

human survival in the Arctic: the health hazards that must be considered in planning a prolonged stay in a region of nearly continuous night and then of almost continuous day, where long periods of extreme cold must be expected. In addition to the personal objective of self-testing, we would like to have a clear statement of the authors' scientific objectives.

This reviewer feels that an opening chapter giving broad coverage to the background material referred to above would enhance the book by making it more comprehensive and hence more appealing to the reader, who is naturally curious as to why such a risky adventure would be undertaken. Knowledge of the context in which the personal experiences took place would compensate for an over-simplistic account of events intrinsically more threatening than they were described to be. A case in point is the account of the incident in which Gil broke through the ice on the big river. What preparations had been made to counter the potential disaster of getting wet in January on an arctic river? Was the grizzly hazard taken too lightly on the trip into the blind canyon? The sense of ever-present danger is perhaps not sufficiently stressed in some parts of the story.

But having said these things, we must emphasize that this book gives the reader a unique vicarious experience. It has been said that beauty is in the eye of the beholder. But this book gives such a vivid portrayal of the beauty of the Brooks Range region that we, who are not actual beholders, can hardly fail to see and feel what Viv and Gil saw and felt. Their sense of dismay and alarm becomes ours when we read of the senseless killing of the wolf by trigger-happy intruders and of the scarring done by oil exploration crews. Their feeling of awe at the view from the summit when the summer solstice occurs becomes something we feel ourselves when we read: "Just after midnight the sun hid itself behind a distant spire. An aura of mystery prevailed as we waited for the sun to reappear. . . . Pink puffs of clouds hung over the Arrigetch. Each peak seemed to be an active volcano. . . ." Read this and gaze at the two magnificent colored plates of this event, and the meaning of vicarious experience becomes clear. Vivid portrayal by word and picture is unquestionably a very strong positive feature of this book: Viv is a powerful and entertaining writer and Gil is an expert and discerning photographer. The color plates, beautiful in themselves, have been carefully selected and arranged to enhance the text. They are so varied that one could obtain a satisfying appreciation of what the Staenders did without reading the running account of the day-to-day events.

This is not a scientific treatise on an area in northern Alaska. It does not attempt to be anything other than what it is — a personal record — but it does contain an excellent summary of identified plants and animals, which would be valuable to a professional ecologist, and which testifies to a degree of scientific purpose in the wilderness-living project.

The physical qualities of the book must be highly praised. The quality of paper, the typeface, the arrangement of text and illustrations are such as to rate the book very highly from the technical point of view.

The book can be recommended without reservation to the professional ecologist and to all who have a concern for the environment. But it is not a textbook in the strict sense of the term.

If one were to attempt a final remark to describe the motive of the Staenders in carrying out their project, it would be to quote Coleridge's lines: "O happy living things; No tongue their beauty might declare."

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THE TRANSFORMATION OF SWISS MOUNTAIN REGIONS.

Edited by ERNST A. BRUGGER, GERHARD FURRER, BRUNO MESSERLI, and PAUL MESSERLI. Bern: Verlag Paul Haupt, 1984. 699 p. Maps, diagrams, illus., index. Softbound. SFr69. DM84.

Like many other areas of the world, within the present century the Alps have experienced the transformation from a remote, traditional, rural, primarily agricultural society to a modern one tied in with the rest of the country, with an economy based increasingly on tourism and exhibiting many urban characteristics. Brugger *et al.*'s *The Transformation of Swiss Mountain Regions* is a collection of 54 articles, each of which focuses on particular aspects of this transformation. Thirteen of the selections are abstracts of chapters that have appeared in a companion volume edited by the same authors: *Umbruch im schweizerischen Berggebiet (Revolution in the Swiss Mountain Regions)*.

None of the accounts of socio-cultural changes in the Alps that have appeared in the English-language literature within the past 10 to 25 years has the breadth of scope of the present volume. It covers the structural changes that have occurred in the various economic sectors (agriculture, forestry, mining, tourism, industry, hydroelectric power, and transportation) as well as in the society and cultural life of the inhabitants; environmental stresses engendered by these changes; the causes of and mechanisms responsible for them; and the political decision-making process. Conclusions are also drawn regarding future policy and planning practices.

The book is organized into four parts. Part I presents the fundamental problem and points of departure for the analysis. Part II describes the transformation of the landscape, land use, and settlements; the ecological stresses and changes; and the socio-economic and the socio-cultural changes. Part III is dedicated to analysing the processes involved in the transformation: ecological, economic, functional division of space, socio-cultural, and political. Part IV is concerned with strategy and contains conclusions for policy and practice.

In spite of the diversity of topics dealt with, the orientation of the writers is remarkably uniform; all address the fundamental problem of striking a balance between development and non-development. Taken as given are the Swiss societal aims, which are: to remove economic disparities among regions and social groups within the country, to maintain and promote cultural diversity and differentiation, to strengthen democratic rights and responsibilities by reinforcing local and regional governmental structures, and to maintain a settlement structure enabling the forests and agricultural lands to be managed in a way that will protect landscapes and maintain the ecological balance. To deal with the basic problem of development vs. non-development, three questions are posed: 1) To what extent is the fulfillment of these basic societal aims being affected by the type of change going on in mountain areas? 2) What chain of cause and effect is tied to both desirable and undesirable processes and mechanisms? and 3) How can the undesirable aspects of change be influenced so that development goals can be attained? These questions are addressed by using two dialectics, or positions in the discussion: autonomy vs. dependency, and the tension between economic and ecological values.

As a reference, this work provides reasonably easy access to such diverse topics as visual and aesthetic aspects of landscape changes, land use changes and their ecological effects, potential agricultural production in highlands, forest potential, migration patterns, sectoral shifts in economic structure, the contribution of industry to the development of mountain areas, functional and areal division of labor, the endangered "capital" of tourism (landscape), mountain railways and cross-alpine routes and their effects, regional dynamics and identity, tourism development policy, the control of tourism development, and politics in mountain areas.

How were these topics, each with its individual complexities, brought together into such a comprehensive framework? This result is due partly to the expertise of the editors, who have wrestled with the fundamental problem for years, and partly to drawing on experts from a variety of scientific fields, each dedicated to a multidisciplinary approach. But perhaps more important is that each contributor appears to be sincerely concerned with helping to solve the fundamental problem.

This does not mean that the book is unblemished. On the contrary, there are numerous difficulties, but they are mostly technical rather

than substantive. Perhaps these are the trade-offs one has to accept in such a comprehensive work. Textual repetitions and overlaps, for example on tourism and its effects on the landscape, agriculture, and the society, abound. Even a map showing the mountain regions according to the federal law appears three times, but one showing the places mentioned in the selections is not included. Much of the material is difficult to read due to the use of convoluted sentence structure and peculiar words and phrases resulting from improper translation. There are also some peculiar errors, such as giving some bibliographic references in English when all are in German. These items, as well as providing an English translation for common German abbreviations, could have been eliminated by careful editing.

Substantively, the use of altitude as an explanatory variable can be questioned when more specific ones such as slope angle, climatic elements, and the like are more incisive. Also, the lengthy treatment given several rudimentary concepts results in too much teaching, although this might be useful for intelligent laymen or politicians instead of professionals. The selections consisting only of abstracts are virtually useless — if they were to be included, more information should have been given. Identifying the affiliation of contributors would also have been valuable. In addition to the theoretical and planning conclusions, a summary of the substantive material would have been helpful.

In a collection such as this, one would anticipate diverse viewpoints and conclusions, with the contributors riding their favorite horses, but this is not the case. There is striking unanimity regarding the gains and losses resulting from the transformation: economic gains, measured against environmental and aesthetic losses; increased dependence upon the heartland (centers of economic and political power) and loss of autonomy and self-reliance; that change as such is continual and needs to be accepted; and that a change in basic values is required to bring about a better balance. Although some worthwhile suggestions are made, there is also much silence as to how to bring about these changes.

How is this book relevant for those interested in arctic lands? Although specifics regarding Swiss legislation, settlement history, relationships between the cantons and the federal government, societal objectives, and the like obviously do not apply, there is great similarity between arctic lands and alpine regions — less in their physical characteristics, despite certain similarities, than in their human and cultural ones. Both are peripheral to the political, economic, and population centers of the heartland. The problems of development vs. non-development, economic vs. environmental values, and political and economic independence vs. external control and domination are as real in arctic lands as in mountainous ones.

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THE SUBARCTIC FUR TRADE: NATIVE SOCIAL AND ECONOMIC ADAPTATIONS. Edited by SHEPARD KRECH III. Vancouver: University of British Columbia Press, 1984. 194 p., 30 maps and tables, author and subject indices. Hardbound. Cdn\$28.95.

This book is the first major work to focus on the fur trade and native economic history in the subarctic region of Canada. Each article is a rewritten version of a paper originally presented at the American Society for Ethnohistory conference in 1981. The six papers in the volume offer an innovative approach toward better understanding the fur trade in the subarctic by combining the interdisciplinary perspectives of anthropologists, historians and geographers; all authors have a common interest in native economic and social adaptations due to fur trade influences. All focus on themes current in fur-trade historiography, including the identification of native motivations, the extent to which natives were involved as discriminating consumers and creative

participants, and the extent of their dependency upon the trade. Besides furthering our understanding of native adaptations to trade, the ultimate objective of the volume is to "spawn meaningful questions and spur others, through the use of more sophisticated techniques or more refined textual interpretations, to greater advances in fur-trade scholarship" (p. xvii). As such, this volume invites the attention of fur-trade historians and northern specialists and students. This is a "state of the art" book.

Literature about the impact of the fur trade on subarctic native cultures is controversial and sometimes acrimonious. Perhaps the most significant and worthwhile outcome of this volume is a consensus on the inadequacies of a chronological framework used by many subarctic specialists to analyse the historical period: it is a framework suggesting that significant changes in subarctic native cultures did not take place until recently (Helm and Leacock, 1971; Helm *et al.*, 1975; Helm *et al.*, 1981). While the complex supporting arguments differ, there is an essential agreement that significant changes in productive activities and structural changes in subarctic native economy and society are deeply embedded in the fur trade. Serious subarctic scholars and others interested in analyzing cultural persistence and change in the Canadian subarctic should read this book with care before unwittingly accepting the logical and factual fallacy of the chronological framework used by others cited above.

This is an attractively presented and well-produced book; its Introduction by Krech gives an excellent synthesis of the articles. The first contribution, "Periodic Shortages, Native Welfare and the Hudson's Bay Company 1670-1930," by Arthur Ray, a geographer-historian, clearly, as Krech says, sets the tone for the volume. Ray questions the hypothesis that modern native welfare societies are of recent origin and traces the causes to the early fur trade. Ranging across two and one-half centuries of historical data, Ray suggests the faunal depletions, scarce resources, the establishment of posts in marginal areas, the existence of low-paying seasonal employment, and the extension of trade goods on credit combined to produce dependent welfare societies by the late nineteenth and early twentieth centuries. Ray's themes are focused on again by Charles Bishop, Toby Morantz, and Carol Judd in papers on the Northern Algonquians in the eastern subarctic and on the earlier centuries of the trade.

Bishop's essay, "The First Century: Adaptive Changes among the Western James Bay Cree between the Early Seventeenth and Early Eighteenth Centuries," proposes that changes in Cree adaptations were produced by man-caused depletions of game, by a new technology, and by specialized economic or subsistence activities. Rejecting the simplistic idea that contact with European fur traders either created social structural breakdown or resulted in persistence of native culture and society, he suggests that, although shifts in adaptive emphases in native societies occurred throughout contact, radical departure from old ways in response to these shifts are not immediate. It is only when the changes become cumulative, which result in part from decisions made by natives themselves, that there are fundamental discontinuities with the past. For example, the Cree living west of James Bay are described as being dependent by 1725 upon guns and ammunition and during some seasons on store food. Persistence in other aspects of their culture is acknowledged.

While Bishop argues for socioeconomic changes by 1725, Morantz's paper, "Economic and Social Accommodations of the James Bay Inlanders to the Fur Trade," indicates that it is difficult to determine if the upland or inland Indians east of Fort Albany, across James Bay, were involved enough in direct trade during the mid-eighteenth through the first half of the nineteenth century to have produced changes in social and economic organization. Although Bishop and Morantz differ regarding the impact of the trade on natives in two almost contiguous areas, the difference may be due to historical and ecological factors; these differences are not accounted for in the book. Nevertheless, the authors should not be faulted for this. We do, however, need to know what the authors think the aboriginal mode of production for subarctic Indians was and we need to know more about what they perceive to be changing or persisting in post-contract native