into the workings of the ITBP—whose record of achievement in the Indian Himalaya is documented here. The photographs are poorly reproduced and provide no record of the actual climbing encountered.

In spite of these shortcomings, the book will undoubtedly prove useful to anyone contemplating a trip to this part of the Himalaya. More than one reader will be stimulated by the views of Saser II, III and IV to consider organizing a trip to the area, if permission can be obtained and logistics organized. With the opening of new areas of the Indian Himalaya to foreign mountaineers, this is only a matter of time, one hopes. Great ingenuity will be required if the next ascents of the Saser Kangris are to be done "on a shoestring budget." Here lies a challenge that the mere climbing of an 8000-meter giant in these modern times no longer adequately provides.

ROY Kligfield


The main task of Mountains & Man is to explore the complex processes and features of the mountain environment. In this synthesis of processes and relationships, the text treats the erosive effects of nivation, soil creep, and frost-wedging, all forms of mass wasting. This wasting is more important as a denuding agent in mountain lands than running water. Price reminds us that frost-wedging is the primary force of rock breakdown: a major cause of rockfall is due to a 9% expansion of water freezing. The directional growth of ice crystals is another factor. We are reminded what climbers have long known—the instability of talus slopes. The average rate of surface movement of talus was measured in the Rocky Mountains as about eight inches per year above timberline.

The book provides an important discussion of climatic regimes and how wind affects landscapes and snow deposit. The role of wind in the distribution of snow is most important to mountaineers and skiers, who are concerned over the accumulation of snow and slabs on lee slopes. The book shows how mountains serve as pathways for plant migration and how endemics—species found only in a particular range—have developed. There is a detailed discussion of alpine tundra in its latitudinal positions, and the effects of the latter on vegetative species.

Man, animals, and plants have displayed a preference for altitudinal belts in which to arrange themselves. Price points out "Mountains exist as microcosms, like islands amid surrounding lowland seas. . . . They offer sanctuary for endangered species." Altitude and latitude, of course, are important factors in the location of the world's glaciers. The book describes the formation of ice from snowfall, and there is an adequate
description of glaciers and their general locations. But the differences between temperate, polar, and sub-polar glaciers are omitted. It would have been beneficial to describe where each of these types are located, and some examples. In the discussion about glaciers the references are sometimes dated (1965), and the text should have amplified the general glacier retreat in western North America, and covered the isolated examples of glacier advance.

As would be expected with a recent and important text of this nature, there is an excellent discussion of the concept of plate tectonics and the new theory of mountain building. This concept provides a broad and unifying framework into which all aspects of earth science fit. The rugged mountains of the earth are among its youngest features. To anyone excited about the mountain prospect, *Mountains & Man* is required reading and study.

Fred Beckey


This is not a book of peaks and climbers. It is more a kind of encyclopedia of the Himalaya, dealing with many aspects of the greatest mountain range on earth, of nature and man and their interrelation. It comprises pieces by 27 experts from seven countries. The book is in three sections. The first deals with Nature: studies on the climate, ornithology, fauna, flora, geology, glaciology, earthquakes, soils and water resources of the region. The second gives studies on political and cultural changes in the hills of Bhutan, Sikkim, Nepal, Garhwal, and Ladakh, then continues briefly with Himalayan art, and finally describes surveying and mountaineering. The last section is devoted to an assessment of dangers posed by tourism and industrial and economic development. It explores the conflict between the deterioration of the environment and the struggle for existence of millions whose welfare depends on their mountain homes.

With so many authors and subjects, the book lacks unity. There are also omissions and overlaps. Unevenness too. Some chapters are more technical than others. There is however a useful bibliography. It is also good to have one volume which brings so much together in one place.

But the editing could have been more careful. Some mistakes are doubtless typographical errors, such as on page 333, where "all the four members were forced to bivouac in the open at the height of 9500 m," that is to say at 31,169 feet! On page 332 it states that the summit team was beaten back from an altitude of 8846 meters on 8848-meter Mount Everest. Peak altitudes often differ from the official heights and