

exploration in his veins and managed to set up an expedition to climb Coropuna and also to search for the last Inca capital. Unexpectedly he had to compete with another American, Annie Peck, who in 1906 had climbed Huascarán Norte. Bingham decided not to race for Coropuna and instead, to survey the land as he worked his way toward the mountain. In the end, Annie Peck climbed the easternmost peak of Coropuna (6303 meters) and Bingham's party, the highest, which his surveyor put at 6617 meters. Bingham undertook yet two more trips to Peru. In 1912 he did discover, or uncover, Machu Picchu and in 1914-15, more ruins.

This book is definitely of interest to all mountaineers fond of Peru and of South America. Of the 27 chapters that form the book, twelve deal directly with the Andes and the rest, with travels elsewhere as well as with the life of Bingham himself. A number of photos, taken some seven decades ago, will be of interest to climbers.

This book shows an involuntary mistake. The 1985 Peruvian chart (sheets Cotahuasi and Aplao) led the author, and others too of course, to believe that the north peak of Coropuna (or Coropuna Casulla), with 6377 meters, is the highest in the massif and that the dome climbed by Bingham in 1911 is 6350 meters high. This is wrong. Bingham did climb the highest peak (locally called El Toro), which later Peruvian surveys have placed at 6425 meters. This was confirmed by Mike McWherter, who in 1984 ascended Coropuna Casulla and wrote in *Summit* (no. 5, 1984, p. 21-22):

. . . when we reached the north peak's great summit plateau . . . we looked to the dome peak. It looked about 300 ft higher.

We had been misled by the topographic map and climbed Coropuna's second highest summit.

The text is complemented by quotations from Bingham's writings and from his personal letters, by adequate maps and, above all, by photos taken by the explorer himself. To summarize, then, this is a biographical book about the life and times of a well known explorer, who was besides a pioneer mountaineer.

EVELIO ECHEVARRÍA

Ecuador: Tierras Altas. Jorge Anhalzer. Imprenta Mariscal, Quito, 1987. 154 pages, 120 color photographs, 1 sketchmap. Hardbound.

Frontera Superior de Colombia. José F. Machado et al. Banco de Occidente, Bogotá, 1987. 183 pages, 146 color photographs, 15 line drawings and sketch-maps, 5 maps. Hardbound.

The Andes: Natural Beauty of Chile. Gastón Oyarzún. Editorial Kactus, Santiago, 1988. 88 pages, 73 color photographs. Softbound.

A Chilean, an Ecuadorian and a team of Colombians directed by José F. Machado have almost simultaneously produced a color portraiture of the high

mountains of their respective countries. The Chilean work is the English version of an earlier Spanish edition. All three books have a common layout. Each one alternates pictures of stark rock and ice peaks and local climbers in action, with vignettes depicting sunsets, flowers and animal life. All three also offer brief data of important mountains and of main, historical ascents. All three books, too, display here and there impressive photos of unclimbed walls, mostly rock. And all persons participating in the preparation of these books can be identified as the best climbers in their respective countries. There are also some differences among these works, differences that respond to the characteristics of the mountain scenery and of the mountain sports pertaining to each of the countries involved. The Ecuadorian volume places an emphasis on lesser peaks, particularly the very little known ones of southern and eastern Ecuador. The Chilean work, as to be expected, also describes skiing, skiers, winter mountaineering and mountain tourism. The text in Oyarzún's album is clear and to the point; it intends to supply information. And the Colombian book, the most ambitious of all three, puts a greater emphasis on the portrayal of mountain people. Anhalzer and the Colombians attempt to explain, by means of text and picture and with much feeling, the meaning of scenery for both the local highlanders and for mountaineers.

Of the seven Andean countries, only Bolivia and, partially, Argentina, have not seen their high mountain world portrayed in an album type of book like these. Ecuador has so far been the most favored, with no less than four such books published in the last few years. Every one of the three books listed above contains a challenge and an invitation for mountain adventures abroad.

EVELIO ECHEVARRÍA

The Mount Everest Maps

In the November 1988 issue of the *National Geographic* the most accurate map of Mount Everest (1:50,000) ever produced was published as a supplement. Also, in that same issue the map was described in an article "Surveying the Third Pole" by Bradford Washburn. This magnificent cartographic product culminated many years of effort by Bradford Washburn and his project team and it is one of the most dramatic cartographic accomplishments of this century.

In addition, there are ten large scale map manuscripts (1:10,000) and the resulting large-scale shaded relief map (1:15,000) which are superb and provide an outstanding and everlasting cartographic rendition of a significant part of the earth. In reaching that conclusion many considerations and realities are involved, including project area (terrain variances, terrain accessibility, climatic conditions, political boundaries); evaluation and utilization of critical earlier source materials (maps, ground control, ground photography and imagery); obtaining the most modern and space photographic imagery attainable; and using the most precise positioning, advanced photogrammetric and cartographic techniques possible. There are also twelve new sheets on a scale of 1:2,500 with five-meter contours of just Everest itself.