A well-appointed book, lavishly illustrated in colour and black-and-white, covering exploration from the discovery of the Americas by Siberians 20,000 years ago. Arctic regions receive 20 pages by Anita McConnell, Antarctic regions 22 pages by Ann Savours: both brisk, introductory, highly compressed, but interesting enough to encourage further reading.

CHALLENGES OF A CHANGING WORLD. Fløistad, B. and Markussen, J. M. (editors). 1991. Lysaker, Fridtjof Nansen Institutt. 301 p, illustrated, soft cover. ISBN 82 7613 000 3.

A 50th birthday festschrift for Willy Østreng, this contains 20 papers by his colleagues and associates under headings [European Arctic] Security policy, The Arctic, Law of the Sea, New collective problems, Marine resources, Science and politics. There is also a selected bibliography of some 80 research papers of which he was single or joint author.

LIFE UNDER EXTREME CONDITIONS. di Prisco, G. (editor). 1991. Berlin, Springer Verlag. 144 p, illustrated, hard cover. ISBN 3 540 53108. DM 108.00.

Subtitled 'Biochemical adaptations', this is a slim but useful summary of recent research, based on papers given at the 19th meeting of the Federation of European Biochemical Societies in Rome, July 2–7 1989. Biochemically oriented rather than ecological, about half concern research in or relevant to polar regions. Cold-climate topics include antifreeze substances that keep the blood of Antarctic fishes circulating, cold-stable microtubules from Antarctic fishes, and molecular adaptation of oxygen-carrying proteins that operate at low temperatures. Non-polar topics include cell contents and structures relevant to to environmental stress in archaebacteria, protein thermostability, enzymes from thermophilic bacteria and proteins from halophiles.

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Lead poisoning and the Franklin expedition

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The In Brief section of *Polar Record* 162 gives further publicity to the unwarranted conclusion that lead poisoning was a significant cause of deaths during Sir John Franklin's Northwest Passage Expedition of 1845-48. The three expedition members who were buried on Beechey Island in winter 1845/46 and exhumed by a party from the University of Alberta in 1984 and 1986 (Beattie, O. 1987. *Frozen in time*. London, Bloomsbury) had been on a diet of tinned food for a maximum of six months prior to their deaths. If their deaths were due to accumulation of lead from their provisions, why are the levels measured in the bones of an expedition member found at Booth Point, King William Island, not proportionally greater, since he would have been living on such rations more than two years longer? Neither is there evidence that during those two years the remaining 126 men suffered from any of the 'physiological and neurological effects' referred to. The far-reaching hunting and scientific excursions undertaken suggest just the opposite.

The supplier of the tinned rations was under contract to the Royal Navy, and from the same contract he supplied a number of other major Arctic expeditions, including that of Sir James Clark Ross. No of these other expeditions experienced any undue deaths or problems with the rations.

Beattie's examination showed that all three of the Beechey Island bodies had suffered from serious chronic diseases and it is quite inconsistent with such evidence to claim lead poisoning played any signcant role in their deaths, let alone the outcome of the expedition. This work is a tribute to the application of advanced scientific techniques in a difficult environment, but it is also an example of how clues that such techniques provide can, if not kept in perspective, lead away from the reality of the enquiry. (See also Trafton S. J. 1989. Did lead poisoning contribute to deaths of Franklin expedition members? *Information North* 15(9)).

Standing, as I did a few years ago, by the hauntingly beautiful Beechey graves on a bleak spring evening after a long and difficult sledge journey, I needed no other evidence than the ferociously hostile land and climate to convince me of the ease with which life could have slipped away from any one of those unfortunate sailors who still lie there.

Vitamin C in Eskimo diet

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In the April 1991 issue of *Polar Record* J. S. Phillpotts relates an incident he heard about the way in which Vitamin C was preserved in Greenland, and wonders whether the most northern Indians and Siberians had a similar custom. Gremnia, the Alaskan Inuit wife of Klengenberg, a Dane who was the first to trade with the Copper Inuit, used a similar practice. As related in *Klengenberg of the Arctic*, (T. MacInnes, London, Jonathan