concentrates on the ship-borne aspects of the expedition. The book includes a selection of photographs and maps, a good index, and concise biographies of all the men concerned: from the latter we learn that Mackintosh died on the sea ice in 1916 while a member of Shackleton's Imperial Trans-Antarctic Expedition. (R. K. Headland, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

HEALTH AND DISEASE IN ALASKA

CHILLS AND FEVER: HEALTH AND DISEASE IN THE EARLY HISTORY OF ALASKA. Fortuine, R. 1989. Fairbanks, University of Alaska Press. 393 p, illustrated, hard cover. ISBN 0-912006. US$29.95.

The early history of Alaska, from the first Russian explorations through to the Gold Rush at Nome, was a period of intensive contact with Native peoples as well as one of adventure, exploitation and colonization in the pursuit of wealth. The aboriginal inhabitants were introduced to trade items and Christianity, suffering profound cultural change as a result. But the explorers, missionaries, traders, colonists and pioneers brought much more than imported goods and religion; they brought new diseases to which the Natives of Alaska often had no immunity. Epidemics decimated whole communities, but while the fur trade, exploration, settlement and the Gold Rush are significant chapters in the early history of Alaska, historians and anthropologists have given little attention to health and disease. Robert Fortuine has addressed this imbalance by writing an early history of Alaska from this perspective.

In the first of three parts Fortuine draws on random evidence from archaeology, skeletal remains and the descriptions of early travellers to show the diseases suffered by aboriginal peoples of Alaska in pre-contact times. Low standards of hygiene and sanitation prevailed; famine, hunger, malnutrition, botulism, salmonella, diseases caught from animals, skin infections and respiratory ailments were known; the author presents a convincing picture of early conditions and destroys the myth of healthy, disease-free pre-contact Natives. Part II overviews Alaskan history from Russian penetration up to the days of the Klondike and the Nome Gold Rush, discussing the health of Europeans, Americans and Natives, relationships between these groups, the conditions that nurtured diseases, and the impact of disease on both Natives and incomers. Origins of health service are covered, from the inception of a health care system by the Russian-American Company to the role of the United States following the sale of Alaska in 1867. Fortuine also considers how disease and illness was spread around Alaska by whalers and traders, and the effective and important part played by missions in health care. Part III considers health problems that were unique in severity of impact on social and economic life, for example the 19th century epidemics of smallpox, influenza and measles that devastated and confused Native ppopulations all over Alaska. As if these were not enough, other virulent and contagious diseases took hold: tuberculosis continued well into the 20th century, while gonorrhea and syphilis were a common cause of illness almost from the contact period. Fortuine does not ignore the introduction and effects on health of tobacco and alcohol, particularly pertinent for contemporary health problems.

The strength of this book lies in demonstrating the hard facts about the impact of culture contact and colonialism. In the author's own words (p. 87), 'Health and disease not only helped to shape Alaskan history, but the very events of history in significant ways determined what the patterns of health and disease would be among the people of Alaska, both native and newcomer.' This sums up what the book sets out to document; its achievement in doing so gives fresh insight into the health of Native peoples in the pre-contact period and a greater understanding of the history of the region. (Mark Nuttall, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

GLOBAL CLIMATE CHANGES

CARBON DIOXIDE AND GLOBAL CHANGE: EARTH IN TRANSITION. Idso, Sherwood B. 1989. Tempe, Arizona, IBR Press. 292 p, illustrated, soft cover. ISBN 0-9623489-1-0. $19.95 + $2.00 postage and packing.

Sherwood B. Idso is not a prophet of doom. The first half of his text deals with climatologists' predictions of almost catastrophic warming due to increases of CO_2 and other greenhouse gases in the atmosphere. He considers that the complex mathematical/computing techniques used are inadequate to deal with the wide range of physical, biological and related feedback effects that determine global climate. To simplify prediction, Idso compares the greenhouse warming of the Earth, Mars and Venus attributed to CO_2 to deduce a warming of only 0.4°C for doubling CO_2 in the earth's atmosphere, compared with climatologists' predictions five or ten times greater. Nevertheless, Idso's figure can be criticised as being subject to similar uncertainties to the output of computer models because we lack comparative knowledge of feedback effects on the three planets, whose atmospheric compositions vary greatly from each other. One can however agree that our knowledge is insufficient to produce reliable figures in either case. Many will not accept the claim that figures for global warming and sea-level rise over the past century lack any creditability.

Optimism dominates the second half of the text, which deals with the biological effects of increased CO_2 in the atmosphere. Idso's own experiments show an increase of growth of lemon trees of 80% due to doubling CO_2. He presents other evidence that the biosphere benefits in many ways from increased CO_2, which will help feed an increasing world population. He concludes that 'It would thus appear that man's inadvertent flooding of the atmosphere with CO_2 is a most fortunate and desirable phenomena indeed'. In comparison with Idso's 1982 booklet 'Carbon