

MAKALU

8470 metres [27,790 feet]

The highest Peak yet conquered by an entire team

by

JEAN FRANCO

Leader of the French Himalayan Expedition 1955

> Translated from the French by DENISE MORIN



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FIRST PUBLISHED IN GREAT BRITAIN 1957

FIRST PUBLISHED BY B. ARTHAUD, GRENOBLE AND PARIS, 1955

PRINTED IN GREAT BRITAIN IN THE CITY OF OXFORD AT THE ALDEN PRESS BOUND BY A. W. BAIN & CO. LTD., LONDON

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SURPRISE

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The men of Sedoa have pronounced Mongolian features. Their clothes — usually a sort of 'poncho' — are made from yak's wool.

A SMILE FOR THE VISITOR

The Nepalese are a peaceful people. When the expedition passed by they would come and watch and sometimes they begged. Most of them had never seen white men before and were attracted by our strange appearance.

THE SADDHU OF SEDOA

The Saddhu is a holy man. He does not work and lives on what people give him and what he can beg. He carries the three-pronged sceptre symbolizing the Hindu god-head and a Tibetan drum. A mixture of Hinduism and Buddhism is frequent in the upper valleys of Nepal.

THE MEN OF SEDOA

This photograph was taken at Base Camp while the valley porters were being paid off.

MAKALU HOTEL AT BASE CAMP

Base Camp during the first few days. In the foreground the Makalu Hotel — a sort of stronghold hollowed out of the moraine and used as a mess and general meeting place. Later on it was turned into an operating theatre. Two containers telescoped into each other constituted the chimney. Wood for heating was carried from the nearest forest — a day's march away.

LACEWORK OF ICE

Between Camps I and II the glacier in the north-west cirque had curiously formed ice-pinnacles eroded by sun and frost and possibly by the wind.

A GIGANTIC WEISSHORN

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FINE WEATHER

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BASE CAMP AND MAKALU

The south face of Makalu as seen from Base Camp. Height of the face: 12,136 feet.

The right hand ridge is the south-east arête which was tried by the Americans during their spring expedition in 1954. They reached the dark gendarme which can be seen on the ridge, on the extreme right of the photograph, at a height of about 23,000 feet. The proportions are distorted by perspective. The horizontal part of the south-east arête can be seen on the photograph and lies at a height of about 24,250 feet. There are about 3,280 feet between the upper part and the summit.

STRAIGHT AS AN ARROW

In the middle of the photograph the western spur of Makalu, one of the largest rock bastions in the world. About 6,560 feet can be seen in the photograph. The clearly marked triangle of ice in the lower part of the photograph is the second Twin (21,320 feet); it was climbed by the expedition. To the left of the spur is the west face of Makalu whose upper section is completely overhanging for several hundred metres.

EVENING HOPES

Camp VI's only tent, looking towards Everest. Photograph taken at sunset.

BAST FACES OF LHOTSE AND EVEREST

Photograph taken at 9 a.m. on the slopes of Makalu at a height of about 26,240 feet. Between Lhotse and Everest the South Col can be seen quite clearly, and above it the south-east ridge by which the 1953 British Expedition, led by Sir John Hunt, reached the summit.

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Foreword

THIS book was inspired by two French Himalayan expeditions which took place in the autumn of 1954 and the spring of 1955. Their object was to climb Makalu (27,790 feet), the sixth highest summit in the world. The first of these expeditions was in the nature of a reconnaissance. It was an experiment: new equipment was tried out, acclimatization methods were perfected, and a route was planned up the hitherto practically unknown mountain. The second expedition was based on the results of the first and carried out exactly as planned, all the members of the climbing party reaching the summit of Makalu on the 15th, 16th and 17th of May.

I do not intend to describe in detail the sequence of events which led to the choice of this particular mountain. I have deliberately avoided everything concerned with the preparation, organization, and all the more technical aspects of the expedition so that I could concentrate on the magnificent human experience of a Himalayan ascent.

I have tried to conjure up the strange world of mountains and valleys, of people who live in the shadow of the highest mountain in the world, and to describe my friends, the members of the expedition, who made the story of Makalu such a happy one.

The reader will find no dramatic or record-breaking events, for neither have any significance at this height.

FOREWORD

Rather than amaze him with sensational achievements, command his respect or admiration, or lead him up dizzy heights to the edge of a yawning abyss, I should like to take him with us on our wonderful journey to Nepal, the country of green and white mountains. I should like him to sit down at our table, unshaven like the rest of us, to hear the songs of the Sherpas and the wind whistling over the moraine, and to climb up slowly through a fascinating world of high mountains until he stands with us upon the summit, with threequarters of the Asian continent at his feet.

Before we start, I should like to express our gratitude to all those who, by their advice and efforts, their experience and friendship, have made the ascent of Makalu possible.

J.F.

Fifty Years of Himalayan Climbing

THE conquest of the Alps was still only in its first stages when mountaineers began to take an interest in mountain ranges outside Europe, and particularly in the largest and highest in the world — the Himalaya.

But journeys out there were difficult since they were limited by expense and time. Although the more humid side of the Himalaya, facing the overheated Indian plain, was inhabited, very little was known about it, just as very little was known about the French Alps in the eighteenth century. The vast area covered by Nepal, Tibet and Bhutan was practically a closed book to Europeans.

Exploration work, which had to be done before ascents could be made, was undertaken by the Survey of India as well as by mountaineers and travellers from Europe and America. Even today there is still a great deal of exploration to be done, for there are many blanks and errors on the maps.

In the course of their work the topographers were the first to climb any peaks. In 1855 two Germans, the brothers Schlagintweit, made the first attempt to climb a really important peak — Kamet — and reached a height of 21,980 feet. Towards 1860 the first 'seven thousander', ¹ Shilla, an easy peak in the Punjab, was

¹ 7,000 metres, equivalent to 21,940 feet.

climbed by a modest employee of the Indian Survey whose name has since been forgotten. Before the 1914-18 war there were a fair number of expeditions of varying sizes. They did a great deal of exploring but made comparatively few ascents. One or two subsidiary peaks were climbed, four of which were over 23,000 feet, notably Trisul (23,360 feet), which was climbed by Longstaff, two Courmayeur guides and a Gurkha in 1907. In an attempt to climb Chogolisa in 1909, the Duke of the Abruzzi and three Courmayeur guides set up the world height record of the time: 24,600 feet.

It was during this period that the great peaks were first reconnoitred and attempted.

The boldest of these attempts was made by Mummery, the forerunner of modern mountaineering, on the expedition to Nanga Parbat in 1895 in which he lost his life.

In 1902 an expedition led by the Austrian Oscar Eckenstein, and including the Swiss Jacot-Guillarmod and the Austrian Pfannl, went to K2. It was greatly handicapped, however, by the fact that its leader was imprisoned for several weeks, and also by the bad weather. In 1905 another team, including Jacot-Guillarmod, set out to climb Kangchenjunga, and in 1909 the Duke of the Abruzzi made a second attempt on K2. None of these expeditions got beyond the initial slopes of their mountains.

Between the two wars numerous expeditions set out, both large and small, and the Himalaya fairly seethed

with activity. Nepal was still closed to foreigners (it was set apart just as its north-east corner had been previously) and so was Bhutan, but Tibet finally opened her doors to the British.

About fifteen 23,000-foot peaks and the two highest mountains in Garwhal were climbed for the first time. In 1931 Frank Smythe and his party reached the summit of Kamet, an easy mountain, 25,447 feet high, and the most often attempted in the chain. In 1936 Odell and Tilman, members of an Anglo-American expedition, reached the summit of the difficult Nanda Devi (25,645 feet).

Successive attacks were made by large, powerfully organized expeditions on a number of the highest peaks, beginning with Everest. But although heights of well over 26,000 feet were reached, first on Everest several times and then on K2, none of these expeditions was successful.

Everest (29,002 feet) had been discovered in 1852 as a result of calculations obtained by triangulation, but before 1921 no European had been within forty-five miles of the mountain. In 1921 the first expedition, under the leadership of Colonel Howard Bury, explored the Tibetan side of Everest, saw the upper section of the Nepalese side and foresaw the possibility of a route on the north side of the north-east ridge. This was the route attempted by subsequent expeditions. The conclusions drawn by the 1921 reconnaissance party appeared to support the theory of Marcel Kurz, the great Swiss Himalayan critic, that if Everest were

reduced to the height of an Alpine 'four thousander',¹ it would be a very easy mountain. The difficulty then was simply a question of height.

In 1922, on the second expedition, led by General Bruce, two attempts were made to reach the summit. On the first of these, Mallory, Norton and Somervell reached a height of 26,986 feet, without the help of oxygen. This was an important event, for it proved that life was possible at high altitudes. A few days later Finch and Captain Bruce (a cousin of the General) reached a height of 27,300 feet with oxygen.

The expedition came back full of hope, quite certain that it was possible to reach the summit. Viewing the results dispassionately, their optimism seems unjustifiable, and even today many people are surprised by it. Finch, however, proved to be right. He was not sufficiently heeded at the time but ultimately, after many bitter failures, his ideas prevailed.

Finch, a brilliant scientist, maintained that the highest point at which one can really acclimatize must lie between twenty-one and twenty-three thousand feet, and he was convinced that from this point on it would be necessary to use oxygen to reach the summit.

There were several arguments against the use of oxygen. Morally it seemed preferable to reach the summit without it. The weight of the apparatus was enormous at that time. The over-optimistic attitude then prevalent gave the impression that with a bit of luck the summit was almost within reach.

¹ 4,000 metres, roughly 13,000 feet.

In 1924 the third expedition, led by Colonel Norton, made a determined attack on the mountain. For the first time Sherpas reached the 27,000-foot level and a camp was pitched above this height.

On June 4th, after his friend Somervell had stopped at a height of 27,887 feet, Norton went on alone to a height of 28,126 feet, which is still the record height reached on the Tibetan side. There Norton stopped, completely exhausted. Pondering on the cause of his exhaustion he ascribed it mainly to the previous efforts he had made rather than to the attempt itself, but one often wonders whether he was not blinding himself to the salient point.

Four days later Mallory and Irvine, using oxygen, were seen for the last time at a height of about 27,950 feet.

One of their ice-axes was found in 1933. Their fate remains a mystery, but the discovery of the axe and the impossibility — in the eyes of the 1933 expedition — of overcoming the 'Second Step', a steep section barring the route taken by Mallory and Irvine on June 8th, confirms the opinion that in all probability the two men never reached the summit. No trace was found there in 1953.

During the 1924 expedition Odell spent ten days above a height of 23,000 feet. He went twice, alone, to a height of more than 26,000 feet, to look for his companions, thus showing remarkable powers of acclimatization.

In 1922 seven Sherpas were killed by an avalanche

beneath the north col, and in 1924 the assault party was lost. This marked the close of the first era.

The early optimistic attitude was succeeded by one of uncertainty. The last thousand feet of Everest were now considered a great problem. Somervell had come to the conclusion that there was more hope of succeeding without oxygen than with it. Sir Francis Younghusband finally agreed that the oxygen apparatus was nothing but a source of trouble and, bravely facing his responsibilities, he publicly expressed his regret at ever having listened to those who advocated its use.

The next four expeditions brought nothing but disappointment. In 1933 Wager and Wyn Harris, and then Smythe, reached the same height as Norton, without being able to go any higher. On their return public opinion veered round. Hope was not altogether lost but the attitude was no longer optimistic. Given favourable conditions a strong party in good form might quite possibly reach the summit. This was now the general opinion, but it was rather negative and did nothing to bring the solution of the problem any nearer.

In 1935 there was a new reconnaissance expedition; it did not go directly to Everest (for what was there left to reconnoitre on the Tibetan side?) and so missed the best opportunity there had ever been. It was a dry year and the weather was splendid. The 1936 expedition ran into perpetual bad weather and was unable to get further than the north col, at a height of about 23,000 feet. And in 1938 there was so much snow that they had great difficulty in reaching a height of 27,300

feet. In agreement, doubtless, with Somervell, the 1933 expedition did not make use of the oxygen apparatus they had taken with them. The 1938 expedition had new oxygen equipment and Lloyd tried out a set up to 27,230 feet when he was making his attempt with Tilman.

After seven expeditions it became clear that not only had the goal not come any nearer, but that it had definitely receded. In spite of the relatively swift and easy route the threshold of the 28,200-foot level had still to be crossed. Fatigue, or perhaps the first difficult obstacle, had repelled any further advance.

Five years after the first Everest era had ended in mystery, just when Munich was beginning to take the lead in the conquest of the Alps, the Germans came on to the Himalayan scene.

They wished to attempt Nanga Parbat or Kangchenjunga I (28,146 feet). Just as they were sailing for India, Sikkim gave them permission to go to Kangchenjunga. While the British made their attempts on Everest during what was thought to be the most propitious period — that which immediately precedes the monsoon, Paul Bauer and his Bavarians did not hesitate to launch an attack on the formidable east spur in the middle of the summer of 1929, and again in 1931, counting on the first fine days of the autumn to see them through the final stages.

These two expeditions were magnificent examples of teamwork, in which the Germans gave proof of their

B

powers of endurance, their loyalty to one another and their extraordinary determination. After weeks of struggle they managed to climb the ice towers of the spur, proving that even at a height of over 21,000 feet a resolute climber is still capable of overcoming a series of highly difficult ice pitches.

In 1929 they reached a height of 23,950 feet but were stopped from going further by a storm. In 1931 they reached a height of 27,260 feet before they were turned back by a 400-foot high snow slope liable to avalanche, leading to the north ridge; above this they could see no further difficulty.

In 1932 Willy Merkl led an expedition, mainly German, to Nanga Parbat in Kashmir, where the monsoon comes a month later than in Sikkim. Handicapped by the porters' refusal to carry loads any higher, they were able to reach a height of only 23,000 feet, but they discovered the route up the Rakhiot glacier. Although it was very long it did not seem to present any serious difficulty and after all, the mountain was 1,500 feet lower than Kangchenjunga. From now on the Germans quite rightly concentrated on Nanga Parbat.

The second expedition, also led by Willy Merkl, was probably one of the strongest ever to set out for the Himalaya. After Drexel's tragic death the assault team moved up towards the summit, with the intention of getting all their members to the top.

The first 'eight thousander' was within an ace of being climbed.

On July 6th, the two Austrians, Aschenbrenner and

Schneider, who were in the lead, would have had time to reach the summit if they had not thought it more loyal to keep to the plan already agreed upon. They stopped at a height of roughly 26,500 feet, 150 feet below the summit. After waiting in vain for their companions they went down to meet them, pitching Camp VIII at a height of 24,540 feet.

The next day the monsoon storms broke. The Germans, who would not listen to the Austrians, and were afraid that they might not get another chance to go higher, did not start down early enough for the lower camps. Welzenbach, who was probably the greatest mountaineer of his time, Merkl, Wieland and several porters all died of exhaustion.

The opportunity was lost and was not to recur for a long time. In 1937 almost all the members of the third expedition were swept away by an avalanche that came down in the night as they lay sleeping on the plateau of the Rakhiot glacier, while in 1938 the fourth expedition was unable to get higher than 23,620 feet, owing to bad weather conditions.

The Americans chose K2 (28,253 feet) as their objective — the second highest peak in the world and an incredibly bold and beautiful mountain.

After making a careful reconnaissance the members of the valiant 1938 expedition, which included Houston and Bates, climbed the rocky south-eastern spur, the socalled Abruzzi rib. The Duke's guides held that this was the only possible route, and although their opinion

met with considerable scepticism they were none the less right.

The climatic conditions of the Karakoram are very different from those of other Himalayan regions, and it was in splendid July weather that the party overcame the serious difficulties on the climb before reaching the snowy shoulder at the foot of the final pyramid. It was a magnificent achievement but unfortunately the Americans did not take advantage of it. They considered that their camps were not sufficiently wellstocked should they be stranded up there by a storm and, deeming it unwise to proceed any further, they came down after reaching a height of 26,000 feet.

In 1939 there was another expedition to K2. Fritz Wiessner, the German-American leader and the only outstanding mountaineer of the party, and one Sherpa, Pasang Dawa Lama, reached a height of about 27,500 feet, practically without European support. One member of the party had been taken ill at one of the higher camps; it was impossible to get him down and three Sherpas died in an attempt to save him.

With this terrible tragedy another era came to a close just at the beginning of the Second World War.

As for the French, they had been only once to the Himalaya — to Hidden Peak (26,470 feet), under the leadership of Henry de Ségogne. Their first obstacle was a difficult rock spur, which they climbed, but they ran into bad weather and were unable to reach the 23,000-foot level.

²⁰

Although these heroic attempts to climb the 'eight thousanders' all ended in failure, they were none the less a shining proof of the moral worth of human endeavour. They also accumulated a precious store of knowledge and experience which would, however, need careful interpretation if it was to be of use in the future.

In spite of the remarkable courage and great physical strength of individual members, the teams as a whole were not strong enough because they lacked homogeneity. This was not surprising as far as British expeditions were concerned, for British climbing was at a low ebb at the time and made little contribution to the last Alpine victories. It was surprising, however, that the German parties were not stronger than they were, and that Munich, the centre of Alpine activity at that time, was not able to produce a really great team.

One is led to think — and this opinion is not due to the passage of time — that their judgment had been at fault and that they had not paid sufficient attention to all the different factors of the Himalayan problem. Reading their accounts one cannot help but wonder at the disparity between the efforts involved and the optimism of their conclusions.

Although there had been considerable improvement in Himalayan equipment, just as there had been in Alpine equipment, since the primitive clothes used on early expeditions, one might well agree with the opinion of Marcel Kurz. 'It is surprising', he wrote, 'that man has not taken more trouble to perfect the means at his

disposal, particularly with regard to combating the rarefied air at high altitude.'

The Sherpas, who were first employed at the instigation of General Bruce, proved to be invaluable. There was no doubt that they could be used to even greater advantage.

The need for making the best possible use of the fine weather period had not been given sufficient thought.

These were the various ideas we had in mind when the French Himalayan Committee was formed again in 1948 in order that the younger generation should have the opportunities which the older generation had missed on account of the war.

Tibet was completely closed to Europeans but Nepal was beginning to open her doors. Since the French could not go to Everest, they decided to direct their attention to climbing one of the other 'eight thousanders'. And so the 1950 expedition was organized with a view to attempting Dhaulagiri and Annapurna, about which scarcely anything was known.

The equipment was made from new materials and was not only very strong but lighter than anything used hitherto. The members of the expedition were chosen with great care and complete impartiality, for the committee were determined to form the strongest national team possible.

Under the leadership of Maurice Herzog the expedition brought off a magnificent victory — the first ascent of an 'eight thousander', Annapurna (26,492 feet). By climbing one of the highest summits at the very first

attempt, the French party had accomplished a feat which the most experienced pre-war Himalayan climbers had thought impossible.

It is not certain, for the opinions of the individuals concerned varied a great deal, that the whole party was properly acclimatized. The technique recommended by Erwin Schneider could only be put into practice during the assault, for owing to the nature of the ground lengthy reconnaissances had taken place at Alpine altitudes.

The speed and determination with which the French party forced their way up the very difficult and dangerous stretch of glacier between heights of twenty and twenty-three thousand feet greatly impressed their Sherpas. Above this height the angle relented. Maurice Herzog made the most of the slender opportunity of reaching the summit before the monsoon came. Pitching Camp V at a height of only 24,280 feet, he and Louis Lachenal made straight for the top. As soon as they came back to Camp V, where Rébuffat and Terray were waiting ready to make for the summit in their turn (Couzy and Schatz were down at Camp IV), a violent storm blew up, heralding the approach of the monsoon. On their way down the next day they were obliged to bivouac in a crevasse - everyone knows the heavy price paid by the summit party. The dramatic adventure of the Annapurna expedition and the courage of its members have won renown the whole world over

June 3rd, 1950, was a decisive turning point in Himalayan history.

Only a short while after this tragic victory our thoughts turned once again to the future, and to the possibility of trying Everest or one of the four other highest peaks.

The problem was now a totally different one. It was not so much a question of any real physiological limit or barrier, in spite of the controversy on that point, for almost as much oxygen is needed at a height of 26,000 feet as it is at heights of 28,000 or 29,000 feet. What worried us was the fact that human beings deteriorate if they stay for any length of time at a height where they can no longer acclimatize. In our opinion it was that extra day or two that had prevented climbers from overcoming even the slightest obstacle on Everest, which after all presents no great technical difficulties.

Would one have to have recourse to oxygen? The question was much discussed, not from a moral but from a purely practical point of view. Some pointed out the disadvantages it presented. It was extremely awkward to transport and the weight of the sets made it impossible to move quickly. They considered that nowadays a strong party would succeed, without oxygen, where earlier expeditions had failed. Others agreed that given ideal conditions (i.e. absence of wind, not too low a temperature, no technical difficulty) it was probably possible to climb even the highest mountain without oxygen; but they considered the likelihood of these ideal conditions occurring simultaneously so remote that it could be counted out. The latter carried their point and preparations went ahead.

Jacques Oudot, the doctor of the Annapurna expedition, was a surgeon with a penchant for scientific research; he was clever enough to see that it would be better to use oxygen not merely during the assault, but systematically, according to a plan to be determined later upon closer investigation, from the point at which acclimatization was no longer possible.

Before the car accident in which he was killed, Oudot had been able to plan a programme of research in conjunction with Raymond Latarjet and with the cooperation of the Centre of Biological Studies of the French Air Force. Their aim was to find out the best means of acclimatization and to draw up a plan for the use of oxygen. They made an exhaustive study of the bibliography of the subject, paying special attention to the accounts of important experiments undertaken by the Americans during the war. On Latarjet's suggestion, experiments were made with a hormone that gave hopes of speeding up the process of acclimatization.

Meanwhile Couzy, with the help of big French firms, was working on an open-circuit oxygen apparatus, which was to be as light as possible, and have a variable flow. Research into other high altitude equipment was also carried out.

In the course of friendly conversations we admitted that it was natural, in view of their previous efforts, that the British should be the first to organize an expedition to Everest. In their turn the British said that if they did not succeed it would be only fair that the French should also make an attempt. Thus the

British obtained permission from Nepal to go to Everest in 1953, while we had permission for 1954 and the Swiss for 1952.

The Nepalese side of the world's highest mountain was no longer a mystery. Although before the war British expeditions had only seen the upper section of the south side from Tibet, in 1950 a small party consisting of Houston and Tilman had been able to get a fairly complete view of the Khumbu glacier basin. In 1951 a reconnaissance party, led by Eric Shipton, came back convinced that there was a possible route, although they had been unable to reach the higher cwm.

The Geneva expedition which set out in the spring of 1952, and consisted of Dittert, Aubert, Flory, Lambert and Roch, was a strong one, and their sirdar, Tenzing, knew how to get the best out of his Sherpas. They made a brilliant beginning on the Nepalese route, overcoming the seracs and the South col, but the Lambert-Tenzing rope failed on the easy final section at a height of roughly 28,000 feet — the same height that the British had reached before the war on the Tibetan side.

The Swiss party had excellent, if somewhat heavy equipment to protect it from the cold; their reindeerskin boots were particularly successful. They had closed-circuit oxygen sets which were made on a new pattern and were extraordinarily light. They were disappointing, however, and oxygen was only occasionally used high up, even on the final assault.

With a determination worthy of a better fate, the Swiss then organized a second expedition, arming

themselves with very heavy, hastily made open-circuit sets. In spite of the splendid autumn weather and the excellent snow conditions, the wind and the arctic cold prevented them from going higher than 26,600 feet.

Once again it was the turn of the British, and this time they did not let the opportunity slip through their fingers. Their ideas had evolved side by side with ours, as I learnt from an interview with Finch. The prophet of 1922 was to see his convictions justified at last. When, in the autumn of 1952, Colonel Hunt told us his plan of campaign, we realized that Everest would be seriously threatened for the first time. A period of acclimatization before the assault, and the systematic use of oxygen at high altitude formed the basis of the British programme.

Colonel Hunt conceived, prepared and executed the plan admirably, and the summit was reached by Hillary and Tenzing on May 29th, 1953. The ascent of Everest brought to a close an era of myth and superstition.

It was with a sinking heart that we congratulated our British friends on their exceptional success. The hope of making some French contribution to the conquest of the highest mountain had now vanished. It was not so much a question of discouragement as of finding a new goal for our ambitions. We had already thought of Makalu (27,790 feet) in 1934 when Tibet made us a promise which she did not keep. We had an old sketch map of the mountain in our archives, showing the

hypothetical route which we thought would be possible, judging from the photographs. It was a different route from that recommended by the Himalayan experts of the time; we looked at it again with the help of new maps and photographs, and it was in fact the route which we finally adopted.

We chose Makalu because it was a magnificent and formidable mountain and had never been attempted; we were more interested in discovering something new than in trying to climb an already well-known peak.

While we were waiting for permission from the Nepalese government we followed the efforts of the other great expeditions with interest.

An Austro-German expedition was making another attempt on Nanga Parbat. In spite of orders to retreat, given because the monsoon was forecast, a small advance party remained at a high camp, completely cut off from Base Camp in what was to remain fine cloudless weather, without a breath of wind. It was alone that Hermann Buhl, already known as one of the greatest mountaineers of our time, made an Alpine start by moonlight from Camp V on June 3rd. He covered a distance of almost four-and-a-half miles and his ascent involved about 4,300 feet of climbing — an incredible feat at such a height. He reached the summit the same evening at seven o'clock. He was obliged to bivouac at a height of about 26,250 feet, and did not get back to his camp until the evening of June 4th.

It was an unheard of exploit, quite unique, and one of the greatest personal achievements ever recorded in

Alpine history. His success was due solely to his great determination.

On August 2nd, 1953, the assault party of a new American expedition, which again included Houston and Bates, found itself at Camp VIII at a height of 25,590 feet on the shoulder of K2, ready to pitch a final camp and to make a bid for the summit. The party had no oxygen sets for they considered that the latter were more of a hindrance than a help. They had high hopes of reaching the summit but a terrible storm blew up in the night, cutting them off for days on end. Worn out by the height and the cold they tried to come down on August 11th in the middle of the storm, in a desperate attempt to carry down one of their members, who was ill. The party had a fall which was miraculously stopped. While he was being brought down, however, the sick man, who had been left anchored to ice-axes for a few minutes, was swept away by an avalanche.

K2 was finally conquered in 1954 by the Italians. They had oxygen sets but only made use of them on the last stretch. Two climbers only, Campagnoni and Lacedelli, were fit enough to make the assault on the second highest mountain in the world. On July 31st they took a whole day to climb the last 1,640 feet, which they did by dint of sheer perseverance. They reached the summit in a state of complete exhaustion and made a dramatic descent in the night. Campagnoni was severely frostbitten.

In the autumn a light Austrian expedition brought off a remarkable victory. On October 19th they climbed

Cho Oyu (26,750 feet) which had long been considered, and rightly so, the easiest of the 8,000-metre peaks. Although he had been frostbitten on an earlier attempt, Dr. Tichy reached the summit on October 19th together with his friend Jöchler and their sirdar, Pasang Dawa Lama, who broke the trail the whole way.

At the same moment the French were overjoyed by an event for which they had long been waiting. The Nepalese government had granted our request, but we had permission only for the autumn of 1954 and the spring of 1955, Hillary and his New Zealanders and Siri and the Americans having previously been granted permission for the spring of 1954. We made careful and thorough preparations, fearful of having our plans upset once again, but the two spring expeditions of 1954 did not get beyond the 23,000-foot level.

Dr. Jean Rivolier discussed French ideas on acclimatization with Dr. Pugh, the physiologist of the Everest expedition, who gave us the benefit of British experience. A system for acclimatization and the use of oxygen was worked out later by Jean Couzy. Guido Magnone dealt with equipment, racking his brains to find ways of economizing on weight while increasing comfort and efficiency. Lionel Terray was in charge of food. Jean Franco, the leader of the expedition, kept in touch with Maurice Herzog and the president of the Himalayan Committee and supervised the preparations.

In view of the experience of our Swiss friends, an

immediate assault in the autumn seemed unwise. The cold and wind would make it too risky, and might prevent us from making a bid for the summit after the necessary time-lapse for acclimatization.

The reconnaissance, led by Jean Franco, proved very fruitful. A system of recruiting porters during the approach march up the Arun valley was evolved - a problem which had caused us much concern. Acclimatization methods, oxygen sets, and other equipment were tried out. The route shown on the photographs, and by which Makalu was eventually climbed in 1955, was identified. It went first up the west side of Makalu Col (24,310 feet) which was reached for the first time by Jean Bouvier and Pierre Leroux on October 15th. Jean Franco, Lionel Terray, their sirdar, Gyalzen, and the Sherpa Pa Norbu succeeded in making the first ascent of Makalu II (25,120 feet) on October 22nd and on October 30th, in a 60-90 mile an hour gale and a temperature of -22° Fahrenheit, Jean Couzy and Lionel Terray made the first ascent of Chomo Lonzo (25,640 feet).

The assault had been scheduled to begin early in May. The conditions and the weather were both ideal and the ascent was made on the exact date that had been planned three months earlier.

A hitherto unique achievement in the annals of Himalayan climbing was that all the members of the assault party reached the summit: Jean Couzy and Lionel Terray on May 15th, Jean Franco, the leader of the expedition, Guido Magnone and Gyalzen, sirdar,

on the 16th, and Jean Bouvier, Serge Coupé, Pierre Leroux and André Vialatte on the 17th. Starting from Camp VI at a height of 25,590 feet early in the morning, the parties reached the summit between 11 and 12 a.m. with what seems remarkable speed when one considers that the difficulties of the last thousand feet were greater than had ever been overcome before at this height. Makalu is probably the hardest Himalayan peak to have been climbed so far. During the whole ascent, which was an exceptional success, there was not the slightest hitch. It was the result not only of months of effort, and of daring on the mountain, but also of years of collective work.

In the first place, tribute is due to Jean Franco, who proved himself to be an excellent organizer, a first-class mountaineer and a born leader. His even temperament and steady judgment worked wonders. Secondly, the members of the expedition must be congratulated upon forming a team as valiant as it was united; and they were supported by an exceptionally good team of Sherpas, who by their courage and devotion amply justified the trust placed in them. The French party showed imagination and forethought in the preparatory phases as well as determination upon the mountain. They put aside all personal ambition in the interest of a national success, and they showed a spirit of co-operation and sacrifice which, I think I may say, is exceptional in this country. The reward has been unforgettable, and the fact that all the members of the climbing party had the pleasure of reaching the summit lent a par-

ticularly happy atmosphere to the whole venture.

A few days later it was the turn of Kangchenjunga I (28,146 feet), and the fact that the mountain yielded so quickly caused the greatest surprise for it had always been thought to be exceedingly difficult. Since the Swiss attempt in 1905 the south-west side had been considered impossible but, contrary to the opinion of Smythe, light British parties who had been to the Yalung glacier since 1953 thought that there was a possible route on this side. Using the same methods that had been so successful on Everest, Dr. Evans' expedition also made the most of the fine weather and the exceptionally dry conditions, which considerably lessened the danger of avalanches. Climbing with skill and safety, two parties, Band and Brown, followed by Hardie and Streather, reached the summit on May 25th and 26th respectively, thus achieving another splendid victory. The methods used by the British and French teams were remarkable for their efficiency.

Thus, twenty years after the last great problems of the Alps had been solved, the ascents of Makalu and Kangchenjunga brought to a close the Golden Age of Himalayan climbing. For out of the fourteen 'eight thousanders', no less than seven have been climbed within the space of the last six years. Man's ingenuity has answered the challenge of the Himalaya, but his ascendancy is still only relative, so great are the forces of nature in the mountains. Snow, storms and technical difficulties may still easily defeat the strongest expeditions.

С

There remains enormous scope for action and the intrepid climber will now find lesser but more precipitous and inaccessible peaks to satisfy his insatiable desire for the unknown.

LUCIEN DEVIES,

Président du Comité de l'Himalaya et de la Fédération Française de la Montagne

GLOSSARY

anorak	wind-proof jacket with hood attached.
arête	one of the main ridges of a mountain.
bergschrund	a large fissure or crevasse separating the upper slopes of a glacier from the steeper ice or rock above.
cagoule	long anorak reaching below the knees.
col	pass.
couloir	gully or furrow in a mountain side.
crampons	metal frame with spikes, fitting the soles of boots for use on hard snow or ice.
moraine	accumulation of stones and debris brought down by a glacier, which forms ridges.
pitch	section of difficult ice or rock 10-120 feet high.
piton	ringed metal spike driven into rock or ice.
scree	slope of small loose stones.
serac	tower of ice found mainly in ice-falls.
spur	a rib of rock, or an arête.

I

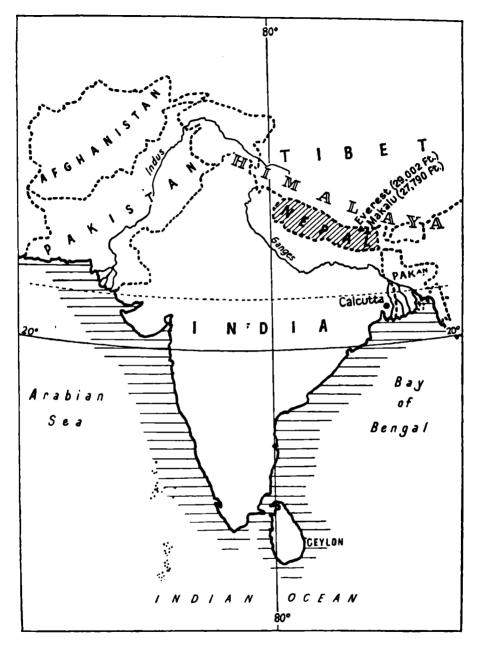
As far as Nepal

HREE Dakotas of the Indian Airways took off heavily from Dum Dum, the vast Calcutta aerodrome, and headed north, above the arid plain of the Ganges, towards the heat haze that veiled the first foothills of the Himalaya.

We had turned the Dakotas into freighters, filling them with our precious cargo. There were barrels of food, canvas sacks, cases of equipment, a jumble of containers and hurriedly made up parcels of all shapes and sizes. This inevitable hotch potch was all that was left of the careful packing that had been done before leaving Paris.

Imprisoned behind dirty portholes and stifled by the sickening heat of the cabins, the members of the French expedition slumped and drooped amid the freight, as the hours went slowly by.

It had been a long and difficult day. Our patience had been exhausted by last-minute arrangements with MAKALU



the Indian Airways, with customs and police formalities, loading, and endless discussions with people who seemed to have all the time in the world at their disposal.

AS FAR AS NEPAL

And the relentless sun of an everlasting Bengal summer tired us far more than the days when we were actually on the march. A whole week had elapsed since we left Paris in the hurry and bustle of final preparations, thinking that at last there would be no more administrative complications. At Orly airport we had even been complimented on our speed and efficiency: it was obvious that nothing had been left to chance. At the last moment, of course, there had been the usual difficulties with the French customs, but thanks to our obvious good faith and the friendly co-operation of the officials, everything was soon settled.

Our heavier equipment — more than 9 tons of it had preceded us on the way to Calcutta, and arrived there without a hitch. One might have expected everything to go smoothly from then on. And when I appeared before the various Indian authorities, my brief-case stuffed with papers, with lists duly signed and sealed, letters of recommendation and divers agreements ranging from small administrative favours to what were almost the fruits of collusion, I felt that they would welcome us with open arms and speed us on our way through India in the interests of one and all.

But in fact, all who enter the labyrinthine buildings of the Indian civil service, and are lucky enough to find the person competent to deal with their case (this person will never make a decision without referring the matter to his superiors) will realize immediately that

they have got themselves into a position from which only a miracle can deliver them.

The Indian civil servant is armed with a powerful weapon in the damp and suffocating heat that covers the whole of India by the beginning of March, and holds the parched and lifeless country in its grip until the monsoon releases it. By comparison our Parisian heat-waves are pleasantly cool. Calcutta lives behind fans which improve the average temperature by a few degrees, but there is so much draught in the offices that the likelihood of losing all one's precious papers increases proportionately. It is with beating heart that one surrenders the essential document — the pass to freedom — obtained with such difficulty in the neighbouring office!

On the whole everything went very slowly, but none the less much faster than if the regulations had been applied strictly. The fact is, a Himalayan expedition can never be entirely on the right side of the law. One has to travel with such a heterogeneous assortment of objects, ranging from tinned foods to pharmaceutical products, from high altitude equipment to arms and munitions, from films and cameras to optical and topographical apparatus, from compressed gas cylinders for cooking to oxygen cylinders charged to 230 atmospheres, and from walkie-talkie sets to Timor antimosquito bombs, not to mention the odd bottle of French scent which, in any case, had completely

evaporated on the way out. Here everything was equally suspect. Our lists of equipment would have filled a several hundred page volume. A detailed inventory of the contents of each sack, each case and each container had had to be made. Several copies of these lists, which had been rapidly translated into English just before we left France, had to be produced every time there was a check up, and they sometimes gave rise to the most startling results, at which we were often the first to be surprised.

Our freight had been sent by sea from Genoa in July, accompanied by Guido Magnone and Jean Bouvier. Already at Modane, on the Italian frontier, the authorities had noticed the presence of case no. 116, containing explosives and rounds of ammunition which we intended to use, if need be, to bring down avalanches. The torpedo tube, of compressed cardboard, only weighed 10 lb.; it was an invention which had been perfected by our Swiss friends, who had strongly recommended it to us. All things considered, this weapon, with its range of 1,500 yards, looked innocuous enough, and we had decided to call it an 'avalanche tube', hoping, by this mysterious and technical appellation to avoid all suspicion. Alas! The translator, in a fit of incomprehensible zeal, pleased perhaps to be able to emphasize the peculiar and methodical nature of our enterprise, called our tube a 'bazooka' and our projectiles 'torpedoes'. It must be admitted that they

were exactly that shape. The result may well be imagined. When the commandant of the port of Genoa got to know about this artillery, our sealed truck was carefully shunted on to a siding. Negotiations started, and the telephone rang incessantly between Paris, Turin, Modane and Genoa. We appealed to our Italian climbing friends; the police, the customs, the steamship company and the port officials all took the matter up. The central police of Rome also intervened. Two hours before the ship was due to weigh anchor, our baggage was still not in accordance with the regulations. At last an agreement was reached. The captain of the *Asia* took upon himself the responsibility of shipping the lot, reserving the right to throw case no. 116 overboard once we were under way.

Passengers of the Asia, little did you know the risk you were running! But once we were at sea the matter was dropped and case no. 116 arrived in Bombay with the rest. The miracle had happened.

This year it was at Calcutta that we dealt with transit operations, dividing our attention between the passport and police registration offices, the Customs headquarters, the Dum Dum inspectors, the Indian Airways and the Nepalese consulate. At times we had the impression that we had everything well under control. At other moments we felt that all was lost and that if we once got on the wrong side of Indian law, the expedition would be disbanded, a close watch kept

on its leader, and all its equipment put under lock and key, so that it would be impossible to tell how it had ever managed to come into India, or indeed how it could ever get out again.

It was always on these occasions that we would turn to our Consul-General, with whom we had established our headquarters. M. Grellet had given us permission to call upon him whenever we were in difficulty, and his vice-consul, M. Batbedat, with whom I had been in contact for several months, knew all about our problems. Thanks to his help many difficulties were solved and many paths opened. His knowledge of Bengal administrative procedure, and of the language and character of the Indian people helped us to understand a number of mysteries.

The oxygen supply, the *sine qua non* of the expedition, soon became our chief source of worry. More than three years ago, when the Himalayan committee in Paris were preparing an expedition to Everest, our friend Couzy had studied the possibilities of producing a new type of container, made of a special alloy, which was light and practical and which could be attached as required. Manufacturing the containers, obtaining permission from the Service des Mines, increasing the safety factor, getting the pressure up to 230 atmospheres, making tests on the humidity content and finally, packing and transporting this dangerous item of equipment gave rise, as might be expected, to all

sorts of complications. The whole business had involved a considerable amount of effort and inexhaustible goodwill on the part of three or four big French firms. But at last we had the cylinders, and our plan of campaign on Makalu had been organized with a view to using a reasonable supply of oxygen above the 23,000foot level. None of us imagined that we could possibly achieve our aim, on difficult ground, without the help of oxygen. The manufacture of these cylinders had started the previous year, when we were still in Nepal, and was based on the results of the first tests; they were ready, charged and packed by the middle of January. In view of the difficulty of transporting them to India via Air France - because of the exceptional nature of the permits granted, the regulations concerning air freightage, and also for the sake of economy-we decided to have the oxygen sent by sea. We found a ship due to leave France on January 22nd arriving in Calcutta on March 1st; it was an excellent opportunity and we confided our precious cargo to the care of the steamship company.

While we were still in Paris, taken up with lastminute preparations, we were informed that the ship had been slightly delayed, and we found out that it was spending longer than it should in some of the Red Sea ports or on the Malabar coast. But we had other worries, and we thought that at this time of year, and given a calm sea, they would be able to make up for

lost time. We were still confident that our cargo was safe in the hands of the captain.

When, however, we reached Calcutta on March 12th, we learnt that not only had our phantom ship not arrived, but that it had cut across the Bengal sea and touched at Rangoon, some 1,200 miles away, putting off its visit to Calcutta to some later date. Tracking down those who were responsible for this setback, and finding the means of getting the adventure-loving captain back to sea, was completely beyond us, particularly as a recent strike on the part of the Hooghly dockers would hardly encourage ships to call at the capital of Bengal.

Once again we underwent moments of anxiety and helplessness. During the sultry nights in the Grand Hotel we struggled for sleep in the suffocating heat of this precocious summer, to the discordant strains of a belated cabaret singer. I was a prey to nightmares in which our elusive adventurer became quite uncontrollable: he set sail again, this time heading south for the Antarctic, having stuffed our cylinders in the bottom of the hold; we decided to plan a commando attack with the help of the Sherpas, who came specially from Darjeeling with their *kukris* between their teeth: we boarded the ship, put the captain in irons and had the load brought to Calcutta.

In fact we finally adopted the only possible course, which was to go to Rangoon by plane, fetch the oxygen, bring it back at once, and forward it post haste to Base

Camp while the greater part of the expedition went on ahead along the Arun road. Couzy was put in charge of this second contingent; Coupé was to wait for him at Dharan with the necessary porters and Sherpas. Meanwhile Batbedat, in whose name the bill of lading was made out and who was the only person authorized to take charge of the oxygen, began negotiations with the Burmese consulate, the Indian authorities, and the shipping and air transport companies. He was helped by the French Legation at Rangoon and our Minister, Christian Belle, who had immediately offered his support when he heard of our misadventure.

This little diversion was to cost us dear and if, thanks to the initiative and perseverance of our friends, no further mishap occurred, the phantom ship still held another surprise for us a few weeks later, in the shape of an increase in the cost of transport for the extra journey to Rangoon!

That was why ten tired and anxious members of the expedition mopped the sweat from their brows in the cabin of the Dakota, a prey to sombre thoughts. Couzy had been abandoned in Calcutta, the oxygen was in Rangoon, three or four cases had been kept at Dum Dum on the pretext that all the signatures must be complete before they could be transported further. The rest was pell mell in the hold or under the seats, and we had not even been able to keep track of exactly what was there. But no matter: everything was sure to

sort itself out. One thing at a time. For the moment the essential thing was to land at Biratnagar without hindrance.

The Ganges plain, over which we had been flying for many hours, was terribly parched: rice and maize fields were but a dusty waste, colourless and featureless. Day after day, as the sun climbed higher into the sky, the relentless tropical spring was burning up India, an India that was almost thirsting to death, waiting for the first release of the monsoon storms. But Asia is a world of extremes and the monsoon is both a source of wealth and of terror to India. When it comes, torrential rains beat down every day, and the muddy flood-water joins that of the rivers, swollen by the sudden thaw of the Himalayan glaciers, turning the streams into rivers and the plains into a great sea. Every year whole provinces are ruined, villages buried in mud and the few existing wooden bridges destroyed; in this way the land is fertilized but at the cost of much damage. In the districts next to the foothills of the Himalaya the rivers shoot down from the mountains, pouring their waters out into the plain before they drain into the sacred Ganges, which swallows them all up. Most of the damage occurs in the plains, and for a long time each year communications are interrupted.

Only a few hours after leaving the terrible poverty of the Calcutta suburbs the brilliant jewels of the distant Himalaya come into sight in all their splendour, while

the wooded contours of the hills stretch out on either side as far as the eye can see.

Biratnagar, the first Nepalese town, lies a few miles beyond the frontier. Everything was so dry at this time of year that we found it difficult to recognize a region with which we had become so well acquainted the previous year. This 'Far West' town consisted of a single line railway track ending at Jogbani, a jute factory and a road — the only one in the district — muddy and half-flooded for four months of the year, and covered in dust swept up by the sand storms for the remaining eight.

Meanwhile, we were losing height and we had to face the fact that we were going to land over there on a field that looked just like all the others, somewhere near the wretched dust-covered bamboo huts. The noise of the engines and a few blows of a switch dispersed some half-starved cows, leaving a free space — the runway.

Biratnagar is one of the three or four Nepalese aerodromes. The only planes that call there belong to a service that runs three times a week and serves as a link with Katmandu, the capital. Our unusual convoy roused the curiosity of a crowd of natives, dressed in the oddest assortment of garments, who immediately gathered round the planes. Among them was a selfstyled police force in summer uniform consisting of shorts and coloured shirts. We recognized our Sherpas who had come from Darjeeling a few days ago and who,

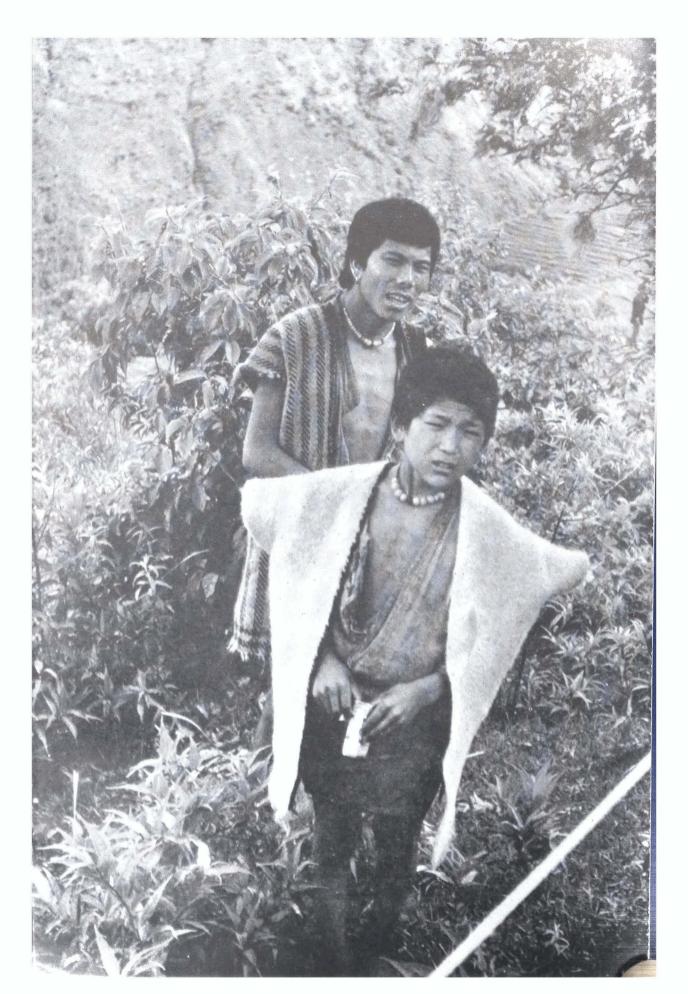
with their customary enthusiasm, were unloading our equipment and protecting it vociferously.

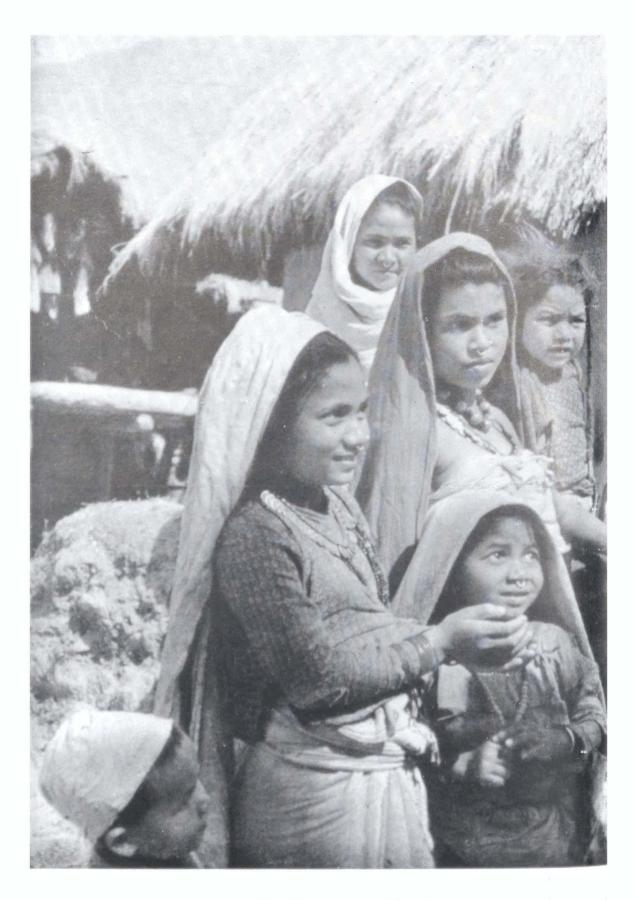
One of the employees of the Indian Airways, commandant of the Biratnagar airport, lived and worked in a little white bungalow that was as hot as a furnace and stood on the edge of the runway. He welcomed us very courteously and informally. I was already rejoicing at this encouraging success after the interminable complications of the last few days, and was preparing to hide my brief-case at the bottom of one of my cases, when our evil genius reappeared, threatening us twice with total failure.

A first check revealed that we had exactly 256 loads, and a second check confirmed that number, yet before we left Dum Dum, Bouvier had counted 262 packages. There was obviously some mystery. The loss of 6 cases out of more than 200 was not in itself anything very alarming, but we very soon perceived that these were the very cases containing our personal possessions. This was disastrous, and my anxiety may easily be understood, for one of my packages contained the entire wealth of the expedition, the whole of our supply of cash in rupees and small notes which were to see us through our expenses for months on end. The idea of losing all our money was unbearable, and I could not bring myself to visualize the consequences. We wanted to search the planes again, but two of them took off while we were examining the contents and detaining

the crew of the third. There was no telephone at Biratnagar and no possibility of communicating with Calcutta. It took two days to get there by train from Jogbani. Another nightmarish vision hovered before me: the expedition would have to split up again and while one contingent went on up the Arun valley, I should have to go back to India to search for our lost treasure. There was only one solution: to go back to Dum Dum at once. This job was given to Vialatte, and I was most anxious as to the outcome of it all.

With the amiable commandant acting as interpreter, I learnt that I had before me the Nepalese customs officer. We were not at all prepared for such an interview, and all the less since a few months ago, when we were last there, there had been no customs in Nepal, a happy country, that had not then created this noble institution. But alas, Nepal was progressing rapidly in the direction of western civilization, and a new inquisition was about to begin. Our man was moreover very conscientious and simply asked to go through each case in detail, one at a time. I observed that such an operation would take a whole team of customs officials at least a fortnight, always supposing that there was anyone to help him! I was thinking of what would become of our carefully packed cases, which we had hitherto successfully managed to protect against all interference by dint of bribery and corruption. But nothing would shake this zealous servant of the state





and he was just about to begin his Herculean task when Gyalzen intervened.

Gyalzen was our sirdar — the Sherpa leader. When he spoke English he had difficulty in finding his words and a conversation could only be carried on with an immense amount of goodwill combined with a few stock phrases from which the most perspicacious among us were able to piece together his meaning. But when he spoke Nepalese, one could tell by the expressions of his audience that his vocabulary was rich and to the point. His voice was high pitched, his gestures unequivocal, and he was surprisingly voluble. Gesticulating, he would ask questions only to answer them himself; he was always in the right. When things were not going as they should he would get hold of his adversary by the shirt collar — a technique which I have never known to fail, and which always enabled him to get his own way.

On this occasion Gyalzen did not need to exert himself to the full. Sporting a wide-brimmed felt hat like those worn by the conquistadores of the Argentine pampas, he turned to me with a knowing smile and said:

'You will have to sign.'

To tell the truth I would have been only too pleased to sign a dozen times!

Asia is undoubtedly a world of contrasts, and our visit to the Indian official gave us the opportunity of appreciating the absolute impartiality of that individual. I needed official recognition of an exit from India; this

D

would regularize our transit operations and enable us to open up our equipment which had been carefully wired and sealed at Calcutta. The Indian official received us at Jogbani in his well-ventilated bungalow and expressed no surprise at the fact that we were already in Nepal with all our equipment, which after all might have seemed a little surprising in view of customs procedure.

He offered us piping hot tea, introduced us to his wife, spoke of his family and inquired after our plans. He was very interested in Makalu and very curious to know exactly what constituted an expedition. But we were anxious to have done and we constantly came back to our business (the last one): 'Of course you realize officer, that we are taking with us a great deal of equipment and that . . .'

'Ah! You've got oxygen?'

Then we had to explain how we used this mysterious oxygen. We tried again:

'All our equipment is going through India in transit. Do you think you could . . .'

'Yes, yes,' he replied. 'How high is Makalu?' Off we would go, turning feet into metres and comparing the height with that of Everest; we discussed the mountain, the Sherpas, the porters, our food supplies, all our equipment, our plans, the snow — no wonder one dreams of it at Jogbani — our camps. But it was impossible to obtain official confirmation and it was only after a long conversation that he reassured us: the formality had already been attended to and we need not worry.

From now on we were free. The expedition would at last be more than a matter of lists and figures. Of course, there were still a few matters pending, and their solution might seem problematical, but nine of the eleven members of the expedition, our twenty-five Sherpas, and nine-tenths of our equipment were in Nepalese territory, and at Dharan, fifty miles from the frontier, three hundred porters were waiting for us.

From Biratnagar to Dharan a very bumpy road crosses the rice plantations; sometimes it loses itself in the fields or plunges down to river beds that have to be forded, before it disappears into the Terai, a belt of virgin forest inhabited by wild animals, and forming a dividing line between the Indian plain and the beginning of the Himalaya.

From June to September, during the monsoon, the track is submerged. It winds like a ribbon of mud in and out of the flooded rice-swamps, and the rivers had swollen so much with the rain that we were sometimes obliged to wait a long time on the banks until there was a propitious moment for crossing. The previous August it had taken us three days to do this thirty-mile stretch by lorry. But this year sand and dust had taken the place of mud, the river beds were filled with rubble, and the journey took us only a few hours.

The four lorries which we had hired obviously came from American army surplus stock; judging by their state of decrepitude, they had been used on battlefields all over the world before coming to end their days in this remote corner of the globe. We hurtled through Dharan, clinging to the rails for dear life, covered in bruises and terrified by the dare-devil driving of our bare-footed chauffeurs, who were trying to get the most out of their temperamental machines.

Dharan, a fair sized town seething with people, cattle and all sorts of traffic, is a great bazaar that caters for the whole of the Arun basin. It is here that India sends her manufactured goods, and it is here that a quarter of Nepal comes to buy its provisions. As one goes out of Dharan on the far side, one passes a few miserable huts that cling to the first slopes of the Himalaya, and the 'road' fades out in the middle of a stony field. Beyond this point the use of the wheel is unknown; everything is carried by back along this socalled Arun road — often no more than a poor track which is nevertheless the main means of communication with eastern Nepal.

We chose Dharan as a focal point for assembling the expedition and also as a starting point for our approach march, which, rivers and porters permitting, would bring us to the foot of our mountain in a few weeks.

We pitched our first camp in a stony field at a height of 1,300 feet. Beneath us, beyond the dark patch made

by the Terai, a yellow sand cloud covered the Indian plain, which stretched out monotonously for hundreds of miles. The forest close by, a light wind and a thin trickle of water in the stream bed refreshed us a little and reminded us vaguely of France. The Sherpas found the sites that had been dug out last year and we took possession of them again as if it were part of some rite. It was almost as if there had been no interruption between the two expeditions, and we were merely going on the next day with the same porters, the same loads, and bound for the same places.

The eleven Sherpas we had had last autumn were all here once more and it gave us much pleasure to see them again. A great friendliness had succeeded their natural shyness, and each one took up his duties with the Sahib he had looked after before. During the whole of the approach march we had nothing to worry about, for our Sherpas took care of all practical matters such as the camps, our belongings, meals, drinks, laundry and so on, according to our individual tastes. Sherpas make devoted servants, but they are quite natural about it and not in the slightest degree servile, and they never lose their wonderful sense of humour — so much in contrast with the melancholy and passive resignation of the valley Indians.

Gyalzen introduced the new recruits: fourteen more Darjeeling Sherpas. I interviewed each of them individually, for I was interested in their previous

records. In their record books I read the remarks made by their employers on previous expeditions in which they had taken part. Ang Phutar was Ang Tharkay's brother; he had been to Everest three times, and also to Nun Kun and Cho Oyu. Mingma Tenzing had been to the South Col and so had Pasang Dawa and Gunden. Ang Tsering had been a member of the 1936 French expedition. Aila had been on Everest, K2 and Annapurna. The whole history of Himalayan climbing could be read in the record books of these wonderful men who had carried loads on the highest mountains of the world, and without whom Himalayan ascents would have been practically impossible for Europeans. I had also asked Tenzing and Ang Tharkay, who had very kindly undertaken to recruit our team of Sherpas, to include a few younger men, chosen for their strength and enthusiasm. Wongdi, Nim Temba, Nagang Dorjee, Chumbee and Chotari were all under twenty-five. They were even shyer than the others and hardly dared come forward when they were called. But we knew that when the time came they would be as stalwart as their companions.

For the moment the most urgent business was the problem of transport. The Sherpas hated carrying loads on the approach march; they constitute an aristocracy among the porters and only started carrying above Base Camp, at a height of 16,400 feet, where the valley porters are no longer any use.

The problem of transport on the approach has always been a source of trouble. Porters are usually recruited from the villages as one goes along; but the continual chopping and changing, the perpetual supervision that has to be exercised, the different wages that have to be paid according to the district and the demands made by the men themselves, not to mention the possibility of a general strike, have often seriously upset and sometimes even put a total stop to expeditions. This was the case last year with the Japanese expedition to Makalu, when the local inhabitants had refused to let the expedition proceed.

We had hired eighty Darjeeling porters who were accustomed to a hardy mountain life. They were of the same race as the Sherpas and constituted a solid formation on which we knew we could count. As well as this one hundred and fifteen men and women from Sola Khumbu had come here on foot, led by the Sherpas Da Noo and Pa Noo. The Sola Khumbu district is the home country of the Sherpas; it lies at the foot of Everest in a Nepalese valley, and its capital is Namche Bazar, 12,200 feet above sea level. The people who live there are of Tibetan extraction, and are used to very rough work. From an early age they are accustomed to carrying loads over very high cols across the mountains, and often go to a height of 20,000 feet, and sometimes as far afield as Tingri Tzong in Tibet. This explains why these people are so well acclimatized to

height. There is a fifteen days' march from Sola Khumbu to Dharan, but for these mountain races a fifteen days' walk to get employment is a mere nothing. And besides, time is of no account in this part of the world!

The rest of our contingent was made up with makeshift porters from the valley. These people were a less hardy race; they were under-nourished and subject to disease, but touchingly docile. We recruited another hundred of these, bringing the total up to three hundred, or three hundred and fifty counting Sherpas and Sahibs. The porters were paid at a rate of four rupees a day — a real boon for these people, when one considers that the average pay for a non-specialized Indian labourer varies between one and two rupees a day.

Our loads had been planned and packed in Paris so that our equipment was divided into uniform loads of roughly 80 to 100 lb.; this was to ensure that there would be a minimum of packing and unpacking to do before we got to Base Camp. About 3 tons of supplies were packed into compressed and oiled cardboard containers, with red, yellow or green marks on them to distinguish between the valley provisions and those intended for Base Camp and the higher camps. Our equipment was divided out and packed into very strong canvas sacks, of the sailor's kit-bag type, so that we should have to hand whatever we might need in the valley, in the mountainous region, and at high altitude. Each sack had a hermetically closed inner lining which

was sealed off with plastic or polythene paper to ensure that it was completely watertight. The rather more fragile specialized equipment used in connection with wireless and photography, surgical and pharmaceutical apparatus, cooking utensils and glassware, was put into cases lined with specially strong waterproof paper. In this way all our equipment could stand up to extremes of temperature and to several days' immersion, without deteriorating. During our autumn expedition the previous year our cases had had to stand very rough treatment: temperatures of 122° Fahrenheit while we were crossing the Red Sea, perhaps 140°-160° Fahrenheit when they stood in the sun on the quayside, and in November, high up in the mountains, a temperature lower than -22° Fahrenheit. The approach had been made almost wholly beneath torrential monsoon rain, and several of our loads had been completely submerged while we were crossing rivers. With a few rare exceptions we suffered no loss or damage. This year we decided to pack as little as possible in cases, as they were heavy and would fill with water more easily.

We lined the loads up carefully in the middle of the camp. Gyalzen cordoned them off to protect us from an invasion of porters. They had been hanging round ever since we had arrived, trying to spot out the easiest or perhaps the lightest-looking load. The distribution of the loads took a whole day and gave rise to interminable discussions. But Gyalzen was a cunning old

fox and lost little time. Vialatte and Leroux had made out a numbered list of the loads; each coolie was given a counter which he would later be able to exchange for his wage, an advance of ten rupees on his salary to cover his cost of living en route and 3 yards of thin cord, with which he would make a simple and convenient carrying loop.

We left our travel equipment at Dharan, as it would be useless from now on. Serge Coupé, the youngest member of the expedition, was to stay here with fiftyfive special porters and two Sherpas, thus forming, with Couzy, a second contingent to carry the oxygen. Serge was suffering from persistent diarrhoea, the cause of which was uncertain, but probably due to his stay in Calcutta. I was to keep in contact with him by special messenger. The geological contingent, consisting of the Abbé Pierre Bordet and Michel Latreille, and the sherpas Mingma Tsering and Ang Bao, a veteran who had already been to Everest with General Bruce in 1924, and six special porters, set off on another route more to the east, and they were to join our route again at Dhankuta and Etane, at the mouth of the Arun. I made the necessary arrangements with Bordet regarding his food supplies; we discussed means of communication, and decided to meet at Base Camp towards the end of April.

Late that evening Vialatte returned, overjoyed, for he had with him our six cases which had simply been

left behind in one of the Dakotas in some secret hold. A special plane brought him back with the cases to Biratnagar, via Katmandu. All had ended well after all, and it was with relief that I took charge of our fortune once again.

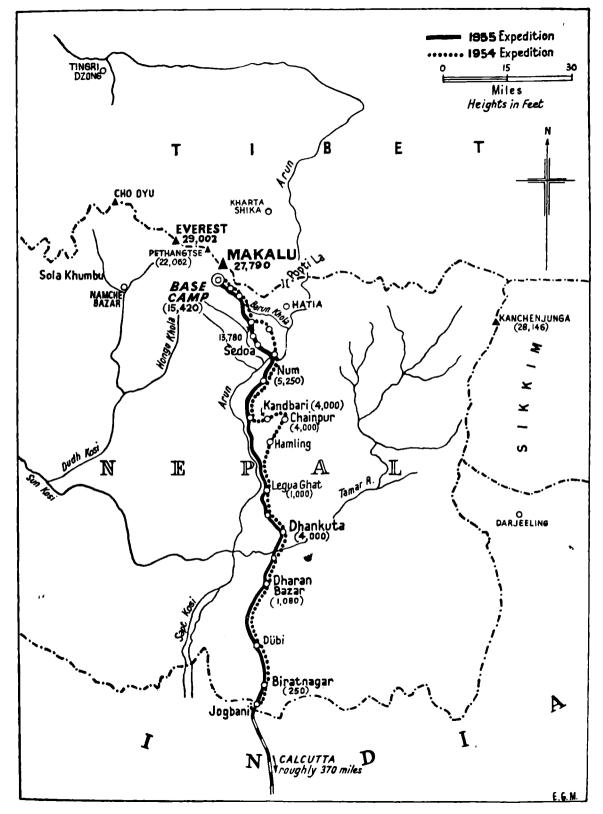
On the morning of March 20th the caravan was ready; we struck camp and in the bright sunlight the porters, laden with their 90-lb. packs, set off slowly in compact groups along the Arun road.

In the Tropics

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W E camped one evening, as on many others, by the river Arun. The Sherpas and the fastest porters, carrying camping and cooking equipment, had arrived first and chosen a site on a broad sandy beach where they had already pitched a few valley tents.

Panzy, our cook, had put the three ritual stones in position and now, crouching over them and surrounded by a team of servants, he set about preparing a meal for the Sahibs. Panzy had been a high altitude sherpa on the Annapurna expedition. Since then he had aged; he had also given a great deal of time to thought and had finally decided in favour of a less glorious but also less tiring occupation. We knew him of old, and he was with us now for the third time. His culinary achievements had never been particularly imaginative, and some of his concoctions had prompted Bouvier, who was quartermaster, to make numerous objections, all of them without result. Panzy was conservative and in



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spite of his efforts — and ours — he would produce the most horrible recipes — recipes that would have appalled the lowest of scullions in the scruffiest of soup kitchens. Glutinous rice, boiled potatoes, chicken roast in water, and boiled water flavoured with smoke were some of his more remarkable specialities. But we were ready to condone these faults when we learnt that he had started his career under the auspices of our British friends.

The Sahibs were recognizable a long way off by their extra light attire, which was as scanty as decency would permit, and by the huge blue parasol which, in the Arun valley, was the climber's chief defence against the monsoon rains and the tropical sun.

Another detail which distinguished the Sahibs from the army of porters was the fact that on the approach march the Sahibs carried nothing. Those of us who were fond of our creature comforts and liked to have a shirt, a handkerchief or a bottle of water to hand, carried a ridiculously small rucksack; this is usual enough in France, but here it seemed an insult in view of the huge loads carried by the porters and several of us found it much more natural and much more dignified to carry nothing at all.

It is easy to see that for the Sahib the approach march is just one long wonderful camping holiday, compared with which any other sort of open air camping must seem positively primitive. It had been a particularly difficult day, however. The crossing of the Legua Ghat, the furnace-like heat of the Arun basin, the sun-baked dunes of the Piloa, the hot whirlwinds of dust, and the glaring sunlight had been gruelling for the porters. They straggled into the camp in little groups and wearily tumbled off their loads before getting together either with their families or their friends for the evening meal.

The men of Sola Khumbu were recognizable on account of their long coats, their greasy plaits and their multi-coloured Tibetan boots, which they never took off. Exuding an acrid smell of rancid yak grease and sweat, they formed a separate clan. At the other end of the camp the 'Darjeeling party' formed another group round their green flag. Life in Darjeeling had brought them in contact with civilization, so that their customs and dress were less picturesque, but more varied and more adapted to the rigours of the climate.

The valley porters were half naked, and wore a loin cloth and, for the most part, a waistcoat that had long since lost all trace of colour and which seems to be the national costume of Nepal. From earliest infancy these men go about barefoot through mud, water, sand, stones and forest and their feet become so hardened that they would be the envy of our best shoemakers.

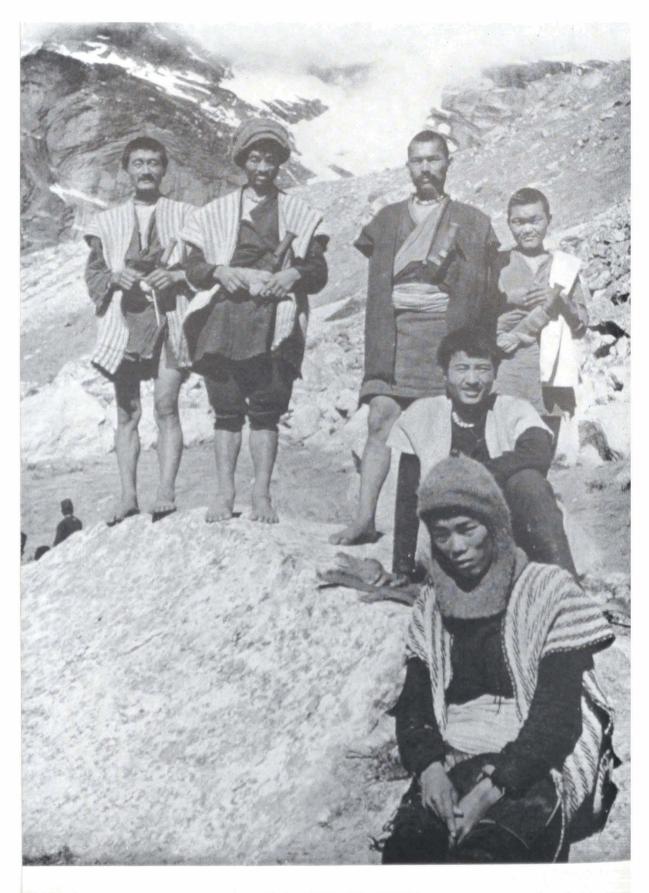
Carrying has been the principal occupation of these peoples for centuries; in a roadless country, where

beasts of burden are almost unknown, man-power is the only means of transport between one region and another and very great distances often have to be covered. In the season, on the most frequented routes, porters file past in long and picturesque caravans, according to their time-honoured custom: using a stick the shape of an elongated T for support, each porter carries on his back a huge basket held by a strap that goes round the forehead. The strap is usually made of plaited bamboo, or occasionally of hemp. Almost all the weight is taken on the forehead, and consequently the neck muscles are unusually well developed.

A few of us tried out this system. Lionel Terray even had special sacks with head straps made in France for the Sherpas, and they were in fact greatly appreciated by the Tibetan porters; but we could never do more than a few yards before feeling that our heads were sinking into our shoulders, and that our cervical vertebrae were about to snap. With his customary tenacity, Lionel persisted in his efforts to an extent that would have been far beyond the capacity of most European foreheads; we used to see him walking along stoically in the blazing heat, his muscles tensed, his face purple, veins standing out, and his neck near to breaking. During the numerous comings and goings in the valleys of Nepal, he went on with his survey on porterage in a remarkably methodical way, filming and photographing, making an exhaustive study of the ball

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of the foot, the leg muscles, the distortion of the forehead, the primeval use of the stick. He really went into the matter thoroughly and accumulated an abundant supply of information concerning one of the major aspects of Nepalese economy. We did not yet know exactly what his conclusions were, and it is quite possible that he wished to keep them secret until he could introduce a similar system of porterage in our own Alps. One thing is certain, however, and that is that these valley dwellers are capable of the most incredible feats of endurance and resistance to suffering.

The length of each day's march was calculated in such a way that the majority of the porters would reach camp by nightfall. Then, as flocks of geese flew up the valley, now high, now skimming low over the surface of the water, the camp would hum with noise and activity. Dozens of bivouac fires would be lit here and there, spreading a dense smoke. The kukri plays an important part in camp life; it is both the national weapon and the national tool of Nepal, and combines the functions of a large knife and a chopper. In battle it would prove a formidable weapon, but the people of Nepal are the most peaceful in the world. All the same, in the flickering firelight, amid the shouting and the songs and the acrid smoke, one is forcibly reminded by these slit eyes, hairy faces, white teeth, wild manes of hair and flashing kukris of the hordes of Genghis Khan on the way to plunder.

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This year the porterage was remarkably well organized, thanks to the authority of Kindjock, our righthand man. Kindjock belonged to the Gurkha regiment of the British Army. He was on leave, and, on Tenzing's recommendation we had put him in charge of the coolies. In this role he was responsible for the transport and supervision of the loads, and for seeing that everyone set off and arrived at the right time. In the evening he would only come into camp on the heels of the last man, or else, if a group of belated porters could not catch up that night, he would stay with them and appear at dawn the next morning. With his prodigious memory he had been able to identify each porter and his load in a few days, and he knew the whole caravan in detail better than any of us. This evening Kindjock had not come in although the usual latecomers, either the weakest or the least persevering, had already straggled into camp. We were beginning to suspect that something had happened when he suddenly appeared with the news that two hours away one of the Sherpanis had suddenly fallen unconscious during the afternoon and was losing a lot of blood. Two Sherpas had stayed with her and were going to spend the night there. Our doctor immediately organized a rescue party. Owing to the scanty information it was difficult for him to make a precise diagnosis and he hesitated between a case of violent sunstroke, an internal haemorrhage or a miscarriage.

It was very late that night when they eventually reached the patient, who was in a half-conscious state of delirium. Lapras applied vigorous treatment, consisting of different injections followed by complete immersion in the relatively cool water of the Arun. The result was instantaneous: the patient went off into a deep sleep, and the next morning she was able to get up. Although she was still very weak she managed to join the caravan again.

This incident brought Lapras great fame, and the complete confidence of all our men - which was very important in view of subsequent developments. His reputation even went before him as the caravan advanced each day. The local inhabitants got to know about him and every evening, at the end of the day's march, there would be a number of patients, either injured or crippled, waiting for him. They came to consult the great white doctor whose mysterious cures could soothe pain and work miracles. And every evening the great white doctor would give a spectacular demonstration with the help of a copious supply of aspirins and iodine and numerous incisions with the lancet, before the astonished gaze of a people who are accustomed to curing toothache with a dressing of freshly squashed snails, and treating infected wounds with a plaster of sacred cow dung.

The 'Doctor Sahib', as everyone called him, had another very important task: he had to solve the prob-

lem of our drinking water. For some mysterious reason which geologists may one day discover, springs are rare in this part of Nepal. The people all appear to be completely immune to the toxic effects of the flood water, which is filled with all sorts of decaying matter. But although millions of Hindus may be able to drink the muddy waters of the Ganges with impunity, our delicate European constitutions certainly cannot, without the most painful reactions. Diarrhoea, dysentery and poisoning are the all too frequent lot of digestive systems already affected by the contrast in climate and food.

During our autumn expedition we had tried out several chlorinated disinfectants which were supposed to have no smell. But we rejected them unanimously, convinced of their lethal effect on any living germ cells, but equally certain that they made any water quite undrinkable, even for someone as unfussy as a Sahib on an expedition. There were various ways of preparing these disinfectants. The only one which found favour with us was to put the tablets (which shall be nameless) at the very bottom of the water buckets and to drink quickly before they had a chance of dissolving. When the operation was successful, i.e. if one was quick enough, the mixture was quite passable, but then one had to put up with the consequences, which were usually not long in making themselves felt.

This year we faced the problem more rationally and

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found two different methods, both equally efficient, of combating the dangerous waters of the Arun and of its tributaries. The first was to boil the murky river water a long time beforehand, taking care to let it settle before decanting it and finally cooling it in the bed of the river. Panzy Cook was not particularly taken with this system, and he probably thought that these apparently useless proceedings had been purposely thought up to try his patience and good temper. But the doctor was adamant and conscientiously checked up on every detail of the operation. We also made use of a special cylindrical pressure filter which the Sherpas called a 'pump' and which they learnt to manipulate fairly quickly. This system was a little slow but it had the advantage of giving us absolutely clear water, and Lapras always maintained that it kept out even the most insidious amoeba. On the whole, results were quite satisfactory. At first we were even conscientious enough to subject the water to both treatments, but as time wore on we grew more careless, and the pump was handled so roughly by the Sherpas that it was soon out of action. From then on we gradually relapsed into the habit of drinking the sacred water of the Ganges as it came.

Before long we started improvising drinks. A number of French firms had supplied us with different products, some of them in liquid or powder form, some of them gelatinous; they came in boxes or in tubes, were delicately flavoured and often had the most surprising

properties. They were all supposed to be 'natural process' fruit and vegetable extracts, some of them being fizzy and others ready to be drunk 'ice cold', and they were all supposed to combat certain digestive ailments. Our experience in the autumn had enabled us to eliminate a good number, but we had faith in Lionel's latest investigations and we were rewarded by surprises which were as pleasant as they were varied. At our main meal, in the evening, the table would be littered with these chemicals. We gave free rein to our imagination by trying the most cunning combinations. Our opinions on that score were, moreover, divided, and we took sides and argued, each one unshakeably convinced that he was right. Gradually, however, our tastes became more homogeneous until finally we were unanimously in favour of a few master concoctions which we perfected by dint of tasting. The best of these was made up of set proportions of concentrated fruit juices and chosen effervescent powders. In this way we discovered heavy sodas, Côtes-de-l'Arun burgundies, and a few odd champagnes. The best of these was the result of much scientific research on the part of Couzy, at a time when the choicest beverages had long since run out. His discovery was a 'Mumm 1947' that was made in accordance with a religious rite from very simple ingredients, namely water and salts of lithia, which had been calculated to ferment for seventy-five seconds. On the way back from the expedition, when all pre-

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caution was thrown to the winds because we knew we had the whole of our lives in which to recover, I watched Couzy, the gourmet, preparing his champagne with the silty water of the Subaya, which was then in spate. The 'Mumm' took on a pleasing amber colour; and as a result we had the most fearful diarrhoea.

Lionel's concoctions were even more fanciful and usually he was the only one who could stomach them.

The approach march is a period of preparation during which diet must be watched carefully, for it may affect the climber's state of health later when he needs every ounce of energy. There again opinion was divided. Some believed in the rather simple but perfectly reasonable principle of eating as much as they could while they could. When they sat down to table in the evening, it was with the firm intention of eating as much as they could hold without actually getting indigestion. Others attached more importance to the preparation and the variety of their dishes. Diet had been the object of considerable research back in Paris, and we were now trying to put our conclusions into practice. Our aim was to keep as close as possible to our usual European fare, using mainly local resources and supplementing with tinned foods. Bouvier, our grand quartermaster, made great efforts to satisfy everyone, and it must be said that this tried even his legendary patience. But Panzy was a wretched performer. Shakespeare's mother tongue is in any case scarcely appropriate to

express the niceties of French culinary taste, and was not spoken with as much precision as might be desired either by the quartermaster or the cook. The resulting compromise, a mixture of Savoyard cooking from the Annecy district and an adaptation of hot Tibetan dishes was rather strange and bore little relation to the menu.

Green vegetables and fruit were the foods which we lacked most; our reserves did include a great deal of fruit and vegetables but we wanted to keep these reserves for the mountain. The lower valleys of Nepal, which yield only a mediocre amount at the best of times, proved to be totally lacking in agricultural produce during this particularly dry spring. Although our Sherpas and the kitchen staff went in for a systematic search among the local landowners, neither by haggling nor by inspiring fear — a weapon which they knew just how to use — were they able to bring back anything better than a few woody plants totally unfit for human consumption and which did not even seem to have a name to recommend them.

We were more fortunate with fresh meat: as soon as we had pitched camp the local people would come and offer their produce. Panzy was in charge of the buying. He was a breeder himself in Darjeeling, and no one was better than he at estimating value at a glance, at inducing pity or fear, at turning a deaf ear to entreaty, or at calling upon the gods as witness and finally getting the best of a bargain. Once it was settled things moved

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quickly. Two anonymous cook's helps - there are always a lot of odd people hanging round a camp kitchen - would seize the beast, be it goat or sheep, while a third executioner would chop off its head with a single blow of his kukri, just like heads used to be chopped off by the Mongolian hordes a few centuries back. The animal would be cut up in a trice, and the joint put on the spit straight away for the Sahibs' meal, while the Sherpas and a few privileged coolies were given the offal. One might think, from this description, that we were about to indulge in a veritable banquet! But who can explain why it was that the goats of Nepal, as interpreted by Panzy, became so tough and gristly, or why the sheep, which were in any case much rarer, had so little in common with our home-fed mutton! Chicken was plentiful and we consumed enormous quantities, and if Couzy's dream of 'one chicken per Sahib meal' never quite came true, it often very nearly did, and after our four journeys up and down the Arun valley we became very knowledgeable about the geographical location of this bird. The consistency of the chicken we had on the first day, when we set off from Dharan, was quite unlike that of any other we had ever tasted and was literally inedible. But as we went further north and the country grew more hilly, the quality improved and some of our more recent meals had been really delicious.

While our interest centred round these gastronomic

problems and the preparation of ingenious beverages, we were never able to forget the thought of some good red beef and a glass of beer.

There was nothing to complain of, however. The life of a Sahib was very pleasant. A few hours' walk each day gradually put us in training, providing a most salutary exercise after the months of strain in Paris. It was the third time we had been over this route, and I had expected that it would bore us to go over the same ground again. In fact the varied nature of the country through which we passed made it a constantly recurring pleasure.

The Arun and its tributaries flow down from the highest mountains in the world; between Everest and Makalu on the west and Kangchenjunga on the east, they drain an area as big as the Rhône basin. The upper section of the formidable Arun river describes a wide curve into Tibet, where it flows between narrow and inaccessible gorges before turning south and crossing right through Nepal. At the point where it leaves the zone of high wooded mountains at a height of about 13,000 feet, the Arun is still a turbulent mountain torrent, but it already carries an enormous volume of water. Its banks are so steep that the Arun road, the only means of communication between eastern Nepal and Tibet, is obliged to leave it and has to cross a number of subsidiary ridges. But soon, after the double bend of the Num, the Arun empties its mica-

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filled waters into the fertile region between Dingla and Kandbari. Here the contours are gentler and the river, relatively quiet now, meanders in and out between sand banks in the middle of a majestic, rich and prosperous valley. Numerous small villages are to be found on the hills at a height varying between 3,000 and 5,000 feet. Besides being picturesque centres, Dhankuta, Chainpur, Kandbari and Num are also important market places where the people lead a happy life, far removed from the aggressiveness of modern industry. But even in its middle section the river Arun, swollen by the Subaya Khola, the Pilua, the Tamar and the Dudh Kosi, is still wild and turbulent and becomes quite uncontrollable in the monsoon. It flows down through the tropical regions at a height of about 1,000 feet, where the climate is torrid and unhealthy at all times of year. Its tributaries, which can be forded in the dry season, are particularly dangerous in summer when they are a mass of swirling water and mud, and it is hard to believe that they could ever be bridged without involving enormous expense and labour.

Fording these rivers the previous August had been a really difficult problem. Even below Dharan, the Dubie, which was then in spate, had swept away a wooden bridge 100 yards long. We had been obliged to ferry all our equipment across by means of a rubber dinghy which Guido had fortunately insisted on bringing with him. Along the middle section of the

Arun the normal road had become quite unpracticable, and we were obliged to make numerous detours into the mountains, crossing the Hamling and Chainpur ridges on our way, glad to find a cooler temperature at last.

But in March there is no serious obstacle and the route is altogether much easier. How pleasant it was to find once again the shady pine woods of Dhankuta, the path along the Pairibas ridges whence we could see the white crests of Chamlang and Makalu, the fertile plateau of the Subaya, the rounded contours of Kandbari, with its terraced rice fields, and the long, forested ridge, inhabited by monkeys and budgerigars, that runs down towards the Num, opposite the upper Arun valley.

Thanks to Guido's planning we could save our strength and settle down to a peaceful camp life. Our only problems were those immediately concerned with pitching camp and organizing our 300 men, and we were pleased to see that everything was going according to plan; we had decided once and for all that we would deal with difficulties as they arose and make the best of these enjoyable days while we could.

From the projecting promontory of the Num one can see the twisted contours of the high Arun valley, with its steep slopes worn by erosion in spite of abundant vegetation. Towards the north-east, beyond the last Nepalese frontier post at Hatia we could make out Popti La, a very marked col over which the road to

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Tibet passes. And to the north the brilliant snows of the giant, Makalu, pierced the clouds, the summit standing out above a dense virgin forest that stretches for miles between the Arun valley and the wild glacier region of the Barun. Crossing the Arun itself, the last villages of Etane and Sedoa, the leech-infested forest, and the Barun glacier itself, marked the various stages of a route which we now knew well and which would lead us over two passes of nearly 14,000 feet to our Base Camp. As the crow flies we were only 25 miles away from our goal, but last year we had taken more than 8 days to cover this distance.

It is true that we had had to renew the 200-250 foot rope bridge spanning the river at the bottom of the gorge, safeguard the crossing of the Kasuwa, a small and harmless looking tributary but which could in fact increase its volume tenfold in a matter of hours, and recuperate at Sedoa before battling with leeches in a thick and particularly hostile rain-drenched forest.

In March conditions had changed and were on the whole much more favourable. And besides, we had taken precautions. From Dhankuta I had sent ahead a special messenger with a recommendation from the Bara Hakim, a sort of mayor of the district, to see that the rope bridges were repaired. And when, after descending the steep, winding path that leads from Num to the river, the cumbersome caravan came in sight of the bridge, which had been constructed at the

narrowest point, we were amazed by the improvement. We recognized the five main cables made of plaited bamboo, but as well as these, new cross pieces had been fixed, while a comfortable trellis had been put down to make a floor. Specialized workmen from Etane were putting the finishing touches to it, under the guidance of the policeman of Etane, a new civil servant.

Although it had a jaunty look, wreathed in Buddhist prayer flags - obviously intended to invoke the mercy of heaven - this elastic bridge was none the less impressive, suspended as it was some 50 feet above the thundering torrent. When we started to go down the trellis work, clutching the cables above for support, all seemed quite comfortable. But after a few yards we found that the bridge was subject to an oscillating movement that made it rock up and down and which, in spite of our efforts to prevent it, worked up to an inevitable crescendo. We were half deafened by the angry surging waters, and as we looked across to the other bank, which seemed a long way off, we could faintly hear the monotonous dirge of the coolies praying before their turn came. The critical point occurred just beyond the middle, when the bridge began to go uphill again and when the up-and-down movement, having attained its maximum violence, combined with a lateral swaying due to the wind. But soon there was firm ground underfoot again, and the thundering died down, while those who had already crossed welcomed us ashore.

The more experienced porters and most of the Sherpas who, like ourselves were making their third crossing, moved along cautiously but without hesitation, trying to keep their 90-lb. loads strapped to their heads, in balance. The Sherpanis, however, who were indefatigable walkers, hated crossing bridges, and usually the Sherpas were generous enough to make two journeys. After a fervent prayer to the gods one of the Sherpanis had her eyes bandaged and was carried across pick-a-back.

Getting all our equipment across took a number of hours. By the middle of the afternoon the advance party had reached the next camp site above the village of Etane, two hours' walk from the bridge along a very steep path on the right bank.

A few of us stayed behind by the Arun, Lionel to film and Guido to record the chants, prayers and cries of the porters on a tape recorder, while Gyalzen and a few Sherpas were in charge of manœuvres. Soon the wind rose in violent gusts, the prelude to a storm which had been threatening us for two days and which was just about to burst. On the bridge the swaying had grown so violent that we almost lost a load . . . and the porter. Gyalzen and I, who were in touch with one another by walkie-talkie, agreed to interrupt the ferrying of loads until the weather settled down again. And from our camp, sheltering in our comfortable valley tents with their triple layer of canvas, we watched the

fury of the storm breaking over the high Arun. Rain, hail and lightning joined together in deafening concert and the wind howled in the guy ropes. At times the rain clouds were so thick that it seemed that night would never come to an end. Turbid yellow water cascaded down the slopes from terrace to terrace, while the little streams, which had been dried up a short while before, were now swollen into frightening monsters.

As the storm gradually abated, the continuous roar of the Arun, the child of the Himalaya, could be heard coming up from the depths of the gorge. 3

'The Men of Sedoa'

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WHILE preparing for our expeditions I tried to gather together all the available information about the mountainous regions of the high Arun, which were left uncompromisingly blank on the maps. In doing so I was struck by the importance attached to the little village of Sedoa, a name that recurred frequently in all the accounts.

This remotest of human habitations is perched on the side of a vast mountain, swept at its base by the raging Arun while its wooded summit, more than 13,000 feet high, is shrouded almost all the year round in thick mists.

At a full day's march from Etane and well off the road to Tibet, Sedoa is a world apart, a strange corner of the globe that bears no resemblance either to India or to Nepal, at the uttermost ends of the earth where man has come to a halt at the foot of the Himalaya.

It is scarcely a village: little groups of thatched F 81

dwellings and a few acres of land cling precariously to the sides of a steep mountain relentlessly worn down by erosion. The road leading to it is only a rough track that fades out in the rice swamps, thorn bushes and screes. It is blocked by landslides several times a year, when great stretches of mountainside thunder down into the valley. It was to this place that the warriors of Chatri, driven back by the Rajput invasions, came to find a refuge, together with a few wandering Sherpas of Mongol extraction. They were protected below by the impetuous torrent of the Kasuwa Khola (transformed by the slightest thunderstorm into an insuperable barrier) and above by a forest haunted by the Abominable Snowman. These men, who recover as much land each year, by setting fire to the forest, as they lose elsewhere through landslides, have developed into a hardy mountain race, a race which we named straight away 'The men of Sedoa'. They are either Mongoloid with almond-shaped eyes, prominent cheek bones, flat noses and thick wild hair, or Aryan with finely chiselled features, and slight moustaches. These primitive peasants and shepherds have few needs, lead a hard life in a rough climate and manage to make a living on the unfruitful soil, where others would probably have perished. They are of medium height, more sturdily built than the Nepalese, and wonderfully muscular. Dressed in a loin cloth and a sort of poncho made of yak or goat wool, they are incredibly robust

and their powers of endurance are known throughout the country. The Sedoans have hardly penetrated down the valley beyond the Kasuwa, but their hinterland stretches right up to the glacier zone, through a wild and luxuriant region of thick tropical forest, brilliantly coloured giant rhododendrons, and a few isolated pasture-lands crouching high up between the moraines at the foot of the great mountains. Once a year the herds of sheep and Sedoan yaks, and a few goats, are assembled together. They are then driven through the forest by the one existing track - overgrown each year by a wealth of vegetation — and once over the Kumba passes they plunge down impossible paths to the bottom of the Barun valley. And there, from June to September, the shepherds lead the simple life of primitive man.

For us Sedoa was the last village, the last point where supplies and man-power were available. For the valley porters, worn out by the rapid nine days' march, insufficiently equipped to go further into the cold and the snow, Sedoa was the promised land where they would be paid off. For expeditions it is an essential resting place, where strength can be regained and where the inhabited world is left behind for one where distances are numbered in days.

The slopes were so continuous and the contours so complex that we had some difficulty in finding a suitable site for our camp. Little groups of porters had strayed

along the small criss-cross tracks that led nowhere, until they were finally brought back by Kindjock's whistle. The tents were pitched on a few abandoned terraced fields.

The arrival of an expedition at a camp site always provides good entertainment for the local inhabitants. First the children, then the parents, and sometimes the notables would hurry from afar to watch the pitching of the tents and the culinary preparations, and to admire the great number and diversity of strange implements. The mess tent where the Sahibs have their meals sitting round a table, using spoons and forks, the camp beds, Lilos and brightly coloured sleeping bags are objects of wonder to a people who go about half naked, are accustomed to sleep anywhere, and eat rice with their fingers.

The Sherpas, anxious for our well-being, stood guard, surprised to see that others were surprised, and not a little pleased to show that all these wonderful gadgets held no secrets for them. The Sahib is their sovereign lord, whose every wish must be obeyed at once. And besides, are not those bound for the high mountains entitled to the submission of those who remain below? Sitting at the right hand of their masters, full of the authority due to their rank — and to their powerful guttural voices — they behaved as though they were in occupied territory, and on several occasions we had to ask them to be more polite to the local inhabitants. But

their high-handedness was so naïve, and they were so natural and unselfconscious that it was impossible to be angry with them.

In Sedoa, where flint is used for making fire, where the nail and the saw are unknown, and an empty tin is more valuable than a silver rupee, the setting up of our camp, with its mysterious display of wealth and power, had the effect of a flight of Martians landing in flying saucers on the Place de la Concorde.

Under the watchful eye of the busy Sherpas, we spent a whole day doing various jobs. Leroux and Vialatte, with Gyalzen and Kindjock, paid off the valley porters. Complicated calculations had to be made to take into account each day's porterage, advance payments, baksheesh and cigarettes. The only simple and efficient means of control was to give out a numbered counter for each load. Sometimes several porters would come up for the same counter and the same load: those who were shrewder and most familiar with western methods would 'sub-let' their loads. They would sell them, in whole or in part, for a wage that was naturally lower than the one which we paid, to men. women and children, so that we never knew exactly how many porters we had. These rather shady deals were made possible by our rigid and rather oversimplified system of one wage per counter, and our way of settling the matter occasioned repercussions and arguments among the porters, to which Gyalzen

speedily put an end. But although it went against our feelings of justice, there was no other solution.

We also discovered another type of exploitation involving a more complicated technique and requiring highly developed powers of invention. At Dharan, where we engaged the porters, one man could come forward several times, at intervals, so as not to arouse suspicion, and collect as many counters. Then he would engage a number of auxiliary porters on his own account, and pay them a starvation wage. Several days later he would appear at the pay desk, fully entitled to a large sum, and proud of having brought off such a profitable deal for a pleasant ten days' stroll, at the expense of his unsuspecting recruits. He settled up with them outside the camp, but they were all so easy-going that there was never any serious quarrel. And in spite of these complicated systems we did not lose a single load - which speaks highly for the honesty of this people.

The engagement of a hundred men from Sedoa gave rise to a number of picturesque scenes. For the recruitment of porters last year we had had recourse to the village headman, a richly dressed individual with long greasy plaits, wearing Tibetan boots. This pirate was a modern slave-trader who had made a small fortune by deducting a percentage from the porters' wages. Following the procession at an easy pace, he cheered them on their way to the harsh sounds of his bamboo flute. But the men of Sedoa were independent and

discerning; this year they enlisted without the help of their headman, well able to look after themselves, and in no way anxious about what was in store for them. They were reassured by last year's experience of these white men come from France and were delighted to have visitors again, while we were pleased to find many old acquaintances among these smiling, uncivilized Negotiations were progressing satisfactorily faces. when the headman arrived and tried to take the matter into his own hands. But his habitual glibness of tongue, his angry torrents of abuse, his threats and his prayers were of no avail, and soon, with Gyalzen as our interpreter, we asked him to leave us. It must have been a fatal blow to his authority, and it is to be feared that after our visit he will not have been reappointed.

Guido, who was responsible for equipment, had had an easy time as far as Sedoa, but the light clothes with which he had provided us so far would not be suitable for the second stage of the approach. He was now obliged to make a general distribution of mountaineering equipment, so that no more cases would have to be opened before we got to base camp. The next morning Guido got up early and set about his task.

His headquarters were established near the mess tent; here he was surrounded by impressive looking lists he was the only one who could make head or tail of them — and by half a dozen or more Sherpas who came and went at his bidding, bringing loads and taking them

away again, opening and shutting cases, never quite sure they had understood properly. As Guido set the camp in motion dozens of items soon lay strewn about on the ground – boots, trousers of worsted material, underwear, divers woollens, anoraks, down jackets and all the accessories. I had asked him to keep a record of all items of equipment distributed, but it must be admitted that his task was not made any easier by the Sahibs' lack of discipline, the need for keeping apart some equipment both for the geological team which was to come to Sedoa a few weeks later, and for the oxygen contingent, from which we had had no word. The Sherpas' feet were especially troublesome. We knew that Sherpa feet were short and wide but not to that extent! We had even asked the makers to keep to the patterns which we had brought back from the first expedition, but these must have seemed so abnormal that they could not bring themselves to do so, and once again our Sherpas were obliged to make do with excruciating footgear. 'The Sherpas have certainly got tough feet!' said Guido.

Sometimes there were surprises when we opened our cases of equipment — either as a result of faulty packing, or because the contents did not correspond with the description on the list. Guido would look for the culprit first among the porters, unskilled workmen capable of anything, then among the Sherpas. He had had his eye on the latter ever since they had crept surreptitiously into his tent and taken his Lilo, leaving in its place one that was similar but full of holes! The Sherpas were definitely conspiring against him. In the first place they did just as they pleased and never obeyed any orders. And yet it was all perfectly straightforward. All they had to do was to look for case number 'two-thousand-one-hundred-and-forty . . . no! fifty . . . five . . . no . . . seven!' only to find it among three hundred other cases, bring it along, open it (without twisting the nails), take the box out the right way and reverse the whole process. The Sherpas could never manage, and there were certainly some who must be doing it on purpose. And Guido would confide his troubles to me.

When the culprit was not to be found among the Sherpas, the inquisition was carried on among the Sahibs, without any more success. Then Guido would come and find me. I knew he wanted a victim, but I was also convinced that I should not be able to solve the mystery. It was on these occasions that I pronounced the magic word, the scapegoat upon which Guido could vent his wrath:

'The S.E.T.T.A.M!'

The S.E.T.T.A.M. was the firm which had seen to the packing and transport of our equipment.

'Yes, of course, the S.E.T.T.A.M. . . . the S.E.T. T.A.M. again! That lot! What do they care if we freeze to death, if we have no boots and can't find our shirts!

They've shoved it all in any old how, just to get rid of it! I shall have something to say to them when we get back.'

The S.E.T.T.A.M. had taken a month to put our freight in order and to draw up the lists, and Guido himself had supervised the packing arrangements. But we were 6,000 miles away, and it was a relief to be able to accuse someone.

Guido was just recovering his composure when the rain started to fall in huge drops, the size of saucers, so that all the equipment had to be packed in again, higgledy-piggledy, as quickly as possible. The Sherpas rushed about without the slightest ill-will, trying to save what could still be saved!

During the distribution organized by Guido — one of the solemn moments of the expedition — there was always one element which defied classification. We had in fact already drawn up and approved the list of equipment to go to the Sahibs on the one hand, and to the sherpas on the other. But between the two was the sirdar Gyalzen, and Guido never knew whether to count him as a Sahib or a Sherpa. I had asked Guido to be 'tolerant', but he did not consider this term sufficiently precise, particularly as Gyalzen's honour and authority were at stake. And besides, Guido must know so that he could 'keep his lists up to date'. Gyalzen was pushed from pillar to post; he was a Sahib for boots, a Sherpa when it came to white shirts (which meant he was not issued with any), but a Sahib again for the peaked cap; sometimes he was both at once, but the organizer of equipment, much to his regret, was never able to determine Gyalzen's status satisfactorily, or to reach a decision that would enable him to face the future with more equanimity.

The distribution was over by nightfall. I had had some difficulty in obtaining a quota of woollen shirts that Guido wanted to put aside in case of emergency, but apart from that the Sahibs and twenty Sherpas were now equipped from head to foot as far as Base Camp.

Meanwhile Bouvier and Panzy were completing our provisions and reaching agreements with the locals with regard to future supplies. Sedoa was our last shopping centre, and we had foreseen that from time to time we should have to send a few special porters down from Base Camp to replenish our stock of fresh food. We were taking with us goats, sheep, chickens and a thousand pounds of rice - enough to satisfy for a few weeks the appetites of the Sahibs, Sherpas and twenty-five auxiliary porters whom we intended to keep with us in the lower part of the Barun valley. Panzy was eager to take a yak up to base camp, where it could be slaughtered, easily preserved and sent piecemeal up to the higher camps, providing us with red meat, the food which we lacked most. But Panzy's yak was like Guido's metchoui, the ice grottoes and the bread oven: they were much talked of but never materialized.

At last everything was ready. On the grey and rainy

morning of March 30th, the multi-coloured procession straggled out along the Barun road.

Just as we were leaving we were visited by the Saddhu, the holy man of Sedoa. He lived like a hermit, somewhere in the scrub, and came before us to implore the gods to be merciful to us in our enterprise. His long, noble face with its very pure Aryan features, his wavy hair and beard, well-proportioned and muscular body, and large slender hands gave him the appearance of a legendary figure. He stood on a prominent rock and, brandishing the trident that symbolizes the Hindu Trinity, he punctuated his incantations by shaking a tambourine, the sound of which was muffled by the mist. Once his exorcisms were at an end he presented me with a sculptured totem, decorated with a yak tail and various trinkets, and a small store of silver rupees an offering to appease the wrath of Makalu, the giant who sleeps for six months, or Kumba Karna, as he is called. I do not know what strange rites the holy man was performing, what peculiar blend of Hinduism and Bhuddism he practised, or the extent of his influence on the free and lively people of Sedoa, but when one is about to leave the inhabited world for many months on end, all blessings are welcome.

Two days later we were camping at a place known as Kumba, a steep clearing some 12,000 feet high on a crest of the huge forest, among the yellow spring shoots and old patches of winter snow. We had rapidly gained

more than 6,000 feet in height and had now crossed the most hostile zone, where last year we had waged a desperate battle against the leeches. This part of the forest is wet even in the dry season, but in the monsoon the vegetation is so dense and tangled and the atmosphere so damp, that banks of mist hang round the tops of the great trees, giving the impression that one is slowly mouldering away in a huge aquarium. All the animals disappear; birds and insects vanish, and even the snow leopard, about which one hears so much, leaves its familiar hunting ground. Only the foul leeches remain, clinging in their serried ranks to the grass, the leaves and the rocks. Attracted by one knows not what imperceptible vibrations, they stretch out their mouths, hungry for blood. They catch on to one's boots and clothes, or drop off branches, and once they have found the skin, they make a small star-shaped wound which bleeds incessantly. Their technique is so perfected, their attack so insidious and their bite so painless that one is not even aware of them. Last year we suffered a great deal from them, particularly in the early stages. Then a counter-attack was organized. Some of us put on special leggings, tied to the ankle, and an anorak made of some very closely woven material that was highly efficient. But in this attire the heat became unbearable. Others preferred to walk half naked in groups of two, guarding each other and stopping frequently for close inspections. We covered the more

exposed parts, especially ankles, thighs, wrists and necks with numerous different ointments with which Guido had armed us, and the results were in the main satisfactory. The only really effective system had been to let the Sedoa men go in front. They were less protected, but also less sensitive — or so we told ourselves to ease our consciences. I must admit that we were so disgusted by the filthy creatures that sometimes we were obliged to resort to this method, particularly in the denser parts of the forest.

This year, however, the spring drought was our surest ally, and the few leeches we met with had lost their virulence. Only our doctor, who declared that they horrified and revolted him, was obliged to do battle with a few.

Nightfall is the time when the greatest caution must be exercised. A careful inspection of the tent and all one's possessions must be made, lockers searched, sleeping bags turned inside out and all corners examined closely; anything suspicious must be ejected from the tent. Once this has been done, all openings must be closed. Only then can one sleep peacefully — except for leech-haunted nightmares. As an added precaution Lapras used to spray the tents liberally with one of those omnipotent insecticides, described as infallible: their only known effect was to induce the most persistent coughing fits. Showering imprecations on all the lower orders of the animal kingdom, and almost on

the verge of asphyxia, our doctor himself was obliged to leave his tent and get some fresh air. And it was naturally at this moment that the ever-watchful leeches made the most of his mistake. The whole process had to be repeated while we proffered advice from our carefully sealed and de-contaminated tents near by.

Our camp looked impressive that night pitched in tiers on the terraces of the Kumba clearing and surrounded by straggling mists. The kitchen and messtent were pitched on the upper tier, while our tents occupied the lower shelves. Da Noo had pitched mine a little way off, on a small grassy hillock near the impenetrable forest, and I complimented him on it.

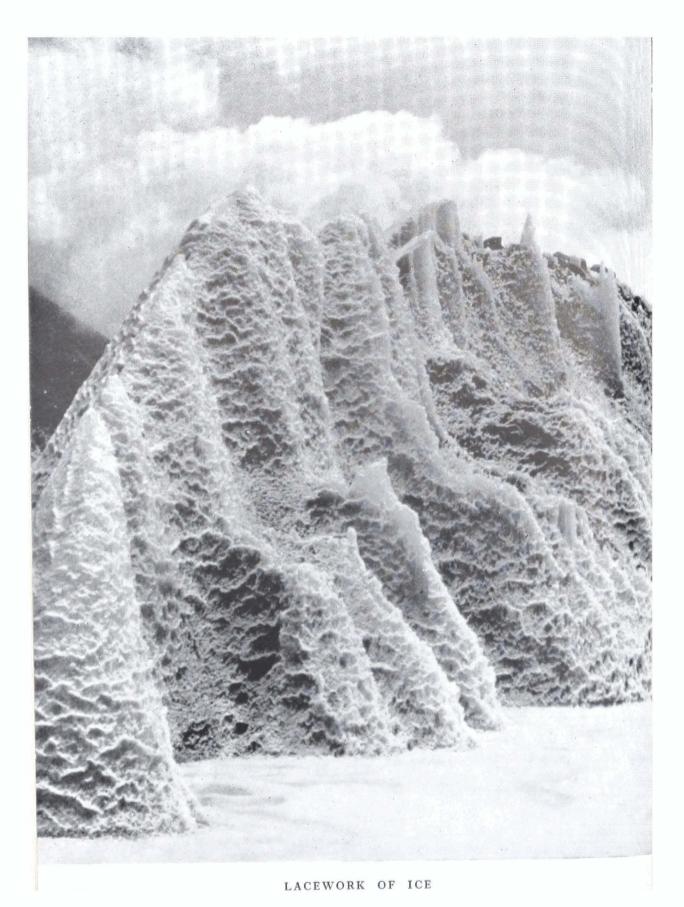
Then the temperature dropped; the fine rain which had been falling changed slowly to snow, and for the first time we wore our down jackets for the evening meal; this climate suited us far better than the torrid heat of the Arun valley, but we did not realize that it was to last for many long months. The conversation was lively; we knew that on the following morning the least persevering of the Sedoa porters would refuse to go any further.

Then someone happened to mention the Abominable Snowman. We soon realized that none of us knew very much about him, and that what we did know was only hearsay. We decided to ask the Sherpas and we invited Gyalzen and others from Sola Khumbu to our *French tea*. They all affirmed that the Yeti was not just a

legend, but that it frequently raided the valley of Namche Bazar. The Buddist monks of Thyanbochee were purported to have a Yeti scalp with a low forehead and long hair. None of our men said they had seen the terrible beast, but they all claimed to have heard it in the forest, and Gyalzen gave an imitation of its strange grunt, a sound that was more human than animal. Just then the Sherpas fell silent, listening open-mouthed, and a shiver went down our spines. Kindjock, who could not be said to be particularly impressionable or gullible, told us that he had once seen one as a boy, when he was guarding a herd of yaks in his native valley. Running upright on its two hind legs the Yeti chased the smaller yaks that had been lagging behind; Kindjock was so frightened that he did not wait to see more, but ran off as fast as he could.

From these accounts it appeared that the Yeti is neither bear nor monkey; all the Sherpas were positive on that point: the Yeti is a giant with a hairless, human face, long hair and a furry body; he lives in the thick forests, and comes out only at night, which would explain why one has so little chance of seeing him. He is prodigiously strong, can kill a yak with his fists, rips off their hides with his nails and devours the flesh while it is still warm, leaving a few steaming remains. He is apparently not averse to human flesh — not very reassuring. I remembered then that Ang Tharkay had written to me last year at Base Camp, telling me that I





ought not to let messengers go alone between Barun and Sedoa. At the time I had not understood Ang Tharkay's reticent manner, but now it was all becoming clear.

The conversation lasted long into the night; outside a mixture of snow and rain was falling and as we went back to our tents we fancied we could hear the sinister cry of the Yeti. I began to think it rather odd that Da Noo had pitched my tent so far from the others and so close to the forest.

It froze hard in the night and the next morning it was still very cold. Heavy smoke from the camp and great shreds of mist rose slowly and evaporated. The porters had some difficulty in getting started, a bad night on top of the previous day, which had ended in deep snow, had worn them out. Nearly fifty of them wanted to give up, and asked to be paid at once so that they could get back to Sedoa as quickly as possible. With Gyalzen as my interpreter, I tried to bargain with them: there would be a special baksheesh for today's march, and a further bonus of two rupees would be given to those who went over the pass; as well as this, we would distribute boots to all the barefooted porters. Only a certain number were persuaded by these arguments, and in the end thirty-three loads were left there. The men of Sola Khumbu would come back later from Base Camp to fetch them. Sixty pairs of boots were quickly given out, without being tried for size - a method which led to some startling results. But soon

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the caravan was on its way, with the Darjeeling party in front, the men of Sola Khumbu in the middle, and the weary Sedoa men at the rear.

Another wearing day followed, in the cold, the mists and the snow. There was so much snow on the Kumba passes that the laden men fell up to their waists into holes and had to be helped out by the Sherpas. Two sheep, which the Sherpas had been dragging along in this icy waste, died of fatigue and cold. The efforts made by our exhausted but persevering men surpassed all that we had witnessed hitherto. We somehow managed to cross the passes, and we pitched camp that evening at a height of about 13,000 feet, facing the Barun valley.

It was a bivouac reminiscent of the retreat from Moscow. As soon as the porters arrived they dropped down into the few rhododendron bushes that were not buried in snow, having neither the energy to prepare a meal nor to light a fire. The hardened mountain folk of Sola Khumbu had not suffered much, and the Darjeeling party, which was better clothed, gave us no cause for anxiety. But the Sedoa men made me fear the worst for the night; they had no sort of protection, and were half naked, with their arms and legs exposed to the air. An icy wind rose and the temperature fell rapidly to less than 14° Fahrenheit. Guido got out all the available canvas, and in particular four huge tarpaulins which we had been keeping for our permanent quarters at Base Camp. I sent the Sherpas to light the fires themselves and to see that everyone had some sort of shelter. Before getting into our tents for the night, Gyalzen and I went the rounds of the camp. It was an extraordinary sight. Almost naked, the men were huddling together in groups of ten or fifteen in the thickest parts of the rather scant undergrowth, with the steam rising from their bodies; an awning covered the whole and the stench was unbearable. When Gyalzen inquired how they were faring, smiling faces would appear and with flashing teeth would answer simply: 'Ah chah!'

Although taken unawares by the height of the col and the hard day's march, our doctor comforted the sick and suffering as usual, and attended to toes that showed signs of incipient frost-bite. But the news he had to give us about our liaison officer was far from reassuring.

Bhola Sing, by profession a secretary at the Khatmandu library, was attached to the expedition by the Nepalese government and had joined us at Biratnagar. He was to come with us up the Arun valley, both on the way out and on the way back, and it was agreed that he should wait at Base Camp while we were climbing. He was a rather delicate looking young man of five and twenty, not at all athletic and obviously out of place in the rough life of our expedition. His mission was to help our relations with the local inhabitants, to contact village authorities and obtain the necessary recommendations for the recruitment of coolies or for

the purchase of supplies. In actual fact we had no difficulties whatever, and it must be said that Gyalzen and Kindjock were men of far greater ability.

Ever since we had started up the Arun valley we had been worried by Bhola Sing's health. He was very preoccupied about it himself, came to see the doctor every evening, was for ever feeling his pulse and asking for all sorts of medicines, especially vitamins; he was the perfect example of the malade imaginaire. He had been worn out by the march through the forest, and the Kumba passes were almost too much for him. As soon as he reached camp he lay down, showing signs of collapse – feeble pulse, shivering fits and nausea. He had never had much stamina and was now getting weaker and weaker; it was obvious that his condition would only deteriorate as we gained height. How could he possibly survive a prolonged stay at Base Camp? And how were we to get him back from the Barun valley if he got any worse? Gyalzen, Lapras and I held a rapid council and decided to send him back straight away. In the morning the cold was keen, but our porters were up early: the night had passed without mishap. But Bhola Sing was in a very bad way and refused to take any food -a bad sign, as that was the one thing he never refused. Lapras was of the opinion, however, that given a strong escort, he would be able to go back over the passes. When we went to see him he asked for permission to turn back, and to send a letter to the

Foreign Minister at Khatmandu, giving the reasons for his return. We agreed at once.

I chose two very strong looking men of Sola Khumbu; Gyalzen remarked that they could each have carried two liaison officers. With this comforting escort we recommended him to the policeman of Etane, with the request that the two porters be sent back, for I wished to keep them with me, and someone else found to take Bhola Sing on to Biratnagar. This seemed the only solution to a problem which might have become really acute a few days later.

Not long after this incident I had a letter from Couzy, of whom we had had no news since leaving India. Operation Rangoon had been successful and the oxygen had arrived at Biratnagar. The second contingent formed at Dharan was advancing in forced marches, had crossed the Tamar on March 27th and was following five or six days behind. We were overjoyed at this news, for which we had been waiting a long time, especially as it told us that Coupé, who had been very run down by stomach trouble at Dharan, was now much better. It was the first of April.

The passes that we had feared so much and which had taken an American party a week to cross the year before, now lay behind us, the oxygen was well on the way, and the Barun valley lay at our feet. At last we should be able to think of Makalu. 4

At the height of Mont Blanc

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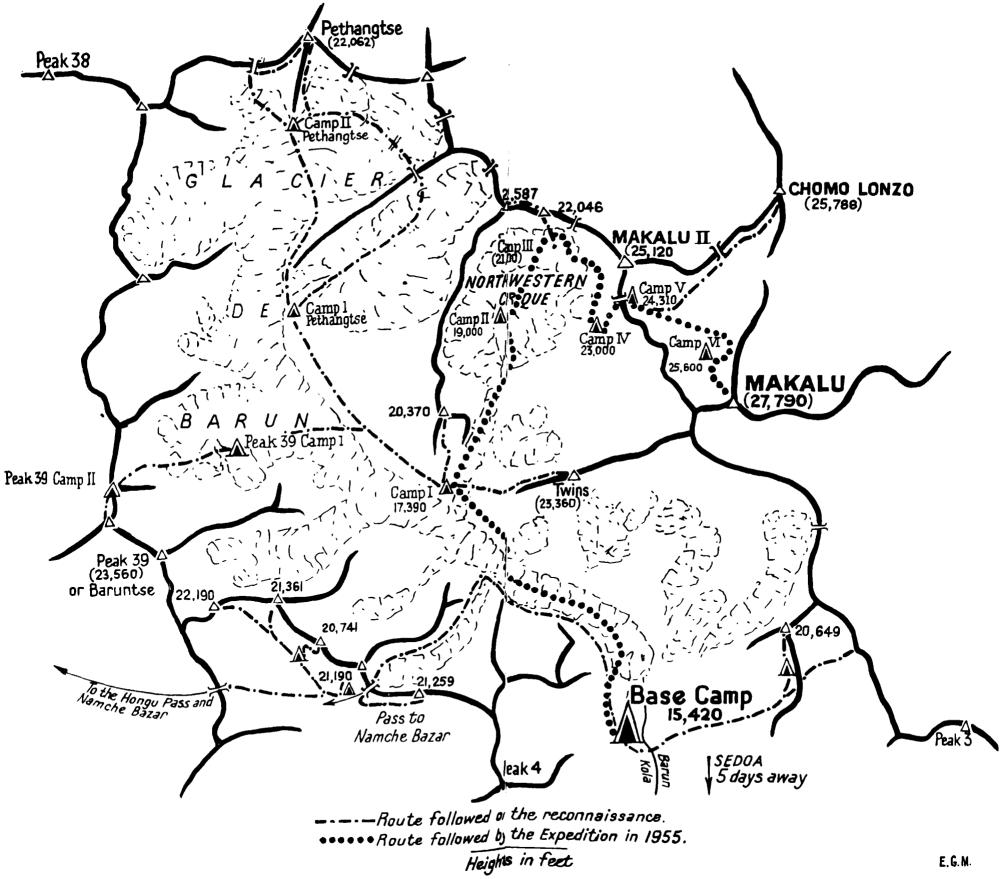
A the height of 15,800 feet, the culminating point of the Alps, the great Himalayan ranges are only just beginning. The Barun river flows from the snout of a glacier which lies buried beneath a mound of scree several hundred yards across. The stony bed of the torrent widens while moraines rise up on all sides, mountain high, where the meagre vegetation, consisting of short grass and dwarf heather, does its best to contend with the rigours of the climate.

At 16,500 feet there are no longer any traces of life. Rock and ice combine to form steep walls that soar up through the clouds to touch the skies. Towards the south, above the Chamlang glacier, the long ridge of Peak 6 rears its sharp ice needle like some giant Weisshorn. To the east, above the rounded scree slopes and the shapeless jumble of rocks, the bastions of Peak 3 lift their icy cupolas to the rising sun, opposite the amazingly precipitous face of Peak 4. The vertical cliffs of the latter are crowned with hanging glaciers and furrowed by avalanche tracks, and they looked so high and so strange with their lacework of snowy cornices that it was hard to believe they would not all come tumbling down.

Towards the north, behind the monstrous moraine, Makalu towered up sheer and smooth and compact for some 13,000 feet, its base gripped in ice, its bergschrund gaping. High up in the sky, higher than any of us could have imagined and crowning the whole gigantic edifice, was a small storm-swept triangle of snow, where one day, perhaps, we should stand.

A year ago scarcely anyone had heard of a mountain called Makalu, 12 miles from Everest. Only the initiated few had noticed on the rough map of eastern Nepal the three strange sounding syllables that stood for this 27,790 foot giant. During their reconnaissance of Everest, in 1921, the British had been impressed by the massive walls of ice rising on the Tibetan side above the smiling Kama valley; indeed they were so impressive that the peasants thought Makalu was the highest mountain in the world.

The few photographs that we had of the Nepalese side had been taken on the British aerial reconnaissances of Everest. At the meetings of the Himalayan Committee we had been able to study the mountain's upper ramparts, which were far from negligible, but so far we had never been able to see the lower sections because



of the great height of the subsidiary, smooth rock faces that rise above the Barun glacier.

It never occurred to us that routes might one day be made straight up the stupendous cliffs on the south and east. It was obvious that one would have to make either for the north-west frontier ridge, or for the opposite ridge running along the south-east frontier.

The north-west ridge runs down from the summit of Makalu to a col 24,310 feet high, between Makalu itself and Makalu II, a subsidiary summit lying more to the north. At a height of 25,262 feet the ridge rises abruptly to form a vertical and unclimbable rock step over 1,000 feet high. From the photographs the top section of the south-east arête looked possible, but we knew nothing of its lower and middle sections.

Choosing between the two ridges, studying the possible means of approach from the Nepalese side, locating the difficult sections higher up and working out how to overcome them, had been the main objectives of the French reconnaissance expedition.

When we first came to the Barun in the spring of 1954, there were two other expeditions in the district. The Californian expedition led by Dr. Siri was attacking Makalu from the south-east; they reached an ice col at a height of about 20,700 feet on the south-east ridge between Makalu and Peak III, but were unable to go higher than 23,000 feet on the ridge itself because of technical difficulties and bad weather. The New

Zealand expedition led by Sir Edmund Hillary had explored the upper Arun and made a number of ascents in the district, and had reached a height of 23,000 feet on the western side of the Makalu Col. A serious illness prevented Hillary from going as far as the col, which did not seem to present any insurmountable difficulty.

This was the only information we had when we saw Makalu from close to for the first time, in the middle of September 1954, just as the mountain was emerging from the last of the monsoon clouds. The south-east ridge with its rocky towers looked like several Grépons placed one on top of another, separated by huge cornices, and the long horizontal section in the middle seemed virtually impossible. An ascent of a 20,700foot summit on a buttress of Peak III confirmed this impression. No! A Peuterey ridge on a Himalayan scale was not to be thought of at the present stage of Himalayan climbing. Gyalzen said that it would need fifty Sahibs, two hundred Sherpas and ten years to get up it! And we decided unanimously to look elsewhere for a route.

On the other hand, the reconnaissances we made in the direction of the upper Barun enabled us to examine the possibilities of a route in the north-west sector. During this wonderful Himalayan autumn we had the good fortune to climb eight peaks of between 20,000 and 23,000 feet, and to see Makalu from various different angles. Then, following Hillary's

route up the north-west glacier cirque we put up a series of camps, and on October 15th Jean Bouvier and Pierre Leroux made the first ascent of Makalu Col. In spite of extreme cold and wintry winds, we were able finally to go beyond the col and climb Makalu II (25,120 feet), and Chomo Lonzo (25,640 feet), the latter in particularly difficult conditions. From these remarkable vantage points, facing the northern side of Makalu, we were able to observe the mountain's last defences; the north-west ridge seemed unclimbable because of the huge, unavoidable 1,000-foot step; but the north face itself appeared to offer possibilities for climbing the last 3,000 feet.

Roughly then our route was already planned.

At the beginning of April 1955 it was not the question of the route that preoccupied us, and though we looked up at Makalu from time to time, we had already decided that we would lay siege to the mountain in an orderly fashion, and that the first objective was to establish ourselves firmly at the foot of the mountain amid these stony wastes of scree.

Once again we had chosen to live and hope for two months in the wild and inhospitable Barun amphitheatre, and we decided to pitch our camp as low down as possible.

We were well acquainted with this god-forsaken spot, having been there at all times of year from Sep-

tember to November and from April to June, and the long weeks that we spent in the vicinity of Base Camp enabled us to appreciate fully the harshness of the climate. Only during the very short summer that accompanies the monsoon does the temperature rise to about 32° Fahrenheit, then there is an enormous precipitation, either of rain or snow, and long periods of mist with very few sunny intervals. Above a height of about 17,000 feet it never rains. During the wet season the clouds accumulate in great swirling masses along the crests of the huge cornices; and every day they avalanche down the couloirs, gouging in the steep flanks of these comparatively young mountains innumerable parallel furrows that look like organ pipes - formations which are unknown in the Alps and which seem to be restricted to the great tropical massifs.

Then autumn comes, towards the middle of September. The deluge of the monsoon is followed by permanently blue skies. The hot sun soon clears the mountains, and while the last of the loose snow came thundering down, we in Base Camp were able to enjoy a few delightful days amid thickly growing grass and many-coloured short-stemmed flowers. But it was already getting late; the temperature fell rapidly, and the night frosts soon put an end to the flowers, springs dried up, and by the end of October the precocious winter had already set in; icy winds from Tibet howled

down the Barun, bringing desolation and death in their train. High up, dry storms, amazing in their violence, tore up the snow; on the high cols ice appeared, green and gleaming, ceaselessly polished by the winds which swept the snow off the ridges in long clinging plumes. Lower down all was frozen over, and the waterfalls were clad in heavy robes; the merciless winds of central Asia had swept everything bare.

It was still winter when Guido and I arrived at the head of Barun Khola on the grey morning of April 4th. The stream was only a thin trickle of water that ran lifeless between banks of ice. The golden swards which we had left behind a few months before had taken on the indeterminate colour of mist and snow, and bitter winds blew continually over the moraines.

The problem of how to get water was now particularly difficult. The previous year, higher up on a shoulder above the thalweg of the glacier we had found a wonderful place, sheltered in a hollow behind an old moraine at the bottom of the last steep rocky slopes of Peak IV, where there were flowers and a clear stream. We decided to go and have a look at it, more from a wish to relive something of last year's happiness in our haven of comfort than with the hope of being able to put our camp there this year. Our fears were justified; among the broken packing cases winter had wrought havoc with our former paradise and there was not the slightest sign of water. We sat down near the cache

where we had left a lot of equipment; it was all there, but life in this place would have been impossible. We were so depressed that we were speechless for some time, and hardly noticed the eddying snow on our faces; at last we turned back slowly and regretfully towards the lower camp.

It is of the utmost importance that a Base Camp should be made as comfortable as possible and we had always agreed to spare no pains to achieve that end.

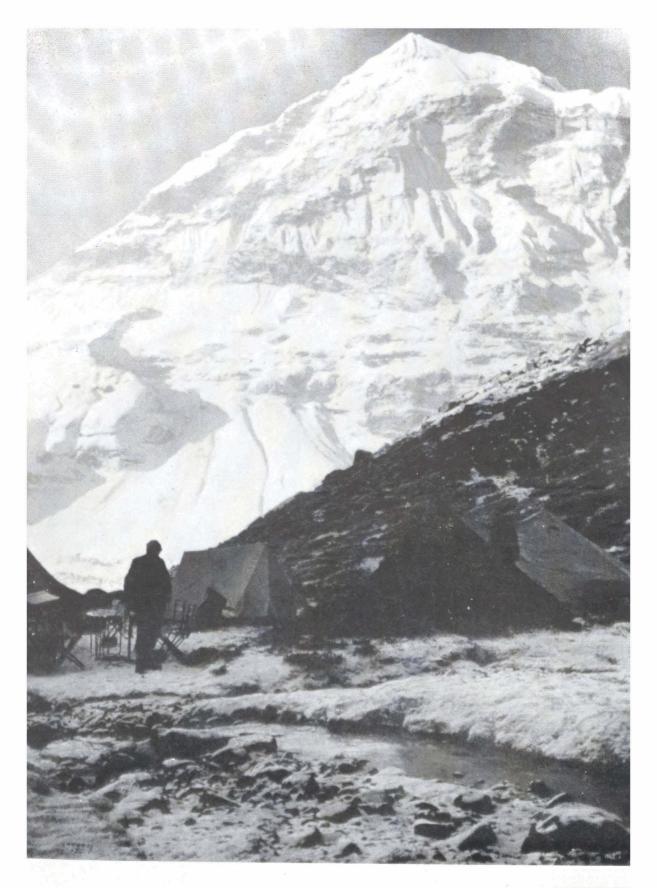
Firstly, for our sleeping accommodation we had our two-man valley tents which, with their triple roofing, offered good protection but were at the same time fairly light. They were so strong that we were able to use them later right up to Camp III. The communal tents were grouped together in the middle of the camp and consisted firstly of Panzy's kitchen-shelter which was hollowed out of the ground and covered with two tarpaulins supported by bamboo poles; the place was filled with dense smoke the whole day long and, in spite of the pleasant warmth, it was rarely possible to stay there for more than a quarter of an hour. Secondly, there were our two enormous mess-tents, one of which was reserved for the sorting of equipment, while the other was used for food storage.

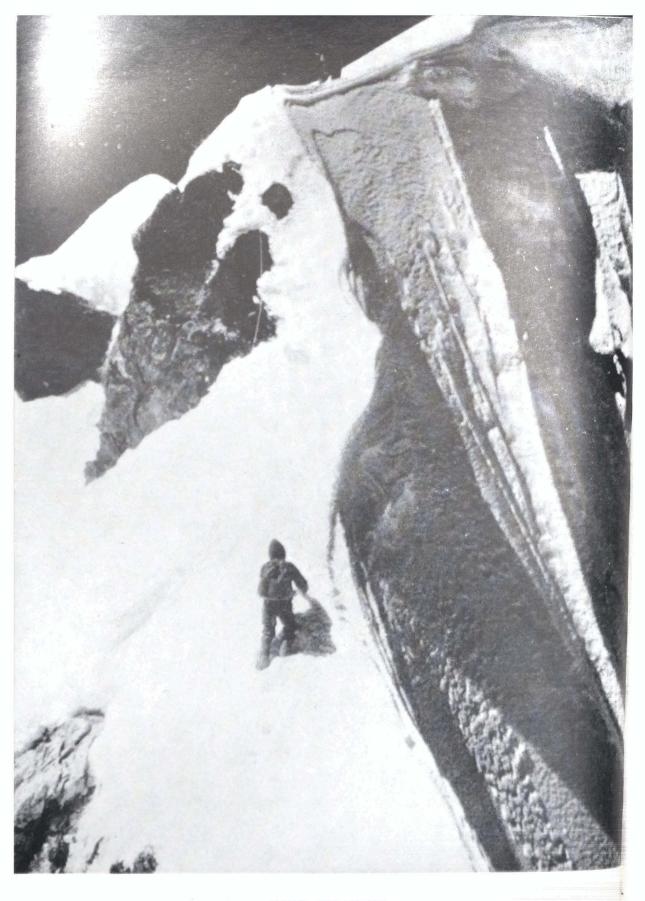
Against the slope of the moraine we built, in two days, a shack with thick walls of earth and stone, and a

strong canvas roof. Pierre Leroux, the odd job man, whose remarkable ingenuity was every day more apparent, turned it into a real little mountain hut. At the back a chimney was made with large blocks, with an impressive slab for a shield, while the chimney pot outside consisted of two tins telescoped into each other. Their position could be changed at will so that the fire drew perfectly. We used this 'Makalu Hotel', as Gyalzen called it, as a dining-room and a living-room, but not one of us could possibly guess that one day Lapras, the doctor, would turn it into an operating theatre! Various shelves were put in to complete the furnishing. At the entrance the architect had signed his name on a thick green canvas.

At the other end of the camp the Sherpas put up their tents and also built shelters with the oddest assortment of materials. We wanted them to be as well protected as possible, and Guido provided them with camping equipment similar to our own, including those excellent partitioned, down sleeping bags, so long and roomy that even the coldest nights seemed cosy.

Our party was reinforced by thirty auxiliary porters whom we wanted for carrying over the lower sections. They were chosen from among the toughest men of Sola Khumbu and Darjeeling. Gyalzen and many of the Sherpas wanted us to keep a few Sherpanis, who were obviously very courageous and as strong as the toughest of the Sherpas. But I preferred to run the





expedition on a basis of equality right from the start, especially as we had observed during the approach march that our Sherpas, who were enterprising in all things, were by no means insensitive to feminine charms. Since there would doubtless be numerous problems in the coming two months it seemed better not to add to them. Mrs. Gyalzen, our sirdar's wife, was the only exception to this rule.

She pleaded her cause so fervently that I finally gave way. Her marriage was at stake. Not during the expedition, for she knew that Gyalzen would have other worries. But it had happened before that victorious sirdars home from expeditions and basking in glory, had felt that they must establish their prestige irrespective of their marriage vows. Witness the sirdar who, not very long ago, had come back to Darjeeling with a second wife, as lawful as the first. Mrs. Gyalzen was a firm believer in monogamy and was intelligent enough to realize that her presence was the best guarantee. From then on she was allowed to work in the kitchen with Panzy, and we had no cause to regret it.

The porters' accommodation was rougher; we gave them as much equipment as we could spare without, of course, using anything that we were keeping for use later at higher altitudes. But after a few days, thanks to the old pieces of tent canvas and other odds and ends left over from the autumn camp, and by dint of much ingenuity and possibly a few nocturnal raids to which

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we turned a blind eye, everyone was soon comfortably settled in.

The first few days at Base Camp were very tiring. After short sunny intervals in the mornings which gave us the impression that spring was coming, the clouds would rise up from the valley and a thin veil would stretch across the sky. Then the wind would begin to whistle over the moraines and the snow would fall, so cold and so fine that it penetrated everywhere. At night the temperature often fell well below freezing point. We had payed off the men of Sedoa as quickly as we could so that they could get home, for they still went barefoot and barelegged. The last stages in the Barun had considerably reduced their numbers and sixty loads had been abandoned at a day's march from Base Camp by the exhausted porters. But the auxiliary porters worked wonders and set out to prove that we had been justified in choosing them. The loads were all recovered in two journeys, and on one of these one man carried a load weighing 155 lb.

We got our supplies of fuel from Yamle, a clearing in a forest in the Barun valley. On the way up the journey had taken the heavily loaded caravan two days; but on several occasions our porters managed to do the journey there and back in the same day — a really remarkable feat.

Towards the end of an afternoon rather more dismal than most, while the snow swept into great drifts

against the tent walls, we heard that some men had been sighted far off coming up the now well-worn track from the valley. It could only be the oxygen porters. One load and then another appeared until we could make out ten through the binoculars, and soon the red sweaters of Couzy and Coupé came into sight. We welcomed our friends joyfully and that evening at the opening of the Makalu Hotel we drank a bottle of rum to celebrate the happy ending of 'Operation Rangoon'. Couzy and Coupé were inexhaustible and told us how, after numerous detours, they had managed to cover the distance from Dharan to Base Camp in eleven days, by doubling the stages and insisting on the maximum effort on the part of their fifty-five porters.

Couzy had been absolutely adamant and had beaten all records. By agreement with Eyla Namgyal, his Sherpa, he had instituted a system of bonuses that would have been worthy of our Civil Service. He took into account the usual tariff, the average time allowed — fifteen days for each day that was saved and numerous other factors that were condensed in a formula of this type: 'P = f (x,y,z,t)' in which 't' = time. Whether it is a question of weeks or minutes, everything with Couzy is expressed in terms of time. His calculations on this occasion had been amply justified and though he alone could understand them I had to admit that the oxygen had arrived only two days after us, and had not cost us any extra!

Coupé had finally managed to get over his stomach troubles. And that evening, apart from Bordet and Latreille who were wandering about the Lower Arun gathering material for their geological theses of the Himalaya, we were all together once again, and conversation never flagged. Couzy was full of praise for our comfortable accommodation and an agreeable evening was spent by the fire.

At this height a mountaineer who is in training can lead quite a normal life, and though he may get a little short of breath and a little slow over manual work, his appetite is normal and sleep comes easily. Those of us who had been on the reconnaissance expedition felt really on form. When we all set out together to climb a small point, 18,700 feet high, in the direction of Peak III, we were pleasantly surprised to find that the results of our acclimatization last autumn had not worn off, in spite of a tiring winter of feverish preparation in Paris. In a few hours we were certainly moving at a good Alpine pace, whereas the previous year a similar climb from Base Camp would have taxed our strength considerably.

On the other hand anyone, even in the best of health, finding himself at a height of 16,000 feet for the first time, is sure to feel a little queasy and lacking in appetite; in a few days he will find difficulty in breathing, and may even suffer from sickness and migraine. It only lasts two or three days but it leaves a feeling of

apprehension and the fear that one is not made for heights, a fear which lasts until one gets above the 23,000-foot level. And, as Coupé remarked, for a man who has been chosen to go on a Himalayan expedition, not to be able to go higher than 23,000 feet is a trifle disconcerting, to say the least.

Lapras, one of the youngest among us, was particularly affected by height on this, his first visit; he was laid low for two or three days, during which he was halfasleep and as sick as a dog. To distract him I told him about the miseries we had endured during the first week at Base Camp in the autumn. We had been there for some days and most of us had valiantly overcome the initial shock. Then in the night, I would suddenly wake up breathing stertorously, unable to sleep and feeling that I must get out all costs to fill my lungs with air. In the day-time it was all right and I did not mention it, but the following night I woke up again, gasping for breath, my mouth open, like a fish out of water, on the verge of asphyxia. The next morning at breakfast I spoke to my friends about it and explained to them that I must be suffering from asthma and that they would not be able to count on me for the next few days.

'What, you too?' asked Guido. 'For three nights I haven't been able to sleep, and I'm sure I shall suffocate in the end.'

'It's quite unbearable,' agreed Bouvier. 'Every night it feels as though the tent was completely airless.'

I was so relieved by the fact that my friends felt as I did that I could have kissed them. It is very comforting to know that one is not the only one suffering from asthma!

At such times we were very anxious to have the doctor's advice, but he would be feeling just as ill, if not more so, than the rest of us. We all observed each other closely, watching our diet, appetite and behaviour, on the look out for the least sign of trouble and getting worried for no reason at all. In the day-time, when one has to make an effort, one does not think about it so much, even having the impression of being quite normal again. But the fear of falling ill for good is so persistent that one can never be absolutely certain. Someone capable of eating the most indigestible food the night before a climb in the Alps would suddenly tind his stomach turning at the idea of milk and chocolate. Another would feel his pulse every morning. Lapras was bombarded with questions and every day he gave us a medical lecture, pointing out the attendant symptoms of the illnesses that lay in store for those with coughs, digestive troubles, migraine, pains in the knee, and those who could not get enough sleep or who got too much. Then, following an era of defensive medicine, came an era of preventive medicine - an era of pills and tablets; sleeping pills, waking pills, pastilles for the throat, mouth, stomach, pills to help regulate the bowels, the liver or the kidneys, magic pills

of all kinds! The graph of the total amount consumed daily showed a rapidly ascending curve until the day when our medicine chests had all been ransacked and no more supplies were to be had. Lapras could do nothing but try to save a few remains for the first-aid kit. We grew resigned, especially those of us for whom this was the second trip to the Himalaya, and who attached less importance to all these questions; we had learnt that one had periods of fitness and periods of depression and that the slightest indisposition meant that one could do nothing at all while it lasted, but we knew too, that there were also sunny mornings when life seemed worth while, when the mountains were more beautiful than ever and when one was filled with a sense of well-being.

On the strength of past experience acquired during our autumn expedition, and the conclusions of Dr. Rivolier, we had agreed to give an important place to acclimatization and, taking into account the time limits imposed by the climate and porterage, we drew up a plan in accordance with the decisions made during the winter. May 15th seemed the earliest date on which we could attempt to reach the summit itself, which meant that the advance base at Camp III, at a height of 21,000 feet, would have to be fully established by May 5th. Thus we had almost a month in which to finish our last preparations, to acclimatize and to carry equipment up to the glacier plateau of the western cirque. These

three operations were carried on at once; we made use of our individual talents, often compromising between very different points of view, but we all had one idea in mind; to get up Makalu under the best possible conditions.

Makalu was not visible every day, and most of the time its summit was wrapped in clouds or swept by winds of unchanging violence. The snowfalls continued, and indeed increased in number as the average temperature rose.

The climatic conditions in this part of the world, subject, as it is, to the violence of the monsoon, and altering considerably with height, baffled us on several occasions. Not long after our arrival at Base Camp I had sent our auxiliary porters, with Kindjock in charge, to recover the loads that had been abandoned at the Kumba camp, and at the same time to go down to Sedoa to stock up with provisions. That same evening I learnt from Kindjock, at Yamle, that snow was falling thickly, and was already more than 3 feet deep, so that it had become not only dangerous but even impossible to attempt to reach Sedoa. And yet at Base Camp, some 3,000 feet higher, the daily fall of snow was rarely more than about 4 inches. But we had to admit that 12 miles away in no man's land the conditions were quite different, either because the temperature was relatively lower, or because the proximity of the forest made the atmosphere damper. This

explained why Makalu was almost always so dry, and why our mail would have difficulty in getting beyond the Barun. We were literally cut off from the world. We congratulated ourselves on the decision taken with regard to our liaison officer, for return was now impossible.

The idea of being so isolated pleased us greatly and it was a deep satisfaction for those who had taken part in the organization of the expedition to know that we were safe, and could live and work comfortably and even enjoyably in really bad conditions.

Guido had taken his place once again in the mess-tent reserved for equipment and was making a final distribution both to Sahibs and Sherpas so that he would then, as he said, be 'left in peace'. He was also busy making up loads each containing enough camping equipment and supplies for a two-man team, and which were to be used for higher camps. These loads, which we called 'altitude units', contained a special tent, sleeping, cooking and heating equipment and various other items. Once these loads were packed we should be spared the necessity of constantly handling equipment, and we should not be able to forget anything. This system, which we had used in the autumn, and had now simplified, was to prove entirely satisfactory. Then came the checking over and sorting of all the climbing gear - fixed ropes, light ladders, pitons, stanchions, hemp and nylon ropes. All this was sorted into various different types of rucksack.

Besides being responsible for filming, Terray also helped Bouvier with supplies. All our containers were examined, emptied, listed and sorted out strictly according to plan. On the one hand there were the rich and varied foods which we were to use up to Camp III, and on the other hand the more condensed and carefully chosen high-altitude rations comprising one two-man pack for two days. This was the simplest system for it meant that we no longer had the tiresome business of preparing loads and menus at the higher camps. Besides this, Lionel had put aside special cases containing various delicacies for each party to dip into at will and so vary an otherwise rather monotonous menu. And lastly, anything that did not belong either to the rations or to the luxury boxes was labelled 'hotch potch'. Nobody really knew anything about this item except perhaps Couzy. It provided the raw material for his numerous gastronomical innovations.

Couzy's special task was to see to specialized equipment. He adjusted the pressure of the oxygen cylinders, saw that the valves were working properly and distributed masks and regulators. The latter were disappointing; they had been made hurriedly between the two expeditions and were often faulty. Couzy tested them one by one, gauging the flow and eliminating the doubtful ones. Then Guido got hold of these, took the complex mechanism to pieces and, much to everyone's surprise, managed to put them together again in

such a way that they actually worked quite efficiently.

It was not the first time that Guido had given proof of his ingenuity, but it was the only time we appreciated his efforts unreservedly. His treatment of the heating and lighting apparatus had left us with a somewhat unfavourable opinion of his talents, and it became a generally accepted fact that anything Guido touched was done for; if, as was frequently the case, anything worked as it should, we used to exclaim with one voice: 'Don't let Guido get at it.' This was sheer calumny, or perhaps just the facile humour of men whose brains had begun to soften with the height. The proof that we were being unjust lay in the fact that he had managed to improve the oxygen masks. Was it not Guido also who had the brilliant idea of adding a second valve to increase the intake of air, and who had made a valve in a trice?

At one time we were very preoccupied with perfecting and trying on these mechanical devices, adapting them to our variously shaped noses. The shapes of some of our noses had obviously not been taken into account by the aeronautical engineers, but by dint of sticking and glueing we contrived to make the masks wearable, and left the rest to chance.

Each one of us worked hard in his own sphere, according to the general plan, which was to make up uniform 55-lb. loads of food and equipment to be carried up to Camp III, 45-lb. loads to be carried to the

23,000-foot level, and 35-lb. loads for higher altitudes. These weights correspond roughly to the Sherpas' average carrying capacity at these heights. Each load was given priority for its subsequent transport. It was Vialatte, who, with the help of Leroux, was responsible for transport and who had to give Gyalzen orders for the carries.

Gyalzen and his twenty-five Sherpas were responsible for the rest. We often invited him to join us by the fire in the evenings, especially when we had an important decision to make. For the moment our plans were simple enough during this preparatory stage; we had to carry up to Camp I everything that was not essential in Base Camp. In the first few days the Sherpas and auxiliary porters had already carried up all the oxygen. The rest would have to follow by April 23rd, when we hoped to move up with the whole team, Panzy cook and all. For Gyalzen our plan of campaign was reduced to a very simple formula of loads, man-power and time. He knew that above all Makalu meant a long spell of carrying and that the most important task must be performed by his men. Gyalzen understood everything, asked questions and kept us informed of the Sherpas' state of health. When he said 'all right', we could be quite certain that there would be nothing to worry about.

In the course of these preliminaries twenty to thirty men set off every morning along the huge moraine

leading to Camp I at 17,390 feet. It was an unpleasant and tedious route that wound in and out among the loose blocks. The greatest of Alpine moraines would look like a heap of stones by comparison with the lifelessness and dryness of this lunar world.

At first the weather was not favourable but only once did we have to interrupt the carries, and that was on account of fresh snow which made the track impracticable. Then conditions slowly improved, the cold grew less intense, the wind less keen, the hours of sunlight more frequent and the temperature warmer. Sometimes we were even able to breakfast in light clothes, and at such moments we could enjoy the extraordinary view amid a world of hanging ice-cliffs that shone in the rising sun.

Each of us went on with his own acclimatization as he thought fit and as his health dictated. Couzy had explored a gneiss cliff, 150 to 300 feet high, overlooking our old Base Camp, and had made a number of Severe and Very Severe routes up it. He succeeded in tempting most of us on to this cliff, including Gyalzen. When he came back from his training ground he would say that it must be the first time that any serious climbing had been done in the Himalaya, at that height roughly 16,500 feet — and this naturally gave rise to the most heated discussions.

Terray and Bouvier, who had persisted methodically in their obscure task of wholesale grocery, only went out

at nightfall. They could then be seen following the initial moraine, each one going off on his own. And if their speed never seemed to increase much — in the Himalaya there can be no question of going fast — they at least were able to observe that the first thousand feet or so were daily growing easier.

My favourite pastime was to wander over the moraines hunting what little game was to be found at this height. Since there were no bharals - they had been seen several times lower down - nor any of the famous fierce white snow leopards, I had to fall back on a few coveys of Ram Chukor which lived there. They were remarkable creatures, rather like Alpine partridges, but much fatter, with short wings and long legs, better suited for running than for flight. Their average weight was 3 lb. but several of them weighed as much as 4 lb. Through sheer perseverance, Pierrot Leroux and I managed to get to know their habits and their favourite haunts and we evolved a system which slowly made up for our initial lack of success. We would go along in single file, guns trained on some hideout we knew of; then one of us would go ahead, towards the foot of the gullies. Surprised, the birds would rise up in a line with the slope, their wings quivering and their necks stretched out, hopping from boulder to boulder at an incredible speed, defying all our calculations.

What I preferred most was to set off alone over this

rough ground, broken by rock walls and grassy terraces, leading up to the névés that nestled under the slopes of Peak IV. As I drew near I could hear the Ram Chukor singing and calling to each other across the rocks. I saw a great number of these birds, but considering the frequency of my visits I brought down only very few. Chasing after these fast sprinters and tracking them down to their remotest hiding places, nevertheless provided lively entertainment, which was only interrupted by the evening squalls of snow, or by the wind when it grew too strong. Sometimes, when we were completely exhausted, Pierrot and I would sit down by the waterfall or at the far end of the moraine near the seracs that overhung the walls; these were places that we had grown to know well, and we would wait for night to come, in an immensity of silence and solitude. Sometimes, in the dusk, we thought we could make out the shadow of an Abominable Snowman leaping from boulder to boulder.

We were greatly attracted by the surrounding peaks; for the most part they were untrodden by man, and on fine days we often picked out imaginary routes up their ridges and gullies. Peaks III, IV and VI, which overlooked our camp, were particularly tempting, for their heights were within our range of acclimatization. Many of us would have liked to climb them and several times I was shown detailed plans for doing so. The authors did their best to emphasize the easiness and simplicity

of their intended routes. Once I was almost on the point of giving way, but we all agreed that we ought primarily to concentrate our efforts on getting the equipment up to Camp I. We felt that we had not the right to direct our attentions elsewhere at the risk of using up our energies and of changing our plans, even if only to a small extent. Similarly, we dismissed Peak 39 which Couzy and Terray had already attempted last year. It was 23,560 feet high and would have needed a considerable amount of organization and effort, which we could not afford at present.

We decided instead to attempt a 21,000-foot peak near the Hongu pass, opposite Makalu. Leroux and Bouvier had managed to get within a few yards of the summit on the autumn reconnaissance. This mountain provided an easy objective and the diversion lasted only three days, in the course of which most of us were able to reach the unreal looking snow summit in a very strong wind. Coupé and I, however, had bad coughs and were obliged to return to Base Camp on the second day.

Apart from occasional mishaps our health was excellent and we were as fit as it is possible to be in such abnormal circumstances. Every day the temperature grew warmer. Our Base Camp began to look like a village with its thirty separate encampments — each with its own inhabitants.

Soon the Kumba passes were again open and our

postmen were able to reach us. For a long time we had had no news. One day at tea-time, when there was snow on the ground once more, we saw two not very heavily laden men coming up from the valley at a quick pace. They were our postmen and had been chosen as messengers because they were the swiftest of our auxiliary porters. They did the journey from Base Camp to Jogbani – the distance from Grenoble to Nice - along the rough track down the Arun valley in record time so as to post our mail at Jogbani, the first Indian post office, and bring back news from France. Under normal conditions it took twenty days to go there and back, sometimes more, when the weather was bad, but usually less. Six of our messengers went in pairs because they were afraid of the Yeti; our mail came roughly once a week. Two of the postmen did the journey four times in three months, covering a distance of about 1,800 miles. Karma, whom we had employed in the autumn, had done the journey eight times. I explained to him that he had gone far enough to take our letters to Europe himself. He was greatly amused by the idea. He had the build of an athlete and given the training he might have become a formidable competitor at the Olympic Games. As for Gurmin, with his skinny legs, his feminine features and long hair in a bun, we could never understand how he did it. We never knew whether these men tried to race each other or beat their previous record on each new journey.

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However, what did ensue was that towards the end of the expedition Gurmin had grown so thin and tired that the doctor had to prescribe a few days' rest.

After several months away from France the arrival of mail is an important event in camp life. News spreads quickly; we were all a little jealous of each other's letters. But as we had known one another for a long time few of us kept anything secret. Everyone had his own speciality. Vialette kept us informed of the latest developments in the flying world, of speed records, and the hopes of French designers. Couzy had all the climbing news with details of times taken and the numbers of pitons used. In a few terse sentences Terray would give us a summary of the latest Chamonix scandal, while from Bouvier we learnt what was going on in the U.N.C.M. As for the young bachelor members of the expedition, they had a large fan mail, nor did we fail to give them plenty of advice.

Commentaries, discussions, plans and reminiscences were subjects of conversation, and we never ran short of topics. As was to be expected, mountains held first place, and at times we might have been in some Alpine hut, loaded with ironmongery, on the eve of some super-severe climb. At other times we might have been at a meeting of the Groupe de Haute Montagne, particularly when we started comparing the relative difficulty of various climbs — a subject which provides one of the mainsprings of modern climbing. Defenders

of the latest type of acrobatic and artificial climbing would argue with those who supported the classic theory of mountaineering. The former were accused of bringing about the downfall of mountaineering while the latter were accused of being reactionary old fogeys. The most obvious casuistry presided over these skirmishes in which the problems of Alpine policy and the proper conceptions of mountaineering constantly recurred.

Lapras, who may have been under the impression that a mountain was just a mountain, was most surprised by these discussions. He listened a great deal, spoke little and in a few weeks he acquired more precise knowledge of the history and geography of all the mountains in the world than if he had devoured the whole of the Alpine Club Library. He was also initiated into the mysteries of Alpine slang and, well-equipped with this knowledge, he was soon able to dream of overhangs, of pitches of 'VI sup.' and of 'artificial III'.

Nevertheless, he soon realized that the Himalaya were something that was different again. It may appear paradoxical but it is quite true that one never does so little climbing as on a Himalayan expedition; and that one does even less if one is aiming for one of the higher peaks. The slowness of the approach, the need for acclimatization, the requirements of porterage, the slow progression from one camp to the next, the perpetual coming and going over the same ground, take up the

best part of one's time and energy during the weeks that precede the actual assault. And at great heights oxygen imposes its tyranny, leaving less and less room to fancy and linking each member so closely to the expedition as a whole that he is almost like a cog in a machine. How different from the classic concepts of mountaineering! Sometimes we used to exclaim: 'Oh, for the Alps and some climbing!' And yet none of us would have been willing to exchange his place!

At other times our conversation centred round much more serious matters, such as contemporary literature, philosophy and religion — themes of eternal interest. We had with us a few 'essential' books, chosen by Couzy, in light cheap editions, and a good supply of all the latest thrillers, which we devoured eagerly. Lionel had an incredible appetite for literature and when he came across a really thrilling book he simply could not put it down; several times he admitted that he had spent the whole night reading!

As may easily be imagined, women hold an important place in the conversation of an isolated but lively Himalayan expedition. We were in fact remarkably discreet and courteous, and our vocabulary was irreproachable. In Lionel's opinion we were not even witty. I must admit that it was Lionel who gave a spice to the conversation when he came to meals — he was often late because of his reading.

Much of our time was taken up in preparing menus.

Panzy's imagination was more and more affected by the height, and only too often he was content to fall back on tinned food. This last was excellent but we wanted to use up as little as possible, and to keep it for the time, which was soon to come, when we should have to use it for want of anything else. It was fortunate that Kindjock and Mrs. Gyalzen spent quite a lot of time in the kitchen; now and then they would produce some really good treats, such as home-made noodles or gnocchis à la tibetaine, seasoned with a strong red-pepper sauce.

Appetite acts as a good barometer with regard to the health of an expedition, and in spite of daily variations our barometer registered 'set fair' in the main. The Sherpas had two meals a day; one in the morning, before setting off, consisting of rice, and the second when they came back from their carry towards the end of the afternoon, also consisting of rice. They ate rice with tea, with milk, with chillis and curry, reinforced with mutton or tinned meat, and enormous quantities of butter.

Among climbers good manners have always been noticeable for their absence, and we who had occasion to appreciate the fact after years of 'hutting' in the Alps, knew what to expect. Here again we were due for a surprise.

Lionel is well known as a good trencherman; his capacity for food is on a par with his enthusiasm for

mountains; his appetite alone may well be sufficient to ruin the finances of any expedition. Believe it or not, Lionel was in fact rather disappointing. Instead of going in for quantity he favoured the strangest of strange dishes which we for the most part considered quite unfit for human consumption. Witness the fish sauce, of doubtful colour and appearance, the smell of which was quite literally unbearable and was enough to drive out the inhabitants of the Makalu Hotel, in spite of the arctic temperatures that reigned outside. Lionel found this dish delectable. Witness the cheeses, his favourite food. Back in Paris, when we had been choosing foodstuffs, Lionel had thoroughly investigated the question of cheese; he went round all the dairies looking for anything that could be shipped. The samples which were opened in the offices of the C.A.F. were of first-class quality, but what had become of them after two months of travel to India and up the Arun valley, surpassed the imagination. Vialatte was utterly revolted and usually retired from table before the dessert. Coupé, Leroux and Bouvier never touched any cheese; only Lionel did justice to his choice, and persisted in it in spite of stomach cramps and diarrhoea.

Couzy's behaviour was quite different. The 'young aristocrat' mentioned by Ang Tharkay in his memoirs was a champion beef-eater. We worked out that he ate as much as at least three of us put together. He ate fast

and long; his every meal was a banquet, and he knew just when to suggest some little delicacy. What was even more surprising was that during the six months that we spent in his company by the Barun, he suffered only once from indigestion.

Fortunately Lionel had overestimated the amount of food we would require. We were never anxious about running short of provisions, except perhaps at odd moments when we were isolated in higher camps and found that the one tin we wanted was missing, or when the favourite items were getting scarce.

Then there were fearful scares, over the wafer biscuits, for instance, the sweetened milk, the 'red coffee' or the tinned pears.

As soon as Bouvier informed us that we were likely to be short of some of these favourites, the phantom of hunger and famine rose before Couzy's eyes. It was unbearable to have to go short! What were the Sherpas doing? Couldn't they hurry up? And what would become of us meanwhile! Couzy quite seriously considered going back before it was too late to reach a place where we were sure of stocking up; those of us who had grown so thin that they no longer had the strength to follow would have to be left by the wayside.

In anticipation of this general retreat, which was bound to come sooner or later, Couzy laid in a stock of private food supplies. He was the only one among us to put on weight regularly, just as he did on the autumn

expedition. When we were returning from the latter someone asked me at Orly airport whether 'this apparently well-fed gentleman' had also been with us to the Himalaya. On the way back from the autumn expedition we did run out of certain foodstuffs and Couzy was determined not to be taken unawares a second time; it was better to put by something for a rainy day. Gradually he got into the habit of making private little hoards of food. There would be extra fruit juices in his tent, and lemonade powder in his sack, not to mention more concentrated foods such as tubes of *crème de marron* and the last packets of Nescafé in his pockets. On several occasions he even offered us some, and from then on there was nothing to fear.

In the autumn Couzy's supremacy as a beef-eater had gone unchallenged. This time he had a serious rival in Dr. Lapras, another good trencherman who simply could not resist food, even though it reminded him only very remotely of those good Lyons dishes that we now knew by heart. Lapras's tactics, however, were quite different. He ate incessantly, both at mealtimes and in between meals. The sight of a ham hanging up, of tinned food, or a bag of sweets, was enough to make him delirious. As for Couzy, he never ate in between meals, doubtless to keep a good appetite. Although Lapras was also a gourmet he was rather less systematic about it. While Couzy ate conscientiously and with a worried look, out of a sense of duty, Lapras ate for sheer pleasure, with beaming countenance and shining eyes. In the long run the result was more or less the same.

Often enough, when we were in luck, we were able to supplement the menu with game from our hunting forays. At first we let Panzy cook it, but he treated the game as though it were but a vulgar Tibetan chicken, serving it au naturel - half boiled, half roast. We deprived Panzy of his privilege and decided to prepare the game ourselves. With great ingenuity we fixed a spit in the Makalu Hotel and, working together with a will, we obtained very creditable results in the shape of beautifully golden roasts, worthy of the most famous French eating places. One day when fortune favoured us we found ourselves seated before a dish of three magnificent partridges, and we decided to celebrate the occasion with a really good bottle of Burgundy. That was the day that Bordet and Latreille surprised us by arriving at Base Camp earlier than we had anticipated.

They had explored the middle section of the Arun by different routes and had even made a sally towards the Popti La. They had also been up the Barun river from the point where it flows into the Arun, going along the rough track that runs up to Hatia. On the whole they were fairly satisfied with their investigations.

Now all the members of the expedition were together. Everything had taken place according to schedule, and

the time had come for us to think seriously about setting up the first camp.

On April 23rd, in the morning, Panzy packed up his gear rather unwillingly, and, followed by his minions, set off along the moraine. Kindjock became grand chief at Base Camp, seconded by at least twenty auxiliary porters who were to go down to Sedoa again and see to the final carry of equipment up to Camp I. Mrs. Gyalzen also stayed there for the time.

None of us, Sahib or Sherpa, would return to Base Camp until the fate of Makalu had been sealed.

5

On the Barun Balcony

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THE tedious stretch of moraine, a necessary prelude to any ascent worthy of the name, is known to be the nightmare of all mountaineers. By comparison with those of the Barun glacier, however, Alpine moraines are a pleasant morning dream; one goes along half awake, half asleep, lamp in hand; with the hope of getting on to some good granite before long. On the Himalayan scale these accumulations of rubble assume gigantic proportions; they are so deep and submerge a glacier so completely that the ice is no longer visible; they are so vast that for days on end one feels oneself imprisoned with no hope of ever getting out; and they are so chaotic that they form a world of mountains within mountains. Numerous journeys made by long files of porters had eventually worn a track on the Barun that resembled a real path. But at first we had found the contours of the moraine so bewildering and the blocks and boulders piled one upon the other

so unstable that it took us hours to cover a few hundred yards.

In the middle of the glacier, at about two hours from Base Camp a morainic 'wall' shelters a small sandy beach enclosed by vertical ice walls in perpetual evolution. It was here that Hillary had placed one of his camps the year before; amid heaps of stones and between two or three roughly shaped walls a few remains lay scattered, rusty old boxes, odd bits of wood, horns of sheep that had been killed, everything that the porters had not bothered to take for themselves. It was an obvious resting place where the Sherpas could take off their loads for a few moments.

The moraine stretched upwards to infinity. Towards the Hongu col, north of Peak IV, the slopes steepened considerably and, between steep faces surmounted by jagged ridges, the glaciers ran up to the col, covered in debris almost all the way. Opposite, the red gneiss foundations of Makalu were even steeper and supported the twin peaks of the western spur. These two symmetrical ice domes looked like two Mont Blancs coupled together, but in fact they stood some 6,000 or 7,000 feet beneath the giant. Makalu itself was visible, but the summit ridges, foreshortened and deformed by perspective, were so remote and so high that we were quite incapable of appreciating their height. But when there was a snowfall in the vicinity of the summit the billowing white powder seemed to

move so slowly that we had the impression it was all happening very far away, as though in a different world, and as yet outside our field of perception.

The track began again further up, crossed the glacier, followed some vague depressions along the left bank and rose gradually towards the junction with the northwest cirque, whence another stony waste came into view. And it was up there on a well-pronounced spur at a height of 17,390 feet that we placed Camp I. Once we were in training we took only three or four hours to do the five or six miles separating it from Base Camp; but with their 55-lb. loads it took our Sherpas five or six hours, and when they managed to go and come back in the day they had certainly not dawdled en route.

Camp I was pitched in a strange world at the entrance to three valleys that opened on to the highest mountains of the world. Higher up, the Barun glacier runs beneath Peak 39; it throws up its 'penitentes' or icepinnacles in the shadow of smaller giants which we named Super-Ecrins and Super-Triolet, and continues right up to the foot of Lhotse, behind which rises Everest. The southern wall of Lhotse was an architectural masterpiece. Even Guido, who had a fertile enough imagination when it came to planning hypothetical routes on new mountains, could not conceive the possibility that people might one day cling to those faces. Above them furrowed ice walls fanned out, forming a final steep scoop which from afar we compared to a

gigantic scallop shell — so thin and diaphanous did it appear in the evening light.

The north-west cirque came to an end at our feet, flinging its heap of moraines down into the Barun valley. Higher, above a rocky hummock that stood out among a maze of ice pinnacles, was the site we had planned for Camp II. Higher still and in the same line the glacier formed a vast level shelf. We knew that the upper cirque, of which we could only just see the lower icecliffs, would be suitable for an Advanced Base Camp at a height of roughly 21,000 feet.

Makalu itself overlooked us in all its splendour. We were too close to be able to see it in its entirety, but its tawny granite, striped with black, rose up in a series of monolithic walls topped by incredible overhangs. The wind played on them as upon an organ of which we caught the muffled but incessant echo; it was like the noise of an express train passing in the distance. In the highest section of the wall just above us, the fantastic north-west spur soared up above the narrow ridge joining the Twins and flung itself heavenward as straight as an arrow, without a single break. Coupé and Vialatte, who were still in the first phase of surprise, could not take their eyes off this unbelievable edifice, and the same word was on everyone's lips: 'impossible'!

Fortunately, however, to the left along the frontier ridge the great wall of Makalu rapidly lost height, and little by little the rock overhangs gave place to ice slopes and to couloirs that were neither so steep nor so high; although they appeared difficult on account of the complexity of their structure, they looked climbable, given the resources of modern technique and equipment.

This was the route we had chosen; it was the one fault in the Nepalese side of the mountain. Half way up the face we could see quite clearly, although foreshortened, the fairy balcony where we had decided to pitch Camp IV at a height of about 23,000 feet, and the steep rock and ice slopes leading up to the col.

Camp I was quite comfortably established in the midst of these inclement surroundings; it was the only place where nature had condescended to be a little kinder; on the ridge of huge blocks there was a pleasant little dip with some earth and sand and a few dried up tufts of moss that somehow managed to keep alive. We pitched our tents here with the Sahibs in the middle, the cook-house and Sherpas at one end, and a few extra shelters, in case of bad weather, for the porters coming up from Base Camp.

Directly above us between the Barun glacier and the north-west cirque was a subsidiary peak of 20,340 feet, the first point on a subsidiary chain that ran down from Makalu II and formed one side of the cirque. This little point was nothing but an amazing heap of stones, not particularly attractive, capped jauntily by a small

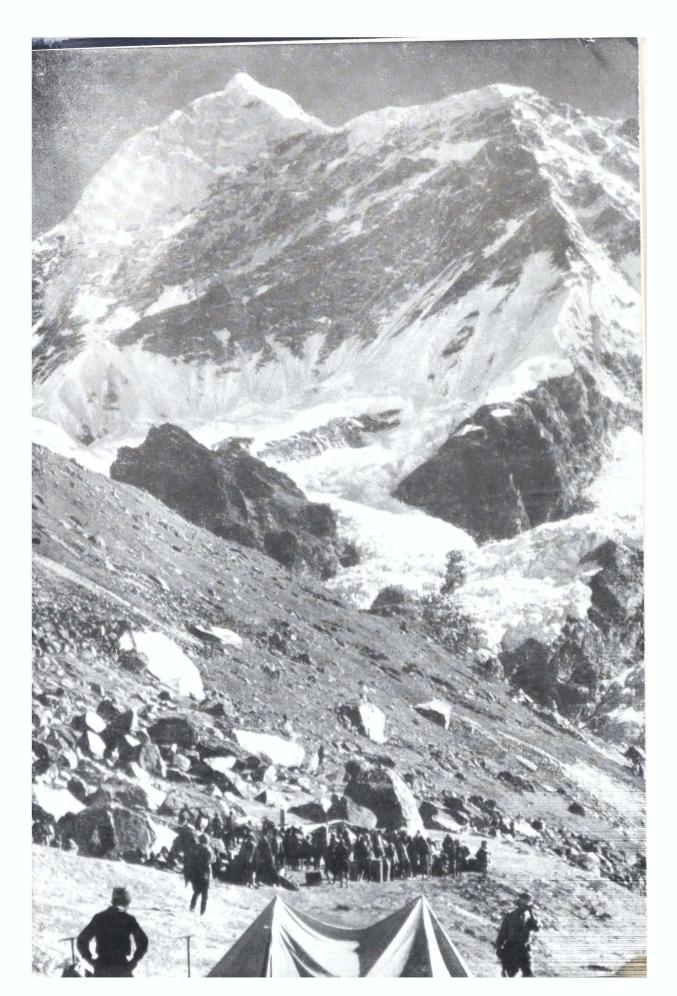
glacier. Few days went by without some of us going up there to get into training; at this height a 3,000foot climb is quite an effort, even for those in training, and the way one reacts is a good indication of one's fitness. The first time we had to persevere, going at an extemely slow pace; but now it took us only a few hours, and we felt it was not much more than a walk.

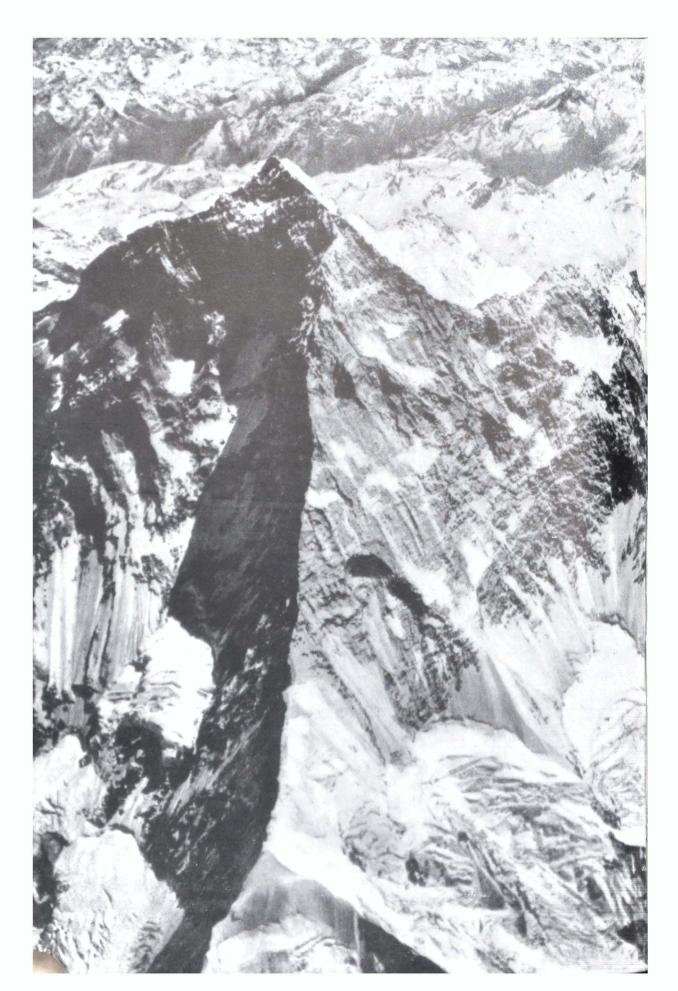
At first we were worried about the health of Coupé and Terray; they both had dry hacking coughs, which would not stop, but persisted long into the night; all of us had suffered more or less from the same complaint; but this perpetual irritation grew unbearable and assumed alarming proportions. We had long since run out of throat pastilles, which in any case did little to relieve the coughing; other medicines, sedatives and gargles were likewise of little avail. Lapras himself, who also suffered from it, could find no explanation. It was certain that the inflammation was caused by breathing in abnormally cold air for weeks, but the year before, in the autumn, the temperatures had been the same, if not worse, and none of us had suffered at all from coughs. Could the dryness of the air be the only reason?

Our friends spent whole days in their tents and their morale was much impaired. Coupé especially began to wonder whether he would ever be able to go any higher. He saw himself condemned to complete inactivity while

[facing: BASE CAMP AND MAKALU

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the most important operations were in progress. In vain I told him we were sufficiently numerous for the work in hand and that I would not call on him until the last moment, but he would not be comforted. And we who knew how active and lively Serge was normally, and how quick he was in everything could understand what a torture this was for him.

The terrible proportions which the slightest indisposition immediately assumed in our eyes was characteristic of this period of acclimatization. A mere nothing, a cold, the slightest stomach trouble and one had the impression that it never would get better, that it could only get worse. Sometimes we would take the doctor to task, and we would willingly have held him responsible for our troubles.

'Lapras, for Heaven's sake do something about it!' Lapras, coughing violently, would explain that he could perform any surgical operation at any given moment, and that thanks to the precision instruments that he had brought with him on the recommendation of his predecessors, he could cure a great number of really serious complaints. He only wished we were suffering from them, so that he could prove what modern science could do. 'But as for your throat old chap, I simply haven't got anything left; you've sucked hundreds of pastilles. Do the same as I do; cough! Anyway, coughing is only a symptom!'

We were only half reassured. One day he tried K 145 [facing: STRAIGHT AS AN ARROW

penicillin treatment, another time he tried making us inhale permanganate. Judging by the few hazy recollections from my school days that I could summon up at this height, this last treatment seemed particularly odd; as far as I could remember the volatile properties of this chemical were exceedingly doubtful.

'Do you think your permanganate is really an inhalable substance?'

'It's all I've got left, and in any case it can't do any harm. Besides, one's first aim as a doctor is to make the patient feel that he is going to get well.'

A few days later Lionel and Serge were both better. We drew up our plans in the evening, in the mess tent. Our objective now was to get the Advanced Base pitched at Camp III in the upper cirque as quickly as possible.

To do that we had first to make a track and to decide on the camp sites, which was a simple enough matter, considering what we knew already of the place. Then we would have to make arrangements for the porterage with Gyalzen, according to how many men were at our disposal. And lastly we would have to do quite a lot of work on Camp III to make life comfortable up there for all the Sahibs and Sherpas during the last phase the assault.

Up to the end of April most of the Sherpas lived in Camp I and carried loads *en masse* daily up towards Camp III; we supplemented their numbers with four

and then eight auxiliary porters; they had only make-do equipment, but they were tough men. And so every day, twenty to thirty porters set off along the moraine. The track presented no special difficulty, except that it was very tedious for those who walked it every day with 50-lb. loads on their backs. At a height of roughly 18,400 feet near the left bank, where the track ran under huge ice pinnacles, the caravan was threatened for half an hour by seracs, but although tons of ice came down, we never had any accidents.

On April 29th Panzy moved up to Camp II where all the Sherpas would be sleeping from now on. This enabled us to divide them into two groups; one group ferried equipment up to Camp III while the others went down to Camp I. Our aim was to take up as much as possible in as few journeys as possible. Panzy, conservative by nature, did not like these excursive removals up the mountain, and his output dwindled perceptibly as he went higher. He had, as we all had, precise recollections of his behaviour on the autumn expedition, but Panzy did as he was told, willy-nilly.

Meanwhile Kindjock and his party went on carrying loads up from Base Camp and sometimes they would come up with a surprise for us in the shape of fresh eggs, mutton or chicken. One fine evening when the last Sedoa contingent had arrived, Camp I took on the appearance of a farmyard. A couple of birds of prey with yellow stomachs circled right over the camp,

but they never came within firing range. From time to time the Sherpas would rush in noisy pursuit of the chicken that scuttled away behind the rocks.

Little by little everything was falling into place. We had calculated that by May 7th all the ferrying as far as Camp III would be completed, at least as far as the necessary food and equipment for the final assault were concerned; from then on we should only have to see to daily needs, which would be a simple enough matter.

We were anxious about establishing Camp III. Our experience in the autumn had convinced us of the importance of seeing that our tents were properly sheltered. We foresaw that we would have to hollow out the ice and make platforms about three feet beneath the surface of the glacier. Digging five thousand feet above the height of Mont Blanc is gruelling work and we decided to relay each other at Camp II to get it done. In two-man teams, with Leroux and Bouvier first, then Terray and Couzy we all spent two nights at Camp III, and when my turn came with Guido, I noticed an appreciable improvement on last year's work.

Meanwhile we went on with our training, in small groups, on the neighbouring peaks. On the 27th, Couzy, Terray and Vialatte went off towards the Twins and the same day made an airy traverse along the ridge connecting these two peaks, both over 23,000 feet in height. Guido and I repeated this very Alpine type of climb on the next day. First of all we had to go down towards the glacier from Camp I, cross the horrible moraine and climb over loose blocks up the very steep slopes of a vague gully in which we dislodged tons of rock. The first twin has a knife-edged ridge leading up it, reminiscent of peaks in the Valais, but the second is climbed on very steep slopes hanging above the precipices of the west face on the left, and those overlooking the Barun on the right. The view across to Makalu, which was quite close and which we glimpsed now and then through the mists, was impressive, but to tell the truth we had not climbed right up here to look at Makalu; we had looked at it enough already. If we were happy on this delicate snow tracery with hail whipping our faces, it was because we were enjoying the fruits of a careful and judiciously planned training period. Our throats were still sore and from time to time a fit of coughing would make us stop, doubled up over our ice-axes; but even at these moments we were confident, for we knew now that we would be able to go much higher.

In the evening we came back early, not at all tired which, at this height, means that one is still capable of walking. At the bottom of the moraine Da Noo, my devoted Sherpa, was waiting for us with hot drinks; he knew just what we liked and had some coffee for me and weak tea for Guido.

On these almost daily expeditions we used to find ourselves in pairs without making any decisions before hand.

Couzy was very keen to go with Lionel, the same as last year, when they sufficiently proved the value of that combination the day they did Chomo Lonzo. I found it pleasant to speculate that these two Annapurna men might be the first to conquer Makalu.

Leroux and Bouvier had been almost inseparable for a long time; it had begun the previous year when they were the first to reach Makalu Col; since then they had scarcely parted company. There was nothing happygo-lucky about their exploits; everything was carefully timed and planned beforehand; theirs was the team which coped with awkward tasks; step-cutting, safeguarding porters on a difficult section, putting up fixed ropes or finding a route. In two Himalayan seasons not once did they come back empty-handed. And if Bouvier and Leroux had been anywhere one could be sure that the work was done well. Since last year they were accompanied by their two faithful Sherpas, Tashi and Pemba Tenzing; they were two hefty and rather clumsy young fellows, always smiling, but their endurance and strength were amazing. In the middle of a storm during the autumn at the Makalu Col, where the cold was positively Siberian, Tashi went out into the snow in socks, certain that he would not get his feet wet because of the cold!

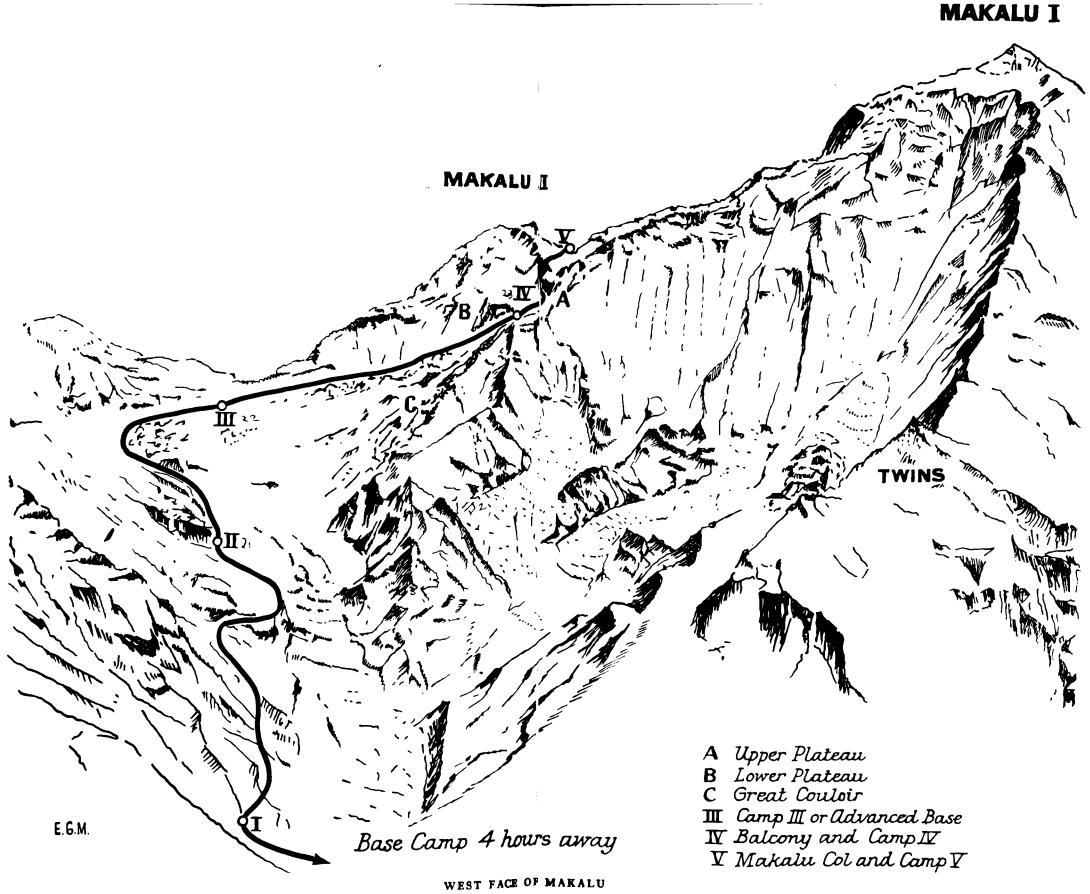
Guido and I constituted the veterans' team. He was thirty-seven and I was a bit more; I had known him since he began his climbing career; the year before I

had been most impressed when he improvised a bivouac on the Peuterey ridge of Mont Blanc. He had such a skilful way of moving blocks about or of getting his friends to move them, that I asked him if he was a mason. 'A sculptor', he answered.

In the mountains it was the same thing. On Fitz Roy with Lionel he had dug out caves in the ice; on the Dru he had made ladders. Everywhere he went Guido overcame every obstacle. It had seemed to me then that a man of his calibre would be ideal for the Himalaya.

Later we had occasion to work together for a long time in preparation for this expedition, and to see how our opinions differed on many subjects. This I think was the deep reason for our friendship. We would discuss anything and everything. We both wanted to find the answer to problems, but we both had very different ways of reaching our goal and each would pursue his own system obstinately. Like the famous Samivel party, it sufficed for one of us to suggest going in one direction for the other to find a thousand and one reasons for looking for another route. But the rope never broke between us.

Last year at Camp III, during a bitter spell of extreme cold at the end of an exhausting stay, I woke up on one of those dull grey mornings after a night of insomnia due to the muffled drumming of the wind. I told Guido that I was not feeling particularly well:



'My head feels heavy, I feel sick and exhausted, and I want to go home,' I told him.

'Don't worry,' answered Guido, 'I don't feel too good myself this morning.'

In fact Guido felt perfectly well, as I discovered later. But he knew that sympathy, in the true sense of the word, is the best means of comfort when things are not too good.

Vialatte and Coupé did not have much choice and they only combined towards the end. For the moment Vialatte went first with one group and then with another, while Coupé, whose health was gradually improving, was eating as much as he could to make up for lost time.

In fact mutual attraction and chance were responsible for the various ropes that formed. I kept the right, when the time should come, to decide upon the parties who were to go to the summit and those who would have the less glorious task of supporting them. I could see already how difficult it would be to make any discrimination. One thing was quite certain, and that was that I would have gone anywhere with any of the members of the expedition. The team was so homogeneous that each pair formed a potential assault party, easily interchangeable, and we were all capable of relaying each other at any given moment. This greatly simplified our planning.

There was little change in our weather. There was

blue sky in the morning, and the sun rising over Everest and the shell-like formation of Lhotse was an unforgettable sight. And when the wind dropped we basked in real spring warmth. Breakfast at eight o'clock outside in these magnificent surroundings was most impressive. Towards midday, however, thick banks of cloud would come up from the north-west, moving rapidly across the sky at a height of 26,000 feet, the wind would get up again and fine powder snow would whirl about, or blow horizontally over the brow of Camp I.

We had only one violent storm, however, and this was accompanied by a heavy fall of snow. It began at about five o'clock when the sky was blacker than usual. Already that evening a thick layer of snow covered the ground and our tents. With the night the wind grew stronger, blowing the snow into drifts, the kitchen shelter was half torn down, and the supports were broken. Close to our tents the eight men from Sola Khumbu had built two low stone walls across which they had simply stretched a piece of canvas. In the morning when we got up we found the canvas had gone and the men lay half buried in the snow, huddled together trying to get a little rest. The camp was a desolate sight; it was as if a high explosive bomb had landed quite close. Neither Sahibs nor Sherpas were about. Only Lionel and I were trying to record with our own cameras the fleeting impressions of the wind's

assault on Makalu. At times there were incredibly violent gusts which rushed swirling up the couloirs, then the eddying currents would beat down the slopes like an avalanche. One of our aluminium tables, which we had left outside, was snatched up, whisked over our heads like a rocket, bounced on the ground once and whizzed away again, disappearing behind the camp towards the Barun where the Sherpas found it a few days later, quite beyond repair.

At this height the sun and wind soon do away with fresh snow; in all the more exposed places it disappears in a matter of hours when the fine weather comes back. Because of the extreme cold and the dryness of the atmosphere, the snow does not melt but evaporates. Round the camps there was never any dirty melting snow. Inside our tents, where the temperature was below freezing point all day long, the snow blown in by the wind could be swept up like dust before it had time to melt, so that we never suffered from damp.

For some days we had been trying to contact Radio Calcutta on our receiving set, in order to hear the weather forecast that was being broadcast specially for us. Thanks to the French Embassy our request for this had been granted and the Indian meteorological services broadcast the bulletin for the Makalu district. We had stressed the fact that this question might be of capital importance towards the approach of the monsoon. At first we were very disappointed. In spite of

all our efforts, and although we listened in much longer than the specified times, we never managed to pick anything up.

One fine day Bordet, who was more persevering than the rest of us, and perhaps also more fortunate, suddenly called out when we were resting in our tents. We rushed to the wireless set. This time it really was the weather forecast for the French expedition to Makalu, for the next twenty-four hours; it gave us the wind speed at 20,000 feet, the minimum temperature in degrees Fahrenheit, at different heights and concluded with the familiar but portentous phrase: 'clouding over slowly in the afternoon with possible snow showers'. The forecast was broadcast twice in carefully articulated English; it was preceded by a similar one for the 'German expedition to Dhaulagiri' and followed by another for the 'British expedition to Kangchenjunga'. As soon as we were able to check up we found that the forecasts were accurate on the whole, corresponding fairly exactly with the weather conditions. They were perhaps slightly pessimistic, which was better than if it had been the other way round. I do not know what gave us the most pleasure, whether it was the fact that we were getting our bulletin or the fact that every day at 6 p.m. someone was speaking to us hundreds of miles away - someone in light clothes in a stifling office in Calcutta!

Judging from our two expeditions the weather

conditions in this part of the Himalaya are remarkably consistent. The climatic year seems to be divided into two very characteristic periods, following upon each other at set intervals, never more than a week out, and always bringing in their train the same phenomena. From the end of winter to the middle of spring the winds are north-westerly, becoming imperceptibly more westerly as they lose strength; the temperature at the same height rises regularly; we could follow this improvement both in the forecasts and in actual fact we felt that ideal weather conditions — the period immediately preceding the monsoon and which we knew would last less than a fortnight — were gradually approaching.

I had read a lot about the monsoon in the high Himalaya, and I had questioned all my friends who had had personal experience of it. I was most impressed by accounts of attempts on Kangchenjunga and Everest. Everything led me to believe that the monsoon, blown up by violent south-easterly winds, came from the Indian coast through Bengal and finally burst over the Sikkim and the Nepalese Himalaya, the latter being the first to be hit by this universal cataclysm. Later on we were to revise our ideas on the subject. But for the moment the monsoon was a frequent topic of conversation. For fear of finding ourselves short of time we had long since decided to speed up the preparations so as to be ready for the first fine days, and we had agreed that it was better not to count on the fine weather lasting.

Besides, the atmospheric conditions during this intermediary period between winter, which still persisted, and spring, were quite favourable and in no way hindered our operations. Apparently we were privileged in this respect, and we could see that Everest, Lhotse and Chamlang were not so fortunate, being much less free of cloud than Makalu. The forecasts for Dhaulagiri announced more violent winds and heavier falls of snow. Of course it was difficult to generalize, but we were agreeably surprised by conditions which were certainly very far removed from the terrifying Himalayan storms that are so famous.

I had given Gyalzen a general chart of the 'carries' and asked him to follow it conscientiously so that there was no delay. Gyalzen and his wonderful team accomplished their task punctually and every morning when I got up I was kept informed of what loads had been taken where.

Every evening, thanks to our wireless sets we were able to establish contact between the various camps and this enabled us to get on with the jobs without any hitches or misunderstandings. Thanks to Vialatte, who because of his knowledge of English had been detailed to listen in to the weather bulletins, we were able to transmit the forecasts up to the higher camps. Everything followed on automatically, just as though we had been doing this sort of thing for years.

The interior system of communication of an expedition dotted about on a mountain side, often with great distances between one camp and the next, and subject to interruption due to bad weather conditions, is a complicated business and has always constituted one of the main difficulties on expeditions. Indeed, the problem of communications can not only upset the programme but may prove an insurmountable obstacle at times when crucial decisions have to be made, as in cases of accident. For many years the only efficient means of communication was by letter; this was subject to the uncertainties of porterage, and was necessarily very slow. The Japanese on Manaslu went as far as to lay telephone cables; they spent most of their time repairing the breaks due to avalanches and stonefalls.

The use of wireless is not recent but up till now results have not been altogether satisfactory. Most sets work admirably at low altitude, but as they have to be made as light as possible they are often too fragile to stand really low Himalayan temperatures. Our sets, which were both very light and very simple to operate, had been given to us by a large French firm engaged in perfecting them. Already in the autumn we had noted how strong and reliable they were and we had been able to get excellent reception between camps five or six miles apart in spite of the fact that they were screened by intervening obstacles. The sets only broke





down once, and that was because we had forgotten to use strong enough batteries!

Slowly but surely we were progressing. The geological contingent had returned to us for a short rest before setting off again for Sola Khumbu and Namche Bazar. The enthusiastic Latreille forsook his scientific activities from time to time in order to indulge in another fascinating hobby; the pursuit of height. He came up to Camp III, spent the night there and told me that he intended to climb Pethangtse. Besides being a geologist Latreille was an enthusiastic and competent mountaineer and he would gladly have sacrificed his geological theories of the Barun in order to take a bigger part in our activities.

His reaction to height during these brief visits was excellent and ample proof of his capacity.

Pethangtse, 22,062 feet, is situated on the frontier ridge, immediately above the Barun glacier, and half way between Everest and Makalu. It was a logical objective both for a mountaineer and for a geologist; Hillary had made the first ascent of it in 1954. In the autumn of the same year Guido and I went there and were able to appreciate this wonderful belvedere looking towards Tibet, with its views of the north face of Everest, the South Col and Makalu. But I told Bordet that I was rather dubious about making a diversion right up the Barun glacier, a long way from our line of action; I was afraid that it might endanger the whole L

(Erratum: for NORTH read EAST on plate facing).

fate of the expedition if there was any serious incident. Finally Vialatte, who was not indispensable for the moment in the preparations on Makalu, set out with our geologist and two Sherpas and succeeded in getting up this magnificent peak with Latreille.

It was not often that we were all assembled together at Camp I, for by reason of its situation it became a sort of turn-table for operations during this preparatory phase of the assault. The atmosphere there was very lively, for hardly a day went by without one big group or another coming or going — Sherpas going up to Camp II, auxiliary porters going down to Base Camp, porters carrying water or ice, the arrival and departure of the postmen who followed upon each other at regular intervals now, the departure of the Sedoa contingent. All the organization and preparation going on made Camp I the capital of the expedition — a small canvas village where no one had time to get bored.

During the first few days after this camp had been pitched, the Sherpas coming back very tired from Camps II and III would creep quietly into their tents where, after a quick meal, they fell into a deep sleep. But gradually they got accustomed to their hard work and when they got back to the camp in the middle of the afternoon they still had enough energy and good humour to shout and sing and to play all sorts of crude pranks, as was their habit, and this went on until nightfall; one evening they even gave an exhibition of Tibetan

dancing. We had had similar exhibitions of this primitive art on the approach march. But I must admit that in spite of the added attraction of songs and Sherpanis and in spite of its vague resemblance to *pilou-pilou*, this spectacle failed to thrill me. Guido, however, was passionately fond of the exotic, and found the dancing most picturesque. On the moraine of Camp I, at a height where movement of any sort is an effort, with a background of the highest mountains in the world it was quite another matter and I could well understand that Guido was so anxious to record the performance on the tape-recorder.

The tape-recorder was reserved for special occasions, important decisions, chosen conversations, remarkable events, worthy of going down to posterity. The acquisition of this instrument during the last feverish days in Paris before our departure, had created another gulf between Guido and myself, and once again he accused me of being reactionary — 'Too conservative', he would say when he was feeling polite, which was often.

Guido was the very embodiment of progress. His imagination bubbled over; he was a hive of new ideas, he was a born innovator, an impenitent revolutionary. At first I found these qualities attractive; I had even taken an interest in Guido's ice caves, which were dotted along our route at all the key points. I had also taken an interest in his metallic tent, made of hermetically sealed aluminium sheets and blown up with

oxygen. Then I began to get worried, feeling that Guido was going a bit too far with his innovations. In the end I was positively afraid of them. 'Guido, for goodness sake don't do any more thinking or inventing,' I told him one day.

I had let myself be had over the matter of the taperecorder; and it was certain that Guido had taken advantage of this weakness. He had been given his nice new toy.

I expected him to be delighted with it. Alas! We never saw him looking as sad as when he was preparing one of his 'improvised' recordings. The first one had taken place by the river Tamar at the end of the first stage. We were subjected to a veritable inquisition; but the result was uneven. Some were not loquacious enough. Words had to be dragged out of them to prevent them from making monosyllabic answers. Others could not leave the microphone, once they had got it before them, and would go on spouting, inexhaustible as Asiatic rivers. We had to begin again three times before getting a satisfactory result and Guido bore me a grudge for ever after, and even accused us of trying to 'sabotage the tape-recorder'. At other times the speaker would shut himself into his tent and indulge in a little soliloquy; contrary to what one might have thought this wasn't always very successful, and when Mingma the second cook called 'dinner ready', Guido would come into the mess tent with a baleful eye,

and an expression of annoyance, on the verge of exploding. Woe betide anyone who dared to mention the toy, the instrument, the machine — I mean the taperecorder. Guido would sit down, knock over a few tables, upset a bowl of soup over his neighbours, mishandle the Butane lamp — then things would calm down again. Sometimes though, when the menu was not to his liking, things did not calm down and woe betide 'Makalu' then!

'Makalu' was a little mongrel puppy, partly collie and the result of goodness knows what inter-breeding; he had been born in the upper Arun near Sedoa a few months back. When the expedition went by we gave some titbits to the puppy, which showed its teeth --Nepalese dogs are very independent, as Father Bordet can testify -- but this scruffy, half-starved mongrel had found the biscuits and the remains of the sardines to his liking and decided to follow us. The Sherpas kicked him off at first, for anything which is neither Sahib nor Sherpa deserves to be chastised; they changed their attitude, however, when we adopted the dog and christened it Makalu – proof that our powers of imagination were already a bit jaded. Makalu had an energetic shampoo in the Kasuwa Khola, followed by a shower with anti-mosquito spray and a double quota of DDT powder. He followed us everywhere, ate at everyone's table; he was allowed into Panzy's kitchen, into the Sherpa kitchen and into our mess-tent, and in the

morning he would scamper along merrily in front of the caravan. The welcome he got depended a lot on our various attitudes regarding this friend of man. Father Bordet had a deep hatred for these animals, as well as a certain amount of fear ever since the day when he had had to wield his umbrella in self-defence against the onslaught of a ferocious hound in the streets of Dhankuta Kandbari. He preferred to keep clear of Makalu. But no one, not even Couzy, who was not particularly enamoured of him, and who in any case had other worries, what with the oxygen and the raspberry jelly, did the dog any harm. Makalu was well aware of this and was very interested in us, particularly at meal times.

But there was one man, however, whom he loved above all others, the only man whose tent he visited frequently, wagging his tail, and upon whom he lavished his affections; and that was Guido, for Guido was the one who had given him his first biscuit near the cave where he lived by the river Kasuwa.

It was beside Guido that Makalu looked for shelter in the evenings. At first there was no difficulty, for Makalu slept in the apse of the tent. But already at Base Camp, on very cold nights something else had to be found, and the small protégé became more exacting until Guido let him sleep on a sleeping bag. That was perfect and Makalu never left his master, or rather masters, for Guido shared the tent — what was left

of it — with Vialatte. From then on Guido and André shared the responsibility of educating Makalu, a subject on which they had very different opinions. Guido looked after him very regularly, seeing that he had his food, protected him from the jokes of the Sherpas, and taught him to answer to his name. He would have liked to make a real dog of the creature. André's method was much more intuitive; at certain times he was full of childish affection and became the slave of Makalu, at other times he was in favour of corporal punishment.

Nights in André's tent were anything but peaceful. It began in the evening at nine o'clock with the taperecorder rehearsal. Vialatte listened, smoking. Guido learnt off a lesson from the Assimil method and Vialatte went on smoking. Then Guido would swallow his sleeping tablets and fall into a deep sleep. Vialatte would lie awake a long time, smoking; he loved to watch the smoke for hours, even at night; the tent smelt horribly of stale pipe, which did not please Makalu, who began to move about, feeling half choked. Mostly everything was peaceably settled in the end, with Makalu warm and comfortable, Guido heavily drugged and Vialatte dreaming away. But sometimes they could not get to sleep; it was then that one could hear the howls of a dog being soundly beaten and noisily hurled out into the night to look for some other shelter, while from the tent came the sounds of violent argument on the subject of educating dogs.

The results were not particularly brilliant, but Makalu was never very unhappy even when the Sherpas put the lid of the big container round his neck to stop him getting into the tents, when Coupé stuck his muzzle up with Elastoplast, or when the doctor tied a bunch of heather to his tail. Makalu spent some happy months with us. He even got up to Camp III, where we decided to put an end to his mountaineering exploits because the slopes above were dangerous for him and perhaps, too, because he might have been capable of climbing them, which would have made us look rather silly.

6

The Rising Tide

'Hullo! Hullo! Camp II here, calling Camp III. Over!' 'Hullo! Hullo! Camp III here. I can hear

you quite well. Over.'

'Guido and I are at Camp II, as agreed. All's well. Most of the carrying has been done. From now on the Sherpas will do carries between Camps II and III, or higher. Last night Kindjock came up from Camp I with chicken and eggs. I put him in charge of the carries between Base Camp and Camp I and between Camps I and II, five or six days ought to be enough. And how are you getting on? What are your plans for tomorrow? Over to you, Couzy.'

'Understood perfectly. Keep us some chicken. All's well here at Camp III. The mess tent has been pitched satisfactorily, and we've almost finished. We changed the site of one tent; it was pitched over a crevasse! It's been fine all day. This evening 5° below freezing.

No wind. We've kept Namgyal and Gyalzen Mitchou, as arranged. We'll try to get off early tomorrow so that we can cut steps up the couloir, put up fixed ropes and leave a high-altitude unit at Camp IV. We'll come down the same day. Over to you, Jeannot.'

'Understood and agreed. Guido and I will come up tomorrow with Sirdar Gyalzen and Da Noo. Hang on a minute. I'll ask Pierrot at Camp I what the weather forecast says, on the same line.¹ Tell me if you've understood. Say good night to Lionel. Good luck. Off.'

'Understood perfectly. Nothing more. Good night. See you tomorrow. Off.'

This was in the evening, on May 2nd at Camp II. The attack on the col had just begun. Reaching Makalu Col, at a height of 24,310 feet, and establishing a camp there, belonged to the second phase of the siege of Makalu. It was an important operation, for on it depended the success and safety of the assault itself. In the first place we had to reach the col; then we would have to equip the sections between Advanced Base Camp and Camp IV, and between Camp IV and the col, so that it was possible for loaded Sherpas to go up, and sufficiently safe to ensure a rapid retreat in case of bad weather. Finally there would be a great deal to carry up to the col itself, in order to stock it with equipment, food supplies and oxygen. We decided to do this in one carry, by using all the available Sherpas,

¹ The wireless sets worked on six different lines.

which would mean at least twenty; we called this the 'heavy carry'. It marked the end of the preparatory phase and immediately preceded attempts on the summit itself.

A few days before, Bouvier and Leroux had already climbed to a height of roughly 22,000 feet, when they went up to the foot of the great couloir; after going towards the right from Camp III and then along a wide easy terrace, one had to cross this couloir to gain the ice cliffs supporting the balcony. What they had seen confirmed what we had been able to make out through binoculars from neighbouring summits and even from lower camps; conditions were very different from those which we had experienced in the autumn. Furious winter winds had swept the snow away so that almost everywhere the ice appeared, bare and smooth as glass. In slightly more sheltered places fresh snow had accumulated, but because the temperatures were still too low it had not yet had time to melt and adhere to the ice underneath. The whole formed an unpleasant complexity of ice and snow; there was only one way of dealing with it, and that was to clear the snow, and to cut steps. In the last section — a steep spur leading to the col - the rocks were free of snow, which is almost always an indication that conditions are favourable. But in this case there was another source of difficulty, for the rocks were smooth and overlapped like the tiles of a roof.

During the last few days the weather had been improving considerably, snowfalls becoming less infrequent, sometimes only just whitening the ground. Today had been very fine, with practically no wind, and at Camp II at a height of 19,000 feet we had been able to have lunch outside as though we had been on the terrace of Planpraz, facing Mont Blanc; now that we were acclimatized we could easily bear a prolonged stay at a height of 21,000 feet or over. In spite of his frequent coughing fits, even Coupé went on methodically with his training. We did not intend to wait until Camp III was completely established before going higher. If all went according to plan we hoped to be able to make the 'heavy carry' on May 10th, by which time most of the porters would have finished working on Camp III, which would then become our Advanced Base Camp.

It is impossible to acclimatize above a height of 24,000 feet. The most one can hope for is some measure of compensation; at great heights where normal life is impossible, man can only maintain his precarious stability by fighting against deterioration with his reserves of strength and more especially with oxygen. We had complete confidence in our oxygen equipment and, provided we could take sufficient quantities of it high enough we were certain we should have no trouble from that quarter. Our reserves were large enough for the Sahibs to use oxygen night and day from Camp IV onwards, at a height of 23,000 feet, and for the Sherpas to use it day and night above the col.

On the other hand, the region between 21,000 and 24,000 feet corresponded with the limit of the acclimatization zone, and it was of prime importance not to tire ourselves out too soon. In the autumn, those of us who had spent more than ten days at Camp III or above without coming down, had been exhausted and incapable of any further effort. After two journeys up to the col, where it is true that several of them had spent some time, the Sherpas had been completely worn out and lay in their tents in a pitiable state of lethargy. Back in France we had made a prolonged study of this problem of the reaction of Europeans and Sherpas at this critical height. It is not possible to use oxygen in this zone because the quantities required would be too great and even then it would be no use, for a less acclimatized system would then need twice as much higher up, which would be impossible in view of the maximum weight one can carry at such altitudes. We decided upon the following system with regard to getting up to the col: the Sahibs would operate in pairs, accompanied by the necessary number of Sherpas who were, if possible, to be chosen beforehand once and for all. The teams would move up the mountain in successive waves at twenty-four or forty-eight hour intervals. Each group would climb as high as possible, equipping the route as occasion demanded, but they would not stay

up at the higher camps and would come down whatever the results obtained, leaving room for the next party.

After each attack we would all come down as low as possible, at least down to Camp III if not to Camp II, or preferably even to Camp I where the lower altitude and greater comfort allowed better recuperation.

The idea itself was simple enough, but it was not so easy to put into practice. It meant that each one of us would have to carry out his part scrupulously, and presupposed that the weather would not upset everything, and that the Sherpas would be up to the mark. As it turned out all went well.

Our knowledge of these parts was a great help for it enabled us to make plans which were possible to carry out, and which therefore had less chance of going awry; our radio sets kept us in contact with each other every day, so that everyone knew who was where, what had been done and what still needed to be done.

Bouvier and Leroux had already reached the bergschrund by May 1st. They certainly did not dawdle that day! The Couzy-Terray rope was up at Camp III and was to equip the couloir and the cliffs beneath the balcony of Camp IV on May 3rd. Twenty-four hours later Guido and I were to come up and pitch Camp IV and make a sally to the col. We were followed by Bouvier and Leroux, and behind them came Coupé and Vialatte whose business it would be to supervise the 'heavy carry' to the col. The most complex business from then on would be to divide out the equipment among the various camps, particularly the sleeping, heating and camping equipment for nine Sahibs and some twenty-five Sherpas who would now be out all along the route in the cirque and on the slopes of the col. This was the puzzle that Guido and I had to sort out on the lovely afternoon of May 2nd.

We found it difficult to concentrate on the matter in hand in such extraordinary surroundings. 'Two' as we called it familiarly, was pitched on a rocky hummock set in between the two branches of the west cirque glacier, among huge blocks of granite which the Sherpas had converted into comfortable platforms. There was not much room, but the view was breathtaking; beyond the Barun, high above the Hongu ridges and Peak IV, Chamlang appeared in the light of the setting sun, spreading its red mantle of snow, draped in long folds beneath the cornices of its immense arête.

The hanging ice cliffs on the face of Makalu seemed more numerous as one drew near the col, and they gleamed in the slanting rays of the sun like molten metal; the glare was unbearable. The colours changed from bright silver to soft yellow while the hard, tawny granite of Makalu turned a brilliant red; shadows lengthened and the sun sank behind the crenellated skyline of the cirque and suddenly the temperature dropped to 5° Fahrenheit.

Back in our tent we set to work again. The camping equipment proper did not present much difficulty. The two large mess-tents would go up to Camp III one for us and one for the Sherpas; our comfortable valley-tents proved to be so resistant, even at heights for which they had not been originally intended, that we decided to move them up to Camps II and IV according to our changing centre of gravity. Ten of them were not in use and these would be sufficient. For Camp III and above we had nine new 'twin' fourman tents, which could be separated and converted into eighteen two-man tents; besides these we had a few two-man tents left over from last year; three of them had been left at the col, tied to some rocks.

At Camp II Panzy could still cook on petrol stoves which were both rapid and economical, but from Camp III onwards the only means of heating was with compressed gas stored in forty-hour and ten-hour cylinders, a great number of which had already been taken up to Advanced Base. It is obvious that cooking and making hot drinks for thirty-five men uses up enormous quantities of gas, particularly in view of the fact that water has to be melted down from snow or ice at a temperature of 5° Fahrenheit, and that the Sherpas are not particularly economical! From Camp II upwards the Butane cylinders had been included in the altitude units and would be taken up auto-

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matically. We had calculated that this reserve would last five days at a rate of one bottle per man-unit.

Guido then counted up our stock of air mattresses and sleeping bags. The question of how to divide up the equipment was his bête noire and a perpetual subject of discussion between us. There could be no question of personal sleeping equipment for each man to carry about with him. Air mattresses and sleeping bags had to go with the tents, which meant that we needed a great number of them. Counting what was already in use in the lower camps and what was indispensable to our geological team, we found that our stock - I hardly dare admit it - amounted to at least eighty of each; and I'm not even sure that there weren't more and that Guido was not hiding them from me! I tried to prove to him by a simple argument based on probabilities, that if he was careful he had enough air mattresses and sleeping bags to get an expedition twice as numerous as ours to the summit of Makalu. But he would never listen to my arguments right to their conclusion. He only bothered about practical examples; a priori this might seem more sensible. According to his deductions, however, at least half of us would have nothing but bare boards, or rather snow to sleep on, and this could not be thought of. In the end we made a compromise and as it turned out our estimates proved correct; there was room for everyone except on one occasion when things began to look

very black, and another time when Lapras had no sleeping bag and had to sleep in between two Sherpas.

For the evening meal we were the Sherpas' guests and as we went across to the mess-tent, snow began to fall again, a sure sign that the 'western disturbance' announced on the wireless was upon us. In the big tent, which was anchored by large stones, Panzy was seated in front of his oven. From this height onwards Panzy was frequently to be found seated. His first few days at Camp II had been a terrible ordeal for him but today, except for a persistent headache, he was feeling better. All around him squatted a noisy crowd of Sherpas, intent on doing us the honours. At this height it is impossible to cook rice, and tsampa becomes the staple diet of the Sherpas; it is made from roasted barley flour and has a very pleasant taste. The Sherpas have two meals a day; one in the morning, consisting of tsampa and milk or sweetened tea, and one in the evening when they again eat tsampa, with chillis. With the chillis — a sort of red pepper — they make a horribly strong sauce, which they consume in great quantities, and by comparison with which the hottest dish from the south of France would seem as mild as honey. I was about the only Sahib who, on these two expeditions, had acclimatized his palate to this fiery condiment. I took it only in very small quantities while the Sherpas watched me out of the corners of their eyes to see the effect it was having.

Otherwise the Sherpas relied largely on French cooking; we had prepared tins of food for them; tinned meats, fish, biscuits, dessert creams, milk and butter which we had labelled 'Sherpa food' and they were free to use it as they felt inclined. Above Advanced Base, however, the Sherpas had exactly the same high-altitude rations as ourselves; they were cooked on the same stoves as ours and often eaten out of the same billy-can.

We had found a simple solution with regard to drinks. Panzy brought us hot water — we only drank it once it had been boiled — then we turned it into tea, coffee, chocolate, bovril, orangeade or some other drink by adding one of the numerous quick mixing powders we had brought with us. We no longer had the slightest desire for a glass of beer; instead we thought longingly of a good bottle of burgundy.

At Base Camp we had made some diabolical concoctions. We had discovered in the left-overs from the autumn expedition large 5-litre containers of surgical spirit. We wondered what other use we could find for it besides cleaning our photographic equipment. Then we remembered that one day Rivolier had made a drink not unlike our French Ricard by dissolving tablets of paregoric in pure 90 per cent proof alcohol. But it made us altogether too frivolous — some of us even thought of having a bowls' competition, which would have looked a little odd on the Barun glacier, to say the least of it. This year a coloured drink made with a mixture

of alcohol and fruit juice reminded us of those excellent French liqueurs made from orange, tangerine, raspberry or mint. We kept these drinks for solemn occasions; the arrival of the postman, or of Kindjock and his sheep, or an unusually successful day's hunting; we drank to the sun on very fine days, and on cold days we drank to keep warm, but on the whole we were not excessive and from now on, until Makalu was ours, we pledged ourselves to entire abstinence.

Snow fell again during the night and the following morning a sickly sun tried to penetrate the opaque layers of mist, but there was no wind. Little by little the camp came to life and we set off with the usual convoy. Above Camp II the track used frequently by our Sherpas, who had gradually found the line of least resistance, followed a rocky island lying between the two branches of the glacier. On the right the slopes rose steeply towards Makalu itself, and 4,000 feet above us, between two steep couloirs, we could make out the silhouette of the ice balcony where we would pitch Camp IV. On our left the rocky promontory climbed up towards the higher plateau and after an enclosed section, subject to falling seracs, it steepened into a series of little walls from which the plateau was visible. These were the last rocks and seemed to call for a halt. The equipment which we had left behind in the autumn had spent the winter in a hollow protected by a rough wall; every day the Sherpas would go and see what they

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could find that might be of use for Camp III. Guido listed what was there and found a whole host of forgotten treasures; knotted ropes, gas cylinders, avalanche mortars, shells, which we handled gingerly, two-man tents, petrol cans and divers other objects.

Soon after, a steep ice wall, up which we had cut a score of huge steps, gave access to the plateau itself, a vast basin whose slopes were gentle at first, undulating and much crevassed, but growing steeper towards the enclosing walls. The line of the basin was prolonged by the high couloirs that climbed up the slopes leading to the col, Makalu II and the numerous other subsidiary peaks of the chain. It was up there, at the foot of Makalu II itself that the tents of Camp III had been pitched at a height of roughly 21,000 feet; they stood out above the streaks made by a few crevasses. The track leading up to Camp III went from stake to stake crossing the crevasses and avoiding the bad patches. Every day it was obliterated by wind and snow, but thanks to numerous brightly coloured marker flags, which also indicated the danger zones, it was both safe and easy to follow even in misty weather.

In the autumn we had placed our Advanced Base Camp roughly in the centre of the cirque only to find that we were in the line of fire from some threatening seracs which looked as though they might well collapse. In the middle of the plateau, moreover, the wind fairly rages and last year we had suffered a good deal from it.

This year we preferred a spot which was higher and more to one side at the foot of a subsidiary ridge, and far from any seracs. It was here that Bouvier and Leroux had marked out the site.

We arrived there towards midday, just when the sky was beginning to turn milky white, a sign that heralded the approach of the daily 'western disturbance'. Far away, beneath the col, at the extreme right-hand end of the terrace along which the track to Camp IV ran, we could see two stationary little black dots, and above them, beyond the bergschrund of the couloir, two others were moving very slowly. Even with my powerful binoculars I could not make out what was happening. But we guessed that Couzy and Terray were getting to grips with the ice in the couloir. As a precautionary measure they had asked the Sherpas to wait beneath. They did not seem to be progressing very quickly and Guido and I began to wonder whether they would ever reach Camp IV that night. Then there was a snow squall and we could see nothing more.

The Sherpas spent a good hour working on Camp III, hollowing out two platforms, while we put up two more tents; then, in small groups they disappeared into the flurries of snow as they went down to Camp II. Sirdar Gyalzen and Da Noo stayed behind with us to prepare the loads for the next day.

From Camp III onwards we wore our high-altitude clothes. We sacrificed any aesthetic considerations to

three factors of overriding importance; protection against the cold, protection against wind, and lightness. It goes without saying that at such heights there is no fear of humidity. Next to the skin we wore a very cosy two-piece garment of fine jersey wool, with long sleeves and legs; instead of climbing trousers, shirts and pullover, we wore a one-piece suit of down, of double thickness, tight round the ankles and wrists, and we had sewn on to each suit an enormous collar of nylon fur. The whole outfit weighed only I lb. 12 oz. and provided sufficient warmth both inside and outside the tents in temperatures of from 15° down to 5° Fahrenheit.

For work on the camps, or when we were resting, we wore, on top of the usual soft woollen socks, down bootees protected by a layer of waterproof nylon, so that we could move about in the snow without getting our feet cold.

When we were walking and climbing we wore our reindeer-skin half boots, with the fur on the outside, and vibram soles, and over them we wore a lightweight canvas cloth boot that came up to the knee; with lightweight crampons fixed on to them they were perfectly adapted for climbing, even on difficult ground, and gave effective protection against the cold. We had been quite satisfied with them in the autumn, when we none of us suffered once from cold feet, even at temperatures as low as 22° Fahrenheit.

Lastly, for higher altitudes we had special windproof nylon over-trousers, with large pockets, down jackets and anoraks made of very finely woven nylon with big detachable hoods that we found superfluous and which we all left behind at Camp III. This was the uniform outfit for the twelve Sherpas whom we would choose only at the last minute and who would be used for the carries above Camp V.

Opinions were divided on the subject of gloves, but we were able to satisfy everyone. Guido and I were in favour of fine silk gloves next to the skin, which we practically never took off at high altitudes and in which it was possible to do even the most intricate manipulation. Outer gauntlets of cloth lined with nylon fur proved to be an ideal protection against the cold and I personally never once had cold hands on either expedition. We had other refinements as well; woollen gloves and mittens, down mitts, light cotton mitts, leather mitts, enough to satisfy even the most choosey. Since the autumn expedition Lionel had a predilection for fur mittens. He could not bear mitts, he said, that were not made of leather. But one day, when the cold was intense, and he had just reached the summit of one of the peaks in the cirque, at a height of 22,300 feet Lionel suddenly changed his mind, and from then on he wore nylon like the rest of us.

Head-gear gave more scope to the imagination according to the wealth or dearth of hair which our

THE RISING TIDE

ages and nature between them had left us. Many of us wore a soft leather cap over which we could fit our oxygen masks. Others — and here the Sherpas followed suit — also wore a large woollen Balaclava. Those who liked to be elegant sported a blue cap with a peak even in the higher camps. The caps were designed so that the various hoods of down or cloth could be worn over them. In this way our heads were well protected, which no doubt helped us to keep them cool on all occasions.

During the distribution of equipment the Sherpas expressed their joy vociferously. Several times Gyalzen had told us how pleased they were. We were keen to have them as well equipped as ourselves; particularly at high altitude, where they wore the same special clothing; this contributed greatly to their good health. Their high-altitude socks had been made specially to fit their extraordinarily wide, short feet, but the rest of their outfit was of standard design, and many of them, particularly those who were short, looked very odd indeed in this garb. Wearing our down suits they looked like Michelin men - they were always the first to laugh about their appearance. Namgyal was the smallest; he had abnormally short legs and an abnormally long body. When he walked in fresh snow all one could see of him was his load, but it did not seem to worry him.

An issue of pullovers of rather odd design gave rise to a picturesque session. They were woollen sweaters,

obtained cheaply, and were brightly striped and so short that they barely covered the diaphragm. It mattered little that they were short, for the Sherpas were resistant to cold and were not bothered by such unimportant details. The colours — originally they had probably been intended for a football team — were so hideous that after a while they were quite unbearable. Happily the Sherpas were not particular on that score either; the powerful tropical sunlight soon toned them down, and all was well.

The Sahibs on the other hand were terribly particular and gave poor Guido a lot of trouble. He had taken everything into account except whims and fancies. And whims and fancies are quite pardonable in men who have been isolated for months and completely deprived of any distraction. There was a great trying on of shirts and trousers, socks and stockings, and minds were frequently changed. For a long time Couzy appeared to be marked out as the victim of fate; his feet were bigger than the sizes catered for, his neck was thinner, his size neither one thing nor another, his tent was faulty, and while we were all issued with red sweaters, he was given a blue one; he seemed to be doomed to misfortune!

At last Guido had finished. This was the last issue, except for an emergency supply, and he would now be able to see to his own needs for a while.

It went on snowing – a fine, cold snow – and day-

light was fading when Couzy and Terray, followed by two Sherpas, came into camp. They were all very tired. Gyalzen Mitchou and Namgyal, two of the strongest Sherpas, retired to their tents without touching any food, while Lionel was subject to perpetual fits of coughing. The hard work they had been doing was obviously not much of a cure for the cough.

'The couloir is in bad condition' said Lionel. 'We took four hours to do five pitches. We had to clear off the snow and cutting hard ice at that height was quite exhausting. Cutting between 150 and 200 steps is rather a slow business at 23,000 feet.'

'Do you think we shall have to put up fixed ropes for the traverse?'

'Yes,' said Couzy. 'We thought of coming up behind you tomorrow. We'll go as far as the couloir and fix the nylon ropes that we left at the bergschrund. We shall need about 500 feet of rope and five or six staples.'

What I particularly wanted to know was how far they had got.

'We found last year's ropes intact on the cliff; we cut a lot of steps, left the loads and went on up the slanting ice crack at about 22,600 feet. Above that we began to get puffed, but you could start early.'

Starting early in the Himalaya is no easy matter. That morning the minimum thermometer in the tent registered -9° Fahrenheit — not a very encouraging

temperature to wake up to. The camp began to stir only when the sun came up. Then, if there was no wind, the temperature rose rapidly. But preparations took a long time, two hours at least, for every movement required an enormous effort. And at that height no one feels inclined to make an effort.

It was after nine when we left camp in two ropes of two, Gyalzen and myself, Da Noo and Guido. We were fairly heavily loaded with the first lot of equipment for Camp IV, enough oxygen for two days, food and climbing gear, including almost a thousand feet of rope. Besides this we should have to pick up the two extra loads left yesterday by our friends. We went at a very slow pace, but even a very slow pace is too fast and the best thing to do is to halt after each step and take a deep breath.

The first steepening occurred just above the camp, and continued for about five hundred feet. It was a test of the day's form and we could tell whether we were going well or not. Guido observed that I was going too fast. I was going just fast enough to prevent him from overtaking me, once he did so I knew I should never be able to follow! We took two good hours to reach the bergschrund, by which time the sky had already clouded over. Above us the steps cut by Terray and Couzy the day before were covered in snow, but we had no difficulty in sweeping it off. Belaying carefully we soon reached the ropes on the cliff; we left Couzy and Terray, who had been following along some few hundred yards behind us all morning, to drive in the staples and anchor the fixed ropes in the couloir.

As usual the squalls came from the west, but with our equipment we had little to fear. We took an hour to cut steps up the 65-foot wall. Gyalzen and I belayed Da Noo who was carrying one of the extra loads left by Couzy, as well as his own, which amounted to a total of some 90-100 lb. — no mean weight at a height of 22,600 feet. The second extra load was pulled up on the rope, and this took another hour. At last we reached the slanting crack, which was filled with deep snow, and we fixed two more ropes. By now we had come to the end of the steepest part of the cliff. The slopes above lay at an angle of 45 degrees, then the gradient eased off towards our balcony.

But it was getting late. Gyalzen and I left our sacks on the slope and went back to fetch the second load. Meanwhile Guido and Da Noo arrived. I asked them to go straight up to Camp IV and manage with their extra load as best they could. As for me, I was exhausted; we went down fifty yards and then I drove in an ice piton and asked Gyalzen to go down the whole length of the rope -200 feet - to fetch the second load.

These manœuvres had worn us out. Guido climbed the last stretch with Da Noo's enormous load on his back. He admitted that it was a terrible ordeal. At last

all four of us were together, and while the other three hacked out a platform and put up the tent, I rushed to the wireless set. It was six o'clock and I was able to contact the lower camps.

'Camp IV here, 23,000 feet. We're exhausted, but all's well.'

In actual fact, in spite of the tiring day, and nine hours of walking, climbing and step-cutting we were very pleased with our physical condition and still had plenty of kick. It was not at all comparable with the real exhaustion we had suffered the previous year. The tent was put up, and the Sherpas rested while Guido prepared our bedding and I did the cooking for all of us. Our twin tents were extraordinarily roomy. Imagine two two-man tents facing each other with a covered and hermetically sealed entrance hall in between the two. The entrance hall was the kitchen and on either side were the sleeping apartments. At meal times the hall was big enough to hold all four of us. The high-altitude tents which had been used in preceding years by most of the big expeditions were so low and so narrow that they were called 'coffin tents'. Those who used them had to do everything lying down, and preparing a meal in the apse of the tent was an acrobatic feat worthy of a music hall turn. With our 'twin tents', camping at a height of 23,000 feet seemed at least as comfortable as some nights spent in overcrowded Alpine huts.

That evening we had another surprise; the weather cleared up completely towards sunset; it was the first time it had happened for weeks. What a good sign! The mists disappeared as though by magic, Makalu glowed in the pale sky like some flaming but motionless torch; the distant horizons cleared while an iridescent veil of mist lingered over Everest, so close to us, and through the cut on the left of Makalu II we could see the mauve hills of Tibet stretching away into the distance.

'It's Bara Sahib's luck,' said Gyalzen, and Guido endorsed this statement. I must admit that I have always been very lucky in the mountains, the fine weather appears to follow me round; in twenty-five years' climbing not once have I experienced a terrible storm in the middle of a climb. On Makalu, however, it really seemed almost supernatural. In the autumn, when we climbed Makalu II from this same camp I happened to be with Lionel and Gyalzen; the wind, which had been troubling us for weeks, suddenly dropped and we were able to make the most of the only really fine day in the autumn, between two periods of stormy weather.

'That's Bara Sab's luck' said Gyalzen again. 'When Bara Sab¹ goes to the summit, it will be very fine.'

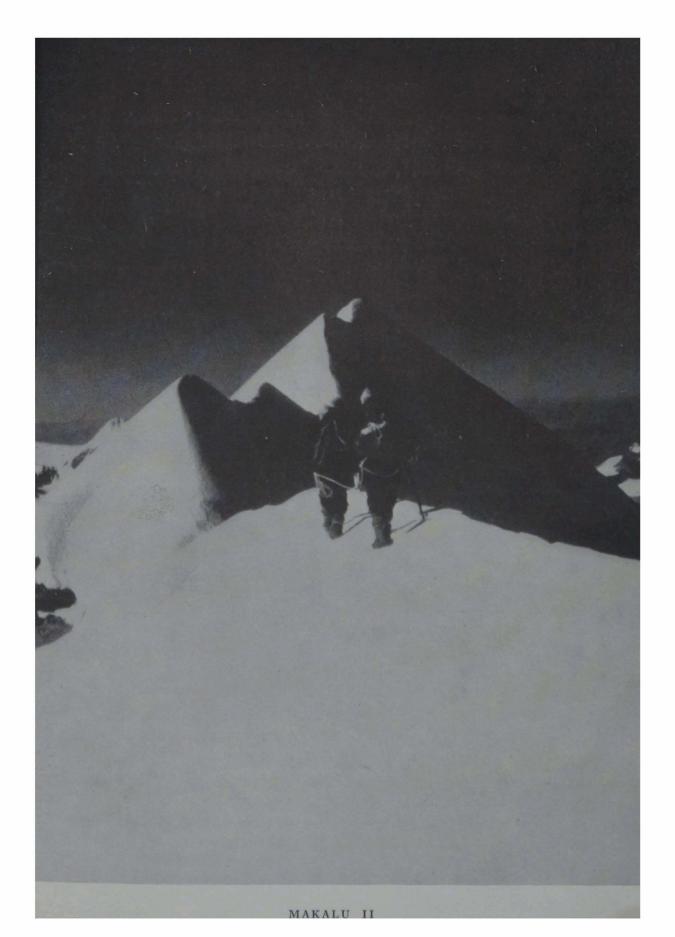
May 5th promised to be a wonderfully fine day without a breath of wind. The inside of the tent was covered

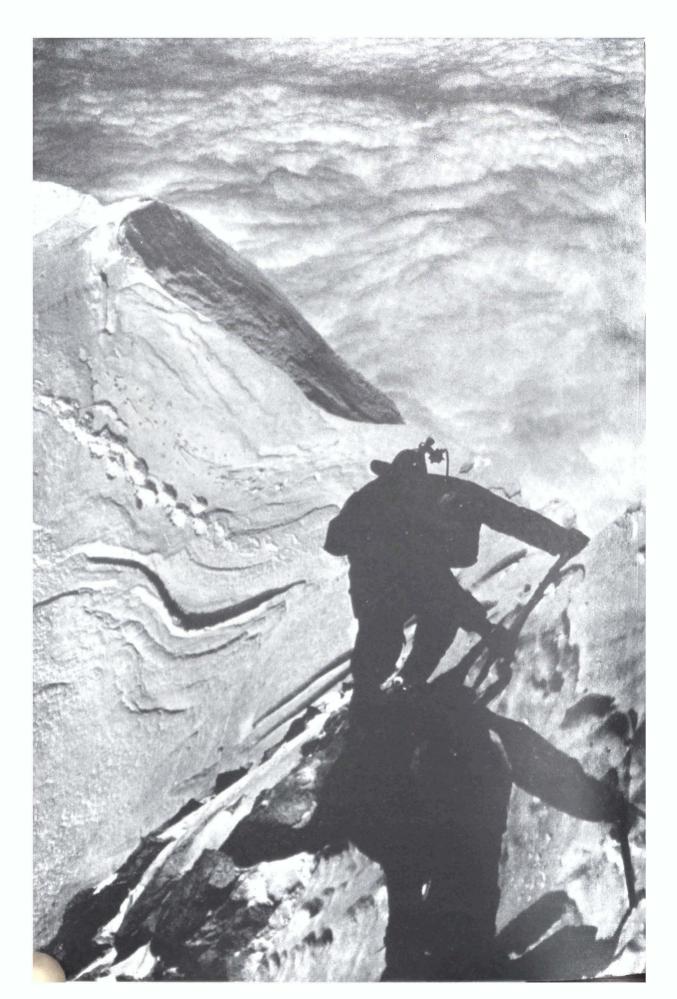
¹ The word 'Sahib is always pronounced 'Sab', hence the two spellings.

with a thick layer of frost, almost as though it had snowed. By nine o'clock we were equipped from head to foot, we adjusted the regulators to give us a flow of two litres per minute, put on our masks, and set off up the slope towards the col just as the sun came up behind Makalu, shedding its light over the west face.

What we called the ramparts were great ice slopes at an angle of between 30 degrees and 45 degrees which bar the west face of Makalu between two enormous rock walls. The lower of these two walls plunges down in a series of steep steps to the terrace where we had been the day before; the upper one rises steeply to meet the north-west ridge. To the left the latter ends in a not very pronounced rocky spur that comes straight down from the col; it forms the left containing wall of the steep, narrow deep-cut couloir coming down from Makalu Col. The previous year our route had been a direct one; it cut diagonally across the ramparts, skirted the base of the higher wall, tackled the middle section of the rocky spur and then went straight up to the col. Blown by the wind the thick snow had formed a dangerous crust known to mountaineers as 'windslab', so that there was a perpetual threat of avalanche. This was why we had avoided the lower portions of the rampart although they were less steep, and had gone straight up close to the upper rocks.

In the spring, however, conditions had changed enormously. The snow forming the 'windslab' had





almost entirely disappeared, ripped off by storms, and the ice was bare except for a thin superficial layer of powdery unconsolidated snow. After the first easy slopes we moved up into the vast funnel that fed the great couloir we had crossed the day before and the debris of which poured straight down in the direction of Camp II. Greenish and abnormally hard ice appeared just where the angle steepened. There could be no question of cutting steps on a traverse for thousands of feet. Yet the Sherpas were not expert enough to be able to rely solely on their crampons. A glance towards the spot where the funnel narrowed was enough to convince us that this was no place for a slip! The only possible means of safeguarding our traverse was to drive in long ice-pitons, and for each of us to move one at a time, running out the whole length of the rope. Fortunately our long spiked crampons bit through the loose snow into the ice beneath and held well. But our progress was very slow — it took over an hour to traverse the funnel - and it was obvious that this route would not be suitable for Sherpas by themselves.

'We shall have to find another route,' yelled Guido into his mask.

We traversed horizontally so as to reach the lower sections of the ramparts, deliberately avoiding the route we had taken in the autumn. The angle of the slopes soon eased off and we were able to move at a normal N 193 [facing: A FEW METRES FROM THE SUMMIT

pace again — a pace which was still desperately slow by comparison with Alpine standards. After two hours of this gruelling work we stopped for a rest on the last rocks of the lower wall, while the second rope caught up with us.

Just as we were taking off our oxygen masks so that we could have a little to eat, Guido made an abrupt movement and dropped his mask, which bounced down towards the lower cliffs. His face was such a picture of dismay that I had not the heart to tease him about it. It was not a serious accident in itself and Guido was quite prepared to go on without oxygen. But it was obvious that he would get tired very quickly and this might upset his hitherto perfect state of health; I thought it better that he should go back to the lower camp, and watched his retreating figure as he went down, using the steps we had just been cutting. The others beneath, who were probably watching us through binoculars, would not be able to make head or tail of our antics!

The three of us went on, roped together; we had a spare oxygen cylinder between us which would give us an extra margin; Gyalzen and Da Noo were loaded with numerous coils of fixed rope.

First we had to reach the base of the spur, which was easy but took a long time; our crampons held very well on the steep snow slope. But the rocks immediately became very much more difficult and we progressed even more slowly, using a vast number of pitons. On our left there was the possibility of another route in the shape of a slanting band of ice which seemed to lead to the easier section higher up, but I preferred to keep to the edge of the ice slopes and make for last year's route at the level of a small chimney where some of the ropes we had left should still be hanging. I chose the right-hand route, for no very good reason, just as though I had been calling heads or tails. I soon had to admit that I had made a big mistake.

For the moment, however, we had embarked on it. It was horrible ground with great compact granite slabs lying at the same angle as the slope, and we had to cut steps in the ice which ran up on to the rock in thin tongues and then petered out. It was wonderful sunwarmed red granite; in the Alps it would have made exciting climbing, but in these conditions and with our Michelin-man accoutrement it was guite a different matter. With our bootees, boots and overboots, our crampons, ice-axes, pitons clanking round our waists, oxygen cylinders on our backs, masks clamped over our noses, we looked like Himalayan monsters; and the great elephant's trunk that dangled now in front, now round our necks or under our armpits, with its three valves oozing condensation, and the pulsations of its rubber bladder that kept time with our breathing -the only indication that the machine was working properly -- gave us the appearance of grotesque and

clumsy Martians, such as are seen in futurist drawings. The Himalayan monster does not like climbing and would gladly exchange this clean cut-crack for a nasty scree slope covered with snow. Strung up to a piton 60 feet below, Gyalzen watched my progress anxiously.

'Very isteep,' he kept saying in his inimitable pidgin English. As usual Da Noo said nothing. Da Noo carried loads and asked no questions. If the Sahibs had decided to go there, then he would have to go that way too.

At last we could see the fixed rope in the chimney some 100 or 130 feet above us. The rope was intact, for all the world as though we had only just put it there. The surroundings, however, had changed considerably. Last year the rocks had been covered with hard snow and we had had to cut more than twenty deep steps to reach the foot of the chimney. This year the snow had all gone leaving smooth slabs and ice-filled cracks. Armand Charlet would have been in his element here, and would certainly have cut steps! But I had not the slightest desire to cut steps in hard ice. Armand here, with an oxygen mask, Armand who hated artificial climbing! The very thought tickled me.

We gained another 60 feet somehow or other. It was no route for the Sherpas . . . nor indeed one which would get us up Makalu. I might have foreseen it.

¹ The Sherpas have not yet learnt to pronounce double consonants; 'steep' becomes 'isteep', 'strong' becomes 'istrong' and 'milk' becomes 'milik'.

'What shall we do, Gyalzen?'

'Down,' he answered.

All the same I wanted to make quite sure. I explained to Gyalzen that we would just try to catch hold of the end of the fixed rope, in order to make the junction between the two routes. The last pitch was the most awkward. After a 10-foot slanting crack which I climbed hanging on by my hands, I reached a small platform at the bottom of the chimney. We were at a height of 24,000 feet. I was quite certain we should find an easier way to the left, in the smaller couloir; but if necessary we could equip these pitches with fixed ropes.

Time went quickly and it was nearly four o'clock when we decided to turn back. We began the descent, very slowly. The knotted ropes were unravelled and made fast one by one in 150-foot lengths to iron pitons driven into the rock. In the course of these manœuvres Da Noo slipped, starting off a small avalanche of snow and slid down on his back; he swung like a great pendulum and hung at the end of the rope 100 feet beneath. But the rope held. Da Noo began to get his breath back and smiled as though nothing had happened.

In the evening, as night fell, we went back across the long terrace that led to Camp III. We walked on automatically, the four of us roped together, our minds

full of the day's happenings. We had not reached our objective but we nevertheless had good cause to be satisfied. For the first time for weeks, for months, the sky had been blue all day from sunrise to sunset. We had not been bothered by the wind. Although the night spent at Camp IV had been very cold I had been able to climb at a height of 24,000 feet for several hours, wearing only my light silk gloves. Was this the beginning of a fine spell? The fiery sunset behind Everest, the peaceful night sky, bright with stars, all seemed to suggest that it was.

We were certainly very tired, but the pace we kept up showed that we were in good trim. This preoccupation with one's health is perhaps one of the most striking features of high-altitude climbing. We knew by experience that the slightest upset, stomach trouble or a bad night, was enough to undo all the good done by several weeks' acclimatization. As it turned out we were all most fortunate in that respect.

As for the technical difficulties imposed by the nature of the ground or the conditions, I no longer gave them a thought. With our four ropes relaying each other in the lead the mountain would yield, even if it were steeper, higher and more difficult. Any obstacle that was not overcome by one party would be overcome by the next as it came up and made a fresh attack. Each party would climb up on the shoulders of the preceding one and from now on I was sure that nothing would

THE RISING TIDE

stop us. Each of us did his best to perform the task allotted to him — a task which was a part of the whole plan and which had been discussed, worked out and accepted by all of us. It was perhaps because of this spirit of mutual trust and common purpose that I felt I had every reason for confidence in final success.

It was with a smile on our lips and a feeling of hope that we went down the last slopes above Advanced Base Camp. Serge Coupé and Dr. Lapras came to meet us with hot drinks; they had prepared an excellent dinner which we had all together in the mess-tent. We drank vast quantities, and considerably diminished our stock of tinned fruit and fruit juices; but we knew that we had a large reserve supply. We stayed up quite late while each of us described the day's events. This was Coupé's last day of running-in and he was consumed with impatience. Lapras had come up to reconnoitre, for during the assault he was to be at Camp III with all his essential equipment. Gyalzen and Da Noo laughed over the morning's adventures. Even in the Himalaya there are days when life is very pleasant.

When we went back to our tents there was a full moon and the silhouette of Camp III stood out in stark shadows against the snow. The following day we lazed for some time at Advanced Base Camp. Guido assembled all the loads which would be taken up on the next heavy carry. There were twenty-two loads lined up; four complete high-altitude units comprising thirty

bottles of oxygen and the necessary bedding, camping and cooking equipment for sixteen people for the first series of assaults; in all, almost 8 cwt. Then later in the morning we went down towards Camp II; on the plateau we met the daily contingent of Sherpas. There were twenty of them coming up slowly with their loads, smiling happily. They gathered round us, eager to know how far we had got and what had happened. Gyalzen joked with them, pointed out Camp IV, the traverse, the spur, the col and the fixed ropes. Everyone laughed. Chotaree stepped into a crevasse and went in up to his waist; he was the first to laugh.

At Camp II we had lunch with the party that was going up next: Bouvier and Leroux with Tashi and Pemba Tenzing. We went over the plans for the heavy carry which would have to be made in two lots:

(1) Bouvier and Leroux would reach the col on the 9th, and would finish equipping the route on the way.

(2) Coupé and Vialatte, following at an interval of twenty-four hours, would accompany the twenty Sherpas.

Guido and I went on down to Camp I where we found our friends; Kindjock and Mrs. Gyalzen in the kitchen, Vialatte and Latreille, who had just come back from Pethangtse, and Bordet, who was already making plans for the return journey. The fine weather put everyone in good spirits and preparations went on apace. The carries up the Barun moraine were now over. Kindjock had brought the last load up from Base Camp that day. Only a few auxiliary porters were needed up at Camp II. Ten of the Sola Khumbu porters decided that they had earned enough money and wanted to go back home; another group of porters was to accompany Latreille, who was going to traverse the high Hongu cols towards the Imja basin and Namche Bazar, in order to complete the geological work done by Bordet the year before. Bordet's party was going back to Sedoa and intended to reach Namche Bazar by the lower route.

The redistribution of porters, food and equipment all went remarkably smoothly and our friends departed. We had agreed to meet at Biratnagar or Calcutta, as the case might be, on June 10th.

The next few days were to be of capital importance. The four parties were to follow each other at twentyfour hourly intervals, so as to make the most of the fine weather spell. On the 7th Bouvier and Leroux went up to Camp III while Panzy set up his kitchen there permanently. On the same day Vialatte and Coupé left Camp I. On the 8th it was the turn of Couzy and Lionel, who were also twenty-four hours behind, so that no time was lost. This last party were going up as a supporting party for the other two ropes, in case the heavy carry failed at the first attempt. If, on the other hand, it was successful Couzy and Lionel would then

constitute the first assault team. We were prepared for either event. We reckoned that it would take four days to go from Camp I to Camp V on the col; it was essential to plan operations for a long time ahead so as to ensure against loss of time or overcrowding the camps. Couzy, Lionel, Guido and I had already spent much time discussing in great detail how we should make the final assault. As it turned out everything happened just as we had planned on that afternoon of June 8th.

Guido and I spent the 9th taking it easy at Camp I. The fate of the expedition for the next few days would depend on today's results. Early in the morning we scanned the slopes beneath the col through our binoculars. We could make out quite clearly the two ropes of Bouvier and Leroux as they attacked the ice slopes above Camp IV, but we lost sight of them again on the rock spur. It seemed likely that we should not know what had happened before the evening. Then we made out the long caravan of Sherpas who, under the guidance of Coupé and Vialatte, were crossing the bergschrund in the couloir and starting up the cliffs buttressing the balcony. I could not count exactly how many there were, but there were more than twenty. All the available Sherpas had set off, as Gyalzen had promised. The weather was so fine and the temperature so warm that we made the most of it by having a good wash; this was something we had been unable to do

for weeks. A shampoo at 17,400 feet is probably a world record! It was much in vogue. We went over all the records that were left to beat, poor late-comers that we were! The highest, hardest, most beautiful and most dangerous mountains had already been climbed! Record comfort was what we were interested in at the moment and we were certainly not far from beating it.

Waiting made the time go slowly; I could not bear it any longer and in the afternoon I climbed up towards a small 20,000-foot summit to get a view of the col. Even with my strong binoculars I could see no signs of life. Below, the last groups of Sherpas were arriving at Camp IV.

At last it was time to listen in. Once we had contacted them, there was no need to ask any questions. Leroux told us everything in great detail.

'We reached the col at two o'clock. It all went splendidly. The spur is covered in ropes from top to bottom. The heavy carry can take place tomorrow.'

'Splendid. I was waiting impatiently to hear. That's really wonderful. Everything's going to work. We're all fearfully pleased.'

We congratulated them warmly. Guido, the doctor and I were exultant. The news spread from camp to camp and we had lengthy conversations on the walkietalkie. Each team was anxious to know the news. We were all overjoyed by it. There was no doubt about it now; tomorrow we should succeed in making the heavy

carry up to the col; our plans were all ready and after tomorrow night we should be able to carry them out.

I went to the kitchen. Kindjock had installed a Tibetan cooker with three rings. 'It's more economical,' he explained.

'Kindjock, Makalu Col has been reached today. Tomorrow all the Sherpas in the higher camps will be going up there.'

'Yes, Sab.'

'You've been coming to and fro between Base Camp and Camp I for a month and a half. Aren't you getting a bit tired of it?'

'Yes, Sab.'

'Would you like to go higher? It won't take us more than a week to get up Makalu now. We shall have to hurry. Guido and I will be going up in two days. Would you like to come up to the col with us?'

'Just as you like, Sab.'

'It will be hard going up there. And perhaps it isn't quite the thing for a British soldier who is supposed to be on furlough. But Tenzing will be pleased.'

'Oh, yes, Sab!'

We were a man short up there — now one had been found.

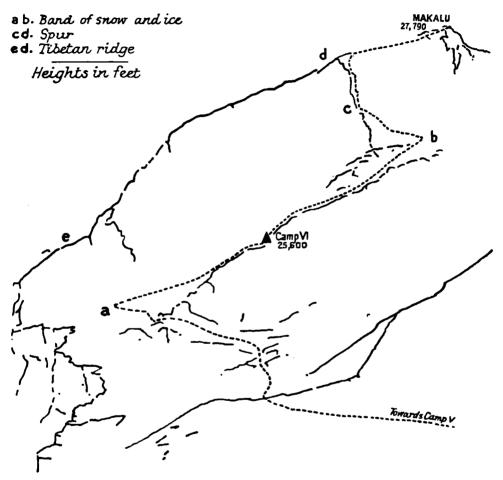
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Waves on the Summit

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ROM now on we could concentrate on the last 3,000 feet of Makalu, for the siege was at an end; Camp V was fully established and equipped, the route to the col was open and in fine weather it was perfectly safe for the Sherpas to go up and down it alone. We had sufficient supplies at the col for sixteen men to spend a short time at Camp V, as well as enough for several teams to spend a few days there in the event of unfavourable weather conditions.

We knew little about the north face of the mountain for none of us had been there, but we had been able to get a remarkably good view of it in the autumn from Makalu II and Chomo Lonzo. We had no alternative but to find sites for one, or possibly two, camps somewhere on the upper ice fall, an icy band of snow and seracs. One camp might be sufficient if the seracs themselves were not too difficult, provided we could reach a height of 25,600 feet in one day from the col,



NORTH SIDE OF MAKALU

and that it proved feasible to climb the remaining 2,200 feet the next day. If not, we should have to pitch two camps.

At the beginning of May conditions were good and we counted on the fact that at a high altitude any loose snow would have been swept away long since by the continual wind. On this our safety depended. The presence of fresh snow on the steep slopes of the last few thousand feet would have meant our being in grave danger from avalanches, particularly as the face was slightly concave in shape. We were determined to attack as swiftly as possible, for the success of our assault depended on the speed with which we could make our final attempts. Our plans were as follows: to send small autonomous groups up to the summit one after the other in fairly rapid succession, at intervals of twenty-four hours. The first party, consisting of two Sahibs accompanied by five Sherpas would climb up to Camp V on the col, pitch Camp VI as high as possible on the north face, send their Sherpas down and make the first attempt on the summit the next day.

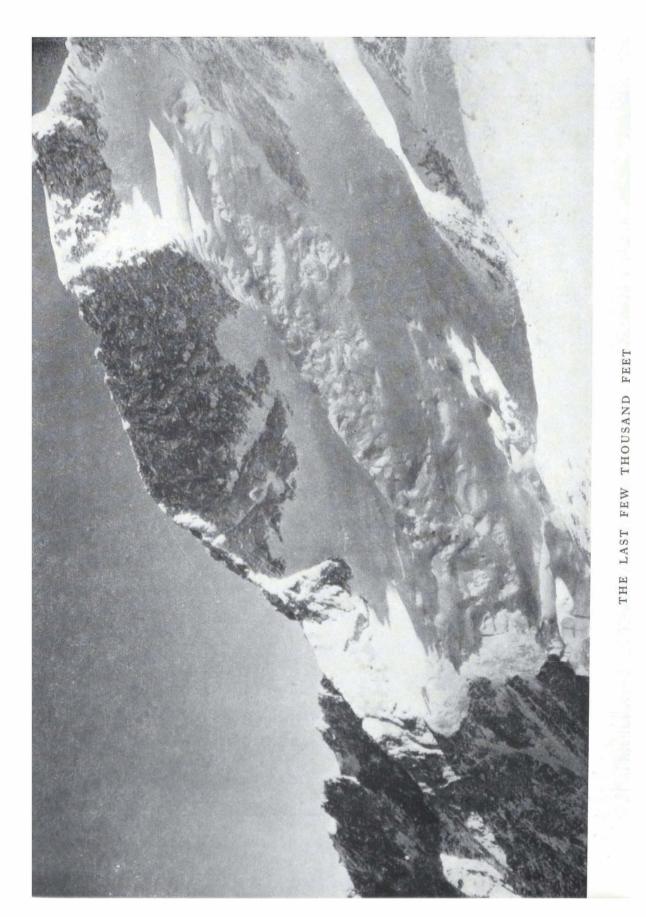
A second similar party would follow twenty-four hours later and make use of Camp VI, already established by the preceding party. If the latter had failed to reach the summit the second party would then place a Camp VII higher up at a height of between 26,250 and 26,500 feet and make their attempt on the summit the following day.

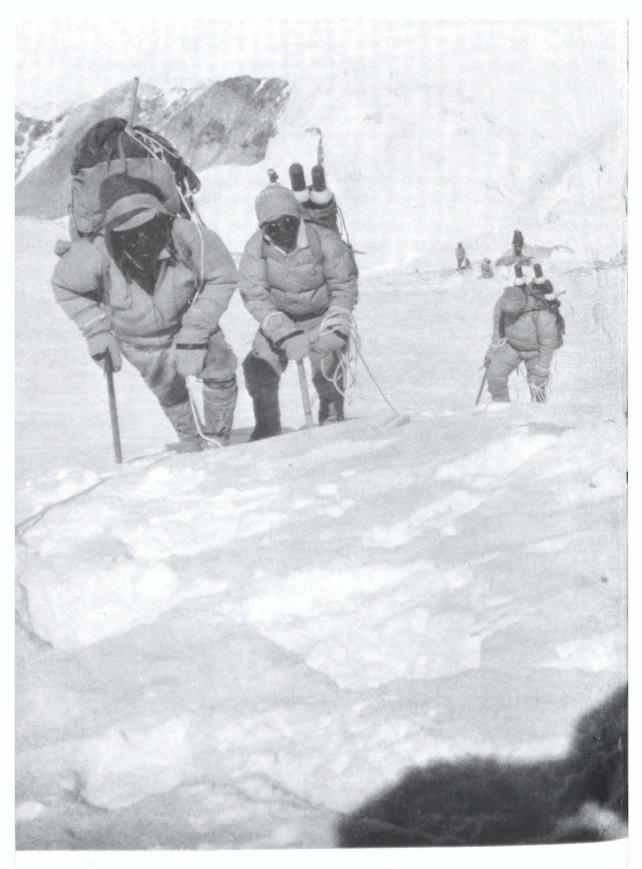
Because of the way in which the various parties were spread out upon the mountain it so happened that the first group would consist of Couzy and Terray and the second of Franco and Magnone. These first two teams would be light and self-contained and independent of additional support. Because of the food problem neither was scheduled to stay long at a high altitude.

In the event of failure, which was unlikely but possible, I had decided that we would have to send up larger teams consisting of four Sahibs. Bouvier, Coupé, Leroux and Vialatte would constitute the first of these heavier teams, while the four remaining Sahibs, who would by then be rested, would, if necessary, form a second team.

We would use our oxygen according to the principles decided upon in France, bearing in mind our experience in the autumn when we had seen our Sherpas returning from the col in a state of complete exhaustion. The Sahibs would be provided with masks which they would use day and night above Camp IV, i.e. above 23,000 feet. Those Sherpas called upon to go above the col would also use oxygen. This innovation as regards the Sherpas explains why we had to have so much food and equipment, and hence the importance of the 'heavy carry'.

Sharing out the Sherpas between the various teams gave rise to a great deal of rearrangement. In the first place it was important not to upset the rhythm estab-





lished between those Sherpas and Sahibs who were already accustomed to each other, and in the second place to divide out the strongest Sherpas fairly among the teams. The stronger would be chosen to carry above the col. And so, with help of Sirdar Gyalzen, we chose twelve Sherpas from among those who seemed to be the fittest and whom we knew best.

Evla Namgval, Gyalzen Two and Aila formed one of the strongest teams. In the autumn Eyla Namgyal had been four times up to the col and had spent three nights there. Gyalzen Two, whom the Sherpas called Mitchou because of his small eyes, had very fine features; he had natural elegance and was always impeccably dressed — a real Sherpa aristocrat. Aila was an Annapurna veteran, and wore a small, well-trimmed moustache; he was a man of experience and we knew we could count on him in any emergency. Ang Phutar and Pemba Norbu would go up to the col. Ang Phutar, the clown of the party, was a born mimic and was always making jokes and pulling faces; he was an invaluable companion in any circumstance and at any height! Pemba Norbu was still covered with scars. Last year, beside the Tamar, he had tried to light a fire with paraffin - Sherpas always choose the most expedient method - and he burnt himself badly; we suspected that he had really used petrol. Rivolier dressed his wounds, using up almost all our burn dressing; we left him at Dhankuta and advised him to go back to Dar-

jeeling in a few days. Contrary to our expectations, however, he appeared at Base Camp a month later, completely healed.

These five men, who would accompany Couzy and Terray, and form the first assault party, were ready for anything. On the evening of May 10th when the large team, which had done the heavy carry, was going back to Camp III, we had a lengthy discussion over the walkie-talkie confirming our plans and going over the final arrangements in detail. The next day would be a rest day for all the Sherpas at Camp III where they would be able to recuperate after the strenuous climb up to the col. Meanwhile the Sahibs made use of the time to get into position for the assault.

On the 11th Guido, Lapras and I, together with Kindjock and six auxiliary porters, made our way up among the maze of big rocks and boulders between Camps I and II. We knew the route well by now, for it was clearly indicated by numerous cairns of all sizes. The weather was fine and warm and we went up as slowly as possible. Half way we met Gyalzen coming down, although it had been agreed that he should be on the second assault party.

'Where are you going, Sirdar? Aren't you feeling well?'

'Oh, yes, Sahib! Very well. I'm just going to say goodbye to my wife before climbing up Makalu. I'll be coming up to Camp II tomorrow morning!' It seemed strange to have a tryst at a height of 17,400 feet and to walk a whole day to get there! Gyalzen was still wearing his high-altitude outfit consisting of a onepiece down suit trimmed with nylon fur, no doubt specially to impress his wife!

When we arrived at Camp III towards midday on May 12th, we thought it looked most impressive with its two huge mess-tents, the large ochre tents and the twin golden-yellow tents. Our friends were expecting us to lunch. Two or three hours away, at the end of the terrace, the first team was just crossing the bergschrund. While Guido was making the last preparations for the next day and distributing oxygen loads, food and equipment to the second assault team, Gyalzen and I decided on the Sherpas who would accompany us. Besides the sirdar I kept my faithful Da Noo with me, Kindjock and Gunden. For a long time I had been debating whether to include Pa Noo, who had been up Makalu II the year before and was supposed to be one of the toughest and ablest of the Sherpas; but Pa Noo was ill with rheumatic fever and had to knock off for two or three days. To complete my team I felt that I must have one really good Sherpa. I suggested an exchange to Leroux and asked him to let me have Pemba Tenzing or Tashi and after a very long argument he finally agreed, most unwillingly, to let me have Pemba.

We then started a lengthy discussion as to the tactics

which the third assault party should adopt. Our four friends who had succeeded brilliantly in going up to the col and establishing Camp V were impatient for action and would have liked to form a party of four to follow twenty-four hours behind the second assault team. They felt that the time was ripe for Makalu and they wanted to share in the victory. The idea of getting everyone to the summit of the mountain was not a new one; back in Paris we had all been taken by Couzy's dream of a mass attack on the mountain. It would be a just reward for all our team work if several ropes were able to climb Makalu. Our friends of the third assault party declared that they were in excellent form; they were afraid that the weather might suddenly change, and could hardly wait to be off.

I was worried by a different problem, however. Although the prospect of a mass ascent of Makalu was very tempting, and although I was prepared to do all I could to achieve it, I did not want to lose sight of the fact that our first and foremost aim was to make sure of getting one party up the mountain. If the first two attempts failed on account of unexpected difficulties, it seemed to me that it would be essential to try a different mode of attack with the third assault team; this very probably meant that we should have to rearrange both man-power and oxygen. To do this we should have to have a three-day interval between the second and third parties. We had the liveliest of arguments, but I was determined not to give way. Indeed, the very keenness of our discussion was proof that the 21,000 feet of Advanced Base Camp no longer made us pant for breath. We reached a compromise; the time-lag was reduced to forty-eight hours, but I reserved the right to stop the third assault team by wireless from the col if events on the north face did not turn out as we hoped.

Half an hour later a battle took place round a bridge table. Vialatte, who was completely hidden by thick smoke in his tent, could not bear card games and had long since thrown us out. Leroux and Bouvier were usually the ones to issue invitations. We observed each other as closely at bridge as on every other occasion; there was the promising beginner, the conscientious and systematic player, the incorrigible bungler and the player who took his pleasure seriously and for whom a game of bridge was only another sort of quadratic equation. These games were usually very lively. This particular one at Camp III was special in that it was the last — the last one before the assault; it was most improbable that the same four players would find themselves together again, for in our plan of campaign this factor had not been considered; indeed it was our one serious omission.

The solemnity of our last few hours at Camp III was felt by all. The next few days would bring us the

greatest of all joys for which we had been hoping and planning for months . . . or possibly a great disappointment. We had all done our utmost to prepare everything but from now on the die was cast, and we could do nothing to change the course of events. We knew the mountain too well not to realize that the slightest thing could upset our plans. The slightest breath of wind, which would have gone unnoticed in any other circumstances, would be enough to endanger a party on the terminal arête, or a slope where the snow lay too deep might transform our route into a fatal avalanche track. We were neither faint-hearted nor pessimistic, quite the reverse, but for a long time we were a prey to these sombre thoughts. It was perhaps to dispel them that we busied ourselves with the final preparations.

I spent the greater part of the evening putting my belongings in order just as though I was about to set off on a journey for several months. I sorted all my precious papers, balance sheets, letters of recommendation, Sherpas' contracts, and as I did so I remembered the various phases of preparation. Then I entrusted the lot to Vialatte, whom I put in charge of the camps in my absence, and who was to be responsible for operations until I returned to Advanced Base Camp. This was a detail of seemingly little importance, lost in the mass of other daily arrangements, but in fact, when I mentioned it to Vialatte just as I was going,

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we suddenly both realized all that this verbal agreement might entail.

Dr. Lapras was on his second visit to Camp III and as from today he would be fitting up his advanced post there. His task would be to remain there during the whole assault period and to be ready with his first-aid equipment should the necessity arise. His equipment was divided between the different camps in such a way that the higher he went the lighter it became. All his heavy surgical equipment was at Base Camp and Camp I, while at Camps II and III he had all the transport and first-aid equipment. It would also be his job to listen in to the weather forecasts during our absence. To keep himself in training Lapras came up with the second team to Camp IV before going down to Advanced Base Camp for good.

It was a numerous party that set off on the morning of May 13th across the plateau of Camp III while the wind blew up eddies of snow and the tents flapped and fluttered noisily. The four we left behind wished us good luck while the Sherpas filled the air with their happy shouts and hurrahs. We reckoned that we should take at least five hours to climb the 2,000-foot difference in height between Camps III and IV; on the great terrace there was a violent wind and we had even more difficulty than usual in breathing at this height; at times it felt as though there was no air at all. To protect our throats, which were always sore, we took care to walk

with our mouths shut, which meant that we could only go at a very slow, steady pace. After three hours we came to the bottom of the great couloir; the wind had completely covered the tracks with snow but for the next 1,300 feet our route was marked by a series of ropes. On the opposite side of the couloir blue ice cliffs, polished by the winds, seemed to glow with light.

It was wonderfully fine and the sky was a deep crude blue. We were in no hurry, and Guido and I stopped frequently to film and take photographs. We were both extraordinarily fit and climbing at a height of 23,000 feet seemed no more than a delightful walk. We were very talkative — just as though we had been on our way up to a hut on a fine afternoon in the Alps. We were surrounded by mountains on all sides, and as we moved upwards they too seemed to climb higher and to stand out more clearly against the sky. Everest completely dwarfed its satellites now. Chamlang was almost at our own level, while the long ridge that runs round the cirque was but a lacy frill of ice and rock beneath us. And so we came to the golden-yellow tents of Camp IV.

As though by magic, the wind had dropped completely, which was unusual at Camp IV. It was a glorious afternoon of bright sunlight and Guido and I stayed outside for hours while the Sherpas made preparations for dinner and bed. The extreme edge of the platform on which the camp was pitched jutted out like a balcony above the north-west cirque and from it

we could easily see the minute yellow patches marking the lower camps. Shadows had already crept up over the moraine and the glacier while our balcony was still bathed in sunlight. Down there in each of those tents men were living, waiting for their turn. At last we were driven in by the cold. There was a long conversation on the radio that evening; Couzy told us that he had reached the col and that he was full of confidence for the next day; he told us what equipment he intended to take to Camp VI, and gave us details of the oxygen and food situation at Camp V. Our sense of comradeship gave us confidence and good wishes were broadcast from camp to camp.

Kindjock was a first-class chef, and the menu that night was a perfect example. We had eggs and bacon, hearts of artichoke, a thick soup with chicken and tomato flavouring, and various sweets and fruit preserves for dessert. Preparing meals was a solemn rite and the usual routine was in progress; two Butane stoves had been working non-stop for three hours. It takes a certain number of calories and a very long time to obtain water from snow at a temperature of -14° . Following the doctor's advice, we drank vast quantities so as to counteract the dehydrating effects of the high altitude. The dryness of the atmosphere and the great intake of air into the lungs—due to an increase in the rate of breathing—cause a high rate of water loss. If care is not taken to prevent water deficiency, the

latter may have extremely serious after effects: the blood thickens and circulates less freely, thus rendering the limbs more susceptible to frost-bite. Between six and ten pints a day was normal and we drank this with pleasure in the form of soup, tea, coffee, fruit juice, herb tea, chocolate, Ovaltine, milk, lemonade and Bovril, etc.

In the confined space of the entrance halls we all milled about doing various jobs, until everything was settled. Lapras was our guest, but as there was no air mattress for him he had to bed down between two Sherpas in the neighbouring tent. Our doctor was very proud of having been above the 23,000-foot level; he would wait for the Sherpas to return and go down with them to Camp III the following day.

[•] The evening was calm and quiet. The tent walls were motionless as we adjusted our oxygen masks for the night; a good augury for the morrow.

May 14th would see the penultimate stage of the assault on Makalu when Camp VI would be established on the north face. We had decided to contact Camp V by wireless early in the morning before the first team left the col and before the second left Camp IV. We wanted to be sure of co-ordinating our movements. But although we tried for a long time we were unable to contact them, probably because of too much screening, and we used Leroux, down at Camp III, as our intermediary. 'A very good night,' said Couzy, 'in spite of a strong wind on the col. Two Sherpas, Namgyal and Pemba Norbu, are not fit to go on. I have given them a large dose of oxygen but they're done in. Vomiting. So we shall have to leave them here.'

'We'll look after them when we reach Camp V at about twelve. Tell them not to leave the tent.'

'We've got three good Sherpas and we've divided out the loads. We've got a lot to carry but we're in excellent form.'

'Will you be able to take up the walkie-talkie?'

'No, we've got too much as it is, and we can't manage an extra 9 lb.'

'Right. We'll communicate by messenger. Good luck, see you tomorrow.'

A few moments later, our three ropes were spread out over the ice slope. I set the pace with Guido and Da Noo. Next came Gyalzen and Kindjock while Pemba Tenzing and Mingma followed some way behind with Guido, who was filming close ups. The hours went by but it was pleasant walking and thanks to the very slow pace the Sherpas gained ground regularly although they were carrying loads of over 40 lb. We made numerous halts but at last we came out on to the plateau by the col overlooking Tibet. Two tents were already pitched, and we soon pitched a third in spite of the strong wind.

We found Pemba Norbu lying down and in a bad

way. We were also very worried by Namgyal. The whites of his eyes were showing and he kept vomiting, complained of violent pains in the head and was too exhausted even to speak. His only answer to our questions was a series of muffled grunts and groans. We gave him hot drinks and various stimulants, and coramine injections to put some life into him; we also gave him a strong dose of oxygen at the rate of four litres a minute. However, there was no question of their spending another night up there, for the height was already beginning to tell on these tough fellows. We finally put them in charge of Mingma, the youngest of our Sherpas, and sent them down with him to Camp III.

Mingma was only eighteen; he had just come up to the col with a load for the second time and he was very proud of it. On the autumn expedition Mingma had only been a valley porter, which did not prevent him from helping in the kitchen right up to Camp III. He had incredible powers of endurance and in spite of his scrawny legs and arms he could easily carry the equivalent of his own weight. Nevertheless, I felt a little anxious about letting Mingma go down alone with these two tottering Sherpas and asked Sirdar Gyalzen whether he thought it unwise.

'Mingma is very "istrong",' answered Gyalzen.

After going a few yards Mingma seemed to think of something; he unroped and came back towards me. Placing his two hands on my shoulders he said: 'Good luck, Bara Sab.'

Mingma knew only a few English words and he must have learnt these new ones so as to be able to wish us good luck up on the col. I was touched by his thoughtfulness and accompanied my young friend as far as the edge of the plateau to the point where the slope plunges straight down to the spur.

Makalu Col was a vast, desolate place that could not be measured by any human scale. A broad glacier plateau enclosed by Makalu itself, Makalu II and Chomo Lonzo, stretched gently down on the Tibetan side before plunging abruptly in a series of enormous ice-falls towards the Kangshung glacier and the Kama valley. The whole gave a quite peculiar atmosphere of height and distance; it felt almost as though one had left the earth and had been transported to another world. Our own world was limited to a few tents down in the cirque where our friends were watching and waiting for us, but here the surroundings seemed to belong to another realm. The last few thousand feet of Makalu still rose above us; the perspective made it impossible to judge the angle of the slope and we were not overawed by it. Several times we looked up trying in vain to spot our friends who must have been battling with the seracs, but it was all too far away and the ground too broken up. All we could see, a few hundred yards above us, was a red flag that flapped in the wind - the first marker showing the route followed by Couzy

and Terray. The wind had long since obliterated their tracks.

Makalu Col is the kingdom of the wind. The few times we had stayed there in the course of our two expeditions had convinced us that there must be only very few days in the year when it is possible to stand up on the col. Usually a perpetual gale rages in this funnel which canalizes both monsoon storms and icy mountain winds. The dump that we had left behind in the autumn was smashed to smithereens, and fragments of tent, sacks and oxygen bottles lay scattered over the plateau. Snow would not lie here and the surface was covered by incredibly hard sheets of polished blue ice strewn with odd rocks and boulders swept down from the neighbouring slopes, giving an impression of utter desolation. The word beauty seems inadequate to describe these gloomy and inhuman mountains - too high, too great and too vast for human comprehension.

While Guido and Gyalzen went lower down on the plateau to recover a few oxygen bottles that we had left behind in November, I prepared the oxygen apparatus for Guido and myself and for the five Sherpas who would spend the night with us and continue up to Camp VI the next day. Regulating and checking the equipment was a tedious job. In our tents we found relative comfort in spite of the muffled buffeting of the wind.

At about five o'clock three men appeared on the rocky hummock beneath the slopes of the north face. They were obviously the three Sherpas of the first team, coming down from Camp VI. They reeled and staggered and moved extremely slowly; they were completely exhausted and the rope trailed miserably along the ground catching in their legs and crampons. The last few yards along the level ground separating them from us was a terrible effort and took them a considerable time. They collapsed into the nearest tent without a word: the strain could be read on their faces. They grimaced as they took long gulps of very hot tea and coffee. For the first time the Sherpas did not smile. Ang Phutar stared straight at his feet, incapable of saying anything, while Aila kept saying 'very tired'. Gyalzen Mitchou, with his usual dignity, handed me Couzy's message.

'Started from Camp V at 8.30 a.m. very heavily laden because of the two sick Sherpas, 40 lb. each. Got through the seracs over to the left at a height of about 23,000 feet fairly easily. Went up the band to about 25,600 feet — and pitched Camp VI on a small terrace among the seracs, sheltered from wind and avalanches. We're tired because of the heavy loads but in fine form. The route's marked out but don't follow the first flags; try to start lower. We're sending back Gyalzen II, Aila and Ang Phutar. They made a big effort. Look after them well and congratulate them. Have got six

new oxygen bottles plus three that we've started, but we've only brought enough bedding for two. Bring yours.

'No wind here. Magnificent view. Above it's steep but looks as though it will go. The snow seems to be in good condition. Starting early tomorrow. Good luck. Good night.'

We were overjoyed by this message; our plans were all working out and victory seemed a certainty already. Even supposing that there were unforeseen difficulties above Camp VI and our friends could not do the last remaining 2,300 feet in one day, Guido and I could always pitch a higher camp. Our strength was unimpaired and our Sherpas were full of energy. After consideration we decided to take complete equipment for a small extra two-man tent with us the next day.

Gradually the three Sherpas from the first team revived; we gave them great whiffs of oxygen and stimulants. Gyalzen Mitchou pleaded that I should let them spend the night there; but I did not want them to remain so high, and we had not got enough regulators to distribute oxygen all round. Namgyal's example prompted me to send them down. I was loth to do so, for the three Sherpas were disconcerted at not being allowed to remain, but I was adamant.

Slowly their tongues loosened and we learnt that they had had a fall on a bare ice-slope, fortunately not very steep, but over three hundred feet long, and that they had been stopped by some rocks and were bruised. No one will ever know exactly what happened. No doubt their reflexes had been impaired by fatigue. We roped them up, gave them quantities of Ovaltine, strong coffee and more oxygen and pushed them down towards Camp IV, not without some apprehension. We had great admiration for these men who had spent themselves regardless and were so devoted that they used as little oxygen as possible in order that the Sahibs might go higher.

A few minutes later the good news that Camp VI had been pitched was spread from camp to camp. There was much rejoicing down at Camp III for this news was the signal for the third team to prepare. Namgyal and Pemba Norbu had just arrived at Advance Base Camp with Dr. Lapras. Namgyal was completely done in but the doctor's diagnosis was not particularly alarming. I informed them of the whereabouts of the three Sherpas who were on their way down and suggested that they should keep an eye on them through the binoculars. Finally Vialatte gave me the weather report.

'Fine weather over the whole chain.'

It was the first time that the forecast had made no reserves. We were in luck!

We spent the whole evening dealing with oxygen and I prepared equipment for our Sherpas. So as to avoid some previous incidents I gave them two bottles and two masks so that each could have his ration in turn

in the course of the evening. They were very docile and had complete confidence in us and were content to abide by whatever we decided. Guido handed out sedatives and sleeping pills. The following day all would depend upon the state of health of our Sherpas, and we were very concerned about this.

May 15th dawned fine and clear behind Kangchenjunga. We had had a good night, but at that height we took some time to collect ourselves in the morning. All manipulation had to be done with mittens on and was consequently rather awkward. After a while the stoves began to give out a little heat but the steam condensed on the tent walls and immediately froze into snow crystals which came down over everything. We drank a great deal. Kindjock, imperturbable as ever, continued to prepare his bacon and eggs which we ate with a hearty appetite. Lacing up our boots took us a good half hour and from time to time we had to stop to get our breath. Fixing on crampons was another exhausting procedure. As it was not absolutely necessary to take a photo, it needed considerable will-power to get out the camera, set it, adjust the filter and calculate the exposure. Every movement was thought out and measured and cost us an enormous effort.

I adjusted the mask over the broad faces of the Sherpas. It was not very easy. We had regulated the flow at a rate of roughly two litres a minute. There was one set missing and one of the Sherpas would have to go up to Camp VI without oxygen. Da Noo volunteered bravely. It did not prevent him from carrying his 40-lb. load.

Preparations had taken us three hours. We set off at about 8.30 in three ropes. I went with Pemba Tenzing and Gunden. Next came Sirdar Gyalzen and Da Noo, and lastly Guido, who was still busy filming, with Kindjock. We made a slowly ascending traverse over snow and ice slopes above a few hummocks of broken rock, towards the middle of the north face of Makalu. The wind blew violently and our pace was desperately slow. Poor chosen climbers! The slightest movement, such as taking a few coils of rope, kicking the snow out of one's crampons, or simply turning one's head, was carefully calculated and grudgingly made. We looked like a group of actors seen in slow motion. Speaking was even more difficult, what with the wind and our masks. We concentrated on the one essential movement to which, from now on we would be compelled for hours on end -- walking -- gaining four inches at each step, taking a complete breath, sometimes two, between each step.

The mountains are a school for patience, sang-froid and tenacity. But if those who have done the finest Alpine routes have kept their heads in all circumstances, been able to judge objectively and refrain from sudden dangerous decisions, they have also had moments of exhilaration or of fear, of exaltation, gratefulness or

anger. Whereas on the great Himalayan peaks there are no such moments of inspiration. One has to keep one's eyes glued to the snow in front to concentrate on one single aim, insensitive to wind and surroundings alike, incapable of feeling or reasoning, bent only on keeping going and on survival. Is this the intoxication of height?

Wind. I hate the wind. It would come in sudden squalls, seemingly from nowhere, bringing with it small particles of ice.

In the north-west cirque we had felt at home in our surroundings and were comforted by the fact that we were used to them and by our comradeship. But here, in this strange world that looked on to a sea of clouds over Tibet, we felt like intruders. We stopped for a rest on a small bank of stones embedded in blue ice. We must have been somewhere near where the Sherpas had slipped the day before. I tried to picture the fall, the three inert and defenceless bodies sliding down on their backs jerking each other with the rope like puppets on a string, incapable of doing anything to stop themselves, incapable of shouting. And down at the bottom among the rocks three bruised and exhausted men, miraculously alive.

High up, above the seracs, at the extreme left of the upper cwm, two microscopic black dots could be seen moving slowly along. They were our friends. We pointed them out to the Sherpas.

'Gyalzen, Da Noo! Here! Here Couzy Sahib, Terray Sahib. The Makalu, today!'

Jean and Lionel had come to the end of the band of ice and were about to attack the spur. It was barely nine o'clock; we estimated that they were at a height of roughly 27,000 feet. The spur itself appeared to be devoid of snow. Unless there was some unforeseen difficulty, or their oxygen sets broke down, Makalu would be climbed in a few hours.

Guido filmed our small group as we set off; he wanted an orderly start, neat coils of rope just as though we were on a climbing course. As if it was the moment! Da Noo had some trouble in standing up and we had to help him. The rope trailed on the ground and got in a muddle. It was a wretched performance! And our film producer wanted us to begin all over again, a few yards away on a little ridge that stood out against Tibet. Come now, Guido you're not being serious!

We went on traversing. A few hundred yards above us we could see the flags stuck in yesterday by Couzy. We did not make for them but went lower, towards the bottom of the ice band where we could see a gap in the seracs. A few steeper ice pitches obliged us to take some precautions. We were now directly beneath the ice-fall and would not be sheltered from avalanches until we had reached the extreme left-hand point near the Tibetan ridge. We naturally quickened our pace

at the sight of the precarious blocks of ice hanging over us. The rope tightened. Pemba Tenzing, who was heavily loaded, pointed to his oxygen mask, but as he did not speak English I could not understand what was the matter; I showed him the seracs and explained that it was not the moment to stop. Pemba begged me to wait and said breathlessly:

'Slowly, Bara Sab, slowly!'

Gunden was going well; in order to get up this chaos of ice we had to make several short steep ascents interspersed with short descents which we did one by one on a tight rope. Then, suddenly we came out of the danger zone on to the even slopes of the ice band - the characteristic feature of the north face. It was eleven o'clock. We estimated the height at about 25,000 feet. We stopped among some ice blocks brought down by an old avalanche, in a place sheltered from the wind. Pemba collapsed on the ground. His oxygen set had broken down. The regulator was probably blocked by ice. The indicator registered 440 lb.; the bottle was still full! Since the morning Pemba must have been slowly suffocating. Now he was laughing and joking about it with Gyalzen, highly amused by the trick played on him by these useless muzzles.

'No good, no good,' he repeated, showing his white teeth.

Pemba did not mind carrying his 40 lb. without oxygen, like Da Noo, as long as he could go slowly.

With these steam engines I was quite sure that we could have pitched a camp at 26,000 feet if need be. The yellow tent at Camp VI was now visible and looked very odd perched on an airy balcony between two ice cliffs. We set off again.

Several times we tried to pick out our friends on the upper section of the mountain, but the glare was so strong on the spur and on the final arêtes that we could not keep our eyes on them, even through our dark glasses.

Now, after a last couloir and a steeper slope, we came to Camp VI. Just as we got there we heard repeated shouts. It was Lionel and Couzy. The unusual sound of human voices, distorted by wind and distance seemed strange in a place which until then had only known the noise of storms and howling winds. But they were joyous shouts. There was no mistaking that they must have reached the summit. Makalu had been climbed!

To tell the truth, the wonderful news did not surprise us. And yet the thought, warm and comforting in our minds, that success had been achieved, was like a release; we felt transformed, as though we had suddenly become different men.

Guido and I embraced each other. The Sherpas were almost delirious with joy. Gyalzen came and congratulated me, shaking me by the hands; then the Sherpas seized me and carried me shoulder high,

shouting loudly and flinging out to the wind the three colourful syllables of the vanquished giant:

'MA-KA-LU, MA-KA-LU,' they yelled.

They danced about, singing and laughing – fit to burst.

At a height of 25,600 feet it was an extraordinary sight. Then, completely out of breath they seized some spades and starting digging out a platform to pitch a tent.

'Do you think we're going to spend our summer holidays here?'

They were speechless with laughter at this joke.

I called the sirdar.

'Gyalzen, tomorrow Guido and I are also going to try to get up Makalu. Will you come with us?'

'Oh! Yes, Sab!'

'I would also like one Sherpa to stay at Camp VI and wait for us. We won't take him with us as I'm afraid there might not be enough oxygen. Whom shall we keep?'

'Your Da Noo, Sab. He's very "istrong".'

Da Noo beamed with happiness. The other Sherpas made ready to go down. With Gyalzen as interpreter I said to them:

'It is thanks to you that Camp VI has been pitched and that Makalu has been climbed. You can be proud of having carried loads up to 26,000 feet.'

The Sherpas were overjoyed and shouted again to

Makalu, to the Sahibs and Gyalzen, they cheered the French Expedition, embraced us and shook us by the hand. Then we watched these amazing men go down; the silent Gunden, the indefatigable Pemba, and the Gurkha soldier, Kindjock, on furlough. These were the real snowmen. For months they had been working for us, giving of their best, always devoted and uncomplaining, facing hardships and forcing their powers of endurance to the limits, with one aim in view; to accomplish to the best of their ability the task which had been entrusted to them. They had no other ambitions. Our joy was their joy. Their role came to an end when there was nothing more to carry, which, in the Himalaya means that the goal is quite close. And then they went down singing happily. What a wonderful example!

Soon we heard footsteps and rushed out on to the terrace. Jean and Lionel had returned.

'Well?'

'We've done it.'

One is inclined to be sparing of words at 25,600 feet. We opened our arms, Gyalzen and Da Noo rushed towards us. They took off their sacks and crampons in the entrance hall between our twin tents and we gave them bowls and bowls of hot drinks, both salt and sweet as well as melted fruit juices; they were completely dehydrated and simply could not stop drinking. It was a moment of supreme joy. We had not seen the first

team for eight days, not since Camp I, and we had only been able to communicate by wireless as we followed each other from camp to camp. Now the four of us were together again at the greatest height we had ever reached, and with success behind us! This was the longed-for moment for which we had been slaving for months, and it was certainly worth all the effort we had put into it.

'Hard?'

'Just like an Alpine climb. Conditions are extraordinarily good, hard snow, dry rocks. The spur looks pretty foul, but in fact it's all right when you're on it. It seems almost as though it had been made specially for us.'

For once the high Himalaya had been clement. We had the good fortune to be physically fit and ready with the right equipment on the right day. This time, it was certain that we were all going to get up. Devies would be pleased, and all our friends.

'The top', Couzy went on, 'is extraordinary. It's the most pointed snow summit I've ever seen. Just like a pencil point. The ridge leading up to it is knifeedged. It would be some job with fresh snow and cornices.'

I shall never forget the look Lionel gave us:

'Tomorrow', he said, 'it's your turn; I'm so glad.'

Our eyes, our words and our movements seemed to radiate happiness. Everest, Kangchenjunga and Jannu - all the big peaks were falling one by one. We could have wished that Makalu had been 30,000 feet high.

'With our equipment,' said Couzy, 'we could certainly do it.'

Our friends went down and we spent the rest of the day in enchanted content. From our perch we could see half the Himalaya spread out beneath us. The mauve mists of Tibet stretched away as far as the eye could see. Makalu II lay at our feet, and Chomo Lonzo was exactly the same height as ourselves. Kangchenjunga was so far away that it looked like a monstrous great cloud brewing up. Only Everest rose above the horizon, diaphanous in the light of the setting sun.

Above us, what we could see of Makalu was aflame in the gold of evening. Granite and snow were bathed in a deeper and deeper red. Then the shadows lengthened. The level rays of the sun projected the shadow of our little tent on to the Tibetan ridge, first at our own height and then above us. For a moment the sun hung beneath us. A light breeze played with the snow, whirling it up in little spirals. Then everything was calm and our great day was over.

The temperature fell abruptly. In our double lined tent of nylon and silk the minimum thermometer had registered -27° Fahrenheit the night before, but we had complete confidence in our protective equipment. We put on our oxygen masks from time to time; the sets were so easy to handle and we were so used to them by

now that we were able to do all sorts of jobs without taking them off. We made our final preparations with the utmost care, for the slightest mistake might result in failure and all would be lost! Guido weighed up everything we were taking the next day and cut down even on essentials. Gyalzen and Da Noo busied themselves with the drinks. We were so happy that we talked late into the night. Then we regulated our oxygen apparatus; on taking stock of our reserve supply we found that we could afford one litre a minute throughout the night. Da Noo slept without oxygen in order that we should not run short.

Sleeping without oxygen at Camp VI was Da Noo's Makalu. It was the greatest pleasure I could have given him. For months Da Noo had not left my side. He was Ang Tharkay's young protégé, and Ang Tharkay had recommended him warmly to me. None knew better than Da Noo how to please his Sahib. If it was necessary Da Noo would certainly have given his life without saying a word, with the same simplicity with which he would hand me my coffee in the morning and say 'look out, very hot'. Last year when Lionel and I had been going off to do Makalu II, Da Noo was ill with a violent bout of malaria. He lay shivering and weeping in his tent; I saw the tears rolling down his flushed face. Da Noo would not be able to come up; Da Noo was dishonoured.

This evening Da Noo was smiling. This expedition

had been an absolute revelation for him. He was amazingly fit, and he had climbed up to the col three times. He had never been as high before. When he went back to Darjeeling he would no doubt tell Ang Tharkay about it. He would no doubt also tell him that Bara Sahib was his friend and that if ever he came back to the Himalaya, his fondest wish was to climb once again with Da Noo, from Sola Khumbu.

It was absolutely peaceful, not a breath of wind. It was one of the best nights we had spent on Makalu. But sleep was a long time coming, so much had happened in the last few hours, and we were so intensely happy that we could hardly wait for the morrow and a new victory; we could not stop thinking about it. Victory! My victory as leader of the expedition had already been won; tomorrow I wanted to win my own personal victory as a climber. I could not bear the thought that it might elude me yet. What if the weather changed? What if, during the night the sea of clouds over Tibet should swell and rise and submerge us, taking Makalu out of our grasp? Would we be able to go there too? And if the wind rose? I listened for the slightest sound. Was that the wind? No, it was Guido blowing evenly down his trunk.

'Are you asleep, Guido?'

'No, but I'm quite comfortable. It's wonderful!'

Already in our dreams our crampons were biting into the summit snows of the corniced terminal arête. We

had been dreaming of it for months and tomorrow, at last, we should be up there. For eighteen months now Guido and I had been preparing for this day. Hundreds of men had been working for us, tons of equipment had been prepared, carried and distributed. Thousands of miles had been covered. Tomorrow, during a few moments' respite from the wind we would find ourselves on a small patch of snow, not even able to sit down, with only a few pieces of dried fruit in our pockets. The result seemed almost negligible and out of all proportion to the means employed to achieve it. Was that why it appeared so valuable?

The summit of Makalu is a perfect pyramid of snow, so sharp that one can lay a hand over it, one finger pointing to Tibet, another to Nepal and a third towards Everest. The lines of all three ridges are geometrical in design and so steep that we had some difficulty in standing on the summit together, belayed to our three ice-axes driven in up to the hilt. A motionless sea of cloud stretched out in waves edged with sunlight and only the big neighbouring peaks emerged here and there like islands. As though to give us some idea of the scale there was a miraculous clearing in the clouds through which we saw the slender thread of the Barun 13,000 feet below, winding across the only visible speck of ground, near Base Camp. Peak VI and Chamlang were two tiny islets of rock and ice swept by foaming surf. More than sixty miles away to the east we could see

Kangchenjunga very clearly and the view stretched on far beyond. Only Everest, quite close at hand, rose above us.

Ever since the morning, when we had started in exceptionally fine clear weather, we had climbed carefully and conscientiously, without making a single mistake. The ice band was steep but easy; we reached the 26,250-foot level, contoured the upper seracs, traversed the left-hand couloir and stopped at the bottom of the spur on a red granite slab. There Gyalzen left our reserve bottle of oxygen. The spur itself had been entertaining with its short compact little walls that could be skirted, just as they can on the Aiguille Verte. 27,000, 27,200, 27,500 feet. The terminal arête: huge cornices on the east side and a thin ridge of snow running up towards the sky between seas of blue on either side. Gyalzen, who was roped in the middle, did not feel at all happy and we gave him a lesson in the use of crampons at a height of over 27,000 feet. We did not cut a single step. And after two steep pitches, which we climbed as though we had been on a training course on the Bossons glacier, Makalu lay at our feet. . .

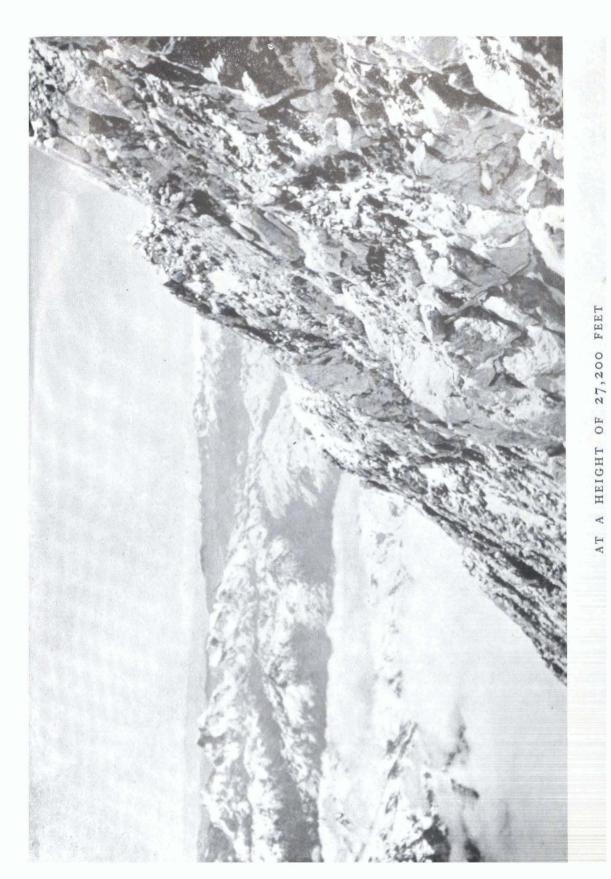
The weather was so calm that we decided to stay as long as possible on the summit, and savour each moment to the full, for it was an experience in life that we should doubtless never have again. We were very excited and talkative. Gyalzen touched the snow with

his forehead several times. I moved suddenly and my camera slipped through my fingers and fell down the south face; it shot down the first snow slope and disappeared beyond a small band of rocks some sixty or seventy feet beneath us. I did not care so much about losing the Foca, but the idea that we had lost the thirtyfive shots taken during the ascent was quite unbearable. After despairing for a few moments, I reflected that the camera had perhaps stopped just beneath us. The slope was so steep that we could see nothing. I asked Guido to let me down on the end of the rope. Gyalzen was horrified and tried to hold me back, saying 'No good, no good'. But the snow was in excellent condition and sure enough, there beneath the rocks, on a small slab, lay the camera. The last miracle had happened!

Then I put back in my sack the French colours that had accompanied us on the ascent and I gave to Gyalzen the Nepalese flag with its signs of the moon and sun. We left Makalu's fragile cone of snow to the keeping of the sky.

The following day our mountain, which from the beginning of time had seen only wind and snow, was to receive yet another visit. The third team, consisting of the reserve party at Camp III, had started up on the 15th and, using oxygen all the way, they reached Camp VI on the same day, having climbed 4,600 feet -a remarkable achievement.

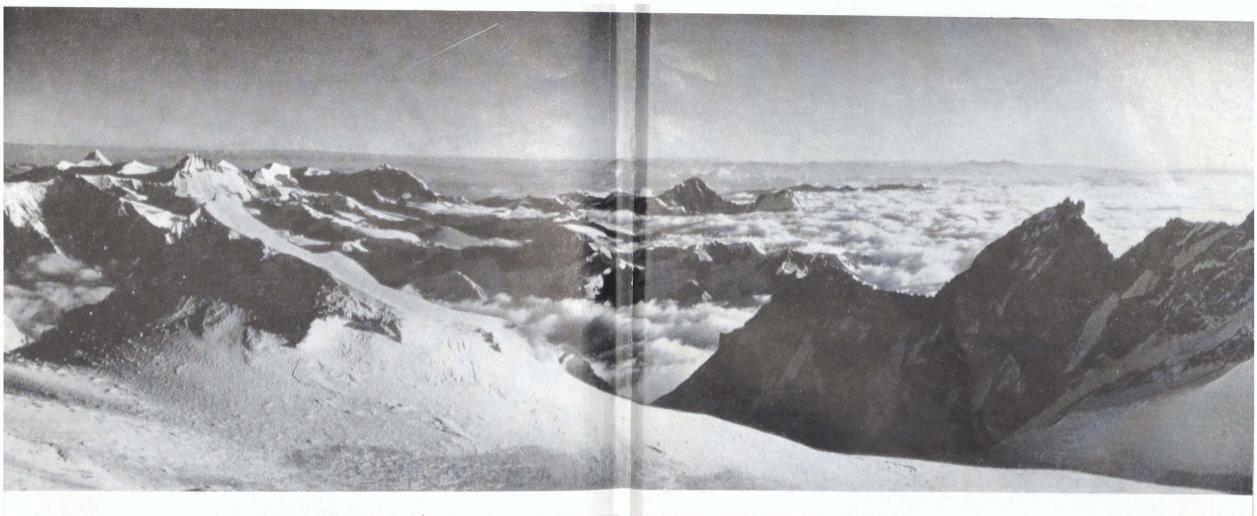
We met them coming up between Camps V and VI





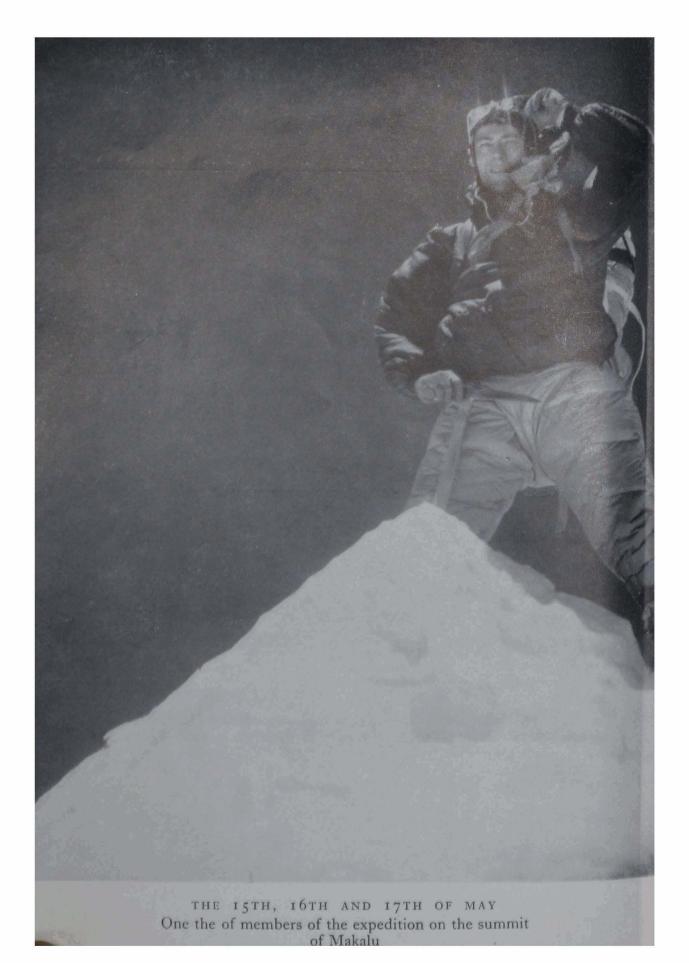
FIVE O'CLOCK IN THE MORNING, LOOKING TOWARDS SECRET TIBET

A photograph taken from Camp VI, looking towards Tibet. At the extreme left in the foreground can be seen Makalu Col, with Makalu II above the col to the right. Compare the top part of Makalu II with the plate facing page 192. To the right of the photograph can be seen the extraordinary bastions of Chomo Lonzo. In the centre, piercing the sea of cloud, are the mountains of the Kama valley.



FIVE O'CLOCK IN THE MORNING, LOOKING TOWARDS SECRET TIBET

A photograph taken from Camp VI, looking towards Tibet. At the extreme left in the foreground can be seen Makalu Col, with Makalu II above the col to the right. Compare the top part of Makalu II with the plate facing page 192. To the right of the photograph can be seen the extraordinary bastions of Chomo Lonzo. In the centre, piercing the sea of cloud, are the mountains of the Kama valley.



WAVES ON THE SUMMIT

at the point where Ang Phutar had slipped on the ice slope and dragged his companions down. Guido and I went down, belaying Gyalzen and Da Noo, savouring our success and looking back on our wonderful and never to be forgotten memories. I shall always remember meeting the others. Dressed like Himalayan monsters, with masks and huge goggles, our muffled voices carried away by gusts of wind, which blew up the snow, we looked so different that we had difficulty in recognizing each other. Yelling through our masks, we exchanged much the same sort of greeting that two parties meeting would have exchanged in the Alps.

'Have a good climb. Everything went splendidly. It will tomorrow, too. Wonderful.'

As we turned to go down, Bouvier, Coupé, Leroux and Vialatte, followed by six of the youngest Sherpas, adjusted their masks and went on towards the seracs.

They too, like us, slept up at Camp VI, overlooking mysterious Tibet. They too rejoiced together half way to heaven on the summit snows and were filled with gratitude and joy, in the knowledge that they had succeeded in doing the finest climb of their lives.

That is the end of the story of Makalu. There remains only the story of the party.

Q

8

Triptych

In memoriam

EAR Base Camp, on a wind-blown ridge of the moraine, there is a grave. A tumulus of flat stones, a few sods of earth and the following inscription roughly carved on a stone:

DILLI BAHADUR VERMA 23rd September 1954

It had happened during the autumn expedition, not long after our arrival at the head of the Barun. Dilli, our liaison officer, was a young man of six and twenty who came from Katmandu. He was a student and loved mountains. He had been an interpreter on the Japanese expeditions to Manaslu and Annapurna IV. The Nepalese government had attached him to our expedition. Dilli, who was young and enthusiastic and of lively disposition, had been invaluable to us during the approach march in August 1954, in the monsoon

season. From Jogbani to the Arun valley, from Dhankuta to the rope bridge, and at Sedoa, Dilli had seen to everything. In his firm yet gentle way he had made us at ease in a country which has changed little with the centuries. Dilli became a real friend. He dreamed of a Makalu which he had not even seen. But Makalu decided otherwise.

As we went up the Barun valley, soaked through by the monsoon rains, Dilli felt extremely tired and had to go to bed. Jean Rivolier, who stayed behind with him, diagnosed congestion of the lungs. We decided to carry him to Base Camp. He was in a state of complete apathy and his pulse was wildly irregular. In view of the fact that he had been given large doses of oxygen and antibiotics his continued state of prostration seemed inexplicable.

On September 22nd Dilli seemed slightly better, roused a little, asked to be put in the sun, and turned towards Makalu. The huge mountain was white with snow, and avalanches thundered perpetually down the upper couloirs. Dilli spoke to me breathlessly and with difficulty. He talked of Makalu.

On the following day Dilli Bahadur fell into a coma. Oxygen, artificial respiration, restoratives were of no avail, and he died.

The supreme Victory

By May 1955 we were again back at Base Camp. The

red, green and blue flares which we were to have used as distress signals between camps, in the event of an accident, were unwanted now. We let them off and they lit up the Barun with their strange hues.

We had been victorious, but we had another Makalu to conquer, a debt to pay, a life to win back from death.

Sona was ill. Sona was a Darjeeling porter. For three days he had been lying down in the big communal tent which these men shared. The doctor diagnosed acute appendicitis, with all the usual symptoms, pains, contractions, sickness, vomiting and temperature. Lapras hoped he was wrong. The thought of operating up there, at the height of Mont Blanc and in conditions of doubtful asepsis with all the consequences that such an operation involved, with the monsoon threatening and the prospect of a two-hundred-mile journey for a convalescent, was enough to make even the boldest pause. Penicillin and strepto would perhaps help things to clear up of their own accord. The doctor was counting on it; never had he hoped so much to be mistaken in a diagnosis. On the 24th, however, Sona's condition was worse and Lapras asked me to look at him. It was obvious that he would not live for more than twentyfour hours and the doctor decided to operate.

Makalu Hotel, which normally became a bridge room after dinner, was now turned into an operating theatre by Leroux, Bouvier and Vialatte. A great fire was lit to warm the room, and was then put out because of

the danger of ether fumes catching alight. Three aluminium camping tables were tied end to end to form an operating table. The earth floor was sprinkled with water to prevent dust flying up. Anything in the shape of a chair, a case or a box was put round the table for the instruments.

Lapras gave us our parts and made us rehearse them. As I had already been present, out of curiosity, at several operations, I was made the assistant, Bouvier was theatre nurse and would hand the instruments. Coupé was initiated into the mysteries of anaesthetics. Leroux looked after the lighting and was ready to assist should either of the two headlamps break down. In the kitchen Panzy stoked up the fire and boiled water.

It was midnight. Each of us drank a cup of black coffee before we set to work. The patient was given a morphia injection. Lapras extracted his box of surgical instruments and showed me the right way to wash one's hands, and put on gloves and overall, as prescribed by rules of asepsis. Through Gyalzen he vaguely explained to Sona what was happening. Gyalzen, who had once carried his dying Sahib on the summit ridge of Mount Api, at a height of 23,000 feet, was green with apprehension and on the point of fainting. He asked us to let him go out.

Lapras began by giving the patient *Kelene* and then entrusted the mask and the ether to Coupé while he set to. No more hesitations. An awed silence reigned

in Makalu Hotel. This was a solemn occasion. Lapras made an incision, cutting first through the skin, then through the aponeurosis and the muscles. He pushed them apart, widened the opening. He explained things with the conciseness of the professional. He initiated me into the peculiarities of the peritoneum. Blood flowed, hiding the wound. I did my best, sponging ceaselessly and trying not to use up too many swabs. Lapras saw clearly. The caecum appeared; there were adhesions everywhere; a watery substance oozed ominously from the peritoneum. Lapras turned over the intestine. We plunged in our hands, covering them with blood. The incision had been made an hour before, and we still had not found the appendix! Lapras began to get worried.

'It really is time we found it,' he said.

At last the thin white little worm appeared behind the caecum, all stuck together, with its horrible core. Lapras cut it out calmly as though he had been in his hospital at Lyons. He had forgotten that he was in the Makalu Hospital and that all round us it was freezing hard. He explained and demonstrated how to bury the stump. Then he closed the incision, using a liberal amount of antibiotic powder. I began to make a fine muddle of the peritoneum and of all those bits of membrane and flesh swimming in blood. But Lapras saw what was happening, put it all straight and was satisfied; it was four in the morning by the time Lapras

had fixed the last clip. Our backs were almost broken. Lapras finished up on his knees, for the improvised table was too low. But now the operation was over and he stood up. The patient was given oxygen.

Outside there was a thin layer of snow on the ground — the forerunner of the monsoon; the clouds straggled apart and the first pale light of dawn filtered through.

The Ram Chukor chattered on the moraines and the Barun Khola sang as it rippled among the stones. Daylight came at last and it was good to behold. Sona would see the sun rise behind his mountains once again; through him we experienced the finest of all victories — that of saving a man from death.

After the winds have blown

Months have passed. The wind has obliterated our tracks. For a while the objects abandoned along the road to Makalu will remain as evidence of our passing, and then gradually, everything will revert to its primaeval state. And from the depths of the Barun valley the yak herds of Sedoa will come up once a year to the foot of the sleeping giant.

It is too early yet to be able to draw any conclusions from our wonderful adventure, and our experience was too swift, too short-lived and too localized for us to make any generalization. Nevertheless, Makalu is no longer an isolated peak; its great ridges stretch above the clouds to the great neighbouring peaks. In the same

way the salient points of its conquest, and the reasons which brought it about, fit into place in the persistent efforts of mountaineers to reach the highest summits and form a link in the long chain of human striving throughout the ages towards an ideal.

When in the middle of May we trod upon the fragile cone of snow forming the summit of Makalu, a little surprised that the mountain lay at our feet so soon, the sky was a brilliant blue, the air keen with the tang of the 'eight thousanders', and in the distance, beyond an infinite sea of cloud, the great summits of the earth were a witness to our miraculous success. On all those other mountains too, men had suffered and many had failed, but all had had faith. It was due in great part to them that we were there. Their example had been our good fortune, their suffering our debt, and our first thought was one of gratitude.

By taking advantage of three consecutive days of fine weather, all the members of an expedition had been able, for the first time on record, to reach their summit; this is proof of the uniformity of our party, and the best justification for the choice made. But in the mountains, perhaps even more than elsewhere, the results count for little beside the effort put into it, and the game itself has more value than the actual victory. On Makalu the wonderful spirit in which the whole team accomplished its mission was the best guarantee of success. In these mountains, which have not yet become a play-

ground, individual exploits do not count, and the ascent of the summit itself is nothing beside the long, arduous business of the approach; individual action may well lead nowhere unless it is integrated in the common will to succeed, to which all personal ambition must be subordinated.

Though I am perhaps not the best person to do so, I should like to pay tribute to all my companions without exception. They will agree with me that their greatest claim to glory was not won on the airy snow crest of the summit ridge but rather from day to day, throughout the whole period of our enterprise. Each individual effort culminated in the collective success which made Makalu accessible to all.

They will also agree with me when I say how much the Sherpas deserve to be commended. The merits of this admirable people have been sung in all languages. Gyalzen's team was beyond praise. It is difficult to imagine a Himalayan expedition without Sherpas. But for them we should probably never have got beyond the valleys. We treated them as climbing companions. At high altitude they had the same equipment as ourselves, including oxygen. They would have followed us anywhere.

There is no doubt that we had a great deal of luck. Our oxygen apparatus worked perfectly. Our equipment, which had been worked out in the smallest detail

in the light of the experience of our predecessors, was excellent. In camping and wireless equipment, and equipment to protect us from the cold, we tried a synthesis of the best of what had been used on preceding expeditions, together with certain rational innovations. The results go to the credit of all those who helped us.

Above all we had good weather.

Neither men nor equipment, however carefully chosen or however efficient, have much chance of success or survival in high-altitude storms. We had ample evidence of this in the autumn. The history of the Himalaya is filled with storms. The failures, retreats and catastrophes result from unfavourable weather conditions aggravated by height. On Makalu the weather was passable during the approach, and fine when we were climbing up to the col. During the assault it was magnificent. It was cold at night $(-27^{\circ}$ Fahrenheit at Camp VI), sunny all day long, and there was practically no wind.

On the summit, at a height of 27,790 feet, none of us put on our *cagoules* for extra protection. And all we needed on our hands were our fine silk gloves. It was amazing luck. It is difficult to know whether or not these conditions can be said to be miraculous, but it is certain that our climb to the summit, in Alpine style, would have been quite a different matter had there been the usual wind or eighteen inches of fresh snow.

We were most fortunate in finding good hard snow

slopes, very little ice and dry rocks during the vital period of the assault, and above all in being ready just at the right moment. Although we were always confident in our lucky star, we had also done everything possible to prepare against the time when we could no longer count on our luck. Advanced Base, at the moment of the assault, was a stronghold in which we could have held out in perfect safety and comfort for weeks. The route to the col had been equipped so that it was safe for Sherpas to use it alone, thanks to more than 2,500 feet of fixed rope. Even in bad weather communication would have been possible with the higher camps. These safety precautions contributed enormously to the strength of our position. When we left Camp VI for the summit we had almost the appearance of a party leaving a hut for a morning's climb.

On the way home we congratulated ourselves on our good luck and also on our good management! We took stock and found that we had used only half our reserve supply of oxygen. No Sherpa had spent more than one night at a height of over 24,278 feet and they were all ready to begin again; the physical condition of each one of us, and what remained in the way of equipment, would have enabled us to make another assault straight away.

We were perhaps a little disappointed. Considering the means at our disposal, and the good luck which accompanied us all the time, we should have liked a

more formidable opponent. But as it is, the comfort and security of the ascent of Makalu will remain a happy page in the annals of Himalayan climbing.

Uneventful ascents, like happy nations, have no story. A well-known journalist, to whom I was showing a few photographs taken on Makalu, pressed me for humorous details — for want of any dramatic or spectacular events:

'But surely there must have been some incidents?'

'Alas, no! We fell into no crevasses. No avalanche buried any of our camps. On the summit we felt so fit that we might have been on the top of Mont Blanc. Nine of us went to the summit. Three ascents in three days is no conquest! And we didn't even get our feet cold....'

'So nothing happened at all?'

What he did not ask, was why nothing happened.

Before leaving Makalu to its icy fastness I should like to add yet another white stone to the growing cairn. At a moment when Alpine climbing has completely forsaken the old classic conception of mountaineering and has turned towards hitherto forbidden techniques, the Himalaya are yielding up their last 8,000-metre peaks. The Golden Age of climbing in the highest chain in the world has lasted only a few years. Other very difficult problems will no doubt be attempted, on less well-known peaks, which today appear to have many hazards. After Mont Blanc there

will be a new Aiguille Verte and then another Dru. Both the spirit and the means are there.

And in conclusion let me set down my private opinion. Having had the good fortune to come to the mountains in a spirit of love and fear, I have always looked on mountaineering as a wonderful game, on accidents as mistakes and on death as the supreme failure. Eschewing fanaticism, the temptation to break records which lose their significance by the morrow, and the dangerous seduction of heroics, I have always thought, like many others, that it is better to wait than to take a chance, to pause than to pant, to sing than to shout. And so, I wrote this book.

APPENDIX

THE RECONNAISSANCE, 1954

JEAN FRANCO, leader JEAN BOUVIER JEAN COUZY PIERRE LEROUX GUIDO MAGNONE LIONEL TERRAY JEAN RIVOLIER, doctor PIERRE BORDET, geologist

GYALZEN NORBU, chief Sherpa PASANG PHUTAR, head coolie

INGMA TSERING, Sherpa
Norbu, known as PA Noo,
Sherpa
MBA NORBU, Sherpa
MBA TENZING, Sherpa
ISHI, Sherpa

and the 180 porters who carried 61 tons to Base Camp

THE EXPEDITION, 1955

JEAN FRANCO, leader JEAN BOUVIER SERGE COUPÉ JEAN COUZY PIERRE LEROUX GUIDO MAGNONE LIONEL TERRAY ANDRÉ VIALATTE ANDRÉ LAPRAS, doctor PIERRE BORDET, geologist MICHEL LATREILLE, geologist

GYALZEN NORBU, chief Sherpa KINDJOCK TSERING, head coolie

APPENDIX

THE EXPEDITION, 1955 — cont.

Ang Bao, Sherpa Ang Phutar, Sherpa Ang Tsering, known as Panzy, Sherpa Ang Tsering IV, Sherpa Aila, Sherpa Chotaree, Sherpa Dagang Norjee, Sherpa Da Norbu, known as Da Noo, Sherpa Eila Namgyal, Sherpa Gunden, Sherpa Gyalzen II, known as Mitchou, Sherpa Mingma Tsering I, Sherpa Mingma Tsering II, Sherpa Mingma Tenzing, Sherpa Nim Temba, Sherpa Pa Norbu, known as Pa Noo, Sherpa Pasang Dawa, Sherpa Pemba Tenzing, Sherpa Tashi, Sherpa Wongdi, Sherpa Pemba Norbu, Sherpa

and the 315 porters who carried 11 tons to Base Camp

ON THE WORLD'S HIGHEST MOUNTAINS

The twelve peaks above 2	5,000 feet climbed by October 31st, 1955
1 Everest 29,002 ft.	The British expedition of 1953
2 K2 28,253 ft.	The Italian expedition of 1954
3 KANGCHENJUNGA	
28,146 ft.	The British expedition of 1955
4 MAKALU 27,790 ft.	The French expedition of 1955
5 CHO OYU 26,750 ft.	The Austrian expedition of 1954
6 Nanga Parbat	-
26,620 ft.1	The German-Austrian expedition of 1953
7 ANNAPURNA 26,492 ft.	The French expedition of 1950
8 NANDA DEVI 25,645 ft.	The Anglo-American expedition of 1936
9 CHOMO LONZO	č
25,640 ft.	The French expedition of 1954
10 KAMET 25,447 ft.	The British expedition of 1931
11 TIRICH MIR 25,243 ft.	The Norwegian expedition of 1950
12 MAKALU II or KANG-	
shung Peak 25,120 ft.	The French expedition of 1954
¹ The officially accepted	I beight On the latest Survey of India

¹ The officially accepted height. On the latest Survey of India sheet made in 1934, the height is shown as 26,660 feet.

APPENDIX

The French Expeditions to the Himalaya in 1954-55 were organized by the Comité de l'Himalaya de la Fédération Française de la Montagne under the presidency of LUCIEN DEVIES and the membership of PIERRE ALLAIN **JACQUES ALLIER** JEAN COUZY GEORGES DESCOURS †JEAN ESCARRA **JEAN FRANCO RAYMOND GACHÉ** MAURICE HERZOG MARCEL ICHAC **RAYMOND LATARJET** YVES LETORT LOUIS NELTNER HENRY DE SEGOGNE **ROBERT TEZENAS DU MONTCEL †LOUIS WIBRATTE** in co-operation with LE CLUB ALPIN FRANCAIS and under the patronage of the President of the French Republic



256

Jean Bouvier



Pierre Leroux



Guido Magnone



Jean Couzy



San Samples



Serge Coupé









Lionel Terray

Jean Rivolier

Pierre Bordet

1







Andre Lapras





Andre Vialatte

Michel Latreille