THE HIMALAYAN JOURNAL

VOLUME XXIV, 1962-63

PRICE 14 RUPEES

THE HIMALAYAN JOURNAL

RECORDS OF THE HIMALAYAN CLUB

EDITED BY

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'To encourage and assist Himalayan travel and exploration, and to extend knowledge of the Himalaya and adjoining mountain ranges through science, art, literature, and sport.'

VOLUME XXIV
1962-63

OXFORD UNIVERSITY PRESS
1964

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EDITORIAL

ONCE again the *Journal* reaches members later than we planned, and the reasons for the delay appear as usual less convincing on paper than they seemed in reality. Events on the Indo-Tibetan border towards the end of 1962 have made it increasingly difficult for those concerned to devote sufficient attention to the affairs of the Club and, in spite of many reminders, articles and proofs have spent more time in other people's pending trays than Dr. Biswas wished. We offer our apologies and promise to do better next time. And for what it is worth, we have already received a report that 'the work of collecting articles for the next number is well in hand'.

The success of the *Journal* depends, of course, on those who write articles for it and naturally the fewer the expeditions which take place, the fewer authors there will be. The times are not as propitious for mountaineering in the Himalayas as we would wish. Inevitably there are restrictions in areas where trouble has occurred or is likely to occur. The Inner Line moves steadily back from the border and 'notified areas' spring up in very unexpected places. As a result, foreigners in particular may think the game not worth the candle. Ministries, however, assure us that they 'will be only too glad to consider applications which reach them sufficiently in advance', and we can only hope that members will not feel unduly discouraged about organizing expeditions to the Himalayas. Certainly, any help which Honorary Local Secretaries can give will be forthcoming generously.

There are references in this number to two important aspects of mountaineering. All who are interested in climbing in the Himalayas are thirsty for information of every kind about expeditions whether they have been 'successful' or not. We climb on the shoulders of others and those who plan an expedition want detailed and accurate information, not only about approach marches and base camps but also about routes attempted, difficulties encountered and the factors which contributed to the success or failure of an attempt. Only a few of us are gifted enough to be able to write articles which will live as mountaineering literature, but all of us are capable of recording the kind of information which will help the next party on our mountain. So we make a special appeal to all those who climb in the Himalayas to record their efforts as accurately and comprehensively as possible.

The second aspect stems from the first. From time to time claims

to have reached a summit are made in circumstances which cast doubts on their genuineness. There are no convincing photographs, the information given is scanty, sometimes contradictory, and at times palpably incorrect. Inevitably, those who are interested begin to weigh the evidence and there comes a moment when they feel justified in rejecting the claim. No one enjoys questioning the integrity of another, least of all a friend and fellow mountaineer. And there is, of course, the fact that however indifferently the climb has been described and however slight the chances are that it was successful, the critic himself was not there and the claimant was. Nevertheless all those who climb in mountains where there are still many 'firsts' to be accomplished, should take it for granted that their claims and accounts will be rigorously examined by mountaineers at least as competent as themselves and just as anxious to arrive at the truth. It may not always be possible to arrive at an absolutely convincing judgement but by and large it may be assumed that truth will prevail.

Members of the Club are inevitably greatly indebted to those who manage its affairs and I know that they would like me to record here our special thanks to those who have given so generously of their time and abilities: to Mr. R. Lawford, the Honorary Secretary, to Mr. B. W. Ritchie, the Honorary Treasurer, and to Dr. K. Biswas, the Honorary Editor, all of whom have rendered very special service to the Club.

THE ASCENT OF JANNU

(*Reproduced with the permission of M. Lionel Terray from the article which appeared originally in* LA MONTAGNE, *October, 1962*)

(*Translated by Hugh Merrick*)

I. Beyond Camp VI

By Pierre Leroux

Camp VI had been established some days earlier, and the last party had slept there. It was slightly lower down the south ridge than in 1959, on a broad and comfortable site, much easier of access from Camp V. This had been impossible in 1959 because of a lateral fault which cut through the ridge, its lower lip very deep and its upper consisting of an apparently insuperable overhang of sheer ice. It was still there, but in a reduced form which seemed manageable when seen from below. This was important, because at first glance the right-hand slopes seemed to offer an easier route than those to the left, by which we had reached the ridge in 1959.

My recollections of the previous route, which Jean Bouvier and I had opened up, were far from pleasant. After Jean had led up to some rocks, in which he planted a piton, he had tackled a snow couloir of at least 60° increasing later to 70°. After about 100 feet of rope, I had been forced to abandon the comforting company of the piton, and there was our party in the couloir, totally unprotected except by a few of the snow-pegs we always take along. An intimately interested spectator, my mouth dry, I stood there while my friend treated me to a calm display of technical virtuosity and balance, as, without any protection whatever—for there was no crack to take a piton—he climbed what I am quite sure was the most difficult pitch on the whole ascent of Jannu.

That was why, this time, we had chosen a route further over to the right; and by it René Desmaison had already been able to establish a provisional Camp VI and prepare the passage of the breach.

Three climbing parties were to 'leap-frog' each other up above, just as we had done so far. It would thus be a matter of chance which party got to the top first. We intended to prepare the mountain to its very summit, so that our withdrawal would be assured whatever the conditions, and success should be ours even if the

weather broke; if it held, all three ropes should get there in successive waves. This system, now adopted by all French expeditions, creates an unequalled team-spirit.

So, on April 24, our two ropes, Bertrand with Pollet-Villard and the inevitable Bouvier-Leroux combination, set out from Camp V, where we had been held up by three days of heavy snowfall. André and Yves went ahead to break the trail, followed by a team of Sherpas carrying equipment. So Jean and I were able to conserve our strength for our task of preparing the route beyond Camp VI later on, by starting out a nice long time after the trail-breakers. We felt tremendously fit, and there is, after all, no sense in standing balanced on one's crampon-points for hours on end while the leader progresses at 100 feet an hour. Much better to organize the work rope by rope!

We stopped briefly at Camp VI, where we collected the oxygen and all the tribulations it involves, such as—a main disadvantage—the inability to communicate verbally any longer. However, this restriction to gestures underlined the enormous benefit Jean and I derived from our continual association on the rope.

We picked up our assortment of pitons of every type, hammers, snap-links, line, and a drum of fixed rope. Everything was in good order, and off we went, accompanied by Tashi, a 28-year-old veteran of Makalu. Jean plodded across the level bit as far as the breach, which he was able to cross, thanks to the rope René had already fixed there, and so reached the site of the 1959 Camp VI. One downward glance was enough to confirm that, with the far heavier precipitation of snow this year, the old direct ascent would have been a highly doubtful proposition.

This snowy crest, consisting of a series of 'steps', is more or less horizontal. Its eastern (right) side overhangs, its western slope goes down at 70° or more. These horizontal sectors of ridges are extremely difficult to prepare, for the only way to obtain an anchorage is to sling huge rings of line around the higher parts and fasten the fixed rope to them; you then have to retrace your steps festoon-fashion according to the curve of the rope, if it is to be a proper job. In due course we reached the base of the great black gendarme barring the ridge.

In 1959 it had taken Guido Magnone and Robert Paragot a whole morning to turn this obstacle. From Camp IV I had watched their every movement and realized, as the time ran out, that I was witnessing the dissipation of all our hopes; for then we had insufficient equipment to cope with such difficulties.

Now, Jean, astride the ridge, with his back against the rock, belayed me. Protected by a good piton, I went down the west slope to the limit of the intimately-welded ice and rock. Jean could no longer see me after about 12 feet. Then I started traversing to the left. The cracks didn't want to hold the pitons, three of which went swinging on the rope with their snap-links. My oxygen mask continually scraped the rock. I went on down the ice, finding it extremely difficult to cut steps because of its toughness and the angle of the slope. I had to give little gentle taps, for fear of disintegrating the lot; my chippings went out into empty space, to land after two or three bounces in the snow above Camp V.

A partial rupture enabled me to force in a screw-piton, which enabled me to reach a slanting ledge in the rock. A good wooden wedge in a wide crack then helped me to attack a diagonal chimney in the vertical wall of the gendarme. It was completely choked with powder-snow, in which I had to plunge the length of my arms before finding, at the bottom, tiny fissures inviting me at last to clench my fists on them; these were the only solid holds on which I could make any progress.

During this delicate crawling process I managed to jam my head in the snow, blocking the valves of my mask and so choking myself. With intense gratitude, I found a piton left there by our friends during the 1959 attempt. My pack interfered with every movement. The oxygen bottle kept on catching in the rocks; the control on top was damaged and twice cut off the flow of precious gas altogether. The ropes refused to run any more. I was forced to let go of my holds and remove my mask to ask for more rope. Then I obtained a lodging, with some difficulty, on a transverse ledge, at the end of which—and oh, the relief!—there was a good niche in which to plant a piton solidly.

I gave myself a minute on oxygen at full flow and then got in touch with Jean, who informed me that it was four and a half hours since I left him, and that he had only run out about 140 feet of rope. And I had been cursing the slow progress of my friends in 1959!

Ahead, to my left, there was a very steep spine of snow running up to rejoin the ridge beyond the gendarme. The route was open for our companions tomorrow morning—a nice delicate piece of work, but quite safe now. I secured the fixed rope and went back to join Jean. In spite of heavy fog, we moved back along the fixed ropes to Camp VI in perfect safety.

There, in the tent, our friends were delighted to hear of the day's good work and of their future assignment. Happily we swallowed litres of soup they had prepared for us. How we needed it, and

what a joy it was to realize that our team-spirit was solid down to the minutest details! A break in the mist showed us Terray, Ravier and Wangdi arriving at Camp V. Further down the ridge, below the Dentelle, the sight of figures around Camp IV confirmed that the Desmaison-Keller-Paragot rope was also in position.

In spite of the discomforts and tension of high-altitude camps, we were all very happy that evening. Finally, after the invariably careful attempts not to bump one's neighbour, nor to elbow the pile of utensils off the cooker, we went through the usual potholers' motions to get settled in our sleeping-bags for the night.

We two enjoyed a long lie-in next morning, April 25. André and Yves were away and out of sight before Jean and I got going at about 6-30. As always at such altitudes, our preparations, though made with the utmost possible speed, took a full hour and a half.

We carried maximum loads; two bottles of oxygen each, 100 metres of fixed rope, anchorage line, equipment of every kind, provisions and spare clothes. Our packs weighed well over 50 lbs. Starting with that kind of a load at 24,000 feet is pretty hard work, but we soon established a rhythm. Once again we were struck by the immense difference between climbing a very difficult sector of this kind before and after it has been properly prepared. This time it took us only an hour to join our companions at the niche we had only managed to reach yesterday by evening. Overhead, André was working up a steep little couloir of unstable snow, to reach the spine up on the left. Once there, the snow was better and he could make more rapid progress, even though it required from seven to twelve breaths for every movement. The leading ropes relieved one another as they worked up to the main ridge beyond the gendarme. This gave Jean and me plenty of time to improve the lie of the fixed rope, by anchoring it at shorter intervals. For in this sector of mainly very difficult traverses, it behoved us to remember that some of us might be late and very tired when we came down this way again.

Our friends reached the crest of the ridge. After a difficult movement to the left which demanded an étrier, they were resting on a little rocky ledge, where we joined them. We were now separated by four snow towers, of roughly the same height, from the long, narrow snow-couloir ahead, in which the route was obvious, and even easy, perhaps ?

I got rid of a roll of rope and took the lead again. Two ice-axes planted horizontally enabled me to get a footing on the very steep slope at the first tooth. Then I went up diagonally to the left, so as to get straight on to the summit of the second. The slope continued to be extreme and I had to scrape away eight inches of unstable snow

before I could find anything firm enough to cut decent steps in. It was long, painful work. I could have done very well with a rake as well as an axe (equipment manufacturers, please note). However, the results were satisfactory and presently we were all together again on the top of the second tower ; there we scooped out a ledge on which to lodge our packs. What a relief to be rid of them at last! It was already 1 o'clock. Great clouds had piled up below us and a storm was grumbling among them. At moments we were able to communicate, over the edge of the ridge, down its overhanging side, with Lionel, who had just got up to Camp VI ; yet all this hard work had brought us, at most, another 500 feet above that point.

Soon Jean was off again, to cross the two towers still separating us from the couloir. Each of us had emptied one oxygen bottle, so that we had at our disposal four bottles for anchoring the fixed rope, either by sinking them in the crest of the ridge itself or by using them as counterweights on its overhanging side. The four full bottles we would leave here, as reserves in case of any possible emergency.

Yves and André, having emptied their packs, and moving now without oxygen, started off down, with a reminder from me to go carefully, remembering the effects of fatigue at heights like these, and the resulting dangers.

Jean did one of his balancing acts on the ridge, cut some steps, broke the cornice, planted two of the empty bottles, anchored the rope and, 200 feet on, reached the rocks at the bottom of the couloir. We had achieved our furthest point for the day ; but not the end of our day's work, because on the way down we intended to alter some of the anchorage points, so that the fixed rope should offer the greatest support possible in the days to come. Without our oxygen, we moved gently, but we were glad to find how fit and active we were even without it, and took advantage of our good condition to put in some extra pitons and improve some steps.

It was after 5 p.m. when we met Lionel at Camp VI, putting him briefly in the picture and sharing our high hopes with him, before taking to the ropes which would bring us in safety down to Camp V.

Just before 7 p.m. we were shaking hands there with Paul, René and Robert, who had got bowls full of tea and soup ready for us ; in return we were glad to quench their thirst for information. Amongst other things we told them that in the normal course it would be their party which got to the summit first. It seemed to us that the cards were now down ; and the weather was improving in spite of the drizzle which was falling at the moment.

We were destined to have to stay there 36 hours in idleness before

starting up the mountain again. But this time, we hoped, it would be for the final climb to the summit.

Such enforced inactivity, at such a vital time, gave us little pleasure, especially in the uncomfortable conditions which rule at high-altitude camps. But this was all part and parcel of our team-work and a condition of that victory which was so desperately desired by us all, especially by Jean and myself, who had by now devoted almost a whole year of our lives to its achievement.

II. The Move Upwards

By Lionel Terray

When, on April 25, Ravier, Wangdi and I reached Camp VI, we were somewhat surprised not to see Bertrand, Leroux, and Pollet-Villard battling their way up the narrow couloir which penetrates the final wall of Jannu and represents the only weakness in that huge shield of granite.

We heard no shouts ; the mountain was as silent as on Creation Day. Where had they got to ? It didn't seem possible to me that, after a whole day's efforts, men as tough and fit as they were hadn't managed to get over the few small gendarmes separating us from the wall itself. But where were they ?

For a moment my anxiety nearly choked me. Then, on second thoughts, I felt it was impossible for four such experienced climbers to have come to grief on one and the same day. This reassured me a little ; all the same, my harassed mind kept on elaborating every kind of theory. No doubt there had been unforeseen difficulties, or perhaps a mishap or two had slowed their advance, and now unfavourable wind-currents were preventing their voices from reaching us . . .

To ease the tension, I took some pictures and tidied up the camp. At last I saw shapes on the furthest ice-gendarme. Very much later, Bertrand and Pollet-Villard came into view from behind the first tooth in the ridge, and came very slowly down towards us. Even allowing for the deep snow, they were staggering abnormally and showed signs of extreme fatigue.

A few minutes later, the veterans, Bertrand and Leroux, showed up, by contrast exhibiting astonishing signs of freshness. I hurried to hear what had been happening. I was glad to learn that it was only the difficulty of the climb which had delayed them and that, in spite of all the difficulties, they had reached the foot of the wall at about 24,400 feet.

Even at this height, less than 300 feet of height gained in a whole day's hard work is a very small reward for first-class climbers. If the barrier of slabs defending the summit was to prove equally tough, how many assaults would we have to launch before achieving success ?

Privately, I kept on congratulating myself that the expedition had come out as soon as winter was over and had, since, even managed to nibble a few spare days out of our scheduled time. We still had almost a month before the onset of the monsoon. It really would be the very devil if we failed now . . .

On April 26 Ravier, Wangdi and I took our turn in the assault. In order to economize our supplies of oxygen we regulated our intake on a rather weak flow of three litres a minute. Even so, we made rapid headway up the lace-like ice and soon reached the rocks.

Here things became more complicated, because we had to make strenuous efforts in spite of the fixed ropes, and our masks had a suffocating effect when our struggles resulted in rapid breathing. Into the bargain, the two spare five-kilo bottles we had on our backs were by now digging our total load of more than 30 lb. right into our shoulders. That is a very heavy weight to carry on a difficult climb, and would be thought so even in the Alps.

Ravier, using oxygen for the first time, kept on hooking up his distributor in the rocks and eventually pulled the connecting tube away from the mask, so that he began to suffocate.

Presently, the same thing happened to me. A little further on while I was effecting a repair, I banged my distributor sharply against a rocky overhang in the wall. A fearful whistle resulted. It took quite a time before I could find a stance wide enough to enable me to get my pack off and turn the safety screw. By then my oxygen bottle was half empty!

Worse still, the distributor seemed to have suffered serious damage and was only letting through a very weak flow. I went on as best I could, trying to keep my mask on, but kept on having to pull it off in order to gulp some form of air-supply.

In spite of all these bothers, it took us barely two hours to reach the point achieved by the two ropes the day before ; which goes to show how incredibly a climb is altered in character by the presence of fixed ropes and by the use of the ' Jumard ', that marvellously efficient metal grip which, once it is in position on the rope, slides upwards effortlessly, but locks itself perfectly as soon as you exert a downward pull on it.

From here, we were on new ground. Above our heads a narrow snow-couloir curved up the granite slabs. The wall seemed less

steep than it had appeared to us from a distance. When, in 1959, Magnone and Paragot were the only ones to see it close at hand, was their judgement perhaps impaired by exhaustion ? Were they defeated just when they had overcome the greatest difficulties ? Had the toughest of all the great summits thrown up by the earth's convulsions towards the sky put on a mask to hide its real weakness ?

The first 50 metres proved easy and the snow mostly favourable; but, without oxygen, I could only move up by desperate efforts. Every three or four steps I had to stop and pant, enough to bring my lungs up.

At last I reached a rocky groove cutting the couloir for some 20 feet. It didn't look a very formidable obstacle ; still, I rammed in a piton for safety's sake before launching out on the pitch. Ten feet above me, I could see some excellent holds on which I could stop quite comfortably, so I moved furiously to the attack. It took only a few quick movements to reach my chosen vantage-point, but as soon as I got there everything began to black out. There was a kind of dark veil before my eyes and it took me five minutes to recover. This was an agonizing revelation of the uncertainty of things in my present situation, so I tried to get another piton in.

Was there no crack within reach ? Yes, there to the left . . . but it was damnably high up! Coiling myself like a snake, I at last managed to drive in a strong pin which, after several hammer-strokes, gave out a clear ringing sound ; but it was holding! I took a careful stock of my holds, so as to make the move at top speed; I had at last learned the lesson that at this altitude one cannot do genuine climbing for more than forty seconds on end.

I went on. After another five feet I could not find a reasonable foot-hold. I struggled furiously till, feeling a return of the choking sensation, I grabbed at the piton to stop me falling and slid all the way back to where I started from.

After more panting exercises, I started off again, and this time my movements co-ordinated properly. In a moment I found myself safely lodged on a good snow-slope, while I made the echoes ring with my engine-like panting.

At that point I realized that, at such an altitude, I could not climb with a 30 lb. pack unless my breathing apparatus was working. Something simply had to be done.

A few metres higher up I got on to a little ridge in which I hacked out two platforms, on the higher of which I dumped my pack while I called Wangdi up to join me. He, too, was climbing without oxygen but with positively disheartening ease ; and yet, he was carrying

hardly less than I was. Obviously, either Sherpas are supermen, or we are a race of degenerates . . .

Ravier came up, in his turn, to join us. 'Young Jean', I said, 'pass your distributor up. I can't climb any further without gas. You, coming third on the rope, and with a trail broken for you, should be able to manage. How do you feel about it ? '

The man is a saint. He just smiled and passed it up to me.

I regulated the flow at five litres a minute and started off again. The first few feet taught me what an indispensable gadget a breathing apparatus in proper working order is when it comes to the conquest of high summits.

Without hurrying in the least, I was now able to move on at least four times my previous speed. After two rope's lengths I came to a bottle-neck in the couloir, where the slope steepened and the very deep snow didn't look any too safe. I managed to fix a piton, which gave me the necessary courage for an attempt. In I went, to my middle ; but the snow never budged an inch. Truly the snows of the Himalaya are avalanche-proof!

Digging a veritable trench I reached a resting-place, where Wangdi joined me, moving up incredibly quickly ; but Ravier, deprived of his oxygen, was now only coming up by deploying his very last reserves.

To add to our troubles, it began to snow heavily.

It was quite clear to me by now that we could not reach the summit today, but the success of the party which would take the job on tomorrow could well depend on our efforts. The higher we got and the further up we could establish fixed ropes, the greater would be their chance of success. And it would be a success belonging not only to them, but shared by the whole team.

No matter how heavily it might snow or how fiercely the wind might blow, no matter how weary we might be, we must push on while there was enough energy left in our systems to wring a few more feet out of the mountain. That was what high mountaineering meant. Leaving aside puerile considerations of nationalism and vanity, surely the whole object of these conquests of rock and snow is to defeat our own weakness and fear ; to push things to the uttermost limit of our capabilities in order to achieve an ideal objective ; and for the joy of feeling that we really are men ?

So I decided it was too early to halt ; we had to go on. Another hundred feet of very exhausting work brought us to a widening in the couloir. Here at 24,600 feet Ravier had shot his bolt. He was in such a state of collapse that I had to leave him fixed to a piton,

while Wangdi and I pushed on for another rope's length through the swirling snow-flurries.

That was it, for today. We could perhaps have managed a couple more rope's lengths, but it was getting late and, more than anything else, Jean's condition was worrying me. If he did not recover on the descent, we should have great difficulty in getting down to the camp and it would be altogether too exciting to be overtaken by the dark.

Only 650 feet from the summit, we turned back, leaving all the equipment we had lugged up with so much effort dumped on the face; two full oxygen bottles, 200 metres of rope, 20 or so pitons and snap-links. On the way down we were to furnish the virgin rock-wall we had just succeeded in climbing with yet another 150 metres of fixed rope. Ravier, showing fearful signs of collapse, staggered like a drunken man. Now that the third bottle was finished, we were all three without oxygen.

Fortunately, at the first point on the descent where we met the ice, we found the full bottles dumped there by yesterday's team. I attached one to Ravier's mask, with instantaneously beneficial effects. Without that bottle we might have been in dire trouble, though.

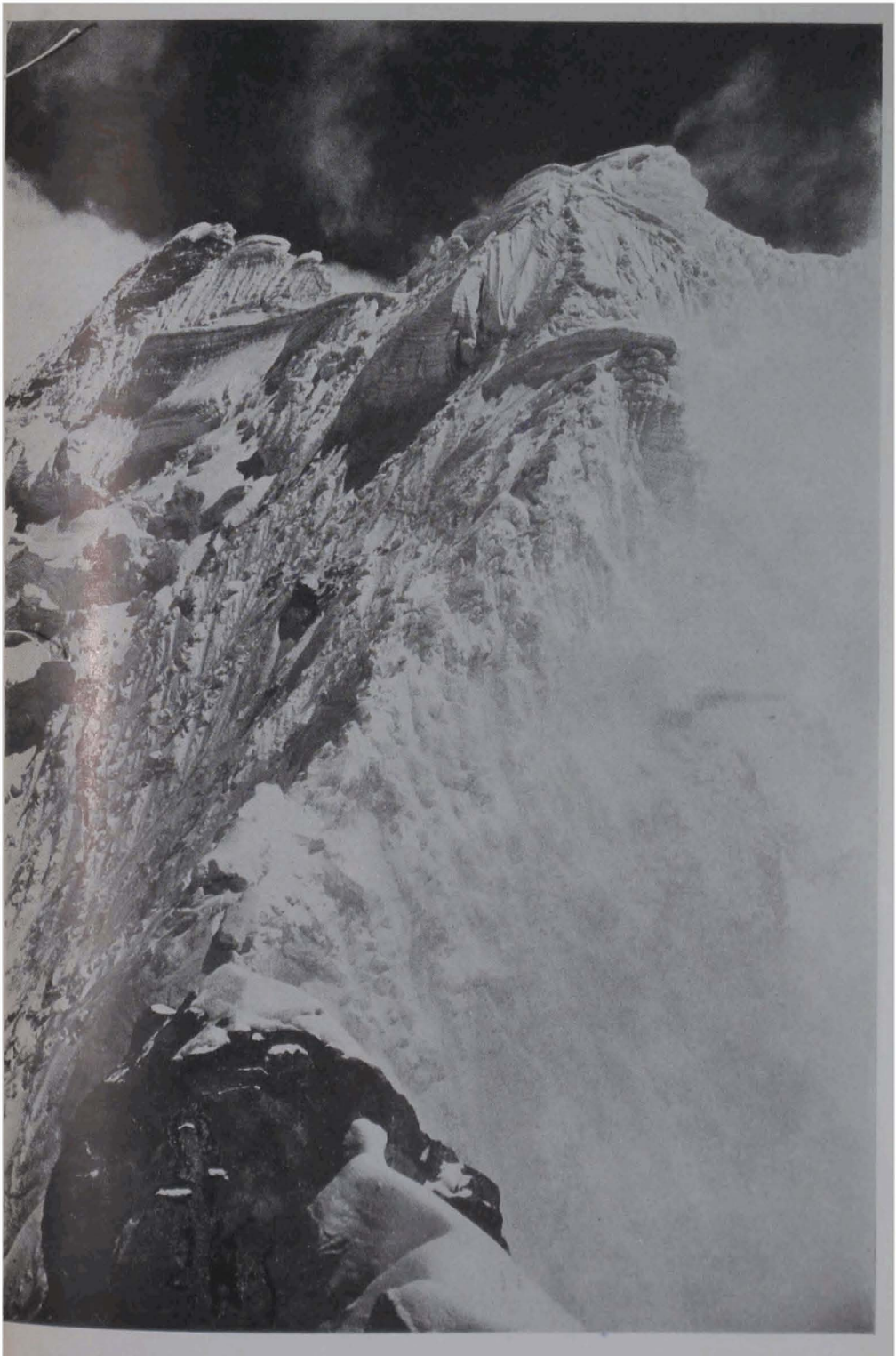
We finally reached Camp VI after two hours of hard work. There, in the sun again, we were greeted with shouts of delight by Keller, Paragot, Desmaison and their two Sherpas.

We had succeeded in climbing two-thirds of the rock-wall whose grim aspect had caused us so much worry. Tomorrow, we hoped, with a little luck, our friends would be able to round off the combined efforts of the whole team successfully.

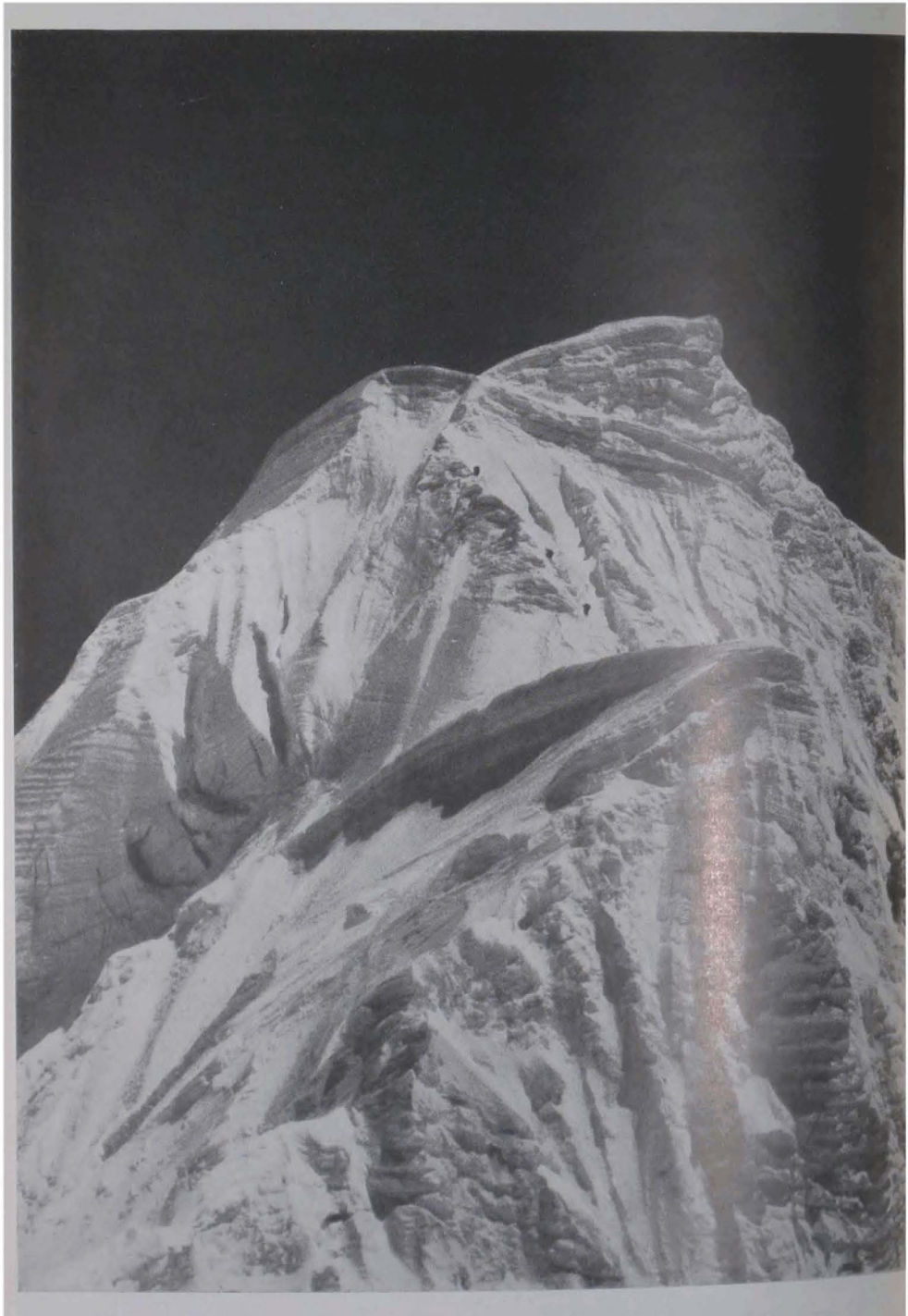
III. The Summit

By Paul Keller

For some days now we had all felt that the end was in sight and that we would doubtless soon be able to roost on that summit which, in spite of its apparent proximity, had been resisting us for more than five weeks. Sweating, some afternoons, and stifling; panting, oh, how frequently; shivering, too, but less often than one might imagine; we had nibbled away at those amazing ridges and the huge ice-walls, leaving on them the slightly derisory patterns of our tracks and of our precious fixed ropes. We had dealt with the most difficult bits, without haste and as if they were set pieces in a school exercise, so confident were we in our safe methods, in our equip-



THE ARÊTE RISING TO THE TOP OF THE 'BUTOIR' AND ON THE LEFT THE 'DENTELLE'



A TELEPHOTO CLOSE-UP OF THE ARÊTE

ment and in our companions. During the past few days the greater part of the route above Camp VI had been equipped with fixed ropes and, yesterday, Terray, Ravier and Wangdi had been most optimistic as they passed us on their way down, telling us: 'If the rock barrier isn't too tough . . . if the weather holds . . . anyway, good luck with it!' And from down at Camp III, de Haynin, our medico, long since wearied of the pleasures of playing patience, was sending us, over the radio, the warmest wishes for an early success.

Now, on the threshold of the day we felt would bring a decision, we were going through the familiar motions in the ridiculously narrow space of our tent: lighting the stove, taking a quick look outside, wriggling out of our down bags, thawing and drying out oxygen masks, lacing up our boots, which we had kept on all night (a practice much admired by my boys!)—all of it almost in slow motion, with a scrupulous economy of movements and of breath.

By 5 o'clock we were all outside, facing one of the worst moments in the day of the average Himalayan climber: the effort of putting on our crampons. At minus 25°, and in a more or less keen wind, having to take off one's gloves in order to do up straps equipped with patent buckles, is a form of torture ranking high among the relatively few bad moments of this expedition. At long last, with our battery of oxygen bottles, we started off at a steady pace along the fixed ropes, carrying packs of from 30 to 45 lb. René Desmaison and Gyalzen Mitchu went together, while Robert Paragot and I renewed a rope companionship from our days on the Mustagh Tower.

It took us less than two hours to cover the route already known to us, which it had taken two and a half days to prepare and make safe, consisting of the airy ridge on which rock- and ice-towers alternate and of the subsequent series of couloirs whose snow was dangerously crusted. With our ice-axes in our left hands and the 'Jumard' in our right, we reached the shelf on which the equipment dumped yesterday lay piled. We had now to open a route up to the barrier above our heads, which we had already decided to turn at its right-hand end. We thought we could see a way and were naturally impatient to uncover this last part of the mountain which still lay hidden; but before starting up, we had still to induce some kind of order in the 400 to 500 metres of rope with which we intended to safeguard the route as high as possible, and to redistribute pitons and snow-stakes—that latest and most invaluable of inventions, which no future expedition can afford to disregard. It all took a long time, but fortunately the weather was perfect.

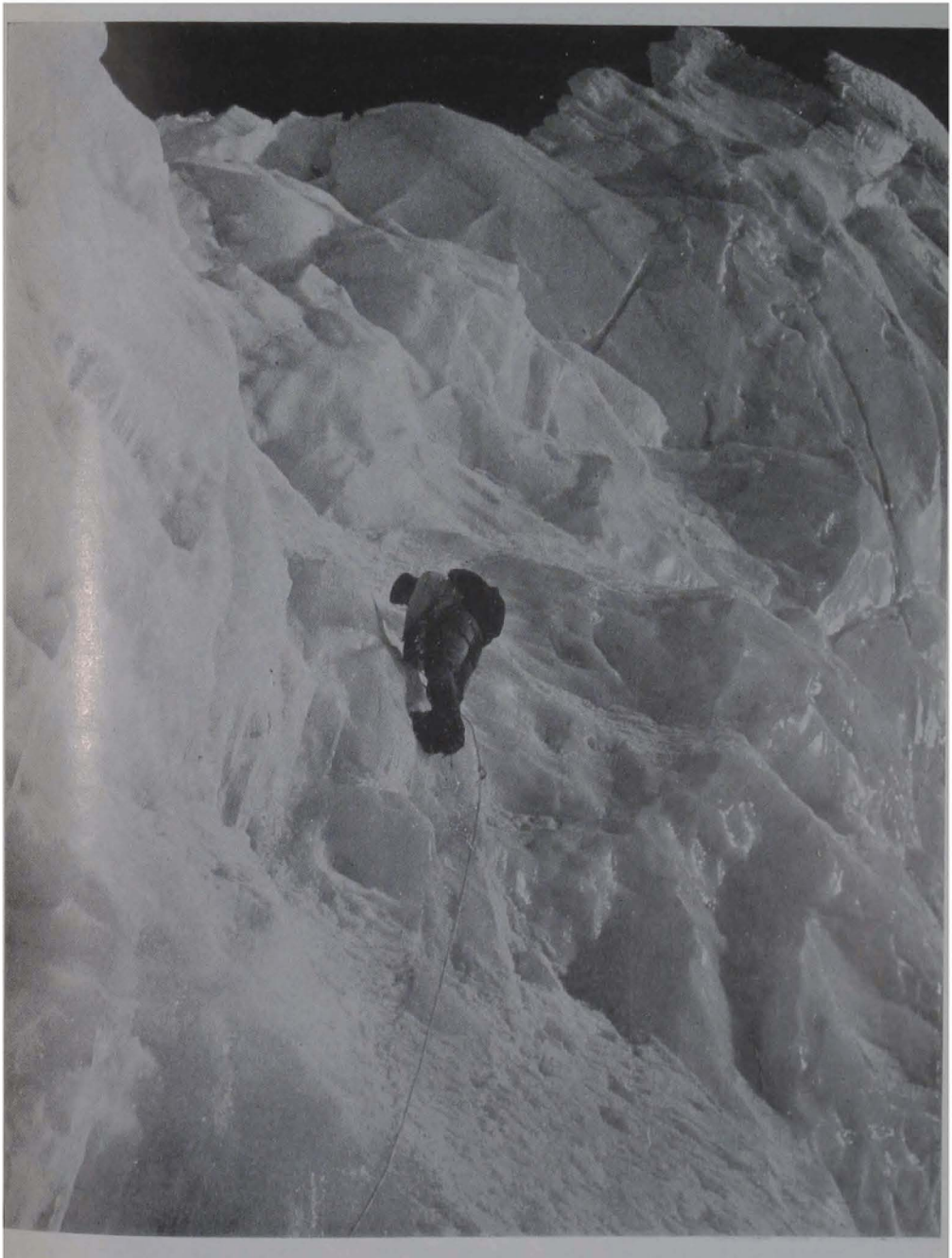
Robert went ahead cautiously, up a steep slope whose snow was

mostly crumbling ; and so it went on—piton, stake, wedge ; changes in the lead, rope-manoeuvres. After three lengths we came to a corner in the rock, which Robert at once tackled enthusiastically, gestures replacing his usual freedom of speech, stifled by the mask ; very soon he had tamed the pitch without too much difficulty. There followed a long traverse to the left and a short vertical wall ; then we were on firm snow which persisted the rest of the way to the top. It was 11 o'clock.

Down at Camp VI there was considerable activity. Several parties had arrived and we could see the Sherpas, making the most of the sunshine, cleaning camp and melting snow, while Lionel, whose voice we could hear clearly, was busy taking photographs.

We were still separated from the terminal arête by a spur. René got to work on it and cut steps endlessly. Our progress was frustratingly slow, its tempo dictated by the anchoring of the fixed ropes and the steepness of the slope. Gyalzen, impassive as ever, turned away briefly to vomit and with great dignity affirmed that all was going splendidly : 'That's right, Sir!' For some hours we had been moving above the gulfs on the Yalung side, with Kangchenjunga in full view.

It was 3 o'clock before we emerged on the subsidiary summit, after a pretty ticklish bit of ridge-work. What we saw there left us speechless with surprise and perplexity for a few moments. While we were definitely on top, we could see that the true summit, not 50 feet above our level, was at the far end of a ridge at least 100 yards long. And what a ridge! None of us had ever seen anything so marvellously narrow ; and a little cornice running all along its crest only served to heighten the effect. We had to weigh things up quickly : would there be time, before nightfall, to get to its far end and still make our way back and down to camp ? Personally, with the memory of a bivouac at 23,000 feet strongly in mind, I was all against repeating that all too dangerous experience, but my friends' insistence carried the day. I had to agree that the fixed ropes would guide us back to Camp VI in safety, even in the dark. So we gave ourselves an hour more before turning back, and Robert immediately began to clear a passage with restrained vigour, using his ice-axe like a broom in a series of sweeping strokes. After a few strides of balancing like tight-rope walkers, we were forced to continue sitting astride the ridge itself, with our legs bent to allow the crampons to bite, our bottoms in the powder snow and our axes dug up to the haft into this incredible ridge, which seemed to shake at every stroke. It wasn't exactly graceful, but it was safe and effective. There was a last rise in the ridge a few metres short of the summit



WALL OF SÉRACS ON THE ARÊTE RISING TO CAMP IV

ON THE SIDE OF THE ARÊTE AT THE TOP OF THE 'BUTOIR'

and then the summit itself—at last! We could hear shouts coming up from Camp VI, which appeared to be densely populated.

The view was magnificent. The sun was beginning to set on those thousand summits which make nonsense of the frontiers which run along their crests ; a vast cloud sea stretched away towards Makalu and Everest. Under our feet the slopes fell away so steeply—literally vertical on the northern side—that we seemed to be suspended between earth and sky. The wind raised snow-flurries about us. Cold as it must be, we were wonderfully protected by our clothing. In any case, we were not still for very long. Glad though we were to be here, our minds were not set on historic pronouncements or emotional conversations. We were thinking of the long and painful descent which lay before us.

We turned about with great difficulty, losing an ice-axe in the process. Shortly afterwards, René's mask, which had been bothering him earlier, got blocked with frost and went sailing 10,000 feet down the mountain. Robert, too, was to finish the day without oxygen. The only item in our almost perfect equipment which hadn't come up to scratch was definitely our breathing apparatus. Devised for airmen, who don't care about its weight or the external temperature, it needed adapting to the special requirements of mountaineering at very great heights.

All the same, the first part of the descent went very quickly, but soon darkness began to overtake us with great rapidity. We had to carry out our rope-manoeuvres by touch, and we began to feel pretty weary. During the final airy traverse we were literally dragging ourselves along, and the light glimmering up from Camp V was only a slender encouragement. We could hardly see the track by the pale glare of our head-lamps, while René and Gyalzen, on in front, hadn't even a lamp ; I am still wondering—and so perhaps are they—how they got down without a mishap.

It had been a hard day for all of us and when, at 9 p.m., we at last got inside a tent, we were quite content to let Wangdi take our crampons off for us and dole out the washy contents of a cocoa-can, all he had left, to quench our thirst. Our companions spoke to us from the depths of their sleeping-bags and we were glad to hear their voices ; but we could only reply in monosyllables and grunts, though Lionel was hungry for news.

Tomorrow they, too, would be going up there to the top, to set the final seal on this document of high adventure.

The climb was repeated the following day by three rope-teams comprising Bouvier and Leroux, Bertrand and Pollet-Villard, and Terray, Ravier and Wangdi.

ASCENT OF NUPCHU

By SASUKE NAKAO

ON April 17, 1962, we left Darjeeling for Nepal. Two lorries and one Land Rover were engaged to carry the baggage and to transport some members of the expedition including the liaison officer from the Nepal Government. The party proceeded through Sukiapokhari where we encountered the usual problems that arise before travellers are permitted to pass into Nepal, even for the purposes of carrying out a scientific expedition. After completing Customs, the party entered into Nepal and halted for one day near the village of Pashupati.

The expedition was organized by the University of Osaka Prefecture. The eight basic members included: S. Nakao, botanist and leader; K. Nishioka, botanist and deputy leader; T. Yasuda, entomologist; T. Tsubaki, soil chemist; M. Nukada, soil chemist; F. Nishida, ranger of Japanese National Parks; M. Hirano, university student, and T. Kano, university student. Mrs. S. Nishioka, wife of K. Nishioka, paid her own expenses and was allowed to join the expedition at Darjeeling. Mr. B. P. Parajuli, liaison officer appointed by the Nepal Government, joined the expedition at Kathmandu. Four Sherpas were also recruited at Kathmandu. They were Chotale as sirdar and Ila Tenzing as cook and Hlakpa Tsering and Ang Pasang as ordinary Sherpas.

Since we were well informed about the conditions in the eastern part of the Nepal Himalayas because of the basic work by Sir Joseph Hooker in this area, we decided to carry out scientific research in the north-eastern part of the Nepal Himalayas. For this purpose, we selected Nupchu which is a moderate peak, 7,028 metres high, on the border of Tibet and Nepal. A Swiss expedition in 1949 had attempted to scale Nupchu from the Tibetan side, but they were forced to turn back after reaching a height of 6,800 metres, so it was considered to be a virgin peak.[1]

The shortest route to the Base Camp in Kangbachen is along the Phalut ridge which is the natural boundary separating Nepal and India; however, because of the political situation, it was impossible for foreigners to follow this route at that time. Therefore, we were forced to go by way of Ilam which required two and a half days'

[1] See *H.J.*, Vol. XVI, p. 25.

journey. After reaching Ilam Bazar, we sought out the Commissioner who happened to be Purna Singh with whom I had become acquainted when he was the Bara Hakim of Pokhara in 1953.

We discovered that all the districts which we would visit during our expedition were under his supervision, and after enjoying a reunion celebration, we proceeded on our way with introductions to his subordinate local officers as well as helpful advice. We proceeded due north from Ilam and after three days crossed Mahabarat Lekh after which we camped on the ridge of Bhanjyang. The next morning at daybreak we were able to see both Mt. Kangchenjunga and towering Mt. Everest. It is one of the most impressive sights in the Himalayas. We were also surprised by the stately shape of the Sharphu mountains just west of Mt. Jannu.

We descended to the Tamur river and, after crossing another hill, we descended to Kabeli Khola. After three days' journey going upstream, we reached Yambodin, the last village along the Kabeli. From here our party ascended Deorali Bhanjyang to Helock on the Tamur main stream. For this purpose the party was divided into three groups. The first group was a small advance party sent out to reconnoitre Nupchu, led by K. Nishioka. The main body of the expedition had to be in two groups because of the difficulties in replenishing our porters at Yambodin. It was always drizzling in the Bhanjyang which was gorgeously adorned by big trusses of scarlet *Rhododendron barbatum* and pink *R. hodgsonii.*

As our three parties crept along the narrow path on the grassy cliff, west of the Char Chu river to Khunsa, we were told by the local people that the French Jannu party had conquered the summit. Nishioka's advance party met them on the village greens just outside of Khunsa, while they were relaxing after their brilliant success. Thanks to the kindness of the French party, our team's Sherpas was strengthened by adding five acclimatized Sherpas from their party. They were Ang Namgyal, Tsepaley, Ang Phurba, Ang Tsering and Ajeeba. The main body of our expedition including baggage gathered at the Kangbachen Base Camp on May 8 while the advance reconnaissance party proceeded up the Nupchu Glacier.

There was no alternative route to Nupchu except the one through the Nupchu Glacier. The map prepared by the Swiss expedition in 1949 showed the presence of a long glacier more than half the length of the valley extending from Nupchu to Kangbachen. However, the upper part of the glacier was omitted from the map. The reconnaissance party found that in reality the glacier only extended to the end of the valley, just below a high icy mountain. It was difficult to pick out Nupchu Peak from the numerous surrounding

icy mountains. Moreover, they could not be sure which glacier would lead to Nupchu Peak. The special Base Camp was set up at the foot of the moraine hills of the main glacier. Two parties consisting of young members and Sherpas were sent out for further reconnaissance purposes but they could not provide a final conclusive decision because of the ever-roaming clouds which blocked their observations. Nevertheless, they hastily advanced Camp I to a location which eventually turned out to be the wrong route. Hoping the peak which they had glimpsed through the cloud window was the real Nupchu, they had set up Camp I. The high altitude affected the physical condition of our members and one after another they retreated to the Kangbachen Base Camp. Wrong Camp I was left by itself on the ice.

We intentionally had a leisurely rest at the Base Camp in order to get physically acclimatized to the high altitude. The rest which was taken after a short stay at higher altitudes proved to be effective. In the meantime the results of the reconnaissance party and the information from other sources were analysed at the Base Camp. It was concluded that the broad peak behind the final main glacier was Nupchu. It was evident that the dry moraine hills and the ends of the white glacier of Nupchu were separated by steep rock cliffs and by a few frozen lakes. Luckily we discovered one moraine bridge leading up to the white glacier plateau of Nupchu. Now the climbing route was finally decided.

On May 14, we resumed the ascent of Nupchu. Sherpas and yaks hired from the Kangbachen village were engaged to carry loads to the special Base Camp. The first task after reaching the special Base Camp was to regain the climbing gear from wrong Camp I. The task was turned over to sirdar Chotale and he accomplished it in one day with the aid of five eager Sherpas. On the same day Nishioka, Nukada, Tsubaki along with Ang Phurba advanced to the spot of new Camp I. The first gentle slope of white ice was chosen as the camp site.

The next day new Camp I was set up by Tsubaki, Nishida and Ang Phurba. All remained there and they instantly reported their condition as good to the special Base Camp by transistor transmitters. These transmitters worked very well throughout the ascent of Nupchu and assisted us greatly in our communication between camps. The site of new Camp I could not be said to be safe from an avalanche. The climbers only hoped that a big avalanche would not occur during their presence. Even the special Base Camp was not completely safe. On the night of the 15th at 8 p.m. the roar

NUPCHU (7,028 METRES) IN CENTRE, THE NUPCHU VALLEY IN BELOW AND THE SIDE OF SHARPHU IN LEFT

IANNU (7,710 METRES) AND ITS WESTERN SATELLITES FROM THE NORTH

of a big avalanche on the western ridge of Nupchu was heard. Seven seconds later a strong wind carrying pulverized ice lashed our camp. It passed over the moraine hills and like a violent blizzard it raged and smashed our special camp. The kitchen tent and two Sherpa tents were blown down and the area around the camp was left a cover of wide, white ice-grains. No one was hurt and after a few minutes the Sherpas recovered from their fear and began to joke with each other in their usual pleasant temper.

On May 18, the party proceeded to another camp. The main stream of the rather moderate slanting Nupchu Glacier filled the wide valley but its surface was full of ice shelves and crevasses. From afar it looked like an ice plateau but in reality it was a moderate ice-fall. The new Camp I was a little to the western side, but the final ascent to the top had to be made from the eastern side. There was a discontinuous rock ridge which projected up in the middle of the ice-fall. It was not so conspicuous and in many points covered by ice. At about 6,000 metres altitude we took an eastern direction and passed some ice before reaching the base of the exposed big rock cliff on the eastern ridge of Nupchu. The séracs gave us no difficulty but the hidden crevasses were so numerous that two of us would have fallen into one except for the aid of nylon ropes. Camp II was pitched at an altitude of about 5,900 metres.

Nishida, Tsubaki and Chotale first tried to open a route up Nupchu's main eastern ridge. They climbed up to a point near the twin pointed minor peak and Nishida, after strenuous efforts, cut a hole through the hanging snow on the border ridge with his ice-axe. He pushed his head out through the hole and got a glance of the Tibetan landscape, then retreated. Since this route was too difficult for the burdened Sherpas, the following day Nishida and Chotale again started out to find another route. They first crossed a wide crevasse, then traversed the snow band on the big rock cliff, and finally reached a steep narrow ice gully. The gully was at that time in the path of incessant thin surface avalanches from the upper ice face which streamed through the gully like a waterfall. The bottom of the gully was hard ice and slanted at an angle between 40 and 50 degrees. After almost a day's labour at this altitude, they succeeded in fixing a rope 200 metres in length through this gully pelted by an unending series of avalanches.

On May 20, Tsubaki and Chotale set up Camp II. Ang Namgyal, Hlakpa Tsering and Ang Phurba followed them with the equipment of Camp III. Tsubaki and Chotale climbed the gully quickly with the aid of the fixed rope and reached the border

ridge (camp place) after a few hours. Tsubaki and Chotale continued without difficulty along the border ridge which led to the summit of Nupchu. The summit was a sharply cut knife ice ridge which they attained at 11 a.m. They returned to Camp II at 1 p.m.

The next day Nukada, Nishida, Hirano and Kano alternately trod on the summit of Nupchu and in the evening Nishioka from Camp I quickly ascended to the summit at 6.15 p.m. Ang Namgyal and Ang Phurba also reached the top of Nupchu. After one night at Camp III, Nishioka again ascended to the top of Nupchu at 6.20 a.m. in order to photograph the surrounding landscape. Among the grand views of the giant peaks of Nepal, the unknown Sharphu group was especially remarkable. At least one peak among them seemed almost surely to be higher than Nupchu, so an unrecorded 7,000 metre peak was discovered.

After completing the ascent of Nupchu our party was divided for their respective research purposes and each travelled in different directions. Nukada and Tsubaki visited Pangpema on the Kangchenjunga Glacier before starting their journey back to Japan. Nishida, Hirano and Kano went on to Lhonak and Tsissima Glaciers and then after one month visited the Yalung Glacier.

On June 24, all the remaining members gathered at Walungchung Gola, and on August 1, all the expedition members began the descent to Biratnagar leaving only Mr. and Mrs. Nishioka behind for further botanical and anthropological research. The latter two arrived in Japan on November 29.

EVEREST, 1962

By SUMAN DUBEY

PLANNING and packing for an Everest expedition may be aptly described as an ordeal. Unlike smaller expeditions in which it is quite safe to leave such unpleasant jobs to the last week or so, an Everest expedition plunges its temporarily unfortunate members from the start into figures, tables and a seemingly unending flow of letters and bills. Details are superfluous, but the scenes at Delhi served as an introduction to what was to follow at railhead Jayanagar, on the Bihar-Nepal border. Loads by the hundred were being allotted far into the night, and early in the morning the numerous chattering and laughing porters were clamouring for their advances. Even so the confusion was colourful enough. Jack (Major J. D. Dias), our leader, surveying everything with a cold eye, swore again at the paper-work involved, whilst Sonam Gyatso, who more than once has been mistaken for a Sherpa, slept through it all, notwithstanding the mosquitoes and the anti-tetanus jabs. Angtharkay, our Sirdar, brandishing an empty sack forced troublesome porters into submission, and in the midst of all the confusion stood Jangu (Captain A. B. Jungalwalla) gesticulating wildly and shouting at or perhaps flirting with the Sherpanis. Mohan Kohli and K. P. Sharma kept a watchful eye on the equipment whilst O. P. Sharma and I battled with cook Thondup who was by now convinced that the food we had given him would not suffice for his numerous girl friends, let alone for the sahibs! Hari Dang and Chou (Flight-Lieutenant A. K. Choudhary) managed to get hold of a jeep and disappeared towards the border to persuade the officials to allow us to enter Nepal the following day. Our efficient doctors, Ashoke Nanavati and Soo (Captain M. A. Soares), brandished syringes gaily until it came to immunizing themselves. The one person who obviously enjoyed everything was Guru (Gurdial Singh) who, armed with a cine camera, was recording the scene for posterity.

The approach march, during which eight hundred and sixteen sixty-pound loads were lifted, was in the early stages a disappointment. The only relief in this monotonous march proved to be the Sun Kosi crossing where some of us swam the river a number of times. With a disinterest amounting almost to boredom we continued until we came to the Jantar Dham, truly, as its name denotes, the home of magic. For this ridge not only provides the first view of Everest but also marks the entrance to Solu, the lower Sherpa

district. The first impression is of an obviously more prosperous area. Hill slopes, gentler and more fertile, are terraced from the valleys to the summits and tiny hamlets, consisting often of triple-storeyed whitewashed houses, dot the slopes with pleasing irregularity. Low-altitude Sherpa porters are in their element here, and song and dance go on till late in the night, punctuated with the inevitable chang and arak. One learns not only of their simple way of life but of countless expeditions so interestingly told.

At Solu, too, we entered the region of the high hills, the region of numerous Rhododendrons and, so early in the year, the *Primula denticulata* Smith. and the *Primula sessilis* Royle=*P. petiolaris* Hall. The Takshindu monastery marks the entrance to Khumbu, the land of the Angtharkays and Tenzings. Speeding through Namche Bazar as fast as we could, for this is a village with an insatiable appetite for expedition stores, we arrived on March 8 at our acclimatization camp at Thyangboche.

Thyangboche in early March is covered by a mantle of snow, so very graceful until our army of eight hundred porters and 40 Sherpas had trampled it into a sodden carpet. The monastery has erected a wooden hut for 'tourists' and after the necessary formalities, we hastened to occupy it. Being relatively remote and little touched by administration, Khumbu depends largely on trade with Tibet. For this reason, its monasteries enjoy a reputation far beyond the confines of Nepal. Thyangboche, in particular, holds annual festivals to which pilgrims from far and wide are attracted. We were graciously received by the Incarnate Lama.

Acclimatization has been dealt with thoroughly from both the scientist's and the climber's points of view. Although it is a fact that one's blood requires time to get accustomed to scanty oxygen, it seems to me that too much is made of the so-called acclimatization period. On the present expedition, the march from Jayanagar to Thyangboche—a matter of fourteen days—was, if followed by a high camp, acclimatization enough. There were no cases of sickness whatsoever. Later, when we divided up into groups and began climbs of up to 19,000 feet, there were again no cases reported. As for efficiency a few days at Base and a couple of trips up the ice-fall would have been enough. Any Indian who wishes to climb must get to at least 17,000 feet or more, and out of necessity becomes accustomed to altitude. Acclimatization would appear to be more a matter of luck than anything else. During the three weeks there we made numerous excursions to neighbouring villages, apart from the actual business of climbing. Oxygen trials and more sorting of loads occupied a good deal of time. Here, too, C. P. Vohra and

Mulky (Captain M. R. Anand) joined us, having undertaken earlier to wait for the oxygen masks from France.

Towards the end of March the snows began to melt and mustering a new set of porters we started on the last lap to Base Camp. The route lay along the Imjya Khola as far as Dingboche, in the shadow of Ama Dablam. Then avoiding the stream-riddled valley of the Khumbu Khola we climbed to Lobuje on the right bank of the Khumbu Glacier. A short day took us to Gorakshep, and on March 29 we arrived at the very inhospitable Base Camp-site at 17,600 feet. Towards the afternoon, as the last shouts of the porters died away in the distance, we got to work, and under Guru's careful supervision, a neat little colony sprang up. Here in the centre of a vast amphitheatre, it was marvellous to listen to Jack outline initial plans, intensifying our itch to get to grips with the mountain itself. All our loads had been packed into crates carrying sixty pounds each. At Base Camp these were split into loads of forty pounds each, that being the amount a Sherpa or member carries on the mountain. The oxygen bottles, 120 in number, were allotted four to a load but on the mountain this was reduced to three. Most of our food consisted of dals, rice and atta, with ample quantities of dehydrated and tinned vegetables. The large stock of tinned meat was hardly touched because of the ready availability of yaks, goats and chicken. Surprising as it is, during the course of the expedition, roughly eighteen yaks and ninety goats were consumed. As for chicken, it is sufficient to say that the shortage of eggs was probably of our own making, though in making purchases, care was taken to ensure that the economy of the area did not suffer. More often than not, meat was cooked at Base and then transported to the higher camps where it was just warmed up—an arrangement particularly successful for Camp IV and beyond. We had also an enormous stock of beverages, oats, cheese, flakes, milk, sugar and other luxuries. Food was at no stage a problem.

We were to operate in three parties of four climbers each. Although it would have been futile to make plans too far ahead, this arrangement was carried on till high up on the Lhotse face. One party and their Sherpas would probe forward, a second party ferry and the third rest at Base. Switch-overs were to take place every four days, weather permitting.

The complete ice-fall cannot be seen from Base Camp, the last couple of hundred feet being hidden by gigantic séracs. It seems to rise gently, at first, from the séracs of the Khumbu Glacier and for the first six hundred feet is relatively less broken. Then abruptly it cracks up into a chaotic mess getting steeper and more crumbled

as it goes higher, its giant séracs clawing upwards as if in an attempt to escape the teeming mass of crystallized fury. Even in this chaos it was possible to distinguish five vague diagonal fissures which, by stretching the term a bit, could be called crevasses. Our route lay skirting the first two on the left, into the second and over a couple of hundred feet of broken ice blocks to Camp I at roughly 19,200 feet.

Jack, Hari, Jangu and Chou tackled the ice-fall first. Route making on the first day was easy and we watched from Base as they cut steps, fixed handrails and laid numerous bridges. That day they climbed to within three hundred feet of Camp I, laying in one short stretch as many as four bridges, one of them sixteen feet long. The next day, April 1, they set up Camp I on a surprisingly large platform, sheltered by a large ice-wall. Though later in the season séracs began to crumble all around and even the platform broke up into an unrecognizable mass of ice blocks, this wall stood steadfast the whole time. This camp was used only for four days, but sleeping there always gave me an incomplete feeling, for, we were like the Duke of York's men, 'neither up nor down'. The periodic grunts and groans of the glacier beneath did nothing to relieve this feeling. The first party took the route another three hundred feet up to the edge of a series of three crevasses that lay next to each other separating the Western Cwm from the rest of the ice-fall. The word crevasse is used again in a loose sense, the specimens in question being a couple of hundred feet deep, as many metres across and spanning enough of the ice-fall's width to discourage any plans for circumventing them. After having fixed additional rope on the lower ice-fall Mohan, C.P., K.P., and I took over from here.

Early on the 4th morning we hurried to where the route left off. A little gingerly we stepped into the first crevasse, a yawning green monster, and cut our way past the 'skeleton sérac'—a peculiar narrow block of ice with holes in it which looked as if it would come down any moment. On the far side was a subsidiary crevasse that required a twelve feet aluminium ladder bridge. Pressing on we climbed under another ice block which had an old rope hanging ominously from it, and got out of this first crevasse by way of a steep ice ramp from which I once fell, landing on my face, in soft snow ten feet below. Almost immediately we found ourselves at the entrance to the second crevasse. Getting into this one was easy ice-boulder hopping, but getting out of it and into the third occupied us the whole afternoon and next morning. There were two

alternatives: one, to get into a subsidiary branch of the main crevasse with dangerously overhanging sides and up some flimsy ice blocks separating the two crevasses. The other, to avoid the ice blocks altogether by descending a little. Almost unanimously we decided on the latter. Descending a short way in the second crevasse, we were climbing optimistically when suddenly we came face to face with a fourth crevasse ! Ice blocks we could take, but no more crevasses. After a short reconnaissance upwards we retired to camp.

Next day, thanks to some excellent work by Mohan, we were able to surmount this last obstacle by early afternoon. Cautiously, one at a time, we climbed past the overhangs into the subsidiary crevasse, to the foot of the ice blocks. This section soon acquired the nickname, 'the skeleton alley'. Climbing the blocks was even more uncomfortable than it looked. Since this had to be done one rope at a time, those awaiting their turn always had a vague feeling that something was about to topple. It was with considerable relief we climbed to the top of the wretched blocks where a steep drop awaited us on the other side. After a little fruitless probing here and there, we let down a rope ladder and descended into the third crevasse. Ultimately this was replaced by one twenty-four-foot long vertical aluminium ladder, and one eight-foot long section. Dodging a few small fissures and blocks we climbed out of the crevasse on to some wide shelves below the level of the Cwm. It was only a matter of time before we stood at the site of Camp II, looking at the wonderful panorama that confronted us. Deep behind the Cwm rose the Lhotse face and the Geneva Spur, hiding the South Col behind its crest. The summit of Everest peeped inquiringly over the western shoulder. We pitched a tent and, turning to go, looked straight over the Lo La into Tibet. On many an occasion, the Lo La treated us to spectacular avalanches, the cool ice spray from which would often reach Base Camp. Our route in the ice-fall, now complete, was quite safe from such external dangers. Picturesquely situated though it was, after a while Camp II also fell into disuse, Base to Camp III being a comfortable 6–7-hour trip.

The Western Cwm is very deceptive. The innocent coat of snow hides a number of undetectable crevasses, and the seemingly simple walk is rendered intolerable by the extreme lassitude experienced on a hot day. I am told that temperatures in excess of 55° C. have been recorded. The next day, April 6, we met Guru, Sonam, Mulky and O.P. on their way up to Camp II. As I descended to Base, I thought of their unenviable job of tramping from Camp II (20,000 feet) to Camp III (21,200 feet) and thence to Camp IV (22,400 feet)

at the foot of the Lhotse face. For them the job had novelty, a saving grace, and sometimes crevasses received unexpected visitors. One Sherpa, Mingma Norbu, in particular, was ecstatic about the multi-coloured cavern he found himself in after a sixty-foot drop. They reached Camp III on the 7th and Camp IV on April 8. At Camp IV they claimed to have pitched a tent, and indeed brought back photographs to prove it. When after ten days or so Jack went up to the camp, he found the tent all right—but no poles, lying huddled under soft snow where it should have been pitched. For long minutes afterwards the intercom sets buzzed with scholarly expletives from Guru matched by pongo specimens from Jack. For us down at Base, this party brought back a most welcome surprise. At the Swiss (1956) Camp IV, midway between our Camps III and IV, they found some perfectly preserved cheese. Although it crumbled at the touch, we pounced on it without awaiting a doctor's verdict.

At this early stage wind speeds on the Lhotse face were very high and the weather began to show signs of becoming freakish. Every afternoon was rendered useless by the flow of westerly depressions that had begun to come in over the Everest area. Our weather bulletins predicted 'occasional snow and one or two thunderstorms in the afternoon'. Weather reports have a reputation for inaccuracy but, if anything, ours underestimated these 'one or two thunderstorms'. We had, however, another reason for tuning into these bulletins thrice daily. All-India Radio broadcast, after each bulletin, at our request, ten minutes of classical music. The more popular variety was, too, easily available almost the whole day over the radio. As a result of these weather conditions we decided to stop probing forward for a bit, and began to stock Camp II, by a system of ferries. Each ferry consisted of about thirty Sherpas and three or four members. In this manner about a thousand pounds were lifted daily. Jack was one exception, accompanying most of the ferries, whilst the others, on off days, either rested or like photographers, Guru, C.P., and I, went on trips higher up to try for various effects. During this period I came to know, like everyone else, the ice-fall very thoroughly. When, however, in mid-May I descended to Base after a long stay above, the route had altered so much that it was difficult to identify even the most prominent features. By that time the ice-fall was covered by a thin layer of dust, and the ice which used to arrest crampons in such a crisp confident manner, now became a slushy mess. In spite of this the ice-fall was always the finest part of the climb.

Camp III, apart from Base, was the most comfortable camp. So much so that Soo spent 45 consecutive days there—cultivating

potatoes, it was rumoured ! (Ashoke was holding the fort at Base Camp). Most of the oxygen and high-altitude equipment was brought here before transportation higher up. At one time there were eleven members and over thirty Sherpas staying and, thanks to Lhakpa Tsering, our second cook, being fed magnificently. During the peak period there were three large mess tents, two accommodating fifteen or more Sherpas each, and the third the members. Most of the stores that could not be left in the open were stored in French four-man Jamet tents.

One day during the early part of May, we picked up a strange voice on the 4 o'clock intercom transmission. It was obviously a European language and was so loud and clear that everyone in the tent could hear it. As the range of our sets was only twelve miles we began to suspect that it was Yugoslav, as there had been a rumour that the northern face was being attempted by an expedition from that country. This subsequently proved to be incorrect since the only people on the northern face were four courageous, if not foolhardy, Americans. We tried these mysterious people in English, French and German but without result. The voice was heard again at 4 p.m. on another day on the same frequency but its origin still remains an enigma.

Camp IV has, in the past, been the bugbear of Everest expeditions on account of the death of a Sherpa near it in 1952. However, we had a set of most reasonable Sherpas who thought nothing of living with the poor fellow's spirit. The most disconcerting thing about this camp was that although the tents were admirably placed, the rock and snow avalanches sounded too close for comfort, especially at night. Here, too, in due course, a stockpile of oxygen was built up and stocking was done on days of bad weather.

When, after a postponement due to bad weather, we moved up to the Lhotse face, there was ample evidence that much of our work would consist of ploughing through soft snow. Jack's party would work on the lower part of the face, our party would supply them from Camp II whilst Guru would keep sending up supplies from Base. The Lhotse face rises in a world of its own: the snows driven off Everest trickle around its barren summits giving them a strangely distant effect. From the foot of the face, one can see bulge upon bulge of ice until finally the rocks protrude outwards at a fantastic angle. Here, too, a heavy coat of snow lay over the hard, gleaming ice. Hour after hour it was the same—scraping off the snow, cutting a step, hammering in a piton and fastening the rope. When the coat of soft snow was absent, there were stretches of glazed ice, of a deep bluish tinge, in its place. And yet it was as varied a job as

could be hoped for; the soft snow, a continual menace, like the steep drop not ten feet away. The route on Everest changes only to the extent that the ice-fall is never the same two years running nor very slightly is the Lhotse face. In 1962, the lower part of the face was breaking off in a gigantic block of ice. The result was that a crevasse spanning the entire face and about sixty feet wide had formed. Obviously unbridgeable, an attempt was made to circumvent it by climbing into the Lhotse couloir. Climbing up the wide slope was certainly comfortable, but it was also dangerous and this is where tragedy overtook us. Having climbed only two hundred feet with three ropes strung out in the couloir, Jack's party were surprised by a deep rumble from above. Just in time they fell flat on the ice as a rock shower, from three thousand feet above, peeled off over them. One unrelenting rock, the size of a watermelon, hit Nawang Tsering as he lay next to Chou, his companion for five seasons. The impact threw him some twenty yards off the track, but even in this critical state he landed on his ice-axe which, taking the shock, broke. His fall had been arrested, but the blow had shattered his liver. He was carried in great pain to Camp IV from where, using an aluminium ladder as a stretcher, he was taken to Soo at Camp III. Assisted by oxygen and a shot of morphine he became more comfortable. In one of his few moments of consciousness he, typically, asked the 'burrah sahib' to forgive him for causing so much trouble—perhaps with some premonition of the fate that was speedily to overtake him. At 1 a.m. he improved a little but with a shattered liver and probably a lot more damaged there seemed little hope. At 4 a.m., exactly twelve hours after the accident, with a few tortured breaths he passed away, immortalized in our minds and forever inseparable from the history of Everest.

The next day, April 28, a sad procession carried him to the edge of the Cwm where under a large boulder, in a woodlined grave, he was laid to rest. With the passage of time his body will gradually sink into the Khumbu Glacier, preserved for all time to come. For us, and especially for Chou, there will even be the memory of the laughing face with yellow snow goggles, and the lovable personality. Death in the mountains is an occupational hazard, but there is an unreal air about it, particularly if it occurs in as wanton a manner as this. It seemed futile to try to reconcile oneself to the fact, and for a time the thrill of climbing was missing.

Jack, Hari and Chou did a magnificent job in two days. They made the route six hundred feet up to the edge of the large crevasse. Relieving them, C.P. and I moved up, but before we could reach the face, it snowed heavily for two days and all we could do was to

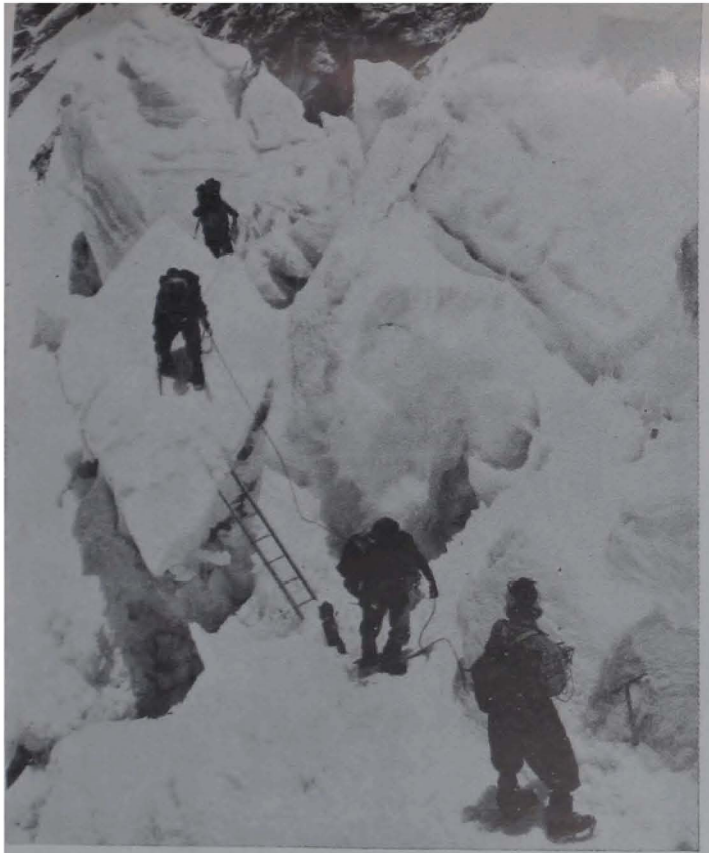
ascertain that the route across the crevasse lay over a snow-bridge about four hundred metres towards Nuptse involving a long traverse. From us, Sonam and K.P., with three first-rate Sherpas, Sonam Girmi, Phu Dorji I and Da Norbu, took over. On May 6, they crossed the snow-bridge and climbed to the 23,600-foot site of lower Camp V, used only to take the route a little higher. It was getting late in the season and the weather had robbed us of many days, so it was with relief that we heard this good news, but our elation was short-lived. On the 7th as Sonam and K.P. were crossing the last slope into Camp V, there was a sudden hiss as a soft snow slab peeled off from the slope and an avalanche poured straight down on them. Sonam and K.P. and two of the Sherpas anchored themselves, but four others a little behind were swept away and came to a halt six hundred feet below, at the edge of the large crevasse. To escape with their lives after such a drop on the Lhotse face was nothing short of a miracle. At Camp III we knew none of this for afternoon clouds normally obscure the face. During the 6 p.m. transmission we were wondering what on earth Camp V was up to when suddenly K.P.'s high-pitched voice shouted out the news. For a moment it was difficult to imagine that anyone would survive for K.P. had mentioned internal injuries and it was with a growing sense of hopelessness that we set out to meet the returning victims. Late that night when they were half-carried, half-supported in, it was discovered that there were two cases of broken bones and two of severe shock. A small price to pay in the circumstances, but it halted the momentum of the advance.

On the 9th, Guru and Mohan, supported by Mulky and myself, moved to Camp IV and later to Camp V. In two days free of snowfall, Mohan took the route up to the edge of the Lhotse couloir and shifted the camp to its permanent site on a very precarious perch at 24,000 feet. They returned on the 14th. We were now considerably behind schedule and so it was decided to confine ourselves to one summit attempt only. Taking over from here, Jack and Jangu spent four days at Camp V during which only one was fine. Everest was, it seemed, striking with a vengeance. They fixed four hundred feet of rope on the eight hundred feet wide couloir. On their return, the first of the two South Col ferries required to launch a summit attempt, was given the green signal. This was done without further work on the route, since from the Yellow Band to the South Col is an easy climb up the Lhotse side of the Geneva Spur. Mulky and Chou, with their seventeen Sherpas, moved to Camp V from where, on May 21, they reached the South Col dumping fifteen 30 lb. loads there. The South Col had to be stocked with sufficient food

and Butane for 12 people for three days, about 40 bottles of oxygen each weighing 13 lb. and five tents for the Col and one for Camp VII were taken up. In the meantime, Hari and I went to Camp IV to await Guru, Sonam and Mohan, the summitters, and Jack who would be supporting. That night, Hari says he heard a deep thump from up on the face but thought nothing about it. The next day, some Sherpas *en route* for Camp V suddenly turned back from the giant crevasse. We shouted upwards to find out what had happened, and back came the reply in a whisper that the natural snow-bridge had broken ! This seemed almost to clinch matters for the expedition. Hurriedly climbing to the scene, one look was enough to confirm that the only method to cross the crevasse was by climbing into it and out the other side. Slowly we descended, and Hari, who was in the lead, stepped on to a cantilever bridge of ice that spanned the crevasse floor and led to a steep ramp on the far side. Fortunately one could not see how hollow the space underneath was until one was across. Henceforth this bridge was crossed only by one at a time and that, too, with careful belays on either side.

The route restored, the six members and seventeen Sherpas moved to Camp V. Aided by an excellent dinner of roast chicken, carried from Base, and plenty of oxygen, I had the best sleep, here at 24,000 feet, than I ever before had on the mountain. A word here about oxygen. The first night I spent in Camp IV, this being about the highest I had climbed before, I was barely able to sleep for a couple of hours. This inability to sleep must be purely psychological for later, with a little oxygen breathed for only an hour, I could sleep up to seven hours. Our planning for oxygen was based on the assumption that it would be used from 23,000 feet upwards. At that altitude, being more of an effort to use than an asset, it was not used for climbing till about 25,000 feet the Yellow Band traverse. Our total stock was 120,940 litre bottles.

On May 24, we moved towards the South Col on the last lap of our journey. Climbing without oxygen and with a fifty pound load was exhausting and it was with considerable relief that I switched on to three litres a minute. With effortless ease the cold, almost metallic, stream of oxygen began to flow, and fatigue and mental grogginess disappeared. The Yellow Band soon loomed before us large and vertical, and the unpleasant scraping of crampons on the smooth rock promised a thrilling crossing. The last thousand feet took a long time. Even oxygen has its disadvantages, some of it perpetually fogging up my goggles and causing me waste of energy. When we stopped to remove crampons before walking on to the Geneva Spur, I tried to adjust my mask, but such actions



By courtesy of Indian Mountaineering Foundation

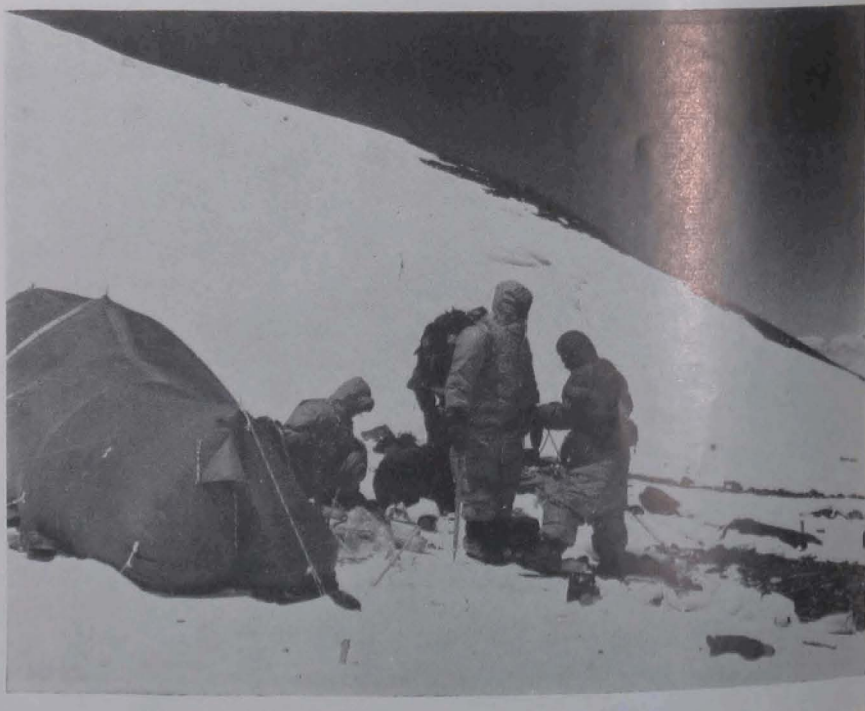
AN ALUMINIUM BRIDGE AND A SMALL LOG BRIDGE USED IN THE ICE-FALL

By courtesy of Indian Mountaineering Foundation

A 24 FEET AND AN 8 FEET LADDER ON THE BLOCKS SEPARATING TWO CREVASSES

By courtesy of Indian Mountaineering Foundation

IN THE LHOTSE COULOIR APPROACHING THE YELLOW BAND AT 24,850 FEET. THE GENEVA SPUR GREATLY FORESHORTENED IN THE BACKGROUND



By courtesy of Indian Mountaineering Foundation

ON THE SOUTH COL, 26,260 FEET, BEFORE DEPARTING FOR CAMP VI

are usually fairly sluggish and produce little result. As one leaves the Yellow Band, one is just higher than the lowest point of Lhotse-Nuptse and though clouds obscured the view towards Thyangboche, Tibet on the other side was clear. Not too far away one could see the dark brown uplands and, nearer, the West Rongbuck Glacier snaked its way round to the north of the mountain. The Cwm looked strangely distant and Camp III could be identified as a blur in the middle of it. Lhotse looked fantastically jagged, and climbing higher we began to cast jealous eyes at Nuptse, so tantalizingly close, which we knew must sink below us before we reached the Col. As we turned the crest of the Geneva Spur, the legendary west wind hit us almost with a bang. This wind, funnelled over the Lo La, through the Western Cwm, shoots out over the South Col at speeds of fifty knots which, on a windy day, may increase to eighty or more. Just before arriving at the top, Hari discovered that his oxygen valve was closed. He had, inadvertently, carried fifty pounds to the Col on no oxygen ! We arrived late that afternoon at Camp VI, 26,261 feet.

That first night I slept soundly out of pure exhaustion. Also it was the only night on which we had sufficient oxygen. The temperature must have been in the region of minus 50° C. and the tents flapping in the wind sounded like machine-gun fire. On the South Col the sun rises before 5 a.m. but it was not till 10 that anyone ventured out into an awful day. It was obvious that a move was out of the question, so the day was spent melting snow and making soups and juices. Since one cannot depend on Sherpas alone to do all the cooking, we had Butane gas-burners in our Jamet tent which has a space, four-foot square, for storage. Our consumption of food may seem scanty but at that altitude the desire for solid food diminishes and the thirst for liquids increases. Even here at nearly 26,000 feet, one could be fairly active without gasping for breath but any sudden or jerky movements were most uncomfortable. Towards evening Da Norbu, the one Sherpa who in the most trying conditions was always active, unexpectedly brought in a bowl of rice and another of meat curry. Though it looked like a dog dinner, we did full justice to so generous a gesture. Late that night, in an effort to conserve oxygen for higher up, we picked up some old Swiss bottles which still contained oxygen. Our adaptors were of a different size, but by clipping rubber hoses to the outlets we were able to control the blast to something like ten litres a minute. Needless to say each bottle lasted barely an hour but it helped us to doze off. However, owing to the shortage of even these bottles, two of us had to share one. It was planned that each would use

the bottle for fifteen minutes and then pass it to the next man, and so on. The disillusioning fact remains that, just as one was about to doze off, two unkind hands would snatch the bottle away with a muttered, 'My turn', and the unfortunate was left to complete his dreams by himself. Dawn being a matter of time only, we tolerated this cheerfully and rose to a relatively fine day. Owing to some miscalculation in the number of oxygen loads to go to the Col, we were short by two bottles. Since Hari was the fittest of the three members, Jack and I volunteered to remain behind and he went to deposit the summitters at Camp VII, accompanied by Angtharkay, Phu Dorji I, Nima Thondup, Ang Tsering, Mingma Tsering and Da Norbu. Angtharkay at fifty-five must be the oldest to go to such a height, and this was Da Norbu's fourth trip to the same camp. Almost before they were a few hundred yards from camp, we saw Nima Thondup turn back, and as I helped him to his tent he complained of breathlessness. Thinking it was severe fatigue we put him to bed with a hot mug of soup. Fortunately for himself he had brought down his bottle of oxygen. The loads for Camp VII consisted of one Blanchard tent, food, two Butane burners and nine oxygen bottles. It was with difficulty that the tent was ultimately pitched for though exceedingly light, only six pounds, it is fairly large. It ensured at least some measure of comfort for three people.

With nothing to do except await the return of the others we explored the Col. It seems strange to find such a junk heap at this outpost of existence. Hundreds of oxygen bottles and thousands of tins lie uselessly about. The most precious items recovered were unopened tins of ham, soups and beans. I also found a peculiar plastic contraption which looked extremely scientific and efficient but without any apparent use on the South Col. At about 11.30 looking upwards we saw a figure turn back from just under 27,000 feet. It turned out to be Guru who, feeling dehydrated, had told Hari to take his place instead of endangering the success of the others. It was a typically generous gesture. We saw the climbers climb the 'leap-frog gully' and traverse the rocks below the ridge to a camp-site near 27,700 feet. At about 6 p.m. the Sherpas returned and we prepared for our third night on the Col, this time without even Swiss bottles.

The weather, next morning, the 29th, was a cruel disappointment. We were hoping for a happy coincidence in the date of ascent, whereas instead we were enveloped in a thick swirling mist. Fortunately the three at Camp VII stuck it out even though they were without oxygen which had to be conserved for the climb. Nima's condition

had by now become very bad and he had to go down. At 1 p.m., Angtharkay, two Sherpas and I tried to take him, but two hundred yards from camp it became obvious that he would not make it that day, so reluctantly we sent him back. That day I could only descend to Camp V, and made it to Camp III on the next day.

On the 30th Sonam, Mohan and Hari attempted the summit. They rose to a very clear morning and in the first two hours climbed almost eight hundred feet. There, at about 9 a.m., the wind began blowing and in practically no time clouds enveloped them. Conditions deteriorated rapidly and the going became very tough. In the next five hours they were able to ascend only another two hundred feet or so as far as the last rocks just below the south summit. The altitude was 28,600 feet. There was little choice but to turn back, for though under the circumstances it might have been possible to reach the summit, it would have been impossible to have got back safely. Turning back at about 3 p.m., they began a nightmare descent, and belaying each other at every step, they retraced their way down the south-east ridge. At one point Sonam slipped, taking Hari with him and it was only with luck that Mohan held them. Sonam, who had been over the route only two years before, thought he recognized a short cut. He proceeded straight out to a rock face which, though perhaps shorter, slowed them down considerably, and before long they were overtaken by darkness whilst still out of sight of camp. After stumbling about in the dark for some time they decided to head straight for the South Col. It was while attempting to do this that they recognized a black shape to be the tent, half-buried and almost swept away by the wind. It was about 10 p.m., and without any food or oxygen they sank into their sleeping-bags, for the third night running. On the 31st they could only make it to the South Col where Guru and Da Norbu awaited them, almost without hope. Nima was still there, critically ill.

Down at Camp III we had no news of what was happening. All that we knew was that on the South Col they must have run out of both oxygen and food. The weather and the nearness of the monsoon had left us no time to stock the South Col as we would have wished. On the 30th, the day of the attempt, Jack and Ang Tsering tried to bring Nima down but without success. On the 31st, their fifth day above the Col, two young Sherpas were dispatched from Camp III straight to the Col. Siku Porche and Phu Dorji II carried oxygen and coramine, a heart stimulant, for Nima. Starting at six in the morning, they were on the Col by two in the afternoon. They had instructions that if all was well they should walk out on

to the couloir as a prearranged signal. For some reason or other the intercom sets were not working. So, when no one appeared we began to suspect the worst and, on June 1, Mulky and eight Sherpas left for Camp V as a rescue party. They had barely arrived there when eight dots detached themselves from the rocks of the Geneva Spur, and started crossing the couloir. It transpired that Guru had kept our two Sherpas to help in bringing down Nima. Eight dots meant that everyone was alive, something we had been almost too scared to hope for. We received the news of the summit party having got to 28,600 feet with such calm that I was surprised it could have mattered so little. I think that by the time the news came no one was seriously worried about success or failure; the welfare of the climbers alone mattered to us all. That we had done our best no one doubted, but too often factors beyond human control decide the issue.

TRANSPORT AND SHERPAS ON MOUNT EVEREST, 1963

By J. O. M. ROBERTS

IT is probably a little early, as I write this less than two months since we returned to Kathmandu, to relate in full the somewhat complicated events of the American Mount Everest Expedition. Certainly the fog in my own mind has only just begun to disperse. Meanwhile some notes on the logistical and transport problems involved may be of interest and provide a background to the climbing story when this is later told.

Naturally an American attempt on Everest attracted publicity on both sides of the Atlantic and the press in Europe and in India ran stories on this 'mammoth' expedition, 'luxuriously' and 'lavishly' equipped with 'everything including the kitchen sink'. Reading between the lines one sensed that some of our well-wishers would really like us to fail, if only to prove that the summit of Everest could not be bought for dollars. For us this point was purely academic. We had not got the dollars.

With some 20 members supported by 37 high-altitude porters and a baggage train of over 900 loads, the A.M.E.E., 1963, was indeed a large expedition, but not all that much larger than some recent Everest expeditions. Inevitably a certain amount of unnecessary food and equipment was carried to Base, but the strength of the expedition was in the event hardly able to cope with the ambitious climbing and scientific programme. Apart from a few curious omissions the expedition was extremely well equipped but if there were any particularly novel 'luxuries', I did not notice them. Of food, that controversial subject, I shall not speak.

The first task was to deliver our 900-plus loads to Base Camp and the problems were the recruitment of this large number of porters and the availability of food, track space and night accommodation for them on the trail to Everest. The first two of these problems were largely solved by the importation of 500 porters from Khombu, Sherpas and Khampas. This left only 400 Tamangs to collect locally and I gave orders that the Khombu men should each carry a load of food from their homes to be dumped at set places along the route to Kathmandu, for later consumption. Despite much advice to the contrary I was determined we should march as one army and not in two or more parties on successive days. In the event everyone seemed to be able to tuck themselves away for the

night even in drizzling rain in the most unpromising staging sites, and the congestion along the trail, although considerable, caused no serious delay.

For control we divided the porter corps of 900 into nine legions of 100, each under a Naiki (headman), Sherpa or Tamang, assisted by one of our own Sherpas. The Naikis brought up the rear, while a Sherpa went ahead and checked the loads as they arrived in camp. In camp each porter party had its own separate dump and thus the stacking of loads in the evenings and distribution in the mornings was simplified. Each porter had a tag, numbered from 1 to 900, and the tag number was noted against the load number in a much thumbed book.

All this sounds quite simple and friends who came to see us off at Banepa on February 20 were kind enough to describe the departure as 'organized chaos'. Along the way complications inevitably arose. Sahibs and Sherpas consumed at least four loads of food a day and every few days we discharged about 15 Tamangs. Others returned sick or tired and there was a constant change-over of loads. The book was soon a bit of a mess and I just hoped that nothing important was missing. Fear of theft and pilfering was, of course, a constant anxiety in such a large party but ironically it was only when we entered 'The Land of the Sherpas' that bits and pieces began to disappear. Only one load was actually lost on the way to Base, the youth carrying it having succumbed to a surfeit of chang below Namche. Inevitably it had to contain a valuable scientific instrument, the only one of its kind with the expedition. However, Maynard Miller and Barry Bishop never agreed as to the ownership of this instrument and we seemed to get along all right without it.

Anxiety among the porters about these very shortages of food and accommodation at the end of the day caused a general speeding up on the march. Never have I known such early starts. At about 3 a.m. the sounds of the army bedding done would merge into the morning chorus—flickering fires, coughing and spitting, talk, the weeping of children, wood smoke and the clash of cooking pots. After an hour or so of this racket the sahibs could be heard grumbling in their tents, awaiting the first dread flashing of the butane lanterns and the note of Danu's shrill whistle, the summons to Weet-a-bix and fruit juice consumed standing up and shivering in the cold dawn light. On most mornings camp would be clear by 7 a.m., the first loads having left at least an hour earlier. Those of us that could do so would get ahead of the mob. Conditions along the way were often unpleasant with dust, coughing and spitting and

stop-and-start progress. If caught in the crush it was usually best to sit and quietly wait for an hour or so and bring up the tail.

The Tamangs, who normally carry as far as Thyangboche, returned from Namche and it was as well, as we now ran into heavy snow-falls and winter conditions. Under these circumstances the army soon dwindled in numbers and we had to resort to relaying loads the remaining stages to Base Camp.

The services rendered by our Sherpa porters on the mountain were quite outstanding and deserve fuller treatment than the short, largely statistical notes that space permits here. Norman Dyhrenfurth and I had corresponded on the subject of the composition of the Sherpa team for nearly two years before the expedition and the result was a highly competent bunch of toughs. There were, inevitably, some weak links. Our Sirdar hailed from Namche Bazar and was really a political choice as that metropolis can give large expeditions a rough passage if it wishes. He was a good shouter until he lost his voice and he soon went sick on the mountain. We had no trouble from Namche, but I grudged him his large pay packet. The virtual Sirdar on the approach march was Angcherring (Khumjung), although it was difficult to convince some of the Americans that Gombu, with his knowledge of basic English, was not the power behind the transport scenes.

Despite pressure from prospective employees and Norman, who was always finding long-lost Sherpa buddies of his at the airport or in his hotel room, I closed the roll when it numbered 32 Sherpa names and kept five vacancies for younger men to be recruited in Khombu. Young Sherpas often put up outstanding performances on their first expeditions, and although the two-day selection programme I planned had to be compressed into a wet half hour at Thyangboche this young entry produced two out of the five Sherpas who did the great carry to 5 W to over 27,000 feet on May 21.

Work had begun on the ice-fall on March 22 and was only briefly halted by the accident in which Jake Breitenbach was killed and Ang Pema seriously injured the following day. Jerstad and Pownall reached the South Col with Chotare and Nima Tensing (Thame) on April 16. There was then some delay until the first Sherpa carry of six loads got up to the Col on April 22 under Chotare, followed by Phudorje with ten loads on the 24th. Meanwhile work was continuing on the West Shoulder and by now the immediate climbing priorities had been settled. These were, to attempt Everest from the South Col with one or more parties and possibly, as a by-product, Lhotse, followed by a switch of operations to the West Ridge.

About 30 loads in all were required on the Col and this necessitated the concentration for a time of our best men on that route.

I hoped, however, to pull across a few of our known Tigers, Nawang Dorje, 'long-haired' Angcherring and others, after only one trip to the Col to help Unsoeld and Hornbein maintain momentum on their West Ridge. But on April 26 a vital carry of seven loads got no further than the Yellow Band (in fact a great effort under very bad weather conditions) and consequently nearly all our remaining porters' strength had to be thrown into the assault on the Col route which left Advanced Base (Camp 2 at 21,500 feet) on April 27. During the subsequent days 19 Sherpas reached the Col, many for the second time and of them ten went on to Camp 6 at 27,600 feet. On May 1 Gombu reached the summit with Jim Whittaker.

The summit of Everest was not reached again until three weeks later. Meanwhile work on the mountain continued on the lower part of the West Ridge route and in the ice-fall. For carries from Base at about 17,500 feet to Camp 1 at the top of the ice-fall (20,000 feet) and on up to Camp 2 (Advanced Base at 21,500 feet) we employed 12 porters locally, mostly fairly experienced men, who provided their own somewhat old and threadbare clothing and equipment for a fee additional to their pay. These did great work carrying up the ice-fall, which was in a particularly broken, difficult and dangerous condition this year, day after day in all weathers and unescorted. Indeed I do not think that our Sherpas were ever specifically escorted at any time during the expedition, although they often, of course, climbed in the company of sahibs when a route was being opened for the first time, or later, as partners during the summit and support operations.

The plan now was to attempt to climb Everest by the West Ridge and at the same time, if possible on the same day, for Jerstad and Bishop to repeat the ascent from the Col. Dave Dingman and I would move up behind in support. Unsoeld and Hornbein left Base on May 6 to rejoin Emerson, Corbet and Auten and the few Sherpas left on the West Ridge. Bishop and Jerstad left on May 12, Dave on the 14th and I on the 15th, with Nima Dorje. During this time I had had the task of redeploying the Sherpa strength and in particular in persuading the men who had carried once to Camp 6 from the Col that it would now be a good thing to start climbing the mountain a second time after a week's rest, this time by a new route. They responded nobly but had already given of their best and it was left to younger men to carry the top camp on the West Ridge.

A howling gale on the night of May 16 and 17 practically destroyed Camp 4 at over 25,000 feet and nearly put paid to the

West Ridge attempt. During the 17th, ten Sherpas dribbled down into Camp 2 from out of the clouds. Most had had enough, but two, Ila Tsering and Tensing Gyalsto, were persuaded to return up the ridge after a day's rest: Ang Dorje, Passang Tendi and Tensing Nindra had remained at 3 W and it was these five, three of them on their first expedition, that carried to 27,200 feet on May 21 and set Willi Unsoeld and Tom Hornbein on the way to their great traverse of Everest.

At this stage our supporting resources were of the shoestring variety. Lute and Barry had three Sherpas with them, of whom two went up to Camp 6, and Dave only one, Girmi Dorje. I was now going badly and Dave very strongly, so I made over my Nima Dorje to him to give him a chance of a summit attempt with Girmi. They would without doubt have succeeded on May 23 had not they had to help the summit pairs of May 22, who had spent a night out at over 28,000 feet, down to Camp 6, and then to the Col.

We had ordered porters to take us back to Namche to arrive at Base on May 25 and the last ten loads came down the ice-fall that morning. What with this rush and celebrations among the Sherpas the next few days were rather chaotic. Apart from my temper, we were I think lucky to lose only two items of equipment. A camera base belonging to Maynard Miller valued at several thousand dollars, unique of its kind, and a kit-bag belonging to Pownall. The camera base, which looked exactly like a dirty old Sherpa cooking-stand, we later recovered from a hut in Pheriche. Dick's kit-bag containing all his high-altitude clothing was, alas, never found. This theft was partly his own fault as he spent all his time in Namche bargaining with our cook for Tibetan rugs and failed to check up on his own belongings. As a result, too, we got nothing to eat.

Some of the Sherpa performances:

(*a*) *Individual*

Chotare (Namche), South Col three times. Camp 6.
Phudorje (Khumjung), South Col twice. Camp 6.
Kanchha (Namche), South Col twice. Camp 6.
Kalden (Darjeeling), South Col three times.
Nima Tensing (Pangboche), South Col three times. Camp 6.
Nima Tensing (Thame), South Col twice.
Nima Dorje (Khumjung), South Col twice. Camp 6.
Pemba Tensing (Khumjung), South Col twice. Camp 6.
Dawa Tensing (Namche), South Col twice. Camp 6.
Girmi Dorje (Thame), South Col three times. Camp 6.
Lhakpa Sonan (Khumjung), South Col twice. Camp 6.

Nawang Dorje (Khumjung), South Col twice. Camp 6. 4 W.
Ang Nyima (Namche), South Col twice. Camp 6. 4 W.
Angcherring II (Khumjung), South Col twice. Camp 6. 4 W.
Tensing Nindra* (Khumjung), South Col twice. 5 W.
Ila Tsering (Namche), South Col. 5 W.
Passang Tendi* (Khumjung), South Col. 5 W.
Tensing Gyalsto* (Phorche), South Col. 5 W.
Ang Dorje (Namche), 5 W.

(Tashi, Passang Temba (Darjeeling) and Urkien (Namche) also carried to the Col, and Gombu and Ang Dawa reached the Col and Camp 6 during the summit ascent of May 1).

(*b*) *Collective*

19 Sherpas carried to over 27,000 feet.
4 reached the South Col three times.
11 reached the South Col twice.
8 reached the South Col once.
(23 reached the South Col in all).

* His first expedition.

PUMORI—THE DAUGHTER MOUNTAIN (23,442 FEET)

GERMAN-SWISS HIMALAYAN EXPEDITION, 1962

By GERHARD LENSER

FIRST encounters with Pumori have probably followed much the same course with all contenders, and I will admit that we formed no exception. This mountain, the Virgin Jewel of the Khumbu, as Marcel Kurz has called it, is seen for the first time when Everest with its eternal toga of clouds, wild Lhotse and the Nuptse wall have long been part of the daily landscape. One is out of breath from coming up over the old green tongue of the Khumbu Glacier, that heap of rubble which is as ugly as it is famous. We were dumbfounded, and our Sherpas, too. Pumori had played no part in the plans of the expeditions with which they had previously been in this region. 'You will never get up there!' they said.

When you see the mountain for the first time, you can stare your eyes out searching for a route of ascent, even if at home you have already puzzled out the best possibilities with the help of the splendid photographs that are available.

We set up our Base Camp at approximately 18,000 feet, in a small hollow between the uppermost yak pasture of the Pangboche people, which is called Gorakshep, and the Pumori Glacier. I had chosen this site because I had thought we would be protected there from the unremitting winds from the Dudh Kosi valley and the Khumbu Glacier. That was a mistake. The hollow proved to be a sort of wind channel. However, this did have one advantage. The cold Dudh Kosi wind prevented us from prolonging our comfortable breakfast until lunch-time. In the late mornings it regularly drove us back to our air-mattresses for a brief nap.

After a week had passed I became uneasy and reckoned that our somnolent group was the most unsuited expeditionary team that ever sojourned in the Himalayas. I was indignant, but unjustly so, as it later turned out. We were indebted for this long period of rest to the wise advice of Ernst Forrer, who was experienced in the Himalayas. It gave us an ideal time for adjustment to the rarefied atmospheric conditions of this altitude, a good preparation for our coming trials in the difficult cliffs of the south face and on the incredible north-east ridge of Pumori.

The first aspect of Pumori, however grandiose an impression it may produce, discourages the sahib as well as the Sherpa. However, the closer one approaches the mountain, the more simple everything appears. Undoubtedly, our unsuccessful predecessors were taken in by this, and so, to begin with, were we.

On April 4, 1962, we had established our Base Camp on Gorakshep, and on the 12th we took an exploratory stroll. We climbed over slag-slopes to the foot of the red cliffs of Pumori's south spur and returned rather sobered.

I incline more to rock routes; Ernst Forrer, by contrast, is an ice-man. Sometimes we had wild disputes; but as a result of this first advance all our hopes for a short steep ascent, that would be different from the attempts of our predecessors, sank to zero. I still consider the south spur of Pumori to be possible. We wanted, however, to climb the mountain and not merely solve a minor problem.

The Nepal side of Pumori presents the south-east face and the west flank. The entire south-east face is two-and-a-half miles broad. Everything that, until our visit, had been attempted at Pumori, including the catastrophe of December, 1961, had taken place there. Far in advance, I had furnished this south-east face with a series of theoretical intermediary camps, depots and routes of ascent, but such theories are a normal part of an adventure.

On our exploratory climb under the 'shoulder spur', the ice-ridge which runs down the ice-wall below the shoulder, the end point of the north-east ridge below the summit pyramid, we found numerous traces of predecessors, but no route of ascent that could be taken seriously. Here one can get up to well above 20,000 feet, and one can take magnificent photographs of Everest opposite; then one suddenly finds oneself beneath monstrous ice-bulges and towers and cracks ripe and ready to break off, so that in all modesty one climbs down again. This was one more futile venture. We still searched with the big field glasses for a weak point, but in vain. Only far towards the east there still remained a spur, almost below the wild Lingtren-Pumori ravine. We climbed down in order to have a go at our 'secret tip'.

In general I put little trust in 'secret tips', which someone gives you casually. Here the tip was the West Col.

We climbed about on the Changri Shar Glacier so as to scan the West Col and the secretive west flank, which on the map inspires ideas of an ascent. But we soon climbed down again, though we had obtained a good view of the south spur from the west, of which we now had an exact idea. However, the west flank is murderous. There you will find no nicely graded west glacier: only a vile ice-fall

VIEW FROM 'THE PASS OF THE DISAPPOINTED' WHICH IS THE SADDLE BETWEEN THE PUMORI NORTH-EAST RIDGE AND LINGBEN (6,697 M.), (CAMP 3—6,220 M.), TO THE AMA DABLAM AND KANGLEGA GROUP

THE 1·5 KM. NORTH-EAST RIDGE OF THE PUMORI LOOKING BACK

and fearful avalanche walls. Therefore I decided to establish our Camp I in the closest proximity to the eastern cliff spur, and from there to make a new attempt to find a way to the mountain itself.

With the attempt to pitch a usable camp at the right point beneath the south-east face there seemed to appear the first symptoms of moral dissolution among both sahibs and Sherpas. There was a Camp I*a*, another which might be called Camp I*b*, and a third, Camp I*c*.

At Base Camp, disregarding the cold valley wind which arose about 10 a.m., we had our first days of fair weather. There was an atmosphere of spring, when one might expect to find larks and other tiny songsters that might help one to forget the harshness of the scene. But there were only the impertinent jackdaws and fussy ptarmigans.

On the day when I despatched the first loads to a hypothetical Camp I came the first really bad weather. It hailed, stormed and snowed wildly, and with minor pauses continued thus into the middle of May. The famous fair weather period before the summer monsoon failed us completely. Though this did not lead us into a retreat or a catastrophe, it nevertheless brought us into a hopeless organizational mess. The Base Camp of the Indian Everest expedition, not far away, was also dominated by an atmosphere of nervousness, although softened by Asian resignation.

The Sherpas, Nima Tensing and Nima Dorje (the Nima Dorje who had been on Dhaulagiri), and I were the first to resume our ascent. In our first serious attempt, carrying rucksacks heavy with ropes and pitons, we climbed a goodly portion of the face of the cliff spur. I had spied out a snow-field which looked from below like a broad ledge, and wanted to bring up the smallest tent as the first stage in the face. The climbing on the spur varied between the third and fourth degree of difficulty, and the snow-ledge proved illusory. But we had covered 600 feet of the Pumori face, and a good start had been made. We fixed ropes all the way down to the bottom of the face and we now had a really good beginning of a route, which encouraged us to proceed.

Unfortunately, the weather continued bad. On the following days we climbed up twice more, each time a little higher, until we reached a chimney which we examined closely. Ueli Hürlemann, the youngest member of our party, but physically the strongest, until now had had difficulty in acclimatizing to the oxygen-poor altitude, so he remained at the Base Camp to start with and organized the transportation of supplies to Camp I, which stood at 18,000 feet at

the foot of the south-east face. Hans Rützel and Ernst Forrer, together with the two Nimas, took part in attempts to climb higher.

The chimney was a real trap. I climbed a rope-length up it, here and there hammering a piton into the ice with which it was plastered, until I could go no further. It took me hours to get down again and I still marvel that I made it; in any case, I have become much more critical of climbing on rotten vertically-stratified rocks. Snow-fall and storm followed, and we went down.

Two days later Forrer made a new attempt from the point whence we had retreated below the chimney, and on a protruding pulpit-like site he succeeded in hacking out a level place from the ice, where our small tent could be pitched. This was Camp II. It was at least a shelter for the nights, and in the later stages of the ascent it played a decisive role. Ernst Forrer and I were now no longer obliged to climb down the entire wall; instead we could make use of every slight improvement in the weather to press forward. The Nimas and the two others, as well as Ueli Hürlemann, who could not be kept idle below, climbed up daily, even in the worst weather —in fog, storm and snow showers—along the fixed ropes, and brought us new supplies. In the end there were probably a hundred ice and rock pitons in the wall, with more than 2,000 feet of rope attached. There were all kinds of pitches: walls, chimneys and corners, everything to delight the heart of a climber. We climbed everything at first without direct aid, except for one holdless wall where the cracks were buried under deep new snow; there we fastened a sling. While we did this the weather raged down at us from the north-east ridge and, when we again reached a good ledge, we wound the rappel ropes about us and swooped down again to the camp on the face. It was quite comfortable in this tent, although Forrer lay on the piled up snow-wall beyond which the mountain fell away for nearly 1,200 feet. But inside the tent we saw nothing of this.

On April 23 I had started the first part of the face. On the evening of May 3, around five o'clock, we deposited our heavy packs on the soft slopes of the Col between Pumori and Lingtren. We had already reached this point the previous day, but had had to return to the camp on the cliff.

I have named this pass the 'Pass of the Disappointed'. Later we crossed it part of the way down to the Rongphu Glacier in Tibet. Mallory had been there in 1921 and Shipton in 1938, when searching around Mount Everest for better possibilities of ascent. And, indeed, to the north, lovely ski-slopes fall away in soft waves. The

east-west shadow, which here must be called an icy one, also does not make the climber's life easier.

At 20,180 feet (according to Erwin Schneider's map of 1957) the Pass of the Disappointed might count as the highest and most difficult pass that has been crossed so far, but I would advise against the trip.

The south-east face, on the same scale as the north face of the Eiger, lay below us, and our disappointment at the appearance of the north-east ridge was indescribable. Judging from the photographs, we had reckoned on a friendly firm crest, and the map suggested the same. But before our eyes began the wildest and steepest corniced ridge that we had ever seen.

A little above the Col we pitched a double nylon tent for Camp III. The altimeter indicated 20,407 feet. Forrer, the ice-climber, announced that he would avoid the ridge and use the north face instead, and at that very moment there thundered, as if in greeting, down from the ridge and over the icy north face, hardly fifty yards away from our tent, a huge and glassy chunk of cornice.

At night the temperature fell to an unusual degree. Neither of us could find any sleep, although we had become well accustomed to the cold since our nights in the wall began.

The good route we had prepared up the south-east face now brought its rewards. The Sherpas, with Rützel and Hürlemann, constantly brought up supplies, even in bad weather. Because of the danger of falling cornices, Forrer and I made our first attempt on the north-east ridge. It failed. Then we climbed down to the Rongphu Glacier, reconnoitred the north face, and started up it in good weather. Eventually we had to retreat to safety out of a practically vertical, furrowed, *firn* wall in driving snow and in constant danger of avalanches.

By this time we had had enough, so we went all the way down for a rest. We had been eleven days on the mountain without interruption, and we gave way to our two comrades. On May 9 I climbed down to Base Camp with Forrer. On May 13 we returned to Camp III on the pass. During this time Hürlemann and Rützel had made two more attempts along the north-east ridge and had then given up. Both had come back over the wall to Camp I.

When one has sat for a day at Base Camp, read the mail from home with encouraging words from friends, the world looks quite different. We decided to remain in Camp III until either the weather improved or our provisions ran out. If the good weather arrived we wanted to push forward with our 'Pumori-method', that is,

without any further build-up of camps, carrying all necessary equipment with us—a small tent and five days' provisions—and wearing as many clothes as possible. In this manner we wanted to push on over the ridge and over the summit wall. It would entail a greater risk, but we had considered it long and carefully. In the event of a severe turn in the weather we should be able to pitch the tent wherever we were and wait from eight to ten days for an improvement. The question remained as to whether, on that exceptionally steep ridge, a camp-site could be found.

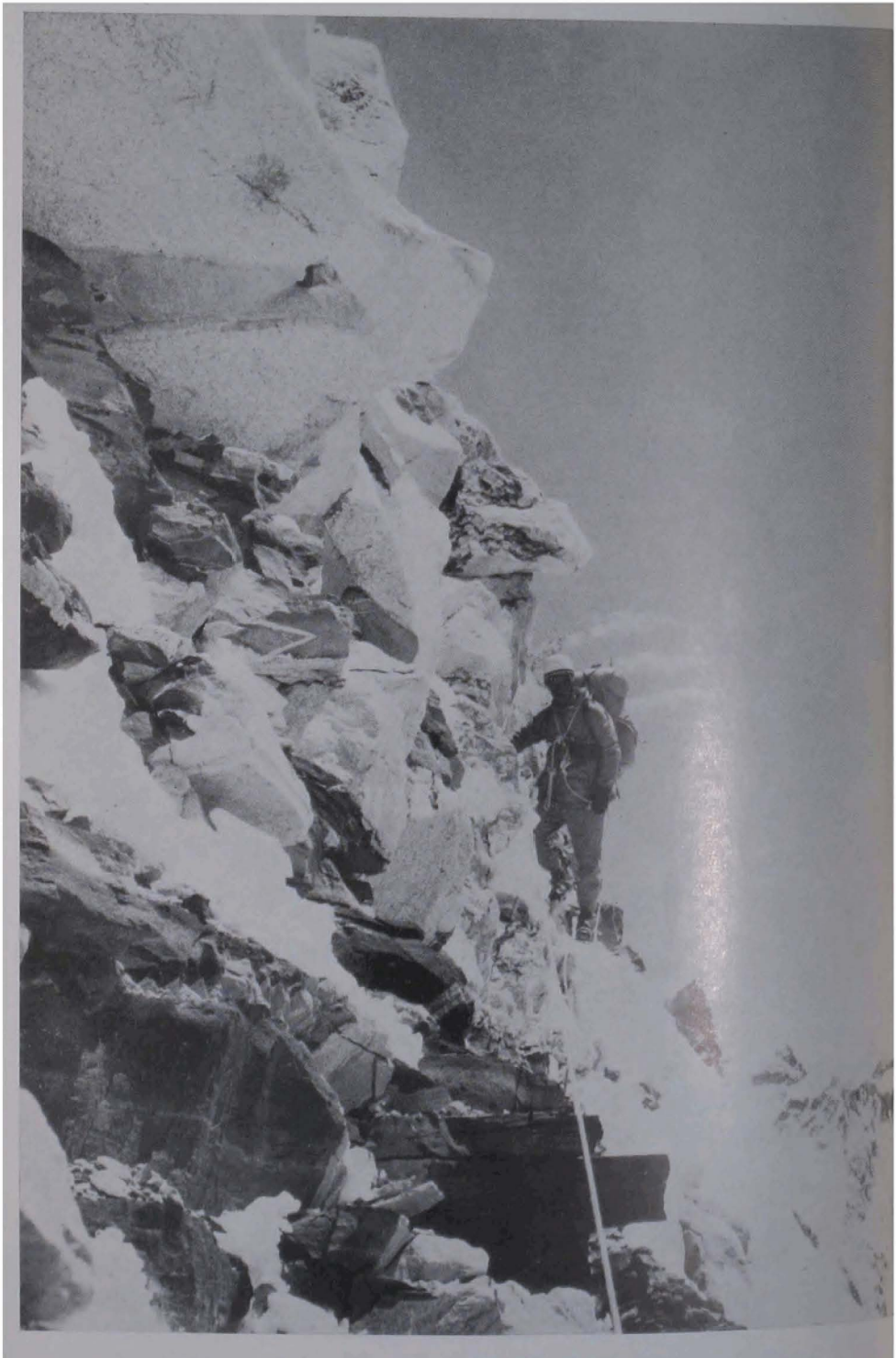
The hoped-for weather came with a fresh cold wind out of the brown infinity of Tibet. On May 15, after 6 a.m., the three of us (Rützel had not yet come up again) left Camp III. By noon the two wildest pitches on the ridge, on which all attempts had failed until then, had been overcome. The second decisive point on this important day was a level cornice in the middle of the north-east ridge. There we set up the small light tent. This was our Camp IV. Beside it stood an ice-tower, which was not to be climbed and which involved a vital decision. We had to climb around it to the right in the icy north face. About noon on the 16th we climbed, one after the other, hand over hand, back on to the ridge above the tower. Towards evening, in a light fog, we arrived, fairly exhausted, at the 'shoulder', where we pitched our small narrow tent on the level spot we had been yearning for. At 21,820 feet, it was our last and most important camp. Ueli Hürlemann named it the 'Pumori Hospiz'.

The way to the summit offered no difficulties. The strong dry Tibetan wind had carried away all the loose snow from the bad weather period, and the sun transformed the steep, 1,500-foot wall into good *firn*. One can climb it like the top part of the Brenva face or the Peuterey ridge, only much more freely. At one's back stands the highest mountain in the world. The incomparable lines of Pumori, this mountain without a blemish, seem to lift themselves up above the earth.

On May 17, 1962, shortly after 11 a.m., we stood at the edge of the summit triangle and stepped on to the highest point. The gale swept across it and tried to hurl us down. We knelt and turned our gaze over the sea of mountains. The few happy seconds of fulfilment, though fleeting, were the reward of our efforts.

The summit hour was over and we went briskly down over the steep track. Two-and-a-half hours later we were back at the Hospiz. The sun sank behind the summit and it became cold, but we had a quiet night. The weather held and everything went well until we were back at Camp III. Then the first brown cloud showed up out

MAY 17, 1962. ON TOP OF THE PUMORI (7,145 M.)



HEAVILY LOADED ON THE SOUTH-EAST WALL OF THE PUMORI

of the south, the same clouds that robbed the Indians on Everest of success.

On the second day after the summit we reached the camps below the mountain. The dangers had been overcome. On May 24, on our way back over the highest summer meadow (Lobuche), I found the first primulas and the tender grasses. We laid our faces on the warm spring moss and enjoyed our good fortune.

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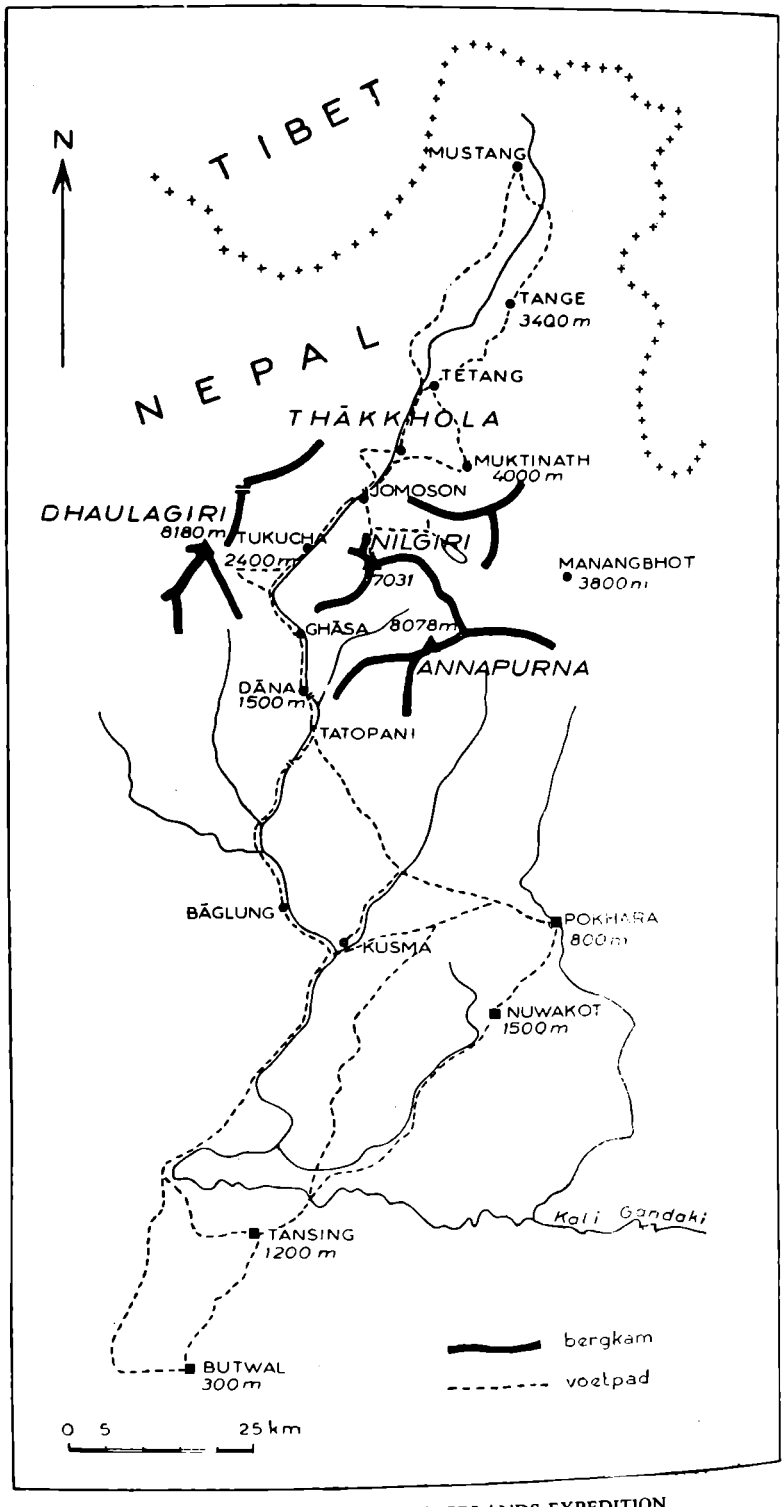


ROUTE TAKEN BY THE NETHERLANDS EXPEDITION

THE NETHERLANDS HIMALAYAN EXPEDITION TO CENTRAL WEST-NEPAL, 1962

By P. VAN LOOKEREN CAMPAGNE

MEMBERS

Prof. Dr. C. G. Egeler, leader
Dr. T. de Booy, deputy leader
} geologists of the University of Amsterdam, both also participating in the climbing

Dr. J. W. A. Bodenhausen, geologist
Dr. G. Schaar, geologist topographer
Dr. H. J. Nijhuis, geologist
} University of Amsterdam

Dr. A. Tammes, surgeon
Lionel Terray, leader of the climbing party (Chamonix, France)
Holger van Lookeren Campagne, engineer
Peter van Lookeren Campagne, dentist
Paul van Lookeren Campagne, medical doctor
G. B. Kalikote—liaison officer appointed by the Nepalese government.

ORGANIZATION

THE expedition was organized by Professor Egeler and Dr. de Booy, both geologists on the staff of the Geological Institute of the University of Amsterdam. During the past ten years these had paid three visits to the Peruvian Andes with the twofold purpose of geological exploration and mountain-climbing. In 1952 they made, with the French guide Lionel Terray, several first ascents in the Cordillera Blanca, among which was Nevado Huantsán (6,395 metres), and in 1956 they were with Terray in the Cordillera Vilcabamba, where they climbed a.o. Cerro Veronica and Pico Soray. The third Andean expedition, in 1959, was entirely devoted to geology.

These previous expeditions gave Egeler and de Booy the invaluable experience needed for organizing the expedition to Nepal. This time again the first objective was geological exploration, to be followed by the ascent of the northern summit of Nilgiri (7,031 metres), near Annapurna I. Three more geologists of the University of Amsterdam joined the party and as climbers the brothers van Lookeren Campagne were invited. These three brothers were well trained in the Alps, where they have accomplished many very serious climbs, partly also together with Lionel Terray. However, they had

no experience of climbing outside Europe. The expedition was extremely fortunate to find Lionel Terray willing to lead the climbing party. The team was completed by the surgeon Dr. A. Tammes and the Nepalese liaison officer, G. B. Kalikote.

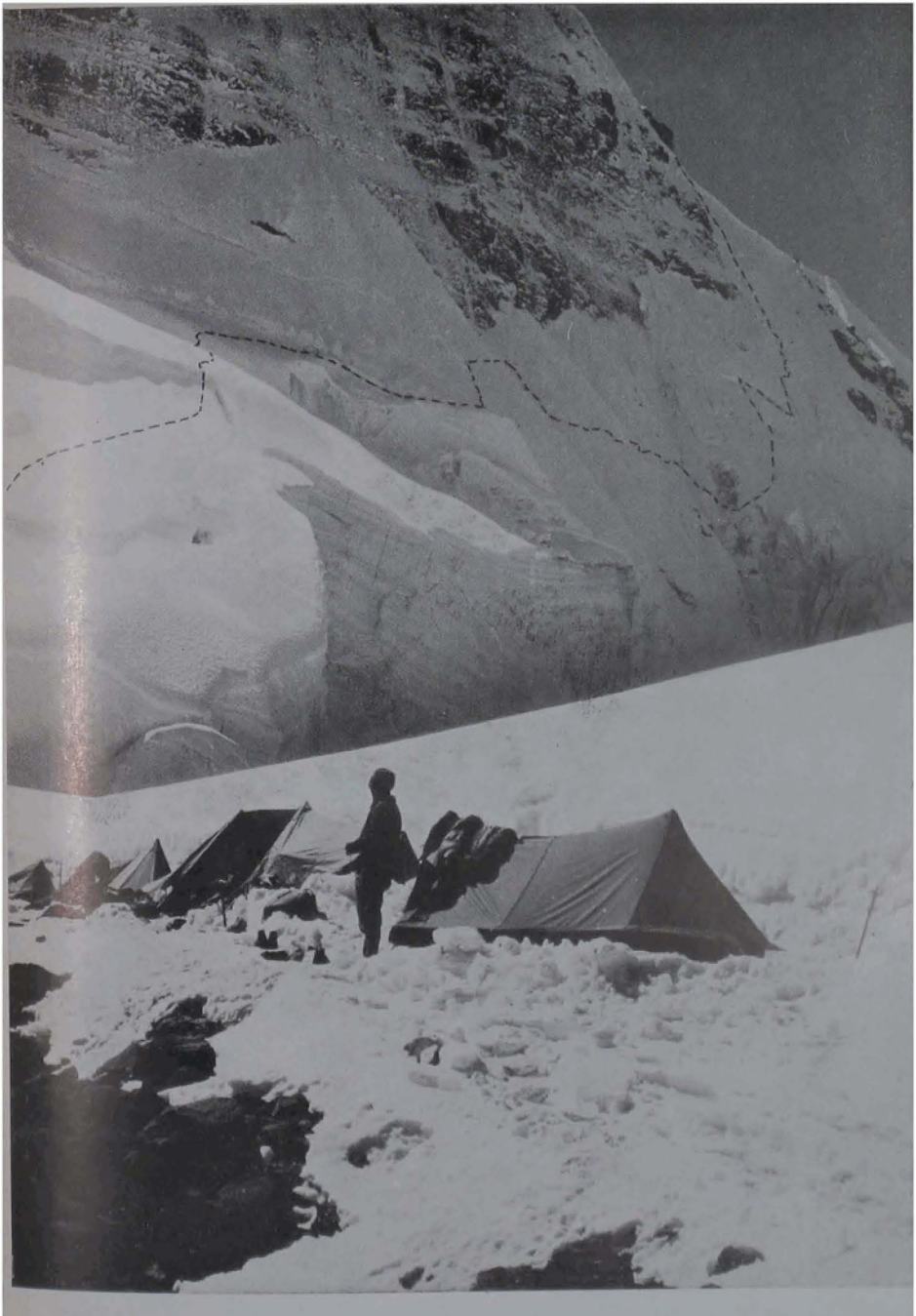
THE CLIMBING OF NILGIRI (7,031 METRES), 23,068 FEET

Towards the end of September, 1962, after an eight days' walk from Pokhara, a general Base Camp was established near Jomoson in the valley of the Kali Gandaki. From there the north face of Nilgiri looked extremely steep and unprepossessing, not unlike the famous north face of the Eiger in the Bernese Alps. During a three days' reconnaissance Terray, however, found it possible to attack the face via a rock-buttress ending at about 6,000 metres, and to continue from there by a traverse to the right through a very steep section with numerous ice-flutes up to the west ridge. If this ridge could be reached at an altitude of about 6,300 metres, one would be able to follow it up to the summit without severe difficulties. Terray's route proved to be a very direct way of approach and from a climber's point of view, a very interesting one.

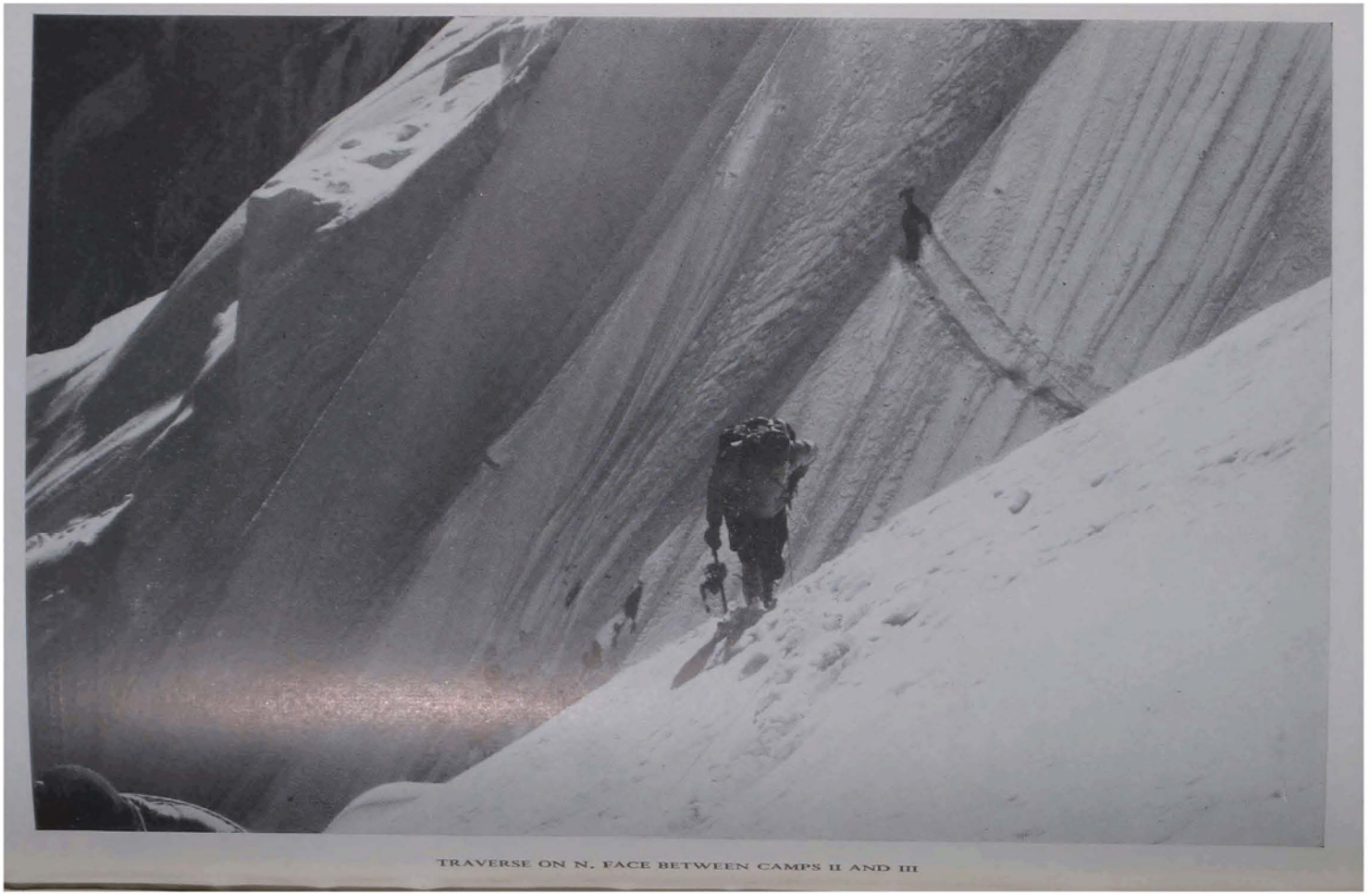
An Alpine Base Camp was established at about 4,000 metres and a first assault camp about half-way up the rock-buttress already mentioned, at 5,350 metres, where snow was available for water supply. Camp II was then established at the top of the buttress, where excellent opportunity for the attack was offered by a small snow-ridge leading to the steep part of the north face. It took five days to prepare a way through the steepest fluted section, first of all horizontally to the right until a small suspended glacier was reached and from there obliquely up to the west ridge.

Terray found his way through the extremely steep ice-flutes in truly grand style, preparing with fixed ropes a safe track for the heavily-loaded Sherpas. In many places the angle of the slope reached over 70 degrees, whereas the mean dip is estimated at about 60 degrees.

On October 18 the attack party spent their first night on the west ridge in Camp III at about 6,400 metres, the severe technical difficulties having been conquered, thanks to Terray, with very little loss of time. It should be pointed out that Terray had chosen between two possibilities, i.e. either a rush up the mountain with no time for serious acclimatization, or moving much more slowly with enough time for adaptation to height but also with the risk of weather conditions failing. Terray chose the first possibility and undoubtedly made the right decision. Actually we can say that the race with the oncoming winter was only just won. On the other



ROUTE THROUGH FLUTED SECTION OF N. FACE, NILGIRI, FROM CAMP II



TRAVERSE ON N. FACE BETWEEN CAMPS II AND III

hand the 'rush' up the mountain took heavy toll of our reserves and the climbing above 6,300 metres—though technically without many difficulties—went very slowly.

After a very cold and uncomfortable night in Camp III the climbing of the west ridge was taken up again on October 29. From the camp the highest summit seemed very near, and though there were still over 600 metres to climb, we hoped to reach our goal—over-optimistically—before lunch. In reality it was half past three before we had climbed a seemingly endless succession of snow bosses and reached the culminating point of Nilgiri North. Towards the east we looked upon the tremendous glaciated wall of Annapurna I, the first Himalayan adventure of Lionel Terray, in 1950. For him it was quite a moment to be able to recapture old memories from this elevated position. As for my brothers and myself, we couldn't have chosen a nicer place to stand together. Sirdar Wongdhi joined in our delight !

Getting down to Camp II was more quickly accomplished than expected, and we arrived just in time to avoid darkness during the descent. Our four Sherpas, Mingma Tsering, Phengo, Ang Phurba and Sona, awaited us with a good meal and their invaluable care.

Next day a tent and some supplies were left at Camp III for the planned 'follow-on' by de Booy and we then descended with great ease along the fixed ropes in the steep north face, back to Camp II. Here we were welcomed by Egeler and de Booy. The former had concentrated his activities on organizing the supplies and taking care that everything went well in Camp II during the assault. De Booy had originally planned to participate in the climbing of the summit, but had unfortunately not completely recovered from pneumonia, acquired during the approach of the monsoon rains. For this reason the plan for a 'follow-on' by him and some Sherpas had to be cancelled.

Some Remarks about the Weather

It is evident that the time chosen for our expedition was a very favourable one, both for geological exploration and for climbing. Monsoon rains stopped definitely during our approach at the end of September. During the climbing of Nilgiri clouds were almost absent, except for some clouds and slight snow on three occasions during the afternoon. Snow on the north face was well settled, so that there was almost no danger of snow avalanches. The route through the face was well protected from the west winds, which otherwise could have offered severe difficulties had they continued during our stay on the west ridge. However, we were very lucky

that these usually strong winds dropped almost completely on the day of the ascent.

Temperatures at night dropped to – 23° C. in Camp II and in the day-time stayed below – 15° C. in the north face, which did not catch any sunshine. Protection against cold proved to be of utmost importance. We were well equipped with the best available clothing and tents of French make. Boots from Bally with reindeer fur on the outside were just able to keep our toes warm enough and no severe frost-bite occurred.

It may be concluded that the autumn is a very favourable time for climbing 7,000 metre high peaks in this part of the Himalayas, provided the party is well protected against cold, which is more severe after the monsoon than at springtime, and further if the party has some good luck with regard to the then prevailing winds. Until the end of October the weather stayed fine but it became colder every day. The cold was very severe when we visited the Tilicho lake (at about 5,200 metres) at the beginning of November. Strong snowdrifts were then seen from all the higher ridges in the vicinity. It also gradually became cloudier.

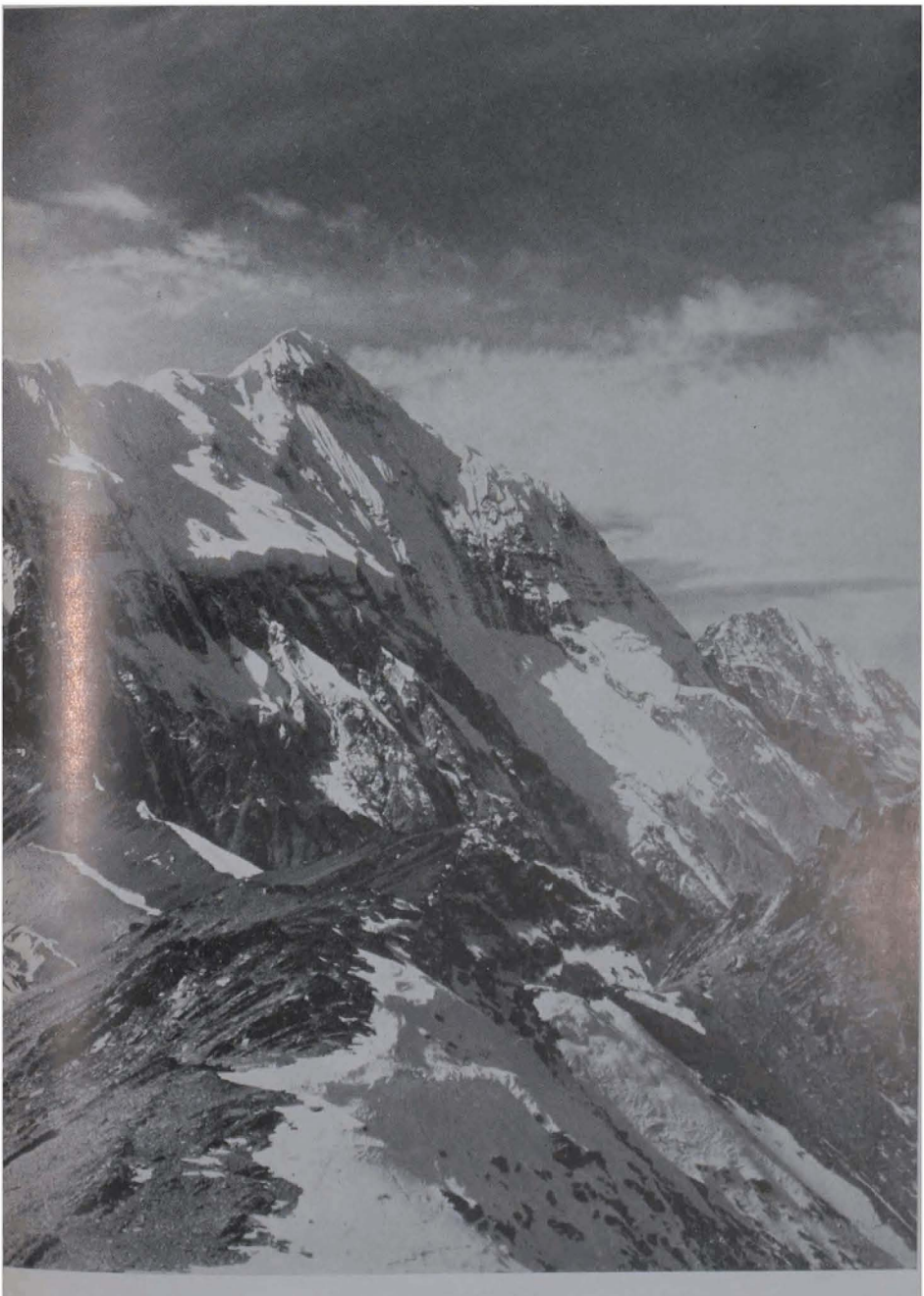
Time-table of the Expedition

Sept. 22 Departure from Pokhara with 10 Sherpas and about 16 local porters.
29 Arrival in Base Camp near Jomoson in the Kali Gandaki valley.

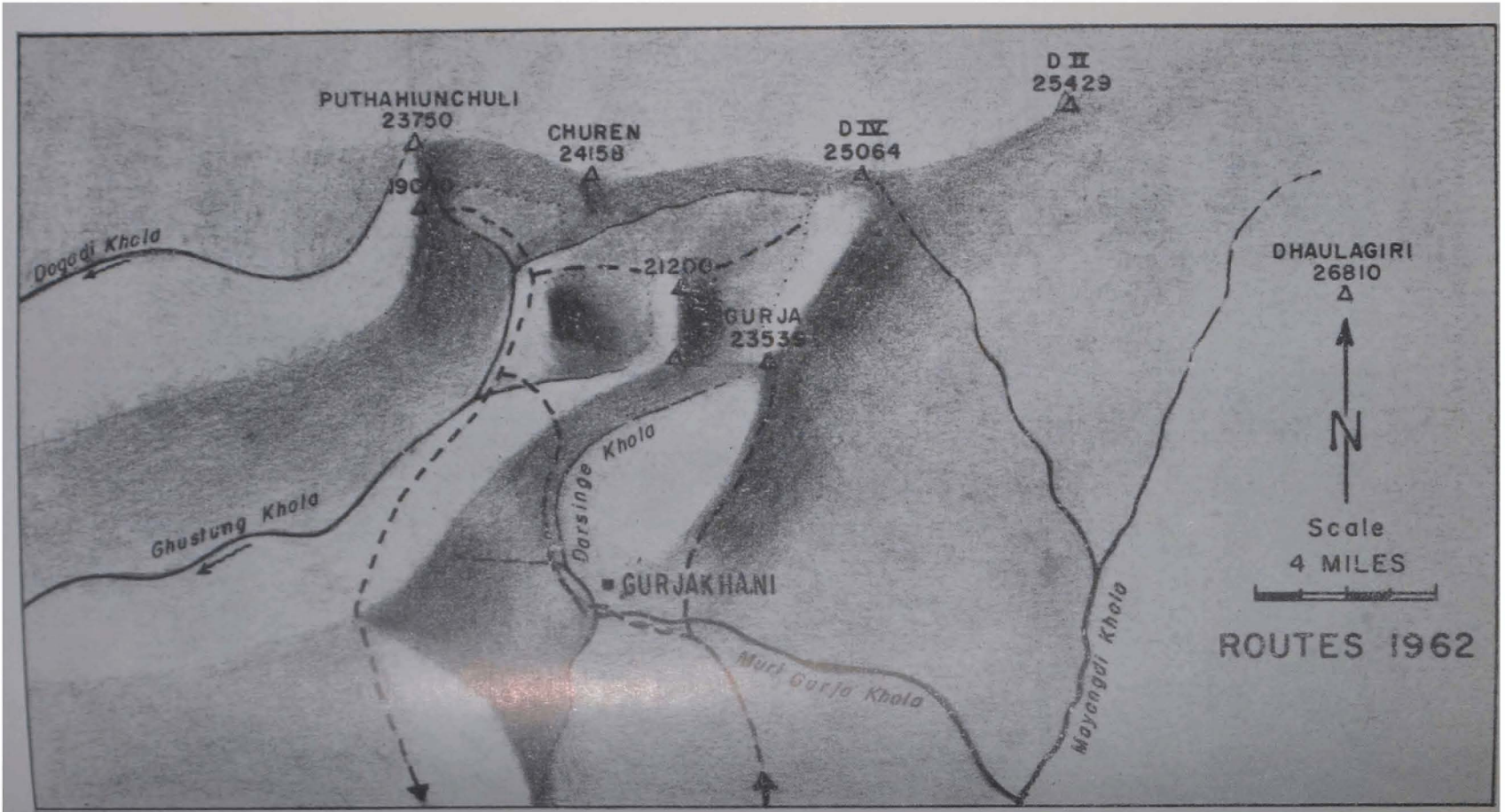
Oct. 6 Alpine Base Camp installed at about 4,000 metres.
7 Camp I installed at about 5,350 metres.
10 Camp II installed at about 5,850 metres.
18 Camp III installed on west ridge at about 6,420 metres.
19 North summit of Nilgiri, altitude 7,031 metres, reached by Lionel Terray, Sirdar Wongdhi, and the three brothers van Lookeren Campagne.
30 Visit to Tilicho lake.

Nov. 2 East col of Tilicho reached.
4 Return to Jomoson.
7 Visit to Muktinath.
13 Arrival at Mustang.
15 Climbers return to Pokhara, where they arrived on Nov. 27.

The geologists continued their explorations from Mustang southwards to Butwal, thus completing a cross-section through the Himalayan ranges from the Tibetan border to the Gangetic plain. They returned to Holland at the end of December.



NILGIRI, N. SUMMIT, SEEN FROM W. TILICHO COL



DHAULA HIMAL. DIAGRAMMATIC SKETCH MAP TO SHOW DRAINAGE OF SOUTH-WESTERN FLANK OF DHAULA HIMAL. COMPILED BY JAMES ROBERTS FROM OBSERVATIONS MADE, SEPTEMBER–NOVEMBER, 1962. REDRAWN BY RAM LAL SHRESTHA. POSITIONS OF NAMED PEAKS FROM SURVEY SHEET 62 P

DHAULA HIMAL

By JAMES ROBERTS

IT may be a relief to some to read about one mountain which was not climbed. The big battalions march up the Himalayan highways, glancing neither to the left nor right, and to the sound of hammering the citadels fall. Those that prophesied that the climbing of Everest and a few of the other giants would free Himalayan climbing of the trammels of ambition and altitude have not so far been proved right. Parties have grown larger rather than smaller, and individual peaks in well-known areas are climbed while large tracts remain virtually unexplored. Of course all climbers are entitled to follow their own preferences in this matter ; the trouble is that some never see the high Himalaya for the mountains.

The lure of altitude remains and there will always be a highest unclimbed mountain. But anyone who would like to see his name attached to a twenty-five thousander had better hurry up, as, east of the Karakoram at any rate, the supply is running short. Gurla Mandhata, Gosainthan and, most fascinating of all, Namcha Barwa are out of bounds to most of us. For the rest there are, in Nepal, the Dhaula Himal group, Peak 25,705 feet between Himalchuli and Manaslu, Gyachung Kang (25,910 feet) and the Kambachen summit (25,782 feet), which seems more or less detached from the rest of Kangchenjunga. Lhotse, too, has a number II but whether it qualifies as a separate mountain is a matter of opinion.

Dhaulagiri Himal, Dhaula Himal—both forms are geographical conveniences, unknown to the people who live at their feet. Since 1961, when the Indians were charged the '8,000 metre' government royalty for their expedition to Annapurna III, I have employed the shorter spelling. In 1954 we had poked around north of the range and climbed Putha Hiunchuli (23,750 feet).[1] Then I was able to write: 'the main ridge of the Dhaulagiri Himal comprises three peaks of over 25,000 feet, possibly the last of the giants of the Himalaya not yet reconnoitred even in main outline.' Amazingly, this was still true of the south and south-west flanks of Dhaula IV (25,064 feet) in 1962. This number four of the family is about 500 feet lower than the number two and, although it has no side to compare with the splendid Mukut (east) face of Dhaula II (25,429 feet), it is a finer individual mountain. Dhaula III (25,271 feet) is

[1] *H.J.*, Vol. XIX, p. 98.

nothing but the western prolongation of II. Both could be climbed from the same high camp, if this could be established, on the north side. The Austrians are trying this year (1963).

In 1954 we had walked to the mountains during the monsoon and seen nothing of the south side of Dhaula Himal. That same autumn Sykes, of the Royal Horticultural Society, was collecting here and he later kindly sent me some photographs taken from the south, in which Putha Hiunchuli and Churen Himal (24,158 feet) were clearly identifiable. I muddled Dhaula IV with the great mass of Peak 23,539 feet (Gurja Himal), but, judging from the visible top three thousand feet or so, there did seem to be some climbable summits at the head of the so-called Sauwala Khola, which flowed conveniently past the large village of Gurjakhani.

To tie, now, this tangle of separate lines together. My last two proper Himalayan seasons, Machhapuchhare in 1957[2] and Annapurna II in 1960,[3] although fairly 'successful' in the accepted sense, had afforded me less satisfaction than some less successful former trips. Searching for the reason, I found that the fascination of new country must have been lacking, as I had already taken part in the first reconnaissances of both mountains. The parties, too, had been on the large side.

From such thoughts stemmed the idea of going to the south side of Dhaula IV with a light, small all-Sherpa party in the autumn of 1962. It is stupid, of course, to carry excess of zeal for lightness and smallness beyond the point where these virtues may endanger success on a fairly ambitious objective. I do not think we did so. Although we had only twenty coolie-loads when we marched out of Pokhara there was enough food (some of it even tinned) and kerosene oil in those loads to sit out a modest siege, and material enough to put up over 1,500 feet of fixed rope on the mountain (to the sound of muted hammering). The four climbing Sherpas could muster between them ascents of Dhaulagiri, Nuptse and Annapurna IV, and carries to the top camps prior to successful ascents of Annapurna II, Makalu and Jannu. In all, the party seemed strong enough to make a fair bid for the summit should a not too difficult way exist. My own Sherpa, Angcherring, came as the Nepalese liaison officer.

We left Pokhara on September 10. It was good to be on the road again, walking by the side of the grey flood of the Seti river into the brown and green hills. Even Machhapuchhare deigned to push his head through the monsoon cloud for a few moments as we began

[2] *H.J.*, Vol. XX, p. 51.
[3] *H.J.*, Vol. XXII, p. 27.

the climb on to the Kaski ridge. The rains were not over yet, and could hardly end for at least another ten days. But it had been a heavy monsoon, so we hoped for an early ending and not for the sorry sort of season which goes dribbling on well into October. But worse than the rain was the heat of the sun, when it did come out, in the stifling trough, the Kali Gandaki. So on past Baglung, westwards into the Mayangdi at Beni and at last the long climb up to Takum and the higher, cooler air.

The river of Gurjakhani is the Murigurja Gad, and it flows into the Mayangdi below Muri village in a deep gorge. There is no way there. Instead one continues up a small tributary of the Mayangdi to Lumsum village at 7,000 feet and then crosses a ridge of about 11,000 feet to Gurja, directly to the north. Lumsum we reached on the seventh day from Pokhara, and that afternoon the rain stopped and the clouds slowly slid away, leaving a clear deep blue sky. By the next morning the slippery ribbon of a path had dried out to some extent and the crossing of the pass made a pleasant walk, up through pine woods and past patches of alpine flowers. That evening we camped down by Murigurja river, and walked into Gurjakhani at breakfast time on September 18. We camped beyond the village and paid off our porters. The country was delightful, pine woods and green alps. But the high mountains to the north were hidden, and we had had only fragmentary views during the walk in. The first stage of the expedition was over but we still had to find our mountain.

According to Sheet 62 P of the old quarter-inch to one mile survey this would present no particular problem. A couple of miles west of Gurjakhani was the Sauwala Khola, flowing down in a large loop from the north-east from a glacier between Churen Himal and Peak 23,539 feet (which I called Gurja Himal). And at the head of this glacier would be Dhaula IV.

It is well known, of course, that the 1924–26 survey of Nepal is, generally speaking, highly inaccurate in its portrayal of the northern regions, and for good reason, as the survey was carried out under peculiar difficulties. And I, more than some people, had had the opportunity of comparing the map with the ground in various parts of the country. Yet partly because of the neat and careful drawing (compared to some of the obvious approximations north of Pokhara), partly because of the apparent ease with which the block of country behind Gurjakhani should be surveyable from the south, I had for some days a quite misplaced faith in the accuracy of this portion of the map. Some of the locals, lacking the advantages of a modern education and the ability to read Sheet 62 P, declared

that the way into the mountains lay up a river two or three days' walk to the west of Gurjakhani.

The weather did not help. Two fairly fine days gave tantalizing glimpses of bits of steep and uninviting mountainside: the summit of Gurja Himal, a great, sprawling mass of a mountain: a shapely rock and ice cone to the west . . . was this CHUREN? . . . it looked too low. Then the rains came back and bucketed down for the next three days. The morning of September 24 dawned heavily overcast, but as rain refused to fall there was nothing for it but for Nawang Dorje, Ang Pema and myself to hump tents, some climbing equipment and four days' food up into the clouds.

By this time we had found out that the name Sauwala Khola was applied locally to a very minor stream flowing through the Gurja woods, and that there was in fact a river, called Darsinge Khola, which flowed on the approximate course of the Sauwala of the map. But this Darsinge seemed hardly big enough to drain all those mountains (funking a slippery single log bridge, I had one day managed to hop across from boulder to boulder, dry shod), and the head of the river, such as we could see of it, looked more of a cul-de-sac than a highway into the mountains.

We camped at 12,800 feet directly north of Gurjakhani and sat out a twelve-hour rain and hailstorm. Early the next morning there was a temporary clearing and I hastened higher with Nawang Dorje. Alas for our hopes, the top of the Darsinge was soon revealed as a precipice a couple of miles long and about 5,000 feet high, its source some dribbles down the wall fed by lumps of hanging glacier. We rushed ill-temperedly down back to Gurja with three days' uneaten food. The locals smiled as, sopping wet, I stalked past them working their fields, 'Where have you been, Sahib? Why have you come back so soon?'

On the morning of September 26 the monsoon ended in classic fashion with a rattling storm and heavy snow-fall down to 14,000 feet, and the following morning we set off westwards, meekly following twenty-three men of Gurjakhani and a sheep. The first day we camped low, on the tree line, the next they took us up a ridge bounding the Darsinge, then over a 14,500 feet pass now deep in snow, and down a thousand feet to a small river, the Thar Khola. Here the men from Gurjakhani left us to our own devices. This was not yet the river of our search, but during the day the pieces of the puzzle had begun to fall into place. The peak to the west of Gurja Himal had revealed itself as a shapely twenty-one thousander (we later climbed its higher, northern, summit) scarcely indicated on the map. From the pass we had seen Putha Hiunchuli and

CHUREN. A couple of miles down south from our camp there were the signs of a much larger river, flowing down in a gorge from the north-east. This, we had been told, was called the Kaphe Khola. The relative positions of Putha Hiunchuli, Churen, Dhaula and Gurja Himal might be correct on the map but the drainage was all wrong, their waters flowed westwards into the Ghustung, and not east past Gurja into the Mayangdi. Our pass was on the watershed of two of the great geographical divisions of Nepal, the river basins of the Karnali and the Gandaki. Meanwhile, Dhaula IV was still to find.

Two days later Nawang Dorje and I traversed out of the valley of the Thar Khola into the lower flowing Kaphe, trying to keep our height. Then up to a spur to the west, from where we looked down at last on the glacier for which we had searched in vain above Gurja. My four-line-a-day diary noted 'with N.D., to ridge 16,100: step-cutting. Early cloud and snow-showers—saw parts of D IV, obstacles formidable: light rain p.m., saw several herds of bharal'. There did seem to be an awful lot of unstable-looking ice attached to the mountain we had at last found, and I pondered, as sometimes before, on the advantages of making the pursuit of the wild blue sheep of Tibet (or some such-like beast) the excuse for visiting these mountains rather than this chancy climbing business.

Our next move was clear, and we spent the first day of October relaying everything down to a camp at the Thar Khola-Kaphe Khola confluence. This, at 13,200 feet, we somewhat euphemistically called the 'Rest Camp'. The following day Mingma, Pemba and I left the other three to finish the relays and made a camp on the south lateral moraine of the Dhaula IV Glacier at about 14,500 feet.

As we walked up the Kaphe (a real glacier-stream this, deep, blue-green and unfordable), we had good views of Putha Hiunchuli and Churen Himal and the Col between them. A glacier flows from these two mountains more or less straight down into the Kaphe. The much larger and longer Dhaula IV Glacier comes in from the west, ramming into the side of the Putha-Churen Glacier about a mile above their common final snout.

The clouds were down on Dhaula IV when we camped, having turned west, round the corner, from the river. The next morning was, as always now, fine. That evening I wrote 'on closer examination D IV looks promising'. Twenty-four hours later, 'outlook gloomy'.

The optimistic note was struck after we had gained our first clear

view of the mountain that first morning. The top 5,000 feet or so did not look too bad: below there was a lot of ice-fall and hanging ice, but surely there must be some way through to the clearer upper slopes. To the right of Dhaula IV, as we looked up the glacier, a mile long ridge with a summit at each end obscured Gurja Himal. This mountain I later called Ghustung Himal; and its right-hand, south, summit was the twenty-one thousand footer we had admired from Gurja. The north summit, overlooking the Dhaula IV Glacier basin, seemed the higher.

We made an early start the following morning and moved quickly up the rock-strewn slopes of the glacier. At about 15,700 feet we came to a two or three hundred foot step of ice-worn rock and ice-fall barring direct access into the basin. At first a way went easily enough through the lower portion of the ice-fall, but then the line of weakness petered out under house-high séracs. Off to the right, under the slopes of Ghustung North, I spotted a way up rocks, here bare of ice. A cone of avalanche debris gave lodgement on to a shelving rock slope with one steepish step. The Sherpas did not like the look of the avalanche debris, which was in fact quite small and local, and went off together to explore a route through the ice-fall while I sat and watched. When I saw them returning I scrambled up the rock step, where they rejoined me. The way then went up snow-slopes and traversed left below some ice-cliffs, which strangely enough did not seem to worry the Sherpas.

We were into the basin and our height was about 16,100 feet. I was not certain I cared for the place. Except where the main, and uninviting, ice-fall flowed down from the top of the mountain, the walls of the cirque round us were precipitous and festooned with hanging ice-cliffs in varying apparent degrees of instability. The slopes below Churen Himal were especially steep and here, and also by the side of the big ice-fall, an avalanche came off every ten minutes or so. A direct approach to Dhaula IV was obviously too dangerous to be seriously considered, but the southern wall of the cirque was more promising: still steep, but rather less overhung, no avalanches and little debris at the foot. In particular I examined a long, narrow slab of glacier-cum-ice-fall which adhered to the northern rock-face of Ghustung North.

But on the whole the outlook was, as I later recorded that evening, 'gloomy', and as we turned to the descent I had two worries in my mind. I was not looking forward to the descent of the rock step which was more or less vertical for twenty feet and guarded from above by a mass of unstable stones and boulders. And I also felt that this might be the end of our 'attempt' on Dhaula IV and

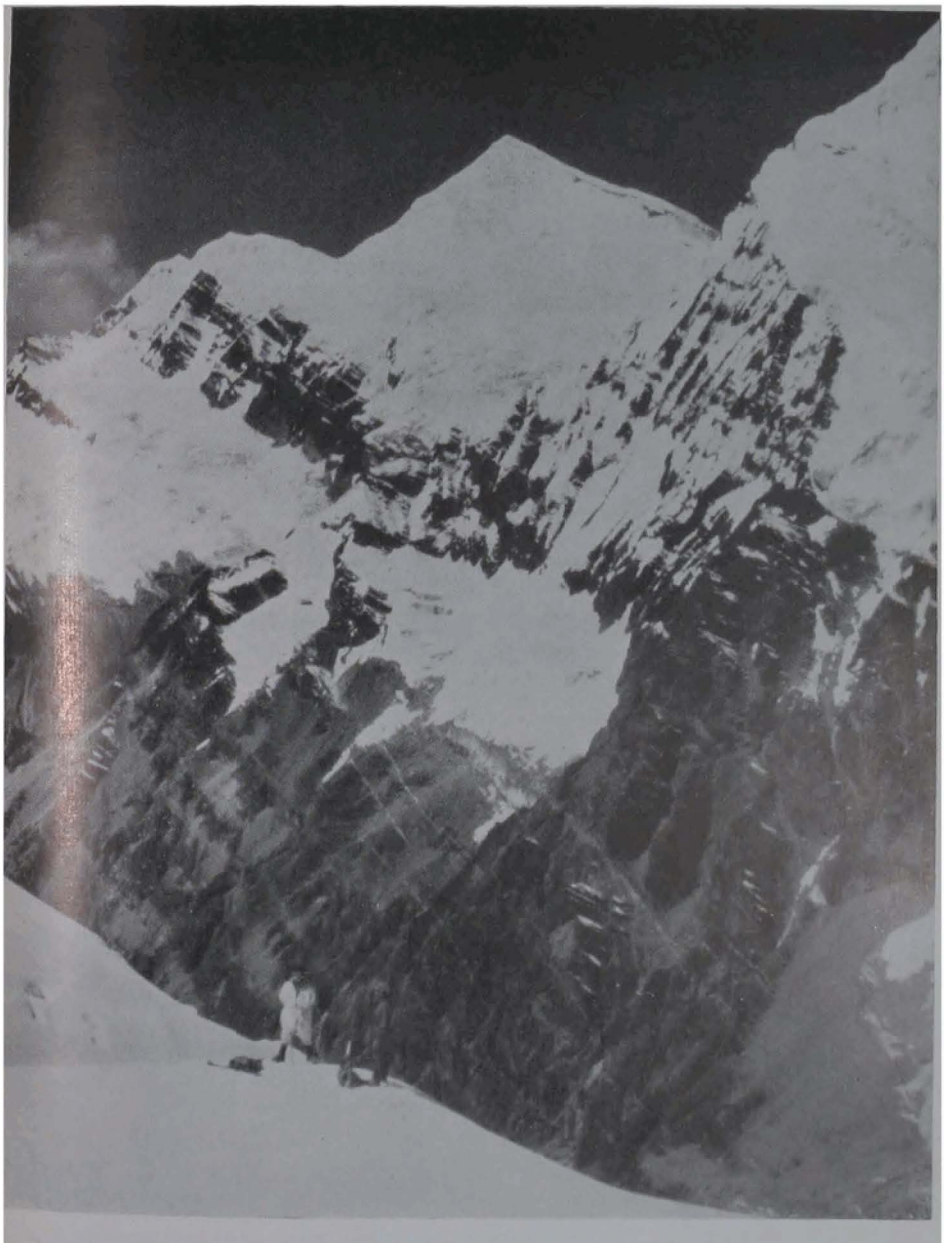


Photo: James Roberts

PUTHA HIUNCHULI (23,750 FEET) FROM ABOVE CAMP II

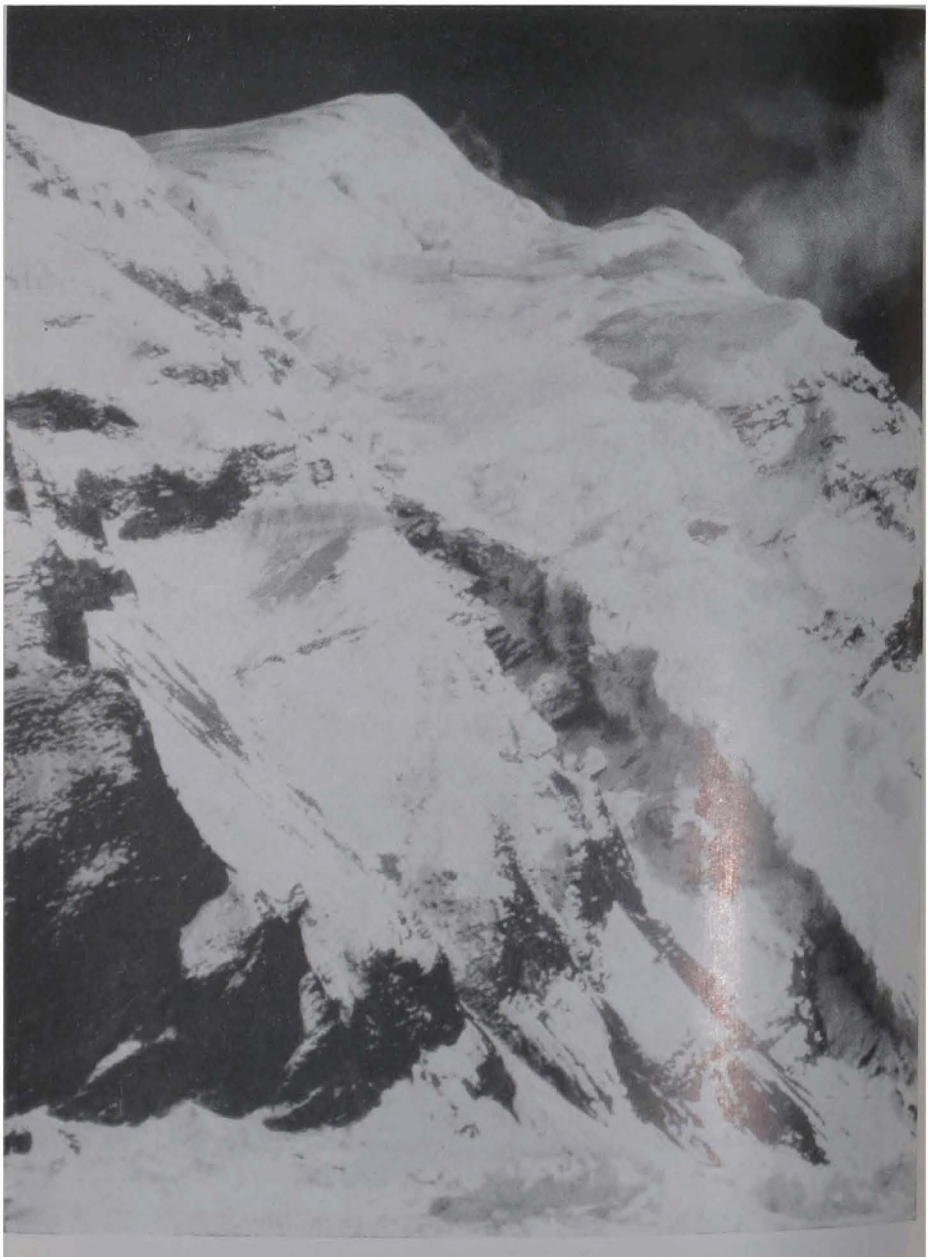


Photo: James Roberts

FORE SUMMIT OF GHUSTUNG NORTH WITH GLACIER ROUTE FOLLOWED BETWEEN CAMPS I, II AND III. CAMP II BELOW OPEN SLOPES. CAMP III OVER SHOULDER TO LEFT

good-bye to the upper Dhaula IV Glacier. Our climbing rope helped to solve my immediate problems. This was a brand new 120 feet length of nylon full weight which, together with some other items of equipment cunningly concealed in a folded anorak, had considerably increased my personal weight at London airport earlier in the year. And it was not one of your ordinary nylons, either. Coloured with splashes of scarlet it had a dignified, blood-stained appearance as if an intrepid, but gloveless, second had had to allow the entire length of the rope to run through his hands before holding (one hoped successfully) his falling leader. Above the rock step we drove in a piton and attached the rope to it. We slid happily down the rope and ran down the glacier. There could be no question of abandoning this handsome article of equipment. We would now have to return to the basin.

Meanwhile the others had established a Base Camp at about 13,700 feet by a small lake, an hour's walk down the glacier. Here we rejoined them on October 5. I decided now to attempt the ascent of Ghustung South, which would give us at any rate one good summit and also a view into the upper basin of the Dhaula IV Glacier, above the ice-falls, without having to run the gauntlet of the cirque. But first Angcherring had to descend for mail to Gurja. So during the next few days, while Mingma and Pemba began the establishment of a Camp I on Ghustung South, Nawang Dorje, Ang Pema and I went off to climb a small snow peak of about 19,000 feet immediately to the south of Putha Hiunchuli. This would give us a more distant view of Dhaula IV and also allow a closer examination of this side of Putha Hiunchuli, which I was keeping as a second string to Dhaula IV. I thought of a second ascent by a new route or, perhaps, a traverse.

We camped by a pleasant lake at 15,600 feet, at the foot of a rock wall at 17,500 feet, and reached the summit on October 9. We were all together in Base again on October 10. In some ways these few days were decisive. Putha Hiunchuli offered no attractive alternative and, seen from a distance, the ice-cliffs of the cirque seemed less menacing. Dhaula IV, bathed all day in the sparkling autumn sunshine, looked friendly and beckoning. Also an examination through binoculars of the top thousand feet or so of Ghustung South showed that it, too, was not completely free of danger. If we were going to be hit on the heads by lumps of ice let it be somewhere on the way to Dhaula IV and not on an outlier. I broke the news to Mingma and Pemba that their carries towards the south peak would have to be retrieved and announced that a cautious advance towards Dhaula IV would commence forthwith.

From the top of our small peak we had seen that the glacier descending from the north flank of Ghustung North into the Dhaula IV Glacier basin smoothed out at a height of about 18,000 feet and seemed to offer a way round the shoulder of Ghustung towards the upper basin. What we could not see was the ground between this shoulder and the upper part of Dhaula IV. There might here be a complete cut-off, or there might be a way on to the mountain. The least we could do was to go and see.

The route we used between Camps I and II is shown in one of the photographs. The western edge of this glacier or ice-fall which trickles down the rocky northern flank of Ghustung Himal is undercut, forming the ice-cliffs which threatened the route beyond the rock step. As a precaution we put Camp I in the middle of the glacier below the rock step, and I gave instructions that below the ice-cliffs men would move well spaced out. These instructions the Sherpas generally ignored when I was not with them.

At the foot of the hanging glacier on the level névé floor of the basin, apparently beyond the threat of the ice-cliffs, was a large rock on which we would sit to change into high-altitude boots and put on crampons leaving them there if, on the way down, the ascent of the glacier entailed a good deal of step cutting and we fixed about 400 feet of rope on the steeper sections. After three days' work Pemba Tensing, Mingma and I established Camp II at 17,700 feet on October 18.

The next morning we continued up more open and easier slopes and began the traverse round the shoulder of Ghustung Himal towards the upper basin of the Dhaula IV Glacier. We had already got rather further than I had at one time expected and I was prepared to find a formidable chasm between Ghustung and the summit block of Dhaula.

Mingma was leading and he paused as he reached the corner. I pushed past him. Gentle slopes ran down to the base of Dhaula IV. The way was open.

The at one time incredible had happened, and back at Camp II that evening I worked out a programme for a summit attempt. Mingma and Pemba went down to Camp I on the morning of October 20 with instructions to send up Nawang Dorje and Ang Pema at once with more food and fuel and to follow themselves the next day.

The two Sherpas were rather silent when they arrived up and after a time it transpired that a large avalanche had come off the ice-cliffs early that morning sweeping the route for two hundred yards above the rock step and burying 'crampon rock' deep in

Photo: James Roberts

DHAULA IV (25,064 FEET) FROM WEST WITH MAIN GLACIER AND ICE-FALLS. SLOPES OF GHUSTUNG HIMAL ON RIGHT WITH GLACIER USED FOR ASCENT. HIGHEST POINT REACHED ON DHAULA IV WAS THE SMALL PYRAMID WITH FACE OF HORIZONTAL STRATA IMMEDIATELY BELOW SUMMIT

ice-blocks. Three pairs of boots and crampons had been lost and, alas, the red-splashed nylon rope which we had removed from the rock step. Luckily we had some spares. We had steered a fortunate course between tragedy and comedy, for had we all been at Camp I at the time of the avalanche we would have lost all our crampons. As it was, Angcherring was now without a pair and would have to remain below.

Nawang Dorje, Ang Pema and I now established Camp III at 19,200 feet in the upper basin and on October 22 we climbed to the summit of Ghustung North. I put the height at 21,200 feet and the southern, Gurjakhani, summit at 21,100 feet. The almost level but narrow and corniced intervening ridge is about a mile long and near the middle is perhaps fifty feet higher than the northern summit.

I was still optimistic about our chances on Dhaula IV, and indeed there seemed to be two possible routes. A steep shoulder ran up from the level basin on to the south ridge of the mountain, connecting it to Gurja Himal, and the ridge, once attained, seemed to offer a feasible route to the summit. Alternatively one could follow a shelf of snow and ice running right across the west face and then finish the climb on the northern side of the mountain.

The route on to the south ridge would involve a great deal of work on steep ice and the fixing of much more rope than we now had left, and I judged it beyond the capabilities of our small party. Mingma and Pemba had now arrived at Camp III and the next day they went down to clear Camp II finally, while Nawang Dorje and Ang Pema began to make the route across the ice-shelf.

Watching them through binoculars that morning and afternoon my hopes slowly sank. The elation of getting through the defences of the cirque had blinded me to the fact that there were still six thousand feet of mountain to climb, and that there were dangers above, as well as below. Watching the two little figures embarking on the traverse I could now see that I had hopelessly misjudged the distance across the west face, and that the shelf was itself overhung by ice-cliffs. I was relieved when they got back to camp.

I decided that we would have to give up. The other two arrived up with a third figure. Angcherring had felt frightened by himself in Camp I and had come up to Camp II alone and without crampons. Words failed me.

On October 24 I descended with Nawang Dorje and Ang Pema to Camp I, while the other three repeated the ascent of Ghustung North. Angcherring had relieved Nawang Dorje of his crampons,

with the result that I had to cut steps most of the way down below Camp II.

During the next few days we cleared everything down to the Rest Camp and then lower down into the woods by the Kaphe Khola. We camped there while two of the Sherpas went to fetch porters to take us back to Pokhara. All day long, that wonderful autumn, the mountains remained clear. Had we given up too easily ? I felt we were imposters, sitting down there in the pleasant woods with October not yet finished. Then I remembered the numbing cold of those shadowed west and north slopes and the avalanche. Perhaps, after all, we had been lucky. We knew the way now, and we could come back together again another year.

THE JAGDULA EXPEDITION, 1962[1]

By DENISE EVANS

IT was a fine summer week-end in Wales and the last complete gathering of the Jagdula Expedition in this country: in a few days Jo Scarr and Barbara Spark were due to start their long drive to India in a Land Rover. We stood in the Llanberis pass, moodily looking from the mound of gear at our feet to the white faces of the television team who had come to film us on the crags. The producer tilted his head to look at the cliffs and noticed Cenotaph Corner for the first time. His eyes lit up. 'The very thing', he exclaimed, 'now you girls . . .'

'Dinas Cromlech is out of the question with all that', we said firmly, pointing to a large cine-camera and other items of filming equipment, including a hamper of food which it took two of us to lift. We settled on Crackstone Rib, a climb on Carreg Wastad which is both photogenic and easily accessible. While we shouldered their gear, the television team concentrated on the ascent to the foot of the cliff. One pale young man in leather-soled winkle-pickers was soon on all fours, clutching at odd bits of vegetation. As I helped him off with his shoes and encouraged him up the screes he informed me that on his last assignment he had fallen out of a second storey window. After a good deal more coaxing and reassuring we sat down thankfully at the foot of Crackstone Rib. It was at this point that a female hanger-on in dark glasses, whom we took to be the producer's wife, suddenly realized that the ground fell away steeply beneath here and began to scream hysterically. 'Why ever did you bring me here, David ?', she cried, 'I never knew it would be like this!' She and the pale young man had to be led by the hand down the screes to the road.

'Never mind', said Dorothea in a cheerful stage whisper, 'it's another £50 in the kitty.'

We were not together again until the following March when Nancy Smith and I flew out to Delhi to join the other four. After an autumn expedition to Kulu, Jo and Barbara had taken jobs in Delhi for the winter. Dorothea Gravina and Pat Wood had also driven overland, in February, in a Hillman Husky. Our plan was to make our way to the remote Kanjiroba Himal in West Nepal.

[1] Reprinted by kind permission of the Ladies' Alpine Club.

There were two reasons for choosing this part of the Himalayas. In the first place it was well off the beaten track. Some mapping and climbing had been done in adjoining areas but none in the Kanjiroba range itself. In the second place we were attracted by a photograph of Kanjiroba's highest peak taken by Dr. Tichy and described in Marcel Kurz's *Chronique Himalayenne* as a fine pyramid about 22,500 feet high. Judging by the photograph we thought that if we could reach the foot of this peak we could probably climb it. The difficulty lay in getting to it. John Tyson had taken an expedition to this part of Nepal in the spring of 1961, and at the time we were apprehensive that he would take a fancy to what we already regarded as 'our' peak. But although his was known as the Kanjiroba Expedition he was really concerned with the exploration of the mountain areas west of the Jagdula Khola, while our peak lay to the east of this river. On his return Tyson gave us a great deal of advice about the approach: he thought we might be able to reach our mountain from the east but just before I left for India he sent me a photograph taken from the Jagdula Lekh showing a possible line of approach from the west, up a hanging valley that dropped into the Jagdula Khola.

If I had experienced any feelings of unreality as I sat at home typing letters to firms, poring over food charts and trying to decide, for calorific purposes, whether expedition work came into the category of 'heavy manual labour' or 'light blacksmithing' (*sic*, *Manual of Nutrition*, published by the Ministry of Agriculture, Fisheries and Food), they were soon dispelled by the sights and smells of India. We landed at Safdarjung airport before the sun was up. Unfamiliar birds called in the heavy, warm twilight, and faint silhouettes of cupolas were visible in the distance. The drive back to New Delhi took us through shanty towns and past bullock-carts, emaciated horses and cows, squashed dogs, sadhus, cinemas, charcoal fires and wayside stalls. Overpowering odours of incense and dung seemed to hang upon the air, together with a strange smell of burning hoof. The next few days were spent in such a fearful whirl of activity, however, that there was no time for registering impressions.

After that we drove to Nepalganj in two parties, and spent six days at the American Mission in Rapaidiha, on the Indian side of the frontier, with Miss Tomaseck, whose kindness to us knew no bounds. Our liaison officer and Sherpas, who had been waiting for us in a filthy little 'hotel' in Nepalganj, were very relieved to see us arrive. Dawa Tenzing, the sirdar, had brought with him eight Sherpas instead of the six we had asked for. After some hesitation,

for we were uncertain that we had either enough funds or food for two extra men, we agreed to employ them. After clearing our boxes through Nepalese Customs, sorting out loads and engaging ponymen, we set off on the first stages of the approach on March 26.

The route we followed was the same as that taken by Tyson the previous spring, and for the first fortnight of the three weeks' approach, as far as the hill fortress of Jajarkot, our baggage was carried by ponies.

The heat in the forests and plains of the Terai was considerable during the middle of the day and we would start the day's march well before dawn and grope our way, not 'in embalmed darkness', but amid the smells of sweat and horses, to the accompaniment of jangling pony bells, and of encouragements and fearful expectorations from the gora-wallahs. In spite of their wild looks these were peaceable little ponymen, eking out an existence scarcely less precarious than that of their emaciated and overworked beasts, many of which had terrible sores. In spite of our protests the ponymen insisted that the wretched animals should continue to carry loads and Nancy soon had a flourishing veterinary practice.

On the day we left the plains behind and climbed into the Mahabharat range we had our first cool camp. It was high up on a grassy knoll which provided excellent grazing. There were horses everywhere, steam rising from their flanks as they whinnied and snorted, tripped over guy ropes and bumped into boxes. The dark faces of the ponymen, huddled in their blankets in small groups, showed up in the light of their smoky fires. The Sherpas brought out old photographs and Dawa told tales of other expeditions and other sahibs. It was like the eve of battle in *Henry V*.

At Jajarkot we paid off the ponymen and set about recruiting coolies and reorganizing our loads: the ponies each carried two 90-lb. loads, the coolies could only carry one 70-lb. load. All our heavy low-altitude boxes had to be lightened and this played havoc with the carefully planned low-altitude man-day rations.

After following the magnificent Bheri gorges for a week we reached Kaigaon on April 14, the last village before the Jagdula and Kanjiroba ranges. Here we recruited twenty more coolies for the last few days of the march. Our plan was first to go some way up the Jagdula Khola in order to find the hanging glacier shown in Tyson's photograph, and to see whether it would provide a reasonable approach to the Kanjiroba Himal from the west. If this failed we would have to follow the Garpung Khola, a tributary of the Jagdula which comes from the east side of the Kanjiroba Himal, in the hope that this side of the mountain would prove more

accessible. The peak which we aimed to climb is still unnamed as we could find no local name for it; the Sherpas suggested Tarik Himal ('axe' or 'blade' mountain) but for purposes of convenience I shall refer to it here as Kanjiroba.

Leaving the main caravan to follow more slowly, Nancy and I went ahead with Mingma Tsering, our cook, Ang Temba, who had been on Tyson's expedition, and Ang Pema, who was one of the Nuptse Sherpas, to reconnoitre the Jagdula Khola. Tyson had warned us about this formidable gorge which his party had been unable to penetrate, and as we made our way along the exposed and back-breaking route to his Base Camp on the west side of the valley, we began to have grave doubts about our coolies. On the east side of the gorge were a number of hanging valleys, one of which, opposite Tyson's Base Camp, seemed to correspond with the one in his photograph: but they were all extremely difficult and dangerous of access, for they were cut off from the valley bottom by formidable rocky walls whose snow-filled gullies were scoured by falling stones. It looked as though approach from the west would be impossible, unless there were other more accessible valleys farther up the gorge.

Ang Temba maintained from the start that there was 'no road', and although Nancy and I had little reason to doubt him we felt that we must make quite sure now that approach from the west was impossible. We therefore pushed on for the whole of a second day over execrable ground, negotiating steep névés covered with a tangle of birch branches. The crest of the ridge above us on the left looked more like a rock-climb in the Dauphiné than a possible coolie route, and the bottom of the valley on our right seemed an impassable jungle. The ground in between soon proved equally impassable, for every few hundred yards a buttress of rotten rock barred the way. We turned back thankfully and were soon hurrying down the gorge to stop the coolies coming up any further. They had already negotiated a difficult lower section, with what trepidation, near disaster and threats of mutiny we could easily guess by Dawa's graphic accounts: 'Very danger', he kept saying, 'very danger', and we decided to put up a rope handrail for the return.

While Jo and Barbara set off with Sherpas to reconnoitre the Garpung Khola, the rest of us followed at coolie pace. This valley was more open than that of the Jagdula, but at this time of the year it was wild and desolate, for the track and the river were in many places still buried under heavy masses of winter snow. High up on the right, south of the river, rose one of the glittering peaks of the Kagmara Lekh. On April 23 we reached the head of the valley,

which had now widened considerably, and found Jo and Barbara camping under a cliff on the north side. This was to become our lower Base Camp (13,000 feet).

Here the valley forks, and the left-hand branch, known locally as the Lasurma Khola, leads approximately north-north-east into the Kanjiroba Himal. Jo and Barbara were certain we could find a way up our peak on this side. They had also found a likely spot for an upper Base Camp, about a thousand feet higher on the southern flanks of Kanjiroba, a pleasant sloping meadow with a clear stream running close by ; above it steep rock ribs led up to the snow. While the Sherpas built a kitchen shelter here and levelled out platforms for tents, we climbed up above the camp with Dawa until we could get a view of the peaks above. Some of us thought that we could stop at this point, but it was soon clear that Dawa had other plans for our acclimatization. Above us on the Kanjiroba watershed was a small, pyramidical peak with a snow ridge leading to it. Without a word we made our way along this ridge, puffing and panting in the deep, soft snow, utterly unused to the height. The top was close on 17,000 feet and from it we looked north-east and saw the long watershed ridge that led to the summit of Kanjiroba, whose steep, western slopes looked, in the swirling mists, magnificent but impossible.

A distinctive feature of the mountain was a large, triangular snow-slope, the apex of which gave access, at about 19,500 feet, to the last two miles of the ridge. Our immediate problem would be to reach the base of the triangle and this could be done by climbing an ice-fall directly beneath it or by joining the ridge at a point closer to us and following it along.

We spent the last few days of April, during which it snowed frequently, measuring out a base line and building cairns for Jo's survey, and climbing one or two smaller peaks. On April 29 Dorothea, Nancy and Dawa went up to find a suitable site for Camp I, taking with them tents and food. The weather was bad and on the descent Nancy fell down a rocky gully and arrived in camp looking battered but fortunately not seriously hurt.

On May 1 Jo and I set off for Camp I with Mingma and Pemba Norbu, who are both first-class climbers. We now had to choose between the ice-fall and the ridge as a means of reaching the base of the steep, triangular snow-slope. The ice-fall looked fairly safe but we decided to try the ridge first and climbed up to it on May 2. It was easy going almost the whole way and we were only a hundred yards from the triangular snow-slope when our way was barred by some rocky gendarmes. We had seen these from the other side of

the Lasurma Khola and guessed they might give trouble; for we knew the rock was bad in these parts. We had thought we might be able to contour the gendarmes but this proved impossible, for the ground fell away steeply on both sides. Our steps were already dislodging the thin covering of snow beneath the gendarmes and we realized that this was no place for laden Sherpas unless we could put up fixed ropes. I spent some time trying to knock pitons into rock that was both crumbling and crackless, but it was hopeless. We would have to try the ice-fall after all.

As I made my way back towards the others I could hear snatches of sarcastic conversation:

> 'Sherpas no necessary! . . . Base Camp . . .' Mingma's voice.
> 'Memsahibs no necessary; . . . Sherpas climb mountain . . .' Jo's voice.

The quarrel was about the question of who was to lead. We wished to lead, as was natural, but the Sherpas felt responsible for us and did not like the idea. It would have been stupid to pretend that we were either as well acclimatized or as strong as the Sherpas, and equally stupid not to make use of their strength and experience, but we did not want to have everything done for us. Disgruntled but determined to reach a compromise, we trudged down to Camp I where we were soon joined by Pat and Nancy.

The next day, May 3, we all went up the ice-fall, keeping quite close to the cliffs below the ridge we had tried the day before. The crevasses were large, but filled with winter snow; there were no major obstacles and early in the afternoon we pitched Camp II at 18,000 feet on a projecting spur of snow at the foot of the triangular snow-slope. Pat and Nancy returned to Camp I and after tea, Jo, Mingma, Pemba Norbu and I went to investigate the steep slope above, which proved to be a slope of ice covered with snow. It lay at an angle of 50 degrees and was steep enough to make fixed ropes necessary in the middle section for a laden climber. Over 1,000 feet above us we could see plumes of snow whipped up by the wind from the crest of the long ridge leading to the summit.

On May 4 I felt unwell owing to the height and watched Jo and the Sherpas slowly climb the slope and eventually disappear along the ridge. They came back late that afternoon with the exciting news that they had found a place for a third camp from which, unless there were any unforeseen obstacles, we could very probably reach the summit. 'No', said Jo, 'there seemed to be no rock on the ridge, only a long knife-edge of snow.' Pat and Nancy joined us again that evening but next morning Pat was suffering from altitude sickness. Knowing that Dorothea and Barbara, who were bringing

up the rear, would be coming up to Camp II later in the day, we left Pat in bed, and started up the snow-slope. It was very hard work and it took us three hours to reach the ridge, which was corniced and delightfully airy. Not so pleasing was the soft, soggy condition of the snow. The place Jo had spotted for Camp III was at a bend in the ridge, just below a steeper section, and it was in fact almost the only place wide enough to pitch a camp. Here at 20,000 feet we put up two two-man Meades, one for the Sherpas and the cooking and one for Jo, Nancy and me. It was windy and cold, we were crowded, we slept badly and were away to a late start next morning.

The ridge continued airy and exposed, though not technically difficult. Most of the time we were on the very crest or, because of cornices, a little to one side. The snow was still very soft and we were scarcely ever able to get a satisfactory axe belay. By midday we had gone about two-thirds of the way to the summit and were still hoping to reach it when we came to the foot of an ice pinnacle that had been prominent from afar. We knew that we must contour it on the left, that is north side of the mountain, for here the top of a small glacier abuts against the ridge. But now the weather, so fine to start with, was deteriorating rapidly and we were soon enveloped in cloud. It began to snow and as I sat in the snow having yet another breather, for I was not yet acclimatized, I saw the others grouped below the pinnacle, which was now an indistinct mass rising into the mists. Twenty minutes later it was snowing more thickly than ever and we turned back. Visibility was so poor that we could only see a yard or two ahead and had we not been following a ridge we would have had great difficulty in finding the way. We went down with extreme caution, mindful of the exposure although we could not see it. It crossed my mind that it would be terrible to have to bivouac high up on a narrow ridge like this in bad weather.

We came to a place where the ridge appeared to divide: which way had we come ? The mist lifted for a moment and we just had time to make out our two little tents beneath us. When we reached them we tumbled in thankfully. The blizzard grew fiercer as night came on until we thought we must soon become airborne. But the tents stood up to it. Next morning we had barely emerged to see how much new snow had fallen when Dawa appeared, followed by four Sherpas with empty pack-frames. 'Niche!', he said, grinning, pointing downwards, and we all went down to Base Camp.

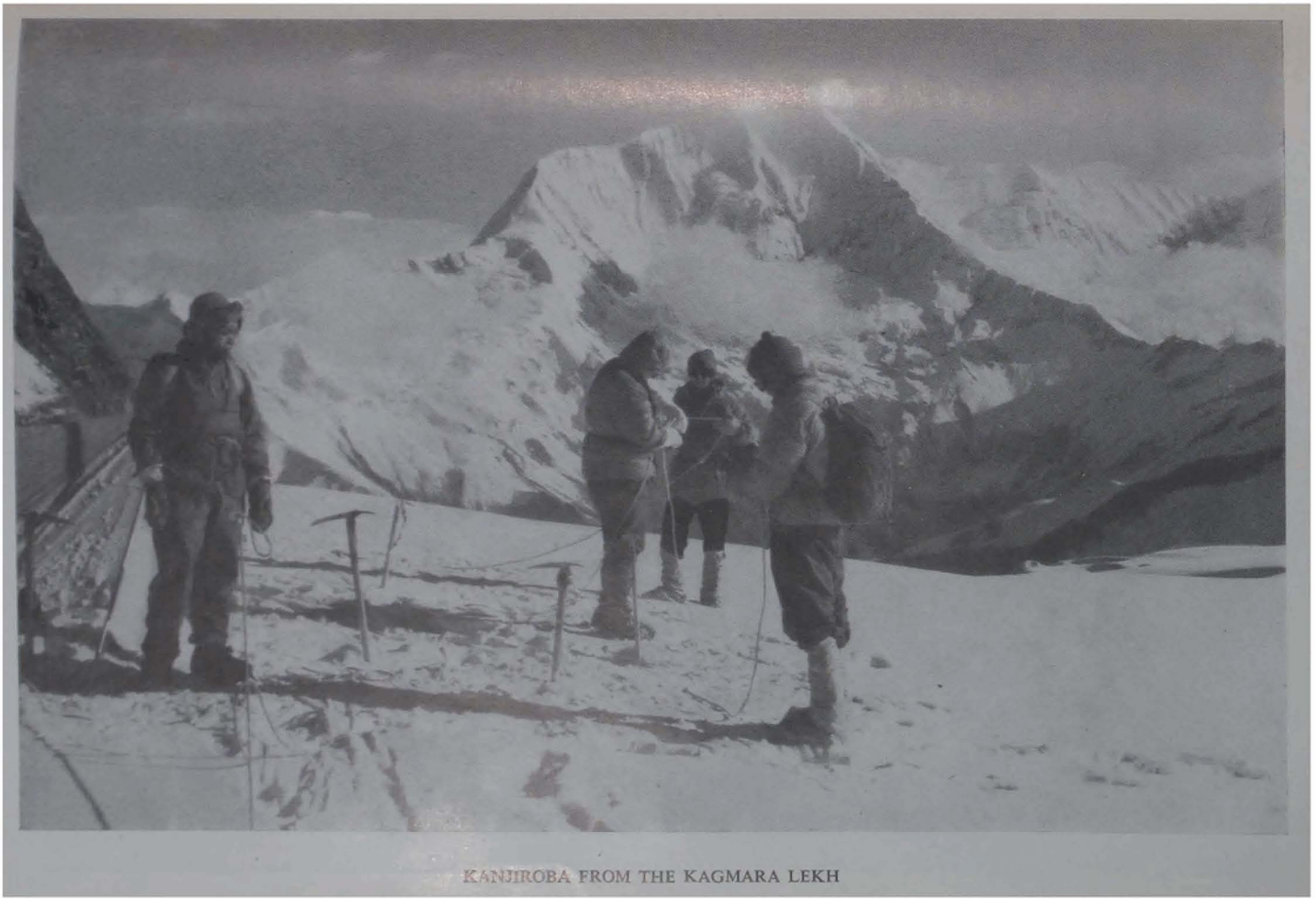
The weather was bad for the next few days and it was not until May 10 that it had improved sufficiently for us to go up again. By

then, however, Dorothea was in bed with a sore throat and high temperature, taking penicillin. The Kaigaon coolies had had terrible coughs and colds and it seemed likely that the infection had been caught from them. We left her at Base with instructions from Nancy not to stir for at least two days, and went back up to Camp II. There was a lot of fresh snow and the ice-fall was hard work.

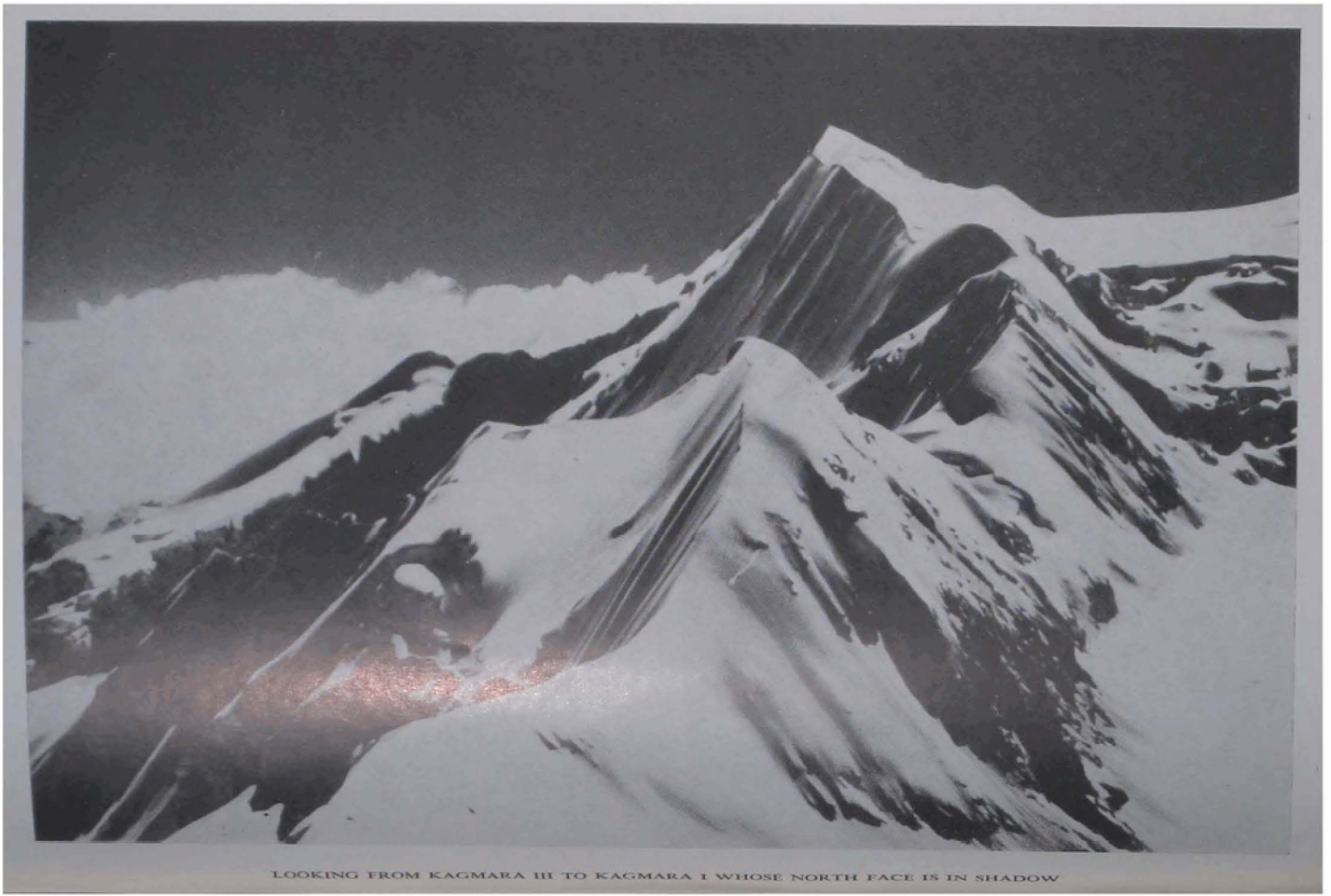
The five of us sat in the big Moncler tent at Camp II on the evening of May 12 discussing how we were going to tackle the mountain. Everyone was most self-effacing; a naïve observer might have thought that not one of us had any ambition to reach the summit. Dawa looked in and said all five memsahibs could do it at once. He did not seem to be joking and for a while we were very taken with the idea. Then a messenger arrived with a note from Dorothea in which she expressed the hope that we would not do anything rash. At last we came to a decision. Jo and Barbara were better acclimatized than the rest of us and better able to move fast along the summit ridge, which might be important in view of the unsettled weather. Let them go first on May 14 with Mingma and Pemba Norbu, while Pat, Nancy and I waited until the next day to make the second ascent with Ang Pema.

Eight of us left for Camp III on the morning of May 13. I felt more than usually tired on the ridge above the steep triangle. Depressing, I thought, not to be getting used to the height. That evening in the tent my throat grew tighter and my temperature rose and I realized that it was not the height but 'flu. May 14 dawned extremely cold and windy and we could hear Jo and Barbara cursing as they put on the crampons with numbed fingers. Feeling ghastly, I dozed off and woke up some time later to hear voices coming back towards camp. 'Can't have had time to do it', I muttered to Nancy. But they had, and in record time, for they were on the summit at 9.30. The altimeter read 21,500 feet. It turned out that the top was only another hour and a half from the ice pinnacle we had reached before. We bombarded Jo and Barbara with questions and congratulations while they ate some food before going down to Camp II. Regretfully I decided to go with them.

We spent the night at Camp II, where Dorothea and Dawa were waiting for us, and the next day, which was brilliantly fine, we were able to watch Nancy, Pat and Ang Pema reach the summit at about 9 a.m. I then went down to Base Camp with Dawa, Mingma and Pemba Norbu. My legs felt very strange and I was relieved when we were able to wind plastic bags about us and glissade down the last few hundred feet above Base. When I took my temperature and



KANJIROBA FROM THE KAGMARA LEKH



LOOKING FROM KAGMARA III TO KAGMARA I WHOSE NORTH FACE IS IN SHADOW

found that it persistently registered 105, even after vigorous shaking, I went to bed with Nancy's copy of *Doctor Zhivago.*

Now that the mountain had been climbed, Jo and Barbara decided to take a Sherpa and spend a week surveying on the west side of Kanjiroba. This would involve going over the col above Camp I and steeply down the other side into unknown country. Meanwhile the rest of us would move down to our lower Base Camp in the Garpung Khola and, after a few days' rest and recuperation from 'flu, would carry a camp into the Kagmara Lekh, which bounds the south side of the Garpung Khola.

From the Kanjiroba Himal we had had very good views of these mountains which form a chain about twelve miles long and 20,000 feet high. The highest peak, lying at the west end of the chain, seemed inaccessible except by climbing five other peaks to get to it. The high peak at the east end of the chain, however, which became known as Kagmara I, looked much more approachable. Below its impressive north face was a flattish ice-field which we were able to reach quite easily. From the first Mingma and Pemba Norbu had favoured the north face but Dorothea and I were not so enthusiastic because of various tottering and unhealthy looking séracs. The east ridge we ruled out because of a number of spiky rock gendarmes, but the west ridge, which could be easily reached, looked reasonable. On it there was only one small rock gendarme, about a third of the way long, but it was enough to turn us back. As on Kanjiroba, it was clear that we could not traverse round the gendarme and that climbing up the rock, which came away in fistfuls, belonged to the 'very danger' category. We retreated, determined to try the face after all. As Mingma pointed out, with a sly grin, it was a more direct route, which would involve much less walking.

Pat and Nancy had joined us by now and we spent the next day carrying a camp up to the glacier below the north face. The séracs growled and grumbled all afternoon and evening and snow fell thickly. The next morning, however, the weather seemed to be clearing and Dorothea and I set off with Mingma and Pemba Norbu, while Nancy and Pat followed with Ang Pema. The climbing was steep and invigorating, with here and there an icy bulge where hand- and footholds had to be cut. From below it had looked as though the lower part was the steepest and that the angle eased off higher up, but in fact the slope was concave and steepened considerably towards the summit ridge. We reached the top at midday and started slowly down, taking great care on the top slope which, covered with fresh snow, felt as though it might avalanche. We were just negotiating an awkward corner where the snow tended

to come away in slabs from the ice beneath when Pemba Norbu, who was bringing up the rear, shot past us with a dismal shriek. Dorothea, next on the rope, brought him to a stop.

We reached camp to find Jo, Barbara and Ang Temba, all looking much thinner after a successful week of exploration on the west side of Kanjiroba.

It was by now May 23 and we only had a few days left before starting on our homeward journey. We put a camp on the col between Kagmara I and II, and from it were able to climb Kagmara II and III and a small peak south of the Kagmara Lekh overlooking the Tibrikot valley. After this we were obliged to make our way down to the Garpung Khola where negotiations with Tibetan yakmen were taking place. These men bring their herds of yak into Nepal for summer grazing, and they agreed to hire us fifteen yaks to carry our baggage back to Kaigaon.

When making our way northwards on the approach we had enjoyed early morning views of the Dhaulagiri massif away to the east and had decided that instead of returning to Nepalganj via Jumla and Dailekh, as originally planned, we would like to go in an easterly direction towards the Dhaulagiri massif, by way of the valleys of the Thuli Bheri and the Barbung Khola which lie to the north of Dhaulagiri. From the head of the Barbung Khola we planned to cross the Mukut passes and so make our way southwards to Tukucha and then Pokhara in central Nepal. While we were climbing, our liaison officer, whose dislike of the snow had prevented him from venturing up to Base Camp, had been busy in Jumla making known our change of plan to the authorities in Kathmandu, who raised no objections.

We now split up again. While the main party went down to Kaigaon with the yak caravan, sorted out our remaining food and equipment there, and hired more yaks to take us on the first stage of the return down the Tibrikot valley, which leads into the Thuli Bheri valley, Dorothea and Jo and three Sherpas crossed the col at the head of the Garpung Khola and made their way eastwards in the direction of the remote village of Ringmo. No European had visited this area since Snellgrove in 1956. They then followed the Suli Ghad river in a southerly direction to Dunei, in the Thuli Bheri valley, where we all met on June 3.

The further we went up the magnificent but sparsely populated valleys of the Thuli Bheri and Barbung Khola, the more difficult became the transport of our baggage. At first we alternated between coolies and yaks, but later we were obliged to rely on yaks alone.

Each time we changed our means of transport, the loads had to be remade. There was a disastrous incident at Kakkot where we almost came to blows with the yakmen and their wives. We were told that their yaks were allergic to boxes and we were made to empty our carefully re-packed boxes into inadequate yak-hair bags provided by the yakmen. It took us a little time to realize that the housewives of Kakkot were hoping to acquire our boxes in exchange. We were certain to need them in the monsoon rains, and angry screams went up as the women realized that we were not going to part with them.

It was a relief to get away. We had barely gone a few hundred yards when we were confirmed in our suspicions that yaks are also allergic to memsahibs. The sight of one of us out of the corner of an eye was enough to send them charging about furiously, tossing off boxes right and left. A number of loads rolled down into the river, three yaks got their loads soaked wading through the Barbung, and several kit-bags were ripped open on sharp stones so that their contents hung out of them like entrails. That evening we took stock of the damage. Much of the medical kit was smashed, our tins of food were 'yakked', my possessions were soaked, while Dorothea's rucksack had disappeared altogether.

The weather became progressively cloudier as we went up the Barbung Khola, but it was not until we reached Mukutgaon that we had any heavy rains. The monsoon seemed to be held in check by the Dhaulagiri massif, which forms an indescribably steep and forbidding barrier on the south side of the river. From Mukut we climbed up to the 19,000 feet Mukut passes, and enjoyed some wonderful views of the Dhaulagiri range. Between the first and second passes we crossed the high, barren hills south of the Charkabot region and met pathetic families of refugees begging for food and clothing. We were not far from the Tibetan frontier.

On June 17 we climbed over the last of the Mukut passes and camped on a small platform high up the mountainside. It was our last high camp. A few thousand feet above us twin snow peaks, outposts of the Dhaulagiri range, caught the sun's rays as it went down behind us on the other side of the pass. Before us, far away to the east, we could see the cloud-capped Annapurna range. Tukucha, with its wealth and sophistication, was only a few days away now, and beyond were the heat and the humidity of the monsoon, and the vastness of the plains.

MANA-NILGIRI EXPEDITION, 1962

By CAPTAIN S. N. DUBEY

THE Indian Army mounted three major expeditions in 1962. One successfully climbed Kokthang (20,170 feet) in April. One attempted Riwo Pharguyal (also called Leo Pargial) in June but the attempt was abandoned owing to the death of the leader, Capt. P. S. Bakshi, and two Sherpas. And one led by Capt. Jagjit Singh sponsored by the Bengal Engineers and the Artillery planned to climb Nilgiri Parbat (21,240 feet) and Mana Peak (23,860 feet) in June.

Our party consisted of four sappers, three gunners and a doctor. We decided to follow the route taken by Frank Smythe in 1937 through the Valley of Flowers, over the Khulia Ghata pass (16,500 feet) on to the Khulia Gervia Glacier for the attempt at Nilgiri Parbat. We intended then to retrace our steps to the Valley of Flowers, cross the Bhiyundhar Khal (16,700 feet), follow the Bankund Glacier to Gupta Khal (18,990 feet) and from there attempt Mana Peak (23,860 feet). This again was the route followed by Smythe in August, 1937. Later, however, we had to alter our plans owing to the extremely bad snow conditions and the changes that had occurred in the past 25 years.

ATTEMPTS AT NILGIRI PARBAT

We made two attempts at Nilgiri Parbat with an interval of ten days between but without success. On May 30, after four days' acclimatization and some good climbing, we crossed the Khulia Ghata pass and descended on to Khulia Gervia Glacier to establish our Base Camp for the first attempt at 15,700 feet at the foot of the glacier coming down from Nilgiri. Smythe described the Khulia Gervia Glacier and terrain as largely denuded of snow, and with some vegetation in the vicinity which led him to estimate the height at round about 15,000 feet. This description did not fit with the picture we saw when we arrived at the glacier. All we saw was a mass of unending whiteness around, in a continuous heavy snow-fall, the visibility being hardly ten yards. The only sounds reaching the ears were the soft patter of snow on our tents, interspersed with heavy thunder of ice avalanching in the adjoining valleys.

During short breaks in the weather we had a good look at the Nilgiri standing majestically, built up on terrific precipices looking over to the north-west and the west face guarded by a muddle of ice-falls, crevasses and séracs which formed a semicircle at the

head of the valley. The defences looked more or less impregnable. We hoped to attempt the mountain within three to four days of our arrival at the Base Camp (15,700 feet). The mountain being 21,240 feet, only one Advance Camp needed to be established for the assault party. Smythe climbed the mountain in a day of 13 hours straight from Base Camp taking a route from the extreme left of the hanging glacier from Nilgiri, his Base Camp being very near ours. We carried out a reconnaissance and found that the route followed by him was impossible under existing conditions of snow and ice. We selected a comparatively safer route from the right up to Camp I and we then proposed to climb from there to the north-west ridge and follow Smythe's route to the summit.

This decided, we waited for a break in the weather, but during the next four days it showed no sign of improvement. A decision had then to be made as we were running out of supplies. All the members and the porters except myself, the leader and three Sherpas were sent back to Mana village. We stayed on so as to push forward if there was a break in the weather. Unfortunately, we had only two days' supplies with us.

June 4 was a bright calm day and this we thought was a chance which would not come again, so we started off for Camp I with whatever we could lift. Due to the heavy fresh snow and the bright sun, the going was tough, and with the loads on our backs we had to heave ourselves out at every step, sinking knee-deep at the next. We succeeded by 4 o'clock in establishing Camp I at 18,700 feet after ferrying up various loads.

The evening, though the temperature was $-15°C.$, was enchanting and the weather was really co-operating, for we had excellent views of the Garhwal Himalayas. The majestic Nilkantha and Badrinath, towering Kamet with Mana our next goal, next to it, Deoban, Mandir Parbat and several other unidentified peaks held us spellbound.

The frequent avalanches, one about 50 yards away, and the thought of the next day's prospects kept us awake most of the night. At 4 o'clock next morning we were all up, melting snow to brew some tea. At 5.30 a.m. we were on our way on two ropes, Jagit with Ang Dorje on one and myself with Dawa and Kalden on the other. Progress was painfully slow, inching forward through ice-falls, crevasses and séracs. Sinking deep up to thigh was the order of the day. It was extremely difficult to decide whether we were walking over a crevasse or simply sinking in the snow.

Breathless and almost exhausted we stood at the foot of a 300-foot high ice-fall, the only barrier between us and the ridge leading to

the summit slopes. In two hours we had gained only 600 feet and now we faced our greatest obstacle at 19,300 feet. There were two huge ice blocks perched at precarious angles on top of the ice-fall. The sun had started to work on them and the crackling sound of breaking ice was ringing in from all sides. We had not the resources to overcome this obstacle safely. Below we saw the masses of snow and ice rolling down towards our camp. We tried to find a route which would circumvent this obstacle but in vain. We thought of a possibility of getting to the buttress which connected the ridge to the unidentified peak, but between us and the buttress stood a series of huge ice-walls and séracs. Even if we had got there, there was no chance of our getting to the peak the same day, for from the buttress a tough climb of more than 2,500 feet would still remain. The burden of taking the decision fell on the leader and wisely he decided that we must retreat. Retracing our steps was even more difficult, for the snow had started sliding.

We reached Camp I and then started down. To our horror we realized that the route to Base Camp existed no more! We had to search for an entirely different route and ultimately, after dodging two avalanches, we got there. Looking up we saw Nilgiri smiling down triumphantly on us, the intruders on its ground. We left to join the main body at Mana village, hoping to come back later after we had paid a visit to Mana Peak.

On our way back from Mana Peak we camped at the junction of Uttari and Dakshini Nakthoni Glacier. There is a shorter way to Nilgiri up the Dakshini Glacier and on to the head of the Khulia Gervia Glacier and the local porters knew it well. But due to some misunderstanding with them we had to abandon the route and return to Chhupchhupa, the tail of the Khulia Gervia Glacier. From there myself, Sabberwal, Ang Dorje, Koldew and Thopkay started once more for the Base Camp carrying a bare minimum of supplies for six days.

We established the Base Camp in two days. Now the country was entirely different and Smythe's description fitted it well. In July or August it would have appeared more or less the same as Smythe described. On the second day we had two hours of daylight left, so Sabberwal and myself decided to go up to the plateau to have a look at the route. What we saw was hardly encouraging and this time our previous route looked impossible. There was a semi-circle of ice-falls above the plateau and any attempt to take the route on the right would have been suicidal. There was only one hope. A snow-slope came down along the rocky ridge separating the plateau from the Bankund Glacier. There was plenty of

evidence to show that this was being washed off every day by avalanches coming down the rocky ridge. The plateau itself was full of wide crevasses but it seemed possible to circumvent them. If we could get on to the snow-slope, we could gain access to the buttress connecting the ridge and the northern slopes of Nilgiri. From then on we guessed the going would be simpler as the northern slope, though looking quite steep, had only one ice-fall to be negotiated. We decided to try the route next day and to take the camp up to the foot of the buttress.

We were off next day at 6.30 a.m. though the weather was not very promising and after winding our way through the plateau to avoid crevasses we reached the foot of the snow-slope. We started up the slope in a north-west direction, keeping a good distance between us and the rocky ridge. The slope, which consisted of ice covered with a skin of well-frozen snow, became deeper and deeper. By 3.30 in the afternoon we were all at the foot of the buttress. We camped there for the night and decided to attempt the peak next day. It had started snowing and the prospects of good weather were not very encouraging.

Next morning it was still snowing and visibility was reduced to a maximum of 50 yards but we started off in the hope that the weather might improve. We climbed the buttress and got on to what seemed like another plateau. As visibility had reduced considerably we halted for the mist to clear. Off and on it would part for a moment and then again engulf us. After an hour we decided that we were suffering from glacier lassitude more than anything else, and so we took a grip on ourselves again. After half an hour we found ourselves facing a bergschrund. It took us nearly an hour to negotiate it as a good amount of cutting was involved. Completely spent, we had a drink and then I put Sabberwal and Thopkay in the lead. Immediately after the bergschrund there was a steep slope of 45° to 50° about 300 feet high which splayed out from the ridge. To our horror we found that the sun had worked on it and at every step we went in thigh-deep! To crown all, once we sank we landed on a hard-polished surface of ice on which our feet had a tendency to slip. We were in danger of starting off an avalanche at a place where we had no chance at all. We went up about 50 feet but could proceed no further because with every step we slid down, bringing the snow along with us. So we decided to return to camp and look for an alternative route or bring the camp up a little and try the same route next day, probably under better weather conditions.

As luck would have it on our way back, when we had crossed

the plateau and were descending the buttress, I slipped. Dorje who was belaying could not hold me as his ice-axe failed to dig into the hard surface. I, in my fall, jerked him off and Kalden, the last man, followed suit. All three of us went hurtling down to the base of the buttress.

In a half-conscious state I saw the tiny figures of Sabberwal and Thopkay, trying hard to cut steps down to us. It was then that I realized what had happened. I moved and knew that I had broken no bones. Kalden was also coming round. Dorje had hurt his neck a little and was badly shaken. By 6 o'clock in the evening we crawled up to Camp I. Next day Dorje and Kalden were still not in a fit state and we had to accept the fact that we were beaten once again !

Attempt at Mana Peak

After the first attempt at Nilgiri Parbat we concentrated in Mana village to replenish our supplies and arrange for porters. We had decided to abandon Smythe's route along the Bankund Glacier because of the unfavourable snow conditions and lack of camping space for porters. We took the route via Nakthoni Glacier along which Smythe came back. On our way up we had trouble with the porters and a number of them deserted. Members had to ferry loads including firewood collected from far-off places from one camp to the other. On June 10 we left Mana village and by June 12 we had camped at the junction of the Uttari Nakthoni Glacier and the glacier coming down from Gupta Khal. It will not be out of place to mention that the locals of Mana had never been to that side and nobody was able to advise us as to the exact location of this khal. As the name implies, it is really a Gupta or secret pass which you cannot locate until you are exactly opposite it.

From Base Camp a party led by Capt. Jagjit Singh left for the route up to Gupta Khal. The weather all this time was extremely bad and about a foot of snow fell during the day. The recce party found that there was a big ice-fall facing our camp and immediately above this another ice-fall. At the outset it seemed as if we could not circumvent these ice-falls and, if we had to negotiate them directly, it would have involved the extensive use of fixed ropes for which we were not prepared. Luckily, however, they spotted a gully to the extreme left of the ice-falls. Our hope lay in climbing the gully and then following the ridge leading on to the top of the second ice-fall.

Next day though the weather was still poor I along with five other members and Sherpas lifted our loads and set out to explore the

route via the gully and if possible locate Gupta Khal, dump the loads at an Advance Base Camp and return. The leader and the doctor stayed back at Base. We were successful and dumped our loads safely at the top of the second ice-fall and returned. Next day we all carried more loads and then settled in at the Advance Base Camp. All this had been possible because by now we were acclimatized and were able to carry up to 55-lb. loads each to Advance Base Camp at a height of 18,200 feet.

The weather that night was bad and again nearly a foot of snow fell. The mercury dropped to 15 degrees below zero, but the morning was bright and we knew the break was coming. We had decided to set up another Advance Camp at the pass where Smythe had made his Base. We all picked up loads and started for the Gupta Khal (or Zaskar pass as Smythe calls it). The route lay across a huge snow-field interspersed with many crevasses which fortunately for us were wide enough to show up and it was possible to circumvent them. We reached the pass at 11 o'clock and what we saw there was not at all encouraging. Gupta Khal lies about 400 to 500 feet high at the head of the Bankund Glacier which looks to be a level plateau of snow and ice. As you face the glacier, you see Mana standing 23,850 feet high on the left guarded by an ice-capped rocky peak, 21,500 feet high, which is connected to the pass by a sharp and steep ice-covered ridge. On the right a knife-edged ridge leads to a 20,000-foot high rocky pinnacle which is the most beautiful and impressive summit in this area.

Smythe's route is along the ridge leading from the pass on to the 21,500-foot peak ; it then descends on to the snow-field at the foot of the Mana Peak, circles towards the west peak and ultimately climbs from the south ridge on to the peak. Smythe did not use any fixed ropes and he made no mention of the weather conditions. The more we looked and examined the route, the more amazed we felt that Mana had ever been climbed before.

To get to the foot of peak 21,500 is possible but from then on progress in a normal way seemed impossible. The ridge changes to a nearly vertical wall of rock topped by ice-walls and crevasses which we thought could not be negotiated without fixed ropes and very expert rock-climbing techniques. The conditions of the snow plateau could not be assessed as it was not fully visible from the pass, but the route to the west peak and then on to the south ridge looked equally impossible. A much safer route appeared to be along the north-east ridge connecting Kamet to the peak.

With heavy hearts we dumped our loads at the pass and returned to camp. Next day we went up again, not to climb Mana but the

20,000-foot rocky pinnacle. This summit involved a 30 feet difficult but enjoyable rock climb. There was place for only two on the peak and we all made it one after the other. From there once again we had wonderful views of Nilkantha, Chaukhamba, Kamet and the famous enchanting Tibetan plateau with its innumerable rocky tops.

A CAMPING TRIP TO THE HIMALAYA, 1960

By Dr. W. HAMBERGER

(*Translated by Hugh Merrick*)

Dr. Rudi Weber and I left the Inn Valley on August 11, 1960, to drive to the Himalaya in our heavily-laden Volkswagen camping-bus. We drove through Yugoslavia where we struck some bad patches of road, and Bulgaria, where we found the roads well kept. In Turkey our route took us to Adrianople, the Sea of Marmara and across the Bosphorus into Asia to Ankara, the Black Sea and Trebizond, through a mountain pass to Erzerum and on to Persia. The Turkish roads—better than we expected though with rough stretches—now gave way to the notorious Persian roads, 2,000 miles of whose pot-holed and corrugated surface we had to travel through Tabriz, the Shebli Pass, Teheran, the northern edge of the Kefir Desert and Mashad, the holy city of the Shiites. After Teheran the temperature rose to 112° F. in the shade and by the time we reached the Afghanistan frontier conditions were fairly rough. We travelled through the ancient city of Herat, along the rim of the Seistan Desert, were stopped for five days at Kandahar for quarantine, and then left for Pakistan and the Quetta Pass. At Lahore our excellent transport, which had managed the journey with no trouble greater than a broken bolt on the rear shock-absorber in Persia, was overhauled. We then crossed into India and to Amritsar, and at last reached the foothills of the Himalaya.

Exactly four weeks and 6,250 miles after our departure from home we reached our destination—Manali in the Kulu Valley. Transport and drivers were equally exhausted, but that lovely and memorable day was rich compensation for all the trials and tribulations of the roads of Persia and Afghanistan.

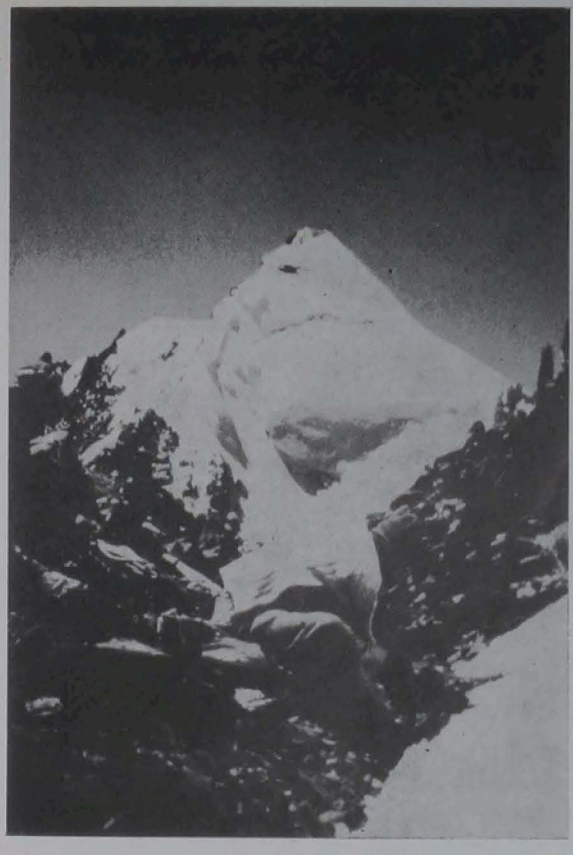
The Kulu Valley has roughly the same character as that of a northern Italian valley. It is still hot enough for rice-growing. There is, surprisingly, a Tourist Office in Kulu and with its assistance we procured horses and porters. For our objective we chose a range far up the Chandra Valley, some sixty miles from Kulu, close to the Tibetan border.

The next day, at Manali, the highest village accessible by car, was spent in lengthy negotiations with porters and muleteers, though we did not need a large number. We finally engaged three porters

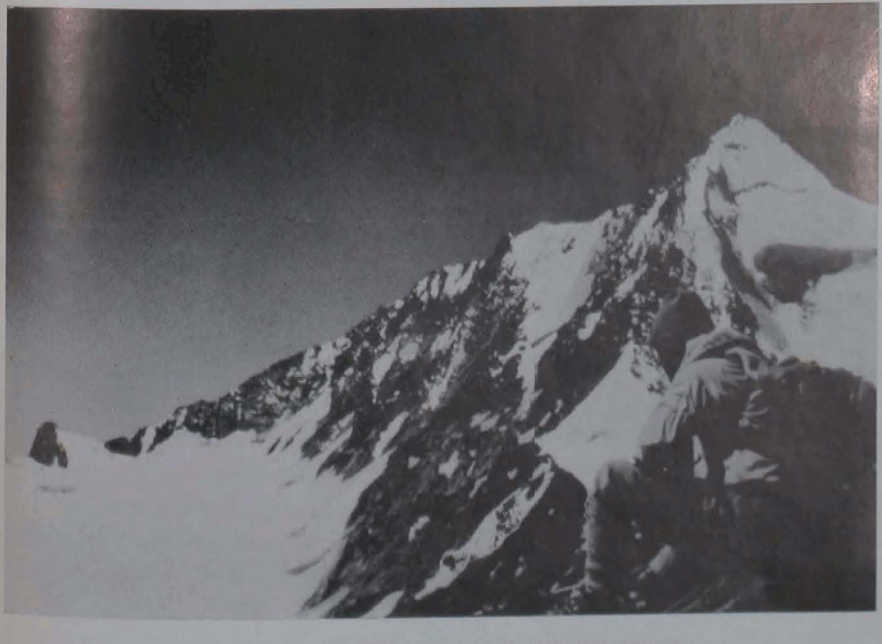
(Sonam, Baldor and Zumpi) and a muleteer with four horses. One of the porters slept that night close to the loads. At 7 a.m. on September 10 our small train set out on its march, intending to reach the foot of the Rohtang Pass, which divides Kulu from Lahul. We made swift progress upwards along the Beas stream, through lovely pine-forests and lush vegetation. I was somewhat under the weather and found it hard work to keep up with the mules. We rested for about two hours in the middle of the day and found that our Sherpas, especially Sonam, were first-rate cooks. Then we pressed on up the pass. At about five o'clock and at the 13,000 feet level, we pitched our camp. At this point we met a Japanese Women's Expedition with a Darjeeling Sherpa, who had been up to the pass as a training exercise. There were seven of them, some of them very pretty, and their object was to make a new ascent of Deo Tibba, around 20,000 feet high and already climbed four times. They were having some difficulty at Manali in raising the 100 porters needed to carry their enormous mass of material. We wished each other the best of luck and they went on down.

The night was pretty cold, with some rain, and we were glad to be on our way to the pass by 6 a.m. At the col, which we reached in four hours, the landscape became Central Asiatic in character. Tibetan prayer-flags fluttered from great cairns, which are called *dartschok* in these parts. Our men added rags and stones to ensure the blessing of the gods on our undertaking before we went on down into the deeply-scored cleft of the Chandra Valley. Unclimbed peaks of about twenty thousand feet showed up beyond. Down in the valley we came across numerous Tibetan refugees, in their national costume, now employed by the Indian Government on the construction of a road to Spiti and the Tibetan frontier. These roads are essential features of the Indian defences, but once they are built there will be no more virgin peaks. Our days' stages were dictated by considerations of pasture for our mules, since the only sparse patches of grass are about 10 miles apart. Wood for burning is a luxury and one of the porters carefully collected all the droppings left by the mules, to serve as fuel.

We marched for four days, covering fifty or sixty miles at about the 13,000 feet level, the weather changeable with a good deal of cold rain. On our arrival at Batal, I left Rudi to pitch camp and hurried on with a porter, Baldor, to climb a huge moraine and take a look into our chosen valley. I soon found that I was not acclimatized to the altitude, and my pulses hammered furiously in my temples. We crossed a savagely-crevassed glacier to reach the head of the valley, which is barred by an immense ice-fall from



C.B. 12 TAKEN FROM SOUTH SIDE OF C.B. 13, 20,550 FEET



C.B. 12, *CA.* 20,300 FEET, AND THE SW. RIDGE

which great blocks were continually falling. To its left was a wall which we could not hope to climb. That was all we were able to establish before the oncoming night drove us hurriedly back to the main valley from our extreme point at about 16,500 feet. Down there, we worked by candlelight, preparing to move our tent next day up to the floor of the glacier-trough above. We reached it with our three porters at about 2 p.m. on September 13; two of them hurrying back at once by the route we had cairned across the glacier, to the moraine, where they were to spend the night, before bringing loads up again next day from the point where the mules could dump them.

That afternoon I took Baldor with me to search for a route upwards for the following day. We were extremely lucky, for we were able to reach the plateau, which lies some 2,000 feet higher up, by tolerably easy climbing, part of it up a waterfall, to the right of the ice-fall. From the plateau a glacier and a ridge swept on up to the peak we had selected. To our left a second, almost uncrevassed plateau, rather like that on the Zugspitze, stretched away in the lovely sunset light. Directly facing our peak rose a sharp, ice-armoured pyramid, with a great hanging glacier on it, which I christened the Schneefernerkopf, about 20,000 feet high. In the late afternoon light I had a strange feeling that I never wanted to go back to camp again, but Baldor was insistent and down I had to go. He cairned the route and we got back to camp just as darkness fell. The three of us spent the night in a two-man bivouac bag; the porter snored endlessly and we hardly slept at all. We got up at 6 a.m., brewed tea from ice and were on our way by first light three-quarters of an hour later.

The rock wall was soon behind us and we were having a go at the ridge. We were at about 18,500 feet and found it very hard work, with frequent breathing difficulties; but our prize snorer went very well indeed. We pushed on up the ridge, over rubble at first, then on hard snow, till we had to put crampons on. The view on to the snow pyramid opposite and across the level snow-field was always with us, fantastically beautiful. To the right, above Spiti, we could make out the passes into Tibet. Presently the ridge became more bouldery. We took our crampons off and roped up for what soon became a real rock-climb. Though the difficulties never exceeded grade III, the altitude and the friable nature of the rock added considerably to them; every second handhold came away, and owing to the relative heat of the day stones kept on coming down. The difficulties increased, and several times I chose the wrong side of the ridge so that we had to come back. We were

using up our time and the summit was still a long way off, but we decided to press on till 2.30 p.m. and then turn back, for we did not like the idea of a bivouac at this height and at this season of the year. At 2.30 we had not reached the summit, but it was near enough to warrant a try, though mist and clouds were now rising from below. It was exactly 3 p.m. when we reached the end of the rock ridge, but found ourselves still separated from the true summit by a corniced ice-ridge some 250 feet long, which took us nearly half an hour more. Then we were there at last, and overjoyed to have done it.

We took a few quick photographs. The north side of our peak, which we called ' Baldor Parbat ' in honour of our porter, fell away just as steeply as the flank of the ' Schneefernerkopf ' facing us. It was only then that we realized that the true east ridge of C.B. 12 would have been an easier proposition.

The view seemed limitless, with majestic peaks everywhere, most of them unclimbed ; ours was one of the highest in the area. It was now nearly four o'clock and we would have to hurry if we were to get off the rock ridge before dark ; after that, it should not be difficult to do the rest by lantern-light. At about six, we unroped and ran down over scree-shoots in the direction of the plateau ; we were all in, and then it was suddenly night. Baldor now led, and reached the start of the rock-face safely, working by native intuition. There we each took our own line and gradually lost height, foot by foot, longing by now for the comfort of our bivouac bag, even as a threesome. The candle lantern didn't help much, for at this altitude there wasn't enough oxygen to feed it ; so I broke the side-glasses only to find that the wind kept on snuffing the flame. There was nothing we could do to avoid a bivouac at about 18,500 feet ; and our Zdarsky sack was a blessing indeed, even if it was only meant for two, as we sat all through the apparently endless night on a narrow rock-ledge. By morning the cold had become bitter ; we were enveloped in mist, but at last daylight dawned. Down we went, moving somewhat stiffly, to be met on the glacier by Sonam and Zumpi, who came running towards us, waving their welcome. There were tears in our eyes as we hugged one another ; for they told us how worried they had been on our account, repeating their prayer, *Om mani padmi hum*, all night through. They had rigged up prayer-flags outside the tents and had brewed *tcha* for us inside—and we were grateful for it! They took our boots off and Sonam in particular proved to be a most expert masseur. Then we struck camp and the Sahibs, too, humped enormous packs, so as to spare the porters a second journey up the glacier. We were very

happy and very tired when, a few hours later, we arrived at Batal, where our muleteer told us that he, too, had offered prayers on our behalf. In the afternoon it began to rain down there and to snow higher up. The Indian surveyors explained that they were to leave the valley that very day, as from September 15 onward there would be persistent bad weather right through the winter and it would often be impossible to cross the passes.

We marched through teeming rain for the next two days; occasionally there was a touch of snow in it, too. All thoughts of another climb were effectively quenched by the downpour. We crossed the Hamta-La from Chattru to Manali, while our mules went by the ordinary route over the Rohtang Pass. That day we covered over 20 miles and crossed the Hamta-La, which is as high as Mont Blanc, and saw Deo Tibba, the Japanese ladies' party's objective, on the way.

I do not know whether they succeeded in climbing it, but I am quite certain that we had exceptional good fortune, not only with our weather, but in finding the right way with so little difficulty.

Editor's Note : The peak climbed by the party was C.B. 12, *ca.* 20,300 ft. Its position is approx. 32° 20′ N. and 77° 45′ E., about 1 mile SSW. of C.B. 13. The latter is shown on Mr. J. P. O'F. Lynam's map in Vol. XXI facing page 97. C.B. 12 is shown on the map accompanying Mr. McArthur's article in the *Alpine Journal,* Vol. LXI, 1956, pp. 279–295.

ITALIAN EXPEDITION TO THE PUNJAB HIMALAYAS, 1961

By PAOLO CONSIGLIO

THE expedition, organized by the Rome Section of the C.A.I., returned to Italy on June 16, 1961.

The party comprised Signora Maria Teresa de Riso, Messrs. Franco Alletto, Paolo Consiglio (Leader), Domenico de Riso and Dr. Vincenzo Monti; all participants are members of the Rome Section. Messrs. Alletto and Consiglio, also members of the C.A.A.I., took part in an expedition in 1959 to the Saraghrar Peak (24,170 feet), and reached the summit.

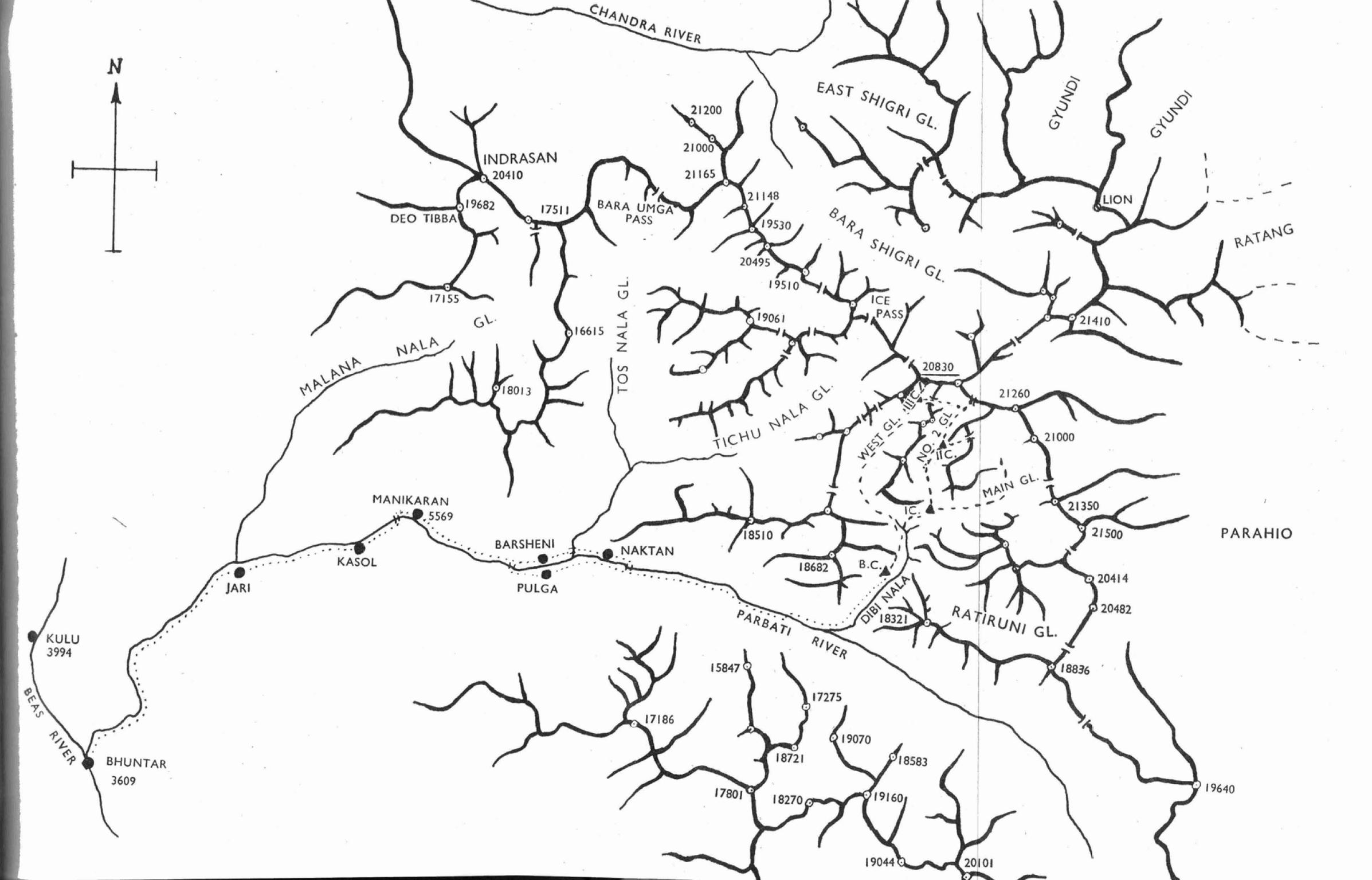
The area selected for the expedition was the Parbati range, in the Himachal Pradesh between Kashmir and Garhwal. This 100-kilometre range contains numerous peaks varying in altitude from 6,000 to 6,600 metres. The peaks are unnamed with the exception of Deo Tibba (19,687 feet) and Indrasan (20,410 feet) which are the two most western summits in the group.

Most of the higher peaks are on the Spartiacque crest at the sources of the four glaciers (the Western, Second, Main and the Ratiruni) which unite into the Dibi Nala; this is a glacial valley breaking away from the main valley of the River Parbati which borders the complete chain to the south. The Survey of India Map ($\frac{1}{4}$ inch to the mile) shows that this area contains the peaks 20,830 feet (6,349 metres), 21,760 feet (6,633 metres), 21,350 feet (6,507 metres) and 20,482 feet (6,243 metres). There are also scattered amongst these numerous other peaks averaging about 21,000 feet.

It was the Dibi Nala which interested the expedition, whose intention was exploratory mountaineering and the climbing of one of the peaks mentioned above. These intentions were achieved in that three of the four glaciers were traversed, three of the minor peaks climbed, two at the first attempt, and finally the 20,830 feet (6,349 metres) peak was ascended. K. Snelson visited the area in 1952 with de Graaff (who made the first ascent of Deo Tibba) and described this magnificent summit of rock and ice as follows:

'Revealing the 20,830 feet peak to be a magnificent tower of rock, but with almost vertical walls and without a chance of a way to the top' (*H.J.*, Vol. XVIII, 1954, p. 113).

It was suggested that the peak be called the 'Lal Qila' (Red Fort) after the great fort in Delhi, because of its bastion-like appearance and the beauty of the red granite. This name was also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CHANDRA RIVER
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DEO TIBBA
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BARA SHIGRI GL.
ICE PASS
19061
21410
16615
TOS NALA GL.
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TICHU NALA GL.
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MAIN GL.
IC.
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PARAHIO
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5569
BARSHENI
NAKTAN
KASOL
JARI
PULGA
18510
18682
B.C.
DIBI NALA
18321
RATIRUNI GL.
20414
20482
18836
PARBATI RIVER
KULU
3994
BEAS RIVER
BHUNTAR
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chosen as a tribute to the Indian people who had so kindly received the expedition.

Four members of the party left Italy by air on April 26, taking with them about six quintals (600 kilos) of luggage. Dr. Monti followed on April 30. Having bought most of the provisions at Delhi the group flew on May 2 to Kulu, in the upper valley of the Beas. Here two high-altitude Ladakh porters, Nam Gyal and Palgaon, were engaged; both had previous expeditionary experience in the Lahoul region, and also on Deo Tibba.

Kulu was left behind on May 5; the 800 kilos of luggage was carried by mule-back until the village of Pulga and, from there, on the shoulders of 36 porters. Base Camp at 13,100 feet was erected in the Dibi Nala whilst it snowed. The weather had been temperamental since our departure from Kulu and it worsened considerably from May 11. The heavy snows of the previous winter, coupled with the delayed season, left the mountains still in their winter clothes. The valley porters were sent back with the exception of one Beli Ram, a hunter from Pulga, whose job was to hunt, guard the Base Camp, and help with the luggage to the first camp. Despite its snowing every day a first camp was set up at 14,750 feet at the entrance of the Second and Main Glaciers on May 14. Following one examination of the Main Glacier, and two of the Second during which the fog and persistent bad weather made it impossible to have a detailed look at the mountain slopes, we decided on the Second Glacier and installed our second camp at 16,500 feet on May 19. A saddle at 18,200 feet towards the Main Glacier was reached from here on May 20 during the first ascent. Another saddle at 19,250 feet on the Spartiacque crest was reached in the first attempt and in the face of a violent storm on May 22. A third camp was erected here on May 23—again in the face of another storm. It was obvious on the 25th, from the base of the mountain, that it would be impossible to continue along the ridge either towards peak 21,760 feet or peak 20,830 feet.

The party regrouped on the 26th and it was decided to try, weather permitting, an assault up the southern face of peak 20,830 feet, which whilst being steep and snow-clad seemed to offer the possibility of an ascent, or at least appeared to do so when observed from the flank at the saddle at 19,250 feet.

Having surmounted an easy col between the Second and Western Glaciers a new third camp was pitched at 17,800 feet on May 27 at the head of the 'Western', and once again in a snow-storm.

Barring two days only, it had snowed for some time each day until the 27th, but the 28th finally proved to be fine and the snowy

wall of the peak was reconnoitred for a suitable site for a fourth camp. It was found that a fourth camp would be impossible so we decided to make an attempt on the peak directly from the third camp with all five members of the expedition and the two high-altitude porters taking part. Taking advantage of the full moon the camp was left at 0100 hours: temperature −18°. An altitude of 19,500 feet had been reached by daybreak: temperature −25°; there were some rocks at this point. It was here that the two porters gave up and returned.

The following 800 feet up to a small saddle on the rocky south-western ridge at 20,350 feet was a very steep snow slope, fragmented with surface rocks; this required ten sustained hours of effort without the opportunity of using ice-pitons due to the nature of the snow.

It was only at 1600 hours that the saddle was gained and for the first time we were able to sit down and rest.

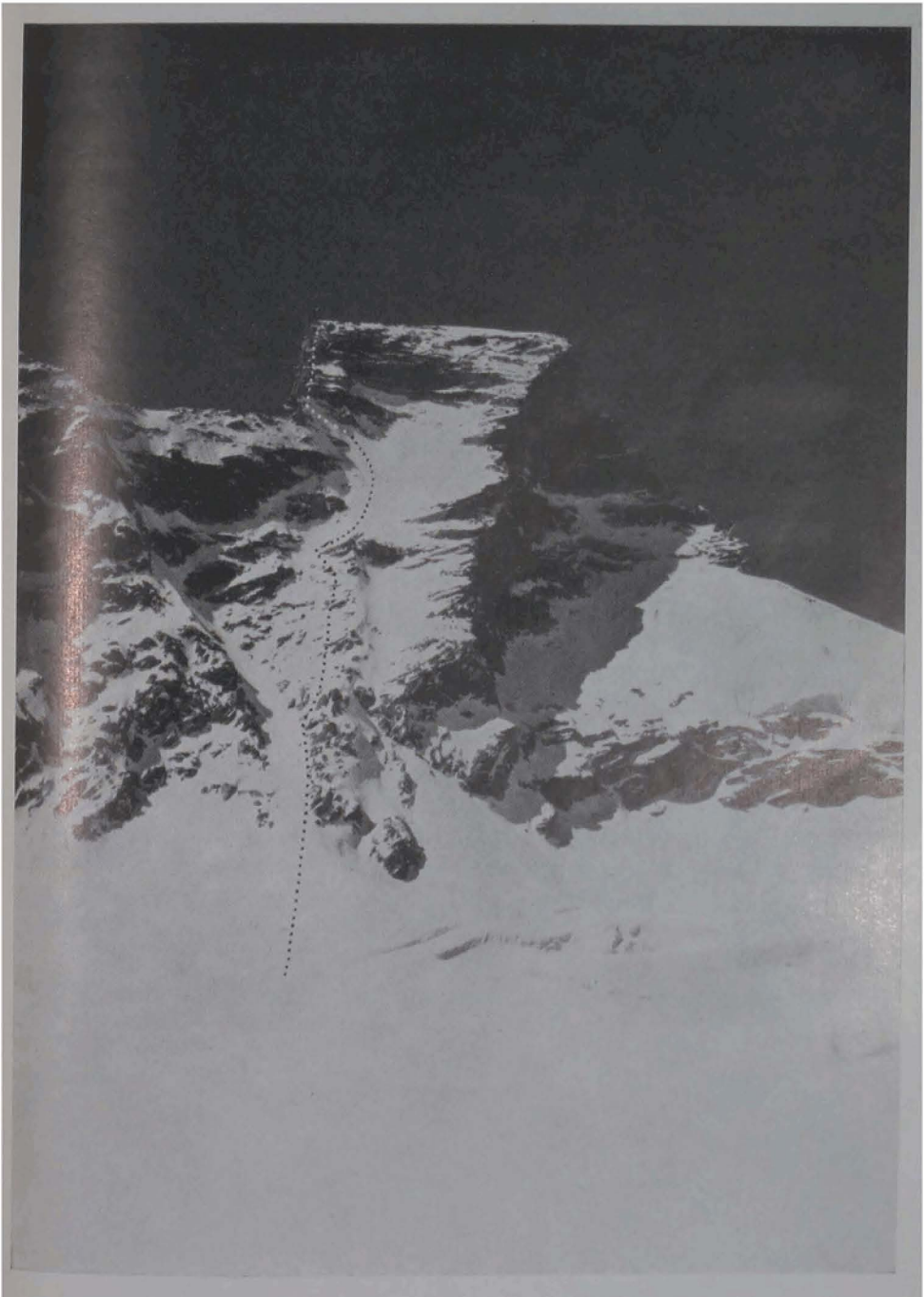
Following an attempt at the overhanging rocks, and bearing in mind the lateness of the hour and the considerable difficulty, it was decided to return; the third camp was reached at 2300 hours.

At last, and by good luck, the inclement weather improved, but as the agreed date of return was already overdue and the provisions running low it was decided that only two, Alletto and de Riso, should make the last and final attempt on June 2 whilst Consiglio and Dr. Monti returned first to Camp II, and then to Base Camp to organize the disbanding of the camps and the return journey.

Alletto and de Riso, together with Nyam Gyal, left Camp III at 2200 hours on June 1—the moon was favourable. They left Signora de Riso behind at the camp to maintain radio contact with the camps lower down. Taking advantage of the 80 metres of rope which had been fixed three days earlier they gained the saddle at 20,350 feet at 0600 hours. It was here that the porter was left behind as he did not feel up to the task of tackling the overhanging rocks ahead. The next 500 feet of granite, which contained numerous Grade V cracks, required twenty pitons and a further twelve hours of effort. The peak was gained at last at 1800 hours and thereon were placed the multi-coloured flags of India, Italy and the Club Alpino Italiano.

Camp III was reached at 0600 hours on the morning of the third, exactly thirty-two hours after it had been left for the assault. We were able to cross the Western Glacier and reach Base Camp at 2200 hours on the same day; this was possible by using skis which proved to be invaluable.

Base Camp was left although a group of porters remained to



SOUTHERN SIDE OF PEAK 20,830 FEET (6,349 METRES). VIEW FROM CAMP III, 17,880 FEET (5,450 METRES)

collect the equipment left on the mountain. By making forced marches we were able to reach Kulu on the evening of June 7. Renewed ill weather prevented flying but by a stroke of good fortune the expedition was able to travel by car and arrive at Chandigarh on the 9th, and from there on the morning of the 11th to Delhi. The time taken by the expedition to and from Delhi was 40 days.

The purpose of the expedition, apart from climbing a new Himalayan peak, was to experiment with a lightly-equipped expedition, and the results in general were more than satisfactory; one can confirm that the ideas adopted could be applied with advantage on even higher peaks thus giving ventures of this type fewer problems, greater speed and less expense. It must be mentioned that the climbers were forced to expend much greater effort and energy than might have been necessary if more than two high-altitude porters had been employed; just two porters are insufficient.

Short skis for crossing glaciers are considered extremely useful for expeditions to the Himalayan ranges which must take place during the spring season before the monsoon.

Consiglio's fluent knowledge of Urdu considerably helped and made easier our relations with villagers, the valley porters, and the high-altitude porters; misunderstandings were avoided and his ability to resolve any problem directly and without recourse to intermediaries helped everything along without delays, and without the aura of suspicion and mistrust which is too often created by the barrier of language.

The Rome Section of the Club Alpino Italiano would like to thank the Indian Authorities for all their kindness, hospitality, and help which was freely extended to the expedition by the officials and people of the region visited.

Editor's Note : The author has referred to the ' Dibi ' Nala. Its full name is the Dibibokri Nala.

THE ASCENTS OF INDRASAN AND DEO TIBBA

By PROF. DR. K. ONODERA

THE expedition organized and sent by Kyoto University Alpine Club, Kyoto, Japan, succeeded in making the first ascent of Indrasan (6,221 metres) on October 13, 1962. The party also ascended Deo Tibba (6,001 metres) on the same day.

The Kyoto University Alpine Club planned at first to explore in the range of Dibibokri Nala. However, it was impossible for us to be given the permission to come to this area because of the 'tighter Inner Line' policy. Consequently, we turned our eyes to a virgin peak, Indrasan, located in the Pir Panjal range, which is not far from the mountains of Dibibokri Nala.

Our expedition consisted of seven members, including a professor as the leader, a graduate student and five undergraduate students who took the responsibility for planning the expedition. The members were as follows:

Dr. Konoshin Onodera, the leader, age 51, Professor of Kyoto University (Biochemistry).

Toshiaki Sakai, deputy leader, age 29, a graduate student of Geography, Kyoto University, who joined the Pamir Expedition of the Academic Alpine Club of Kyoto, 1960.

Yoshitsugu Omori, age 22, a senior student of Kyoto University (majoring Psychology).

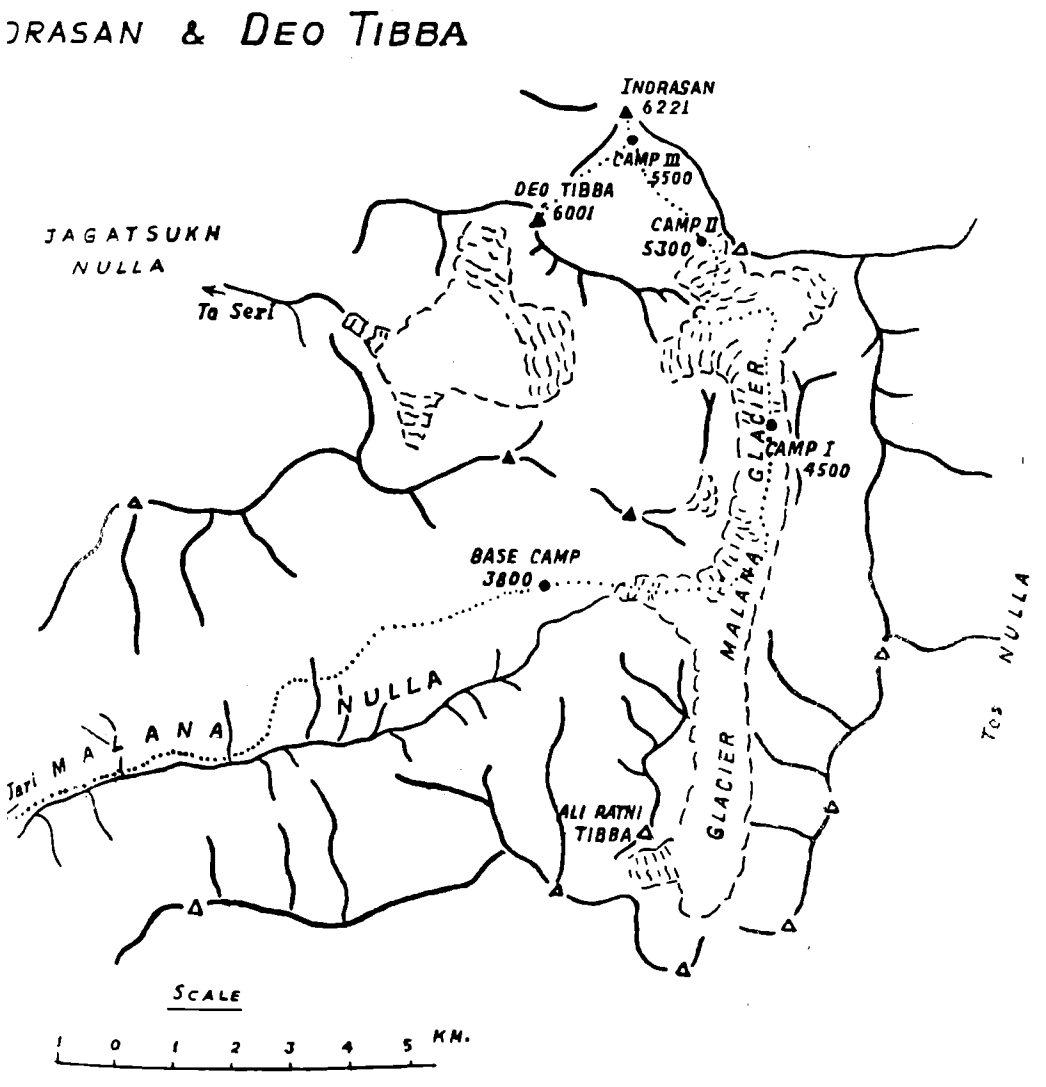
Kojiro Tomita, age 22, a senior student of Kyoto University (Architecture).

Yasumasa Miyaki, age 22, a senior student of Kyoto University (International Law).

Jiro Tanaka, age 21, a senior student of Kyoto University (Zoology).

Tokio Iwase, age 21, a junior student of Kyoto University (Economy).

At the end of August, 1962, two advance members arrived at Calcutta by air and met four other members who reached there by a ship which had left Japan at the beginning of August with the equipment and provisions for the expedition on board. After spending several days at Calcutta for making troublesome customs' clearance, the party left by train for Pathankot where they joined three Sherpas from Darjeeling—Lhakpa Tsering as a cook, Dawa


DRASAN & DEO TIBBA
INDRASAN
6221
CAMP III
5500
DEO TIBBA
6001
CAMP II
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JAGATSUKH
NULLA
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CAMP I
4500
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BASE CAMP
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1 0 1 2 3 4 5 KM.

Thondup and Gunding. The leader came up with the party in the middle of September. The party enjoyed the trip made by train as well as by bus, and arrived at Bhuin (near Kulu) where the Beas and the Parbati rivers join. The party spent busy days purchasing food such as atta, rice, rock salt and vegetables, etc., and for arranging the transportation. Everything around this district was interesting and fresh for the young students. They enjoyed delightful days there, coming up to Kulu and Manali where some of them visited Major Banon's orchards. There the party was joined by two Ladakhis, Wangyal and Sparghum.

On September 10, the party made a one-day march along the valley of the Parbati up to Jari with 18 ponies and mules, loading on their backs wooden boxes of equipment and provisions weighing approximately one ton in all. This appeared to be economical.

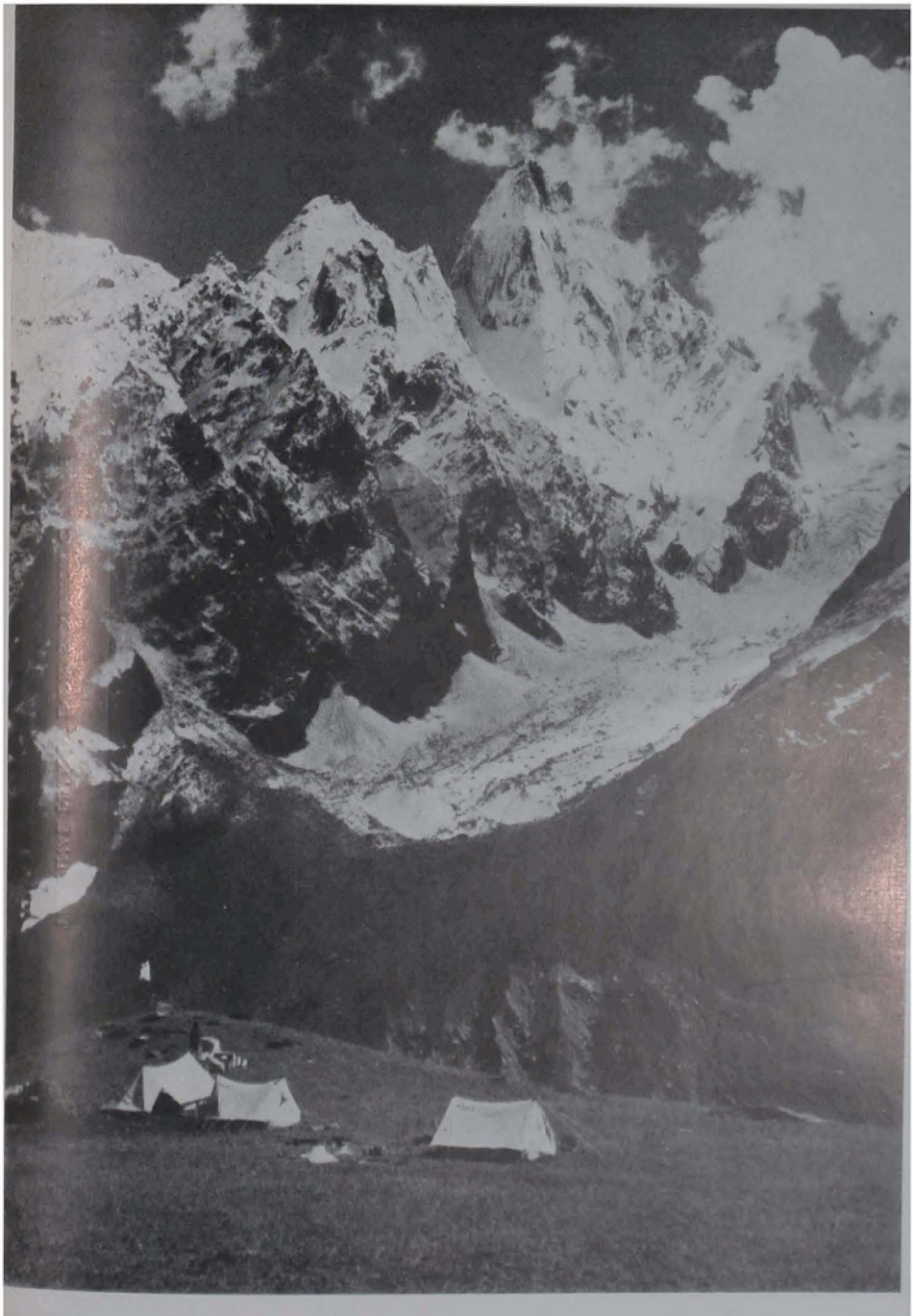
It was desired to hire forty coolies for transportation in Jari. However, it became apparent that it was impossible to gather enough coolies at one time. The natives were busy harvesting the crops and were eager to get as much wages as possible. Accordingly the party was forced to split into three teams in order to transport baggage up to the Base Camp through the Malana glen.

The leader left Japan for New Delhi by air on September 8, and on September 13 arriving at Kulu met Tanaka and Gunding who passed him a letter from Tenzing, the President of the Sherpa Climbers' Association. Onodera and Tanaka met Sakai at Jari the next day. They followed other members who had left there several days previously.

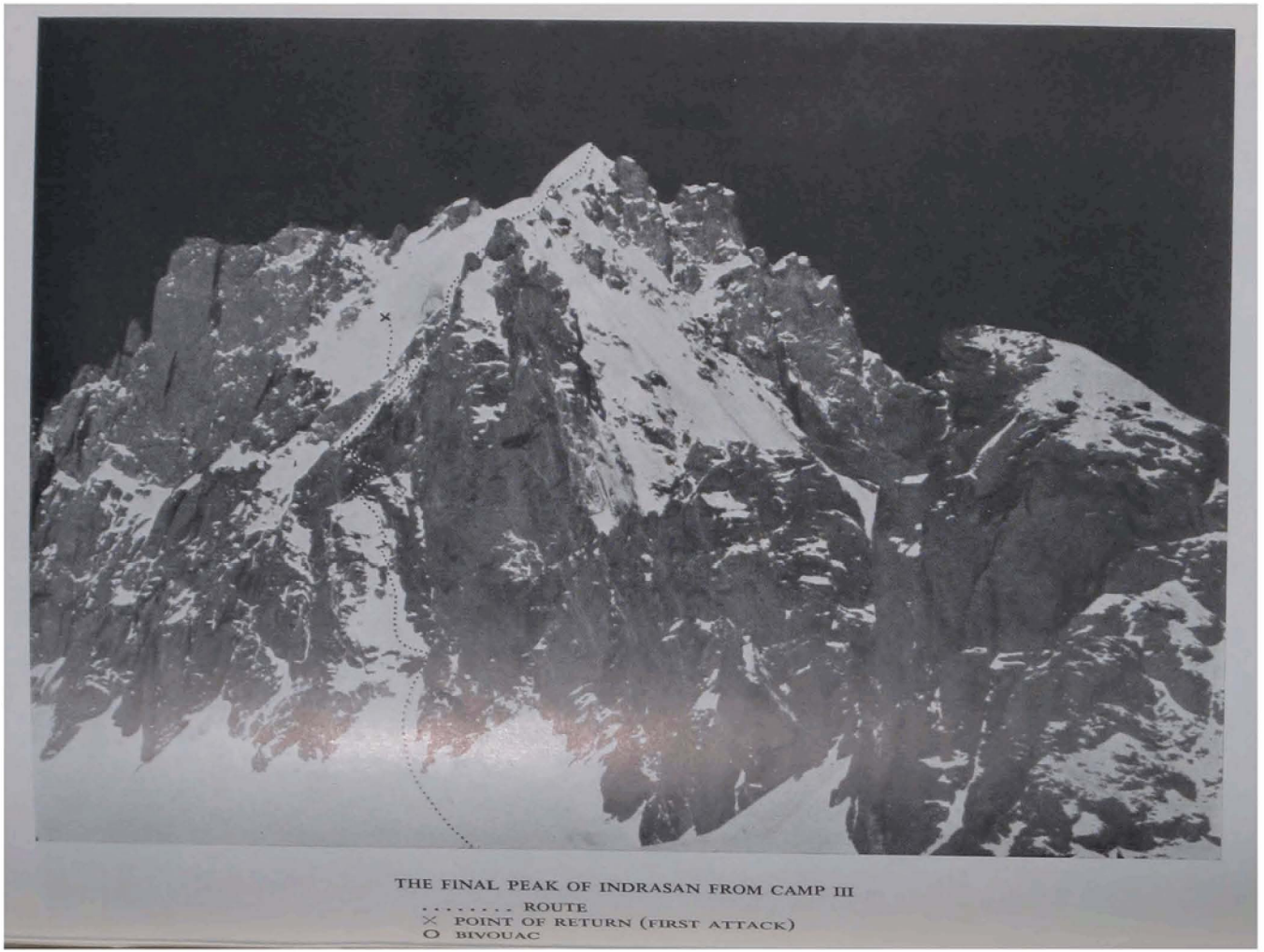
In spite of a little trouble with the Malana coolies, on September 17 the party established the Base Camp at an altitude of 3,800 metres on a grassy alp 3 kilometres down from the snout of the Malana Glacier. The weather was pretty fine by the middle of the month. However, it seemed that the monsoon was not yet over, and the weather was reluctant to maintain its promise.

On September 23, we established Camp I in the Malana Glacier at an altitude of 4,500 metres. Yet we could not have a sight of the summit of Indrasan from Camp I because of an ice-fall (height about 700 metres) in the middle of the Malana Glacier. The camp was established near the foot of the ice-fall which hides the summit of Indrasan. The weather was very changeable towards the end of September and the schedule was retarded owing to bad weather—snow-fall, hail, thunder and rain.

It took ten days for us to find a way up the ice-fall from Camp I to climb up to Camp II which was established at an altitude of 5,200



ALI RATNI TIBBA SEEN FROM BASE CAMP ON THE GRASSY ALP (3,800 METRES)



THE FINAL PEAK OF INDRASAN FROM CAMP III

..... ROUTE
× POINT OF RETURN (FIRST ATTACK)
O BIVOUAC

metres, just above the upper edge of the ice-fall. Now we were happy to have a full view of the sombre rocky peak and summit of Indrasan and, in contrast with it, the graceful, snow-covered peak of Deo Tibba after fifteen days' endeavour.

It seemed that the weather was improving day by day. All members came down the Malana Glacier and assembled at Base Camp on October 4. We enjoyed the next whole day taking rest and making plans for launching the attack on the summit.

We marched forward to the second stage of mountaineering on October 6. All members, except the leader, went up the Malana Glacier full of hope for success. They left the Base Camp at 8 a.m. in a strong wind.

On October 8 we established Camp III on the upper névé of the Malana Glacier at an altitude of 5,500 metres and two members stayed there for the purpose of route finding.

Looking at the final peak we were badly embarrassed by the features of Indrasan which appeared as if a sheer rock wall defended from invasion the beautiful ice-stage of the summit where the god, Jamlu, had his residence.

The previous party which tried to climb Indrasan[1] took their routes up the rock ridge rising from the col between Deo Tibba and Indrasan and all attempts resulted in failure. We tried to find a way to the summit in the sheer rock wall. In view of the consequence of reconnaissance we considered the rock ridge to be too long and difficult to climb. Therefore, we decided to climb the short route to the summit which would be found in the south face of the final peak, in spite of the possible difficulties. We thought that the most dangerous and difficult point in the route must be the overhanging rock at the middle point of the final peak.

After three days of hard work of route making by a team consisting of three members, Tomita, Miyaki and Iwase, a route became open up to the height of 5,800 metres. They fixed a 200-metre rope on the first steep ice-wall and the succeeding overhanging rock. Now the unknown was 400 metres, but it seemed too hard for us to feel at ease. They turned this remaining part over to the attack members, Omori and Tanaka, who had left Base Camp on October 8 and come up to Camp III on the 10th.

On October 11, Y. Omori and J. Tanaka launched the attack on Indrasan early in the morning in fine weather. They reached the upper end of the fixed rope at a fairly swift pace. They continued climbing a steep ice slope and traversed the second rock

[1] See *H.J.*, Vol. XXIII. pp. 110–132.

stage at its lower edge. Around noon they reached the foot of the ice-wall hanging down from the summit. The weather was changing to bad and there were observed from Camp III two dots moving on the ice-wall in the mist. Around 5 p.m. the summit made its appearance dimly in the twilight. There was no sign of anyone below the summit. Suddenly the two members appeared at the foot of the final peak. They reached Camp III at 6 p.m. exhausted. The first attack resulted in failure.

On the following day, six members, except the leader who was staying with Lhakpa at Camp I, met together at Camp III. There seemed no promise of continued fine weather and, moreover, we did not have enough food to stay additional days at Camp III. The bad weather and heavy snow-fall caused a shortage of food and we had no more time remaining. We decided to try the second attack on Indrasan on the following day.

On October 13, K. Tomita and Y. Miyaki left Camp III at 4.20 a.m. The weather was fine and there was a full moon hanging above the rock shoulder of Indrasan. After the hard work of climbing the first rock wall, they climbed at 8.30 a.m. to the upper end of the fixed rope at an altitude of 5,800 metres. Then they climbed a straight steep snow-ice slope and took a new route from there. They found themselves at the top of the rock wall after struggling for some time. It was very hard for the one who carried the heavy sack weighing about 15 kg. They climbed straight for about 50 metres and then traversed 20 metres along a small band.

At noon they reached a terrace where they took lunch. At that time they were fortunate to find that they could get out of the second rock stage. There was a steep, narrow ice couloir between the hanging ice-wall coming down from the summit and the rock ridge. About this time the weather turned bad and there was mist and cloud which concealed the route upward. They were undecided whether to climb further up or climb down. They took a rest for an hour and began to climb carefully up the couloir. At 3.25 p.m. they stood on the main ridge. They saw the summit through a dim light in the snow-fall. Now it seemed possible for them to climb the ridge with no difficulty. They left their sacks at the place for a bivouac and then continued climbing the last ice cap leading to the summit.

At 4.30 p.m. they were actually on the summit of Indrasan. They could not have the fine views which they expected of the mountains in Lahul and Spiti. They took snaps in the snow-fall and began to descend. They found a place for a bivouac in a crevasse at an altitude of 6,150 metres at the foot of the ice cap below the summit.

They stayed there during a night of terrible cold and hunger and then began to climb down in beautiful weather next morning. They abseiled four times and reached the upper end of the fixed rope at 12.10 p.m. They were completely exhausted, moved very carefully and came back to Camp III at 3.20 p.m. of the 14th.

Deo Tibba was also ascended on October 13. Y. Omori and J. Tanaka left Camp II at 6 a.m. and joined with T. Iwase and Gunding at Camp III at 8 a.m. They stood on the summit of Deo Tibba at noon and came back to Camp III at 3 p.m. They enjoyed fine views and took photographs.

On October 15, all members assembled at Camp I and returned to Base Camp down the Malana Glacier on the following day. They arrived on October 23 at Kulu where they made arrangements for the return journey to Japan via Pathankot and New Delhi.

KHINYANG CHHISH, 1962

By Dr. P. J. HORNIBLOW

A STRONG reconnaissance, and an attempt on one of the two summits, of the Khinyang Chhish-Pumarikish massif was the object of this year's joint Pakistan-British Forces Karakoram Expedition. These two mountains are on the north side of the Hispar Glacier, at a point where the States of Nagar and Hunza and the Ladakh Agency meet. Little was known of the area, and such information as we had was derived from the map made by Mr. Eric Shipton on his 1939 survey of the Hispar-Biafo glacial regions[1]; correspondence with the late Mr. Wilfrid Noyce, whose ascent of Trivor in 1960 afforded a view of the north-west face of Khinyang[2] ('Chhish' means mountain); and the secretary of the 1959 Italian expedition to Kanjut Sar. Photographs, taken half a century ago by the Bullock Workmans, also assisted us in our reconnaissance of the southern slopes of both mountains. An aerial survey by the Pakistan Air Force on behalf of the expedition was unfortunately carried out too late to be of value to this year's party.

Difficulties beset us from the start. The expedition was planned under the joint leadership of Major E. J. E. Mills, a member of the successful Forces expedition to Rakaposhi in 1958,[3] and Captain Jawed Akhter, of the Pakistan Army, who had scaled the East Peak of Malubiting in 1959 when he was a member of the British-Pakistan Forces expedition under Major H. R. A. Streather, and had followed this success by climbing Masherbrum with the 1960 American expedition. Unfortunately, Captain Akhter broke his leg playing football earlier in the year, and was not fit enough to join the party. Squadron Leader Shah Khan, of the Pakistan Air Force, another member of the Rakaposhi team, was nominated as his replacement, but he also had to call off through ill health at the last minute. A second P.A.F. officer also was prevented from coming.

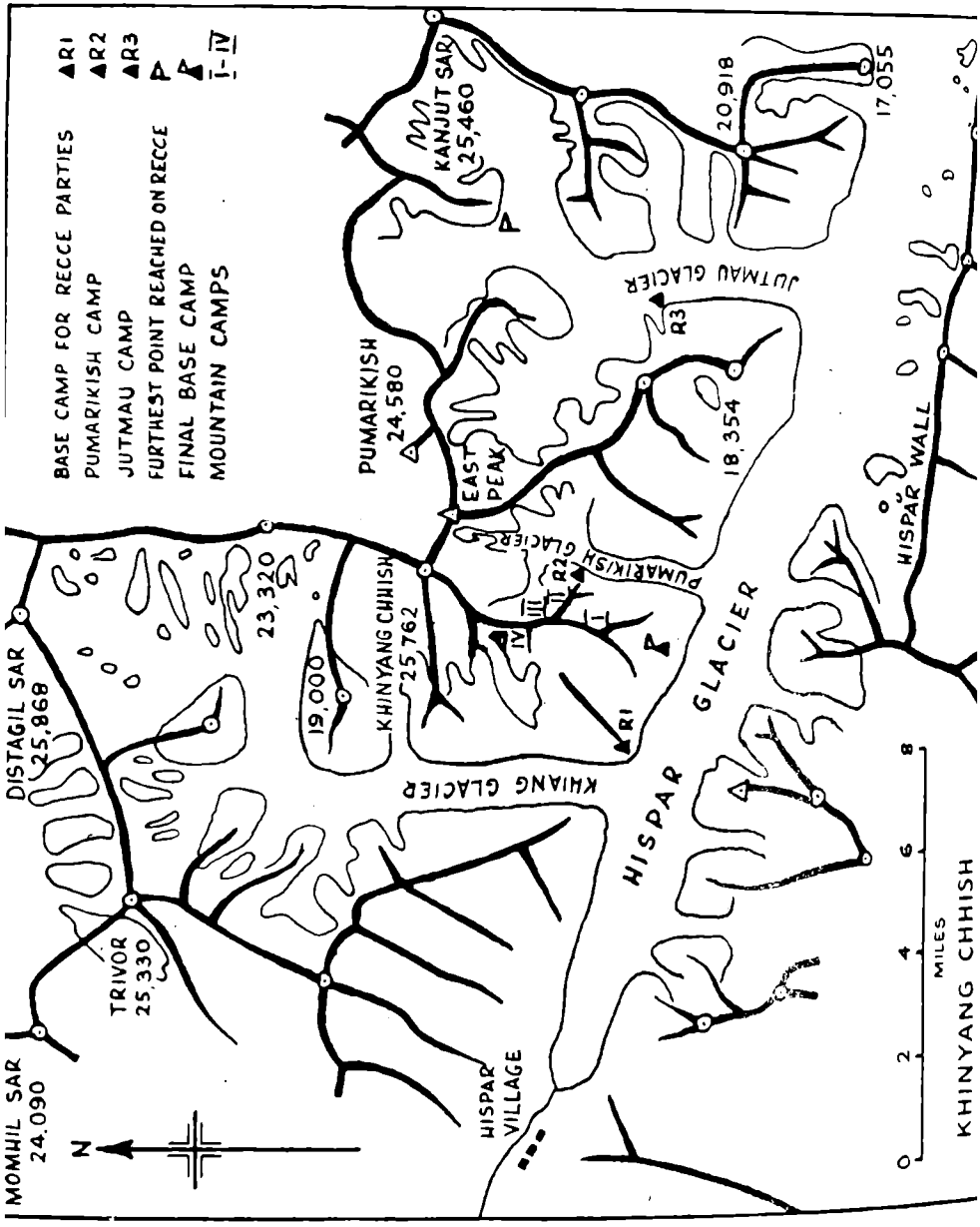
So the party that finally collected at Rawalpindi on June 6 comprised Major Mills (Leader), Captain M. R. F. Jones, of the Royal Fusiliers, Captain A. Hasell, of the Royal Signals, and myself as medical officer. We formed the British contingent. Captain Saeed Durrani, Captain Khurshied Ahmed, and Lt. Nisar Ahmed, of

[1] *H.J.*, Vol. XIII, 1946, pp. 9–27.
[2] *H.J.*, Vol. XXII, 1959-60, pp. 134–140.
[3] *H.J.*, Vol. XXI, 1958, pp. 55–59.

the Pakistan Army, were its representatives. These three officers had been introduced to mountaineering by Major Mills when he attended the Quetta Staff College in 1960, and were very enthusiastic. Durrani in particular showed a great natural ability for the sport. A late choice by the Pakistan Army was Captain Naqvi who, however, was very inexperienced. The last member of the party was Dr. Karl Stauffer, an American member of the Geological Survey of Pakistan, who originally intended to confine himself to a mineralogical survey of the Hispar region, but who became a climbing member to strengthen the team in the absence of Jawed Akhter and Shah Khan. He had had considerable rock-climbing experience in America and Alaska. Apart from Mills, I was the only member with previous Himalayan experience, but Jones had led a successful expedition from his regiment to the Canadian Rockies in 1960, and Captain Hasell had led the Army Mountaineering Association summer meet in the Alps in 1961.

Jones, as expedition secretary, had performed his duties admirably, and the party were ready to move off from Gilgit on June 12, having been flown there from Rawalpindi in a Pakistan Air Force 'Freighter'. It was a great sorrow to us when we later learned that the crew of this aircraft had been killed in a flying accident near Rawalpindi in July.

Mills had planned to reconnoitre the mountain in advance of the main party, and accordingly he, Hasell, Khurshied, Durrani and myself left Gilgit for Nagar by jeep on the 12th. This track along the course of the Hunza river is terrifying at the best of times, and recent heavy rains had played havoc with some stretches, so that our journey took twice as long as usual, and it was an exhausted party that reached Nagar at 11 p.m. that evening, having forded several streams, rebuilt a bridge, and cleared a landslide *en route*, as well as having had to push our over-loaded jeeps up the steeper hills. The inhabitants of Nagar compare unfavourably with their Hunza and Balti neighbours, and regard a mountaineering expedition as a heaven-sent source of revenue. Mills had managed to recruit six experienced Hunza porters while we were in Gilgit, but these were *personae non gratae* with the Wazir of Nagar, who proved extremely unco-operative until we were forced to dismiss them. Other porters were not forthcoming, and the loads they were to carry were reduced to 40 lb. The fact that we had chosen to arrive in the midst of the ten-day Muslim feast of Muharram was another handicap. Finally, we managed to collect thirty-five men to carry 60 lb. apiece, after the Mir himself intervened, but not before he had extracted a promise of 'baksheesh' to be paid if they


BASE CAMP FOR RECCE PARTIES ▲R1
PUMARIKISH CAMP ▲R2
JUTMAU CAMP ▲R3
FURTHEST POINT REACHED ON RECCE P
FINAL BASE CAMP P
MOUNTAIN CAMPS I-IV
MOMHIL SAR 24,090
DISTAGIL SAR 25,868
TRIVOR 25,330
23,320
19,000
KHINYANG CHHISH 25,762
KHIANG GLACIER
HISPAR VILLAGE
PUMARIKISH 24,580
EAST PEAK
KANJUT SAR 25,460
PUMARIKISH GLACIER
JUTMAU GLACIER
18,354
20,918
17,055
HISPAR GLACIER
HISPAR WALL
KHINYANG CHHISH
N
0 2 4 6 8
MILES

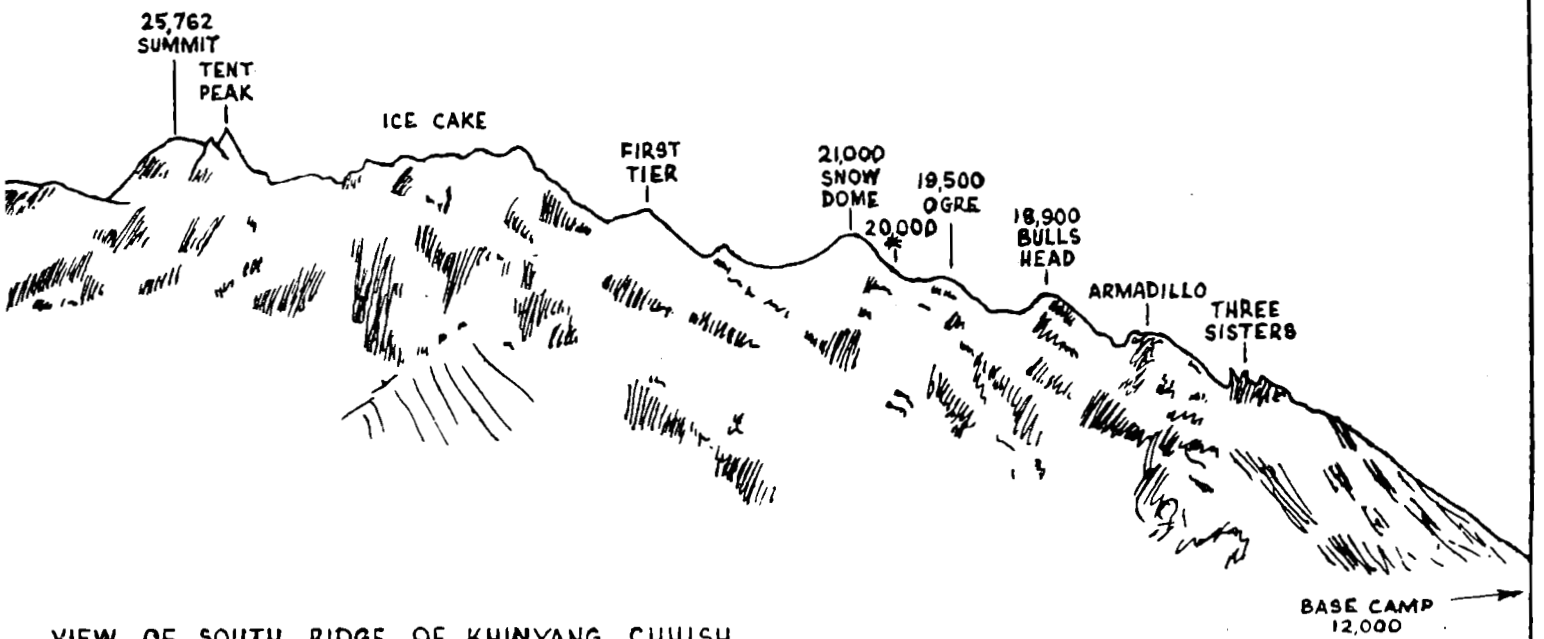
worked well. I feel obliged to state that much of this financial bickering is due to the affluent Italian Kanjut Sar expedition, who dispensed largesse and equipment on an unparalleled scale in 1959.

The walk from Nagar to the village of Hispar, at the foot of the glacier, is remarkably unpleasant, up the forbidding gorge of the Hispar river, mostly trackless, and along sections of scree-slope that are as dangerous as any mountain. On our second night out, we were treated to the spectacle of an earth slide half a mile from our camp that covered the valley floor. The third evening we reached Hispar, where a villager excelled himself by asking for rent for the area we chose for our camp-site because ' the grass would be damaged '. He was not rewarded. Two afternoons later we reached the foot of the south-west ridge of the mountain, and made a temporary Base Camp for the reconnaissance. This was a pleasant meadow called Bitanmal above the lateral moraine. From it we could see what we named ' Tent Peak ' above us, which subsequently proved to be the penultimate peak on the south-west ridge.

Next morning, Mills and Durrani set off up the steep grass slope of the south-west ridge, whilst Hasell, Khurshied and myself continued up the side of the Hispar Glacier to study possible routes up the mountain from the Pumarikish and Jutmau Glaciers.

To follow the fortunes of Mills and Durrani first: they ascended to about 16,000 feet on their ridge, but were soon discouraged by its broken nature. It was breached at one point, and beyond it was a rock wall that only led out on to an ice and rock face, giving no hope of a route. To the east, however, they could observe the south-south-west ridge in profile, and this was far more promising. In the event, it was the route chosen for the climb. Once a series of gendarmes—graphically named the Three Sisters and the Armadillo by Hasell—on the lower part could be by-passed, there remained a snow and rock peak—the Bull's Head—which looked as if it could be turned ; another spire—the Ogre—which seemed possible ; then two rounded snow hills—the Snow Dome and the Snow Cake respectively—and then a moderately steep climb to the summit. Should this prove difficult, there was a high snow basin on the west side which might afford a route to the summit. It must be said that a view of the summit itself proved most elusive, due both to a persistent cloud cap and to the very fact of its position, tucked away to the north-west, and usually hidden by the southern ridges. We still cannot foresee what—if any—difficulties another party will have above its higher camps.

Mills was satisfied with what he saw, and he and Durrani descended. They chose a Base Camp about two miles further up the



VIEW OF SOUTH RIDGE OF KHINYANG CHHISH

glacier, at the foot of the south-south-west ridge, at an altitude of some 12,600 feet, another pleasant meadow, though lacking water in the immediate vicinity. From here, with the limited number of porters at their disposal, they began to establish Camp I at nearly 16,000 feet on a southerly subsidiary ridge. This involved a three-hour climb up steep grass and rock to the mouth of a rocky nullah that debouched into a snow basin on the east flank of the south-south-west ridge. The snow level by this time (last week in June) was at about 16,000 feet.

Meanwhile, Hasell, Khurshied and I, having reached the mouth of the Pumarikish Glacier on June 18, were able to orientate ourselves with the help of one of Dr. Bullock Workman's photographs taken up this glacier from the Hispar Wall. There appeared to be a good chance of ascending the glacier, and then from its north-east extremity, crossing a high 'la' or pass on to the Jutmau Glacier and descending this to the Hispar again. That night we camped up the west side, amidst a sea of forget-me-nots and celandine, and the following morning ascended the slope above us. This was the south-east ridge of Khinyang. It was a pleasant scramble in the warm sunlight—the last we were to see for many days—and we were treated to the sight of a Sabre Jet of the Pakistan Air Force flying over at 30,000 feet or so. This was one of the photo-reconnaissance surveys being carried out on our behalf. More suitably dressed for the tennis-court than a Himalayan peak, we found ourselves forced on to snow when we reached the ridge, but were then able to see that the head of the Pumarikish Glacier is enclosed by sheer cliffs of ice and rock, and that access to the Jutmau Glacier is blocked by a fluted rock ridge that hangs like a theatre curtain a thousand feet high between a straight knife-edge ridge running directly up to the summit of the east peak of Khinyang, about 24,000 feet and a subsidiary peak on the east side of the Pumarikish Glacier.

The east peak of Khinyang is a fine rock tower, and is worth naming. It seemed probable to us that it was mistaken for Pumarikish mountain, hence the name of the glacier when the area was first explored, but this is not so: the actual peak of Pumarikish, which we saw later from Camp II, lies behind East Peak to the north-east. The ridge we were on followed a steep and irregular course to the north-west, where it seemed to fuse first with the south and then with the south-south-west ridge at the Bull's Head. It would be most unsuitable for porters.

Next morning dawned cold and wet, and, crossing the Pumarikish Glacier, we descended to the Hispar, and walked up to the Jutmau

Glacier. This is unpleasant to ascend, as there is no lateral track, and even the yaks are daunted by it. In our previous travels, we always followed yak paths, as these ungainly black beasts choose the best going at all times. Mist and rain befell us during our three days on the Jutmau, but it was clear that this glacier also afforded no outlet on to the upper slopes of either Khinyang or Pumarikish. The glacier head is formed by the east flank of Kanjut Sar, with its massive horizontal striations, clearly of very different origin from the mountains to the west; a narrow glacier descending from an unnamed 23,000-foot peak to the north; the south shoulder of Pumarikish, offering little hope of the summit; and the Jutmau itself, descending from the 'hanging curtain' between it and the Pumarikish Glacier. Near the head, Hasell found a tin, probably once containing milk, with the numbers CRJU–E428 on it, possibly a relic of Shipton's party, although we appear to have travelled further north than his party.

We returned to Base Camp, and on the evening of the 25th the main party arrived. They, too, had had their vicissitudes with porters, and on one occasion, with the help of their few potential high-altitude porters, had formed a 'thin red line' to prevent their mutinous coolies making off back to Nagar. However, little of value had been stolen, though a sack of ropes had been lost from a jeep, a fact that was to affect our plans later. Next day, whilst Jones struggled with the thankless task of paying off the porters, we erected a mess tent, and stacked it with the luxurious rations that Mills had obtained for us in England.

During the next few days, all hands were engaged in ferrying supplies up to Camp I. The weather remained persistently bad, and on July 1, the Camp I party, consisting of Hasell, Durrani, Stauffer and Khurshied, returned to Base Camp, as they could make no progress beyond the snow basin. Mills sent them back up again next day though, as the weather showed some signs of clearing, and on July 4 they managed to climb out of the snow basin on to the end of the south-east ridge where it turned westwards to join the south-south-west ridge near the Bull's Head. This involved a steep snow ascent on a slope prone to avalanches, and the four of them worked hard to fix ropes totalling a thousand feet.

On July 6, Mills, Jones, Nisar Ahmed and I passed through and established Camp II at about 18,000 feet on the lip of the snow basin. This was a knife-edge ridge, and tent platforms had to be dug. Over the other side, the ridge dropped vertically for about 3,000 feet on to the Pumarikish Glacier. Sleep in this camp was disturbed until one got used to the airiness of the site. The same night, Hasell, with the

help of Ayat Ali, one of our high-altitude porters who had served as a linesman in the Northern Scouts, managed to finish laying a telephone cable from Camp II down to Camp I, which thereafter worked faultlessly. These special light-weight telephones were of great use to us, and solved the whole problem of communication between the two parties. I built an ice water-closet on the slope which, providing one wore a safety rope, added comfort to one's early morning chore.

Now we were faced with our first serious problem. During the next seven days, whilst Hasell, Durrani, Khurshied, and Stauffer slogged up and down between Camps I and II with the porters, the other four tackled the Bull's Head. From Camp II we followed the south-east ridge upwards for some 500 feet to the top of the Bull's Head. At first, it seemed as if we were balked, for there was a sheer drop on the other side. It was impossible to by-pass the Bull's Head to the west, and the east face was vertical rock—interesting enough for a summer's afternoon in Wales but no route for a laden climber or porter. Eventually Mills decided to go straight on over the top. Breaking through the cornice, Jones and he descended a steep snow-face, then traversed on to the east rock-face. When they finally reappeared, Nisar Ahmed and myself were delighted to hear that they had found a difficult, but possible, route down to the Col on the south-south-west ridge leading across to the Ogre. It was a fine piece of route finding by Jones, sustained by the unquenchable enthusiasm and caution of Mills. During the next five days, the party slowly descended this face, fixing corlene ropes as they went, and returning to Camp II each night. About 1,300 feet of fixed rope were used to descend this face whose vertical height must have been about 500 feet, and included two exposed traverses and a chimney. The weather remained bad during this period.

It was now that the loss of the sack of rope earlier on was appreciated and Mills sent a message back to Gilgit asking for another 4,000 feet. As it happened, it was perhaps fortunate that it was not available. On the 15th, Mills' party crossed the Bull's Head and climbed a steep snow-slope to the foot of the Ogre. There they found that, though the ascent of the south face of this rock tower offered no great difficulties, the far side was a narrow overhanging ridge that was surely unsafe. So they made a tent platform at the foot of the rock, as it was clear that it must be by-passed on its eastern flank. Despite its steepness and the rotten snow, it offered a chance, and so Hasell, Durrani, Stauffer and Nisar Ahmed moved through to the temporary site of Camp III, until they could find a route across the Ogre to the foot of the Snow Dome. Mills

and his party moved back to Camp II, where Captain Naqvi had arrived with the last load of supplies ; he was suffering very much from the altitude.

The morale of the rest of the party was somewhat affected by the poor mail service. The Pakistan postal authorities seemed unfamiliar with the State of Nagar, and our mail was routed via the dead letter office in Lahore, Merdan and Swat, so that it was a month old by the time it reached us—if it did. My wife sent me nine letters during the course of the expedition, none of which arrived. The continuing bad weather also did little to raise our spirits, but it was now that Mills' leadership was so much felt by the whole party. His enthusiasm and optimism, combined with his quiet, sympathetic but firm grip of affairs, held us all together. We all had complete confidence in his sound, experienced judgement.

On the morning of July 18, after a night of heavy snow, Mills, Jones, Khurshied and I set out for Camp III with four high-altitude porters, all carrying 40-lb. loads. New steps had to be kicked up the Bull's Head, and we missed the help of half of our porters, who were sick. Again it must be said that as a high-altitude porter received Rs.5 a day and his food at this height, even if he did not work, there was no great incentive for him to turn out of his sleeping-bag. They persistently ignored the advice of Mills and myself to wear snow goggles, with the result that usually at least one of them had snow blindness. Towards the end, I found it necessary to issue ' malingering ' chits to those who did not wish to work without good medical cause, as the drain on our finances was becoming too great.

Reaching Camp III, we lunched, and then went to the start of the Ogre traverse—or Nymph's Traverse, as Hasell named it. We were glad to find that he and his party had roped a route, which emerged, by a stroke of good fortune, at the one place on the Col between the Ogre and the Snow Dome that offered access on to the ridge. The traverse was some 400 yards, and at one stage involved going on all fours under the overhanging rock. We reached the Col shortly after 2 p.m. to find Stauffer and Durrani had levelled a tent platform on the west slope of the foot of the Snow Dome, and Hasell and Nisar Ahmed just descending the ridge of the Dome itself, happy to have found what Hasell described as a ' football field ' for a camp at the top, some 800 feet away.

Whilst the six of us rested, Mills and Jones set off up the ridge in the footsteps of the other two. The steps were well on the west side of the ridge, which was the side of the prevailing wind, where the snow would normally be hard packed. The ridge was a single *arête*, with no cornice on its eastward aspect ; and the angle of ascent

Photo: J. A. E. Hasell

CAMP II, KHINYANG CHHISH. BEHIND THE CAMP ARE THE BULL'S HEAD AND (RIGHT) THE OGRE

Photo: J. A. E. Hasell

KHINYANG CHHISH. BULL'S HEAD (LEFT), OGRE AND SNOW DOME FROM THE EAST

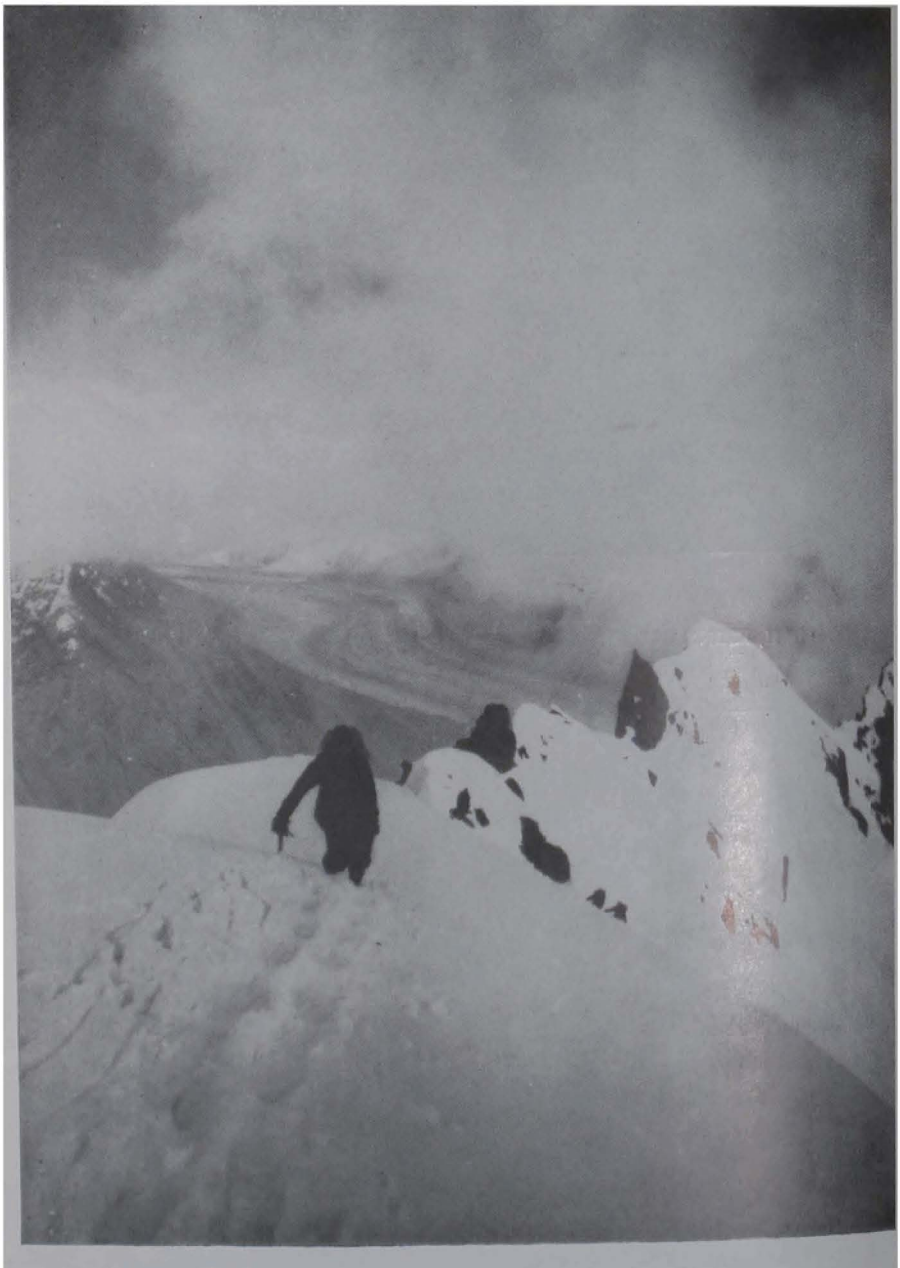


Photo: J. A. E. Hasell

HISPAR GLACIER AND SOUTH-EAST RIDGE OF KHINYANG CHHISH FROM THE BULL'S HEAD

could not have exceeded 35°, making roping unnecessary. They had ascended some 200 feet by the time Khurshied and myself noticed them, and as they were laden, it was clear that Mills had decided to take supplies to the proposed Camp IV site. So Khurshied and myself shouldered our packs and set off in their footsteps. It was still snowing and visibility was poor, and we lost sight of them.

Suddenly, Khurshied shouted that he had seen something fall on the eastern side of the ridge, something yellow and moving at a terrific speed. This could only have been one of our bright yellow sleeping-mattresses which we normally carried tied on to our rucksacks. I crawled to the edge, and saw two ice-axes lying in freshly fallen snow on to the slope below. One was buried up to its head, and the other, sixty feet below, lay on the surface. Khurshied and I turned and slowly made our way down to the tent platform. There were the few moments of utter disbelief that anything could be amiss. Then the mists lifted for a few moments, and above we could see the empty ridge, with a piece of snow, 200 feet long, 30 feet wide, and about 2 feet deep, bitten off about 400 feet above us. It had slipped down the eastern side of the ridge, but it had taken with it the crest of the ridge and some of the top snow on the western side. Above and below the gap on its extreme west edge were the steps of the previous two climbers. Hasell and I descended to a point on the traverse where he was able to study the slope below the ridge. It fell clear over a cliff about 5,000 feet down on to the Pumarikish Glacier.

Hasell and Nisar Ahmed spent the night at the new tent platform, whilst the remainder of us returned sadly to Camp II. The snow grew heavier, in fact it was another seventy-two hours before it stopped. The following morning, Durrani, Stauffer and Khurshied made their way round to the head of the Pumarikish Glacier, which they reached on the afternoon of July 20. There, in a snow basin at the foot of the ridge below the Ogre, filled with stones and debris from avalanches, they saw the strap of a pack sticking up through the snow. It proved to be Dick Jones'. Further search would have been hazardous and fruitless. They collected stones and laid them in a Cross near where they had found the pack. Meanwhile, the rest of the party brought down as much equipment as they could carry from beyond the Ogre to Camp II, and the survivors gathered in Base Camp on the night of July 20. The expedition was over.

On the morning of the 22nd, Khurshied and I left Base Camp in thick mist, and reached Nagar two nights later. The bad weather had broken the Nagar-Gilgit jeep track in numerous places, and we had to hire horses. We reached Gilgit on the 26th, and I flew

to Rawalpindi next morning to break our sad news. Meanwhile the rest of the party made their way back to Nagar where they were able to use one jeep belonging to the Political Agent which had been cut off by the floods. We were all reassembled in Gilgit by August 9, and then had to wait five days for the weather to clear enough for a P.A.F. 'Freighter' to fly us out to Rawalpindi and home.

This country can ill afford to lose such men as Jimmy Mills and Dick Jones. They were fine leaders and tireless workers. They will be an inspiration to all of us who were fortunate enough to have known them and to have climbed with them.

SWAT AND INDUS KOHISTAN

By TREVOR BRAHAM

AN expedition seldom works out as intended. A two-year-old scheme to visit the Batura group in Hunza during the summer of 1962 having finally fallen through, I found myself left to my own devices, without plans, party or permission. In February, 1962, having acquired the first, I began to take steps to set in motion the other two. My original scheme to cross from Swat to Chitral and then over the Shandur Pass to Yasin and Gilgit was firmly turned down; and I fell back on the Foreign Affairs Ministry in Karachi suggesting that the lofty term 'mountaineering expedition' be dropped, and requesting their blessing for a climbing holiday in Swat and Indus Kohistan.

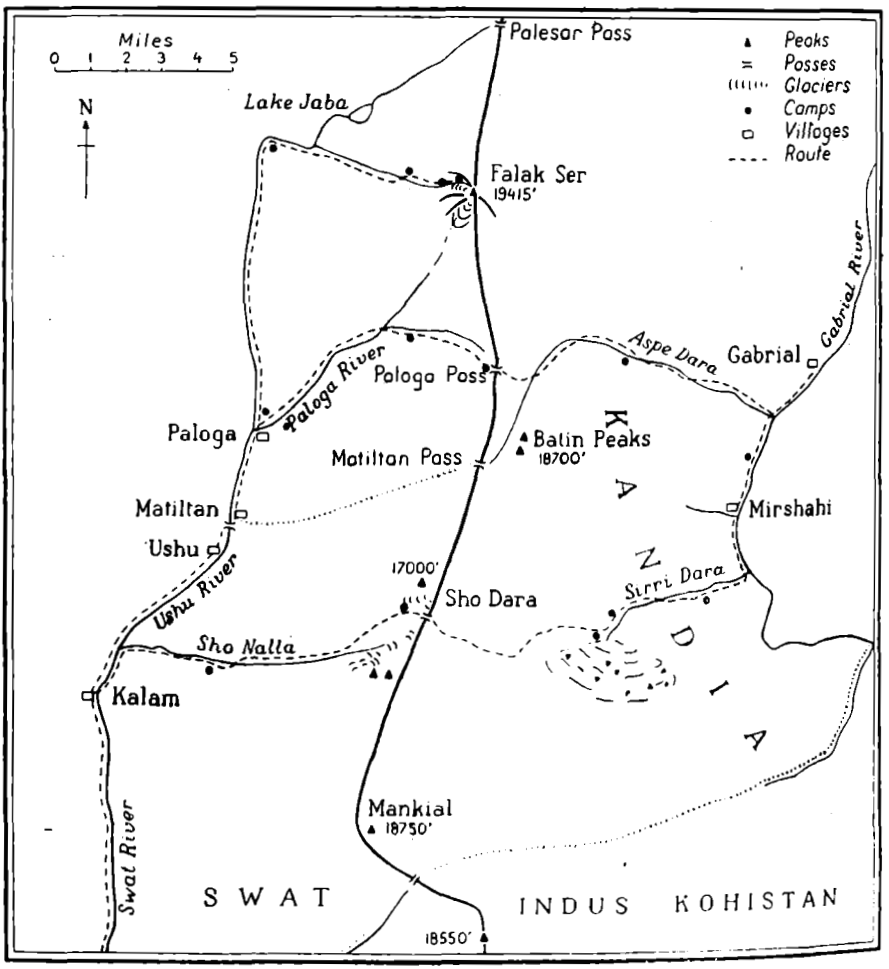
The issue was still in the balance, when by a piece of good fortune I chanced to meet the Waliahd of Swat State during a week-end visit to Saidu Sharif in May. From then on, my path was miraculously smoothed out, and I was shown nothing but the utmost co-operation and hospitality by every State official, from Saidu Sharif down to the smallest and most isolated *tehsil*.

Getting together a party at short notice proved to be difficult. A surveyor, whom I had hoped would come, could not be spared by his department; an Army officer, who had climbed in the Ushu area, was attending a course during the only period that fitted my plans; so I decided, not for the first time, to go alone.

My choice of area had been influenced by the late Major Jimmy Mills' account of his two brief visits to Swat Kohistan in 1960. From the top of a peak above Matiltan he had glimpsed at an impressive and unsuspected peak to the east in Indus Kohistan, hinting that it was a good deal taller than any of the mountains so far known to exist in the area. His description of a people and a way of life that belonged to a former age had attracted me. It was evident that much of the country, particularly in Indus Kohistan, was still very little known.

Swat and Buner, together with Kohistan to the north, comprise an independent administrative area of approximately 2,500 sq. miles situated in what was formerly known as the North-West Frontier Province. The Gilgit Agency lies along its north-east border, with Chitral to its west. The State, which is ruled by the Mianguls, is affiliated to West Pakistan in matters of common interest such as defence and foreign affairs. Swat is easily reached from Peshawar.

and its frontiers actually begin in the Malakand Agency, the main approach road leading through places famous in Frontier history such as Dargai, Malakand, Chakdarra, each with well-manned forts. At Chakdarra, the road divides, the western branch leading to Dir and Chitral and the eastern to Saidu Sharif. A little beyond is the town of Barikot where Alexander's army halted on its way through Buner and across the Ambela Pass to the Peshawar plains.



MAP OF SWAT AND INDUS KOHISTAN

Travelling by road north-west from Rawalpindi over the Margalla Pass, the approach to Attock makes a deep impression. The plains recede, and the great Fort dominates the crest of the hill in the foreground. Built by Akbar in 1581, the Fort commands the Indus gorge and the main approach to Frontier territory. It is occupied today by a modern Infantry Regiment. Here, at the confluence of

the Kabul and Indus rivers, stands the Attock Bridge guarded at either end by armed sentries. Across the bridge is Pathan country.

The people of Swat are Pathans of the Yusufzai sect, and these Yusufzais have enjoyed independence since their occupation of the country in 1515. It is their proud boast that never, not even under Akbar, were they the subjects of any empire. Lower Swat, which is remarkably fertile and possesses great natural beauty, has been described as one of the most heavenly valleys in the world. The founder of the present ruling family, the Akhund, or religious teacher, died in 1877. His grandson, Miangul Gulshahzada, by bringing about political cohesion amongst a number of Yusufzai tribes, was the creator of the modern State of Swat. For 30 years he ruled Swat, bringing peace, security and progress and generally opening up the country. In 1948, he transferred administration to his son, Miangul Jehanzeb Khan, himself retiring into seclusion. Years of progress have continued, and development is gradually spreading to the northern areas. Roads are being extended; and a jeep road is to be constructed linking the State with Gilgit. But in the far north, the land is unyielding. Winters are long and severe, and the people live a marginal existence in small and isolated settlements, for the most part self-supporting. Here, it is possible to find the odd corner where the white man is still a stranger, and where unsuspected valleys and mountains lie waiting to be explored and climbed.

I had planned initially to travel up the Ushu valley and attempt Falak Ser, 19,415 feet, considered to be the highest mountain in the State. The fact that it had been twice climbed suggested that it would provide a suitable 10-day expedition following years of sedentary living. The remaining 2½ weeks were to be devoted to my main objective, the discovery and exploration of Mills' elusive peak in Indus Kohistan. The only information I could obtain was that no mountain higher than Falak Ser existed anywhere, least of all in Indus Kohistan. Some went so far as to say that Falak Ser had never been climbed; nor, indeed, was such a giant ever likely to be. C. H. Tyndale Biscoe, who made the first ascent in 1957 with A. Berry, also climbed the higher of the twin Batin peaks, 18,700 feet, about 10 miles to the south (*N.Z.A.J.*, 1958). In 1958, Tyndale Biscoe returned to search unsuccessfully for a peak in that area, believed to be higher than Falak Ser. At about the same time the Survey of Pakistan carried out some work in the region as a result of which they plotted a peak due east of Kalam and fixed its height at 20,528 feet. This peak, so far as I know, has not been approached or climbed.

There is a good motor road leading north from Saidu Sharif, metalled for the first 50 miles to Bahrain. Here I stopped to meet the Bara Hakim, a pleasant man who gave me tea in his Swiss-like chalet and apples freshly picked from his trees. There was a fine view of Mankial Peak, 18,750 feet, first climbed by Holdsworth's party in 1946; and again in 1960. The road from here to Kalam, 30 miles to the north, is often closed to traffic in the winter. From Kalam, Falak Ser is an impressive sight, a solitary peak filling the head of the Ushu valley. A fort, two rest-houses, and the *tehsildar's* offices lie scattered about on an exposed and windy plain 300 feet above the village. Surrounded by rock peaks, green alps, and fir-clad slopes the atmosphere is typical of an Alpine climbing centre. Kalam is the starting-point for all expeditions to Upper Swat.

With the assistance of the *tehsildar*, six porters were engaged to carry my baggage to Matiltan about seven miles away. They set off early on August 15, and I followed later by car travelling in company with the *subedar* of Matiltan Fort. The road winds through magnificent deodar forests and ends at a narrow bridge over the Ushu river. From here, there is a fine view of the twin Batin summits, and Matiltan Fort is 20 minutes away up a steep track. The State maintains a levy system, and the militia guarding these forts are drawn from the local population who are required to fulfil up to five years of service, comprising eight days' duty followed by four days' leave. The fort at Matiltan is manned by 36 *sepoys*. The *subedar* provided me with six *sepoys* and a mail-runner. Also as I was entering tribal territory, an armed escort.

The men I had were first-rate. Inured to cold by their severe winters, they are tough and proud of it. Provided they trust and respect you, they are loyal; and remarkably honest. They are incorrigibly garrulous; and they possess a slight Pathan streak of hotheadedness and blood-thirstiness. Often round a camp-fire conversation would seem to generate exceptional heat, to end a moment later in laughter and horseplay. They eat two enormous *chappattis* a day, prepared from maize flour; and they drink black tea stewed with *gur*. They chew snuff, kneaded into doughy pellets and held between the teeth and lower lip. Since illicit affairs in this part of the world usually end in tribal feuds and murder, the men marry young. It is not uncommon for them to have two or three children by the age of 21. About England they have a dream-like conception, and regard it as the finest place in the world. Climbing for its own sake they find incomprehensible; they were eager to know what rewards were attached to make it worth the effort.

We made our first camp at Paloga by the river, with fine views

up the valley. The men assisted ably with camp chores; and later, round an enormous camp-fire, their singing continued late into the night. The next day a four-hour walk brought us to the entrance of the Falak Ser *nullah*, where we pitched camp in a clearing amidst tall pine-trees. My escort, Mohmand Sadiq, and I arriving early proceeded a mile up the valley and obtained our first glimpse of Falak Ser eight miles to the east.

We followed a slender track up the valley the next morning. Crossing over to the right bank, we crossed open slopes interspersed with birchwoods and reached a small shepherd's settlement at about noon. This proved to be the only habitation in the valley. Sadiq was strict about his duties, and he would not let me out of his sight for an instant, as I discovered yesterday when I thought I had escaped for a bathe. Beyond the settlement, the valley broadens and progress continues over boulders and old moraine beds. At about 11,000 feet, below a steep fall in the river, we pitched our tents, overlooked by intervening rock ridges which obscured Falak Ser.

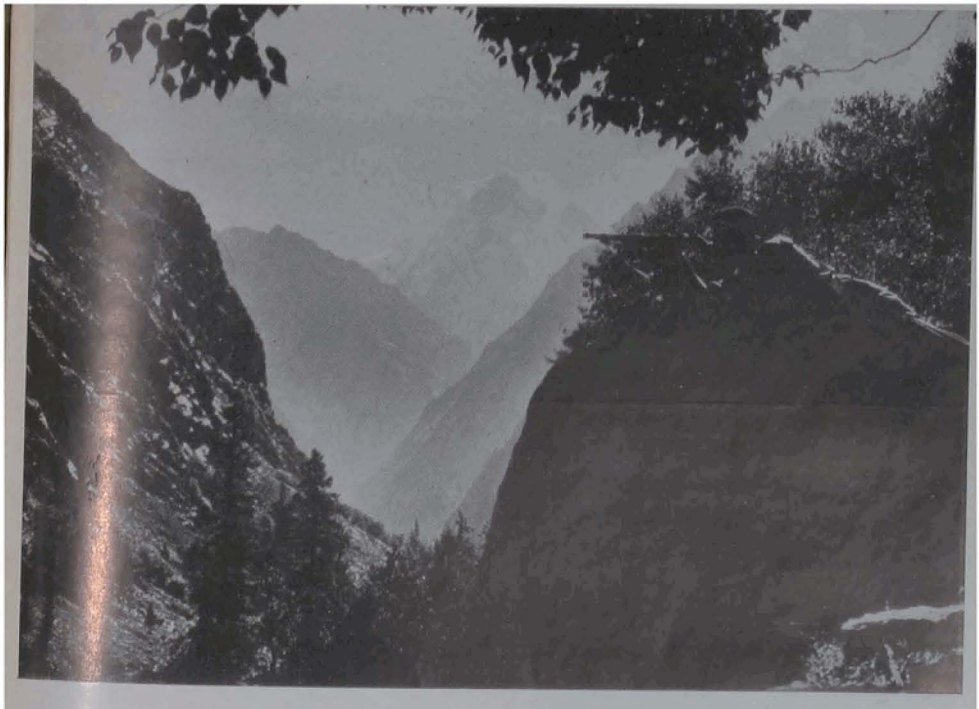
As Boulder Camp was intended to be a Base, I took Sadiq up the next morning to study the approaches to Falak Ser. A tiresome climb up loose boulders by the stream brought us in two hours to the glacier snout. From here we gained the clean ice and névé of the west Falak Ser glacier, and were soon threading our way through a badly crevassed area. We were on the left bank and, by gradually extricating ourselves towards the centre, reached easier ground. We continued upward towards the north-north-west spur of Falak Ser, for it was plain now that this was the best line of approach. We halted at 1 p.m. in a sheltered snow hollow about 400 yards from the foot of the spur. This seemed an ideal camp-site at about 15,500 feet. The spur appeared to be quite straightforward and it provided access to the north-west ridge, which led direct to the summit. The length of the climb, which was entirely upon snow and ice, would depend upon the conditions; but I estimated that it could be done in a 14-hour day from the snow hollow and back. Sadiq, who was wearing *chappals* with heavy moulded-rubber soles, turned out to be one of those natural climbers. We found an easier way back avoiding many of the crevasses before we came off the ice on to a moraine ridge. We spied a green lake in the ablation valley, and found our way down by a long traverse of the right-hand slopes covered with a profusion of primulas, gentians, potentillas and anemones.

Taking Sadiq and two porters with me the following day, August 19, we set up camp by the green lake intending to place another in

the snow hollow on the morrow. The site had evidently been used before. In the afternoon I climbed to a pass leading north over into Kandia. It was disappointing to find that the last 1,000 feet of Falak Ser were persistently clouded over. In the morning, we moved up the glacier; by about 11 a.m. the weather showed signs of change; at 1 p.m. when we reached the snow hollow it had closed in.

As soon as we got the tent up, snow began to fall. After a brew of tea, the two porters departed for Lake Camp with instructions to follow strictly in our upward tracks. A two-man tent is always crowded when a kitchen occupies one end. On this occasion space became further restricted by the gradual decline in the roof level. Twice during the evening the snow had to be swept away and the guy ropes refixed. At 6 p.m. Sadiq, with a hangdog look, suggested retreat. Although I was almost certain by now that the climb was off I thought it wiser to wait. A large brew of soup, served piping hot, filled Sadiq with warmth and contentment and he dropped off to sleep at once. How I envied him! In the morning we were completely snowed up with only the ridge-poles showing; visibility was five yards and snow was still falling. Packing up was painfully slow, everything being twice as heavy. Eighteen inches of snow had fallen in 18 hours. The descent through the crevasses in white-out conditions was unpleasant. Relief over coming off the glacier within sight of a familiar cairn was acknowledged by Sadiq in full voice singing praises to Allah the all-merciful. The porters met us above Lake Camp and we descended to Base. The next day, as it was obviously still snowing higher up, I decided that I would have to forego Falak Ser, and we made tracks for Paloga and the next part of my journey.

After a day's wait in Paloga for a fresh group of porters from Matiltan, we started up the Paloga valley on August 25. My new escort was Mam Seth, who had come as a porter to Falak Ser; but none amongst the new porters were *sepoys* from the Fort, and I was soon to learn what a difference this meant in our daily marches and at camp. The first day was a series of prolonged rests and demands for an early halt. None of the men claimed first-hand knowledge of the Paloga Pass, but I had judged from Mills' account that it was about a day and a half away from the village. There was a good track for the first six miles. Here on a grassy plain we forded a stream fed by the glacier issuing from Falak Ser's south face, and followed shepherd's tracks which ascended fairly steeply beside a subsidiary stream issuing from the east. The further we climbed, the more elusive became the tracks. Impatient over the porters' slow progress I was determined to push on towards the pass before



FALAK SER: THE FIRST VIEW FROM THE GORGE

PORTERS ON THE WAY TO CAMP BELOW FALAK SER, WHICH IS SEEN IN THE BACKGROUND

VIEW FROM TOP OF CONSOLATION PEAK SHOWING SIRI DARA PLATEAU
(CENTRAL PEAK IS ON THE RIGHT)

nightfall. But after an eight-hour day, I was obliged to call a halt in a sheltered hollow situated, as I thought then, about 1½ miles and 750 feet below the pass. The country was wild and devoid of any sign of human habitation. We were visited late in the evening by a shepherd with an offering of fresh milk.

The next day, five hours of pretty steady ascent, spurred on by one false pass after another, brought us to a dividing ridge at about 14,500 feet. Mam Seth and I, racing to the top of steep scree slopes, were greeted by an awe-inspiring view. The twin Batin Peaks, visible almost from base to summit, filled the immediate foreground. Behind intervening ridges about 15 miles away, was a cluster of ice-capped mountains rising from what looked, even at this distance, like a major ice-fall. The group seemed to lie roughly behind Mirshahi; and I suspected that here was the object of my search. Far from finding a single mountain, I was able to pick out three summits, and others obviously lay hidden behind the Batins. Towards the north, above Gabrial, were minor glaciers and mountains. Behind, to the left, stood Falak Ser, a solitary snow-capped peak, its south face harsh and challenging. The watershed ridge, about ¼ mile long running roughly from north to south, fell steeply about 2,500 feet down into Kandia. Of tracks there was no sign. The silvery thread of the Aspe Dara, issuing almost from the Matiltan Pass, disappeared round a corner to the left. A shepherd, striding along the rocky crest with his flock, approached and offered some advice about the route; but he was not aware of any travellers having come this way before. It was late by the time the main party reached the foot of the ridge, where in falling snow we decided to pitch camp.

We moved off early the next morning and on reaching the top of the ridge we found heavy cloud filling the valley. Only the ice tips of the distant group were visible. Here mutiny threatened; one of the porters, on viewing our proposed descent route, decided that this was not what he had bargained for, and was ordered home before he could unsettle the others. We made our way slowly down for two hours over rocky gullies, steep grass and scree, reaching easier ground when we struck the main track from Gabrial to the Matiltan Pass. But our difficulties were not over; there was a 60-foot cliff descent; a tricky fording of the river, and a difficult ledge traverse in the upper gorge. After a long day, with the main difficulties behind, we camped beside some old sheep pens about eight miles from Gabrial.

Kandia will appeal to lovers of wild and rugged country. The valleys are stark and gorge-like with bouldery bottoms. They are in

sharp contrast to the gentle grassy landscapes of Swat. Paths there are, but only just; and they are meant for mountaineers. The Kandiawals are regarded by their neighbours with slight disdain as being not very bright and inclined to shoot a line. They are, in fact, a very poor people; isolated, backward, and speaking their own dialect. Cultivation is very scarce, maize being the only crop. There is no fruit to be seen, but walnut trees grow in abundance everywhere. We reached Gabrial by mid-morning on August 28 in company with a party of traders returning home laden with rock salt after trading their wool and *ghee* in Kalam. I visited the Fort and, seated cross-legged inside, was hospitably entertained to lunch by the *tehsildar*, answering a volley of questions and retaliating with some of my own. A new porter was provided, also some maize flour, freshly-ground at a nearby water-mill. There is a motor road under construction which will eventually link this valley with Saidu. In 1960, an Italian scientific party (Prof. Tucci ?) had camped in the hills above Gabrial; but no other foreigners had come this way before.

We camped that evening five miles beyond Gabrial towards Mirshahi, with the ice-capped group, now in closer view. Although viewed from a different angle, the peaks were easily recognizable as those I had seen from the Paloga Divide. Early the next morning, a dignified old man approached our camp and enquired where I was going. I pointed in the direction of the snow peaks. 'They are called', he said, 'the Siri Dara[1]; and if you can wait until I return from the *tehsil* office in Gabrial, I will show you the way there.' We could not, of course, wait. But I was grateful to him for having given me my first real clue.

A stony road led us to Mirshahi. The mountains had long since disappeared behind the walls of the valley, and I was plagued by doubts about the route. If Mills' guess was right, I ought to search for a valley entering Mirshahi from the east. I was not at all sure that we were on the right bank of the river. Three miles past Mirshahi, we reached a tidy little village, an oasis of rich cornfields. Turning a corner, I saw a valley entering from the west. The village and the valley bore the same name, Siri Dara. Crossing a crude wooden bridge, we followed a path on the true right bank and within a short while I recognized a familiar tall feature and saw the edge of an ice-fall ahead. My doubts were set at rest.

The valley with its thick undergrowth and dark, narrow walls reminded me of nothing so much as the Zemu glen in Sikkim.

[1] Literally translated: 'The Head of the Pass'.

TRUE RIGHT-HAND EDGE OF SIRI DARA ICE-FALL

SIRI DARA PLATEAU AND 'BREITHORN' FROM ABOVE ICE-FALL CAMP

There is a good track, and we saw a few small settlements, each surrounded by cornfields and walnut groves. We met a party of traders descending; they had left Kalam the day before, travelling along a high-level route. This was encouraging news for our return journey. We camped that afternoon out of sight of the main group and got under way the next morning in a Scotch mist. We had come less than three miles up the valley. At brief intervals, we obtained glimpses of the ice-fall, still about six miles ahead. After passing the last settlement, the path began to climb very steeply through pinewoods, and on emerging at the top a dramatic view of the ice-fall was revealed. It was now only four miles away, and was much vaster than I had expected.

An hour later, we pitched our tents in a stony valley, two miles north of the snout of the Siri Dara glacier. I felt like Moses when he led the children of Israel into the wilderness. The porters were visibly disgruntled, having been misled by the Kandiawals into expecting grassy flats covered with scrubwood. The ice-fall, one of the most impressive I had seen, was four miles wide, roughly from east to west; and about 4,500 feet high. Above it lay a great ice plateau, as yet only partly visible, from which rose several peaks. Avalanches were frequently breaking away from the lower séracs, and it was evident that the glacier was in a state of retreat. I was attracted by a Central Peak, about 19,500 feet, whose upper part seemed to offer a straightforward ascent route, though its lower approaches were obscured. Obviously the first problem was to find a way through or around the ice-fall. In order to do justice to an objective this size, I felt that a small team of climbers together with a surveyor would need to devote four to six weeks to the job. Central Peak was not identifiable as the possible climbing objective I had singled out from the Paloga watershed, but its ascent would provide an ideal viewpoint over the whole area.

It was very unlikely that a safe route could be found directly through the ice-fall, and with my limited resources this was out of the question anyway. The true right bank seemed to offer a hopeful start above a steep moraine ridge; but later, at the junction of a subsidiary glacier from the east, the passage degenerated into a confusion of boulders and séracs, dominated by a perfect avalanche chute. The left bank certainly seemed the more obvious choice; and the next morning, with the porter, Rahim-Atulla, making a detour above the glacier snout, an ice cave 60 feet high, we headed for the steep grassy slopes above. Progress on the first day came to an abrupt halt when the prevailing low clouds culminated in a sharp thunderstorm and snow.

On the second day we made better progress and, after a steep 4½-hour climb up boulder slopes and rock ribs, we reached the left edge of the séracs. Moving diagonally across the smooth upper névé, we arrived at a broad platform situated at the foot of a 400-foot ice-slope ; this, apparently, gave direct access to the plateau. Here, beside a large table-topped slab, was an ideal camp-site, about one mile in a direct line north-west of Central Peak. The round journey back to Base took nine hours.

Rahim-Atulla and I were back again the next day with two porters carrying food, tentage and firewood. The journey to Ice-fall Camp took five hours ; familiarity with the route seemed to emphasize its steepness and length. In the afternoon, a recce up the ice-slope showed that the way immediately above was barred by séracs and deep crevasses. In failing light, we examined the route further to the left and decided that we must search for a way there. We were away at 5.30 a.m. the next morning in perfect weather and, moving diagonally to the left across fairly steep ice, we were soon engulfed in an area of fantastically-shaped séracs. With thousands of tons of ice poised above and conscious all the while of the threat of annihilation, we cut a way up a rib only to find a 20-foot drop below ; balanced along a narrow ledge to find an unbridgeable gap beyond ; followed a trough strewn with ice-debris to come up against a vertical wall. We spent over two hours in this labyrinth, and the whole area was obviously completely unsafe. I did not feel justified in continuing ; there must be a safer way elsewhere. We had not even come within sight of the plateau, let alone the foot of Central Peak. Later, from the top of Consolation Peak, I realized that our highest point was about 500 feet below the plateau.

We returned and packed up the tent. On the descent, I studied the ice-fall carefully, but no easy solution seemed to present itself. A way there must be, of course ; but certainly not up the centre. It looked as though a route might be made along the true right-hand edge at the foot of the rock walls, but the danger of avalanches would always be present. Attaining the plateau at this eastern corner would necessitate a fairly long supply line. Within its area of about 15 sq. miles, the plateau contains a group of interesting peaks. A fine three-headed mountain resembling the Zermatt Breithorn dominates the left, and is probably the highest of the group. To its left, partly hidden, was a smaller sharply-pointed summit. Behind it to the right lay a trio of peaks, the most distant of which seemed rather striking. Nearer was a smaller mountain

with a rocky summit ridge; then came Central Peak with an apparently higher summit peeping up behind. Further to the right was a mountain whose twin rock summits were joined by a wide snow saddle. At the extreme western edge was a mile-long watershed ridge with a series of rocky summits forming its narrow crest. I estimated the height of the 'Breithorn' conservatively at about 20,000 feet, and I do not think that the lowest of the group could have been much below 18,500 feet. It was tantalizing to have come so far and to have failed to enter the plateau; still more so, to have to return after obtaining a fleeting glimpse, with so much survey and climbing waiting to be done.

Time was running out; and I could not spare the three days I estimated it would take to attempt the right-hand route up the ice-fall. We packed up and left Base on September 4, heading for the short glacier route over to Kalam. I had always regarded objectively the Kandiawals' assertion that no more than a day's walk along a good path was involved; so I was neither surprised nor disappointed by the journey. Scrambling up steep rock and scree often without any sign of a track, it took $6\frac{1}{2}$ hours of hard going to reach a pass, *c.* 15,000 feet, locally called the Sho Ho Dara. The descent on the Swat side included a *bergschrund*, steep névé, and a long stretch of boulder-hopping. Camp was made late in the evening on a magnificent meadow at 14,000 feet, surrounded by large glaciated boulders and overlooked by two ice peaks of about 18,000 feet.

By this time, casualties had taken a heavy toll of our small group, so I set out alone at 6 a.m. the next morning towards an easy peak of about 17,000 feet situated along the Swat-Kandia Divide running roughly from north to south. It was an enjoyable climb up a 40-degree face composed of firmly packed névé. Reaching the top in $3\frac{1}{2}$ hours, I was treated to a superb view. The summit cornice overhung a sheer drop of 3,000 feet into the Siri Dara valley. The plateau and its peaks were now visible in perspective. The 'Breithorn' and Central Peak looked the finest of all. From here it seemed that my approach to the plateau had not been far off the mark, and perhaps an attempt slightly farther to the right would have been more rewarding. What a splendid objective the plateau would be for some future party!

Returning from Consolation Peak at 11.30 a.m., I found the porters packed and ready to start the descent. We set out in a light fall of snow; the shining summits of the morning had vanished behind a heavy barrier of storm clouds. It was a long descent in mist and rain over the moraine. Later, we struck a narrow track,

and passed occasional small settlements. This route, taken in the opposite direction from Kalam, though providing quick access to the Siri Dara, would involve a long and relentlessly steep ascent. By 5.30 p.m. it became obvious that Kalam was not within immediate reach, so we placed our last camp on a flower-strewn knoll with the river on one side and birchwoods on the other. After a steep seven-mile descent the next day through magnificent Alpine country we reached Kalam before noon, where a warm welcome awaited us.

BRITISH-SOVIET PAMIRS EXPEDITION, 1962

I

By Sir JOHN HUNT

It was, for me, a very revealing moment when, in June, 1954, I met for the first time a group of Soviet mountaineers at the end of a lecture on the 1953 Everest Expedition. Of course, it was a glimpse of the obvious ; I need not have been surprised to find these tough, eager young men so friendly, so much in tune with myself on the subject of mountains. Yet the Soviet Union in 1954 was still gripped by the all-pervading terror which persisted after Stalin's death. To the outsider, a visit to Moscow was still something of an adventure and mystery, the ordinary people behind the Iron Curtain were curiously identified with the image of their political masters.

This, at any rate, is the background to our expedition last summer, for the germ of the idea was sown as we talked about climbing together, in a room in the British Embassy. From that conversation have flowed a whole succession of contacts ; a lecture tour in Russia by Charles Evans in 1955 ; a return visit by Eugene Beletski and Eugene Gippenreiter in 1956 ; a British Expedition to the Caucasus in 1958 and a return visit by six Soviet mountaineers in 1960, followed by three more British climbers going to the Caucasus the next year. It was natural that in the course of these exchanges, some of us should have looked forward to the day when we might carry out an expedition together.

After the Russians had returned to their country in 1960, at least two separate applications were made for British climbers to join up with a Russian group on this basis ; in each case, we were thinking in terms of a group of friends, competent mountaineers but in no sense representative of the most outstanding virtuosos in this country. Advised by our contact in the erstwhile Ministry of Physical Culture and Sports,[1] Dr. Malcolm Slesser and I had received the approval of the Scottish Mountaineering Club and the Alpine Club respectively to submit our proposals in the names of these bodies. We were anticipating a considerable delay before the Russians would decide whether to fall in with either suggestion and,

[1] Now the Central Council of Physical Culture and Sport, a non-Government body.

in the event of their approving, which of the two applications to favour when, with welcome promptitude but in unexpected terms, I received a reply in May, 1961, containing a joint invitation to both Clubs to send a single group of twelve climbers, to spend a period of sixty-five days in the U.S.S.R. during July and August of the following year; six Soviet mountaineers would join our group. This created a new situation; not only must Slesser's group and mine be amalgamated, but, in the opinion of many, a review of the membership must be made in order to ensure that we should be as strong a party as possible from the climbing point of view.

The Party

For myself, as leader of the British part of the expedition, this was not an easy position. The eventual problem of responsibility for the whole enterprise in the field had still to be faced, but there was the immediate one of reviewing our membership; of reconciling the viewpoints and ratios as between the north and south; between those who felt that we should, as it were, field the 'top 12' experts in Britain to carry our colours across the Iron Curtain; and others who, like myself, were more concerned that we went out as friends, made more friends in Russia and came back with a wider and deeper degree of understanding at the end.

The resulting team[2] was a compromise and, I believe, a fair one between these differing viewpoints. It would be idle to deny that, as such, the final results, in climbing achievement and in understanding, were to some extent modified by this compromise.

* * *

Arrived in Moscow, variously by sea, train and air, we were met by the secretary of the Mountaineering Federation of the U.S.S.R. and by Eugene Gippenreiter. Eugene was to accompany us, as he had done on all the previous British and Russian lecture and climbing tours. The remaining five Russians, whose leader, Anatoli Ovchinnikov, Master of Sport, had climbed in Britain in 1960, were already 2,000 miles away in Dushambe (formerly Stalinabad), capital of Tadjikistan, in which Republic the Pamirs are situated.

I raised with the Secretary, Sasha, the delicate question of leadership of the whole group and was surprised, grateful and a trifle awed when he requested me to take charge of all eighteen climbers during our stay in the mountains.

[2] John Hunt, Malcolm Slesser, Wilfrid Noyce, Joe Brown, Ralph Jones, Robin Smith, Ian McNaught-Davis, Dr. Graeme Nicol, George Lowe, Ken Bryan, Ted Wrangham, Derek Bull.

Two days later, after a 5½-hour scheduled flight in a four-engined Ilyushin-18, with which the internal communications of the U.S.S.R. are splendidly served, we were greeted by Ovchinnikov and our other companions in the dark, hot blast of a July night at Dushambe airport. Like ourselves, the Federation had, it seemed, tried to reconcile the various interests of the expedition in their selection. Apart from Ovchinnikov, Anatoli Sevastianov and Nicolai Shalaev, a carpenter in the Moscow G.P.O., were also Masters; Vladimir Malakov and Nicolai Alkhutov were younger climbers of great promise, each with a burning ambition to earn their Masterships.

Eugene filled the vital function of interpreter. Keen as some of us had been to lower the barrier of language, we would have been severely handicapped without him. As for the other Russians, we were struck by the enthusiasm, focused by a stricter discipline than ours, with which they had prepared themselves for this venture. Three of them had, like ourselves, taken a language course, but with far better results; with the advantage of being Muscovites, they had trained regularly since January in the evenings, and at week-ends they had climbed on a ruined building outside Moscow. Smoking and alcohol had been rigorously banned.

In Dushambe

We had three days in Dushambe. While in Moscow, we had fretted over the implicit delay in reaching the mountains but, in the event, I believe most of us would have liked to stay longer and see more of this new Central Asian city and its surroundings. It would be out of place in this *Journal* to dwell on our brief experiences and impressions of this outpost of the Soviet Union on the frontiers of China and Afghanistan. Suffice it to say that we were impressed by the evidence of vigorous growth and prosperity, by the successful blending of East and West, in a territory which emerged only in 1923, in the aftermath of a long and bloody resistance, from the feudal yoke of the Emir of Bokhara. We were surprised to discover the extent of independence of the local authorities of the Republic from the control of Moscow. This had apparently been demonstrated in the difficulty of the Central Government in negotiating our visit and in the restrictions placed on our route while in Tadjikistan. Originally we had been told that we would be flown to Tavil Dara on the Garmo river, from which helicopters would carry the party and its baggage to the Garmo Glacier. We were looking forward to walking back to this village on our return journey and it was on this premise that we had based our plans and finances. It was, to put it mildly, frustrating now to learn that Tavil Dara was

forbidden to foreigners. Not only would we be flown to, and picked up from, a more distant airfield, Jirgatal (or Mir Aza) on a tributary of the great Muk Su river, but our return would be by helicopter via the same route. Apart from the aesthetic pleasure thus denied us of walking through the foothills, the extra cost of air transport seriously jeopardized our funds. Protests were unavailing, however, so, while the Russian members went by road to Tavil Dara with all the expedition baggage, we flew to Jirgatal. Both groups met, after an exciting helicopter trip across the high, grassy ridges of the Western Pamirs, two miles below the glacier snout, where a hair-raising landing was made on the stony river bed. Our stores followed during the next two days and Base Camp was set up in a pleasant wood at 2,900 metres; Eugene and Graeme planted two huge specimens of the Soviet and British flags, side by side.

* * *

At Base

The comfort of the site for our Base Camp in a wood was somewhat offset by its low altitude and the distance from our objectives. We were told that the use of helicopters was an innovation in Soviet climbing and it had been hoped that our intrepid pilots from the air base at Frunze, in Kirghizia, would be able to land us at a camp-site known as Avudara, eight miles further up the glacier. Without the aid of local men, we were now faced with the unwelcome prospect of carrying most of our very considerable stores up to Avudara in the following day; it proved to be a most wearisome and time-consuming *corvée*. We were rudely impressed by two facts: our relative unfitness *vis-à-vis* our Russian comrades, and the far more lavish scale of our equipment, in contrast to theirs. On both counts, I believe the Russians provided valuable lessons for those who wish to learn.

* * *

Plans

A word about our plans. We had formulated a basis for detailed planning in London, for which we had much helpful information both from the Mountaineering Federation, and from W. Rickmer-Rickmers who had first visited the Garmo Glacier in 1913 and later led a German expedition to the West Pamirs in 1928. All this had enabled Wilfrid Noyce to describe the topography and summarize the history of Soviet climbing in the area we were to visit.

We now discussed these plans with the Russians and made the following decisions. We would divide the time available—forty-three days—into two periods; in the first period of eighteen days we would move up to the Vavilova Glacier, a main tributary of the Garmo and, breaking up into three groups, would make some new ascents in this area; principal among these would be that of Peak Garmo, 6,595 metres, if possible by a new route on its south-west face. The period would be partly a preparation for the ascent of the Peak of Communism, 7,459 metres, in the second period. We hoped that all would take part in this latter climb, perhaps by different routes.

There was some disappointment among the Russians over these plans. The emphasis on training and acclimatization during the first fortnight, rather than on reaching known summits, did not appeal to the younger ones; they were intent on recording actual peaks which would count towards their Masterships.

The Peak of Communism has been climbed by several routes since its first ascent by the east ridge from the Fedchenko Glacier in 1933 by Gorbounov and E. Abalakov.[3] One intriguing possibility was the prospect of forcing yet another route, up the forbidding 7,000 feet of nearly vertical rock of the south face. Some of us were very attracted by this idea in London; we were curious to probe the non-committal nature of Soviet replies to our enquiries on the subject. Now, we knew the reason.

A strong group of Soviet climbers, from the Sports organization, Spartak, headed by Vitali Abalakov, had received approval from the Mountaineering Federation to make this face their objective in the annual competition for the best high-altitude ascent of 1962: their effort must have absolute priority. Soon after our arrival at Base, this group began to arrive from the Caucasus, where they had been training: thirty lean, hard, bronzed men under their almost legendary leader. Among others whom I knew were Misha Khergiani, the Svanetian who had come to Britain in 1960; he was now proclaimed rock-climbing champion of the U.S.S.R.: he was full of zest after leading the first ascent of the north face of Peak Shchurovsky, which some of us had climbed by its ordinary route in 1958. There, too, was Nikolai Romanov, who had greeted us four years before as President of the Mountaineering Federation: Michael Anuvickov, who won the highest award at the Trento film festival in 1956, for his film *If Only Mountains Could Speak*.

[3] Gorbounov turned back a short distance below the summit, which was actually reached by Abalakov.—EDITOR.

Talking to Abalakov and Boruvikov, reigning President of the Federation, it was clear that they appreciated our desire not to precede them or to prejudice their plans. When we saw their photographs and later, after viewing the great wall itself, our enthusiasm diminished and our admiration for their daring increased. We soon grew to like individual members of the Spartak group and we enjoyed the sing-songs around a blazing fire at night.

* * *

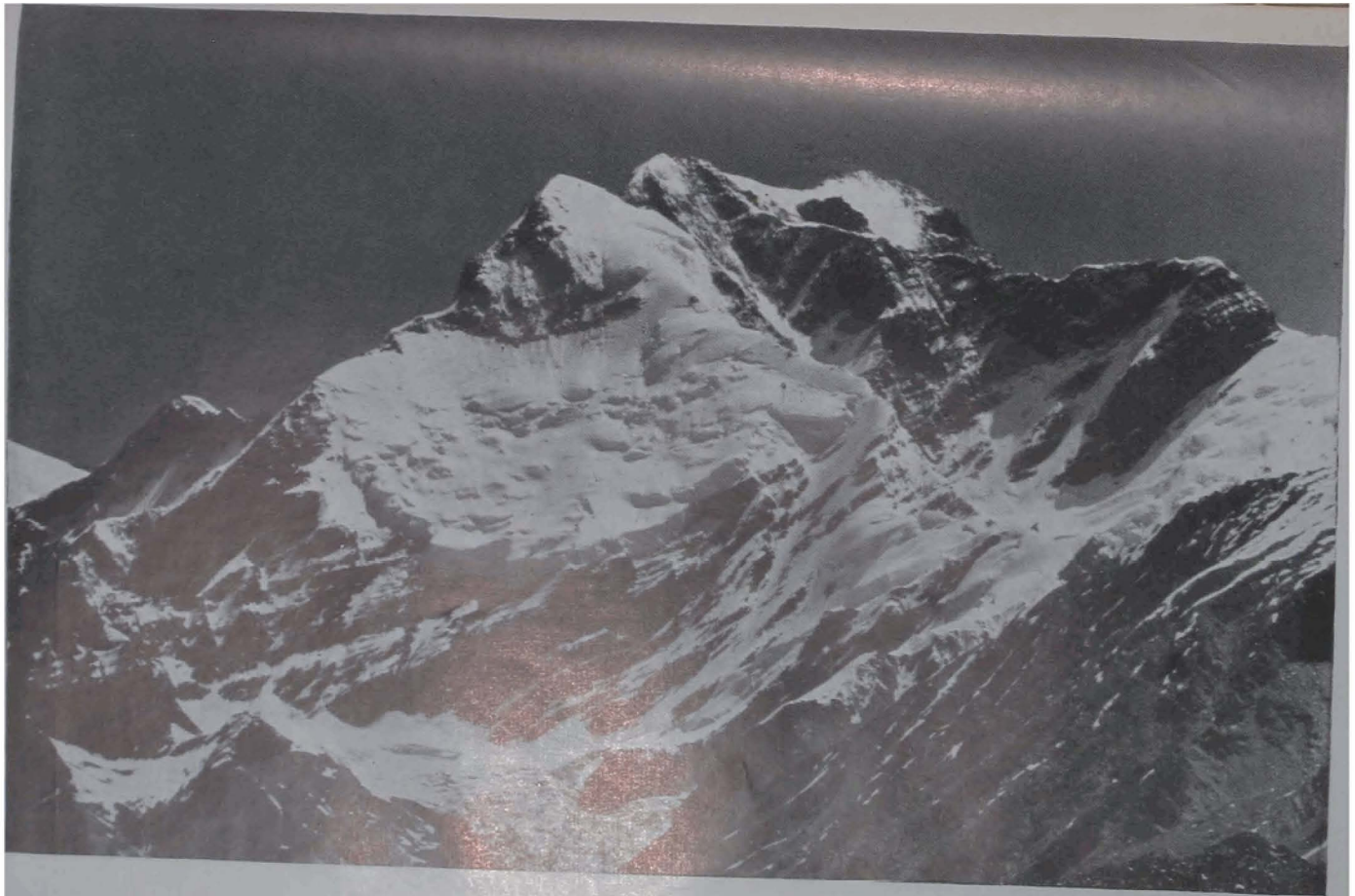
By July 13 only twenty-two man-days of food and certain other stores had been carried forward to Avudara, and the need to speed up our advance up the glacier induced me to open negotiations with the senior helicopter pilot for an air drop of the remaining supplies. This involved a certain amount of risk to the food boxes, for the rations were packed in cardboard and polythene containers: we understood, too, that the operation was not entirely safe from the aeronautical point of view. The latter objection was soon set aside by the gallant pilots and the discussions were made the more amicable by the presence of a bottle of whisky. As regards the food boxes, we bound them up as securely as possible with 'fixed' rope and hoped for the best.

The Air-drop

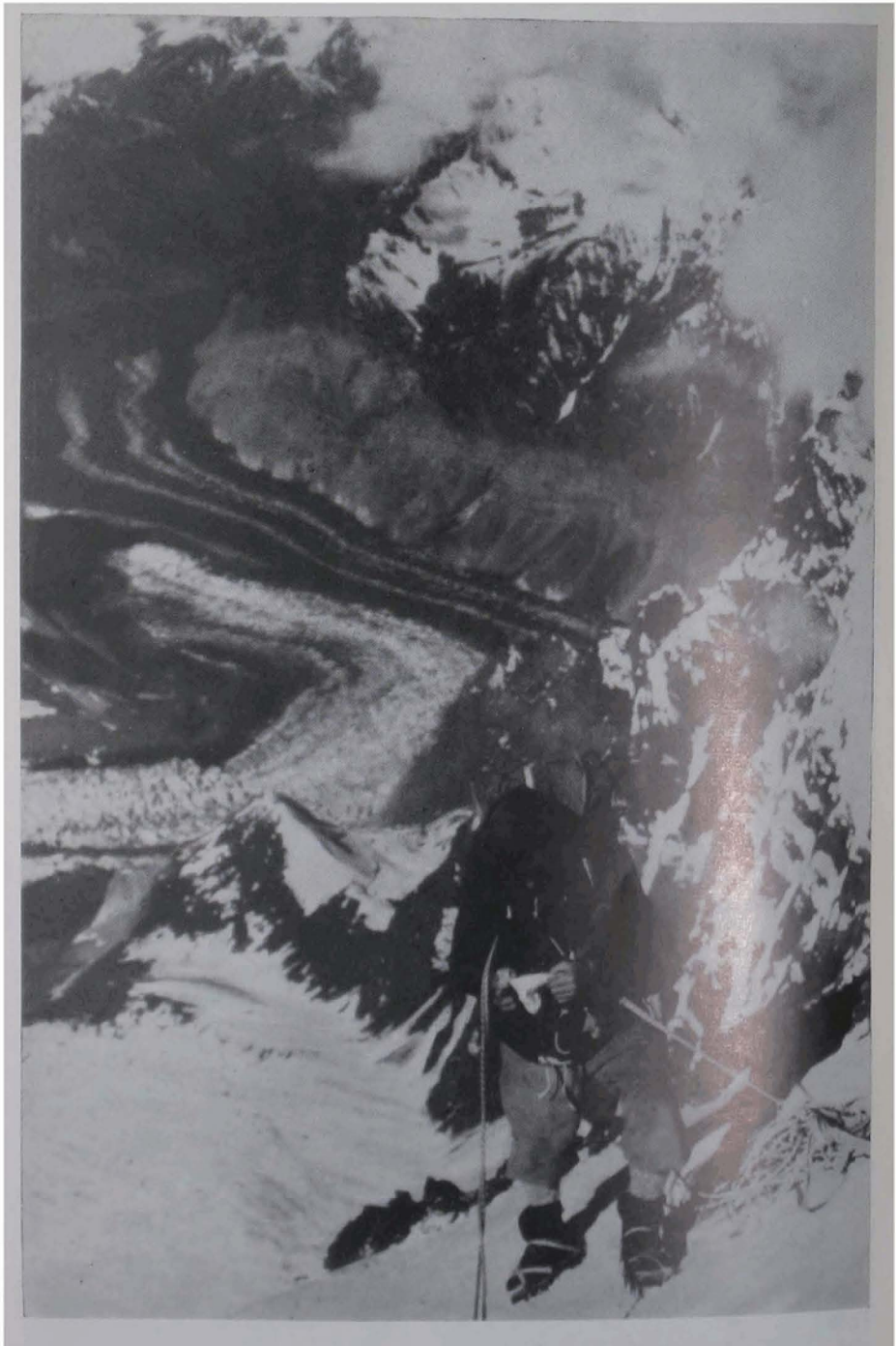
Three sorties were made on July 13 and 14. I went with the first flight with George Lowe: we had an enthralling half-hour as we sped up-glacier at about the maximum flying altitude of the helicopters, and turned into the entrance of the Vavilova Glacier, the great wedge of the Peak of Communism, the other peaks in the Peter the Great range and the imposing Vavilova Wall rearing up all around us to bar our way beyond. We were frantically busy with our cameras as each new summit came into view; without knowing it at the time, I fixed in my viewfinder an attractive *aiguille* neighbouring Peak Garmo which, when developed later, turned out to be a mountain, then unnamed and unclimbed, of which we subsequently made the first ascent.

The Vavilova Glacier

On July 14 and 15 the whole of our group, now divided into three equal parties of four British and two Russian climbers, moved up the glacier, camping at Avudara (Camp I) and below the influx of the Vavilova (Camp II), to establish an advance Base Camp (Camp III) at 3,600 metres above the south side of this big tributary



PEAK PATRIOT (6,100 METRES) FROM CAMP III



J. BROWN ON PEAK PATRIOT

glacier. Both here and at Camp II loads had previously been air-dropped, as well as on the moraine on the north flank of the Vavilova. Great was our dismay to find the sad condition of many food boxes, from which tea and sugar had disappeared and other items, notably jam, were liberally distributed among the various bags of food. This was to be greatly missed during the climbing which followed.

This camp was beautifully situated beside a pool of melted snow, with pleasant vegetation around, including large quantities of wild onions. Below us, along our way up from Camp II, we had walked up steep, grass-covered hillsides on which many marmots played and there were traces of ibex, too. The views were stupendous.

Immediately opposite rose a fine-looking ice peak, Patriot, 6,100 metres, which was said to have been climbed by its south-east snow ridge, during the descent of which a double tragedy had occurred involving five climbers. The unclimbed west ridge, of mixed snow and rock, attracted Malcolm Slesser and his party ; to strengthen his attempt in what promised to be a hard climb, I invited Joe Brown to change places with George Lowe, who joined my party. Wilfrid Noyce's group was already destined for Peak Garmo, which they hoped to climb by its south-west rock face ; it remained to find an objective for my own party. Having already two such formidable climbs on the programme, it seemed to me wise to regard this third group as an eventual support for the other two ; we therefore looked for, and most fortunately found, a very attractive summit located on the north flank of the glacier, between Peaks Patriot and Garmo and rather lower than either. This shapely mountain caught the discerning eyes of Joe and Robin during a reconnaissance above our camp ; Ralph, too, returned full of enthusiasm and it only remained for me to decide when we could get a closer view, from higher up the glacier. Assuming that it would require less time than Patriot and Garmo, I arranged that, after our descent, we would first move up to the head of the Vavilova to offer any help or reinforcement to Noyce ; if not required, we would then return to Camp III, so as to be available to Slesser's party. All three parties were to be back at Camp III by July 28, which was thus, in Soviet climbing parlance, our 'control date' ; our supplies had, in fact, been carefully calculated to meet this programme, with little to spare.

Everyone seemed well content with this plan, the two youngest Russians in particular being delighted at the prospect of achieving one of the two major summits needed to complete their apprenticeship as Masters of Sport ; the evaporation of their earlier despondency was especially welcome to myself. We all set out in high

spirits, slightly tempered by our mountainous loads, on July 18. Before leaving I had a last word with Wilfrid, discussing with him the need not to push too hard for the south-west face of Garmo, which was much snow-covered and looked formidable. These were the last words we spoke together.

The weather in the Western Pamirs in July and August was reputed to be very reliable, apart from brief storms. But we had already experienced a good deal of rain and low cloud, with occasional dust storms, during our time at Base Camp and above. Now another period of poor weather set in. While this did not prevent all three parties reaching their objectives it certainly damped our enjoyment and increased the danger.

First Ascent of Peak 5,640 Metres

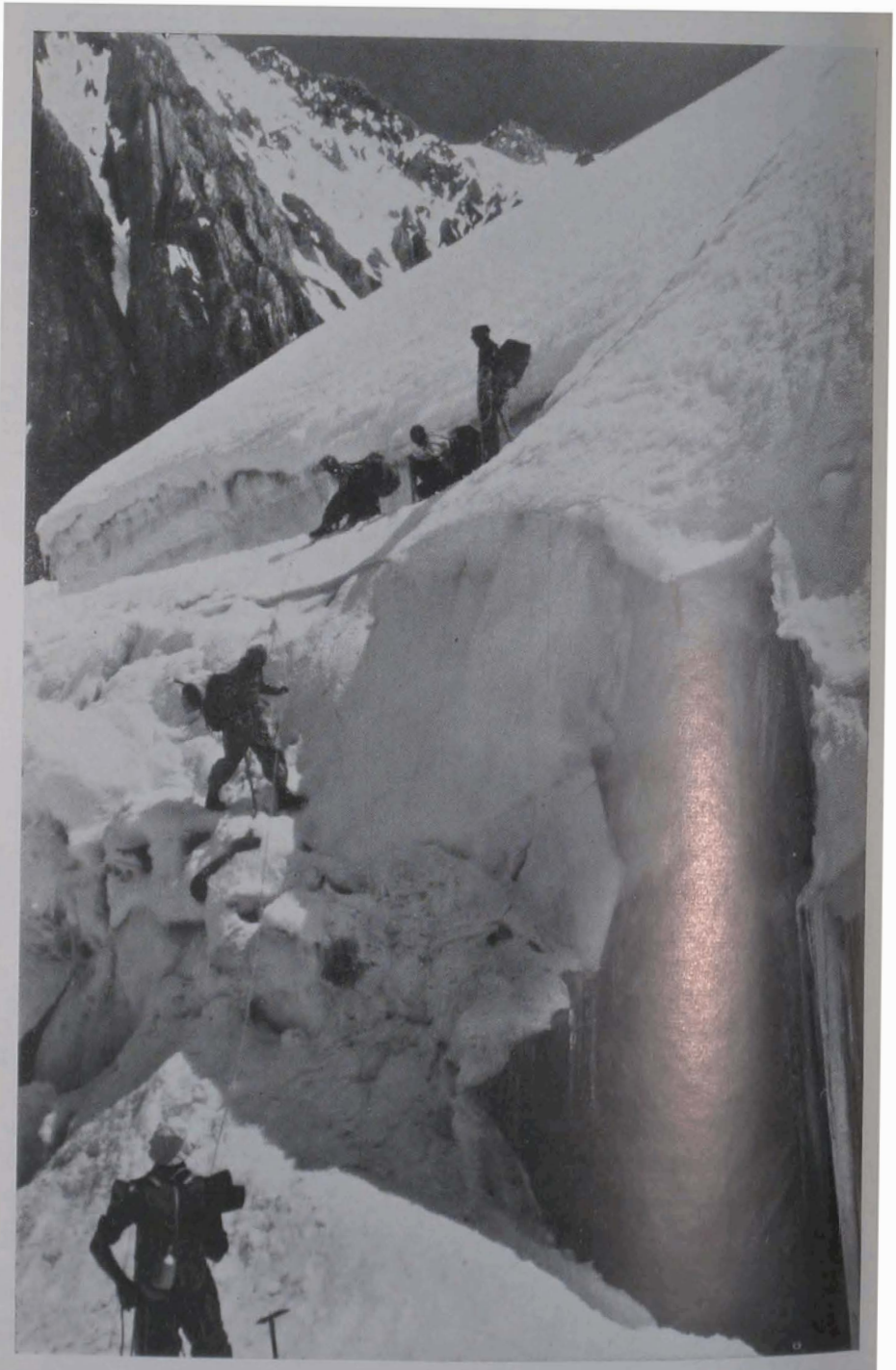
None the less, and despite the tragedy which developed on another mountain, I hold satisfying memories of our climb on the (then) unnamed mountain.[4] It turned out to be all one could wish for in appearance and quality—with the notable exception of the rock pitches. We climbed throughout along its south-west ridge: long, varied, impressively narrow in places and steep in the upper part. There was one short ice pitch of 40 feet which took us about an hour to surmount. After so much good climbing it was disappointing to arrive on the summit at 1 p.m. in thick cloud; we saw nothing of the magnificent panorama which it must offer. The height, according to our barometer, was 5,600 metres, which accords closely with a spot height on the Survey of India map of the Fedchenko Glacier at the correct position for our peak, which shows 18,878 feet. We built a cairn and left two small national flags on it.

I had anticipated the need for a bivouac and we had come prepared for this. But on the descent we pressed on down the big slope below the summit rocks, despite the sun-saturated condition of the snow overlaying ice: the narrow snow ridge was in a perilous state. There was no real security in places and there is no doubt that we were very lucky to get down without mishap. All of us were very tired when at 7 p.m., thirteen hours after starting out, we reached the two tents at 5,000 metres, to be greeted by George Lowe who had remained in support. The date was July 21.

Back at our Camp IV at 4,000 metres the next day, we rested and enjoyed our success. George was unwell and it was not until the 24th that he was well enough to permit us to start up the Vavilova

[4] The Russians have since recognized this as a first ascent, and have graded it as IV B (i). They have proposed the name: Peak Co-operation. 5,640 metres.

PEAK 'CO-OPERATION' (5,640 METRES) FROM VAVILOVA GLACIER



DESCENDING THE UPPER VAVILOVA ICE-FALL

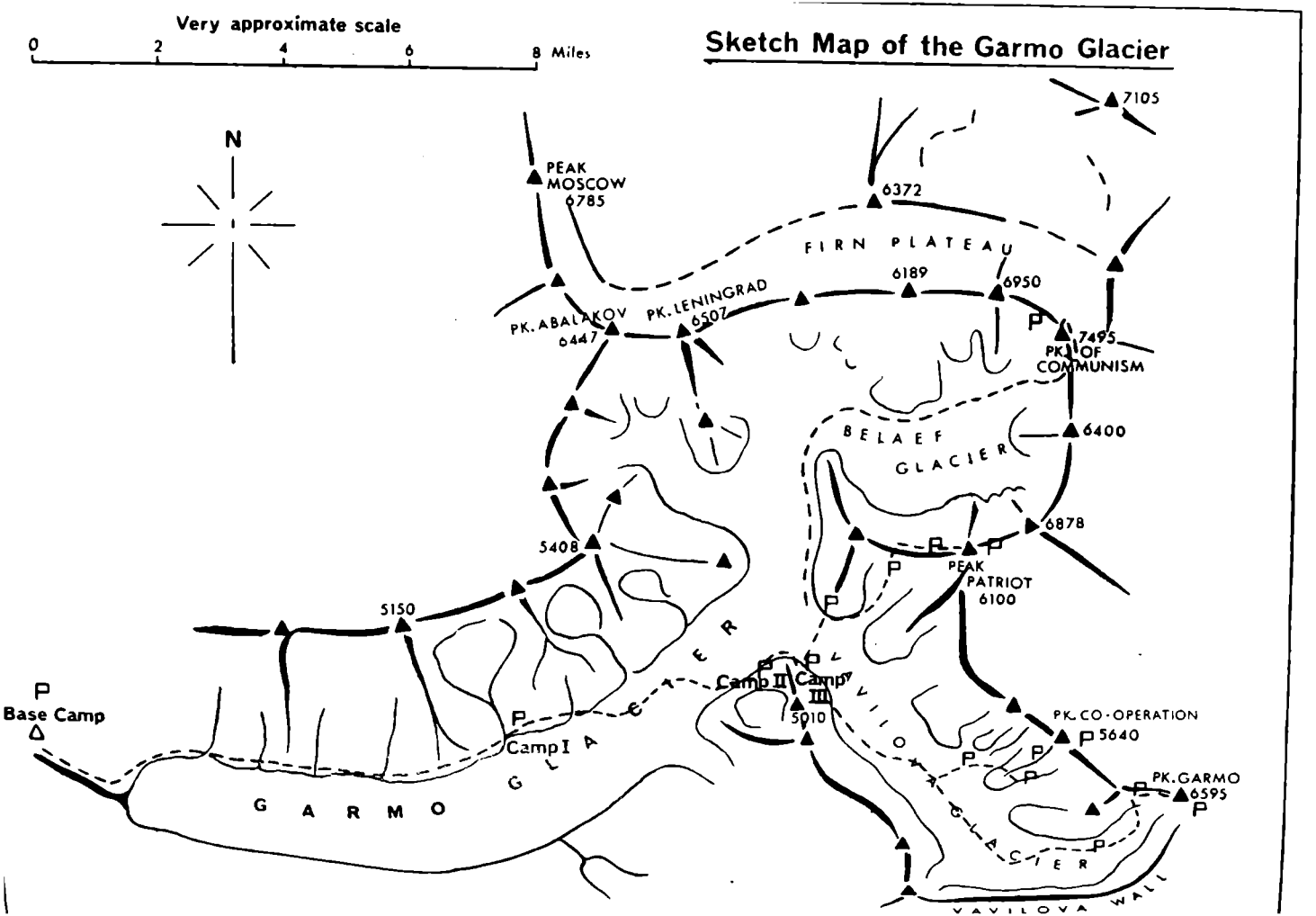
Glacier to look for Noyce's party. The snow was very deep and soft and we made slow progress; it was hot and airless on the glacier and hopes of reaching the upper basin of the glacier that day, where we believed the camp of the other party to be, began to recede. Our state of tedium and torpor was suddenly interrupted when Eugene Gippenreiter, leading the first rope, on which were Lowe and Nicol, disappeared through a snow-bridge into a big crevasse. It was filled with icy slush some 25 feet below and in this poor Eugene wallowed, held by the rope but out of his depth and gravely hampered by a heavy rucksack; it was about fifteen minutes before he was hauled out. During this ordeal Eugene retained his equanimity, cheerfully instructing us in excellent English as to what we were to do! Most people would, I believe, have succumbed to the cold but Soviet citizens are made of sterner stuff. He was, however, suffering from exposure and shock and we decided to camp at once nearby, to give him time to dry out and recover.

So it was that we sat and discussed the fortunes of Noyce's party that evening, as we searched the mountain for signs of them. We were all aware of a strange *malaise*; conjecture led some members to suppose that the others had turned back and were, at that moment, down at Camp III. I felt a strong urge, however, to press on upwards.

Peak Garmo

At 9 a.m. on the 25th we had already surmounted an ice-fall and stood beside a forlorn-looking Russian tent, unoccupied for several days. Hopes rose when we spotted two figures on the west ridge; we had already guessed that it would be by this route, rather than the forbidding and snow-covered rocks of the south-west face, that Noyce would have climbed. Graeme Nicol and I had previously decided that we would try to reach this ridge and we now went on up to the upper basin of the glacier, which is protected by a second ice-fall. Here the steep ramparts of Peak Garmo sweep upwards to the ridge in an ice-slope, some 2,500 feet in height, cut by a large bergschrund. We saw two figures coming down snow-slopes on the left of this, and moving so slowly that we began to suspect that something was amiss. For some time we sheltered from the fierce sun in an ice-grotto in the bergschrund; later, we started climbing the snow-slope, but with less enthusiasm to reach the ridge than earlier.

Suddenly, we noticed two figures below us, in the basin; it was Derek Bull and Ted Wrangham: they shouted something about Wilf and Robin, and an accident. The mind is unwilling to accept the fact of disaster and so it was this time, as Graeme and I returned


Very approximate scale
0 2 4 6 8 Miles
Sketch Map of the Garmo Glacier
N
PEAK MOSCOW 6785
6372
7105
FIRN PLATEAU
6189
6950
PK. ABALAKOV 6447
PK. LENINGRAD 6507
7495 PK. OF COMMUNISM
6400
BELAEF GLACIER
6878
5408
PEAK PATRIOT 6100
5150
Base Camp
Camp I
Camp II
Camp III
5010
PK. CO-OPERATION 5640
PK. GARMO 6595
GARMO GLACIER
VAVILOVA GLACIER
VAVILOVA WALL

carefully downwards in our steps, each trying to reassure the other that there must be some mistake. But illusion was dispelled as the four men approached us; we knew the awful truth from their demeanour before they told us.

The previous day the whole party had set off for the summit of Garmo from a camp on the ridge at about 6,000 metres. To start with the climbing order had been Wilf with the two Anatolis in the lead, followed by Robin, Ted and Derek. After climbing about 1,500 feet, however, the latter two had decided to return to the tents and Robin had joined the leading trio; they then roped up as two pairs, with Wilf and Sevastianov leading. In this order all four arrived later on the summit.

Coming down, the two Russians had to put on their crampons on reaching the steep snow-slopes which flank the south-west face, and which are a marked feature of the ridge route seen from afar. Robin and Wilf had made the ascent wearing them and Robin proposed that they should now start on down together; it must have been about 6 p.m. This was agreed and the ropes were rearranged accordingly, the Russians following soon after. There was apparently a steep snow-gully which, in the deplorable snow conditions, caused some anxiety. But this was safely negotiated and the British pair started down a big slope below it, half concealed from the Russians. At this moment the fatal slip occurred. It was also seen by Derek; he had been watching their progress after hearing shouts which announced their return to camp.

* * *

I will not dwell on the sad sequel. Two days later, we had returned to Camp III, where Graeme and I crossed the glacier to tell the news to Malcolm's party; they had safely returned from Patriot after a successful ascent and had left us a message for Graeme to come over as Joe Brown was sick. We had then to decide what to do.

* * *

The problem was a difficult one; it involved a matter of principle for the expedition and a personal choice for each member of the British group. Had we been climbing independently of the Russians I think there is little doubt but that the expedition would have returned immediately, but this was a different situation. The Russians in our party clearly hoped that the expedition would continue; our departure would not only have been a personal disappointment to them, but might well have been misunderstood and misrepresented in wider circles. The personal decisions were no less difficult for

some of us and I will say no more than that I was thankful that, in the end, six of our people decided to stay on. I was no less grateful to all concerned, British and Russian, for being so firmly behind me in my own decision, to return, as they had been throughout our expedition, up to that moment.

There may be no point in linking the loss of personal friends with the theme of a wider friendship ; but I know that both Wilfrid and Robin supported this theme and were beginning to share the satisfaction of it. I know, too, that they would not have wished to be the cause of harming the underlying purpose of our enterprise with the Russians last summer.

Editor's Note : Part II of this article will be published in Volume XXV of the *Himalayan Journal.*

EXPEDITIONS AND NOTES

SHERWOOD COLLEGE (NAINI TAL) MOUNTAINEERING ACTIVITIES

In June, 1961, Brigadier Gyan Singh visited Sherwood College at Naini Tal and founded a Mountaineering and Rock Climbing Club. Later a member of the staff qualified from the Basic Course of the H.M.I., and equipment was received from the latter for him to teach rock climbing to selected members of the Club. As a result the Sherwood Himalayan Operation No. 1, known as 'Hop 1', was carried out from October 15 to 30, 1962, to look for a permanent climbing area in the Kumaon Himalaya, near a roadhead, for the Club. The expedition, under the sponsorship of the Principal of Sherwood, the Rev. R. C. Llewelyn, was led by Commander J. S. M. Atkinson, I.N.: a parent, with an operational party of eight members of the Club, five of them members of the staff and three boys between the ages of 13 and 16.

The original intention was to carry out a reconnaissance of the Mrigthuni (Sukaram) Glacier area, and an assault on the 20,010-foot peak, Tharkot (Simsaga). Sunderdhunga valley, south of the Nanda Devi Sanctuary Wall, had been climbed in May, 1944, by J. G. Rawlinson and C. W. F. Noyce, who later described it 'twisting snake-like down from the Sanctuary Shield'.[1] Noyce and Rawlinson turned west up the Sukaram Glacier and climbed what appeared to be Simsaga, then descended to Sunderdhunga and climbed through Maiktoli Gorge to Maiktoli and on up to the 17,500-foot Col between south and east Maiktoli Peaks. It was down the Maiktoli Gorge at Sunderdhunga that Shipton and Tilman had appeared after making the first exit from the Sanctuary in 1934,[2] and Noyce found the east Maiktoli Peak 'the loveliest peak I have seen'. South and east Maiktoli Peaks were the names given by Noyce, but the peaks were later marked on the map as Bauijuri (19,430 feet) and Panwali Doar (21,860 feet). Noyce subsequently climbed south Maiktoli Peak from a camp at 16,000 feet.[3]

[1] See *H.J.*, Vol. XIII, p. 95. Peak 20,010 is called Tharkot and not Simsaga on Survey Sheet 53 N.S.E.

[2] See *H.J.*, Vol. VII, p. 24.

[3] See *Alpine Journal*, No. 267, for his account of the expedition.

Editor's Note: The following is an extract from a letter received from Commander J. S. M. Atkinson, I.N.:

'You will be pleased to learn that, led by Mr. K. P. Sharma, a school party of 14 proceeded to the same area between May 20 and June 7, 1963.

For this first college expedition, personnel and equipment were moved the 154 miles from Naini Tal to the roadhead at Brari in a private hired bus. At Brari they were met by their porters, and camped for the night. During the next five days they marched by easy stages to Loharkhet, Dhakuti, Jatoli, Dyinga Doon and to Sunderdhunga. The following day they covered six or seven miles to the Sunderdhunga Base Camp, just below the snowline on the Sunderdhunga Glacier, having walked in all just over forty miles. The route they chose climbs the left shoulder of the bank of the Sukeram Glacier stream through the rhododendron forests to a track running above the tree-line, and passing approximately 2,000 feet below Devi Kund. It then goes down to the stream below Dhanoti (18,520 feet) and up the other side to the Alp just below the glacier. Here they established their Base Camp at approximately 13,500 feet. They considered the shorter route along the cliffs on the right side of the South Glacier stream too treacherous. They now dismissed all but ten of the porters and using two suitable high-altitude porters, established their Base Camp at a point shown as Sukaram, on the half-inch Survey of India Map. One member of the party with a high-altitude porter climbed to recce the glacier for their Advanced Base Camp, while the leader and two of the boys made a climb to about 15,000 feet. Next day they moved to the Advanced Base Camp at about 16,500 feet. On the way up one boy was taken ill and returned to Base Camp with the leader, who came up the next day. Three of the adults then recced the south-east end of the approaches to Tharkot getting up to about 18,500 feet. The leader and the two of the boys that evening returned to Base Camp, followed next day by the rest of the party. They returned to Naini Tal via Nand Kund, spending one night at Ranikhet on the way.

The operation was a satisfactory guide for future expeditions with larger numbers, and valuable experience was gained on such matters as the checking and labelling of equipment, medical cover, and the handling of porters, as well as establishing good relations with the local people for the purpose of arranging porters and supplies. The weather, which was at its best in this area at this time of year, was good. One of the aims of the operation was to find out how the boys would stand up to it. In his report to the Principal on his return to Naini Tal the leader had said ' in view of the worsening political situation the expedition did not attempt an assault on

A successful attempt was made on Tharkot, 20,010 feet, by the leader Mr. Thappa, the school P.T.I., Leading Stores Assistant Ambasta and two Sherpas loaned from the H.M.I. The peak was climbed at 0922 on June 1. Mr. Gardener, a master from the school, and two of the boys reached Camp 2 at 18,600 feet.'

Tharkot', but it was added that after experience of the three boys above the snowline it was felt that only the adults would be able to manage the assault, although it was not a difficult peak and with more time available for basic training at least two of the boys could have done it. It was also felt that members were not fit enough at the beginning of the operation and that more pre-expedition training was necessary, after which it would be feasible to take more boys of the 13 to 16 age group to this climbing area next year. It was considered that the operation did justify the school's outward-bound activities as a whole as a valuable means of building character, and that as a recce for the school's annual expeditions the operation was an unqualified success.

COMMANDER J. S. M. ATKINSON, I.N.

HUINCHULI, 1962

IN September, 1962, a small party comprising my wife, Sarah, Miss Jane Knudtzon and myself left Pokhara to make a reconnaissance of Huinchuli Patan to the west of the Dhaulagiri Massif. With us were two young Sherpas and six Tamang coolies, recruited in Kathmandu, who remained with us throughout the two months' trek. The outward journey took us via Baglung, up the Mayandi Khola, crossing the 10,000-foot pass above Lumsun before dropping down to Dhorpatan. We continued down the Uttar Ganga, making an unnecessary detour to avoid the rope bridge at Zaung, below Sehragaon, which we were warned off by the locals, but which proved perfectly easy for the two girls on their return journey. At Gongagrali (Gongrali on the map) we turned up the Sisne Khola traversing high on the western side of the valley, often on a barely perceptible path, to make our Base at Sisne village under the eastern flank of Huinchuli. I made a week's foray with two Sherpa boys to explore the apparently only climbable northern end of the mountain. It is a beautiful, detached twin peak of about 19,400 feet high and a worthy objective for Himalayan Alpinism. We climbed a small peak opposite the north-east face, which we called Amji Himal (Doctor's Peak), 17,500 feet. This gave an excellent view of the two northern ridges. The north-east ridge is, I believe, the key to the mountain; difficult of access in its first 500 feet but then a long, sharp, and excellent ridge of 2,000 feet of pure snow. The smallness of our party prevented an attempt on the mountain, but a satisfactory way to the approach was found. (Sketch map and article will appear in *Alpine Journal*).

Following this I crossed the Toridwari Banjang on my own with four of the boys. We reached the Barbung Khola which we followed to Mukut from where crossed the Mu La, 18,500 feet, on November 1, and reached Jomossom in three days. From Jomossom to Pokhara, alone, took a further three days.

Our Tamangs were superb and can be highly recommended. They went well at all altitudes and carried 80 lb. with ease. The two-month trip cost the three of us under £100 each.

DR. P. R. C. STEELE

THE ACCIDENT ON LEO PARGIAL

'I'LL arrange to send you some application forms', I had told Capt. P. S. Bakshi, before we parted after completing the 29th Basic Course at the H.M.I., Darjeeling. His wish to become a member of the club, alas, was not to be realized!

This is the first time that an Indian 'Sahib' has lost his life *in a climbing accident* in the Himalayas (Lieut. Bhagat died of blood-poisoning from an ice-axe wound on Kamet in 1952; Major Jayal succumbed to pneumonia on Cho Oyu in 1958; others have also died of either pneumonia or heart failure).

Soon after our return to Darjeeling from Base Camp, 'Buck' (as we called him for short) was busying himself with thoughts of an expedition to Leo Pargial—a few of us were approached but only Capt. J. N. Wadhwa and Lieut. H. V. Bahuguna were able to join—the rest of us could not possibly get leave. On his way back to Kasauli where he was stationed, he was able to contact the Army Mountaineering Association at Delhi and obtain their support.

The team which assembled at Simla on June 2, 1962, comprised Capt. P. S. Bakshi (Leader), Capt. J. N. Wadhwa (Deputy Leader), Capt. Sharma, Lieut. H. V. Bahuguna, Lieut. Bargva (Doctor), Sirdar Gyalzen Mikchung, Sherpa Karma Wanchoo, and Sherpa Ang Dawa (Cook). The party left Simla for Poo (on the Hindustan Tibet Road) on June 6 in jeeps. Poo was their administrative headquarters. Base Camp at 16,400 feet was established on June 12 and Camp I at 19,000 feet after a few days of acclimatization.

On June 20 Bakshi, Wadhwa, Gyalzen and Karma left Camp I at 8 a.m. to reconnoitre for a site for Camp II. A suitable spot was found at about 21,200 feet, but in reaching this they had a considerable rock face to negotiate which Bakshi reckoned to be unsuitable for laden porters. He therefore decided to descend over an apparently easier route which avoided the rocks. They started to descend at about 3 p.m. but by 4 o'clock were enveloped in a thick

fog, which reduced their visibility to about five yards or so. They were then on an ice pitch, and had not realized that they were traversing along the edge of a precipice. When progress looked dangerous, they waited for the fog to lift, but as fate would decree they spied some rocks which looked safer for resting than the slippery ice, and the four of them made for the spot. They were all on one rope with Gyalzen leading, followed by Bakshi, Wadhwa and Karma. Suddenly Bakshi slipped and was being held by Gyalzen and Wadhwa, but a few seconds later Karma also lost his stance and fell, now dragging Wadhwa and Gyalzen in turn—a few yards and they were over the precipice, hurtling down about a thousand feet over rock and ice.

At about 5.45 p.m. a battered and bleeding figure approached Camp I—it was Wadhwa. Lieut. Bahuguna and Ang Dawa immediately set out for the scene of the fall, retracing Wadhwa's trail. All three had succumbed to head injuries—there was no other apparent hurt. Impossible to move the bodies—untie the rope—leave them together—come back tomorrow.

Next day Bahuguna, Ang Dawa and six porters go up—no use—can't get them down over difficult ice-slope—bury them in a nearby crevasse—a rucksack, an ice-axe, a prayer.

* * *

One does not require six weeks to size up a person, in the mountains—during the Basic Course 'Buck' had endeared himself to all and with like-minded chaps, he would discourse at length on birds, trees, flowers, fruits—a real mountain lover—a complete mountaineer, not merely a climber, a technician. Often, he would carry the packs of students feeling the effects of altitude (Wadhwa and Bahuguna were as obliging)—I marvelled at their fitness and their patience with some of the ungrateful recipients of their help. I can still see him (and Capt. B. P. Singh) rubbing the colourless feet of a Tibetan porter with all their energy—racing against time—another half an hour and the man would have lost his feet—frost-bite. They pinched and slapped for a full hour or more, till gradually the unwilling blood slowly flowed back and the wretched man howled with welcome pain. A wonderful blend of intelligence and humility—the type of mountaineer and soldier India requires right now.

The orchid collection at the H.M.I. would, today, be a poor affair if it hadn't been for 'Buck' who collected no less than thirty different varieties and potted them himself aided partly by Col. Hla Aung of Burma. His last act of kindness to me was to present two of the hardiest varieties to me. I wish I could place them alongside the rucksack and the ice-axe in the crevasse on Leo Pargial.

Karma Wanchoo, son of the great Ajeeba—another loss to Indian mountaineering—hardly twenty years old—a short life amongst the mountains. He was with Sukumar Roy on Nandaghunti in 1960, with Biswadeb Biswas on Mana in 1961—a Basic Course at the H.M.I. in 1962, and on my rope, too—a lovable figure always ready to help—few words, lots of action. But why, why lose him so quickly ?

* * *

Gyalzen Mikchung—H.C. 163—Tiger Badge Makalu 1955—the best years of his life lay ahead ; born in 1929 he started his career in 1949 with Lohner on Pyramid Peak and Charlton Thomas on Panch Chuli. After that his record reads like a catalogue. Kailas with Charlton Thomas and Solo Khumbu with Tilman in 1950—Panch Chuli again in 1951 with H. Thomas—Harki Doon with Gibson and Sugar Loaf with Dodson in 1952—Dhaulagiri with Schatz and Nun Kun with Pierre in 1953—Makalu with Siri and again the same year with Franco, fitting Baudha with Styles in between, in 1954—again Makalu with Franco and Kulu valley with Waller in 1955—Lumba Sumba with Jenkins and Trisul with Bunshah in 1956—Annapurna with Wallace in 1958—West Nepal with Skoulding in 1959—Trisul and Ganesh Himal with Wallace and Kangchenjau with Iengar in 1960.

Less than two months ago he was standing with the French on the summit of Janu (25,294 feet), a mountain of exceptional technical difficulty—surely the gods wrought an unjust revenge—a senseless and spiteful action.

S. S. MEHTA

KULU NOTES, 1962-63

By BOB PETTIGREW

THE season was opened by another ascent of Deo Tibba (19,687 feet), appropriately enough by a new route on June 7, 1962, by Pa Narbu and Harnam Singh of the climbing school recently established in Manali.

They chose the ice-fall which descends directly from the névé which forms the summit snow dome to the glacis in the vicinity of the Chandar Tal (*c.* 16,000 feet). This steep little ice-fall is bounded on the west by the south face of Deo Tibba and on the east by the Watershed ridge. It is clearly shown in the photograph opposite page 104 in *Himalayan Journal*, Vol. XXI, of 1958.

The party approached by the usual route through the Jagatsukh

Photo: Bob Pettigrew

THE HEAD OF THE SOLANG NULLA, KULU HIMALAYA. THE 16,891-FOOT PASS INTO THE BARA BANGYAL IS MARKED

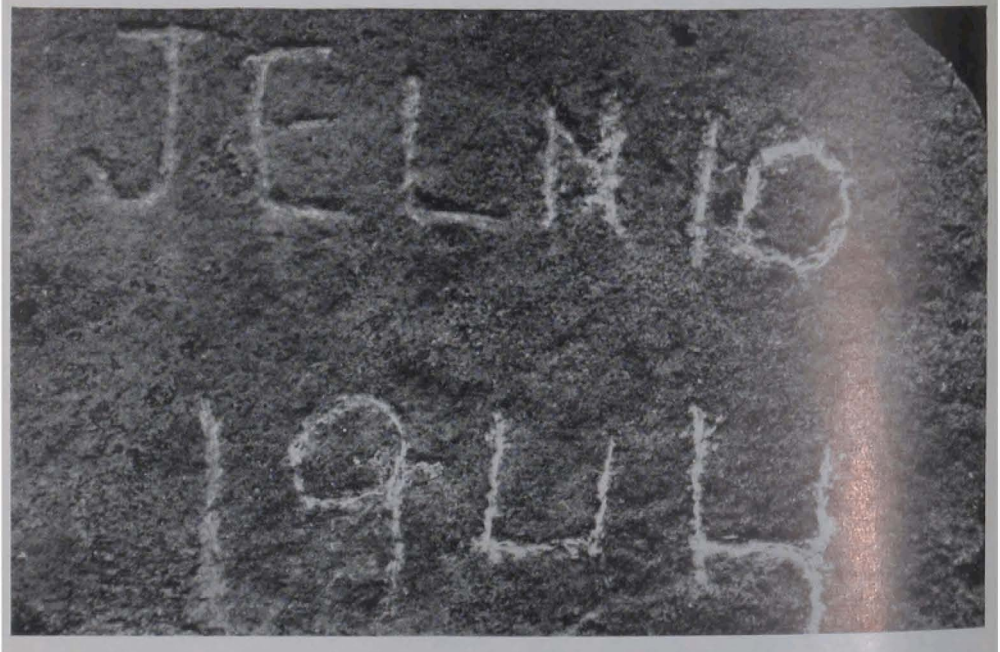


Photo: Bob Pettigrew

JELN IO 1944

(Dunangan) Nulla, and eventually camped in the basin adjacent to Chandar Tal, west of Watershed ridge and south of Deo Tibba, on June 5.

By lunch time the next day half the ice-fall had been climbed, not without difficulty, and a camp was sited close to the crest of Watershed ridge. Here their ice-fall route merged with the Watershed ridge route taken on previous ascents and the ice-fall gave way to firm névé.

The summit was reached at 2.45 p.m. the next day, June 7, after 9½ hours of climbing. During the descent unpleasant snow conditions were encountered and the party was lucky to survive two serious falls caused by the balling-up of crampons.

During the post-monsoon period the same massif was again visited by the successful Japanese Expedition from Kyoto University led by Professor Konoshin Onodera. On October 13, 1962, this party achieved the first ascent of Indrasan (20,410 feet) by a remarkable and daring route on the very steep south face. The face was gained from a camp on the upper Malana névé (the third shelf) at 18,300 feet. A photograph of this aspect of Indrasan appears opposite page 102 in the *Himalayan Journal*, Vol. XXI, for 1958. The climbers made use of a couloir on the east side of the great buttress, which is a conspicuous feature of the west ridge. Once clear of the ice-cliffs which dominate the face, they took to the summit pyramid of snow and climbed directly to the top. As was expected by their predecessors to the mountain, the difficulties encountered were prolonged and severe. On the same day yet another ascent of Deo Tibba was made by other members of the Japanese Expedition. They shared the same camp as the Indrasan party and climbed the mountain from the south-east—a natural line above the Watershed ridge.

During the pre-monsoon season of 1963 only one important expedition passed through Manali. This was the Central Lahul expedition organized by Mr. Justice Cramm of Nyasaland, a member of the Alpine Club, which left Manali for the Rhotang Pass and Lahul at the end of May, 1963.

Bob Pettigrew and Frank Thompson won brief spells of leave from a strictly family holiday in Manali and made excursions into the attractive Solang and Malana nullas.

The first Solang trek, between May 2 and 4, made with Dr. Peter Snell, a keen trekker now resident at the Lady Willingdon Hospital, Manali, fell far short of its objective, the 16,391-foot pass into the Bara Bangyal. However, the party observed many fine but difficult peaks and inadvertently stalked an enormous brown bear to within 20 yards.

On the second trek into the Solang nulla, between May 13 and 16, Sonam Ang Chook replaced Peter Snell. In Arctic conditions the party reached the foot of the pass but turned back on account of frequent powder snow avalanches across the slopes beneath it. These fell from the east face of the great spur which descends south from Mukar Beh (19,910 feet). The climbers concluded that they were still too early in the season—every day saw fresh snow—so they withdrew.

The Malana nulla trek lasted from May 27 to 31. The Chandra Khanni Pass (11,617 feet), still snow-covered, was crossed on May 29 and a camp was made just beyond the watershed. The next day Peak 14,522 feet, the last major summit in the long spur running south from Indrasan which divides the Beas and Malana valleys, was climbed by easy snow slopes and a short rock ridge. Just below the summit an engraved block was found bearing the enigmatic ' J E L N 10 ' and the date ' 1944 '. Is this more evidence of the excursions of the Italian climbers during their wartime imprisonment in the Kangra Valley ? A full panorama was photographed before the climbers returned to strike camp and head for home.

Further climbs in the mountains above the Malana nulla are being planned by Bob Menzies and Bob Pettigrew for the post-monsoon period in 1963.

Mountaineers will regret that Major H. M. Banon, ' Chini Sahib ', has had to give up his duties as the Honorary Local Secretary, Kulu, on account of ill health. For many years he was a most able holder of that office and the Club, as well as many individuals, will remember his work with affection and gratitude.

Fortunately, John Banon, H. M.'s nephew, a noted shikari, and an equally vigorous member of the family, has agreed to take on the multifarious tasks connected with acting as host to expeditions climbing from Manali and he has been appointed Honorary Local Secretary, Kulu.

AN ATTEMPT ON NILGIRI PARBAT, 21,240 FEET

(Climbing Camp—Valley of Flowers—May-June, 1961 ; a summary of a report by Jagdish Nanavati.)

IN the summer of 1961 a Climbing Camp in the Bhiundhar Valley in the Garhwal Himalayas was sponsored by the Mountaineering Committee, Bombay (now the Climbers' Club). The object of the three-week Camp was to introduce twelve young climbers to mountaineering in the Himalayas. The Valley of Flowers was

selected since it offered an easy access from Joshimath and contained modest peaks of climbing interest. The Camp was in charge of Jagdish Nanavati.

Considerable difficulty was experienced in obtaining the required number of porters at Joshimath to carry about 3,200 lb. of stores and equipment. But the party finally assembled at the Base Camp (*c.* 11,200 feet) in the Valley on May 20. A few days were spent in reconnaissance, acclimatization and practice climbs under the guidance of three Sherpa climbers headed by Nowang Gombu (of the Himalayan Mountaineering Institute, Darjeeling). Notable amongst these one-day climbs was the one to Sapta-Sring range (*c.* 16,500 feet) over soft snow-covered slopes rising to about 4,700 feet above the Base Camp.

The effort of the Camp was directed to an attempt on Nilgiri Parbat, 21,240 feet, which is situated on the north-east corner of the Valley. It is an outstanding peak. The south rocky face of the mountain rises above the head of a minor glacier for 6,000 feet. The southern and eastern ridges are steep and rocky, offering little hope of a route to the summit. The mountain was therefore approached from the Khuliagarvia Valley after crossing the Khulia Ghata pass (*c.* 16,500 feet) and the attempt was made up the north-western face of the mountain. Nilgiri Parbat was first climbed by Frank Smythe in 1937 by this route. He had summed up his climb as 'unique for its beauty and interest, indeed the finest snow and ice peak I have ever climbed'.

Intermediate Camp (*c.* 14,200 feet) and Pass Camp (*c.* 16,500 feet) were set up before establishing on May 28 an Advanced Base Camp at about 15,400 feet on the snow-covered Khuliagarvia moraine. Nilgiri Parbat rose to the east of the Camp. The head of the Khuliagarvia glacier was towards the north-east and rose in two steps over small ice-falls. The upper plateau was crevasse-ridden. Above the plateau the route turned to the north-western face of the mountain through semicircles of ice-walls and cliffs. The upper part of the mountain contained more ice-walls one over another, running right across the face. There was no obvious route to the summit. After two days of reconnoitring, Gombu and Phenjo succeeded in finding a route by-passing the lower obstacles, and on June 1 set up Camp I with two climbers, Gawrang Choudhuri and Ankur Purohit (who being 16, was the youngest member of the team). Early next morning at 4.44 a.m. they left Camp I for the summit. The route above Camp I took them immediately to a large snow plateau. They avoided the huge ice-cliffs above this snow-field by crossing the plateau towards the east and reached the lower edge of the

ice-wall and climbed to the upper slopes which gradually steepened. They soon came up along a huge ice-wall running diagonally from east to west. Aiming to overcome the ice-wall towards the upper western side the climbers continued to about 19,500 feet where they found some snow-filled crevasses across their way. It was 7 a.m. Gombu estimated the climb to the summit to be more than a day's return from Camp I and found the snow conditions unfavourable with dangers of avalanches from the series of ice-walls above. Indeed the route was far from certain. It was decided to return. By 8.30 a.m. the summit team returned to Camp I where, shortly afterwards, it was joined by the support party consisting of Jagdish Nanavati, Shapur Panthaki and three porters, who had climbed up from the Advance Base Camp. In view of the prevailing hazards and the short time left at its disposal for the required reconnoitring and setting up of Camp II, further attempt on the mountain was not made. On June 3 the party returned to the Base Camp in the Valley of Flowers. The loads were brought down from the higher camps and repacked for the return journey. The climbers left the Valley on June 6, reaching Joshimath on the 9th.

OBITUARY

MAJOR E. J. E. MILLS

(1926–1962)

JIMMY MILLS was killed, together with his climbing companion Capt. M. R. Jones, under tragic circumstances during an attempt on Kunyang Chish, 25,762 feet. This impressive peak situated ten miles south of Distaghil Sar had never been attempted, nor even reconnoitred before. Major Mills was the leader of a joint British-Pak Forces expedition to the mountain. After a few weeks' reconnaissance, a route was selected by the south ridge which was considered possible though difficult. Two camps had been set up; and after overcoming two difficult obstacles along the route it seemed that the way to the summit was open. Major Mills and Capt. Jones were on a snow ridge at about 20,000 feet, followed by Dr. Horniblow and Capt. Khurshid. Owing to heavy mist, visibility was poor. The first sign of disaster observed by the second party was of a yellow object seen falling through the mist to the right. Some moments later, as they advanced further along the ridge, they observed that a section of the snow, some 200 feet in length and 30 feet wide, had avalanched over the right-hand cliff which falls about 5,000 feet sheer to the Pumarikish Glacier below. Search parties were immediately organized on the glacier but owing to the heavy avalanche debris neither of the two bodies could be recovered. Only a rucksack belonging to Capt. Jones was found.

Major Mills joined the Club in 1961. He had taken part in the 1958 Services expedition which climbed Rakaposhi. A year later, with three other Army officers he carried out a very useful piece of mountain exploration in Alaska. His book, *Airborne to the Mountains*, published in 1961, is a well-written account of this expedition. He came out to Pakistan in January, 1960, for a one-year course at the Staff College in Quetta, and during this period he made two brief visits to Swat Kohistan. During the second visit, with three Pakistani officers, he climbed a peak of about 18,500 feet north-east of Kalam in mid-winter under very severe conditions. He was very well liked by the Pakistani officers with whom he served in Quetta, and he was therefore an obvious choice as leader of the 1962 expedition. He had developed rapidly into an excellent climber: and he

seemed to possess all the qualities—courage, tolerance, unselfishness—that distinguish good leadership. He also possessed without doubt the art which Geoffrey Winthrop Young commends in *Courage and Mountain Writing*.

I am indebted to Jimmy Mills not only for his fine descriptions of Swat Kohistan, but also for having led me to the discovery of an impressive and quite unsuspected mountain group to the east in Indus Kohistan. Three weeks before his death I received a letter written from his Base Camp on Kunyang Chish. He seemed cheerful, and optimistic about success. He died a mountaineer's death; and he rests amidst the mightiest mountains and glaciers of the earth.

T. H. BRAHAM

B. BENTLEY BEETHAM

(1886–1963)

BENTLEY BEETHAM was a boy, and for over 40 years a master, at Barnard Castle School. During his youth he was always keen on wild life, and especially on birds. It was in studying and photographing bird life that he first went in for climbing rocks; and he made some magnificent pictures of birds, as those of us who have seen his slides know. He wrote several books on birds, the best-known of which is *Our Banished Birds*. He soon found that one can climb for pleasure and adventure apart from studying birds, and in 1919 he joined The Fell and Rock Club. It was about that time that he began climbing in the Alps, and was soon making guideless ascents of many of the Alpine peaks, in the early 1920's. In 1924 Beetham was selected for the Everest Expedition, and had very bad luck, with a severe attack of sciatica which came on just as the serious climbing was about to begin. He managed to limp up to Camp III, with great pain, in time to see the first attempters coming down, and the whole expedition was severely handicapped by having our best climber forced into inactivity, while the rest of us did our poor best without him. In the years following Beetham and his companions climbed in Norway, the Tatra, Dauphine, the Tyrol, and especially the High Atlas of Morocco which he visited four or five times, and which he probably knew better than any other Britisher. Beetham only made one trip to the Himalaya after 1924, going in one of W. H. Murray's expeditions; but he had to return early owing to dysentery and digestive troubles—once more bad luck dogged him in India. One

day on Raven Crag gully about eight years ago he fell and broke his skull in six places, and his right wrist. He was unconscious for three weeks—but he made a recovery and went on climbing. But recovery was never complete, and his last year was spent in a nursing home until his death on April 5. He was a fine climber, a good friend, an unselfish companion and a brave one.

DR. T. H. SOMERVILL

BOOK REVIEWS

ANNAPURNA II. By R. H. GRANT. *William Kimber, London.* 1961. *Pp.* 192. *Price* 30*s.*

THE LAST OF THE ANNAPURNAS. By M. S. KOHLI. *Publications Division, Government of India.* 1962. *Pp.* 143. *Price* Rs.12/50.

Herzog's account of the ascent of Annapurna I in 1950 has probably never been matched for melodrama in mountaineering literature. But since the breaking of the 8,000 m. barrier, accounts of big Himalayan climbs have grown gradually less dramatic, and heroic accounts now belong to a former age. The emphasis is more on a factual workaday description of events ; or on perceptive impressions of people and places with some element of adventure added.

Here are two books, both falling roughly into the former category ; they have much in common, and yet they differ in many ways. Both describe Services' expeditions to the Annapurna Range in Nepal in 1960 and 1961. Both were successful. But two widely different images of the country are created. The presentation in one case is more or less conventional ; in the other it is rather original. One party suffered from occasional petty conflicts and dissensions ; the other was marked by an extraordinary camaraderie. Both had their troubles with the locals ; and in one case quite a serious situation developed and troops were sent in to protect the party.

The four Annapurnas, on the whole, appear to have fallen rather easily, nearly all at the first attempt. Once Annapurna IV was climbed in 1955, the route to Annapurna II was open, though obviously not easy. As to Annapurna III, it had never been reconnoitred before, and the choice of route appears to have fallen rather obviously on the northern approach, based upon advice given by Roberts and others.

The blurb on the Annapurna II dust-cover describes the mountain as one of the most difficult in the world to climb ; a claim that is highly exaggerated, to say the least. Apart from a mixture of British Services, the expedition comprised groups from the Indian and Nepalese armies. With such a large and heterogeneous party, it does great credit to the leader, Lt.-Col. Jimmy Roberts, that congenial relations on the whole were maintained. It was a pity that the leader was prevented by sickness from directing operations personally at the higher camps. The route was well chosen ; it steered

clear of the main objective dangers, and with the exception of one or two steep ice-pitches was devoid of any major technical difficulty. The party were not particularly fortunate with the weather, being forced initially to spend almost one month from mid-March to mid-April confined to their Base Camp. A further short spell resting and recuperating at Base described under the caption 'Mountain Vacation' is probably the best-written chapter in the book.

The summit attempt and final climb, although recorded in some detail, the author being one of the summit party with Chris Bonnington and the Sherpa Ang Nyima, does not contain a single description of a technical nature. It is refreshing to find three Sherpas climbing Annapurna IV on an off-day from Camp V purely for the fun of the thing. The writing is surprisingly naïve; and the phraseology is sometimes poor. Temperatures, for example, do not 'become colder'. The illustrations are of poor quality and are badly placed in the text. Until colour photographs can be as efficiently and economically reproduced as black and white plates, those intending to publish expedition books should concentrate on black and white photography for their illustrations.

The author of *The Last of the Annapurnas* describes his story with the sort of wide-eyed wonder that would have been more common fifteen years ago. Such writing can sometimes betray a forced enthusiasm; and, if carried to an extreme degree, can seriously mar the authenticity of the story. The initial reconnaissance was confined to a choice between two possible lines—up the North and the East ice-falls. The former was chosen, said to be more difficult than Everest's Khumbu ice-fall and more than twice its height—the Khumbu ice-fall is credited with a height of 3,300 feet, whilst this one is given 8,000 feet. But the party obviously did not encounter any technical difficulties up to the northern shelf, which is described as an 'expansive white paddy-field'. Above the paddy-field, it is not made clear what line was followed. It would have seemed highly dangerous to traverse the north face beneath large overhanging séracs; but, apparently, this is what was done. However, there was no mishap; and a party of three duly reached the summit, where they 'had to go through the usual formalities' before commencing the descent. The latter provided one of the main adventures on the mountain, and the party did very well to return safely to their top camp in a blizzard.

The expedition had serious trouble with the villagers of Manganbhot. Their liaison officer could do nothing to help, and was himself clamped into jail for his refusal to support the miscreants. Looters almost denuded the expedition's stores; but, fortunately,

a large part was recovered after military intervention. The Victory Parade began as soon as the summit party returned to Base, and continued relentlessly all along the return route with garlands and reception committees at Pokhara, Kathmandu and Delhi.

The text is well illustrated by line drawings; but the quality of the photographs is exceedingly poor, and there is no table of illustrations. When black and white photographs cannot be properly reproduced, it is the height of unwisdom to attempt colour reproduction as the examples in this book will show. Both these books lack adequate maps. Both contain end-papers illustrating the mountain; the route followed on Annapurna II is shown, but that taken on Annapurna III is omitted.

T. H. BRAHAM

KARAKORAM. By FOSCO MARAINI. *Hutchinson & Co., London.* 1961. Price 60*s*. Translated from the Italian by JAMES CADELL.

The 1958 Italian expedition to Gasherbrum IV, 26,180 feet, is notable for having overcome climbing difficulties of a severity surpassing anything previously achieved on a major peak. No former attempt had been made to climb Gasherbrum IV, one of the last few unclimbed 8,000 m. peaks (Gasherbrum III, 26,090 feet, is still unattempted). The party had to do all their own porterage along the upper part of the route, which consisted of a steep rock and ice ridge bristling with technical problems classified as Grade IV and above. No oxygen was used. The final climb to the top was made in a gathering storm by the redoubtable Walter Bonatti and Carlo Mauri. The descent was made under exceptionally severe conditions. The summit party was supported by a team of three strong climbers. That, briefly, is the story of the climb. That the climbers were favoured with some element of luck cannot be denied; but no success is ever attained without luck; and this particular performance could have been achieved only by climbers of outstanding skill. Both were professional guides.

The author accompanied the expedition as photographer. Mr. Maraini is already well known as an able writer; but it is the photography that is the main attraction of this book. There are 108 illustrations, several in colour. By far the largest number were taken by the author, and they are of a quality that it would be hard to equal. The pictures not only possess an artistic quality, but also convey exactly the right atmosphere. The reproductions, especially in colour, are the finest I have seen in any mountaineering publication. Many of the pictures illustrating the upper part of the climb,

taken by the climbers themselves, have quite a dramatic quality. The author also produced a cine-film of the expedition.

The expedition was unusually large. Over 400 Balti porters were required to transport 7½ tons of baggage approximately 137 miles from Skardu to Base Camp on the Baltoro Glacier. That troubles should have developed was not unexpected. A practical solution was eventually found by splitting the party into 13 groups of 30 men each with its own leader—a brain child of the Pakistan army liaison officer, Capt. Dar. Tribute is paid to the Baltis' inherent toughness and resistance to cold. It seems a pity that relations between the party and their liaison officer were so strained. This aspect appears to be rather over-emphasized in the earlier chapters of the book. What appeared to be lacking between the two was mutual trust, possibly due in great measure to the language barrier; none of the members of the party, except Maraini, could speak English. If the party had exercised more understanding, greater respect and friendship would have resulted, to the benefit of both.

The translation from the original Italian is good. There are four good maps—though on the end-papers G. III is not shown and the height of G. IV is misprinted as 26,810 feet. There is also a useful bibliography and an index.

T. H. BRAHAM

LETTERS TO THE EDITOR

THE NILKANTA EXPEDITION, 1961

WE have received from Mr. S. S. Mehta a review of a study by Mr. Jagdish C. Nanavati (one of our members) entitled 'Nilkanta—Still Unclimbed' with a request that it be published. In it Nanavati questions the claim of a successful first ascent by the Nilkanta Expedition of 1961 led by Captain Kumar. The following is a comprehensive summary of the paper:

In spite of its comparatively low height Nilkanta (21,640 feet) has earned a reputation of being one of the most difficult peaks in the Himalayas—the north face rises some 8,000 feet in only two horizontal miles from the Satopanth Glacier. A gigantic ice-wall separates the steep rocky mass below from the icy tower above. Previous attempts had been over the south-east ridge, the north-east ridge (reconnaissance only), the north face, and the west ridge. The west ridge has been considered the most promising route, but none of the previous attempts have succeeded in climbing beyond about 19,000 feet.

Captain Kumar selected the north face for his attempt. From a snow basin at about 16,000 feet a rocky spur leads to the ice-wall near its western end. Camp II was set up on this spur; Camp III in an ice-cave in the great ice-wall. The party then followed a route through a steep ice-gully and over the upper ice and snow face, towards the summit ridge at its 'extreme west'. The summit was claimed to have been reached on June 13, 1961, at 5.15 p.m. by a rope of three from Camp V said to be at 21,200 feet, i.e. 440 feet below the peak.

A chance inspection of a photograph of Nilkanta in the *Himalayan Journal*, Vol. XVIII, 1954 (facing page 104), led Nanavati to compare it with the accounts available at the time. This included an official brochure, articles by the leader in the Press, other Press reports, and two lectures by O. P. Sharma who along with two Sherpas had comprised the summit team.

The discovery that the photograph in the *Himalayan Journal* was taken from a high position at a distance of some seven miles, almost at right angles to the west ridge of the mountain, over whose upper part the final assault was carried out, enabled Nanavati to produce a photo-altitude scale by which the relative heights of the various features on that ridge and on the north face could be read off within an accuracy of about 75 feet. From this he deduced that the heights of camps as stated by the expedition were wrong.

On the basis of the expedition's own account of the climb and the description of the location of its camps Nanavati concluded that their final Camp V could not possibly have been a mere 440 feet below the summit, as claimed, but at a height of about 19,600 feet only—2,040 feet lower than the peak. He questions whether it was feasible for three climbers in an exhausted condition, having been without adequate food and water for the previous two days and having passed two sleepless nights before (seven persons in a one-man bivouac tent), to have ascended 2,040 feet, under monsoon conditions with poor visibility, high winds and heavy snowing, over a difficult pitch of ice and snow in only seven hours, five of which were spent in reaching the ridge at a point about 1,500 feet below the summit. Nanavati suggests that the climbers labouring under such a strain could have probably mistaken the identity of the summit for a lower prominence on the ridge (also perhaps due to their mistaken impression that they had only 440 feet to ascend to reach the summit), a very natural miscalculation under the circumstances.

This review Nanavati sent to the Indian Mountaineering Foundation for its comments.

The Indian Mountaineering Foundation deputed an officer of the Survey of India to check the heights of the various camps and in its reply gave explanations to the items raised in the review. It admitted serious errors in the original account of the expedition and gave different heights to the camps and also the timings and description of the final climb without however giving any detailed account of the basis on which the corrections were made.

For example:

(*a*) The Base Camp was lowered from 15,500 feet to 15,000 feet.

(*b*) Camp III was lowered by 1,100 feet—from 20,000 feet to 18,900 feet. Consequently the height of the climb from Camp II to Camp III was reduced from 2,000 feet to 900 feet (Nanavati's photo-chart indicates Camp III at only 18,400 feet).

(*c*) The height of Camp IV was lowered by 950 feet—from 20,600 feet to 19,650 feet, thereby increasing the climb from Camp III to Camp IV by 150 feet. (The photo-chart shows Camp IV to be at 19,000 feet).

(*d*) Camp V was lowered by 750 feet—from 21,200 feet to 20,450 feet, thereby increasing the climb from Camp IV to Camp V by an extra 200 feet.

The location of Camp V was changed from 150 feet to only 40 feet below the summit ridge on level with the last hump and the ascent was changed in direction—the climbers cutting steps in ice diagonally to a point on the ridge claimed to be 450 feet higher than that of Camp V. No explanation was given why such a course was necessary when a 40-foot pitch was all that separated the camp from the ridge. Moreover the pitch indicated in the revised version is not over snow and ice, but over rock, as seen in photographs presented by other mountaineers.

(*e*) The time taken by the climbers to reach the summit ridge was reduced from 5 hours to $3\frac{1}{2}$ hours although 'step-cutting' was increased from '150 feet' to '450 feet'.

(*f*) The original account described the summit team as having followed the ridge to the top across three painfully-deceptive intervening humps, a distance of 600 yards to 800 yards. The revised account gave the team crossing over to the south face after reaching the ridge where, it is stated, not much step-cutting was involved and this took $3\frac{3}{4}$ hours instead of the original $2\frac{1}{4}$ hours to reach the summit.

(*g*) The summit was changed from 'a cone' (according to Captain Kumar's original account) to 'a horse-shoe eminence . . . and no more the apex of a cone' (according to him in a subsequent publication—'The Himalayan Endeavour', *Times of India*, June, 1962).

Nanavati then prepared a 'Supplementary Note', which examined in considerable detail the revised account and all other evidence available to him.

He concluded that further contradictions were revealed in the revised account.

Note by the Editor

In December, 1963, the Indian Mountaineering Foundation issued a report on the ascent, of which the following is a comprehensive summary:

After Nilkanta was climbed, doubts were expressed about the summit party having reached the summit. Accordingly, the I.M.F. set up a Committee, consisting of Col. B. S. Jaswal, Principal of the

Himalayan Mountaineering Institute, as Chairman, and Lt.-Col. M. M. Datta (an expert from the Survey of India) and Maj. John D. Dias (leader of the 1962 expedition to Everest) as members, to check up on the claim. The terms of reference were:

1. (i) What were the heights of the various camps ?

(ii) What are the heights of the features: (*a*) Fifth Hump, (*b*) Ice-wall, and (*c*) West Col ?

(iii) If the expedition has given any of the heights incorrectly, what are the circumstances in which these errors have been made ?

2. What was (i) the height of the ridge above Camp V, and (ii) the height at which the ridge was crossed by the second summit party ?

3. What was the time of departure of the second summit party from Camp V on June 13, 1961 ?

4. What was the time (i) when the summit party crossed the ridge above Camp V, and (ii) when the party reached the summit or the highest point ?

5. Circumstances in which the summit film got exposed.

6. Difference in the difficulty of climb from Camp V to the top as compared to the climb up to Camp V.

7. Was it possible for the summit party reasonably to reach the summit in the time available to them ?

8. Circumstances in which the incorrect announcement was made to the effect that the first summit party led by Flt.-Lt. A. K. Chowdhury got within 200 feet of the summit.

9. Any other relevant point or matter which comes up during the investigation.

The Committee reported as follows:

The Committee went through all the available records of the expedition, paying special attention to the articles which appeared in newspapers, the statements made by members of the expedition at different times and the comments of Jagdish Nanavati of the Climbers' Club, Bombay, regarding the non-acceptance of the claim.

The Committee examined Capt. Narendar Kumar, leader of the expedition, Flt.-Lt. A. K. Chowdhury, a member, Sherpa Lhakpa Giyalbu Lama and O. P. Sharma, members of the summit party, and J. C. Nanavati, and recorded their statements. Sherpa Phurba Lobsang, the only other member of the summit party, could not be interviewed as he had died on the Pumori expedition.

All the witnesses were permitted perusal of and references to the I.M.F. photo album of the 1961 Nilkanta expedition and the latest Survey of India 1:50,000 map (1963). The oblique aerial photographs taken during October, 1963, when the leader himself was

carried in the aircraft while the photographs were being taken, were also used by all concerned. Nanavati saw all the photographs, the album and the map and, in addition, showed some of the recent photographs of the Nilkanta peak taken by him during the summer of 1963.

The route followed by the 1961 expedition in climbing the peak was stereoscopically examined by Lt.-Col. Datta, a member of the Committee, from vertical aerial photographs taken during 1962 in the precision stereo-plotting instruments of the Survey of India. In these instruments, a three-dimensional spatial model of the peak is obtained with the help of vertical aerial photographs in which heights can be measured with an accuracy of $\pm$ 3 feet. A 1 : 10,000 scale map with 100 feet contour intervals was plotted for this purpose.

The Committee had the following observations to make regarding the points raised in the terms of reference:

None of the members of the expedition could provide the correct heights of the different camps as they did not carry any altimeters or any maps beyond the Base Camp. The Committee had the heights of the following positions measured in the precision stereo-plotting instruments from the locations indicated on the photographs taken during the expedition:

West Col	17,960 feet	
Camp II	17,940 feet	
Ice-wall	18,330 feet	(top)
Camp III	18,300 feet	
Camp IV	18,760 feet	
Camp V	19,970 feet	
First Hump (Fifth Hump of Nanavati)	20,170 feet	

The circumstances in which the errors in heights were made were (*a*) no altimeters were carried, (*b*) no large-scale maps for determination of heights were available, (*c*) $\frac{1}{2}$-inch Survey of India map was not carried beyond the Base Camp, being of too small a scale, and (*d*) the heights given out to the Press were mainly based on those of the 1959 I.A.F. Trekking Society Expedition to Nilkanta which had not been corroborated.

The height of the summit ridge above Camp V was estimated by Chowdhury to be about 40 feet and by Sharma to be about 400 feet. The height of the summit ridge directly above Camp V, as measured in the precision stereo-plotting instruments, is 20,200 feet, i.e. about 230 feet above Camp V.

The second summit party did not climb to the summit ridge

directly above Camp V but traversed to the left and crossed the summit ridge slightly higher up at a height of about 20,350 feet, i.e. about 380 feet above Camp V. The height of the point on the summit ridge where the second summit party crossed the summit ridge above Camp V was correctly estimated by Chowdhury of the first summit party to be 400 feet as he had claimed to have cut steps half the way up for about 200 feet.

The time of departure of the second summit party from Camp V on June 13 was given by Kumar as about 10 a.m. though Sharma thought it to be 8.30 a.m. This difference in time is possible as the watches of Kumar and Sharma were not synchronized.

The time of crossing the summit ridge by the second summit party is slightly earlier than 1.30 p.m. as the party, having crossed the summit, were resting on stones on the southern face of the mountain at about 1.30 p.m. Thus, the time of 1.30 p.m. is acceptable.

The time of reaching the summit or the highest point of the peak is 5.15 p.m. as given by Sharma.

The film containing the photographs of the summit were accidentally exposed by Kumar while unloading it at Camp V. The Committee examined the official album of the I.M.F. and saw some photographs up to Camp IV, but no conclusive photographs of Camp V or beyond were available.

The type of climb from the Base Camp to Camp V was described by all the members of the expedition as generally difficult and extremely difficult at places. The climb from Camp V to the summit ridge has been described both by Sharma and Lhakpa Giyalbu Lama to be very difficult. The same two climbers have stated that from the point where they rested on reaching the summit ridge to the summit, i.e. the highest point, the slope was easier and the climb was generally easy and fast, involving no step-cutting except the last bit before reaching the highest top.

Kumar, Sharma and Lhakpa Giyalbu Lama were all confident that it was possible to reach the summit within the available time. Considering that both the Sherpas of the second summit party were experienced climbers and the climb involved was comparatively easy, the Committee is of the opinion that it was well within the capabilities of the climbers to reach the summit in the available time.

According to Kumar, the incorrect announcement regarding Chowdhury's climb within 200 feet of the summit was made due to some misunderstanding of Kumar's wireless message by the Base Camp party who mistook the message of ' half-way up to the second hump ' as ' half-way up to the summit '.

The Committee had the following further observations to make:

(*a*) The exaggerated and contradictory statements of Sharma regarding his own performance, specially while giving talks to the public, gave rise to suspicions in the minds of mountaineers. Making statements which were at variance with the leader of the expedition further complicated matters.

(*b*) Sharma's description of the summit climb was neither complete nor convincing. This is probably because he had very hazy ideas regarding the various terrain forms and topographical features, and can be attributed to this being his first major climb.

(*c*) Preparations for the expedition were rather inadequate, because the leader had been assigned another mission from which he returned only about a week before the departure of the expedition.

(*d*) Early publication of newspaper articles and a brochure led to some contradictions in heights and timings. All facts and figures should be carefully checked before publication in the Press or in brochures.

The Committee came to the following conclusions:

(*a*) Based on the height of Camp V, determined in the precision stereo-plotting instrument, as 19,970 feet, the climb to the summit ridge is about 380 feet which was covered in five hours from 8.30 a.m. to 1.30 p.m. Considering the difficult type of climb from Camp V to the summit ridge, where step-cutting was involved, the time of five hours taken to climb 380 feet is reasonable.

(*b*) According to Sharma, the second summit party rested on a few stone boulders on the southern face of the mountain at about 1.30 p.m. The altitude of this group of stone boulders has been measured to be about 20,330 feet. The remaining climb to the summit consisted of traversing a distance of about 700 yards and a vertical height of 1,310 feet in $3\frac{3}{4}$ hours from 1.30 p.m. to 5.15 p.m., i.e. 350 feet per hour at an average slope of 39 degrees. According to Sharma, the time observed by him while traversing between the second and third humps was 3 p.m. Measuring this height to be about 20,900 feet, the rate of climb up to this point works out to 380 feet per hour and the rate from this point to the summit works out to 330 feet per hour, both of which agree well with the average rate of climb of 350 feet per hour. This performance is well within the capability of average mountaineers, considering that the altitude was only 21,640 feet. The second summit party, which had two experienced Sherpas in addition to Sharma,

though starved and fatigued, could still have done it. The uniformly high morale was a contributing factor. The *Alpine Journal*, Volume 68, May, 1963, No. 306, states that 'on a mountain of Nilkanta's size, 1,190 feet is not excessive, certainly for a final climb'.

(*c*) The crux of the problem lies in fixing the height and location of Camp V. The location of Camp V, unanimously agreed to by members of the expedition, was not accepted by Nanavati mainly because of the description of Sharma of the climb above Camp V. In view of Sharma's hazy ideas about terrain forms and snow features, his account should not be given too much weight. The location of Camp V, as indicated by members of the expedition on the photographs, is quite probable and its height is 19,970 feet.

(*d*) The stereoscopic examination of vertical aerial photographs in the high-magnification precision stereo-plotting instrument revealed three distinctive features, namely the stone boulders on the southern face where the second summit party rested after crossing the summit ridge, some rock features between the second and third humps and the crescent shape of the summit with a depression of about 30 feet in the centre which Sharma described as U-shaped. None of these features could be noticed and referred to by persons who had not climbed the peak. In view of this conclusive evidence the Committee is of the opinion that Sharma and the two Sherpas, Phurba Lobsang and Lhakpa Giyalbu Lama, climbed to the summit, i.e. the highest point of the Nilkanta peak in June, 1961.

(*e*) The Committee recommends that Nilkanta, being an important and difficult peak, should be tried again, preferably in 1964, by a team consisting of some of the members of the 1961 expedition and a few other climbers.

The Indian Mountaineering Foundation has accepted the findings and report of this Committee.

June 20, 1963.

THE HON. EDITOR,
Himalayan Journal,
c/o Himalayan Club,
Post Box No. 9049,
Park Street,
Calcutta 16.

DEAR SIR,

I refer to Commodore S. N. Goyal's article 'Neelakantha-Chowkhamba Expedition', published in the *Himalayan Journal*.

Vol. XXIII, 1961, and have to point out the following grave inaccuracies in the account.

Firstly, the photograph printed opposite page 108 of the *Journal* (on which the expedition route and the three camp-sites, viz. Camps II, III and IV, are shown) is not the photograph of Nilakantha, which the expedition claims to have attempted. (For comparison *see* photographs of Nilakantha in the *Himalayan Journals*, Vol. XIV opposite pages 64-65; Vol. XVII opposite page 48; Vol. XVIII opposite page 104). The photograph used by Goyal to show the route is that of Balakun, 21,230 feet, which is situated about $4\frac{1}{2}$ miles north-west of Nilakantha. It is most astonishing that the leader who spent a number of days in the region attempting to scale Nilakantha should make such a serious error and illustrate the route on a photograph of an entirely different mountain! For your ready reference I enclose a photograph of Balakun taken by me from Majna Chakratirtha during my trek to Satopanth Glacier in October, 1951.

Secondly, the leader's claim about the altitude of Camp IV 'at about 20,000 feet almost at the threshold of the notorious ice-wall' (which spans the north face of Nilakantha) is quite erroneous. As per the half-inch Survey Map No. 53 N./N.-W., the altitude of the ice-wall's base in the relevant section (near the west end) is no more than about 18,200–18,300 feet. This is also corroborated by the photo-scale of Nilakantha worked out by Jagdish Nanavati in his study, 'Nilakantha—Still Unclimbed?' Camp IV and any further point claimed to have been reached by the expedition were, therefore, far lower than the altitudes claimed by the leader. The highest point reached could not be 'well above 20,000 feet' as claimed, but well below about 18,200–18,300 feet since the expedition had not admittedly gone beyond the base of the ice-wall.

Thirdly, the arrow indicating the 'Avalanche Peak' as north-west of Satopanth Glacier as shown on the sketch map on page 109 is also erroneous. The known Avalanche Peak named and climbed by Jackson and Bryson in 1952 is situated about 8 miles north of Nilakantha on the Bangneu-Arwa divide and is shown on the Survey Map No. 53 N./N.-W. by Pt. 20,330 feet (vide *Himalayan Journal*, Vol. XVIII).

Yours truly,

MALATI JHAVERI

It is gratifying to note from the comments received that considerable interest has been taken in the publication of the article on 'Neelakantha-Chowkhamba Expedition' by Air Vice-Marshal S. N. Goyal. It is, however, regrettable that the photograph, printed opposite page 108 of the *Journal*

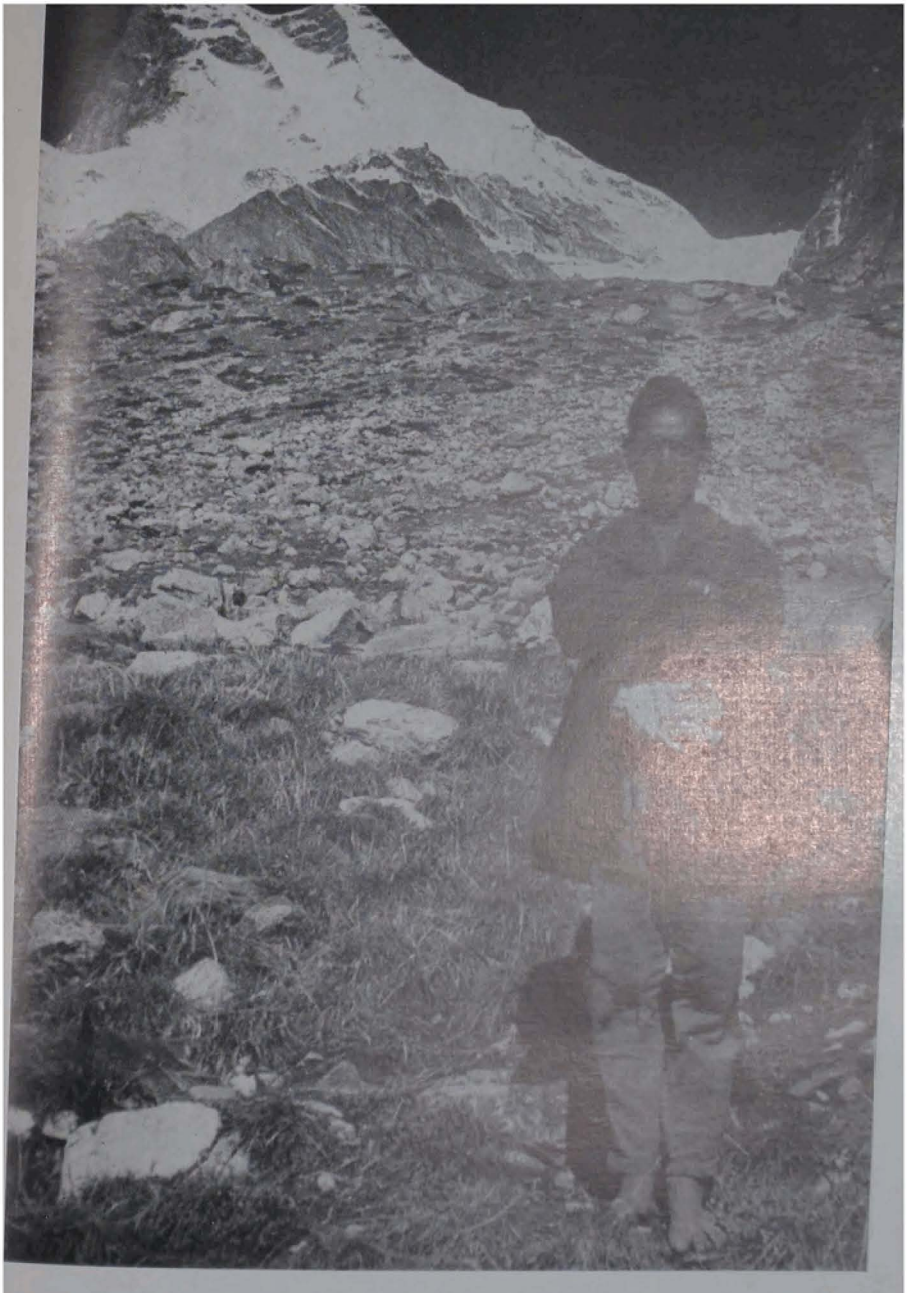


Photo : Malati Jhaveri

BĀLĀKUN FROM MAJNA CHAKRATIRTHA, OCTOBER, 1951

(Vol. XXIII), is not a photograph of Nilkanta. A photo of Nilkanta has since been received for replacing the wrong photo. This tallies with the photographs of the true Nilkanta peak already published in the *Himalayan Journals*, Vol. XIV opposite pages 64-65 ; Vol. XVII opposite page 48 ; Vol. XVIII opposite page 104. Those who are interested in the article will of course consult the photos already published. Printing the photos of Nilkanta subsequently received is not therefore necessary to avoid duplication and unnecessary expense.—EDITOR.

From
T. H. Braham.

Roberts Cotton Associates Ltd.,
Khanewal, West Pakistan,
July 1, 1963.

THE EDITOR,
Himalayan Journal,
Calcutta, India.

SIR,

KANGCHENJAU

The account by Mr. Sonam Gyatso of his climbs in Sikkim (Vol. XXIII, pp. 169-170) with its lack of topographical detail inevitably raises serious doubts as to its accuracy. Three ascents have been claimed, but none has been substantiated in language intelligible to mountaineers.

If one assumes that deliberate understatement was not Mr. Gyatso's intention, one can only suppose that in the author's estimate the climbs were insignificant enough to merit the cursory note he has written. However, for the benefit of those like myself, who in happier days visited these mountains and knew them well—they have been barred to all but Indian nationals for over ten years—further enlightenment is necessary for an appreciation of Mr. Gyatso's claims.

1. From which direction was Yulhekhang peak climbed ? It was apparently decided from the top that Kangchenjau could not be climbed from the south side. A fact which is obvious to anyone viewing the peak from within five miles of its southern face.
2. The ascent of Chombu, the Pumori of North Sikkim, is dismissed in a single short sentence. Can we have details about the line of approach, the route followed, and the number and location of camps ?

3. Since the party apparently lost their way on Kangchenjau, there is some confusion as to where they were actually operating. The only point made clear is that they were somewhere on the northern side. A Col is referred to, and a rock cave. Apparently they climbed from the cave for seven hours before reaching the top. Which top ? The summit ridge is a plateau almost two miles long (*see* illustration facing page 74, *H.J.*, Vol. XVI) with the farther west summit slightly higher than the east summit. In 1912, Dr. A. M. Kellas from a 19,000-foot camp had climbed direct to the east summit in six hours via a 21,000-foot Col. From which direction did Mr. Gyatso's party approach their Col ? It is given no height ; and it may not have been Kellas' Col ; especially as they could hardly have taken seven hours to climb 1,500 feet from the Col. Finally, did they reach the untrodden west summit ?

Yours faithfully,
T. H. BRAHAM

P.S.—The two illustrations, like the article, are evidently not intended to divulge any information about the route followed.

THE HON. EDITOR,
Himalayan Journal.

Bombay,
July 16, 1963.

DEAR SIR,

KANGCHENJAU

The article published in Vol. XXIII of the *Journal* on the expedition to Kangchenjau was a bitter disappointment to those of us interested in exploration in Sikkim.

Mr. Sonam Gyatso is a well-known mountaineer with considerable Himalayan experience. It was all the more surprising that his contribution to the *Journal* could be so vague as to be altogether incoherent to the reader.

Although not stated in the article one surmises that his party travelled via the Lachung valley and that his Base Camp was near the club hut at Mame Samdong ; where was the Advance Base Camp if it was within reach of both Chombu and Yulhekhang ? Both these mountains were climbed for the first time and yet they received one sentence apiece! We know little of Yulhekhang, but

Chombu was last visited by Braham in 1952 (*H.J.*, Vol. XVIII, 1954) when he observed a serious cleft 200 to 300 feet below the summit on the routes covered by the north and north-east ridges—his suggestion was that the south ridge should be explored (in spite of its length). We obtain little help from Mr. Gyatso on this score.

Again, we are not informed as to how the party travelled from the south to the northern side of Kangchenjau. Did they cross the Sebu or Dongkhya La ? Which 'Col' and which summit does Mr. Gyatso refer to ? Has he any observations on the eastern Col referred by Kellas and which was the subject of an independent, if unsuccessful, exploration of the North-east Kangchenjau Glacier by Iengar in 1960 ?

It is a pity that the published photographs convey very little of importance ; perhaps a photograph or a sketch depicting the route, or even one of the shots taken from or near the summit, might have been of greater interest.

Without wishing to belittle the climbing achievements of Mr. Gyatso's party I feel that the precise and careful recounting of an expedition's experience and observations is as important, in mountaineering, as the actual climbing, and could in this case have been presented in greater detail for the benefit of fellow mountaineers.

Yours faithfully,
SOLI S. MEHTA

THE EDITOR,
Himalayan Journal.

Gammon India Limited,
P.O. Mundali,
Dt. Cuttack (Orissa),
August 21, 1963.

DEAR SIR,

I have read with interest and admiration the articles in Vol. LXXXI (November-December, 1962) of the *Rivista Mensile* of the C.A.I. and the current volume of *Himalayan Journal* about the Italian Expedition to the Punjab Himalayas in 1961, which climbed Peak 20,830 feet by the difficult south-west face ridge.

I should like to make the following topographical comments:

Signor Consiglio considers that the col of 5,850 metres reached at the head of No. 2 Glacier, to the west of Peak 21,760 feet, overlooks the head of the Parahio. He must have been misled by the direction of the subsidiary glacier here which flows north-east before joining the Bara Shigri and swinging round to flow north and

west round the flanks of the 'Schreckhorn' above Concordia. That Peak 21,760 feet lies on the Bara Shigri and not on the Parahio is clear from the upper photograph facing page 58 of the *Himalayan Journal*, Vol. XXIII. The Italian col is between 34/52H (20,500 feet) and 21,760 feet on the map facing page 60 of the same volume. Our party in 1961, and the Abinger party of 1956, both penetrated to the head of the Bara Shigri and can hardly both be wrong.

It is also a pity that their sketch-map in *R.M.*, page 336, shows the 'Lion' in a position from which it was removed by Holmes as long ago as 1956 (*Himalayan Journal*, Vol. XX).

On the credit side, it is pleasant to note that they have replaced Snelson's Rubal Kang in its old position, from which Pettigrew (*Himalayan Journal*, Vol. XXIII, map facing page 130) had moved it. This is also confirmed by my photographs from 'Gunther's Ice-Pass' in 1961, which shows the vertical step in the south-west ridge of 20,830 feet, the saddle at 20,350 feet reached by the Italians from the other side, and Rubal Kang itself further along the ridge with its profile recognizably the reverse of Snelson's photograph facing page 112 of *Himalayan Journal*, Vol. XVIII, 1954. Pettigrew's moving of Rubal Kang seems to have been caused by a misreading of Snelson's article. Snelson never said (as Ashcroft, Pettigrew's Surveyor, maintains he did in *Himalayan Journal*, Vol. XXIII, page 131) that Rubal Kang was 20,830 feet; he actually writes (*Himalayan Journal*, Vol. XVIII, page 113), 'a little to the left (of Peak 20,830 feet), however, was a peak about 500 feet lower . . .' This height for it is confirmed by the Italians who show Rubal Kang as 6,150 metres. Snelson does appear to be in error in showing Rubal Kang on a subsidiary ridge. It now seems quite certain that it is on the Divide between the Tichu Nal and the Western Glacier.

Another point in Pettigrew's map is that he has reduced 'Cathedral' from 20,500 feet to 19,960 feet. I took several sights on 'Cathedral' in 1961, the mean of which worked out at about 20,000 feet; but I had hesitated to reduce the height of a peak already climbed by another party until I was quite sure of my figures! It would seem now that 'Cathedral' definitely does not exceed 20,000 feet.

Yours faithfully,
J. P. O'F. LYNAM

THE EDITOR,
Himalayan Journal,
Post Box No. 9049,
Calcutta 16.

August 21, 1963.

DEAR SIR,

After reading Vol. XXIII of the *Himalayan Journal* I am impressed by the eagerness with which British expeditions have climbed and surveyed in Kulu and Lahul in the last ten years—surely a by-product of the frustrating Inner Line restrictions ? I think, however, that the naming of some of the peaks could have been better. Does not Rubal Kang sound better than Tiger's Tooth ? It was disappointing to find that the half-inch-to-a-mile maps on pages 60 and 130 of Vol. XXIII of the *Himalayan Journal* do not overlap on the Bara Shigri/Tos-Tichu Divide ; presumably the latter map is the more accurate here. Some unfortunate typographical errors have crept in, e.g. page 114, last line . . . get to grips with Deo Tibba in 1939, not 1959; page 121, line 5, Kulu Makalu 20,830 feet, not 28,800 feet ; page 123, line 2, White Sail, not White Seal ; map on page 130, peak south of P. 21,148 is P. 19,530, not P. 13,530 ; page 131, line 7, Rubal Kang was the lower of two peaks one of which was assumed by Snelson to be P. 20,830.

On page 193 of Vol. XXIII of the *Himalayan Journal* it is reported that an Indian Expedition led by P. Chaudhuri climbed Nanda Kot (22,510 feet). On page 2 of the Himalayan Club's *Newsletter*, No. 18, dated May, 1962, it is stated that Mr. P. Chaudhuri led a party of seven members and made the first ascent of Nanda Khat (21,690 feet) and that P. Singh reached the summit on October 20 (1961). Are these two reports about the same expedition ? If so, which one is correct ? I shall be grateful if you will also clarify whether Mr. P. Singh made a solo ascent as is implied in the *Newsletter*.

On page 195 of Vol. XXIII of the *Himalayan Journal* is recorded the ascent of Koktang (20,990 feet) by an Indian Army Expedition led by Major K. S. Rana. I would draw your attention to the following account about Koktang on page 110 of Mr. Tucker's book, *Kangchenjunga*: ' In 1953 he (John Kempe) and a Sherpa managed to climb to the North Summit and to within 200 feet of the true summit only to be stopped by an almost vertical and knife-edged crest of hard ice.' One is prompted to enquire about the route taken by Major Rana's party. Did they avoid the obstacle found by

Kempe ? I wonder if it is possible for you to obtain a more detailed account of the ascent of Koktang by Major Rana's expedition ?

Yours faithfully,
DR. H. V. R. IENGAR

Nanda Kot (22,510 feet) was a mistake ; it should have read Nanda Khat (21,690 feet). We are also obliged to Dr. Iengar for pointing out the mistakes for which the printer is not necessarily responsible.—EDITOR.

THE EDITOR,
Himalayan Journal.

Rajkumar College,
Rajkot,
Gujarat,
August 27, 1963.

DEAR SIR,

I have read Signor Consiglio's article on the Italian Expedition to the Punjab Himalayas, 1961, and Mr. J. P. O'F. Lynam's letter in which he comments on the combined topographical findings of recent expeditions to the Bara Shigri/Kulu Divide, both published in the current issue of the *Himalayan Journal.*

In general Lynam's observations seem to me to be indisputable, supported as they are by ample photographic evidence and the experience of two energetic and far-ranging seasons in the close vicinity of the Divide. His photograph from 'Gunther's Ice-Pass' showing the formidable Peak 20,830 feet, Lal Qila of the Italian Expedition, and its supporting ridges convinces me that we were mistaken in shifting Rubal Kang to the south and I apologize, on behalf of Ashcroft and myself, to Kenneth Snelson for uprooting it. There is a moral here—never go to an area which is in the process of being unravelled with preconceived ideas about the peaks. We had the wrong idea about Rubal Kang from the start. We were searching for an isolated peak ; indeed we spent several hours both in the field and at home using photographs trying to locate it. It was very difficult to reconcile its position from the description and sketch-map with the country as we observed it. So when we detected in Peak 19,150 feet a resemblance to Snelson's photograph of Rubal Kang in *Himalayan Journal,* Vol. XVIII, we clutched at it as the only possibility.

All the available evidence now points to it forming part of the Divide between the Tichu Nulla and the Western Glacier. Although I have not yet seen a copy of *Alpine Journal,* No. 306, May, 1963, I

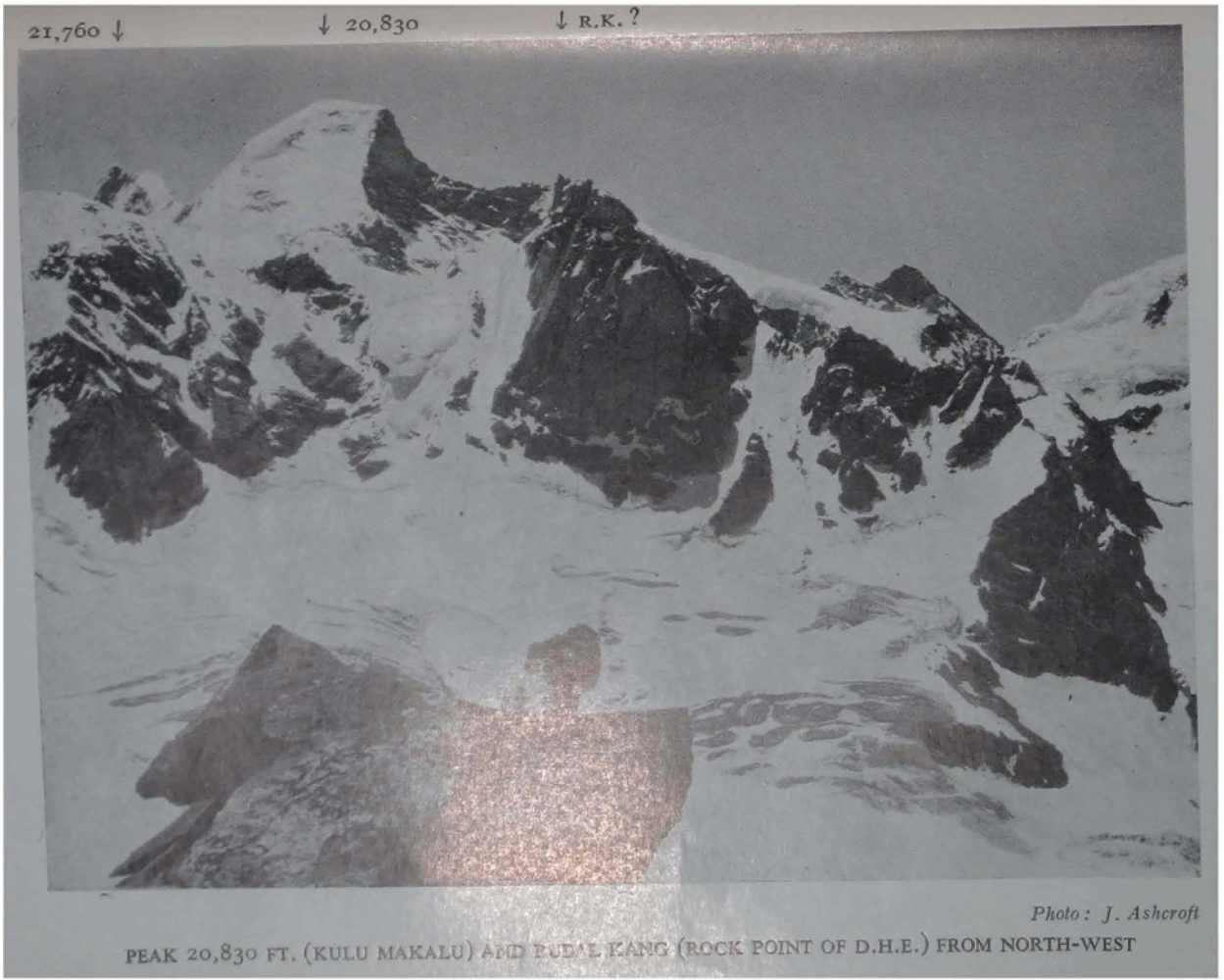


Photo: J. Ashcroft

PEAK 20,830 FT. (KULU MAKALU) AND RUDAL KANG (ROCK POINT OF D.H.E.) FROM NORTH-WEST

know that Part II of my article is illustrated by Ashcroft's panorama of the head of Tichu Nulla showing a photographic round from north-east through east to south-east: Tiger Tooth, Dome, D.H.E. Ice-Col, Peak 20,830 feet, and Peak 19,150 feet. Now that it has been shown that Rubal Kang forms part of the 20,830 feet massif, it should be possible to locate it. The photographs were taken from 'Observation Point' at the extreme eastern end of the East Tos Glacier on our map opposite page 130 in *Himalayan Journal*, Vol. XXIII, 1961.

Finally I wish to correct the captions beneath two of the photographs which accompanied my article in *Himalayan Journal*, Vol. XXIII, 1961. The caption of the lower photograph opposite page 132 should read: 'In the Upper Tos Nullah. The peaks of the Bara Shigri/Kulu Divide. White Sail, 21,148 feet, just right of centre.' The caption of the full-page photograph opposite page 133 should read: 'The peak known as Ali Ratni Tibba, 18,013 feet (right), from Base Camp in the Malana Nulla.'

Yours faithfully,
R. G. PETTIGREW

CLUB PROCEEDINGS, 1962-63

The Thirty-fifth Annual General Meeting of the Club was held at the Saturday Club, Calcutta, on Monday, August 5, 1963. Mr. F. C. Badhwar, O.B.E., took the chair, and reported on the Club's activities during the year.

Officers, Elective Members of the Committee and Additional Members of the Balloting Committee were elected as follows:

Officers:

President	...	Lt.-Gen. Sir Harold Williams, K.B.E., C.B.
Vice-Presidents	...	T. H. Braham, Esq. Brig. Gyan Singh
Honorary Treasurer	...	B. W. Ritchie, Esq.
Honorary Secretary	...	R. Lawford, Esq.

Honorary Local Secretaries:

Bombay	...	S. S. Mehta, Esq.
Darjeeling	...	M. J. Cheney, Esq.
Dehra Dun	...	Gurdial Singh, Esq.
Delhi	...	A. D. Moddie, Esq.
Kulu	...	J. Banon, Esq.
Simla Hills	...	R. E. Hotz, Esq.
Kathmandu	...	Lt.-Col. C. G. Wylie
Pakistan	...	Col. E. Goodwin
Great Britain	...	V. S. Risoe, Esq., M.B.E.

Honorary Editor:

Dr. K. Biswas, M.A., D.Sc. (Edin.), F.R.S.E., F.N.I., F.A.S., F.B.S.

Members of Committee:

Dr. K. Biswas	C. J. Henty, Esq.
C. E. J. Crawford, Esq.	M. Hruska, Esq.
J. A. Eastwood, Esq.	G. R. Iredale, Esq.
R. E. Hawkins, Esq.	Gurdial Singh, Esq.

Additional Members of Balloting Committee:

J. T. M. Gibson, Esq.
A. R. Leyden, Esq.
J. N. Mathur, Esq.
A. Madgavkar, Esq.

Other Appointments:

Honorary Librarian ... ... G. R. Iredale, Esq.
Honorary Equipment Officer ... M. Hruska, Esq.

After the meeting Mr. R. P. Ghandhy's film on a small expedition to 'Black Peak' was shown. This was followed by an illustrated account given by Mr. J. P. O'F. Lynam on his expeditions to the 'Bara Shigri Glacier' area in 1958 and 1961. Twenty-five members and guests attended the meeting.

MEETINGS: Apart from the A.G.M. the following gatherings took place:

Calcutta: Mr. Desmond Doig gave an illustrated lecture on September 20, 1962, illustrating some aspects of Sir Edmund Hillary's expedition in 1960-61 and slides of Bhutan.

On March 3, 1963, Sir Edmund Hillary gave a most entertaining illustrated lecture on his recent expedition to Nepal. The lecture was held in conjunction with the Saturday Club and about 50 Club members and guests attended.

Bombay: Members of the Bombay Section entertained M. Lionel Terray, leader of the successful French Jannu Expedition, who was passing through *en route* to France. M. Terray (with the kind permission of the Director of Alliance Française) was able to project a breathtaking colour film of the successful attempt.

Some members were able to meet and entertain the Austrian team to Dhaulagiri II.

The Annual Dinner was held at the West End Hotel on July 15, 1963. The dinner was preceded by a show of coloured slides and a film set to recorded music and commentary, and entitled *Sikkim 1962* produced by R. S. Pillai and S. S. Mehta. Thirty-one members and guests attended including Mr. C. E. J. Crawford who kindly presided.

London Reunion

The London Reunion was held on March 29, 1963. Forty-eight members and guests gathered, amongst whom were Gen. Sir Roger Wilson, K.C.B., D.S.O., M.S., Dr. T. Howard Somervill, Mr. H. W. Tilman, Prof. and Mrs. N. E. Odell, Mr. W. G. Bartlett, Mr. D. F. MacMillan, C.B.E., Mr. C. E. Sexton, Mr. F. K. Derrick, Miss I. R. Mitchell, Mr. R. Berry, Maj. and Mrs. A. M. Jenkins, Mrs. L. J. Townend, Mr. A. B. Marshall, Sir Geoffrey and Lady Ramsden, Kt., C.I.E., Mr. C. J. Morris, C.B.E., Mr. D. W. Soughan, Mr. A. A. Marr, Mr. J. Latimer, Mr. F. D. C. Sumner, Mr. and Mrs. C. E. D. Waller, Mr. W. Allsup, Mrs. R. G. M. Chase, Mr. V. S. Risoe, and Dr. M. J. Ball.

Before the buffet supper the Duke of Edinburgh's film of the Himalaya and film, *Spring in Kashmir*, were shown.

MEMBERSHIP : The Club's membership at present stands at 571, of whom 169 members are resident in India, Pakistan and Nepal. The names of 29 Founder Members stand in the Current Members' Register, and seven Honorary Members.

OBITUARY : We mourn the deaths of the following members:

B. Beetham, Esq. (L. 1929).
Mrs. E. Cragg (L. 1936).
A. B. Emmons, Esq. (L. 1936).
G. Ito, Esq. (L. 1936).
J. Kelly, Esq. (L. 1928).
Prof. Dr. Th. H. F. Klompe.
Mrs. R. T. Merrick (L. 1931).
Lt.-Col. W. J. Morden (L. 1929).
Lt.-Col. J. F. S. Ottley (1934).
A. H. Read, Esq. (L. 1956).
Col. H. S. Roch, C.M.G., C.B.E., D.S.O. (L. 1928).
Lt.-Col. O. L. Ruck, D.S.O. (L. 1930).
Col. G. H. Russell (L. 1929).
J. B. Shearer, Esq. (L. 1929).

LIBRARY : A library list has now been prepared and copies are available from the Honorary Librarian. It is hoped that a sub-library will be established in Bombay in the near future.

EXPEDITIONS, 1962 : These notes cover only expeditions which have not been fully reported elsewhere in this *Journal* or already mentioned in Vol. XXIII.

NEPAL

A South Korean Expedition to Dhaulagiri II (25,429 feet) were unable to reach the summit.

The Nihon University Expedition (Japanese) to Mukut and Churen Himal climbed Hangde (21,654 feet) in the Mukut Himal on May 8. On their return, they climbed three more peaks in the same area—Peak 20,554 feet, Peak 19,767 feet and Tongu Peak (about 20,500 feet)—the first two being first ascents, the last-named peak being a second ascent.

They failed on the highest peak in Churen Himal but found consolation in the ascent of Khantokhal (about 21,325 feet) on June 7.

GARHWAL

Nilgiri Parbat (21,140 feet) was climbed by an expedition from the Himalayan Association of Calcutta on October 26. Bhanu Banerjee, Netai Ray, Ajeeba Topgay, Phurba Chindu, Ang Dawa and Ang Temba reached the summit. The team was led by Amulya Sen.

KARAKORAM

The first ascent of Saltoro Kangri (K36) (25,400 feet) was made by Y. Takamura, A. Saito and R. Bashir (of Pakistan) on July 24, 1962. This was a joint expedition of the Academic Alpine Club of Kyoto and the Karakoram Club of Pakistan.

The summit party launched the final assault from Camp V at 23,650 feet and after a bivouac at 24,500 feet reached the summit at 10.40 a.m. returning to Camp V the same day.

Prof. Ardito Desio led a geological expedition to the Hunza and Skardu area. Dr. Ercole Martina made the first ascent of Theri Sar (16,568 feet) by the north wall. The mountain was reached from Misgar village and the Barah valley.

HINDU KUSH

Fritz Stammberger, a German aged 32, climbing alone on Tirich Mir (25,260 feet), received head and face injuries when he was swept down by an avalanche. He was attended by Dr. Bartlett of the American party who were commencing their ascent.

The American team comprising Felix Knauth, Bill Bartlett and Peter Newell reached a height of 21,500 feet when a blizzard struck, confining them to their tents for five days. The summit attempt was called off due to the danger of subsequent avalanches.

The Cracow and Poznan branches of the Polish Mountaineering Club led by S. Zierhoffer visited the Afghanistan area of the Eastern Hindu Kush. Four French climbers were also invited.

The Poznan group climbed in the Mandaras valley where they made the first ascent of the principal peak (23,376 feet) on the main ridge on August 27, which they named Kuh-e-Nadir Shah. Another successful attempt on the same peak followed a few days later. Three more first ascents were recorded on peaks (about 19,685 feet) on August 9, (about 20,000 feet) on August 14, and (about 20,500 feet) on August 16. After this they made yet another first ascent of Kuh-e-Mandaras (21,754 feet) on the main ridge of the Hindu Kush on September 4.

The Cracow group climbed in the Urghendi valley where they reached the summit of the peak (23,016 feet) on the main ridge, on August 28, and which they named Kuh-e-Tez.

EXPEDITIONS, 1963:

NEPAL

The American Everest Expedition led by Norman Dyhrenfurth made mountaineering history when the summit was reached thrice within a month, the last two ascents the same day and within three hours of each other, one of which was made from the west ridge hitherto considered impossible. The west ridge team completed the first major Himalayan traverse by descending over the south ridge.

Their first ascent was on May 1—James Whittaker and Nowang Gombu: the second ascent at 3.30 p.m. on May 22—Barry Bishop and Luther Jerstad: and the third ascent by the west ridge at 6.30 p.m. on May 22—William Unsoeld and Thomas Hornbeim.

The N.Z.-U.S. Expedition led by Sir Edmund Hillary reached a point 200 feet from the summit of Taweche (21,463 feet) before being forced to return by extremely dangerous snow conditions.

They, however, succeeded on Kangtega (22,340 feet) when Tom Frost, David Dorman, Michael Gill and J. Wilson reached the summit on June 5.

The Austrian Himalayan Association Expedition to Dhaulagiri II (25,429 feet) led by Egbert Eidher found a new route to the summit, but were beaten back by the weather after reaching about 23,000 feet.

The Japanese Chiba University Expedition led by Makato Numata to Numbur (22,817 feet) was successful when four of the members reached the top.

The Federation of All-Japanese Mountaineering Union Expedition to Himlung Himal (23,380 feet) led by H. Zengyo were unable to reach the summit. A height of 6,800 metres was reached.

The Tokyo Agricultural University team of four led by K. Miyazawa reached a point about 500 feet from the summit of Twins (24,117 feet) before being forced to retreat by snow conditions following a heavy snow-fall.

The Doshisha Himalayan Expedition climbed Saipal (23,080 feet) in west Nepal.

Hira Bayashi and Sherpa Pasang Putra reached the summit by the south ridge on October 21. The leader was Kanji Kojima.

The Italian Alpine Club has received permission from the Nepal Government to climb Langtang Himal (23,750 feet). The team led by Mr. Andreotti left Kathmandu on September 27. There have been two previous Japanese attempts on this peak—the last in 1961 suffered an avalanche disaster in which three lives were lost.

KARAKORAM

A Tokyo University team led by S. Kato scaled Baltoro Kangri (Golden Throne) (23,989 feet) on August 4. The summit team comprised S. Koro and F. Shima.

GARHWAL

A team led by Sonam Gyatso climbed Hathi Parbat (22,070 feet) on June 6 and 7.

The 'Paribhraman' of Ahmedabad led by D. Pandya climbed Shri Kailas (22,742 feet) and two other unnamed peaks in the Gangotri region.

***HIMALAYAN JOURNAL*, VOL. XXV :** All papers intended for publication should be forwarded to the Hon. Editor, c/o The Himalayan Club, Post Box No. 9049, Calcutta 16. It is requested that articles should be typewritten, and preferably accompanied by sketch-maps ; these should be clearly drawn in Indian ink with references given, if possible, to the existing Survey sheets. Photographs should be clear, with definition as sharp as possible ; they should be at least half-plate size printed on glossy paper. The Editor will be glad to receive articles of general Himalayan interest and also on subjects other than climbing.

***JOURNAL* BACK NUMBERS :** The only volumes now available for sale are Vols. XVII, XIX, XX, XXI, XXII, and XXIII which are priced at Rs.10 per copy, post free for members, and applies to one copy per member. In some cases additional copies can be made available at Rs.14 per copy, post free.

DESPATCH OF THE *JOURNAL* : Responsibility for non-delivery of the *Journal* cannot be accepted if members do not notify their change of address. Considerable trouble is caused in re-addressing *Journals* returned, and duplicate copies cannot be sent except on payment.

CHANGE OF ADDRESS : Members are requested to notify the Hon. Secretary promptly of any change of address. If this *Journal* has not been correctly addressed, will you please advise the Hon. Secretary immediately of the amendments or alterations.

LOST MEMBERS : The Club is still endeavouring to trace a few Life Members with whom they have lost contact. Any information as to their whereabouts will be greatly appreciated by the Honorary Secretary :

Lt. H. A. Dorr.	D. F. Spink, Esq.
K. N. Kaul, Esq.	Dr. H. de Terra.

***JOURNAL* INDEX:** Mr. D. F. O. Dangar has very kindly indexed Volumes XXII and XXIII and these have been printed and included with this *Journal*. Should any members require copies of the *Journal* Index, Vols. I—XXI, they are still available either from Mr. V. S. Risoe or the Honorary Librarian in Calcutta.

JOURNALS RECEIVED: We gratefully acknowledge receipt during the year of the following journals and publications in exchange of our *Journal*:

The Alpine Journal.
The Geographical Journal.
Journal of the Royal Central Asian Society.
The British Ski Year Book.
Yorkshire Ramblers' Club Journal.
The Rucksack Club Journal.
Cambridge Mountaineering.
The Scottish Mountaineering Club Journal.
Mountaincraft.
The American Alpine Journal.
The New Zealand Alpine Journal.
The Journal of the Mountain Club of South Africa.
Appalachian Club Bulletins.
La Montagne et Alpinisme.
Jahrbuch des Deutschen Alpenvereins.
Journal of the Swiss Foundation for Alpine Research.
Japanese Alpine Club Journal.
Journal of the United Services Institution, India.
The Italian Alpine Club Journal.
The Canadian Alpine Club.
Austrian Alpine Club Journal.
The Climbers' Club Journal.
The Fell and Rock Club Journal.
Himalayan Mountaineering Institute Journal.
Mazamas.
Ladies Alpine Club Journal.

THE HIMALAYAN CLUB

INSTRUCTIONS TO AUTHORS FOR THE PREPARATION OF ARTICLES FOR THE *JOURNAL* OF THE HIMALAYAN CLUB

I. Each article should be signed by the author or authors and forwarded to the Editor with necessary instructions, if any.

II. Authors are requested to write their articles as concisely as possible, not exceeding 5,000 words for major expeditions and 2,000 words for minor ones.

III. The MS. must be easily legible, preferably typewritten, with double spacing, on one side of the quarto or foolscap paper and with pages numbered throughout. It must be in its final form for printing. Authors are advised to retain copies of their papers as the Club cannot accept responsibility for safe custody.

IV. References to plates, photographs, etc., should be inserted in the MS. where required. Position for the insertion of illustrations appearing in the text should be indicated.

All photographs, maps and drawings should, where possible, allow reduction to about two-thirds the linear dimensions, and the amount of the reduction should be considered, during drafting, with regard to the size and strength of shading, lettering, lines, etc. Maps should be submitted, if possible, not rolled. The over-all space available for figures and plates is 7″ (17 cm.)×4″ (10 cm.) in the *Journal* of the Club.

V. Four to five photographs and two maps for articles on major expeditions and two photos and one map for minor expeditions will generally be accepted for publication in the *Journal*. Exceptions will be made in special cases.

VI. Photographs should be unmounted glossy black and white prints, marked on the back with the name of the author, number of the figure and an indication of the top. Prints should not be trimmed or cut out. Authors should suggest the arrangement of the figures on each plate, either by a diagram or a paste-up of rough prints, with indication of any lettering to be inserted. Lettering must be in black ink in neat and legible style, or lightly written in pencil.

Proofs of papers will be sent to authors or communicators to the address indicated in correspondence, or on MSS. if necessary. Normally the editor is to correct the proofs. The cost of author's corrections in excess of 5 per cent of the printer's charges for the setting of a particular paper will be charged to the author.

References to previous volumes and number of the particular *Journal* in the text should be made by quoting the author's name, the volume and page number and the year of publication of the paper in the said *Journal*.

Manuscripts for publication should be submitted to the Editor, The Himalayan Club, P.O. Box No. 9049, Calcutta 16.

EDITOR,
Himalayan Journal.

Printed by Bernard G. Ellis at the Baptist Mission Press, 41A Acharyya Jagadish Bose Road, Calcutta.