

Daffern does not fail to mention the particular uniqueness and subtleness of those delayed-action avalanches—those involving deep snow layers and those which occur after a storm or period of recent loading, perhaps several days later, and often in conditions of clear, calm weather. The problem with this type of avalanche is down-played in most other publications, yet this is the avalanche which results in the majority of skier avalanche deaths. A particularly telling photograph on page 141 is a good reminder.

There are the usual, but well-done chapters on route-finding and rescue. Of particular note is a discussion on what helicopters can and cannot do in the mountains, acknowledging that the helicopter is part of the mountain scene in many areas today.

An interesting and generous selection of photographs carries the information well. Many of the photographs are of climbing situations, as well as skiing. Of special note are the state-of-the-art snow crystal photographs by Ronald Perla.

In summary, *Avalanche Safety for Skiers & Climbers* is an excellent field-level avalanche handbook. For mountaineers, it is the best available.

PETER LEV

The Avalanche Book. Betsy Armstrong and Knox Williams. Fulcrum, Golden, Colorado, 1986. 212 pages, appendices, bibliography. \$14.95.

Anyone whose encounters with snow tend toward the nonhorizontal should have a working understanding of avalanches. Until recently, this has been difficult to acquire due to a paucity of nontechnical information on the subject. In the last few years, however, an "avalanche renaissance" of sorts has produced several good books for the general reader, of which *The Avalanche Book* is the most recent and the most comprehensive. If there were an avalanche category of Trivial Pursuit, this book would have all the answers. What should you do at the moment of being buried by an avalanche? (Shout once to alert rescuers, then close your mouth to prevent it from being packed with snow.) How many buried victims have been recovered alive by avalanche dogs? (One.) What are the legal liabilities of a real estate developer who sites a house in an avalanche path? (Depends on whether you live in Colorado or Alaska.) But avalanches are anything but trivial, as this book's harrowing case histories and chilling statistics well attest.

Within the tightly-knit world of avalanche professionals, *The Avalanche Book* has generated a certain amount of controversy. Some feel that Armstrong and Williams give undue credit and attention to academically oriented researchers, while downplaying the contributions of the practical field workers who spend their days skiing over avalanche terrain with backpacks full of dynamite. Both authors are prominent researchers, and their emphasis, while galling to those they somewhat condescendingly refer to as "practitioners," in no way lessens the usefulness of their book for the general reader. Practical aspects of avalanche safety, avoidance, and rescue are covered in a clear and thorough

manner. Of particular interest is a chapter on what to do if actually caught in an avalanche. This information, made unforgettable by vivid case histories, could save your life. A more prudent approach, however, would be to read with extra care the chapters on the causes of avalanches and the choice of routes to circumvent them.

Where *The Avalanche Book* departs most noticeably from its predecessors is the considerable attention devoted to some of the more esoteric areas of avalanche research, such as attempts to defeat snow slides through engineering. The Swiss, in particular, have pioneered the use of steel and concrete structures to impede, divert, or withstand the crushing forces of moving snow. They have also done a great deal of thinking about the legal limits of individual and community responsibility for avalanche safety. The chapter "Avalanches and the Law" offers a worldwide overview of this little known but increasingly important field.

The authors' background as editors of *The Snowy Torrents*, the ongoing chronicle of American avalanche accidents, gives their current book great historical depth. Case studies of avalanche disasters, from Hannibal's misfortunes in the Alps to the latest contemporary incidents, offer dramatic reading and a riskless substitute for experience, which in the case of avalanches is not the best teacher.

The climber or skier looking only for succinct, practical advice on avoiding avalanches may occasionally feel that he has gotten off route in deep snow as he makes his way through some of *The Avalanche Book's* more specialized chapters. On the other hand, there is an equal likelihood that he will discover a new interest in tactics of avalanche warfare, winter recreations of nineteenth-century miners, land-use planning in Swiss communes, or aerial delivery of explosives. Anyone who deals with snow will do so more knowledgeably after reading this lively and wide-ranging book—even practitioners.

KIM FADIMAN

East Coast Rock Climbs. John Harlin III. Chockstone Press, Denver, 1986. 397 pages, black and white photographs, line drawings, maps. \$22.00 (paper).

This is the third volume of John Harlin's ambitious *Climber's Guide to North America* series. It provides a comprehensive overview of the fifteen principal climbing areas on the eastern seaboard, ranging from Yellow Creek Falls in Alabama to Charlevoix in Quebec, Canada. The format is identical to the earlier Rocky Mountains and West Coast volumes, and has standardized introductory remarks about the purpose, scope, and use of the book; ratings; safety; style and ethics; and similar guidebook conventions. This is followed by informative essays on the nature of the climbing in the East and its colorful history.

Each major climbing area is covered in its own chapter, and there is even a separate chapter at the end of the book that briefly describes a scattering of smaller, less-heralded crags that the author encountered on his travels. A general selection of routes in all grades is included within each area, with the