

ments were in the hands of the Chinese Mountaineering Association. Their fees are stiff in comparison with those in other countries such as Nepal and also some of their services will have to improve, but their spirit of cooperation was excellent and we were, on the whole, very satisfied. We planned to climb the traditional route of the pre-World War II expeditions. We made the following Camps: Base Camp (4 miles south of the Rongbuk Monastery), I, II, III, IV (on the North Col) and V at 17,000, 18,375, 19,700, 21,325, 23,000 and 24,950 feet on August 16, 18, 22, 25 September 16 and October 5 respectively. The delay in establishing Camp V was due to a serious avalanche accident on September 29. One member escaped with bruised ribs, but Dijk broke eight ribs, suffered a punctured lung and was dramatically saved after a bivouac at 22,300 feet, thanks to all expedition members available and the strong support of Tibetan "high-altitude assistant climbers." He has now recovered. Our high point of 25,750 feet was reached on October 7. In August the mountain was whiter than we had seen in any photograph published before. The conditions leading to the North Col were correspondingly dangerous and led to the accident and a number of narrow escapes later. The traditional approach lines were rejected and a moderately steep ( $45^{\circ}$  to  $55^{\circ}$ ) line was fixed to the left of the sérac zone of the normal way. In the middle of September the monsoon ended, but instead of the usual northerly circulation, fierce southwest winds established themselves. The snow was blown off the mountain in less than a week, leaving no scope for alternative routes. When the winds and temperature of  $-35^{\circ}\text{C}$  continued, the expedition was broken off on October 10. The mountain was absolutely free of cloud most of the time and looked harmless from Base Camp, but above the North Col the wind made life downright dangerous.

ALEXANDER VERRIJN STUART, *Koninklijke Nederlandse Alpen-Vereniging*

*Mallory and Irvine Second-Step Clues.* When honorary member, Shi Zhan Chun, of the Chinese Mountaineering Association spoke at the Annual Meeting of the American Alpine Club in Los Angeles in December 1981, he revealed that the Chinese Everest Expedition of 1960 had discovered much evidence of the British pre-World War II north-face attempts. During an interview of Mr. Shi, many people in the audience understood his interpreter to say that a hank of manila rope and a short pole were discovered *above* the Second Step (28,480 feet). This evidence would prove that Mallory and Irvine had indeed surmounted this severe obstacle. If true, it advances dramatically the possibility that the pair actually reached the summit in 1924. Yet, Mr. Shi gave altitudes of those 1960 discoveries and they were all below the First Step near or at the site of the 1933 Camp VI. Many attempts to ascertain the exact location of the find were made. Finally Chris Bonington met with Mr. Shi. He writes that he asked Mr. Shi about this find and had its location pointed out to him on a photograph. The location was *below* the First Step in line with the altitudes Mr. Shi originally gave. The working oxygen system the Chinese found with 20

atmospheres of gas remaining was also not that of Mallory and Irvine (as reported in *Outside Magazine*) but the set abandoned by Peter Lloyd during his descent from 27,300 feet in the British expedition of 1938.

THOMAS HOLZEL

*Changtse.* Our members were Dr. Hansjürgen Tauscher, co-leader, Paul Braun, Thomas Dünsser, Martin Engler, Walter Ernst, Rudolf Frick, Andreas Heckmair, Jr., Ludwig Hösle, Peter Lechart, Udo Zehetleitner, Dr. Wilfried Zink and I, co-leader. We drove from Lhasa over increasingly bad roads to Base Camp at the terminal moraine of the Rongbuk Glacier at 16,750 feet. We continued on the historic route up the East Rongbuk Glacier toward Mount Everest and Changtse. Camps I and II were set up on October 2 and 4 at 18,375 and 20,000 feet, the latter at the foot of the long northeast ridge of Changtse. We had no porters but used six yaks and our own backs to there. We first had to climb a 2000-foot snow-and-ice slope with some rock. Camp III was at 21,000 feet sheltered by a rock spur. Above, we fixed some rope on a steep snow-and-ice slope on a wide ridge that led first north and then east. Camp IV was set up on the ridge at 22,650 feet on October 13. On October 14 Zehetleitner and on October 16 Braun, Frick, Hösle and Engler completed the first ascent of Changtse (7550 meters, 24,771 feet).

EDUARD GEYER, *Deutscher Alpenverein*

*Shishapangma, 1981.* In *A.A.J.*, 1982 we mentioned the ascent of Reinhold Messner and Friedl Mutschlechner but we lacked details. The pair got to the summit on May 27, 1981 by a route which lies to the right of the normal route. An article with a sketch of the northern routes appears in *Alpin* of May 1982.

*Shishapangma.* Dr. Makoto Hara led another Nagoya High-Mountain Research Institute expedition, this time to Shishapangma. All members reached the summit by the normal route. One of the members, Masaaki Tomita, made an amazingly fast ascent from Advance Base at 18,700 feet to the 26,291-foot summit, which he reached on October 12, in only 50 hours. Three summit attempts in early October failed. Dr. Hara, Hiroo Komamiya and Hirofumi Konishi got to the summit on October 10. Takayoshi Chiba and Motomu Omiya also reached the top on October 12.

*Gang Ben Chen.* We left Lhasa on March 22 and established Base Camp at 15,250 feet on March 27 and Advance Base at 18,700 feet on April 4, both on the Boron Plain. Camp I was on the small glacier north of Gang Ben Chen at 20,450 feet. We placed Camp II at 22,000 feet on the snow face above the icefall. Camp III was pitched at 23,300 feet on April 20. On April 21 Riyuko Morimoto, Kozo Matsubayashi, Kazunari Ushida, Shiro Koshima, Takao Morito, Goro Hitomi, Kiyoshi Nakagawa and Hiroshi Kondo climbed to the