CROSSING THE NORTH PATAGONIAN ICE-CAP

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(*Five illustrations: nos. 42–46*)

The crossing of the Hielo Patagonico del Norte was a natural sequel to our journey over the Southern Ice-cap in 1960/61. I knew that it would have to be done some time, but for two summers it was shelved in favour of the Fuegan mountains. We sometimes used to discuss it on that first journey and, on the few days that we were confined to our tent in the Darwin Range, García used to pass the time by drawing us maps of the general layout of the region and discussing the problems of access and egress. For he had some personal knowledge of the area, having taken part in the sixteen-man Japanese-Chilean Expedition that, in 1958, had climbed Arenales, a mountain standing near its south-eastern edge. Though he had played a major part in pioneering the way and in the work of establishing the lower camps, he had been left out of the parties that reached the summit, which had naturally caused him keen disappointment. When I met him with Marangunic in Santiago in April, 1963, they suggested that we should tackle the new crossing the following season.

The project involved much the same problems as we had met before; there was no reason to expect better weather conditions and, though the distance to be covered was not so long, the way would be more complicated because of several high passes that we would have to cross in the latter part of the journey. Also, after leaving the glaciers we would still have a long way to go before reaching habitation, and this meant that we would have to carry a rubber dinghy with us for crossing rivers and lakes. On the other hand an approach to the ice-cap from the north-west was known: several parties had made their way up from Laguna San Rafael on the Pacific coast in their attempts on Mount San Valentín before that mountain was finally climbed in 1952.[1] In addition, García's knowledge of a route into the range from the south-east provided us with a line of escape. Our reasons for making the journey in that direction were the same as before: we would be travelling from an uninhabited region towards habitation, and with the prevailing wind.

We decided to start in November in the hope that we would find an abundance of winter snow which would both provide good conditions for sledging and cover the crevassed areas. An additional advantage was

[1] See *A.J.* 59. 432.

that my companions would return in time to spend part of their summer vacation with their families. I wrote to the Minister of Education and the Director of the Geological Institute in Santiago, to request their release a month before the end of the summer term, and received favourable replies from both. The fourth member of the party was recruited by García and Marangunic; he was a young Spaniard, Miguel Gomez, who had come three years before with a Spanish expedition to the Peruvian Andes, and had been in South America ever since. He proved an excellent choice; a first rate mountaineer, always cheerful and always ready to do the most unpleasant jobs and to carry the heaviest loads.

This time we took skis with us but, apart from these and the boat, I equipped the party in the same way as before. We had another collapsible fibre-glass sledge, and a light wooden one. Our food, too, was much the same, though I increased the daily sugar ration from 8 oz. to 9 oz. per man. Our equipment and food were packed in a single wooden case, and shipped to Valparaiso. I joined my companions on November 15 in Santiago, where I found that the Air Force had made arrangements for our departure on the 21st.

Although we had obtained official permission to import our baggage free of duty, it was November 19 before Marangunic and I could go down to Valparaiso to claim it from the customs. Even then we had to negotiate a mass of formalities, and the issue remained in doubt until late that evening. The next morning in Santiago we opened the case and found that it had previously been broken open and a number of things stolen, including two pairs of climbing boots, two pairs of crampons, all our windproof trousers, most of our supply of tea and eight days' rations. As a result, we spent a busy day repairing our losses.

Once again we received invaluable assistance from the Chilean government. On the 21st we were flown in an Air Force 'Otter' to Puerto Montt, and the following morning we were provided with two 'Beachcraft' planes to take us from there to Puerto Aisen. As soon as we arrived, we called on Señor Atilio Cosmelli, the Governor of Aisen Province, who received us with charming courtesy and was kind enough to take a keen interest in our project. He had already arranged for our departure that very afternoon in a small motor vessel, *Devine*.

The voyage through the channels from Puerto Aisen to Laguna San Rafael should have taken a day and a half. Unfortunately, at about noon on the 23rd, when we were still some seven hours' sailing from our destination, *Devine's* transmission shaft snapped. Luckily, the wind, which had been strong throughout most of a morning, had subsided, and the crew of three, with the aid of the dinghy and a small outboard motor, were able to tow the helpless vessel to a nearby island, where she was made fast to some overhanging trees.

Luckily, too, *Devine* carried a radio, and the captain was able to send a message to Aisen informing the Governor of our plight. He immediately despatched a privately owned vessel, *Alicia*, to our rescue, which reached us late in the evening of the 24th. We spent much of the intervening time catching fish, which was useful as we were already living on expedition rations.

The crew of *Alicia* were under the impression that they had been sent to fetch us back to Aisen. However, after a strenuous discussion, in which our cause was championed by the captain of *Devine*, and a further exchange of radio messages with Aisen, they agreed to take us on. These negotiations resulted in a late start in the morning of the 25th, and as *Alicia* could only make five knots it was nearly 5 p.m. before we reached the mouth of the Rio Tempanos, the narrow five-mile channel leading to Laguna San Rafael. The crew of *Alicia* said that they had been told in no circumstances to attempt the passage of this channel, and they proposed to land us near its mouth.

Although this was only some ten miles from the San Rafael glacier, the country between was composed of swamp and dense forest, and it would have taken us at least a week to reach it with all our gear, and probably a great deal longer. This would have seriously upset our timetable and left us short of food for the journey. Fortunately, largely due to the good offices of *Devine's* captain, the crew once again yielded to our entreaties. On the ebb tide there was a strong current running against us through the channel, carrying with it a number of large icebergs. However, we made the passage without mishap and at eight o'clock we were put ashore at the south-east corner of the lagoon.

In the 1920's an attempt had been made to dig a canal from the southern end of Laguna San Rafael to the channels leading to the Gulf of Penas with the purpose of providing shipping with a protected passage along that part of the coast. The project was abandoned because of the swampy nature of the ground. At the same time the government had built a large, three-storied hotel on the shore of the lagoon, at the point where we landed. The cost must have been enormous. Presumably the idea was to attract visitors to that remote and lonely spot; but apart from the spectacle of the San Rafael glacier, thrusting its ice-cliffs into the lagoon on a two-mile front, it would have offered few of the amenities required by the average tourist. The building was completed but never used, and there it stands, a bizarre object in that wild, uninhabited land. However, it provided us with welcome shelter from the heavy rain that persisted throughout the night.

Our satisfaction at having, after all, reached this place received a rude shock when we discovered that a kit-bag, containing the sledge-harness, ski skins, priming fuel and several other important items, had been left on board. Though not disastrous, this loss darkened our horizon

considerably. However, when we awoke at 5.30 the next morning, we were astonished to see *Alicia* approaching the shore. She had anchored near the upper entrance of the Rio Tempanos, the passage of the channel being too dangerous to attempt in the dark; our kit-bag had been found and was now being returned. This action of the crew was most generous, considering that we had already put them to a great deal of extra trouble, and persuaded them to disobey the instructions of their owners. By it they had nothing to gain and a great deal to lose. They even refused any remuneration. Such kindness is typical of these people.

The glacier was still four km. away, across an alluvial plain. Previous parties had apparently had no difficulty in reaching it, but lately a river issuing from the near flank of the glacier had spread its delta over the plain, and we had to cross a series of meandering streams. This was not difficult with our rubber dinghy, but it took us two days to transport our baggage to the corner where the glacier emerged from the mountains. There, on the 27th we established our first camp on a raised beach, sheltered by cliffs and luxuriant forest, with provisions enough for forty-three days.

Unlike most Patagonian glaciers, the San Rafael has shrunk very little, and the ice presses close against the forest on the precipitous slopes flanking it. Though by no means steep, its whole surface is a chaotic mass of séracs and crevasses; so the only way up it was along the narrow trough between the forest and the glacier, though we were frequently forced on to the ice for long stretches, and the going was sometimes hard. For the first stage we carried the loads in four relays. Our second camp (1,200 ft.) was pitched on an ice-platform among the séracs, as we could find no suitable ledge in the forest.

The second stage took us through to the upper basin of the glacier, and beyond our third camp (2,300 ft.), which we established on December 6, the going was easier. For the next five days we made our way eastward through a series of crevassed areas. We had hoped that so early in the summer these would be well covered; but the winter snowfall had evidently been exceptionally light and the crevasses were much more open than we had expected. Sometimes we used the small sledge, but mostly the going was too rough and we had to carry. Route-finding was complicated, though luckily at this stage we were not much bothered by mist. Indeed during the first fortnight of the journey the weather, judged by Patagonian standards, was not at all bad; there was no severe wind and we had five fine days.

On December 11 we reached the plateau, and were then able to bring both sledges into operation. For two days, however, our progress was very slow, as we encountered several more badly crevassed areas. On the morning of the 13th, for example, after an uninterrupted run of an hour and a half, we suddenly found ourselves in the midst of a perfect

maze of fissures, mostly concealed by a shallow covering of rotten snow. Though, of course, our skis were a great help in bridging the crevasses, it was difficult to determine their direction, and we had to exercise great care to avoid the risk of all of us falling into the same one. Moreover we were then in dense mist with visibility restricted to a few yards. However, this proved to be the last of these obstacles, and for the next five days we were able to steer a straight course, 10° east of south.

For two days the weather was bad and we marched mostly on a compass bearing; but though we experienced some discomfort from driving sleet and melting drift, which made us very wet, the wind was not severe, and by dawn on the 16th it was fine once more. For the next three days we travelled along a flat corridor ten miles wide, between two ranges of granite peaks, their exciting shapes, which reminded me very much of the Karakoram, constantly appearing and disappearing among banks of shifting cloud. These peaks offer a wonderful new field of mountaineering, for there are scores of them, and most will demand a very high standard of climbing. Moreover one of the ranges should not be too difficult of access from the east. With the sledges running easily over good snow, with plenty of time in between spells of pulling to sit in the warm sun, and enjoying these glorious surroundings, this part of the journey was sheer delight.

On the 18th we reached the foot of a col leading south-west across a northerly spur of the Arenales group. We had been lucky that the fine spell had enabled us to find it without difficulty, for that night the weather broke. On the 19th we were confined to our tent by a storm and, although the 20th was not much better, a temporary lull in the morning encouraged us to set out for the pass; and a few brief clearings later in the day enabled us to find a route and to carry half our loads to its crest. The rest were brought up the following day.

We now entered a vast basin of glaciers which combine in a large ice-stream flowing southwards to the Baker Channel. Our objective was a depression in the range south of Arenales, which García had seen from the east and which would lead us on to the route followed by his 1958 expedition; we called it the Arenales col. Crossing a second pass and keeping close under the main range, we reached the foot of it on the 24th.

It had been our intention to leave a dump at this point, and to go on with the small sledge carrying a week's provisions with the object of climbing two mountains, Pared Norte and Pared Sur, near the southern end of the range. But we were behind our schedule and, estimating the time that it would take to cross the col and reach habitation, with a reasonable allowance for delay by bad weather, we reckoned that we had only four days' food to spare and that this would hardly give us time to attempt either of the peaks. So we decided to go straight to the col, and use the time climbing from there. In fact events showed us to have

been over-cautious, particularly as during the next ten days we had some of the best weather of the whole trip.

Christmas morning was still and cloudless. We packed up the camp and started at 6.45 a.m., following a route that García and Gomez had reconnoitred the previous evening. There had been a sharp frost during the night (−11° C) and the snow was in perfect condition. Carrying 50 lb. each, we climbed 3,000 ft. to the col. (about 7,850 ft.) in 2 hr. 20 min. Then, having deposited our loads on the broad snow-saddle, we set off at ten o'clock to climb Cerro Arco (9,950 ft.), a mountain two miles away to the south. A powerful wind embarrassed us on the steep ice-slopes below the summit, but the weather remained clear and from the top we had a wonderful view of Arenales to the north, across the basin of the Rio Baker to Mount San Lorenzo, fifty miles away to the south-west, and over the great glaciers to the west. Pared Norte and Pared Sur, to the south, looked splendid, and we regretted that we were not to make their closer acquaintance. When we got back to the col we dug a pit in which we pitched the tent, and built a high snow wall round it for protection from the wind.

It was still clear early the next morning, but in the gaudy sunrise there were ominous signs that a storm was about to break. So, as we only had one more day's food with us, we raced down to the dump at the foot of the col, where we collected the remainder of our baggage, except for the small sledge which we decided to abandon. We were only just in time, for half an hour later the storm broke with considerable violence and everything was blotted out in mist and blinding drift. It would have been almost impossible to locate the dump in such conditions.

The snow was soft that day, which was lucky as it meant that our deep downward tracks survived the gale just long enough to guide us over the lower and most complicated section of the route. The upper section was more or less straight and we could follow a compass bearing. Even so I was very doubtful if we would manage to hit off the right part of the col and find the tent, largely hidden within its snow wall. The climb back to the col was most unpleasant, for we were soon soaked to the skin by melting drift driven against us with tremendous force, and we were often blown over by the more violent gusts. When, however, we reached the col, whether by luck or by accurate navigation we found the tent and wasted no time in scrambling though the entrance. The inside immediately became a shambles of sodden garments, slushy snow and pools of water, and we spent until ten o'clock that night drying out. The storm continued to rage until about that time, when it ceased as suddenly as it had begun.

When we awoke at five o'clock the next morning, it was very cold. Though the sun was shining, the weather again looked threatening,

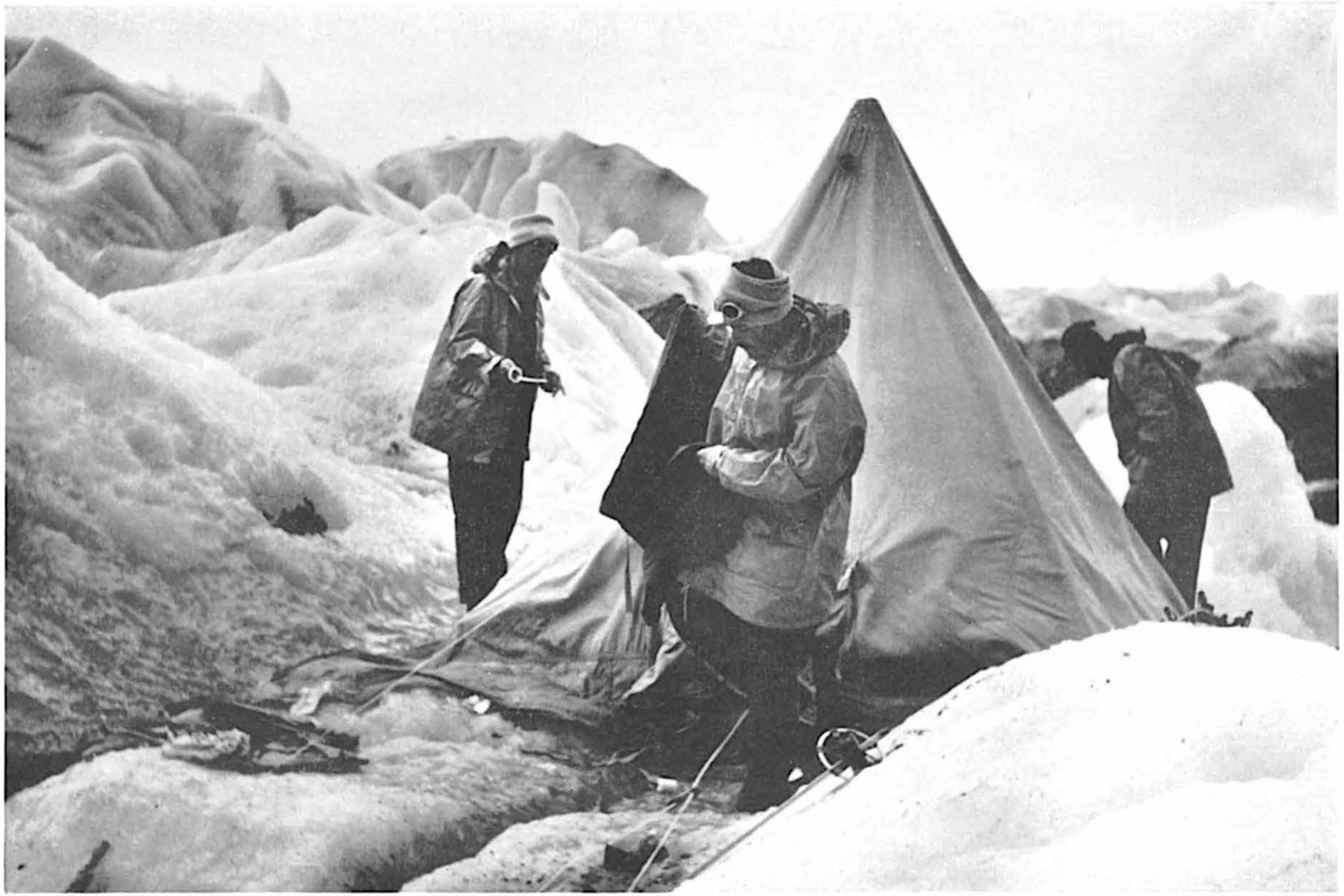

Photo: E. Shipton]

First Camp on the San Rafael Glacier.

(No. 42)

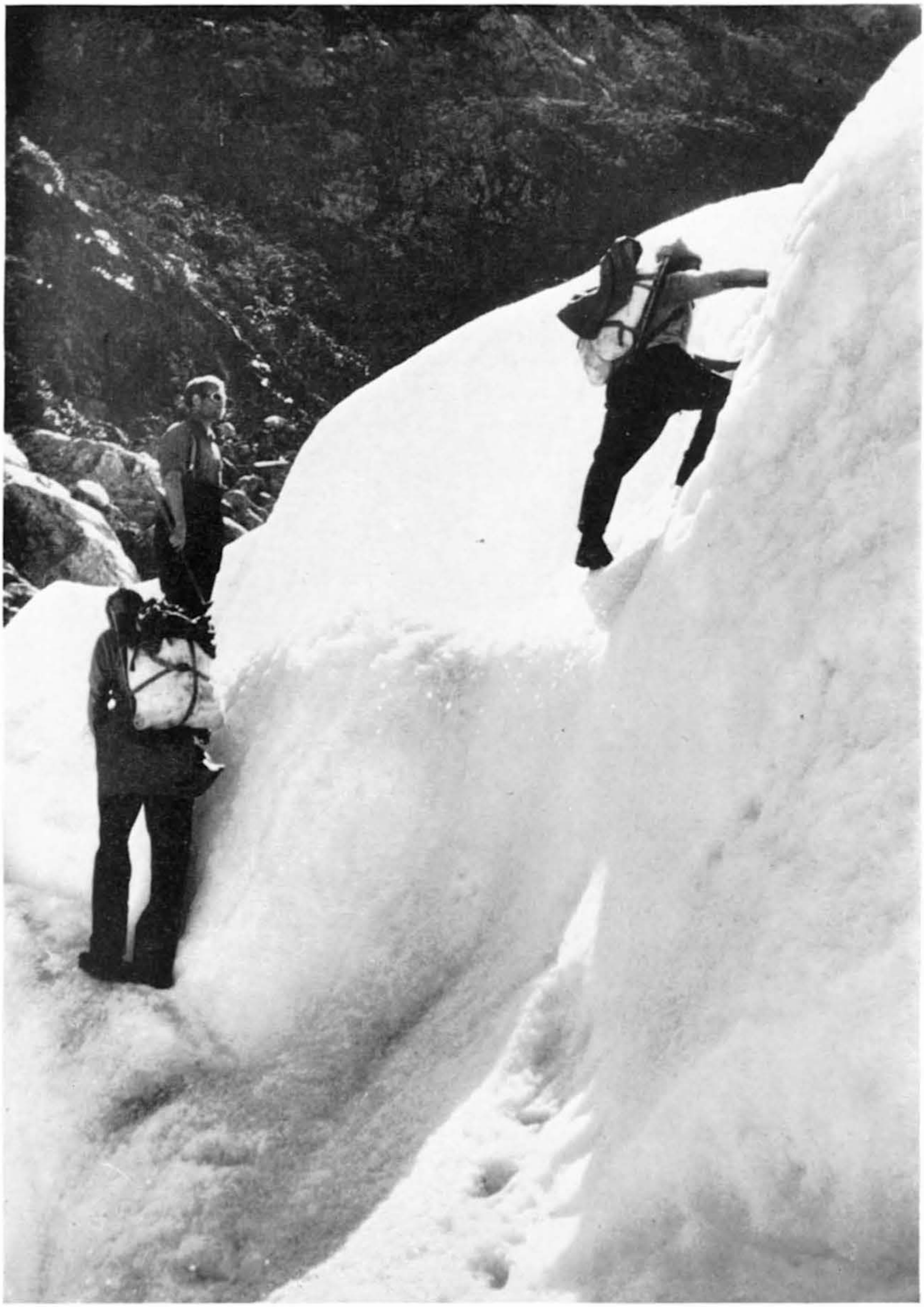

Photo: E. Shipton]

CARRYING UP THE SAN RAFAEL GLACIER.

(No. 43)

Photo: E. Shipton]

APPROACHING THE FOOT OF ARENALES COL; CERRO ARCO IN CLOUD.

(No. 44)

Photo: E. Shipton]

PATAGONIA : UNNAMED PEAK STANDING ABOUT 5,000 FT. ABOVE THE ICE-CAP.

(No. 45)

Photo: E. Shipton]

GOMEZ ON LI-LO RAFT TOWED BEHIND DINGHY. (*See page 189*).

(No. 46)

and we thought we were in for another storm: many of the peaks were capped by mushroom-shaped clouds and the distant views were suffused with an inky blue. We decided to move down to a wide combe, 400 ft. below the col, at the southern foot of Arenales. The wet snow which had half buried the tent the day before had frozen into a solid block of ice; it was a long job digging this away, and we were not ready to start until 10.30. By then all the clouds had vanished and the day was gloriously fine.

García was keen to seize the opportunity of climbing Arenales (11,277 ft.), which had been denied him on the Japanese expedition. So, though there were two other fine peaks within our reach, we decided to forgo the chance of another first ascent. We dragged the sledge down into the combe, and set off for the mountain shortly before eleven o'clock. It was a climb of 4,800 ft., but conditions were excellent and it was not difficult. A bitter south-westerly wind kept us moving fast and we reached the summit at 2.40. From there we had a superb view over the ice-cap and the ranges to the north as far as San Valentin.

When we got back to the sledge, we went on down the combe so as to take advantage of the clear weather, as there seemed to be only one line through the crevasses, which would have been very difficult to find in bad visibility. The following day we made our way along a terrace between two formidable ice-falls. García had warned us that the Japanese expedition had encountered great difficulty here, negotiating a series of immense crevasses. But that had been in March and we hoped that at the end of December we would have less trouble. Even so, the two-mile passage took us all day. The crevasses were among the largest I had ever seen; once again I was thankful we were equipped with skis, for some of the chasms were spanned only by the slenderest of bridges and the snow was soft. Beyond the terrace we had a short section of ice-fall to negotiate, followed by the descent of a 2,000 ft. rock-wall; but with García to guide us these obstacles presented no great difficulty, even in bad weather. After that we had some ten miles to go to the snout of the Colonia glacier, which we reached on January 2.

Our final obstacle was Lago Colonia, some six miles long and flanked on both sides by steep precipices. The rubber dinghy, which had survived the journey without a single puncture, was too small to take us all with our luggage; in fact we would have had to make three relays. Except on rare occasions it would have been impossible to row the boat back against the prevailing westerly wind; moreover even in calm weather a strong wind was liable to spring up without warning. We therefore constructed a raft with our air mattresses and skis. This carried one man and the baggage, and was towed behind the dinghy which accommodated the rest of us. For oars we used snow-shovels fixed to the end of poles and, until it became too rough, an anorak was hoisted over each craft to serve as a sail.

At first it was relatively calm, but the wind and the waves increased as we went. We kept close to the precipitous southern shore, though there were few places where we could have landed. About half way, however, there was a small beach where we put in for some refreshment. The second part of the voyage was most exciting, for it was very rough. However we managed to maintain our direction and eventually we reached the far end of the lake, where we were hurled unceremoniously ashore by the breakers. There we lit a mighty fire, to dry ourselves and to celebrate the end of our journey.

Two or three miles beyond the end of the lake we found some untenanted houses, and we had to go another ten miles down the Rio Colonia before we reached a small farm where we could hire some pack ponies. For the next few days we marched in comfort and deep contentment along broad valleys flanked by snow peaks, through mile upon mile of green meadows and woods where wild strawberries abounded. The sun shone and the air was clear and still. Always we met with the same generous hospitality and kindness, which is everywhere to be found in Patagonia; always we were fed, housed, provided with transport and accompanied on the next stage; payment for these services, if it was accepted at all, was a secondary consideration and not even the poorest people seemed to expect it.

We crossed the Rio Baker, a noble river as wide as the Danube at Budapest, below its junction with the Rio Colonia. From there we marched to the Rio Cochrane, another tributary of the Baker, where there was a gendarmerie post with a radio station. A message was transmitted to the Air Force post at Balmacera, and a few hours later a Beachcraft arrived to collect us.

The journey had gone remarkably smoothly. This was very largely due to the skill and efficiency of my companions, for much of the detailed planning, particularly in the field, was theirs. Normally, I believe, this part of Patagonia is not more favoured by fine weather than the parts further south. If this is the case, we were extremely lucky; in the six weeks occupied by the crossing we had fifteen fine days; the good spells occurred when we most needed them and the bad spells were comparatively short and rarely severe. Altogether it had been a glorious trip, full of variety, through some of the loveliest mountain country I have seen in Patagonia or anywhere else. The region still offers wide scope for those who enjoy untravelled ground; for mountaineers it is an almost untouched field.[2]

[2] The general location of the area described is latitude 47°S., longitude 73°E.