

with a little careful editing and some revision Rochon's paper would have been far more readable. As it stands, it can hardly have been the intention of the author for his work to be regarded as conceptually imaginative or analytically bold.

Based largely on a literature survey and interviews conducted in Sweden and Canada, Rochon sets out to explore Saami and Dene beliefs and attitudes relating to nature. While acknowledging (as if to escape a challenging exercise) that he does not intend to make a comparison between the beliefs of these two different peoples, Rochon does nothing in his conclusions to integrate his research into a useful conceptual framework. He also attempts a critique of western notions of sustainable development, yet does not go much further than summarising Redclift's work. Following contemporary trends, Rochon's argument is that western industrialised countries should adopt a more self-sufficient and sustainable lifestyle, and that they should look to indigenous cultures to tell us how to do this. There is more than a little Green idealism underlying this, and less of a thorough analysis and evaluation of the nature and status of contemporary Saami and Dene systems of environmental knowledge. Furthermore, his critique of sustainable development ignores the fact that the concept is now used by indigenous peoples themselves, not only in the Arctic but worldwide, as they redefine their relations to the environment and design their own resource management policies.

Indigenous peoples' perceptions of the environments in which they live is undeniably an important area of research, as much recent anthropological work illustrates. Rochon's report will make a contribution in its own way and some may find the work of value. Yet, Arctic specialists will look to the growing and sophisticated literature concerned with addressing these issues, rather than use Rochon's paper as a source. And interested non-specialists would do better to read some of the more accessible anthropological writings on the relationship between Arctic peoples and their environments. (Mark Nuttall, Department of Human Sciences, Brunel University, Uxbridge, Middlesex UB8 3PH.)

**MIND OVER MATTER: THE EPIC CROSSING OF THE ANTARCTIC CONTINENT.** Ranulph Fiennes. 1993. London: Singer-Stevenson. 326 p, illustrated, hard cover. ISBN 1-85619-375-6. £16.99.

At the beginning of November 1992 Sir Ranulph Fiennes and Dr Mike Stroud started one of the most impressive 'last great' polar journeys: the unsupported crossing of the Antarctic continent. The raw facts of the expedition are stunning. The pair traversed 1480 miles (2390 km), manhauling sledges that at the start of the march weighed close to 500 lb (230 kg), without stopping at the South Pole except for Stroud to take some physiological measurements. In completing this march, each lost an incredible amount of body weight, in Fiennes' case 49 lb (22 kg). They both suffered the inevitable terrible hardships: frost-bite, infection of various extremities, hypoglycaemia, and

hypothermia. Like their previous expedition in the Arctic, they were raising money for a multiple sclerosis research centre.

But the book is not only about the expedition, it looks back to the 'Golden Age of Exploration,' before present-day polar tourism. Throughout the text Fiennes quotes extensively from earlier polar literature. Some of these extracts add to the book, but a considerable number rather serve to make one recall a statement made by the great mountaineer Tom Patey: 'One of the oldest gambits in the climbing game is to borrow superlatives from early pioneers....Such statements are invariably taken at face value. They never fail to impress and are, naturally, irrefutable. Never pat yourself on the back. Get someone else to do it for you. It shows good taste, good breeding, proves that you are a likeable chap...' (Patey 1970: 231–232).

For example, is it relevant to Fiennes' expedition to discover that Douglas Mawson's companion Xavier Mertz bit one of his own fingers off? Wouldn't the reader really rather know about the conditions, the challenges, the physical environment that Fiennes and Stroud encountered? Yet, in part because of the great task they undertook, there is little appreciation of Antarctica itself. It is rather a book about two people struggling for 95 days.

Much was made on their return of Fiennes and Stroud's disagreements during the expedition, but that never really appears in the book. Fiennes admits that, when working in such difficult conditions, the only emotion strong enough to carry one through is hate. It seems only natural that this should occasionally spill over into the relationship between the two men. Any problems they did encounter seem rather mild in comparison with the underlying resentment suffered within previous expeditions, such as Wood, Swan, and Mear on the 'In the Footsteps of Scott' expedition or Marshall and Wilde on Shackleton's *Nimrod* expedition. One of the few great journeys that did not apparently leave a bitter taste was Cherry-Garrard's *The worst journey in the world*, a book published with 10 years of hindsight and two dead travelling companions. I am sure literary agents and the public cannot wait 10 years these days.

Books are rarely error-free but this one has many obvious mistakes. Possibly the most unfortunate asserts that the members of the 'In the Footsteps of Scott' expedition in 1986 had pulled 'the heaviest sledges ever hauled, some fifty pounds per person.' I am sure Sir Ranulph would be the first person to want to correct this to 350 lb. In one paragraph the reader is told that the total length of the journey was 1487.48 miles; in the subsequent one 1479 miles. In the 'source notes' the reader is introduced to 'Apsley Cheery-Garrard.' These are all trivial errors but leave one questioning the accuracy and consistency elsewhere. Fiennes talks of Scott's last expedition, and in the same paragraph of Scott and Shackleton arguing in a tent. Was Shackleton really on Scott's last expedition?

As well as obvious errors there are some strange omissions. The reader is told that just after they reached

the South Pole Fiennes had lost 49 lb weight. At the end of the book a section written by Stroud (edited by Fiennes) tells us that Fiennes lost 49 lb in total. Did Fiennes lose no weight after the South Pole, and how much weight did Stroud lose? There is no figure given.

The appendices are interesting; Fiennes gives his views on leadership and press relations as well as the more usual information. The section on physiological investigations shows the diet composition and that Fiennes was burning the incredible figure of around 10,000 calories per day for up to 20 days of the expedition. Nothing, however, is said about whether the high fat content of the diet is thought to be responsible for the persistent diarrhoea suffered by both men.

In summary, then, I think this expedition is going to be remembered for the amazing march, the considerable medical research undertaken, and from the vast sums of money it raised for a multiple sclerosis research centre. It will not be remembered because of this book. (Mark Brandon, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

#### Reference

Patey, T. 1970. Creag Meaghaidh Crab-Crawl. *The Scottish Mountaineering Club Journal* 29 (161): 231–238.

**PLANETARY OVERLOAD: GLOBAL ENVIRONMENTAL CHANGE AND THE HEALTH OF THE HUMAN SPECIES.** A.J. McMichael. 1993. Cambridge: Cambridge University Press. xvi + 352 p, soft cover. ISBN 0-521-45759-9. £12.95; US\$16.95.

For the last few years, and particularly since the Rio conference of 1992, the western academic world has seen a burgeoning of texts on global environmental change. Many of these have emerged from natural scientists, with occasionally heated responses from political scientists, and, more lately, demographers on both sides of the Malthusian debate. Medical scientists, and particularly epidemiologists, have been relatively quiet. Professor Tony McMichael, an epidemiologist by training, has recently stepped into the fray with a book on global environmental change and the health of the human species. Brave man or opportunist, it is certainly nice timing — particularly when cases of oversimplification of global environment and human impacts abound.

*Planetary overload* is skilfully done: an accomplished, eclectic book that draws fruitfully on historical, biological, ecological, and epidemiological knowledge. A central aim of the author is to present a synthesized analysis of current understanding of the risks to human health inherent in global environmental change. McMichael outlines the concept of human health within an ecological framework. In doing so, he challenges the reader to include human beings *within* an understanding of global ecology rather than the more usual treatment of humans as exogenous agents who adversely affect global 'natural' environmental systems. To his credit, McMichael also includes some discussion of the socio-political situation that underpins

global environmental change and the capacity to manage it.

*Planetary overload* is a book that draws numerous global environment and health threads together. The strength of McMichael's viewpoint lies in its breadth of perspective and coherence. Chapters move logically through three areas. To introduce his ideas, he discusses the biological origins of the human species, ecological adaptation of human beings to their diverse environments, the concept of disease and health, and the development of public health and concepts of population health. Chapters are then devoted to the possible impact of various global environmental changes on health. These include population increase, poverty, and health; global warming; thinning ozone layers; soils and agriculture; biodiversity; and urbanization. The important final three chapters deal with potential policy responses and/or inaction in the face of global changes.

In chapters on climate change and thinning of the ozone layer, McMichael argues that it is likely that changes to the climate caused by the enhancement of Earth's greenhouse effect will have a wide range of health effects. There are likely to be both direct and indirect effects of climate change. The direct effects, acting via temperature changes, thermal extremes, and increased natural disasters, are more simple to predict than the indirect effects, and include heat stresses and respiratory problems associated with air pollution and seasonal concentrations of pollens, dusts, and photochemical smogs. Indirect effects include changes in distribution of environmental habits that harbour risks for humans, for example, climate warming encouraging the re-emergence of disease vectors such as malaria-bearing *Anopheles* mosquitoes in temperate zones. McMichael suggests that climate warming can also encourage increased numbers of dengue fever-bearing *Aedes* — there is some evidence that transmission rates for the dengue virus are enhanced by higher temperatures. Increased damage to the ozone layer is also likely to have significant long-term effects on habitat and health. Ozone damage is most sharply felt in the polar regions. Immediate effects of diminishing ozone protection in our global environment are likely to be most damaging for northern populations — particularly seen in rises in skin cancers associated with exposure to ultra-violet radiation.

Overall, the book is timely and worthwhile. My only substantial quibble with the view presented by McMichael is that it caters a little too much to western fears: *Planetary overload* claims a global perspective on population health, but actually gives more considerable attention to the myopic agenda of western peoples (a small proportion of the world's population). There is value in such discussion, but, in reality, in dealing with global human health, most people are dying and will continue to die from basic, old-fashioned preventable disease in developing countries. The impact of socio-ecologic epidemics of diseases such as AIDS will be huge. These 'environmental' problems are already decimating, and will continue to decimate, populations, particularly in Africa, Asia, and parts of the