

have been redrawn. I found the single list of references at the end of the book distracting, as I was frequently thumbing through a very extensive accumulated bibliography rather than dipping into a shorter and more conveniently placed list at the end of each paper.

As a concept, I do not find it appropriate that the principal criterion for selection in a volume of classic papers on a geomorphological topic should be that of language. This is not a book that I would buy, since (1) the bulk of the papers are somewhat dated, if interesting nonetheless, and (2) the papers are not selected from the entire available pool of literature on the topic. I cannot envisage any but a small handful of scientists consulting the volume regularly. These points are reinforced by the price of £95. (Julian A. Dowdeswell, Centre for Glaciology, Institute of Earth Studies, University of Wales, Aberystwyth, Dyfed SY23 3DB.)

SCALING FISHERIES: THE SCIENCE OF MEASURING THE EFFECTS OF FISHING, 1855–1955.

Tim D. Smith. 1994. Cambridge: Cambridge University Press. xii + 392 p, illustrated, hard cover. ISBN 0-521-39032-X. £50.00; \$US74.95.

Marine stocks and fisheries stand at a critical juncture. Yields of many marine stocks, including those in the Southern Ocean, have declined, sometimes dramatically, during the last decades. The causes are well known: uncontrolled access to marine resources, uncertain scientific information, and risk-prone assessment driven by short-term economic goals. The histories of the International Whaling Commission (IWC) and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) offer many examples of when short-term economic goals superseded plans for sustainable use or development.

Fisheries science has developed under the nearly continual dominance of short-term economic interests over long-term economic, social, and scientific goals. With a few exceptions, textbooks on fisheries science generally lack a historical setting or contain only brief notes on the history of fisheries science. I agree with Tim Smith's sentiments that a critical appraisal of the historical development of the studies of fisheries and their successes and mistakes is a prerequisite for the establishment of research programmes independent of short-term management needs. His book attempts to fill this gap.

The book is comprised of three parts. Part 1 describes the fluctuations in fish catches, exemplified in patterns occurring in fisheries for Arcto-Norwegian cod (*Gadus morhua*) off the Lofoten Islands, sardines (*Sardina pilchardus*) around Brittany, and sockeye salmon (*Oncorhynchus nerka*) in the Fraser River of British Columbia. This part sets the stage for the economic and political questions faced by biologists in the mid to late 1800s. Parts 2 and 3 describe the struggle of scientists with these problems.

Part 2 deals with the development of methods between

about 1855 and the beginning of World War II. Basic research methods were developed between 1855 and 1890 in the United States (US Fish Commission) and Europe (for example, Marine Biological Association, Fishery Board of Scotland). The debate began on the usefulness of stocking the sea with artificially reared marine species, such as Atlantic cod (chapter 2) to increase the harvest, a debate that has continued to the present day. These research methods were used in the 1890s in order to determine the effects of fishing on the stocks. The magnitude of this task resulted in the foundation of the International Council for the Exploration of the Sea (ICES) as an international organisation that should develop and coordinate research programmes, a task ICES has continued to undertake to the present day (chapters 3 and 4). By the 1920s, sufficient progress had been made to allow short-term predictions of catches for several fisheries (chapter 5). Then came new methods based on mathematical modelling of dynamics of populations (chapter 6).

Part 3 (chapters 7 to 10) describes the development of the three partial theories of the dynamics of marine fish populations (Schaefer's surplus production theory, Ricker's spawner and recruit theory, and Beverton and Holt's yield per recruit theory) that have considerably shaped the development of fisheries science in the decades thereafter (chapter 10).

We are still far from understanding ecosystems exploited and affected by the fishery, at least in quantitative terms. One of the important lessons to be learnt from Tim Smith's description of the historical development of fisheries science is that long-term strategies for conservation and sustainable use based on scientific findings require a research agenda that is independent of short-term management needs. This is not a new perception, but it cannot be underlined often enough. It has already been realized in a number of international fisheries organisations, such as ICES or CCAMLR, and is reflected in a number of long-term research activities, such as the ICES International Bottom Trawl Surveys in the North Sea or the CCAMLR Ecosystem Monitoring Program. Even so, the direction of research is still strongly influenced by transitory economic and political forces and/or concepts presently in vogue, such as global climate change.

I enjoyed reading the book despite and because of all the 'deja-vus.' It is well written, offers many lessons from which to learn, and is excellent as a reference, and not only for those interested in the history of fisheries science. (Karl-Hermann Kock, Institut für Seefischerei, Bundesforschungsanstalt für Fischerei, Palmallee 9, D-22767 Hamburg, Germany.)

THE TRAIL OF THE HARE: ENVIRONMENT AND STRESS IN A SUB-ARCTIC COMMUNITY. Second edition. Joel S. Savishinsky. 1994. Langhorne, PA: Gordon and Breach Science Publishers. xxxii + 294 p, illustrated, soft cover. ISBN 2-88124-618-4. £14.00; \$US22.00.

The second edition of this ethnographic portrait of the Hare

community of Colville Lake in the Northwest Territories of Canada has been modified in many small ways from the first edition of 1974. Just as the subtitle of the book has been changed from the original 'life and stress in an Arctic community,' so has Savishinsky's choice of words in the text become more precise and reflective of local concerns. In the second edition, one finds many more Hare words illustrating differences in the local world-view and some of the western words, such as 'mercy' and 'individual,' have been dropped. The most substantive changes are in the expanded preface (now entitled 'Introduction'), where the author gives a very good description of how the anthropologist finds his feet through trial and error in a new community. Illustrating these passages are added evocative recreations of dialogues that occurred almost 25 years ago. The first edition interwove ethnographic observation with the classic texts in Dene ethnography current in the early 1970s. In footnotes and in long in-text citations, these have been updated for the convenience of the reader — although the implications of Ridington's or Sharp's notions of power for the argument of the book are not explored.

The book remains a text of the first encounter of an urban, southern anthropologist with a mobile and tightly integrated hunting community on the eve of great social transformations. The language still reflects the drama of the encounter, with constant references to the isolation and harsh environment and to the tension that this creates for them (and the anthropologist). Although the author has not returned to Colville Lake since his encounters in 1968–1969 and 1971, one cannot help but feel disappointed with the quick touch-ups in the text. How were local collective identifiers, such as *mola* (whiteman), used before the start of land rights activism? Upon 25 years of reflection and with a large literature on indigenous knowledge, how does the author view his original identification of stress and anxiety in his field hosts?

The text is well written and at certain points still revives in the reader 'the freedom and openness' of the trail. Both factually and prosaically, the work is a good summary of one man's journey far from home, giving keen insights into the technology and lifestyle of the Hare people at a significant historical juncture. (David Anderson, Department of Social Anthropology, University of Cambridge, New Museums Site, Free School Lane, Cambridge CB2 3RF.)

ANCIENT LAND: SACRED WHALE: THE INUIT HUNT AND ITS RITUALS. Tom Lowenstein. 1993. London: Bloomsbury Publishing. xxvi + 189 p, hard cover. ISBN 0-7475-1341-4. £20.00.

Jutting out into the Chukchi Sea just north of the Bering Strait, Point Hope, Alaska, has been continuously inhabited for longer than virtually anywhere else on the North American continent. For much of this time, whaling has formed the backbone of Tikigagmiut (Point Hope people) social life — economic, political, and religious. Not surprisingly, *unipkaat* (legendary stories) about relations

between whales and humans have formed a narrative core that has enlivened, enriched, and informed Iñupiaq social interactions for many years.

Lowenstein's own poetic vision of some of these stories forms the core of his book. 'Never tell one story. Always add a second,' Lowenstein was told by some of the Iñupiaq elders with whom he worked in Point Hope. 'That way the first one won't fall over.'

'It takes two people to tell a story,' a young Barrow man told me, 'one to tell it, and one to confirm it.' Although he makes no claim to replicate authentic Iñupiaq *unipkaat* — and indeed explicitly states he is using the stories to produce his own poetry — Lowenstein achieves the balance of narration and narrator described above. His stories do indeed prop each other up, providing a sound ethnography that not only conveys the importance of stories and story-telling to specific Point Hoppers, but also evokes the continuing centrality of human/non-human interaction to Tikigagmiut social life. The book itself is organised around repeating and overlapping paired themes. Two origin stories — the land-whale story and the Sun-Moon story — provide the background for two parts of the book — the first telling of Tikigagmiut sacred landscapes and the second detailing the dualistic division of ritual time, autumn and spring. The voice and rhythm of his poetry catch as well the dialogic nature of story-telling — drawing attention to shifts in the narrative voice — giving force and music to repetition:

Samaruna

The animal surfaced
The whale came up dry
It rose in the water

Asatchaq

Dry land! *Nuna!*
It was dry land
It was Tikigagmiut

Samaruna

Dry land from the whale
Tulunigraq harpooned it... (page 8)

Prose is balanced against poetry; the narrators balance each other; the stories never fall over. The translation of 'high Iñupiaq' — performed as powerful, evocative formal speech — into the prose of daily English usage has often seemed problematic to me — much of the strength and rhythm getting lost in the process. It takes a poet of English to do justice to the poetry of Iñupiaq. But equally it demands the sensitivity of one who listens carefully to what others are saying. Lowenstein's teachers took him seriously, and he has listened very carefully, indeed. The book is a delight. (Barbara Bodenhorn, Pembroke College, Trumpington Street, Cambridge CB2 1RF.)

BRIEF REVIEWS

ALASKA 1899: ESSAYS FROM THE HARRIMAN EXPEDITION. George Bird Grinnell. 1995. Seattle and London: University of Washington Press. liii + 68 p, illustrated, soft cover. ISBN 0-295-97377-3. \$US16.95.

This new publication marks continuing interest in the