsbergen, in the hydrogenfilled balloon Örnen, headed for the North Pole. Due to an accident on take-off, the trailing ropes and ballast ropes, intended to control the steering and height of the balloon, became detached, and new ones had to be improvised. The balloon drifted northeast, and the three men were never seen again.

Andrée's disappearance was sensational news around the world, and accounts speculating about his fate appeared regularly in newspapers and magazines in ensuing years. It wasn't until 1930, however, that the fate of the explorers became known. That year a Norwegian expedition unexpectedly discovered Andrée's final camp, which contained diaries and a camera with film in it, which, when developed, helped document the last months of the explorers' lives.

The three men, it turned out, had abandoned Örnen on the morning of 14 July, after it had been forced to ground by the ice and hoar-frost that had formed on its structure. It had come to a standstill on the ice some 300 km northeast of Svalbard. After starting towards Zemlya Frantsa-Iosifa, hauling sledges over the ice, they found that the drift was carrying them south rather than southeast, so on 4 August they turned southwest towards Sjugyane in northern Svalbard and continued their exhausting march. On 16 September they came in sight of Kvitøya, the almost unknown, northeastern-most island of Svalbard. They landed at its southwestern point on 5 October. Soon after, their diary notes ended, and little more is known of their activities, although it is probable that they died within weeks. The cause of their deaths has long been the subject of speculation, with theories including carbon monoxide poisoning from a stove, trichinosis, scurvy, or simply cold.

A symposium marking the one-hundredth anniversary of Andrée's expedition, arranged by the Center for History of Science of the Royal Swedish Academy of Sciences together with UNIS, the Norwegian university extension on Svalbard, was held in Longyearbyen on Spitsbergen in August 1997. This book is the proceedings of that symposium, and the two sections of the book mirror the two parts of the conference, one examining the history of Andrée's expedition, and the other presenting an agenda for social-science research in the polar regions. As could be ex-

pected, most of the participants represented either Swedish or Norwegian institutions, although Peter J. Capelotti, an archaeologist from Pennsylvania State University, and Cornelia Lüdecke, a historian from Munich, both contributed articles.

The first part of the book is divided into six papers, only three of them in English. The two key papers are those by Capelotti and Urban Wråkberg, the organiser of the symposium and editor of the book. Capelotti is an expert on Walter Wellman, the American journalist who made three attempts to fly to the North Pole in a hydrogen airship. Wellman used Andrée's site as his base on three different expeditions, and there are at Virgohamna a mixture of items remaining from the expeditions of both explorers. Capelotti uses the archaeological evidence at the sites to examine several hypotheses, particularly to assess whether changes in the hydrogen-generating techniques used by the two explorers indicate that technological evolution was proceeding at an extremely rapid rate between 1896 and 1909, and what the methods used by Wellman suggest regarding claims he made about the elements involved in the hydrogen-producing process affecting the success of his mission.

In 'Andrée's folly: time for reappraisal?' Wråkberg examines the critical evaluations of Andrée that have been advanced through the years, many of which, he argues, have 'been based on simple hindsight and the fallacies it produces in any historical interpretation' (page 56). By a careful study of the state of knowledge at the time of Andrée's flight, Wråkberg methodically disputes the reasoning behind a series of common assessments about Andrée, his logistics, and his technology. He concludes that the expedition was actually an impressive example of attempting to pool all available polar experience whilst trying rationally to combine it with state-of-the-art and much-needed innovative technology.

The second half of the book presents five papers looking at current research in the Arctic. In one, Lyder Marstrander surveys the cultural heritage of Svalbard and explains how it is managed. Some potential issues for future work are then briefly mentioned. In 'Problems for further research on the history of science of the polar regions,' Lüdecke takes a wide-ranging look at potential research projects, from the study of the economic and political aspects of polar exploration and the medical and social questions it involves, to international cooperation in polar research and its institutionalisation.

Sue Barr, for years the expert on history for the Norsk Polarinstitutt and now with the Norwegian Directorate of Cultural Heritage, examines the needs for, and problems with, writing the history of polar research institutions. Using the Norsk Polarinstitutt as an example, she looks at the problem with such institutions documenting their own history, but, similarly, of outside organisations doing so. She then mentions the diversity of related themes that must be part of such a study, including the international, national, and internal politics faced by these organisations;

the diversity of tasks and areas in which polar institutions are actually involved; and the associated histories that must be considered. It becomes obvious why so few serious studies of such institutions have actually been produced.

In summation, this is a significant work in not one, but two, areas. It not only presents much of the latest data and opinions about one of the more controversial Arctic explorers, but it also gives direction on where future research could, and perhaps should, be headed. (K.B. Shabby, History Department, Texas A&M University, College Station, TX, USA.)

'BOSTON MEN' ON THE NORTHWEST COAST: THE AMERICAN MARITIME FUR TRADE, 1788–1844. Mary Malloy. 1998. Fairbanks and Kingston, Ontario: The Limestone Press (Alaska History No 47). 232 p, hard cover. ISBN 1-895901-18-9. \$US28.00.

This book adds to the existing literature, which is considerable, on the history of the sea-otter trade of the northwest coast of North America. It provides a new and systematic focus on American traders, 'Boston Men,' and their activities on that coast from the inception of American trade to the decline of that branch of marine commerce. In two long and detailed chapters, full of all sorts of insight, the author explains the importance of the Boston trade and explores the nature of shipboard society and northwest-coast Indian society.

In the balance of the book, part two, the author gives a listing of American vessels in the trade, 1790–1844, listed by ship name and not by year or years of an individual voyage or voyages. This part of the book also provides a northwest-coast gazetteer. Accompanying the text are various notes, arranged by chapter as endnotes (it is a great pity that these could not have been footnotes, as this is such an important reference book). Acknowledgements and an index complete the work. There are no illustrations other than a map, derived from Captain George Vancouver's 1798 chart showing part of the coast of northwest America as used by the Boston brig Griffin, with 40 place names of the period added. This map is highly useful to the armchair geographer attempting to piece together the particulars of an individual voyage. A bibliography would have added to the value and importance of this work.

This book stands apart from the general literature on the subject because it updates the list of American ships in the trade as given in F.W. Howay's assorted publications, 1930–34. It also provides fresh insight into American relationships with northwest-coast Indians. Future students working in these interrelated fields will be grateful to the author for the painstaking attention given to the documents and historial reports for each and every voyage of these remarkable ships, captains, and crews. This book will long remain the preferred reference for the history of a significant branch of American seaborne commerce. (Barry Gough, Department of History, Wilfrid Laurier University, Waterloo, Ontario N2L 3C5, Canada.)