provided at appropriate places throughout
the text.

One of the biggest shortcomings of this book for American geography teachers is
the British terminology and the examples
of the British landscape that are used. They
do not have the same connotation for
Americans as they do for British teachers.
Likewise, Chapter 5, School Organization,
will be of little help to the average Ameri-
can secondary school geography teacher
or social studies teacher. Despite these
differences, the book has much to offer
American teachers as well as geography
teachers in other areas of the world who
match in schools patterned after the British
system.

ROBERT B. MARCUS

University of Florida

PHYSICAL GEOGRAPHY

Arctic and Alpine Environments. JACK
D. IYES and ROGER G. BARRY (eds.).
xviii and 999 pp., figs., maps, illus.,
tables, refs., glos., index and photos.
$85.00.

This book is the first to attempt a really
systematic and comprehensive treatment of
the high latitude and high altitude en-
vironments of the world. It is an impres-
sive, detailed and wide-ranging volume of
nearly 1000 pages. Clearly, it is an im-
portant contribution to our understanding of
cold-climate environments and is particu-
larly useful since it is published at a time
when there is concern for the controlled
development of the resources of these re-

The volume is organized around seven
major sections, each consisting of several
chapters. The first two sections deal with
the present and past environments under
the headings of climate, hydrology, perma-
frost and ice cover, paleoclimatology, and
history of glaciation. These are followed
by sections dealing with the present biota
and its development; successive chapters
discuss the treeline, vegetation, vertebrates,
historical plant geography, and paleoecol-
ogy and paleozoogeography. The fifth
section examines abiotic processes under
the headings of geomorphic processes and
soils. Then, the final two sections deal
with man in cold environments and man's
impact on the environment. In all, there
are 37 chapters written by 32 specialists.
Many of the authors either have some as-
ociation with the University of Colorado,
and INSTAAR in particular, or were as-
ociated with the old Geographical Branch
of the Federal Government of Canada.
Throughout the volume the influence of
the editors is strong, both in their choice
of authors and topics, and their several
contributions. In contrast to many other
volumes of edited contributions, therefore,
Arctic and Alpine Environments appears
to hang together well. This is no small
feat for a volume of this size and diversity.

It is unlikely, however, that Arctic and
Alpine Environments will become the de-
finite reference work on these regions,
as the dust cover hopefully claims. Some
of the chapters are not the most authori-
tative statements presently available; for
example, the permafrost chapter must be
supeceded by the North American Perma-
frost Conference volume of 1973, pre-
ented at Yakutsk. More fundamental
weaknesses are the lack of attention given
to Antarctica and Siberia, the omission of
any treatment of pack ice and marine con-
ditions, and the rather general nature of
the last section dealing with man's impact
on the environment. The latter constitutes
only 46 out of the over 950 pages of text.

The book comes equipped with refer-
ces at the end of each chapter, good clear diagrams, a glossary of terms, 48
pages of excellent black-and-white photo-
graphs and an attractive dust cover. Un-
fortunately, it is all very expensive. It
will appear on the shelves of most libraries
but only the enthusiastic specialist will
consider buying a personal copy. This is
a pity since the wealth and relevance of
information contained in the work demand
a wide distribution. Hopefully, soft-cover
ditions of the various sections will be
published in the near future.

HUGH M. FRENCH

University of Ottawa

Structural Geomorphology. JEAN TRICART, trs., S. H. BEAVER and E. DERBY-
The traditional realm of structural geomorphology comprises the impact of lithology, structure and tectonic history on landforms. Long a prominent aspect of geomorphologic training in continental Europe, the drift of tectonic processual studies into the evolving field of geophysics was accompanied by less emphasis on structure and lithology in both geomorphologic teaching and research. This translation of Tricart's text, first formally published in its French original (following earlier, multigraphed editions) in 1968, provides ready access to a classic in its field. The organization is basic: (a) the distribution of land and sea, in the perspectives of crustal components and relative variations of sea level; (b) development and relief forms of geosynclines and fold belts; (c) evolution of and resulting forms in "old" mountain belts, shields, and subhorizontal sedimentary strata of variable resistance; and (d) the role of faults, fracture lines and vulcanism of various types.

The scope of Tricart's book is broader than either C. R. Twidale's Structural Landforms (MIT Press, 1971) or B. W. Sparks' Rocks and Relief (Longman, 1971), but its value in teaching is much reduced by two flaws. The translation reads well but the repeated use of French terms or ineffective circumlocations—where good, commonplace English forms exist—often obscures the meaning. Then, too, the processual theory is badly in need of updating. Already in the mid-1960s it was inappropriate to ridicule continental drift, and grossly to ignore the significance of plate tectonics for continental landforms (by leaving a 1974 translation unrevised) seems inexcusable.

Karl W. Butzer
University of Chicago

ENVIRONMENT AND MAN


This book is another among a plethora of similar attempts to treat the man/environmental relationships theme from the perspective of resources. Simmons, who is British, strives to emphasize what he calls the "ecological viewpoint." He defines ecology essentially as "...the interaction between living and nonliving components of the biosphere in all their various solid, liquid and gaseous phases where man may play a major role in these systems or no role at all." Moreover, the author recognizes at least three other approaches to the study of natural resources and man's impact upon them but does not include them. These are economic, ethical and ethnological.

To achieve his stated goal, Professor Simmons has divided his book into three major parts. Part I deals primarily with nature and resources, focusing mainly on ecosystems, their functions and interactions with and without man, and collectively called the "ecosphere" by Simmons. Part II, entitled "Resource Processes," emphasizes man's use of the world's resources from an ecological perspective. This section treats topics such as idle lands, protected ecosystems and landscapes, outdoor recreation, grazing, water, forestry, food and agriculture, the sea, energy and minerals, and wastes and pollution. Part III, entitled "The Perception of Limits," dwells upon population growth, spatial and social consequences of population/resources interactions, and evaluates concepts of environmental management.

The major shortcomings of the book are primarily in the style of writing. Professor Simmons tends to introduce several ideas consecutively which results in long, drawn-out sentences. He also tends to overuse technical jargon. As a textbook, I find the book's utility limited. It is much too advanced for the beginning college student, whereas a senior-level or graduate student would need a strong scientific background to gain full use of the book.

In conclusion I feel the book makes a contribution by introducing several thought-provoking concepts worthy of the resource manager's consideration. Therefore, for those teaching resource-oriented courses or involved in resource research, the book can serve as a valuable reference.

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