

THE ASCENT OF KULU PUMORI

BY ROBERT PETTIGREW

(*Four illustrations: nos. 22-25*)

FRUSTRATION of climbing plans by financial difficulty or failure to get permission from the government concerned or a hundred less common causes must be counted as essential experience for the Himalayan aspirant of today. Consequently I was not unduly surprised or disappointed when, in February, 1964, my scheme to join a British expedition to Nepal fell through when the British contingent foundered on the familiar rock of finance. Something had to be done, and quickly, since the start of the Himalayan season was but a month away.

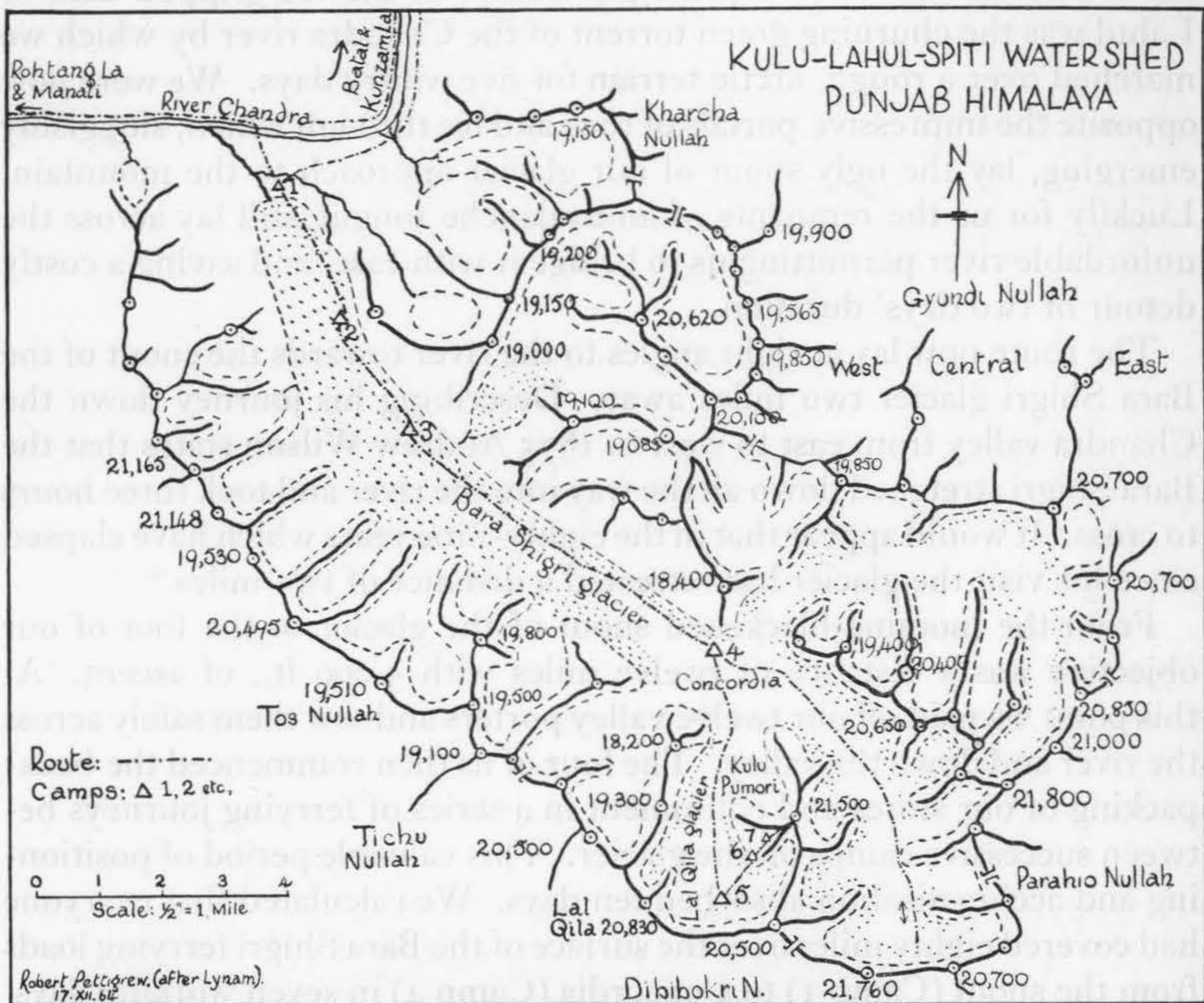
Jagdish Nanavati, the energetic honorary secretary of the Bombay Climbers' Club, now took a hand, and his intervention probably made the project possible. He wrote to say that Dr. Franz Mohling of the American Alpine Club, having completed a year of research in India under the Fulbright scheme, was anxious to climb in the Himalaya and was seeking a companion. Within a few days Franz and I had joined forces with the intention of climbing in Kulu—a far-flung corner of the Punjab Himalaya—during the pre-monsoon season of May–June, 1964.

The high mountains of Kulu, part of the Pir Panjal range of the Great Himalayan Divide, are concentrated on the Kulu–Lahul–Spiti watershed (see sketch map). One of these, Kulu Pumori, 21,500 ft., was still unclimbed, so we made it our objective. In addition, an attempt on this peak would take us onto the majestic Bara Shigri glacier near the head of which it stands. Kulu Pumori had been attempted once before; in 1961 Gwynn Stephenson and Harold Mellor reached a height of c. 19,000 ft., on the formidable North-west ridge, but were then forced by illness to retire.¹ J. P. O'F. Lynam, who led their expedition, generously placed all his photographs and maps at our disposal.

Preparations were simplified by my accumulated experience of four seasons' climbing in Kulu. I knew the best approaches to the watershed, how to contact the high altitude and valley porters we wished to employ, and could estimate what the overall cost was likely to be. In addition I had several good friends living in Kulu who could be counted on for help if the need arose. Since Franz was living in Delhi he offered to purchase our food in bulk from the Empire stores. For my part I was to provide three mountain tents and a good deal of the general equipment such as stoves, cooking utensils and ropes, which I had brought out to India for just such an opportunity.

¹ *H.J.* xxiii. 56.

The party assembled in the fragrant atmosphere of our pine-wood bungalow in Manali at the end of April and spent a few days getting fit by climbing up the gorge of the Manalsu nullah west of Manali. A secondary objective here was to reconnoitre an approach from the south to the famous Solang Weisshorn, 19,450 ft., discovered and named by Brigadier-General the Hon. C. G. Bruce during his Kulu expedition of 1912 and first climbed by his guide Heinrich Fuhrer.² In this we were



defeated by the relative depth and complexity of the interesting mountain massif revealed by our probe.

For the transport of our stores and equipment we recruited in Manali twelve porters representing nearly all the border countries of the Himalaya: Ladakh, Nepal, Lahul and Spiti. Our two high altitude men, an integral part of the climbing team, were Ladakhis, the 'Sherpas' of the Western Himalaya, Wangyal and Ang Chook. To acclimatise, and economise on portage costs, Franz and I also carried rucksacks weighing 70 lb.

Our route from Manali, 6,200 ft., to the base of Kulu Pumori near the head of the Bara Shigri glacier at 16,000 ft. crossed the Rohtang La,

² *Kulu and Lahoul*. By Lt.-Col. the Hon. C. G. Bruce, M.V.O. London, Edward Arnold, 1914.

13,050 ft., the famous pass of the Western Himalaya in the once flourishing trade route between Tibet and India. According to local legend remnants of Alexander the Great's army reached India by way of the Rohtang and, a millennium later, outriders of Ghengis Khan's hordes gazed greedily into the verdant vale of Kulu from its crest.

As our party struggled across the snow-bound pass I felt a spiritual affinity with those early Hindu writers who regarded Kulu as the end of the habitable world. The principle feature in the ice-gripped land of Lahul was the churning green torrent of the Chandra river by which we marched over a rough, arctic terrain for five wintry days. We were now opposite the impressive portals of rock and ice through which, sluggishly emerging, lay the ugly snout of our glacier approach to the mountain. Luckily for us the remnants of an avalanche tongue still lay across the unfordable river permitting us to bridge it with ease, and saving a costly detour of two days' duration.

The route now lay at right angles to the river towards the snout of the Bara Shigri glacier two miles away. Describing his journey down the Chandra valley from east to west in 1875 Andrew Wilson states that the Bara Shigri stretched down all the way into the river and took three hours to cross. It would appear that in the eighty-nine years which have elapsed since his visit the glacier has retreated a distance of two miles.³

From the moraine-blackened snout of the glacier to the foot of our objective was a distance of twelve miles with 5,000 ft., of ascent. At this point we paid off our twelve valley porters and saw them safely across the river and down the valley. The four of us then commenced the back-packing of our stores and equipment in a series of ferrying journeys between successive camps on the glacier. This valuable period of positioning and acclimatisation absorbed ten days. We calculated that everyone had covered eighty miles over the surface of the Bara Shigri ferrying loads from the snout (Camp 1) to Concordia (Camp 4) in seven working days. For three days we had been snow-bound, and had survived a great avalanche falling from steep cliffs to the north of our route. The only sign of life we had seen was a pair of snowcock (ramchukor), whose plaintive cry, sounding like a cross between a grouse and a curlew, seemed only to emphasise the isolation of the party.

By this time we had identified White Sail, 21,148 ft.,⁴ Kulu Pumori, 21,500 ft., standing like an altar terminating the nave of the Bara Shigri, and several other unclimbed mountains visible on the south side of the glacier. In contrast the north side of the valley presents an undistinguished mountain wall behind which, invisible to the observer on the glacier, lies an interesting group of peaks between 19,000 ft. and 20,000 ft. Two

³ *The Abode of Snow*. By Andrew Wilson. Blackwood & Sons. Edinburgh, 1875.

⁴ *A.J.* 68. 58.

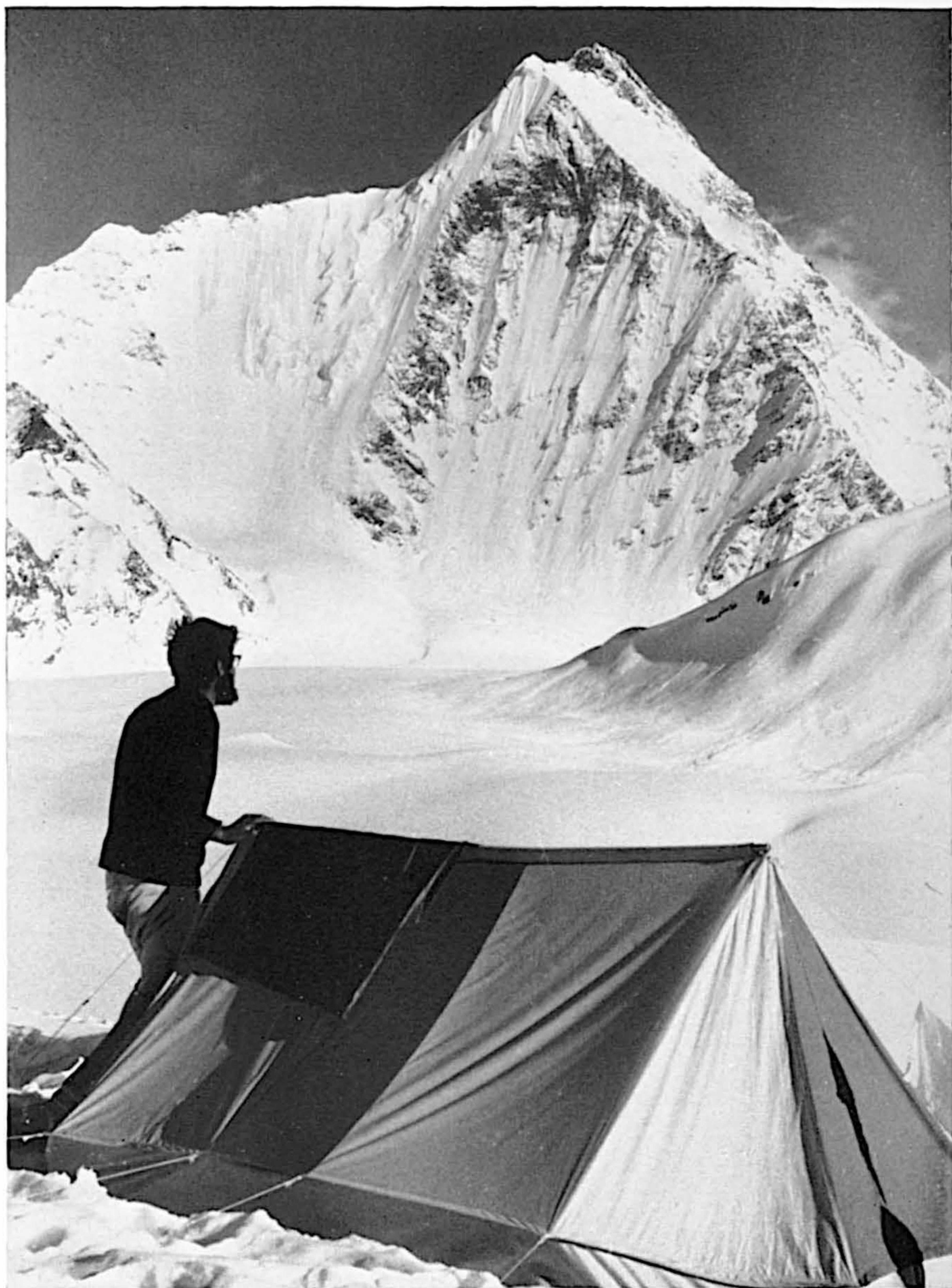


Photo: Robert Pettigrew]

KULU PUMORI, 21,500 FT, FROM CAMP 4 (CONCORDIA) ON BARA SHIGRI GLACIER. NORTH-WEST RIDGE LEFT. ROUTE OF ASCENT BY RIGHT-HAND SKYLINE RIDGE, SOUTH-WEST RIDGE.

(No. 22)

mountains of this massif, Central Peak and Lion, were climbed by Miss Josephine Scarr and Miss Barbara Sparks, accompanied by Wangyal and Ang Chook, in 1961.⁵

The Bara Shigri Concordia where we were now installed in Camp 4, 16,000 ft., on May 28, is a remarkable junction of four great glaciers surrounded by a treasury of peaks, passes and snowfields. Towering above the junction to the south-east is Kulu Pumori, the dominant peak of the area.

For our reconnaissance on May 30 we proposed to follow the main Bara Shigri to its upper névés skirting the North-west ridge, North face, and North-east ridge of Kulu Pumori and obtaining a view of its eastern approaches. We hoped that the reconnaissance would reveal some weakness not presently apparent. Of course, we were practically at the foot of the North-west ridge by which Stephenson and Mellor of Lynam's expedition had made their attempt in 1961, but we were dubious about our chances on the 500 ft. ice arête leading to the summit ridge. They were forced to retreat before getting to grips with this, the crux of the North-west ridge, so there was no information about it. Above all, we were seeking a route direct to the summit to avoid prolonged traverses over difficult ground, the second drawback to the Lynam route.

The first view of interest occurred as we drew across the tributary glacier flowing into the Bara Shigri from the south. It has its origin in the névés at the foot of Lal Qila (Red Fort), 20,830 ft., and flows along the western edge of the base of Kulu Pumori. We named it the Lal Qila glacier. Our fleeting glance showed a seemingly impregnable wall of steep rock and icy couloirs, a curtain without a weakness extending from Concordia to Lal Qila. The party bore on under the North face and became awe-struck by the length and wintry aspect of the summit ridge supported on this side by a tracery of fluted ice.

Beyond the North face of Kulu Pumori the scene is dominated by the massive bulk of Point 21,760 ft., in local tradition the highest mountain in Kulu, not only unclimbed but unreconnoitred.⁶ We examined the East face carefully for a route to the summit but we were forced to the conclusion that none exists and that the way to the top must lie along one of the ridges. Starting at the Parahio col the main ridge runs from north to south then makes a right-angled bend east-west. It is at least six miles long and contains three intermediate summits—the northernmost was ascended by Mrs. Eileen Healey (*née* Gregory) of the Abinger Expedition in 1956.⁷ The main ridge terminates in an ice arête descending to the 'Italian' col, 19,250 ft., in the North-east wall of the Dibibokri nullah. Throughout its length the ridge rarely drops below 20,000 ft. An attempt

⁵ *H. J.* xxiii. 62.

⁶ *H. J.* xxiii. 56.

⁷ *H. J.* xx. 104.

on it from either end would require a strong party with sustained support and, most advisedly, an expert in logistics!

The Bara Shigri névés lie at 17,000 ft., below the East face of Point 21,760 ft. From our view-point just short of an ominous pile of avalanche debris we observed to the south-west the climbable approaches to the 'Italian' col. The Italian party, led by Signor Paolo Consiglio, which reached it from the Dibibokri nullah in 1961, however, held out no hope for an ascent of Point 21,760 ft. by the West ridge.⁸

Towards Kulu Pumori the proposition looked more hopeful. A branch of the glacier ran up to a snowfield on the eastern flanks of our objective and appeared to give access to the upper slopes by which one might gain the South-east ridge. Unfortunately, a subsidiary ridge running east from the mountain and curving around to the north masked any connection that might exist between them, with the result that we were still uncertain about the possibilities of a route on the east side.

Turning north our eyes roved over a compact cluster of mountains all over 20,000 ft. high and unclimbed. Access could best be gained from the other side of the North-east wall of the upper Bara Shigri by the tributary glacier flowing into Concordia from the north-east. This approach was used by J. P. O'F. Lynam when he made the first ascent of Shigri Parbat, 21,800 ft., which stands to the south-east of the group mentioned above, in the East retaining wall of the head of the Bara Shigri glacier.

Glacier lassitude was beginning to set in and our optimism was still reeling from the initial impressions of the long, icy summit ridge of Kulu Pumori so the trudge back to Concordia assumed the nature of a funeral march. That night we seriously debated an alternative programme in the vicinity of Shigri Parbat, but eventually decided not to pursue it until we had made a serious reconnaissance of the West side of our mountain.

This we embarked upon early next day, May 31, by ascending Point 18,200 ft., an easy snow climb, to exercise Meade's famous maxim of reconnoitring the proposed climb from a lower peak on the opposite side of the valley—in this case the Lal Qila glacier. A new feature of Kulu Pumori's topography became visible and soon held our interest, for it was obviously an important discovery. It was the cwm in the western flank at the foot of the South face, draining easily into the Lal Qila glacier and promising access to the foot of the South-west ridge, to us rather ill-defined since it appeared as the western edge of the South face. Making allowances for our angle of view we decided that it might go. There were several notches suggesting possible camp sites, and a bad step at about 20,500 ft. A most important factor for us—a small party without support—was that the South-west ridge appeared to lead direct to the summit. Alternative plans were abandoned in the enthusiasm restored by our

⁸ *H. J.* xxiv. 86.

reconnaissance and we descended rapidly to Concordia in a series of exhilarating glissades.

In contrast to the wearisome trudge on the Bara Shigri glacier two days before, the ascent of the Lal Qila glacier to its névés at 17,000 ft. was positively enjoyable and we completed the ferrying of stores in two days, setting up Camp 5 at the head of the glacier opposite the cwm by which we planned to reach the South-west ridge. Later that day we walked up into the cwm to prospect the route up the ridge for the morrow. Seen *en face* it was less encouraging than in profile, especially at the 20,500 ft. step, where there now appeared to be a formidable line of cliffs defending the approaches to the summit. However, we could see possible sites for a two-man tent beneath the cliffs, from which a final assault might be launched.

Such an assault, it appeared, might turn the cliffs on the left (west) by steep couloirs, or on the right (east) by traversing across a steep, roof-like snowfield before striking straight up to the foot of one of the many arêtes thrown down from the summit ridge. This snowfield, which we named the Apron, joined the upper South-west and South-east ridges, and its gable-ends overhung the colossal snow slopes which comprise the South face, much scored by avalanche runnels. We concluded that the face should be avoided since, apart from the danger of being hit, it led nowhere.

Descending the South-west ridge, through field-glasses the next feature we saw was a distinct arête of snow-covered rocks which we christened the Cockscomb. It was obviously difficult so we were glad to locate a shelf marked by a leaning gendarme a few hundred feet below it. In imagination we had already established Camps 6 and 7, a thousand feet apart, the latter within 1,500 ft., of the summit.

We left Camp 5 at 7.15 a.m. on June 3. It was a miserable morning, cloudy with light snow falling. The weather perplexed us and there was a communal anxiety about tackling an unknown ridge, which would not be dispelled until we got to grips with it. Ascending the cwm in our tracks of the previous evening we passed beneath some quiescent séracs, ploughed through a patch of old avalanche debris and began contouring high across the slope falling from our ridge. A conspicuous feature of the route is a yellow band running through the rocks adjacent to the snow ramp we were steadily mounting. We got to the crest safely and took stock. The ridge was steeper than we thought, but of a 'scrambly' nature for the first third of the way. There is no real arête until the Cockscomb. This occupies roughly another third. The final third lies from the cliffs at 20,500 ft. to the summit.

Resuming the climb we moved easily over tongues of snow linking sections of uncovered rock to arrive at the gendarme landmark in two and a half hours from Camp 5. With a little excavation we decided that it would obviously be adequate for the three-man Meade tent; we dumped

our loads, spent a brief period examining the rest of the route, then descended to Camp 5 in one and a half hours, taking a more direct line down the ramp to make the route for the next day.

Back at Camp 6 at eleven o'clock the next morning we extended a natural platform by chopping back into the ridge. The Meade was placed athwart the crest at a height of 19,000 ft. It was to shelter all four climbers since we had decided to place the Black's mountain tent above the Cockscomb arête as the Assault camp (Camp 7). Franz and I set off in the evening to reconnoitre the section of the ridge leading to the Cockscomb. We climbed steadily for half an hour in dense mist towards the foot of the arête. Our trip was useful; but the most splendid aspect of the evening reconnaissance was a dramatic clearance which revealed first Lal Qila, Point 21,760 ft. a little later, and then all the peaks of the Divide with their gleaming glaciers and moulded ice-falls:

'Th' increasing prospect tires our wond'ring eyes—

Hills peep o'er hills, and Alps on Alps arise!

Afterwards we re-examined the summit block through field-glasses and traced a likely-looking route to the uppermost snows. We agreed to go for the summit from Camp 7 in two pairs with at least one day's interval, so that one pair could support the other. Franz and Ang Chook would back up Wangyal and me in a summit bid on June 6 by helping to establish Camp 7 beneath the cliffs. They would then withdraw to spend the night of June 5 in Camp 6. Whether the first attempt was successful or not, the parties would then cross between camps, exchanging the roles, we leaving our sleeping bags for them in Camp 7, and descending to theirs in Camp 6. Meanwhile we all crushed into the Meade for a most uncomfortable night's rest.

It was a relief to set off to establish Camp 7 at nine o'clock on June 5. The party climbed in two ropes, Franz and Ang Chook, Wangyal and I, alternating the leads. We attempted first to turn the Cockscomb on the left (west) of the crest. This landed us on very steep snow over a truly impressive run-out—right into the Lal Qila glacier basin. To our misery the snow condition varied enormously, and it was very doubtful whether we could have held each other on these slopes in the event of a slip.

At length we turned in towards the Cockscomb arête and fought a steep little couloir which we 'pitched' until we reached the rocks forming the spine of the ridge. Beyond this point the climbing was mixed scrambling and our enthusiasm slowly returned. During this time the superbly clear day had suffered a sad deterioration. Earlier we had easily identified Indrasan and the peaks above the Malana nullah not less than twenty miles distant. Now, however, a solid-looking layer of stratus was advancing steadily upon us. At about one o'clock we topped the last gendarme

of the Cockscomb and cast around for a suitable camp site. Finally we chose a depression in the snow at the top of the arête, with one last easy rise between us and the cliffs below the summit block. Camp 7 was dug into the ridge at 20,000 ft., while the snow sheeted down. Unenviously Wangyal and I watched Franz and Ang Chook start the descent to Camp 6. They planned to return the next day for their attempt on the summit.

It may interest those with a culinary bent to know that we were cooking on the smaller version of the Bordé bivouac petrol stove in Camp 7. I must confess that we eyed it with some trepidation at first, but it astonished us by its efficient performance and longevity. One filling lasted one hour and forty-five minutes. The rice portion of a Horlick's concentrated food bar (H.F. 88) took only fifteen minutes to cook; a mere five minutes longer than at sea-level. The curried beef was so good that I started to sweat and was eventually forced to remove my balaclava helmet. Wangyal compared it to yak meat—as he does everything which he enjoys. Complicated manoeuvres were required before we slept, since economy had dictated one air-bed between two climbers.

In spite of the almost impossible contortions it required, I had to struggle out in the night to relieve myself. It was a ghastly operation but not without interest once it had been accomplished since it might provide a forewarning of the day. There was a wild wind but it was a clear, starlit night with the great mountains standing like a coven of silver ghosts.

June 6, appropriately the twentieth anniversary of D Day, started for us at 4.45 a.m. when Wangyal lit the stove and brewed tea. I watched this operation sitting up in my sleeping bag nursing a headache. Warm tea seemed to dispel it but I couldn't work up any enthusiasm for solid food. Eventually I ate some tsampa and a few digestive biscuits. The temperature outside was twenty below; clipping on crampons was a task fraught with pain and misery. We each carried a Bergen rucksack containing extra clothes, food and torches. Attaching ice-screws to my waist karabiner seemed an unusually complex task and I succeeded in drawing blood from my forehead in the process! Roped up on doubled red nylon line we stumbled off up the last little rise before the cliffs at 6 a.m. Though feet and faces remained cold and numb we made good time climbing up the spine of the South-west ridge until the point where it terminated decisively at the bad step that demarcates the summit pyramid proper from the approaches. According to plan we now left the ridge and struck across the prominent snowfield called the Apron—a steep slope with an awesome run-out over black cliffs at the top of the South face. The angle of the snow forced us further right towards the South-east ridge where we had no desire to be. The alternative was to climb the Apron direct so, after resting briefly by a rock outcrop, we struck upwards in firm snow and soon rose above the bad step on the

South-west ridge. We had traversed half the width of the Apron before changing direction.

Once we gained the lowest rocks of the ill-defined buttresses leading to the summit ridge the nature of the climbing changed to scrambling over mixed terrain of loose rock which bore unreliable powder snow and forced us to take stances and 'pitch' sections for greater security. But good progress was maintained and at about 21,000 ft. it became possible to take a diagonal line westwards back towards the South-west ridge, our first love, on steep but excellent snow. By this time the sun had just cleared the summit ridge and it could not have found more devout worshippers in the entire sub-continent. I still could not feel my toes despite frantic wriggling. Wangyal, too, complained of lack of feeling in his feet and looked like Santa Claus with hoar-frost twinkling all round his balaclava helmet.

From our position on the South face, as contrasted with other mountains in the vicinity, it was obvious that we were near the top. The summit ridge, reached shortly after, is a keen blade of rock, plastered on the north side with the vertical ice-flutings we had viewed with dismay from the glacier below on our first day's reconnaissance trek. The snow dome on which we were now standing is a subsidiary summit to the east and we contemplated with misgivings the 200 ft. of airy, undulating traverse that led to the principal snow-top. On our right hand were corniced ice-columns, whilst on our left hand vertical rock buttresses, enclosing narrow couloirs, plummeted to the Lal Qila glacier. The first barrier was a step of smooth, red rock overlain by a cornice of powdery snow. Wangyal led off over this and spent some minutes beating it down before he would trust its attachment to the rock. There followed a scramble down into a gap from which we gained an upraised edge of rock which served as a belay for the final section of the ridge to the summit. I anchored here to safeguard Wangyal's cautious advance along the crest to the half-way point—a sheet of sharp-edged slaty rock upflung athwart the ridge, four feet high, and no way around. Straddling this hurdle was a delicate operation and threatened emasculation. Moreover the airy situation added to the delicacy of this high altitude gate-vault. The final few steps to the summit lay steeply up the finely-etched snow cone in good, frozen snow. Warily I joined Wangyal; we anchored the rucksacks and sat down. The time was nine o'clock in the morning of June 6, 1964. The ascent had taken three hours, and Kulu Pumori was won. Below, on all sides, lay a welter of glaciers, snowfields and mountains. We shook hands ardently as we gazed in admiration at the snowbound ranges stretching towards Tibet. Far to the west my gaze located and saluted former adversaries like White Sail, Indrasan and Deo Tibba where we had known defeat and victory.⁹ Undoubtedly the same thoughts were

⁹ *A.J.* 67. 323.

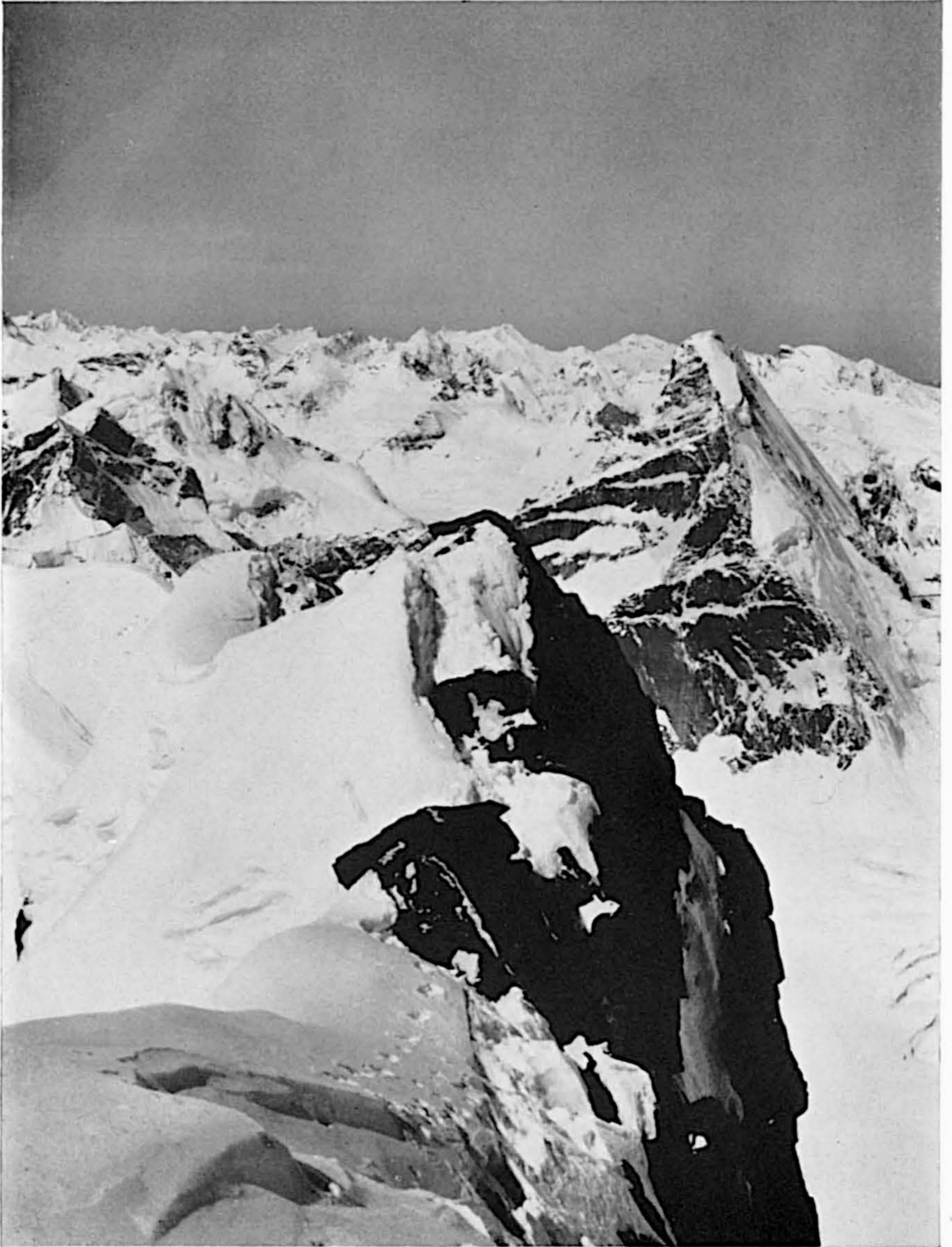


Photo: Robert Pettigrew]

TAKEN FROM THE SUMMIT OF KULU PUMORI, 21,500 FT., LOOKING SOUTH-WEST AT LAL QILA, 20,830 FT., NORTH FACE ON RIGHT. SUBSIDIARY SUMMIT OF KULU PUMORI IN FOREGROUND. LAL QILA GLACIER BELOW RIGHT.

(No. 23)



Photo: Robert Pettigrew]

LOOKING NORTH-WEST OVER THE BARA SHIGRI GLACIER TO THE MOUNTAINS OF LAHUL FROM
SUMMIT OF KULU PUMORI.

(No. 24)



Photo: Robert Pettigrew]

LOOKING SOUTH-EAST TO UNCLIMBED POINT 21,760 FT. MOUNTAINS OF SPITI AND TIBET IN BACKGROUND. NORTH-EAST RIDGE OF KULU PUMORI, 21,500 FT, IN FOREGROUND. VIEW FROM THE SUMMIT OF KULU PUMORI.

(No. 25)

passing through Wangyal's mind, for he has campaigned much in Kulu. Across to the east Shigri Parbat, 21,800ft.,¹⁰ a great icy fang of a mountain, represented the final upsurge of the Kulu/Bara Shigri Divide before the mountains of Spiti, and ultimately Tibet, dominated the scene. Urgently now, I took out the Leica, posed Wangyal for a summit shot and photographed a 360° panorama.

After half an hour on the summit we carefully commenced the descent. Following the same route to the upper slopes of the Apron, we then struck off direct for the South-west ridge taking a diagonal line in sugary snow which yet bore us safely back to the foot of the bad step. The sight of Camp 7, a vivid orange splash in the featureless snows of the ridge, was a great incentive and we made a rapid descent to the canvas haven. We had made good time; one hour and fifteen minutes. Wangyal prepared tea while I removed boots and socks and contemplated my semi-frozen feet. Pleasure at our accomplishment was mitigated for me by an attack of sneezing, conjunctivitis (from ill-fitting snow-goggles), and a great weariness. The hot, sweet tea produced by Wangyal alleviated my condition and I was soon enjoying the climb in retrospect.

Forty-five minutes after our arrival in Camp 7, the clink of an axe on stone announced the arrival of Franz who had made a solo ascent of the Cockscomb by an improved route. He reported that Ang Chook was ill and had remained in Camp 6. We discussed plans for a second assault on the summit. Franz agreed to remain alone at Camp 7 while we descended to Camp 6. In the event of Ang Chook's illness continuing we agreed that either Wangyal or I would return to Camp 7 for the summit climb; then we descended the Cockscomb down the easier line discovered by Franz to join Ang Chook in the lower camp. By the time we got there he was feeling much better and had decided to join Franz in the upper camp the next day.

Unfortunately June 7 dawned with a violent, blustering wind which later brought snow and put paid to any movement between camps. In Camp 6 our food and fuel position was now precarious since we had given priority to the stocking of Camp 7. Throughout the day we listened to the ominous sound of avalanches rumbling off the ice-fall on the precipitous North face of Lal Qila.

By dawn on June 8 the weather was clear again. Franz descended to the foot of the difficulties to meet Ang Chook ascending to Camp 7 while Wangyal and I struck Camp 6 and withdrew down the ramp to re-establish Camp 5 on the Lal Qila glacier from where we could watch our companions assault the summit on June 9. From time to time during the day we observed them through field-glasses and photographed them through the telephoto lens. The next day, assuming that the upper pair would descend the ridge at once, we commenced ferrying equipment down to

¹⁰ H. J. xxiii. 56.

Concordia, where we spent the night. Heavy and continuous snowfall on June 11 rendered us inactive and we concluded that Franz and Ang Chook would not stir either.

June 12, too, dawned ominously revealing a sky heavy with snow. Later the clouds were dispersed by the sun and the day resounded to the roar of fresh snow avalanches. Our return to Camp 5 up the Lal Qila glacier was both laborious and anxious since it took us under the avalanche-prone West face of Kulu Pumori. Moreover, from the lower reaches of the glacier, Camp 5 seemed deserted with no sign of our companions. Suddenly we saw them moving down the cwm into camp. Reunited an hour later we learned the reason for the delay. As they were striking Camp 7 on the morning of the 10th to descend the ridge Ang Chook had an attack of snow-blindness, probably contracted from the summit climb the day before. Franz then decided to stay put in Camp 7; so they re-erected the tent and waited while Ang Chook slowly recovered under Holacaine treatment. They were snowbound on the 11th, and finally got away on the 12th to rendezvous with us at the foot of the ridge.

The withdrawal from Concordia began on June 13, the four of us back-packing all the equipment and a little food. In the three weeks since our departure from the lower Bara Shigri an astonishing change had taken place and we would have had great difficulty in recovering our caches without the superior treasure-hunting skill of the Ladakhis. It had taken the party twenty-two days to ferry supplies and equipment up the Bara Shigri glacier from snout to Concordia; we descended it, with one camp at the old No. 3 site, in twenty-four hours! That night we languished on a rare bank of grass just beyond the snout of the glacier. To our utter dismay a heavy fall of snow in the night made our journey to Batal and the bridge over the Chandra river impossible, and we sat immobile, miserable and frustrated for one whole day.

At last, over passably good frozen snow, we succeeded in getting away from the Bara Shigri in the early morning of June 16. The route to Batal lay mainly over the snow-covered flood plain of the Chandra river where a Nansen sledge and a dog team would have been more appropriate transport than Shanks's pony in such an arctic landscape. We waded the Karcha river and arrived at Batal, a P.W.D. outpost at 13,000 ft., before lunch. That afternoon, feeling like schoolboys unexpectedly granted a holiday at release from our heavy rucksacks, we climbed the Kunzam La, 14,931 ft., for an impressive (and illegal) view of Spiti. The valley was snowless below our level and we admired the far skyline of square-cut mountains which reminded Franz of the North American ranges. An Elvis horned lark strutted about fearlessly at our feet looking for scraps from our meal. Descending the three miles to Batal we noted the impressive cluster of virgin peaks reaching 20,000 ft., south-west of the

P.W.D. outpost, a fine area for a small party such as ours to explore at some future date.

Leaving Batal on June 17 in the footsteps of many Spitials along the true right bank of the Chandra river, we retraced the route back to Manali which we entered on June 20 in company with a motley crowd of Spitials, Tibetans and other mountain folk.

NOTE: The best bibliography on the Kulu-Lahul-Spiti watershed is to be found at the end of the late Hamish McArthur's article 'Central Lahul' in *A. J.* 61. 292.