

but one can see no reason for the order in which the volume is formulated. The chapters do not appear to be comparable in terms of their remit or length. For instance, a very interesting chapter on sub-glacial environments is more than 100 pages long, yet two chapters later is one of 18 pages, devoted solely to ice scouring for the specific purpose of determining palaeo-lake environments. The result of having several chapters that appear unrelated to each other, within a book with little in the way of scientifically related structure, is very unfortunate.

As is frequent in edited volumes, the writing styles differ dramatically between chapters. Consequently, not only is the subject matter difficult to follow, so is the style of the book itself. In the references, I discovered very few articles dated after 1991. This suggests that the book does not account for recent research activities and may be around five years behind current 'state of the art' knowledge. Many of the figures used are of poor quality, and the photographs are often very grey in appearance. Some diagrams represent simple photocopies of existing figures within scientific articles. For example, the legend in Figure 2.30 (representing a theoretical cross section through a drumlin) is very difficult to read, which leaves the figure uninterpretable. I can only conclude that the publisher was unwilling to provide resources for diagrams, or that the inclusion of a series of compatibly designed graphics was not anticipated. This is unfortunate, since the lack of continuity between figure style gives the book a rather untidy appearance. With the availability of modern desktop publishing and computer graphics tools, this aspect of the book is both irritating and unnecessary.

Of particular disappointment is that, in a text book more than 500 pages in length, which claims to represent a review of current knowledge about past glacial environments, there is no explicit account of what the ancient ice sheets looked like. Surely a chapter devoted to the reconstruction of ice masses should be a prerequisite for a text such as this. How can an undergraduate expect to relate to chapters that provide information about past sub-glacial environments without being informed about where large ice masses may have existed in time and space? Moreover, a chapter devoted to the relative sea-level change that is caused by glacial isostasy becomes meaningless without information about the volumes of ice that existed globally at the last glacial maximum. Neither is there much discussion concerning climate change and the processes by which ice ages are forced, subjects that surely require definition.

There are, however, useful contributions that stand out in the book. For example, there is an excellent chapter devoted to sub-glacial environments, by Menzies and Shilts. Also a fine review of glacial marine environments is provided by Elverhøi and Henrich. In fact, most of the chapters are scientifically valid, with extensive examples and supportive diagrams. Moreover, the contributors are amongst the world's most renowned within the areas covered in their respective chapters. However, this is

perhaps more indicative of the book being an 'opportunity missed' as much as it is to the book's credit.

I expected a lot from this book, and *Past glacial environments* had the potential to be the excellent summary of glacial geology that it claims to be. However, it is not; it is too long, too confused, and too expensive (at £40) to be used as an undergraduate text. Perhaps the problems evident within *Past glacial environments* lie with the scope being too wide.

This has, sadly, been a largely negative review. However, the book does contain a great deal of interesting information concerning past glacial environments. Unfortunately, in my opinion, the problems far outweigh the successes of this book. I therefore would be reluctant to recommend it as a course text for undergraduate use. Although the book will sit well amongst contemporary publications within university library shelves, I cannot envisage it lying on many students' desks. (Martin J. Siegert, Centre for Glaciology, Institute of Earth Studies, University of Wales, Aberystwyth, SY23 3DB.)

**ALEUTIAN ECHOES.** Charles C. Bradley. 1994. Fairbanks: University of Alaska Press. xxviii + 286 p, illustrated, soft cover. ISBN 0-912006-75-7. \$US25.00.

Charles Bradley is a geologist who has worked in several posts in the universities of Montana and Wisconsin. This book is not simply a tale of his 'war exploits,' but also reveals, among other things, the story of how he became a geologist in the post-war years.

After the inconclusive battle of the Coral Sea, the Japanese high command came up with an elaborate plan to capture Midway Island in June 1942. This plan involved an attack on the Aleutian Islands to draw the US naval forces northwards. The Japanese plan failed badly and the tide of the Pacific war started to turn. One result, however, was that the Japanese had bombed Dutch Harbour in Unalaska and invaded the two Aleutian islands of Attu and Kiska. The Japanese retreated from Kiska, but the battle for Attu in May 1943 was long and bloody. It was a major amphibious operation with many thousands of troops equipped with clothing designed for use in temperate zones. The polar maritime climate they encountered was so unexpected that there were huge casualties from the weather alone. It therefore became important for the armed forces to develop clothing and tactics to reduce the level of non-combat deaths and injuries. It is in some ways surprising that there existed such a lack of understanding of the conditions, but it was an extremely remote region, and the reader can put the situation into context when he remembers that, only 20 years previously, a certain Captain Eisenhower had taken more than two months to cross the United States by motor convoy because of poor knowledge of the conditions and the roads.

Bradley, a graduate geologist, was a professional photographer and keen outdoor man at the start of the war. After a brief sojourn in the Medical Service, Bradley joined the newly formed Ski Troops, a unit in the 87th

Infantry Regiment. This unit was designed to fight German and Italian alpine troops, and was transferred to Mt Rainier, in Washington, for training. From this beginning, the book covers the setting up in May 1944 of the top secret North Pacific Combat School (NPCS). The NPCS was initially set up in Unalaska to train instructors in mountain warfare and to test and recommend clothing and equipment for use in Aleutian conditions. Ultimately, the American forces could train to invade the Japanese-held Kuril Islands from the Aleutians. The speed of events in other theatres prevented this happening and the NPCS had trained five classes of instructors before the bombing of Hiroshima and Nagasaki ended the war.

Once in Unalaska, Bradley set about taking in the natural beauty of this remote and little-studied region. He painted water-colours, some of which are well reproduced in the book. He also stayed true to his previous life and kept a geological notebook. The NPCS was then transferred in August 1944 to Adak Island, 600 miles farther west and the launch point for the original recapture of Attu. On Adak, he continued to write his geological notebooks, and he recounts a wonderful story of a meeting with someone from the Air Corps whilst on a hike. It turned out that Bradley had met Bob Sharp from Cal Tech, who encouraged him to write up his geological observations as a scientific paper. On such meetings a career is started, and Bradley wrote his Master's thesis on the geology of the region, followed by a doctorate and a career in geology.

The structure of the book is occasionally difficult to follow, with Bradley frequently moving from one anecdote to another and then returning to the first. However, this does not detract from the quality of the book, which is filled with many period photographs and some lovely water-colours. Perhaps the best tribute to Bradley's experiences during the war is that his work on the geology of Adak and the Aleutian Island chain is still being cited in the scientific literature 46 years after it was originally written. (Mark Brandon, British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET.)

### BRIEF REVIEWS

**EMERGENCY CARE AND REHABILITATION OF OILED SEA OTTERS: A GUIDE FOR OIL SPILLS INVOLVING FUR BEARING ANIMALS.** Terrie M. Williams and Randall W. Davis (Editors). 1995. Fairbanks: University of Alaska Press. 279 p, illustrated, soft cover. ISBN 0-912006-78-1. \$US29.95.

Perhaps the only positive effect of the devastating *Exxon Valdez* oil spill in Prince William Sound, Alaska, in 1989 is the ever-increasing number of publications that inform scientists and environmental managers how to deal with future spills. *Emergency care and rehabilitation of oiled sea otters* is one of several recent publications that deal with marine mammals and oil (see *Polar Record* 32(180): 75–76), using the experience gained from Prince William Sound to develop strategies and offer advice to future

response teams. It is divided unequally into three sections: care and handling of oiled sea otters (including toxicology, how to make clinical evaluations, rehabilitation, and release strategies); logistical considerations for large oil spills (including establishment and organisation of rehabilitation centres); and care of other marine mammals.

In addition, there are six appendices outlining physiological, haematological, and morphological parameters for a selection of marine mammals; design of forms documenting histological reports and treatments; haematology and blood chemistry of oiled sea otters; plans for a rehabilitation centre; a list of US Department of Labor Occupational Safety and Health Administration Regional Offices; and a list of equipment used for capture, handling, and treatment of oiled animals.

Since most biologists and conservationists agree that it is not a question of if, but when, another spill occurs, compilations such as *Emergency care and rehabilitation of oiled sea otters* are, unfortunately, likely to be of considerable value.

**BETWEEN TWO CULTURES: A PHOTOGRAPHER AMONG THE INUIT.** Maria Tippett. Photographs by Charles Gimpel. 1994. Toronto: Viking. xiii + 178 p, illustrated, hard cover. ISBN 0-670-85243-0. \$Can50.00.

A British art dealer, Charles Gimpel was also an amateur photographer, who, in the course of six journeys to the Canadian Arctic, documented Inuit life in the 1950s and 1960s. Having arranged an exhibition of Gimpel's work in Cambridge in 1992, Maria Tippett decided to make the photographs known to a wider audience. This book is the result.

While Tippett's text describes Gimpel's journeys, and his collecting of Inuit art, it is the superb collection of black-and-white photographs themselves that tells us more of Gimpel and his subjects. This is visual ethnography at its best, capturing life both as it was lived on the land and in the settlement. Gimpel's photographs are revealing, but never intrusive, and he was rare among visitors to the Arctic in that he brought his photographs taken on previous trips with him when he returned to the settlements in which he worked. In this way, his subjects are portrayed as willing participants in the documentation of their culture, rather than objects for the fanciful gaze of both photographer and viewer. Gimpel's photographs are a unique, beautiful, and often haunting record of a people who, by the time of his last visit to the Canadian Arctic in 1968, were overwhelmed by rapid social change and brought into a position of political subordination and cultural dependency.

### Publications Received

**CROSSROADS ALASKA: NATIVE CULTURES OF ALASKA AND SIBERIA.** Valérie Chaussonnet (Editor). 1996. Washington, DC: Smithsonian Institution Press. 112 p, illustrated, soft cover. ISBN 1-56098-661-1. £15.50.