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

The Himalaya, Aspects of Change. J.S. Lall and A.D. Moddie, editors. Oxford University Press, New Delhi, 1981. 481 pages, color photographs, maps.

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

sometimes differ from each other within a few pages. Nanda Devi is 7817 m on page 311 and 7891 m on page 326. Kamet is 7756 m on page 311 and 7891 m on page 320. On page 306 it states that "Kenneth Mason noted in 1860 that a survey *khalasi* (peon) carried a signal pole to the top of Shilla Peak in the Zaskar Range, east of Spiti, at an altitude of 7092 m." Obviously the "that" is misplaced, since Colonel Mason could not have noted anything 27 years before his birth. There is, however, an error of fact, since Shilla is now known to be 6191 meters, as stated on page 319. Twice T. Graham Brown is credited as being leader of the 1936 Nanda Devi expedition, which he was clearly not. And as splendid as Sherpas normally are, on that expedition we did not have "six very experienced and reliable Sherpas." Of the six, only two porters got as high as Camp II and that only once. The myth of Himalayan glaciers being the longest temperate valley glaciers of the world is again stated on page 140. As any American mountaineer knows, there are at least a dozen much longer ones in Alaska and the Yukon.

This is, however, nit-picking. *The Himalaya, Aspects of Change* is a very useful and provocative book.

H. ADAMS CARTER

Learning to Rock Climb. Michael Loughman. Sierra Club, San Francisco, 1981. 141 pages, black-and-white photographs, line drawings, glossary. $9.95 paper. $17.95 cloth.

Like many climbers in the late fifties and early sixties, I learned to climb from books. More precisely, I learned to climb in spite of books. I could never reconcile my experiences on the rocks with the descriptions I read. Why wasn't I able to move rhythmically, link my movements, keep my hands low? Why was I straining? When I looked at a handhold, my mind feverishly reviewed the veritable Kamasutra of hand positions I had read about. Surely it was wrong to simply glom it onto the rock!

Twenty years later, I realize that the books I read, as well as almost all that have followed, presented the components of technique without ever achieving an integrated vision of technique itself. I am told that there is a Chinese proverb which says that one can know all the parts of a carriage and yet not know what a carriage is. This proverb characterizes the failings of most books on climbing. You get a chowder of equipment, knots, belaying and rappelling techniques, followed by a stew of hand and footholds. Then you are invited to partake of an age old wisdom: "Keep Your Weight Over Your Feet." For extra confusion, you may be treated to some rules that just beg to be broken, such as not crossing your feet on a traverse and maintaining three points