

THE KARAKORAM EXPEDITION, 1939

BY R. SCOTT RUSSELL

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IN 1937 Eric Shipton took his first expedition to the Karakoram and his party succeeded in mapping nearly 2000 square miles of country lying chiefly on the northern side of the main Asiatic watershed from the neighbourhood of K₂ to the Shimshal Pass. The attractive word 'unexplored' was, however, still written in quite large letters on several parts of the Karakoram map, and in 1939 Shipton organised another expedition. The Survey of India offered the fullest cooperation, placing two Indian surveyors at his disposal for the summer and bearing part of the cost of the expedition. Generous grants were also received from the Royal Society, the Royal Geographical Society, the British Museum (Natural History), the Percy Sladen Fund and the Royal Botanic Gardens, Kew. In addition, Mr. R. W. Lloyd and Mr. A. Courtauld contributed most kindly to our funds. We were a party of four for the greater part of the time: Shipton, Peter Mott our chief surveyor, E. C. Fountaine as medical officer and myself. With the exception of Shipton none of us had been in the Himalaya before. A. F. Betterton of Srinagar and Campbell Secord joined us for short periods.

The programme of the expedition was divided into three sections. The summer of 1939 was to be spent making detailed maps of the Hispar and Biafo Glaciers as well as the country adjacent to them. In the winter of 1939-1940 we planned to work from a base at Shimshal, and in the spring we would complete the survey of the Aghil Range eventually reaching Leh in the upper Indus. Previous expeditions to these mountains had travelled in the summer, and their explorations had been greatly restricted by the flooded glacier-fed rivers. It will be remembered that in 1937 the exploration of the Aghil Range had to be curtailed on account of the flooding of the Shaksgam, and it was to avoid this difficulty that Shipton decided to travel in the winter and spring. The rivers would then contain little or no water. Our winter programme would have been a most interesting experiment, but we were prevented from carrying it out by the outbreak of the European war—we abandoned the expedition when only the summer programme had been completed. At the present time

Shipton is engaged in military work in India and it has fallen to my lot to deliver this paper.

Shipton has described the work of the expedition in an article in the *Geographical Journal*¹ and I shall therefore make no more than passing reference to surveying, neither shall I describe the botanical work which was my special job.² I shall attempt rather to give you some account of the country through which we travelled and the impressions of this, my first visit to the Himalaya. I should make it clear, however, that our main pre-occupation was scientific work. About 17,500 square miles of country were accurately mapped.

Although accurate maps of the Hispar and Biafo Glaciers were lacking prior to our visit, these great glaciers were by no means unknown. Conway (1892) and the Workmans (1908) had ascended the Hispar Glacier, crossed the Hispar Pass and descended the Biafo to Askole in Baltistan. More recently the Vissers (1925), Tilman (1937) and Vyvyan (1938) had made shorter visits to some part of the area. Few mountain regions have given rise to so much fantastic geographical speculation. Conway's discovery of the great upper basin of the Biafo, generally called the Snow Lake, led to the belief that the great glaciers of this part of the world rose from a single vast ice cap comparable to those found in polar regions. Even more remarkable was the Workmans' 'Cornice Glacier.' This they claimed was so completely enclosed by mammoth precipices that no stream drained it—a glaciological phenomenon which must have caused the author of *Snow Structure and Ski-Fields* some anxious thought. These pleasant fantasies could scarcely be expected to survive the curiosity of the modern scientific explorer, and Tilman disproved them in 1937. He found nothing more remarkable than an 'Abominable Snow Man' of somewhat doubtful antecedents.

Early in May 1939 we reached Srinagar from England and found our nine Sherpa porters under Angtarkay waiting for us. A few days later the party was completed by the arrival of the Indian surveyors and their servants. The comparative cool of the Vale of Kashmir was a delightful change after the excessive heat of the Red Sea and the plains of India. A busy ten days passed in

¹ *Geographical Journal*, xcv, 409-427, 1940.

² It has been suggested that I should include some description of the vegetation of the Karakoram in this paper. I have refrained from doing so as I hope later to publish a detailed account of the flora and ecology in the appropriate journals. Work on the large herbarium collections which were made must unfortunately be postponed until after the war. Some preliminary notes are, however, contained in the appendix to Shipton's paper.



Photo, Karakoram Expedition, 1939.]

BELOW THE WATERSHED AT HEAD OF SNOW LAKE, BIAFO GLACIER.

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the preparations for departure, Shipton spending much of his time with the Kashmir Customs, an obstructionist organisation of unsurpassed efficiency. For reasons we could never discover our Customs pass had been made out to cover the 'equipment of Mr. Shipton only.' The word 'only' was our stumbling block. Officialdom was prepared to admit that our eight tents and nine hundredweight of sugar might be for Shipton's exclusive use, but they firmly refused to believe that even he could require thirteen triple sleeping bags. A large deposit had to be paid before our goods were released. Difficulties also arose over a case of absolute alcohol which I needed for preserving specimens. A helpful babu in Bombay had indented it as a case of wine and the authorities were somewhat sceptical when I assured them that it was for purely scientific purposes.

Eventually our preparations were complete, and, after packing the clothes of civilisation into cases we hoped not to see again for fifteen months, we set out along the Gilgit Road, our baggage swaying on the backs of thirty-five ponies. It is impossible to travel quickly with a train of pack animals and we took eleven days to march the 187 miles to Gilgit. It is a delightful route, the scenery varying from the pine-clad hills above the Vale of Kashmir to the arid valley of the upper Indus. From several points we had good views of Nanga Parbat. The Gilgit Road is an important trade route crossing the main Asiatic watershed from Kashmir to Kashgar in Chinese Turkistan. It is a cosmopolitan highway. We met Kashmiris, Gilgitis, Baltis, and Turkis from Central Asia, plying their trade seemingly unaffected by the progress of modern commerce beyond the mountains.

After halting for two days in Gilgit we followed the Kashgar route for a couple of marches, and then bore eastwards to Nagir through fine scenery. Sometimes we crossed steep faces and sometimes the track lay through pleasant villages and fields. Rakaposhi (25,500 ft.) dominated the valley, its summit of fluted ice 19,000 ft. above the valley floor. One of the most fascinating features of this country is the contrast between the luxuriant trees and fields of the villages and the barren country surrounding them. Each village has its own irrigation scheme which is essential for cultivation in this arid region. Water is sometimes brought for miles across steep hillsides and the channels are often of such age that no memory of their construction lingers in the villages. They are a marvel of primitive engineering. The contrast between the luxuriant green of trees and fields in the villages and the barrenness elsewhere gives the country a charm difficult to describe.

A short distance below Nagir, Mott and I, with one of the Indian surveyors, left the main party and ascended the ridge on the eastern side of the Hunza valley to start the survey and botanical collections at a place named Zangia Harar. We were rewarded with a superb view of the valley 7000 ft. below us and the towering ice slopes of Rakaposhi above. Our work completed, we rejoined the main party in Nagir. Shipton, Mott and Fountaine then set off for the Gharesa Glacier on the northern side of the Nagir valley while Betterton and I with Secord, who had just arrived, visited the Barpu lying to the south. Here we hoped to find a pass to the Chogo Lungma in Baltistan, but the steep faces of shattered rock and ice which encircle the head of the glacier offered no practicable route. On our last evening there Secord and I travelled on the right bank of the glacier down an ablation valley filled with a pink haze of roses and myricaria in full bloom. Ahead of us a fiery sunset was flaming on the Hunza mountains so that the sky seemed to reflect the colour of the flowers around us. On our return to Nagir we were joined by Shipton and Mott, who had left Fountaine to complete the exploration of the Gharesa while they carried on with the triangulation which was to be the basis of the survey. We had hoped that by now the entire party would be able to move up the Hispar, but the nature of the country had caused considerable delay in the survey programme, and we decided once more to divide up the party. Betterton and I were to travel in advance, taking the greater part of our stores and equipment. After making a depot some distance up the Hispar we would attempt to cross the Nushik La to Baltistan. Travelling with 65 coolies was a new and exasperating experience. From the first it was clear that they were a bad lot. Seldom did they travel more than half a mile without sitting down and disputing about the rations we gave them, the loads they had to carry or the distance they had to go. Minor mutinies were a daily occurrence and it was with relief that we paid off the majority of them two short marches up the glacier. But these worries could not keep us from enjoying the country. We travelled along slopes covered sometimes with grass, sometimes with stunted willows. Flowers abounded in the full bloom of early summer—blue geraniums, aconites and forget-me-nots, yellow potentillas, purple asters, pink roses and scarlet *hedysarum*. As we turned each corner the view widened until at last we saw the gentle snow slopes leading up to the Hispar Pass—tantalisingly close they seemed although still several marches off.

We now turned our attention to the Nushik La (16,500 ft.). It is one of those intriguing passes which, if local legend can be

believed, was once a much-frequented route across the mountains. Altered snow conditions have now made the ascent of the pass from the Hispar a real mountaineering problem, although the southern slopes still present little difficulty. In 1860 Godwin Austen reached the pass from Baltistan and was apparently the first European to see the Hispar Glacier. He did not, however, attempt the descent to it. The pass was first crossed by General Bruce and Mr. Eckenstein of Conway's 1892 expedition, and it was not crossed again till our visit. In 1908 the Workmans failed to get over and claimed it was impassable. They described it in such terrifying terms that I am glad I did not read their account until after our trip. On July 20 I set out with Gyalgen Myckje, the Sherpa who looked after me throughout the expedition, to reconnoitre the pass. At first glance no route was obvious and much of the face seemed liable to avalanche. As we got near, however, we found a safe and quite easy line of ascent starting well to the left of the pass. This took us first up a shallow gully, and then by a fairly long traverse we reached the ridge several hundred feet above the col. I enjoyed this, my first climb in the Himalaya, immensely and we lingered for some time on the summit. Gyalgen I found to be a delightful companion. He regarded any laborious bouts of step-kicking or other hard work as his special prerogative—I was careful never to usurp it. Returning to camp we found that all but one of the local coolies we had retained to carry loads over the pass had deserted. In the meantime, however, Fontaine and Secord had arrived with two Sherpas, and when we crossed the pass two days later we were able to carry all the loads, the Sherpas making two ascents. Descending the ridge to the col was unexpectedly slow and our movements were not altogether as planned, so that we had to camp close to the head of the Kero Lungma Glacier. During the next few days Secord and Fontaine surveyed the upper glaciers while I descended with Betterton to Arundo, from where he returned to Srinagar. One morning when a couple of the Sherpas and I were travelling along the slopes above the Kero Lungma Glacier their keen eyes discovered the tracks of an Abominable Snow Man in a patch of soft mud. There was no doubt about it, they assured me, it was the type of 'Yeti' whose tracks Tilman had seen on the Snow Lake two years before. I took photographs and made diagrams and measurements so that a scientific investigation can at last be made. Under the present war conditions my diagrams are clearly of too great value to expose to the perils of the sea, and I have left them in safe keeping in Srinagar. From some of my photographs, how-

ever, an authority on these subjects has been able to say that the creature is quite definitely a not too friendly type of bear.³ We saw the tracks later beside other glaciers, and Shipton found them also on snow where they were much altered by melting.

A few days later, after failing to make a new pass across the South Hispar Wall, we returned over the Nushik in a snow-storm and the next afternoon the party was united—for the first time in several weeks—at our base at Makorum. After we had left Shipton in Nagir he had helped Mott with the triangulation for some time and then, bringing a second relay of stores to the base, carried on to make an advance depot a few miles below the Hispar Pass. Meanwhile Mott had been coming up slowly from Nagir, making many survey stations, and reaching Makorum only an hour before I turned up. All this caused Shipton a very strenuous morning—he had only just finished hearing Mott's story when I appeared and he had to start listening all over again! Reunions of this type are one of the pleasant features of expeditions which periodically divide into smaller units.

For four or five days Mott and I were busy with our plants and survey. Fountaine and Secord set off for a short trip up the Kunyang Glacier while Shipton remained at the base tending his scientists. Soon we were able to start up the glacier. As we planned to be away for six or seven weeks there was a large amount of equipment to be carried, despite the depot Shipton had already made. The local men Shipton had employed previously refused to make another trip. They made various excuses, but it was clear that they were scared of glacier travel. This is surprising as earlier generations of Nagiris were notorious for their raids across the mountains on Baltistan villages, and the country through which we wanted them to travel was neither difficult nor dangerous. The load carrying now fell to the Sherpas and ourselves with one faithful Nagiri coolie. It would have been an awkward situation had not the Sherpas shown their wonderful quality and cheerfully carried huge loads, some of them over 100 lb., up the glacier. The great part the Sherpas play in any Himalayan expedition is well known to you all, and though on this expedition their work was less spectacular than when they assist in the assault of a great peak, it was equally invaluable. The smallness of the party gave great opportunity for us to get to know them. Frequently they shared our tents and daily we shared their jokes. I believe our mutual understanding was increased because we often carried loads together. On one's first expedition language is a considerable difficulty, but as our men had all been on Everest

³ He answers to the name *Ursus arctos isabellinus*.



Photo, Karakoram Expedition, 1939.]

WEST BIAFO WALL FROM SNOW LAKE.

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they were accustomed to understand bad Hindustani. Surprisingly elaborate conversations were possible with my meagre knowledge of the language and Gyalgen's few words of English. If proof is needed that the Sherpas are tolerant and long suffering beyond the normal powers of man I need only tell you that, before I left India, Gyalgen, who had been with me constantly for five months, wrote a letter in which he addressed me as 'Respected Russell Sahib.' The phraseology was that of a babu scribe, but I give Gyalgen credit for the idea. It is well that we who first visit the Himalaya in these days should realise that the loyalty and skill of the Sherpas are due mainly to the wisdom with which they were trained on the early Everest expeditions where the Sherpa tradition was born.

As we travelled up the Hispar streaks of white ice began to appear on its surface and gradually increased in width until the glacier stretched white and unbroken from side to side. Lower down travelling had been sometimes laborious and always dreary on the endless moraine hummocks. It was a delightful change to be on clear ice. On its southern side the Hispar is enclosed from the Nushik to the Hispar Pass by an impressive wall of heavily glaciated peaks. Nowhere is there any practicable route up the face though some of the high cols can be reached comparatively easily from Baltistan. We had some fine views of this South Hispar Wall from our camps on the northern side of the glacier. Avalanches were surprisingly rare on the steep faces—a result no doubt of the comparatively dry summer climate of the Karakoram. We spent two days at our highest camp on the Hispar. Shipton and I accompanied Mott to some high survey stations. Meanwhile a preliminary relay of stores was taken to the Hispar Pass and on August 13 the entire party moved to a camp just beyond it. The route was easy. From the glacier a short and easy icefall led to the long and gentle snowfields of the pass. On either side rose fine peaks draped in hanging glaciers and those lovely formations of fluted ice characteristic of the Himalaya. It was a brilliantly fine day, windless and unpleasantly hot, as we crossed the seemingly endless snowfields. The slope became less and less steep until at last it was level and then began to fall gradually away ahead of us. The surveyors made a station on the pass and, pitching our camp a short distance beyond, we spent a lazy afternoon in our tents. Through the tent doors we could look out over the broad expanse of the Snow Lake, 1,000 ft. below us, to the magnificent castellated peak Conway named the 'Ogre.' It was a white landscape. Little rock showed on the peaks and the glacier was unmarked by moraine.



Photo, Karakoram Expedition, 1939.]

THE SOUTH HISPAR WALL.



Photo, Karakoram Expedition, 1939.]

THE SOUTH HISPAR WALL.

The next day, still in perfect weather, we visited several high stations on the Hispar-Biafo watershed north of the pass. Secord and I set out for a peak immediately above our camp, our Sherpas laden with the paraphernalia of survey. Our peak had been climbed before by Mrs. Bullock Workman and her guide in 1908. They had estimated the height of the peak at 21,300 ft., which is rather surprising as it is in fact only 19,400 ft. We ascended by the southern ridge, which in its upper part consists of broken and insecure rock, and we spent a long time on top taking photographs and angles. It is an isolated peak and we had uninterrupted views in every direction. The entire course of the Hispar and the greater part of the Biafo were visible. In every direction was a bewildering array of fine peaks stretching to K_2 in the east and to Haramush and the peaks beyond Hunza in the west. We were particularly interested in the country north of the Snow Lake which we hoped to explore later in search of a route to Shimshal. To avoid the broken rocks we had ascended we decided to go down by the apparently simple north-west ridge. After going a short distance we found that the surface snow was insecure so that it was necessary to cut through into the hard ice beneath. In the hope of better things below we carried on and covered the next 500 ft. in two and a half hours. Crossing the snowfields to our camp some time after sunset we noticed an interesting snow condition. The surface crust had thawed during the day, but was now refrozen, apparently under strain. At each step we took the structure was upset for several yards in every direction, and a subdued hissing sound rose from the slope. We heard this on other occasions but never so loudly. When we reached camp an hour and a half after dark our companions seemed unusually pleased to see us.

The following day we moved camp down on to the Snow Lake, where a period of bad weather gave us some excuse to remain in our tents. Peter Mott, with whom I shared a tent, was busy with the interminable calculations inseparable from triangulation. The sight of him surrounded by logarithmic tables and slide rules in the middle of a large glacier made me rejoice that I was a mere biologist. Meanwhile, most of the Sherpas had gone down to collect fuel beside the Biafo. The failure of the Nagiri coolies had made us reduce our supply of paraffin considerably and wherever possible we therefore used wood fires. On the return of the Sherpas we were able to divide into three separate parties and, until the expedition finished in Gilgit, we were not all together in one camp. Shipton and Fountaine were to travel down the Biafo to Askole and thence to the Panmah

SOUTH

WEST



Photo, Karakoram Expedition, 1939.]

THE SNOW LAKE, BIAFO GLACIER, FROM THE BIAFO-KHURDOPIN WATERSHED.

and Nobande Sobande Glaciers in the east. They would return to the Snow Lake across the watershed. During this time Mott and I would visit the so-called 'Cornice Glacier' and its tributaries for purposes of survey and botany. Eventually I was to rejoin Shipton on the Snow Lake, while Mott and Fountaine would meet in Askole and make for the Sosbun and other Baltistan glaciers. Meanwhile Fazal Ellahi, our skilful Indian surveyor, would make a detailed map of the Biafo from the head of the Snow Lake to the snout of the glacier. Secord, whose time was up, travelled with Shipton to Askole and thence to Skardu and Srinagar.

Shipton's trip to the Panmah was very successful.⁴ They had almost constantly perfect weather and completed a photographic survey of their area. For some time they travelled separately and made four high cols, crossing three of them. Historically the most interesting was the long-sought 'New Mustagh Pass,' which had not been seen before by any European. They saw some exceptionally fine scenery, especially in the vicinity of the Ogre group. Eventually they regained the Snow Lake depot on September 11, Fountaine by a pass from the Choktoi Glacier and Shipton by one from the Nobande Sobande.

The 'Cornice,' or to use its local name the Sokha Glacier, which Mott and I were to visit, lies behind the West Biafo Wall, an impressive series of rock obelisks and spires, sheer sided and unclimbable, rising to the height of 22,000 ft. At one point, however, the wall is breached by a narrow cleft little more than 16,000 ft. This was our pass. In 1937 Tilman had reached the Sokha from the Snow Lake, but we were not certain which route he followed as the inaccuracy of the Biafo map made any exact interpretation of it impossible. Before our parties separated Shipton and I spent an interesting afternoon on the pass. Though it led through the wall it did not tally with Tilman's description and we were therefore doubtful whether it led to the Sokha. Consequently, after our parties separated, Mott and I looked for a pass further down the Biafo but, finding none, we returned to the route Shipton and I had examined. The pass is unusual in form. A very short glacier leads up to it from the Biafo and on either side crags rise nearly perpendicularly. The short icefall below the pass is surmounted by a rock wall which forms the summit of the pass. There were two possible routes. The more direct led to a narrow cleft, the lowest point of the pass, to the right of the wall. Alternatively, by climbing higher we could outflank the wall at its left-hand end. This route led up gentler

⁴ See *Geographical Journal*, loc. cit., 1940.

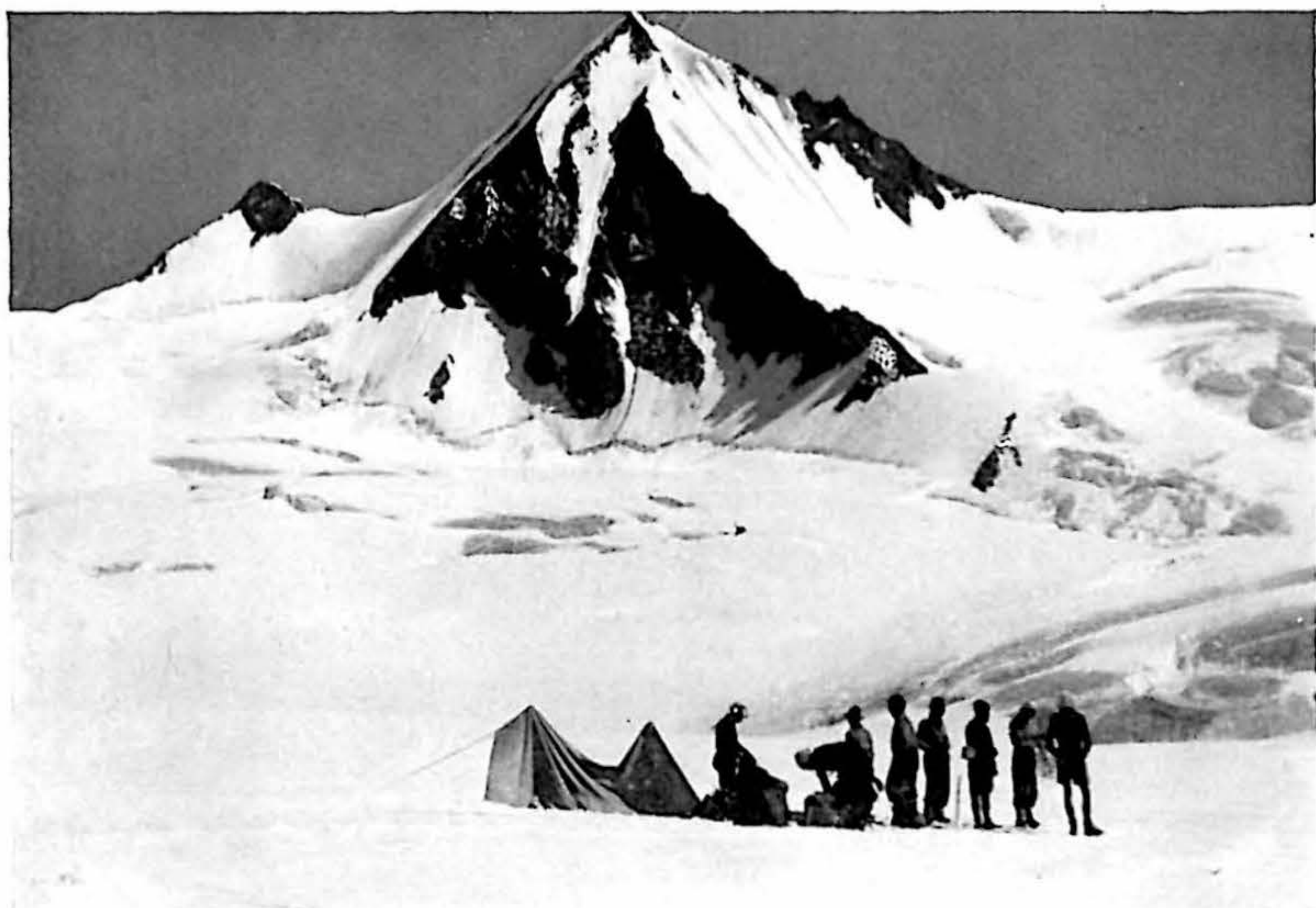
slopes, but we rejected it on account of its greater length. When Tilman was there it was the more suitable route and it was for this reason that we failed to recognise the pass from his description. Snow slopes scarred by old avalanches led easily to the bergschrund, 400 ft. below the cleft. Pendent icicles fringed the overhanging upper lip of the bergschrund, but breaking these away we could flog a good route up a snow corner. The upper slopes of rather steep ice required careful step-cutting and we reached the top in a flurry of snow. The Sokha Glacier below us was surrounded by fierce cliffs plastered here and there with snow, but the descent was surprisingly easy and, in a few hours, we were down to the level of vegetation. That night we camped on a grassy terrace and the Sherpas built a roaring fire of juniper logs. It was a delightful change after our Snow Lake camps. There it had been necessary to guard carefully each precious drop of paraffin for our stoves and each morning boots had to be thawed out laboriously. But here was abundant fuel and the fragrance of many flowers. At night we could lay out our sleeping bags on the grass, escaping from the confinement of cramped tents. This contrast between camps on high snowfields and camps on alpine meadows is to me one of the most delightful aspects of mountain travel.

The weather soon improved and we were able to carry out our work under the most pleasant conditions. There was a wonderful variety of mountain architecture. Sometimes, as on the West Biafo Wall, immense broad-based towers were grouped together; elsewhere were slender pinnacles and Gothic spires. We were anxious to find a pass to the Hoh Lungma or the Sosbun Glaciers in the south, and one tributary glacier led to a hopeful-looking col. This Gyalgen and I reached one afternoon, after a pleasant glacier climb, but found it did not lead over the main range. We saw from the summit that there could be no route elsewhere and, when the exploration of the Sokha and its tributary the Solu was completed, we descended to the Basha valley and travelled through the villages to Askole at the foot of the Biafo Glacier. Our return to the levels of cultivation was in some ways disastrous. Trees everywhere were laden with apricots as yet not entirely ripe. I suffered much, but fortunately remembered the old saying that the best cure for eating too much fruit is to eat more, and after a lazy afternoon consuming grapes I had completely recovered. We crossed the river by one of those three-strand rope bridges for which the country is famous, and found the experience rather less alarming than we had expected. We were fortunate to have a bridge in comparatively good repair.



Photo, Karakoram Expedition, 1939.]

PASS IN WEST BIAFO WALL LEADING TO SOKHA
GLACIER.



Photo, Karakoram Expedition, 1939.]

PEAK (19,400 FT.) ON HISPAN-BIAFO WATERSHED, N. OF HISPAN PASS.

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On September 3 I left Mott busy with his plane table in Askole and, with ten local coolies and two Sherpas, took stores up the Biafo. We found the Baltis much more willing than the Nagiris. They had a great desire to do their best for Shipton, whom they remembered from his 1937 expedition. On the Biafo travelling was remarkably easy. Within a few miles of its snout the moraine ceased and from then onwards to the Snow Lake the surface of the glacier was little broken. In August there was dry ice almost to the head of the glacier, but the September snowfalls made conditions bad on the Snow Lake. The length of the glacier (from the head of the longest arm of the Snow Lake) is about 40 miles. On my way up I was able to visit the surveyor Fazal Ellahi and give him a few fresh stores. He had completed mapping the Snow Lake area, about 150 square miles, and was now well down the trunk of the glacier.

Our coolies were not equipped to camp on snow, so, after they had carried the loads as far as they could go in a day from the upper limit of vegetation, I paid them off and planned that the Sherpas and I should spend the time until Shipton's arrival carrying the loads to the Snow Lake depot. The weather was so perfect that one felt it could never break again, and the next few days of load carrying promised to be very enjoyable.

Meanwhile Europe had gone to war. When Germany invaded Poland, Secord, then in Srinagar, sent a telegram to the Thasildar in Skardu asking him to despatch a runner to meet us with the news in Askole. The message arrived too late, but was sent on up the glacier and reached me when we were fetching the second relay of stores. When we left England we had realised the likelihood of war but, once we were away from the daily newspaper, the danger had for us faded into the background. Viewed from the Karakoram, Europe and its crises seemed trivial and unreal. Hitherto we had rejoiced in our isolation, and the use of our small wireless set for purposes other than hearing time signals for survey had been discouraged. Now, however, this pretence at isolation could not be maintained and, feeling certain that England must have entered the war, I left a note for Shipton and set off to our base camp where the wireless had been left. When we arrived there the first heavy snowfall of the season was commencing. Late at night I picked up the B.B.C. and, from the placid unconcern of the announcer's voice, it was hard to realise that war had really come. Snow delayed our return across the Hispar Pass to the Snow Lake for two days. When the storm passed mist descended, and the uncertain light made it difficult to see irregularities in the snow-shrouded glacier surface. We stumbled often



Photo, Karakoram Expedition, 1939.]
 THE BIAFO-KHURDOPIN WATERSHED, SHOWING ROUTE.



Photo, Karakoram Expedition, 1939.]
 ON THE BIAFO-KHURDOPIN WATERSHED.

in our tracks. Late on the evening of September 15 we rejoined Shipton with our gloomy news. Fountaine had already left to meet Mott and we were not to see them again till nearly a month later in Gilgit.

Clearly the only course open to us was to get in touch with the authorities and inform them of our desire to be used in any capacity. The party was, however, too widely scattered for immediate recall. It was necessary for us to wait on the Snow Lake until the return of Fazal Ellahi's party, and we decided to adhere to our original programme of exploring the country to the north. Our main problem was to see if there was a route across the watershed to Shimshal and to make a connection with the surveys on the northern side of the range. After two days we placed a camp at the foot of a steep ridge leading to the watershed and were once more confined to our tents by a heavy snowstorm. On the evening of September 19 the weather cleared and the temperature fell considerably. Next morning we were able to set out for the climb and had a very fine day's mountaineering, mainly on steep snow but with a little broken and plastered rock near the top. The new snow delayed us considerably, and though we abandoned the theodolite halfway up, we did not reach the ridge (19,500 ft.) till 4.30 P.M. I myself would probably never have got there at all without generous haulage from Angtarkay on the rope. To the north we looked down to the head of the Khurdopin Glacier. The descent to it would have been extremely easy and it was most disappointing that, with the difficult part of the journey behind us, we were not able to make the crossing to Shimshal. We were, however, rewarded with a superb view. From this aspect the Snow Lake seemed most aptly named. It stretched below, a sea of level ice, the long crevasse lines round its edge like breakers against the island mountains. Small clouds made ever changing patterns of light and shade on the glacier. But we had little time to spare and were soon descending rapidly. Before leaving camp next day we made a survey station at a lower level, and three days later, having rejoined Fazal Ellahi, we crossed back to the Hispar Glacier. Shipton decided to remain on the Hispar supervising the last part of the survey while I set out for Gilgit. At the base camp it was necessary for me to wait while coolies were brought up from Hispar to carry down our specimens and equipment and, in perfect weather, I was able to finish my botanical experiments. The new snow caused a fine display of avalanches on the high Makorum Peak behind my camp.

On October 3 I reached Gilgit unbelievably sore, having ridden



Photo, Karakoram Expedition, 1939.]

ON THE SNOW LAKE, BIAFO GLACIER.

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in two days from Nagir on an abominable pony with a worse saddle and a top speed of barely five miles an hour. I crept as unobtrusively as possible to the bungalow of Captain Keith Battye, who had invited me to stay with him. Next morning, after a luxurious night, I was completely civilised, bathed, shaven and clean, and I had marmalade, an almost forgotten luxury, for breakfast. Going down to the Post Office to collect mail I saw a bearded and tattered figure, none the less recognisable as Fountaine. He had arrived unexpectedly early, having succeeded in making the first crossing of the Haramush Pass from the Chogo Lungma after a very interesting trip. Mott had the misfortune to contract a form of septic rash soon after I left him in Askole and he had been laid up for several days. He was, however, able to finish his surveying and had nearly recovered when he reached Gilgit a few days after my arrival. In the middle of October, Shipton and the Indian surveyors came in. While waiting for replies to our telegrams to the authorities we taxed the famous hospitality of Gilgit to the limit. Eventually it became obvious that we could do nothing useful on the frontier, and towards the end of the month we set out for Srinagar, over passes already deep in winter snow.

It had been a delightful expedition. Naturally the abandonment of our winter plans was a great disappointment and it involved considerable financial loss. But we felt that in grasping a few months from the chaos of the future we were more than fortunate. Perhaps it was the last Himalayan expedition for some time, certainly many plans have been thrust into a distant and uncertain future. This seems, therefore, a suitable time for reflection.

The majority of recent Himalayan expeditions have belonged to one or other of two distinct types—those whose object is to ascend a particular peak and those whose object is to explore. We who make expeditions of the latter type are in the habit of devising scientific justifications for our journeys: a harmless practice so long as we do not lose sight of our main purpose. It has, however, some pitfalls. For one thing it has led to the feeling, tacitly accepted by the majority of us, that if we do not justify ourselves by our scientific results, we must do so by climbing some high peak. To my mind this situation is unfortunate. It is mistaking our secondary objectives for our primary goal. Conway pointed out in 1893 that the scientific study of mountains was the result, not the cause, of men's enjoyment in the hills. The same idea was expressed in the last number of the *ALPINE JOURNAL*: 'scientific investigation is . . . the mould or pattern

of mountain experience rather than the essence of it.' In the same way modern mountaineering—the ascent of difficult ridges—developed out of our appreciation of the hills. Men did not learn to appreciate the hills because they offered good climbing sport ; their discovery of the sport was incidental to their mountain appreciation.

We are often told that this is the Golden Age of Himalayan mountaineering, and we shall surely be losing the advantage of this fortunate time if, during our first seasons, we do not have it as our main objective to travel widely. The more climbing in the modern sense or scientific work that we can add, or for preference both, the better. But if on our early expeditions we tether ourselves to one small locality, be it to climb one peak or study one specialised scientific problem, we are losing our opportunity. The vital thing is to learn to understand the mountains for ourselves and not to be misled by secondary goals or second-hand adventure such as the modern guide-books have brought into fashion on the more frequented hills.