

TIERRA del FUEGO EXPEDITION 1990.

CORDILLERA DARWIN.

TIERRA DEL FUEGO.

FIRST ASCENT - RONCAGLI.

FIRST ASCENT - PICO PAIS DE GALLES.

+
523

KEY WORDS FOR FILING:-

Monte Roncagli
Pico Pais de Galles
Cerro Aus
Cerro Ohi
Cordillera Darwin
Tierra del Fuego
Yendegia Bay
Chile

Any section of this report may be reproduced for personal use, without the authors permission. Please acknowledge the source. Please apply to the author if reproduction is required for commercial use.

COPIES LODGED WITH:-

Alpine Club Library, London
Royal Geographical Society, London
Mount Everest Foundation
British Mountaineering Council
For extra copies and further information contact
David Hillebrandt.

for the Alpine Club library
David Hillebrandt a.c.



RONCAGLI - CORDILLERA DARWIN FROM SNOUT OF DARTMOOR GLACIER



John Mothessele

David Hillebrandt

Julian Mathias

Beside
Lower
Stoppani
Glacier

MEMBERS.

Dr David Hillebrandt
Derriton House
Derriton
Holsworthy
Devon
EX22 6JX
England
Telephone: (0409)253814 (Home)
(0409)253692 (Work)

Julian Mathias
15 Mendian Place
Clifton
Bristol
BS8
England
Telephone:(0272) 743699

John Mothersele
12 Kyveillog Street
Cardiff
CR1 9JA
Wales.
Telephone: (0222)341061

Honorary Members

Sn Miguel Serka
Estancia Yendegia.
Casilla 1145
Punta Arenas,
Chile.

Sn Vicente Gonzales Mimica,
343 Yugoslavia,
Punta Arenas.
343 Yugoslavia
Punta Arenas
Chile



Rovagiti San Foxes Glade 1988

INTRODUCTION.

The Cordillera Darwin is a relatively unexplored and unmapped Alpine scale range of mountains about 140 miles from West to East and 40 miles from North to South located on a peninsula on the South West side of Tierra del Fuego. It is cut by fiords from the north and south with glaciers that tumble into the sea. It is located in Chile and bounds the northern side of the Beagle Channel. The peaks rise to about 7,000 feet. The highest point is Monte Darwin which has been climbed. The British sea exploration of the area dates back to Darwin's voyages and many names reflect this, although land exploration is still in its infancy. The area was visited by Tilman in his boat Mischief, and by Eric Shipton in 1962. Ours was the fifth British Expedition into the most accessible eastern end of the Cordillera via Yendegia Bay, close to the Argentinian border and the town of Ushuia. The area has not been officially accessible via this border for many years.

Following a very successful trip by Iain Peters and David Hillebrandt in 1988, it was thought that we now knew the key to a route up the very impressive Monte Roncagli. This has been described as the most desirable unclimbed peak in the Southern Hemisphere. The MEF and BMC supported this trip to attempt the peak and further explore the area.

We made the first ascent of Roncagli in unusually good snow conditions on the 14th January 1990 via the north ridge to the north top and also later made a first ascent of Pico Pais de Galles on the east side of the range which gave good views to the north and west.

BACKGROUND.

The "Expedition" was arranged very informally during 1989. No official permission is required to climb in this area, although it is extremely helpful to have the co-operation of the Chilean Navy. Yet again, we are indebted to them for their exceptional support and encouragement.

After the 1988 trip, Iain Peters and David Hillebrandt planned a return visit to re-try Roncagli but unfortunately during 1989, Iain had to drop out. Since the trip required little preparation the final team did not form until about three weeks prior to departure. We applied (late) for an MEF/BMC grant in September. The greatly appreciated money was credited to our bank account whilst we were in the mountains. We started to liaise with the Naval authorities in Punta Arenas in October but only finalised arrangements on arrival. Plane tickets were booked in November since we were travelling over a holiday period .

TRANSPORT

We booked our air tickets from London to Punta Arenas via the excellent South American specialists - Journey Latin America (16 Devonshire Rd, London, W4. Tel 081 747 3108). This travel company is staffed by a multi-lingual team, each member has a specialised knowledge of different areas and aspects of South American travel. On their advice we flew with Varig (the Brazilian National Airline) from Heathrow to Rio and direct onto Santiago. This was cheap, the airline was comfortable with extremely helpful staff and we were well looked after. J.L.A. kindly arranged with Varig for us to be given an extra 20kg baggage allowance as gesture of support. This enabled us to take all our equipment easily and meant that we did not have to resort to the normal climbing subterfuge of wearing double boots and training for months in a gymnasium to enable us to carry heavy cabin baggage.

We entered Chile with all customs and immigration formalities completed in minutes by friendly officials and within three hours flew on to Punta Arenas with a twenty minute stop in Puerto Montt. We flew this leg with Ladeco and were again well fed and cared for. Previous experience shows the service on Lan Chile, the other internal airline, is also good.

There is a bus from the airport, 15 kilometres outside Punta Arenas to the town for about £1. Taxis are easily available around town, have roof racks, and are relatively cheap. The town is small enough to walk round if not heavily laden.

PUNTA ARENAS

Punta Arenas is the gateway to the wellknown Paine National Park and is well established on the "Gringo Trail" with the associated cheap accommodation, easy bus travel, and access to the "traveller's grapevine". It is also the main port serving many Antarctic bases so that one can easily obtain virtually any supplies required, with the apparent exception of specialised climbing equipment.

We stayed at a very clean, secure and friendly residencia owned by Senora Maria Fernandez at 366 Boliviana. She provides constant hot water and is also willing to store a small amount of equipment. This has resulted in her becoming popular with British climbers visiting the Cordillera Darwin and Paine areas and has been used by Iain and myself on several occasions. This accommodation costs about one-third more than the cheapest establishments (e.g. £3 per night) and is well worth the extra. Since we were arriving late at night on a bank holiday, we wrote in advance with a small US \$ deposit. This was welcomed and Maria stayed up to welcome us, although she later gave us a key to enable us to get in late at night when sampling the many bars and restaurants of the town. A massive three course meal with wine costs less than £10 per head in Sortitos bar, which is often full of crews in transit to Antarctica. Many other restaurants are available with good clean food and large helpings from £1.50 per head. We toasted the MEF and BMC on many occasions.

There are several supermarkets with a selection very comparable to a standard UK "Tesco" so one visit can produce a month's food at about £80 per head. Pots, pans and cutlery are all best bought in Punta Arenas, paraffin (kerosene) can be bought at some garages and gas cylinders are available. There is a laundrette and souvenir shops for the return journey and clothes and shoes that are too worn out, or too dirty, can be replaced at prices slightly lower than in the UK. Print films can be same day processed but this is expensive.

Changing travellers cheques or cash (best in US \$s) is easy at one of the many travel agencies and Cambios. There is an Honorary British Consul.

It is in Punta Arenas that the headquarters of the Chilean Navy's southern sector is located, as well as the offices of the DAP local airlines, which have weekly flights (10kgs official baggage limit) south to Puerto Williams.

APPROACH TO CORDILLERA DARWIN

In 1988 Iain and I flew south to Puerto Williams and then approached the mountains after a wait of several days. One of us got a lift on a Chilean Naval gunboat, which collected both of us a month later. The other on a 40 foot yacht which was being sailed round the world by a British couple. This approach has advantages and disadvantages (some not as obvious as might initially appear).

On this visit Capitan Wilson and his staff in Punta Arenas were prepared for our arrival and within 24 hours of flying in, we were being made welcome aboard the "Yelcho" by Capitan Santiago Murphy and his crew. We had completed all our shopping within this time. One pays a small amount to the ship's mess funds for transport and the boat made a 2 hour diversion to drop us at the Estancia Yendegia. The voyage goes through the Magellan Straits, out into the Pacific, before going through Desolation Bay and down the Beagle Channel. It took 18 hours through some of the World's most fantastic marine scenery with the Italia and Francis glaciers tumbling into the Beagle. All the crew made us very welcome and it was sad to wave them goodbye as a tender took us ashore. We had arranged for another naval ship to collect us one month later. In the traditions of our great seafaring race, the Devon based member of the Expedition had let the side down by vomiting as soon as we entered the open sea.

One cannot give enough praise to the goodnatured help and support received from the Chilean Navy on this and previous expeditions.

Estancia Yendegia + mouth of Stroppani River.



ESTANCIA YENDEGIA.

With the exception of a small police (Carabineros) post on the north east side of Yendegia Bay the Estancia is the only habitation in the whole of the Cordillera Darwin. Since the border has been closed for many years the Estancia is totally dependent on sea transport. Until recently it was owned by Don Miguel Serka, who lived in Puente Arenas and who had never objected to it being used as a starting point for expeditions since John Earle's visit in 1979. It is run by about five gauchos and a manager. In the past we have never paid for staying here and always received fantastic hospitality, so that we have always left a generous donation to cover our costs. Don Miguel Serka had died since our last visit and his son now lives at the Estancia and is obviously putting a lot of work into developing the area. He is constructing a new bridge across the Stoppani River which is the key to reaching the beautiful area around Lago Roca and currently only fordable with great care on horseback. He has built himself a new cabin and is currently installing a radio. It is possible that an old and overgrown airstrip may be improved and the jetty landing for boats made usable. This year a party of 200 cruise tourists will come ashore for a 6 hour barbecue and he has some plans to encourage pony trekking. Making a living in this area is hard and we can only wish him well, but the area will lose some of its remote magic and I hope that it never becomes part of the "Gringo Trail", or worse still, too expensive for active mountaineers. We have been very privileged to see it prior to any development.

Miguel was obviously surprised at our arrival, but we were soon made welcome and offered hospitality by his staff. The next day we had a hard but businesslike bargaining session which was translated for us by Vicente, a Punta Arenas based nature photographer who is a friend of Miguel's and was staying at the Estancia to complete a portfolio on the local wildlife. Miguel charged us \$5US per day to stay at the Estancia but agreed to feed us when resident and luckily most of the expedition took place beyond the boundary of his land. He also offered to use two horses to transport our equipment for our first day's walk at \$30 US per horse per day. Interestingly, the final amount we paid was almost exactly the amount we had budgeted to donate when we left.

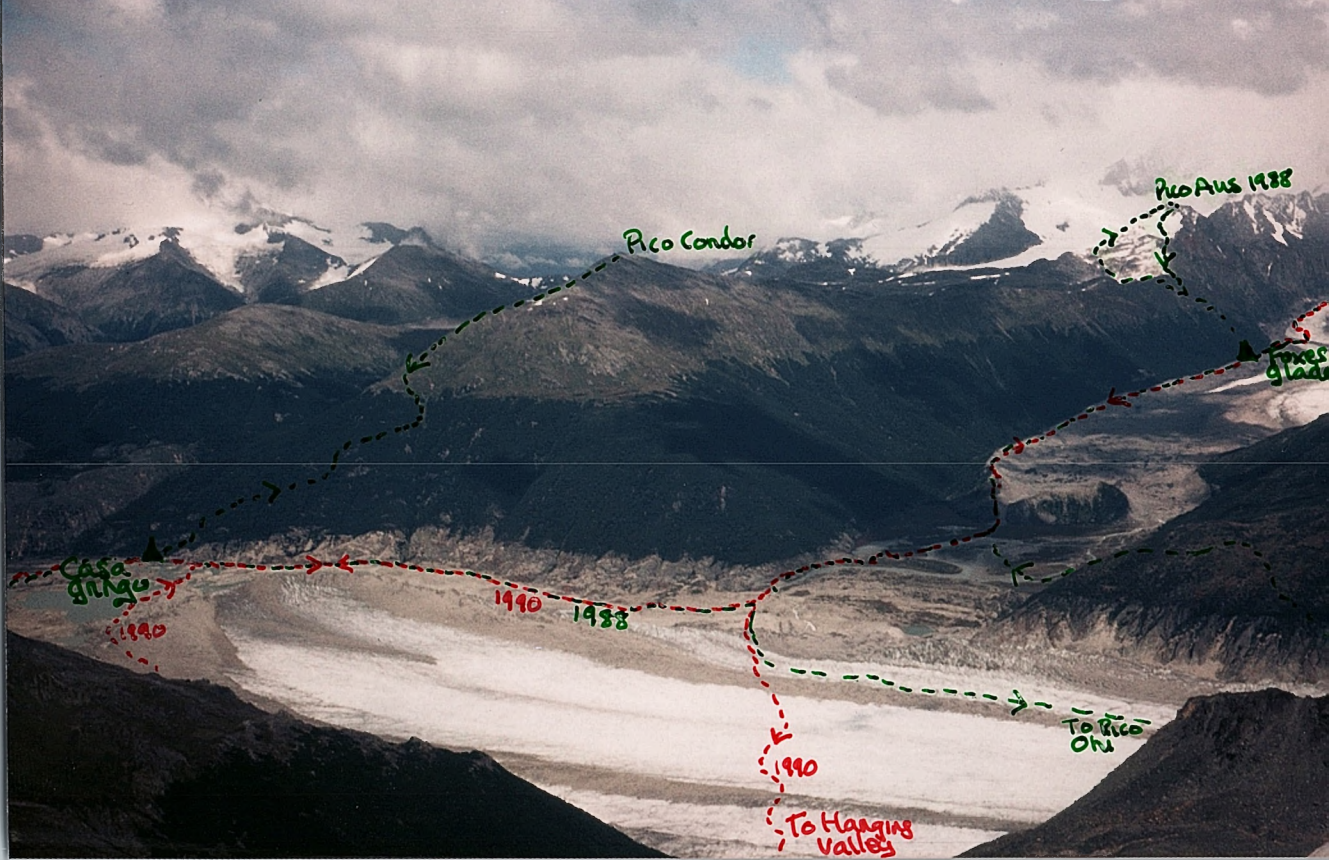
The Estancia is located on a flat plain at the north-west end of the bay. The surrounding birdlife in the hillocks, on the beaches and salt flats is amazing and it is a lovely area in which to walk, run and explore. The path to the next bay south enables one to inspect old whale bones and it is here that seals sometimes come ashore. We watched small porpoises playing in the bay and investigated the remains of the old Yaghan Indian huts in the area.

View down Yendegia Valley from Cerro Condor

1988



Views over Stoppani Glacier up to Dartmoor Glacier from Pico Paus de Galtes



WALK-IN.

It is about 5 hours almost flat walk up the Stoppani valley from the Estancia to a sheltered campsite beside the snout of the Stoppani glacier, known to previous expeditions as Casa Gringo. This walk initially follows an old track and crosses several dubious and disintegrating bridges over side streams. It crosses the flats and passes the old airfield to a more interesting river crossing. This was easily accomplished on walk-up on the back of Miguel's horse but on repeated crossings on the way down we found it to be very cold, wide and often well over the sensitive parts of one's body. A wading stick and rope are sensible precautions.

After this the route winds its way through trees, across beaver dams and finally across a flat, rocky expanse for the final three-quarters of an hour to Casa Gringo, which is located below a small ridge running down from Pico Condor to the true right side of the lakes and river that come out of the snout of the glacier. This campsite is tucked under trees, has plenty of firewood available and a small stream nearby for water. It is normally out of the wind. Initially we left our tents unattended here but on the walk out we got frustrated by a mysterious animal (fox or beaver) that raided the camp by day or night and took such illogical things as one left Chinese slipper, one plastic mug, a tin of coffee and a wooden spoon. We finally took the tent down and hung everything in the tree if we were away for more than a few hours.

Miguel and Vicente joined us for the walk-in and all our equipment was carried on two horses for the first day. It was a treat to watch them handle the horses and ride in wide brimmed hats wearing chaps and ponchos on beautifully tooled saddles, leading the pack horses with rawhide ropes. We frequently had to look twice to ensure it was real and not part of a Clint Eastwood film. As the day wore on Miguel lost his businesslike attitude and really joined in the spirit of the expedition. We had a great evening sitting round the fire chatting over a bottle of whisky cooled with glacier ice. When, at Yendegia we had shown Miguel and Vicente photos of Roncagli, neither of them had realised that such a beautiful mountain existed just beyond the boundary of the Estancia. In addition, Vicente was keen to get photographs of some beavers and we knew of some high level lakes en route to our base camp at Foxes Glade, which is 5 hours hard walking with heavy packs above Casa Gringo. They elected to join us for the next day and offered to carry loads for us, which was greatly appreciated and enabled us to complete most of our second journey to Foxes Glade with fairly light packs.

Initially, the second day's walk followed the true right side of the retreating Stoppani Glacier on easy ground for about an hour. We then stopped and let Vicente and Miguel "play" on the ice with our axes and crampons. The 'path' then swings west up a side val-



Miguel Serka - 1st Day of "walk-in"



Views up the Stoppant Valley from Casa Gringo.

Pico Pass de Gai
↓

ley and was marked by a few cairns dating back to John Earle's 1979 Expedition. The way is then barred by 'Guanaco Flats' where, having tried most options, it seems easiest to remove boots and trousers and wade straight across this damp plain in trainers. The crossing takes about 15 minutes and in a couple of places, reaches mid-thighs, but is mainly simple wet walking. From here it is a steep pull on a Guanaco path up to the lateral moraine on the true right side of the Dartmoor Glacier (named by John Earle) and this is followed along its narrow top for about 3 hours to the furthest glade in the hidden, and relatively sheltered, little valley on its left.

This is known as Foxes Glade after a Silver Fox seen here on a previous trip, and has been used as a base camp by several expeditions. It gives fantastic views of Roncagli and has an abundant supply of firewood. The stream which used to flow through the Glade now runs underground (since 1988) but water is available from side streams. The floor of these glades has a luxurious growth of soft grass. The wind through the Foxes Glade can be fairly strong and in a bad weather year it might be more sheltered at the next glade down the valley, but one would miss out on the beautiful views.

There was a great feeling of 'coming home' when we arrived at Foxes Glade. On my wall at home there is a watercolour of the view of the Glade with Roncagli behind and we were greeted by an old haulbag still hanging in a tree. The bag has lived here since 1983 and we had re-stocked it with surplus equipment in 1988. It was well packed and in good condition and included a pair of crampons, a Phoenix helmet, kerosene, spades, rice, spaghetti, soups, pots and pans, black lacey knickers (pre-dating the 1988 trip), books and other supplies. We have left some things here again and they are carefully guarded by our Expedition gnome.

Moving light, wearing trainers, and after a cup of tea, the journey back to Casa Gringo took two-and-three-quarter hours. Unfortunately this was the best weather we saw at Foxes Glade.

It was sad to say goodbye to Miguel and Vicente the next day, as they returned to the Estancia from Casa Gringo and we repeated the carry to Foxes Glade. We took two weeks food with us and left a reserve dump hanging in the tree at Casa Gringo.

RONCAGLI.

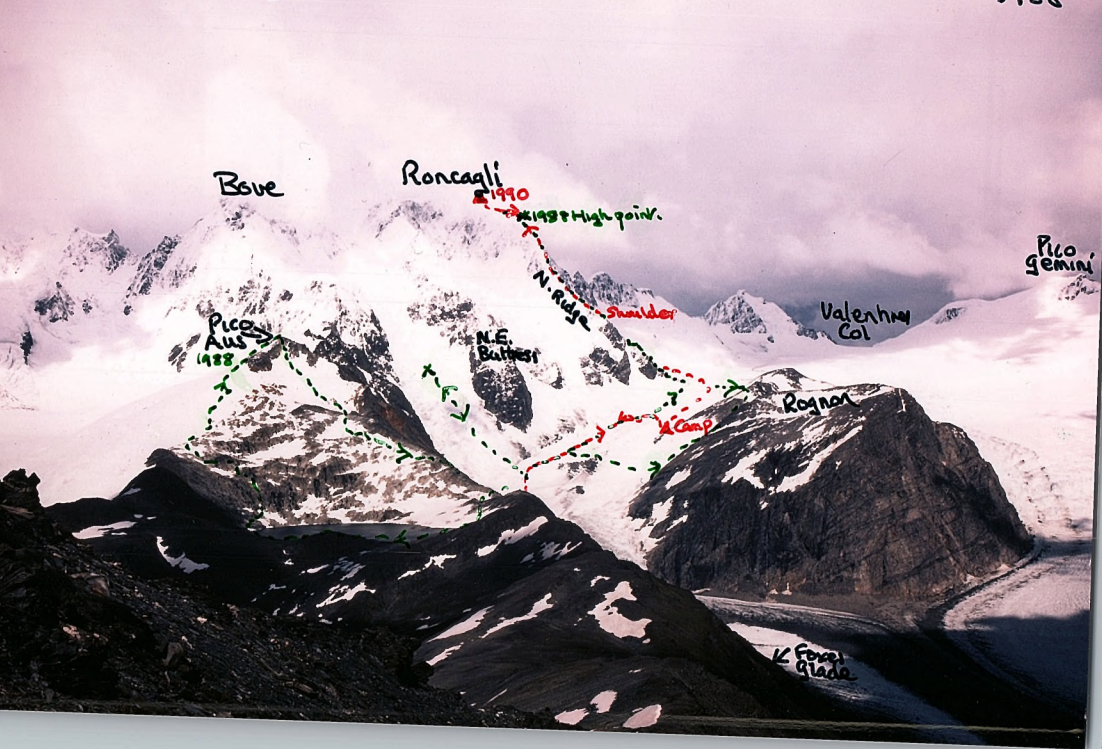
We were fully established at Foxes Glade within eight days of departure from England and feeling fit but tired, so I was not too sad to wake to rain on our first morning in the Glade and spend the initial part of the day lying in my tent relaxing. That afternoon the wind suddenly hit with typical Patagonian ferociousness and we were pleased to have the tents well pegged down. We relied on a Wild Country Super Nova and Quasar since their tents had proved themselves before at Foxes Glade. Up until now I felt Roncagli had lured us on too easily and I was glad that we had some bad weather to keep us on our toes and remind us how easily one can get led into a false sense of security in these remote hills. Over the next four days the weather played with us. It alternated wind, rain, sunny spells, hail, warmth, and damp cold. On one occasion we used some of our valuable hill supply of kerosene to cook in the tent but at others were able to get out and cook over wood and even wash in the sun with hot water from our 15 litre billy. One evening between showers we walked down the valley through woods to spend a fantastic hour watching beavers in their lake, returning only as it got dark at about 11pm.

In 1988 Iain and I had made three determined attempts on Roncagli. The obvious N.E. buttress had been avalanche prone and wet, with a constant stone fall risk. An attempt on its ridge using an approach up the icefall to its left had ended when a massive crevasse barred the entrance into the cwm above the level of the buttress. Another attempt, after a revealing view during the first ascent of Cerro Ohi had shown the north ridge of Roncagli to be a feasible route to the north top. This had been attempted over two days and had involved seven hours of climbing in the dark to try and make the best of the poor snow conditions. It had finished close to the top when bad weather, combined with hunger and tiredness, forced us to retreat. A third attempt had failed in lashing rain even lower on the ridge. On this trip we planned to establish a camp on the glacier behind the obvious rognon and near the col, just before the start of the climbing on the ridge. This would enable us to be sitting fairly high to make full use of any good weather. In addition we hoped to have a dump of equipment on the first shoulder of the ridge to protect a retreat and enable us to sit out any of the notorious Patagonian storms that we had experienced in 1988.

After several temporary breaks in the weather we left Foxes Glade on Saturday the 13th January with five days food and all our climbing equipment. Although the weather was overcast and cool the lower ice fall to the left of the rognon proved to be in a dangerous condition and despite keeping well to the left we had to squeeze through a nasty rock and ice trench, exposed to falling debris, before we all independently took to the deceptive looking rock on the left. In keeping with the spirit of adventure (and possibly our mountaineering incompetence) within half an hour we were all stuck at different points, with some sacks having to be

View to Roncagli from Pico Condor

1988



Roncagli

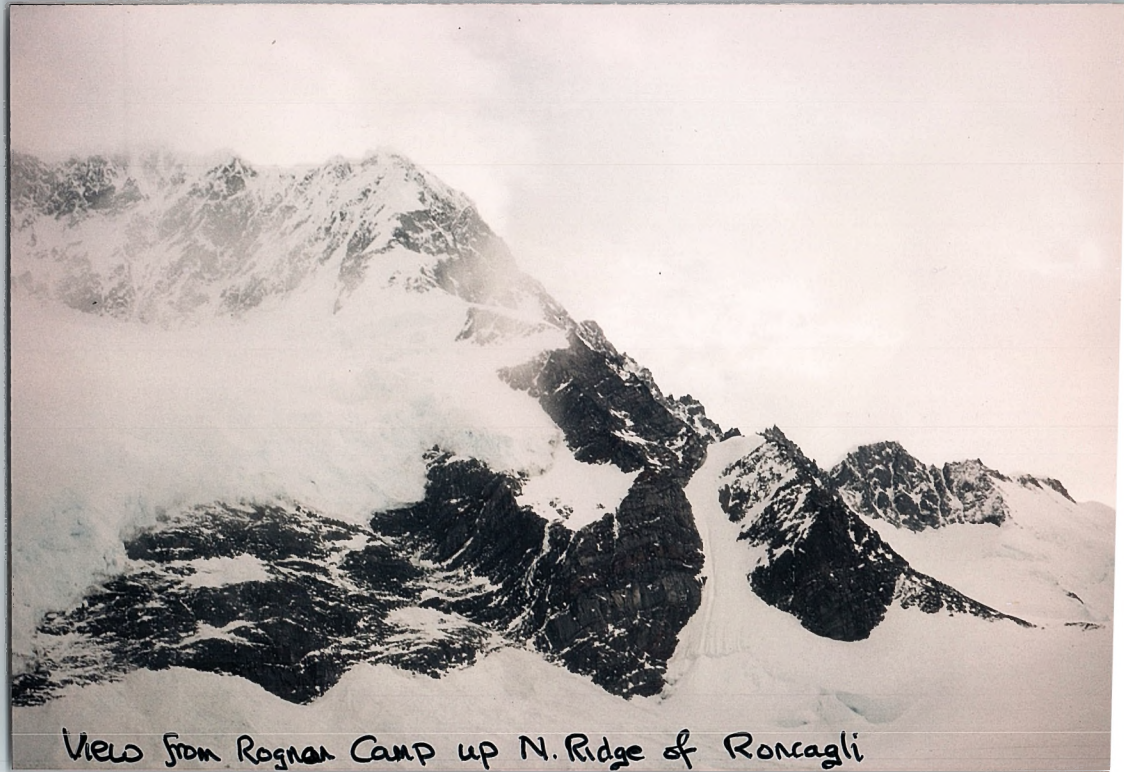


abandoned, ropes being thrown up, down and across, and poor belays. Finally we all ended up safe above the icefall by a combination of most of the unethical methods known to man. It was only the fact that we had not brought our drills, bolts and chalk that prevented a faster ascent of this section.

From here we took a direct line up the centre of the glacier with John breaking trail and avoiding the avalanche debris from the northern side of our peak. We crossed one interesting chasm, then David took over the lead for the next chasm and when the way was blocked by a third steep sided impasse about fifty metres across, we wound our way to the right through flat topped iceblocks with dubious snow bridges, before heading up towards the back of the rognon and a site for our camp. Whilst walking the last 300 metres to the proposed site in the swirling mist and rising wind, David suddenly dropped 7 metres into a deep crevasse. He was about to remove his rucksack and ask for a rope end to assist the climb out when he was subjected to an amazing uplifting experience. This was caused by John and Jules physically pulling him out of the slot. If it had not had a hard overhanging top, this would have worked but it only served to dig the 9mm rope deeper into the overhang and start throttling David as his pack pulled him over backwards and his face was rammed into the snow and ice. One hour later and after a lot of very bad language and a "gentlemanly disagreement" between Jules and David, he and his pack all arrived back on the surface. We reflected on the difference between the theory and practice of crevasse rescue. John led on and within three-quarters-of-an-hour we were digging a site for the Quasar and getting the M.S.R. going for an evening meal and to re-hydrate as the weather improved. Three people in the Quasar tent was more comfortable than we expected and meant that we did not notice the obvious drop in temperature until David got up at 4.30am to start a brew. We were surrounded by good quality neve, which is virtually unheard of in this area and which we never experienced in the whole of the 1988 trip.

We were off by 5.30, well after the early dawn that one gets this far south in mid-summer. It was a cold, cloudy and moderately windy day. Within 30 minutes we were at the Col, crossed a crevassed area and moved up an easy neve slope to the bottom of a rock step that formed the base of a gully to the right of the main ridge. Two years previously we had climbed the ridge direct. This had given excellent granite climbing in the sun but we had discovered a more direct and easier line to the right during our retreat. David led one easy rock pitch and we then unroped and zig-zagged up easy, but loose, rock continuing up a gully filled with excellent firm snow at an easy angle and finally making one or two simple moves on water ice at its top. We emerged at the lowest snowy shoulder on the ridge at about 9.30 and moved up to an outcrop of rock to sort our gear in the welcome cold wind that was keeping the snow in such good condition. It was here that we dumped two days food, fuel and bivouac gear to safeguard a retreat. We roped up on a 50 metre rope, took some rock gear, two deadmen, and two of us carried light sacks with sweaters, food and fluid whilst John, after a lot of discussion, decided that it was worth taking our extra 50 metre 9mm rope.





View from Rogner Camp up N. Ridge of Roncagli

Julian led up an easy snow field to pass the rocks where Iain and I had grabbed two hours sleep two years previously. On up through a couple of rock bands that were simple scrambling and the ridge began to narrow but was easily angled and still, thanks to the welcome cloud, in good condition. Where it steepened we continued to move together with Julian now making steps with his crampons, which were enlarged by David's cutting and then compounded by John to facilitate a retreat. There were no belays and nowhere for all three of us to stand on the narrow crest to enable us to change leads. We all used an axe and long shafted hammer, often plunging them in to the full extent of their shafts as the snow got softer. Occasionally the wind would rise but the cloud never really cleared, although it was thin enough to appreciate the drop on either side of the ridge and we were constantly pondering which way to jump if the snow did give way under one of us. We tended to use the right side of the ridge, zig-zagging between cornices. Interestingly, in the whole of Julian's lead he only found one nut placement and that was in exactly the same crack that had been used by Iain below our previous high point. About 50 metres further on, Julian was able to drop just below the ridge crest on its right side and get a proper belay, consisting of a rock and ice peg, both driven into the same crack. We gathered here at about 1pm to devour John's sister's Christmas cake, chocolate and most of our 2 litres of fluid.

John led on back to the crest of the ridge and we continued moving together for about two rope lengths, when he stopped as the crest narrowed and became even more steeply corniced. After some hesitation, we were forced on to the steep north face. John led on across the face, moving down and round a rock rib on poor snow with only the security of a poor deadman belay holding Julian and myself. At full stretch, 50 metres of rope arced across the face and enabled John to reach a dubious isolated nut belay in an exposed rock. He backed it up with our second deadman. David followed, trailing the second rope to Julian and then, by swapping over ends, led through up what looked to be the final 50 metres to the top. As always, it turned out to be further than expected, as the angle eased and it was at least another 50 metres to the top, so that we moved together reaching the summit at almost exactly 5pm. The barometer on John's watch registered 2290 metres or 7511 feet.

We stopped about five metres below the top of the summit mushroom since it was impossible to tell how stable this was on its southern side. Visibility was less than 50 metres from the top so we are still uncertain whether the middle or north top of Roncagli constitutes the highest point, but the intermediate ridge certainly consists of typically Andean double cornices. Roncagli is not a mountain that makes one feel happy when the top is reached. There was time to think of our previous attempt and reflect how correct our decision had been to retreat. Time to think of home and then to start the constant mental strain of the descent. John echoed all our thoughts when he muttered that the climb was only just over half complete.

We set off down with little formality in the cold wind with John leading and David taking up the rear. It had started snowing soon after we had left the top and got heavier as we descended. After



Julian + David descending upper Dartmoor Glacier 15-1-90

so long it would have been silly to think that Roncagli did not have a few tricks left. As the mist and snow closed in and visibility reduced to 25 metres we all moved down, constantly vigilant but cocooned in our own little repetitive worlds, sometimes hearing a shout as the rope went too tight or too loose. On and on down and ever thankful for the effort we had put into creating old-fashioned bucket steps in the snow that was now much softer and often suddenly dropped one 30cms into a lower step.

At 9pm we reached our equipment cache and dusted the snow off it. Despite the late hour and knowledge that the gully we had to descend with its loose rock would now be covered with fresh snow we stopped for half-an-hour. The snow was now so slushy that I, at last, remembered why we had not considered snow holing on the 1988 attempt. We finished the Christmas cake and ate salami, tuna fish and Dulche du Leche and some snow before loading up and setting off down. Soon after 10pm we picked our way over the loose terraces of rock that led down to the snowfield below. We hoped to pick up our old tracks on the glacier despite the fact it had been snowing and was becoming increasingly dark. For the final steep section we hammered a good Leeper into a crack. John abseiled the last 60 feet into the soft snow and sheltered under an overhang. Dave was next and altered the ropes slightly to ensure that they ran well. "I registered that they rested on some small loose rocks but my tired brain did not appreciate that they, in turn, kept some bigger blocks in place. Just as I commenced the abseil Julian screamed, I looked up and jumped to one side. A block about half the size of a loaded rucksack spun towards my head and I felt a numbing smash. I screamed to John, who had sheltered, as the rocks started a small, wet snowslide on an avalanche prone slope. My arms and legs still worked and fearful of blacking out, I rapidly continued down and clipped into a belay, thoughtfully arranged by John. In a remote area such as this, serious head injuries present few problems, since nothing can be done. I did, however, wake John three hours later when we were in the tent to get him to check that the sticky fluid trickling down my head was just blood from a superficial cut rather than fluid from my ear, which could have indicated an open fracture. The headache lasted about three days but I now have an honourable duelling scar from Roncagli. Roncagli is a mountain that needs sensitive courting and which plays with one before permitting an ascent, whilst still keeping a sting in its tail. Iain's old Phoenix helmet saved my life and was well scarred".

The delay meant that we never found our old tracks and John carefully led across the glacier in the mist as I followed watching his head torch constantly flick from side to side. We were too tired to risk any more crevasses and were in our sleeping bags by lam.

We woke to blasting spindrift and were not ready to move back down until mid-day, using up a lot of our food and fuel rather than carry it down. The sun appeared as we picked up some old tracks over the glacier and avoided the worst part of the icefall by a full 50 metre abseil next to a waterfall which, with fresh memories of the night before, had David twitching. Foxes Glade was a haven and bad weather the next day ensured a very lazy day with time to ponder these "Big Little Mountains".

Summary

Roncagli - First Ascent via North Ridge TD

1500 metres (approximately)

14.01.90 DKH, JM, JM.

Rco Pais de Galles from
Estrancia Yendegla



PICO PAIS DE GALLES.

By careful planning, some skill and a lot of luck, we had made good use of a lull in the weather and succeeded in our Expedition objective within two weeks of leaving the UK. We had allowed six weeks for the trip. Despite fairly extensive expedition experience, none of us had been in this position before and were all confused by the consequences! Most of the other peaks that can be approached from Foxes Glade had been climbed by previous expeditions attempting Roncagli. With this in mind, tempted by the better weather that predominates at Casa Gringo plus the added lure of more food at our dump, we loaded vast sacks and made one long carry out down the moraine and back across Guanaco Flats.

Day One at Casa Gringo was a time for washing and pandering to our battered bodies but by the next day we were again restless so that afternoon we set off with a tent and light sacks to try a peak to the east of the main range that we hoped would give good views into the Cordillera. In the event we were not disappointed. Two years previously, when descending the Stoppani Glacier, I had noticed a hanging valley on the east side of the Glacier. Julian elected to approach this via an extremely cold and unpleasant river crossing and a journey over glacial rubble which avoided a complex area of the Glacier. John and I chose the route back up the side of the Glacier and, where the side valley to Roncagli moved west, we crossed on to the Stoppani and had an enjoyable time on good ice. We weaved our way up and across the complex but dry Glacier with delightful moves on little steep walls, relying on biting crampon points and good axe placements. In the event, we arrived almost together and we now know which route is preferable. We camped just below the tree line in this delightful hanging valley, its stream fed by a gorge from a higher, bleaker cwm in the centre of a cirque.

The next day at about 10 o'clock we set off up an obvious stream bed on the north side of the valley. This was an ideal way of gaining height quickly through the dense trees and as the slopes opened we scrambled on up and along a long ridge which swung east, crossing a few small snow patches to arrive on our second summit after about 4 hours. A first ascent and a Munro Bagger's dream. We were able to look down to Lago Roca and over row upon row of three or four thousand foot ridges deep into Argentina. We were surprised to see a group of easy snow covered glaciated peaks north-east of the Stoppani Glacier and were able to inspect the peaks at the head of the Glacier. In its typically teasing and frustrating way, the top of Roncagli remained in cloud. We took multiple compass bearings to try to improve the maps of the area and after lunch split up for the descent. John went direct back to the camp, using a long snow patch for a fast descent. Julian and I elected to continue along the ridge, over many pinnacles, which turned out to be frighteningly loose, before enjoying a 1000

foot scree run followed by an 800 foot glissade down a snowed up stream bed to the top of the gorge. After being closely inspected by circling condors, who got quite excited at the prospect of supper when we lay down and played dead, we continued into the gorge. Luckily, we found a good Guanaco path that wound its way skilfully around small cliffs and over side streams to emerge at our camp at about 5pm.

Another brew and meal, using the plentiful dry wood available, and we all sampled Julian's route back to Casa Gringo, where a wandering beaver was able to laugh at us as we enjoyed the river crossing at dusk.

Summary

First Ascent of Pico Pais de Galles - with ridge traverse of the top - an exciting, but slightly loose, scramble - 20.01.90 DKH, JM, JM.



John Motherole - crossing "Bawe" side River with Soppani River behind

RETURN TO PUNTA ARENAS.

The temptation of Aidelia's cooking was too much for John and David, so the possibility of fresh meat lured them to make a preliminary carry of our more technical equipment to the Estancia the next day. Our plans were then thrown into chaos when they arrived and got the news from Miguel and Vicente that their expected boat was over two weeks late and arrival was therefore still imminent. The next day they made a Sam start back to Casa Gringo to find Julian still in bed when they arrived. He swore that he had been in an awful storm and experienced the dreaded Patagonian Williwaws. At Yendegia we had noticed a moderate breeze which just served to illustrate the difference a few miles can make in these mountains. Despite the attraction of a reconnaissance up a side valley towards Bove, to look at the lines we had glimpsed, we decided to load up and repeat the carry down to the Estancia, arriving in time for a late lunch which had been kept for us.

As so often in this part of the world, the expected ship did not arrive but the unexpected does happen. Two days later we were guests of the Carabineros in their launch to Puerto Williams where we just had time to renew old acquaintances before being bound for Punta Arenas again, courtesy of the Navy on the "Chacabuco". On arrival back in Punta Arenas we thanked the authorities for their help and were able to cancel the arrangements which had been made for our collection from Yendegia a week later.

PUERTO WILLIAMS.

Although we only spent 12 hours in Puerto Williams on this trip, a few words may be useful for future expeditions. Puerto Williams is claimed to be the southernmost town in the world and as such, possibly the best souvenirs are the pin-up calendars which are freely available from the shops and which proudly proclaim this fact. It is a Navy dominated town founded in 1953, with most of the civilians working in service industries. It has the feel of a frontier town but is nonetheless friendly, although expensive, since almost all supplies have to be brought in by sea. The best, and I think, only, Residencia, is the Onashaga. This is located on the small roundabout about 100 yards south of the shopping square. It is run by the very welcoming Senor Mario Omar Ortiz Osorio and his wife. It is clean, has plentiful hot water for the showers, and although quite expensive, can offer food. There is a bar at the Residencia and a couple of others in town. The Yacht Club Bar is in the hull of a sunken ship in a creek on the way west out of town and is an interesting place, since most of the yachts rounding the Cape drop in here. In the centre of town there is an alcohol-free cafe which makes good empenadas and other food. There is a bakery hidden behind the shops and a supermarket, where stocks are very dependent on when the last supply ship visited. There is a bank and a post office that sometimes open. The Hotel Wala, just out of town en route to the airport, is expensive but can provide a smart meal if you cannot wait until reaching Punta Arenas.

Senor Maurice Van de Malleo runs the small but excellent museum and speaks fluent English. He is a fund of information on the fauna and flora of the area and anybody visiting Puerto Williams and not making contact with him would miss out on a fascinating aspect of the history of the area. He can also advise on walks of interest.

THE PROBLEMS OF SUCCESS.

We were back in Punta Arenas with over a week in hand. After the traditional visits to bars, blow-out meals and hot showers, we looked for other activity. It takes two bus rides (possible in one day or more commonly, with an overnight stop in Puerto Natales) to reach the Paine National Park. This is civilised, compared with the Cordillera Darwin and densely populated by Guanaco, Reas, Hares, Foxes and Gringos. In good weather it offers excellent trekking and climbing. We did 'the grand circuit' trek in three days relying on a light, fast and fit approach, although it is normally done in five to eight days. There are a few bothy-type huts scattered through the Park but these tend to burn down and become uninhabitable with monotonous regularity, so it is best to carry one's own tent. In the best British tradition, Operation Ralieggh had set up a series of unofficial tea stops over one section of the trail, which they were endeavouring to improve.

David left the Park early to finalise flight arrangements. John followed a few days later but Jules stayed on to enjoy the wildlife.

In Punta Arenas a visit to the Instituto de Patagonia is well worthwhile, as is a trip to the museum. There is an interesting section here on the exploration of Father Agostini who was based in Punta Arenas and led the first ascent of Sarmiento and Italia in the Cordillera Darwin. If all else fails one can always pass the time in Punta Arenas by sitting in the numerous cafes and writing an Expedition Report.

CLIMATE.

The Cordillera Darwin seems to suit the New Zealanders and the British. It is not the place for somebody who regards their best medium as steep, warm, dry rock. The summer climate is like that of a Scottish winter but more variable, with the barometer on John's watch going up and down like a yo-yo. The wind can go from 2 to 20 knots within 5 minutes and at sea level often reaches 40 knots, these squalls are known as Williwaws. Although it is never very cold in the summer, it can rain, snow and sleet, resulting in a wet penetrating dampness. The snow does not often consolidate. There seems to be no logical pattern from one year to the next, yet alone from one day to the next, and bad weather can pass from the Pacific to the Atlantic and then pass back again four hours later.

In 1988 we enjoyed four weeks of extremes. Storms could last three days but then be followed by three days of glorious snow melting sun. It was impossible to climb for the first day after good weather arrived since avalanches continuously rumbled off the mountains. In 1990 we had none of the extremes but consistent overcast weather with frequent snow and drizzle. In the event this made things easier and resulted in the snow being in better condition high up, but was mentally very wearing when trying to live at a low level campsite.

EQUIPMENT.

Equipment is dictated the weather and recent developments explain the increase in standards of climbs done in the Cordillera Darwin over the last four or five years.

Synthetic filled sleeping bags are a must. One member used a Northface "Snowshoe" and two members used newer "Gold-Eck" which are available from Mark Hutchinson at Adventures Extraordinaires in Hebden Bridge. Both types of bag performed extremely well and the newer Gold-Ecks only weighed 3lbs.

Gore-Tex Shell clothing makes life relatively comfortable, although without the extremes of weather experienced in 1988, Jules managed to get away with a one piece windproof suit and nylon cagoule. One member swore by his excellent Berghaus Alpine Extreme jacket and another by his newer and lighter Sanctuary jacket. David never used his Berghaus Gore-Tex salopettes on this trip but they would have been very useful on the 1988 trip. His Winter Gear Nerve salopettes proved very windproof, abrasion resistant, light, quick drying, and adequately water resistant.

Duvet jackets are unnecessary but fibre pile clothing works well.

Plastic boots are a must for comfort and with Yeti gaitors can be useful for crossing beaver dams as well as the more traditional use in soft snow. One member used Koflach boots whilst the other two used Asolo AFS boots. All performed well as would be expected.

All members used and were impressed by Wild Country Gore-Tex fibre pile lined mittens combined with thermal inners.

Above base camp we used an M.S.R stove fuelled with kerosene and lower down cooked on wood. Life at base camp was made more comfortable by having a 15 litre aluminium billy that was purchased in Punta Arenas. A pipe smokers lighter proved very good for starting fires and it is worth taking several gas lighters. John kept fit by sawing wood with a sharp collapsible plastic handled Bridgedale pruning saw that was made in Japan and purchased in Britain. This was excellent but I suspect a small bow saw with spare blades bought in Punta Arenas would be just as good. A versatile and well-made Leatherman tool with its invaluable pliers, was taken by David and was in constant use by all the members of the team.

As expected, Wild Country tents stood up to the wind and rain well although at the last moment they were unable to lend us any and we had to buy and borrow with only a few days notice.

We climbed entirely on 8.5mm or 9mm ropes and found these quite adequate. Fifty metre lengths are useful. There is a conspicuous lack of good belays and we only carried a small selection of nuts, slings and rock pegs. Deadmen were useful in the poor snow and we each carried one long ice screw for possible use on glaciers. The poor snow conditions meant that it was useful to have two ice tools with fairly long shafts and we carried axes and hammers with 55 to 60cm shafts and traditional curved picks. Lowe belay tubes proved excellent and also gave a smooth abseil. One or two Petzl Shunts are useful on a rope of three crossing these fairly treacherous and complex glaciers. We all used clip-on crampons and all now regard helmets as essential for climbing in this area.

Theft in Chile is not the same risk as in Peru or Bolivia but it is still prudent to take care of one's belongings. A rucksack can be put in a kitbag for a flight which not only prevents damage but gives some security, and on a bus it protects the rucksack from the fine penetrating dust. A traditional size kitbag carries well on a horse. The trouser belt type of moneybelt sold by Survival Aids gave secure, non-sweaty security and can easily carry fifteen dollar bills. A dictionary and basic Berlitz tape studied before the trip gave a simple understanding of South American Spanish and made it much easier to appreciate the amazing local hospitality that is always given with such good humour. We carried a few British picture calendars as gifts.

PHOTOGRAPHY.

John used a weatherproof 35mm Olympus AF/1 twin lens compact camera with the versatile ability to switch instantly from a 35mm to 70mm lens. He was pleased with it and it produced excellent photographs of our summit bid despite the adverse weather.

Julian kept in training by carrying a Canon T90 camera with a choice of a fixed 200mm lens or a zoom 35 to 105mm lens. He, too, resorted to a compact Olympus on the routes. David used the ubiquitous Rollei 35 throughout the Expedition.

We used Kodak print and slide film and the new Kodachrome 200 slide film proved excellent in the poor lighting that was a constant problem.

MEDICAL REPORT.

Of the three members of this Expedition, one is a General Medical Practitioner with a specific interest in expedition medicine, one is a Dentist and the other a trained Mental Health Nurse with some experience of general nursing and specific training in first aid for use on North Sea oil drilling platforms. Luckily, since we were all on holiday, we managed to avoid making use of any of our skills and the medical kit was only opened in the last few days of the Expedition to divide the more essential contents up amongst the members for their individual journeys home. The surplus equipment was then destroyed.

The only potential medical problem during the whole expedition was that of immobility during the four days that we were confined to tents at Foxes Glade. Since we all had a considerable amount of previous expedition experience, we were masters of the art of doing absolutely nothing for hours on end in a cramped tent. It was only the eventual fear of developing bedsores that made us finally emerge and attempt our objective.

For the use of future expeditions to the area, I have included a reproduction of most of an article that was published in "Mountain 125" in January/February 1989 on "Planning An Expedition Medical Kit". This article was written at the Estancia Yendegia in 1988 at the end of the Expedition with Iain Peters, to pass the time whilst waiting for a boat, when we had run out of books to read.

It is the measure of the success of an expedition when the medical kit is still complete at the end of a trip. On a recent venture our equipment was geared to the needs of a two man lightweight team to a very remote area where even the most rudimentary form of help would take at least a week to arrange. I am pleased to say that it remained virtually unused. The peaks were alpine in scale and altitude-related problems were not therefore relevant. The medical kits consisted of a small amount of personal self medication for both members which we could take or reject as we wished, a watertight base camp kit weighing about 1 kilogram and about 2 litres in volume which contained sufficient drugs and instruments to cope with most potentially serious situations, albeit with some considerable degree of improvisation, and two 'mountain packs'. One of these was carried by me and weighed about 6 ounces and the other extremely basic one weighed only 1 ounce and was for the non-medical member.

This sort of arrangement seems as versatile as possible and can be extended to larger groups. Obviously altitude brings its own problems (greater risk of sunburn, frostbite, and acclimatisation illness with the potentially serious High Altitude Pulmonary and Cerebral Oedemas), but common facts govern any expedition medical planning. Prevention must be better than cure and pre-trip inoculations and dental checks are highly recommended. I usually

find that the threat of my attempting any extraction or filling with only one hour's formal dental training has most members fighting for the first appointment with a local dentist prior to departure. Secondly, if the equipment is not available at the right place at the right time it is useless, so it is often better to have too little in the right place than a full operating theatre situated two glaciers and a snowy pass away. Thirdly, the practical medical experience of the party members must be considered since it is just as pointless for the average general practitioner to consider major surgery in a remote area as it is for an untrained layman to consider it the right time to learn how to give intravenous injections or perform chest drainage. It is useful to start obtaining medical advice well prior to departure and it is normally best if this comes from a doctor with specific experience in remote area medicine and its problems. A tame doctor may be able to demonstrate specific techniques, tailor the advice to the objective and advise on where to obtain supplies. There are now a multitude of First Aid and Mountain Medicine books on the market but many fail to pitch their advice at the correct level. It is pointless carrying a library into the hills, but Peter Steele's book has often lived in my base camp box as an insurance policy and when all the other books have been passed around it is reassuring to see one's companions flicking through it. I am pleased to say that a fully revised edition has been published by Constable in guide book format under the title "Medical Handbook for Mountaineers".

Preparations in terms of inoculations may have to start up to two months before departure and it is best to encourage everyone to be up to date with a tetanus course (as they should anyway be at home). In addition some destinations and countries en route may require Yellow Fever, Typhoid and Cholera jabs. It is also advisable to consider a Polio booster, TB immunity, Immunoglobulin for Hepatitis A just prior to leaving and possibly a course of Hepatitis B and Rabies inoculations. Even a short stop in a malaria area is a reason to start everybody on preventive drugs, but in view of constantly changing bug sensitivity, the correct type and dosage for the area should be checked prior to departure. Anti malarial drugs are best started a week before the date of departure and should be continued for six weeks after leaving the malaria area.

At the early planning stage it is best to find if any members are known to be allergic to particular drugs since this may alter what supplies are ordered. This is also the time to ask about previous illnesses and operations as it would be silly to consider later evacuating a member for a suspected appendicitis only to realise that they had had the offending organ removed several years earlier! In a fit, healthy, active mountaineer virtually no illness should exclude them from an expedition, but a known tendency to a condition such as asthma might necessitate carrying a specific remedy. With the increasing risk of contaminated blood transfusion in some third world countries where Hepatitis B and AIDS virus screening is not routine on all supplies, I am increasingly encouraging members to be cross-matched prior to departure and to carry their own supply of injection and infusion equipment (available from MASTA if not from your tame doctor). Members can then act as mobile blood banks if required. Extreme tact and an under-

standing of these diseases may, of course, be needed to ensure that your own 'bank' is not a potential source of infection.

The preventative and minor ailment packs for each individual member can be handed out when all are involved in the chaos of packing and each member can choose to take or reject the individual contents in the light of their previous experience. I normally include an iodine based water sterilising system (tablets or crystals for a saturated solution), lip salve, glacier cream, athletes foot powder and cream, aspirin, condoms, elastoplast strip and insect repellent (DEET via MASTA). Hopefully your companions will be aware of the risks of snow blindness and sun exposure and will have their own favourite sun hat and dark glasses. It is essential to stress that sweat in a hot climate loses a lot of the body's water and that the resulting unnoticed dehydration can lead to lethargy, headaches, constipation and pain on urinating. One can be fairly sure that one is drinking enough if there is a daily production of at least three clear looking pees.

With this careful preparation the theory is that the main medical kit will not be needed but personal experience of several international varieties of 'Delhi Belly' and one particularly severe attack when under an overhanging serac have given me great respect for some gut bugs. The same theory also states that prevention is the key to avoiding these ailments, but one of the great pleasures of an expedition abroad is the experience of foreign culture and food. I normally can't resist 'just trying'. Once the bugs hit it is best to try the textbook treatment first. This means not trying to constipate oneself but starvation for 24 hours to rest the gut and taking up to three litres of fluid a day in sips. Ideally this should be a solution of one litre of boiled water with two level tablespoons of sugar or honey and half a teaspoon of salt. MASTA will also supply a special measuring scoop for this drink. After 24 hours a 'normal' diet can be gradually reintroduced. If this treatment does not work or if travel on local transport is essential one can always resort to Peter Steele's 'Everest Blunderbuss Cocktail' which is a mixture of an overdose of most of the constipating drugs ever known to man and tends to bind most normal humans for about a week! If this fails a course of metronidazole is the next step, but it's best to avoid patent local remedies and remember that most anti-biotics make the situation worse. If this has all been to no avail, it's always worth presenting your doctor with a series of faecal samples on return. The bugs that are identified often serve to liven up a laboratory technician's otherwise routine day.

The Base Camp Kit will hopefully be redundant and at the end of the trip it will be criticised for being too large, but I know that in the event of a serious accident it may well be too small. I feel that it should be designed for serious conditions and that for lesser ailments simple 'home' remedies can be used. By the end of the trip people are therefore sick of me suggesting that boiled salt water solution is the best wound cleaner and that honey and lemon drinks or steam inhalations work for high altitude coughs. This policy does, however, keep the weight down to a minimum and ensures that the limited supplies that are taken are kept for a case of real need. In terms of surgical hardware I carry a small selection of instruments such as scissors, forceps, artery

forceps that can double as needle holders, and scalpel blades. Remember that blades can be used without handles and that syringes and needles can safely be reused on the same patient. The long needles used to give fluid into veins can also be used to drain the bladder of an unconscious patient with pelvic injuries or take fluid off the chest of a person with a severe chest injury. Matchsticks make excellent dental probes for inserting "Cavit" temporary fillings and can also be used to light a fire, which is not possible with more specialised dental instruments. A bladder drainage tube (catheter) can also be used to administer up to three litres of non sterile fluid a day to an unconscious patient via the rectal route. Versatility is the clue to a well thought-out kit and this also applies to the use of a drug's side effects.

Codeine Phosphate tablets are an excellent, though slightly old fashioned, mild to moderate pain killer. They also tend to constipate and therefore can fulfil two roles. Diazepam is excellent as a preoperative drug and mild muscle relaxant but can also be used to calm a psychotic patient, or in smaller doses as an occasional sleeping tablet. Its long active life in the body does, however, mean that it has a marked hangover effect and there are more suitable drugs available to aid sleep under expedition conditions, although I tend to find that most people sleep when tired enough, even in cramped bivvies. For versatility I use a combined form of Flucloxacillin and Ampicillin (Magnapen capsules and injections) as my basic antibiotic unless a member is penicillin sensitive when I use one of the cephalosporin groups of antibiotics (Velocef capsules or injections). These are useful for infections of the chest, sinuses, ears and urinary system but in the event of a major infection in the abdomen (e.g. peritonitis following trauma or appendicitis) or a serious accident with an open break of the bones, including the skull, these antibiotics should be mixed with Metronidazole which can be given by tablet or, if the patient is unconscious, by rectal suppository. This combination kills '99 per cent of all known germs'. On prolonged routes members often tend to try and remain constipated so it is wise to carry a small stock of laxatives such as Bisocodly tablets to reverse this on return to base, but stand well clear. If one is having to live off a bland, low fibre diet, 'instant bulk' can be carried in the form of packets of Ispaghula husk such as 'Fybogel' or 'Isogel". A high fluid intake also obviously helps and is particularly important at high altitude and when one is physically active.

A dirty open fracture is one of the most potentially serious injuries that an expedition member is likely to have to care for actively over a prolonged period. More serious problems are likely to sort themselves out one way or another before help arrives, and your care is unlikely to make much difference to the outcome. To minimise pain and prevent infection this type of fracture should be scrubbed clean, any dead tissue cut away, and the bones set, whilst starting the patient on massive doses of an antibiotic combination. To enable me to do this I carry the injectable general anaesthetic Ketamine (Ketalar by Parke Davies) which is as near to ideal as possible for single handed use. It should certainly be considered by any trip which happens to include a doctor amongst its members, although it is best if he has some experience in its use prior to departure. For several

years now I have carried Buprenorphine tables (Temgesic by Reckitt and Colman) as my most potent pain killers. This drug deserves to be better known to mountaineers. It is as strong as morphine and although it has some similar side effects they are all exhibited to a lesser extent. It has two great advantages in that it is not controlled under international conventions* for carriage across borders when for personal use and it is normally given as small tablets, from a convenient blister pack, and allowed to dissolve under the tongue. It starts to work within about ten minutes and as an injection is not needed it lends itself to use by untrained personnel operating on a potentially shocked and hypothermic victim. The same company now market Prochlorperazine in slow release tablets called Buccastem which also dissolve next to the gum and prevent the nausea and vomiting which is well recognised as a side effect of most strong pain killers. I carried this on my recent trip and it was also found to be fairly effective when used for sea sickness on the approach to the peaks.

The small first aid kit that I carry on routes in some ways reflects the contents of the Base Camp kit. Buprenorphine is the analgesic, used with Buccastem. In a remote area I carry a 24 hour supply of injectable antibiotics and at altitude a supply of Dexamethasone and Bumetanide. Rather than Amethocaine local anaesthetic eye drops for possible snow blindness I include a very light and cheap pair of plastic goggles to replace any lost on a route. I also have a couple of sterile wound pads (melolin) and an elastoplast strapping. I usually carry a number 3 Guedel Airway which is a simple plastic tube which helps to prevent an unconscious patient choking on his tongue, although I have heard that an even lighter, cheaper and more versatile alternative is to carry a large safety pin which can be stuck directly through the casualty's tongue outside their mouth after pulling the tongue as far forward as possible. I suspect that this would work but I prefer the minimal weight of an airway. It would certainly provide an incentive to remain conscious. Remember that slings and splints can always be improvised from climbing tape, rucksecs, karrimat or skis, preferably using the casualty's own equipment. My companion's kit contains only analgesics and at altitude diuretics and steroids, but I would only expect to use this if I dropped my sac in which case the situation would be fairly serious anyway.

* N.B. Buprenorphine became a controlled drug in September 1989.*

Useful Addresses and References

- 1 UIAA Mountain Medicine Data Centre,
Department of Neurological Sciences,
St Bartholomew's Hospital, Little Britain,
London EC1A 7HT.

- 2 MASTA Ltd, London School of Hygiene and Tropical Medicine,
Kepple Street, London WC1E 7HT.

- 3 "Water Disinfection in the Wilderness"
by Frederick Kahn and Barbara Visscher,
The Western Journal of Medicine, May 1975.

MAPS OF THE AREA.

There are no reliable maps of the Cordillera Darwin. Possibly the most useful general map of the whole Cordillera showing a vague outline of the mountains is the map entitled "Tierra Del Fuego S.Ø." produced by the Laboratoire de Glaciologie du CNRS, Grenoble, France. This map is based on trigonometry for the US Airforce in 1947 and was produced in 1981 by Professor Louis Lliboutry. It is at a scale of 1:250,000. Admiralty charts of the area give a fairly accurate picture of the coastline with possible anchorages but become very inaccurate when used more than about a kilometre inland. There is a map in Agostini's book about his climbs of Sarmiento and Italia but this is inaccurate in areas other than those that he actually crossed. John Earle's book "The Springs of Enchantment" has a map of the area which was originally produced by Don Sargeant, who was with John on his last expedition to Tierra del Fuego.

The maps in this report are either produced by Don Sargeant or based on his original work but updated on information obtained from photographs taken by David Hillebrandt in 1988 and 1990, and with details of compass bearings that were taken on a relatively clear day from the summit of Pico Pais de Galles.

NATURAL HISTORY.

The author of this report is very ignorant when it comes to matters of natural history but it is fortunate that Iain Peters, who has visited the area on so many occasions, is a keen botanist and that Julian Mathias is a keen ornithologist. Both these expedition members have endeavoured to educate the author and anyone requiring more details would do well to contact them direct.

A visit to the Museum at Puerto Williams or the Instituto de Patagonia near the Zona Franca just outside Puente Arenas would be well worthwhile to anyone interested in the fauna and flora of the area.

Iain Peters produced a very valuable and comprehensive account of the flora of the area during his expedition with Rowland Perriement and Maggie Clark between January and April 1981. He made extensive collections from three vegetated zones and compiled details species lists for each. One zone was made up of the south facing shores of the Beagle Channel and headlands of the Bay. Another was made up of the floodplain of the Stoppani meltwaters and consisted of the large area of mudflats and low dunes of sand and shingle. This gives way, further upstream, to large marshes. Another vegetated area was the extensive Magellanic deciduous forest which stretches as far as the snout of the Stoppani Glacier. A final and fourth area, virtually denuded of vegetation, is made up by the large tracks of forest that have been deliberately burnt in about 1919 in order to create livestock grazing areas, but which subsequently have had their topsoil eroded and been left as areas of bare scree.

Iain's detailed report on the Cordillera Darwin also includes notes on the fauna of Isla Navarino with additional details of rainfall and temperature variations, soil analysis and a short note on the geology of the area. Copies would be available from Iain Peters, 1 The Square, Main Street, Burton in Kendal, Carnforth, LA6 1LX.



Condors from Pico Pais de Galles

SPECIES LIST OF BIRDS OBSERVED DURING THE 1990 EXPEIDITION.

ENGLISH	SPANISH	LATIN
White Tufted Grebe	Pimpollo	<i>Podiceps rolland</i>
Great Grebe	Huala	<i>Podiceps major</i>
Wandering Albatros	Albatros errante	<i>Diomedea exultans</i>
Black Browed Albatros	Albatros de ceja negra	<i>Diomedea melanophris</i>
Southern Giant Petrel	Petrel gigante antartico	<i>Macronectes giganteus</i>
Megellanic Penquin	Penguino de Magallanes	<i>Spheniscus magellanicus</i>
Olivsaceous Cormorant	Yeco	<i>Phalacrocorax divaceus</i>
Magellanic Cormorant	Cormoran de las rocas	<i>Phalacrocorax magellanicus</i>
Blue-eyed Cormorant	Cormoran imperial	<i>Phalacrocorax atriceps</i>
White-necked Heron	Garza cuca	<i>Ardea cocoi</i>
Black-crowned Night Heron	Huairavo	<i>Nycticorax Nycticorax</i>
Buff-necked Ibis	Bandurria	<i>Theristicus caudatus melanopsis</i>
Ashy-headed Goose	Caquen	<i>Chloephaga poliocephala</i>
Ruddy-headed Goose	Canquen colarado	<i>Chloephaga rubidiceps</i>
Upland Goose	Caiquen de Magallanes	<i>Chloephaga picta picta</i>
Kelp Goose	Caranca	<i>Chloephaga hybrida</i>
Magellanic Flightless Steamer Duck	Quetru no volador	<i>Tachyeres pteneres</i>
Chilean Teal	Pato jergon chico	<i>Anas flavirostris</i>
Red Shoveler	Pato cuchara	<i>Anas platalea</i>
Andean Condor	Condor	<i>Vultur gryphus</i>
Red-backed Hawk	Aquilucho	<i>Buteo polyosoma p.</i>
Chimango Caracara	Tingue	<i>Milvago chilmango</i>
Crested Caracara	Traro	<i>Polyborus plancus</i>
Peregrine Falcon	Halcon Peregrino	<i>Falco peregrinus</i>
American Kestrel	Cernicalo	<i>Falco sparverius</i>
Southern Lapwing	Queltehue Austral	<i>Vanellus chilensis fretensis</i>
Magellanic Oystercatcher	Pilpiten Austral	<i>Haematopus leucopodus</i>
Black Oystercatcher	Pilpiten negro	<i>Haematopus ater</i>

ENGLISH	SPANISH	LATIN
Sanderling Common Snipe	Playero Blanco Becacina	<i>Calidris alba</i> <i>Gallinago gallinago</i>
Brown Skua Kelp Gull Andean Gull Franklin's Gull	Salteador pardo Gaviota dominicana Gaviota andina Gaviota de Franklin	<i>Catharacta lonnbergi</i> <i>Larus dominicanus d.</i> <i>Larus serranus</i> <i>Larus pipixcan</i>
South American Tern	Gaviotin sudamericano	<i>Sterna hirundinacea</i>
Eared Dove	Tortola	<i>Zenaida auriculata a.</i>
Thorn-tailed Rayadito White-throated Treerunner	Rayadito Comesebo grande	<i>Aphrastura spinicauda</i> <i>Pygarrhichas albogularis</i>
Chocolate-vented Tyrant	Cazamoscas chocolate	<i>Neoxalmis rufiventris</i>
Rufous-backed Negrito Patagonian Tyrant	Colegial Viudita	<i>Lessonia rufa r.</i> <i>Colorhamphus parvirostris</i>
Chilean Swallow	Golandrina chilena	<i>Tachycineta leucopyga</i>
House Wren Austral Thrush	Chercan Zorzal	<i>Troglodytes aedonchilensis</i> <i>Turdus (sic!) falcklandii</i>
Patagonian Mockingbird	Tenca patagonica	<i>Mimus patagonicus</i>
Correndera Pipit	Bailarin chico	<i>Anthus correndera</i>
Rufous-collared Sparrow	Chincol	<i>Zonotrichia capensis</i>
Austral Blackbird Long-tailed Meadowlark	Tordo Loica	<i>Curaeus curaeus</i> <i>Sturnella loyca</i>
Grey-hooded Sierra Finch Black-chinned Siskin	Cometocino de Gay Jilgnere	<i>Phrygilus gayi</i> <i>Carduelis barbatus</i>

ACCOUNTS.

The following accounts are designed to give a rough idea of the cost of equipping an expedition to this area at 1990 prices. All figures are based on the exchange rate for December 1989 which was 300 pesos = \$1US and \$1.6US = £1 sterling. As stated before, virtually the whole of South America works on US\$ and it is certainly best to carry fairly large quantities of cash US\$ which can be exchanged at almost any shop if needed in an emergency.

INCOME

1 Mount Everest Foundation	£800
2 British Mountaineering Council Grant	£600
3 Personal	The Balance

EXPENDITURE OF EXPEDITION (Excludes personal souvenirs, entertainment, films, etc.)

1 Insurance via BMC	3 x £90	£270
2 Flight - Heathrow to Santiago, return via Varig	3 x £642	£1926
3 Flight - Santiago to Puenta Arenas, return via Ladeco	3 x £170	£510
4 Airport Taxes (Santiago and Puenta Arenas)		£37.30
5 Naval Transport costs (total including food)		£63.75
6 Buses and Taxis (including trip to Paine)		£52.80
7 Hire of pack horses		£37.50
8 Stay at Estancia Yendegia (in and out)		£62.50
9 Residencias accommodation in Puenta Arenas, Puerto Williams and Puerto Natales		£68.50
10 Food in towns (cafes - including celebrations, beer, wine, etc.)		£125.30
11 Food, freeze dried from UK		£20.00
12 Food purchased in Chile		£137.00
13 Hardware purchased in Chile (cooking utensils, kerosene, etc.)		£26.00
14 Goodwill gifts		£12.00
15 Clothes washing		£ 6.00
16 Report costs		£32.00

		£3386.65

Cost per Person.....		£1128.88
Cost per Person less Grant....		£662.00

- 1966 Italian Party. Carlo Mauri, Gigi Alippi, Casimiro Ferrari, Cesare Guidice, Guido Machetto, and Giuseppe Pirovani. First Ascent of Monte Buckland (1800 meters, 5905ft). AAJ 1967.
- 1966 Japanese climbers and geologists based at Escandallo Bay below Sarmiento. First Ascents of P1860, P1840, and P1840 in Cordon Navarro. Reference in Jack Miller's A.A.J. article and AAJ 1967.
- 1966 Japanese led by Kentaro Takagi climbed Cerro Olivia. AAJ 1967.
- 1969}
1971} Italians led by Giuseppe Agnolotti. Three attempts on West top of
1972} Sarmiento AAJ 1970, 1972 & 1973.
- 1971 New Zealand Expedition Nick Banks, Peter Radcliffe, Michael
Nov- Andrews, Neville Bennett, Murray Taylor, Peter Janes, Dick Heffernan
Feb via Bahia Parry approach from north side of Cordillera
Un-named peak 7,000ft (Banks, Bennett)
Cerro Darwin
Un-named Peak on Main Divide
Pico Nuevo Ano (Andrews, Heffernan)
Monte Roncagli Attempt on West Ridge from North side of Range over
16 days. First record of an attempt on this peak in an amazing 16
day trip.
Janus 7,500ft (Banks) AAJ 1974. NZAJ 1972.
- Nick Banks can be contacted at Frondeg, Tregarth, Bethesda, Gwynedd,
North Wales, or via Plas y Brenin, National Mountaineering Centre,
Capel Curig.
- 1971 South African Expedition climbed Cerro Alvear (1371m, 4500ft) AAJ 1975
- 1976 South African Expedition to Stoppani area. Possible 1st Ascent of
approx. Pico Gemini, one member thought to be Paul Fatti.
- 1977 South Africans Richard & Heather Smithers, Box 131, Bergville,
Natal 3350, South Africa, and Bob Reinicke climbed several peaks above
Bahia Brookes. AAJ 1977.
- 1977 Combined Sailing and Mountaineering Expedition led by Douglas
1978 Crombie-Anderson (17 Hugh Miller Place, Edinburgh, EH3 5JG Tel:031 343
1599) with Richard Peart (The Old Farm, 45 Holland Street, Crewe,
Cheshire, CW1 3TT Tel:0270 255 258) Ian Rennie, Wallace Rennie,
Ian Carr, Willie Jeffries, Dave Neilson (Australia). Sailed from the
Firth of Forth to Portsmouth in a 65ft Ferroconcrete Ketch via Tierra
del Fuego and the Southern Patagonian Icecap. Initially anchored in
Bhia Morris to the west of Sarmiento then moved east via Fiordio Keats
to Agostini and established a base camp at the eastern end of Fiordio
Hyatt. From here they moved south onto the glacier and climbed Cerro
Cuchillo, two other peaks from a remote Col and the main middle peak
of the triple topped peak above a hanging glacier. AAJ 1979.
- 1978 New Zealanders Sue Parkes & James Jenkins climbed three peaks at the
head of Valle Lapataia between it and the Stoppani Glacier (possibly
in area of Pico Pais de Galles. AAJ 1978.

THANKS.

Any expedition is not only dependent on the enthusiasm of its members but also on the help, support and goodwill of many people both family, friends, colleagues and official organisations. In many ways, expedition climbing is a selfish sport and the sacrifices made by our families at home are often far greater than those made by the members.

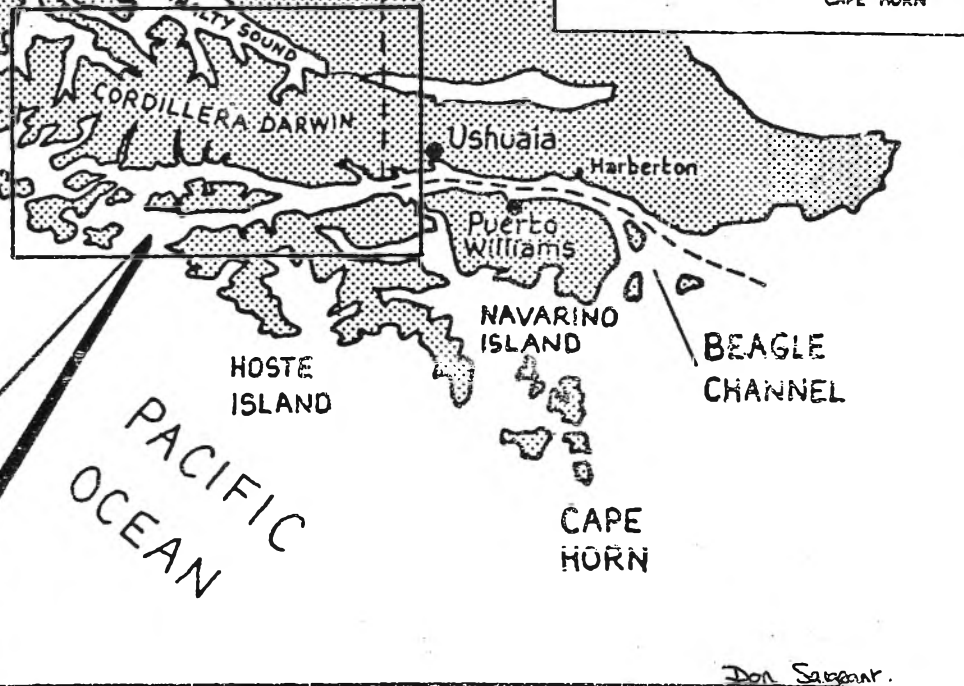
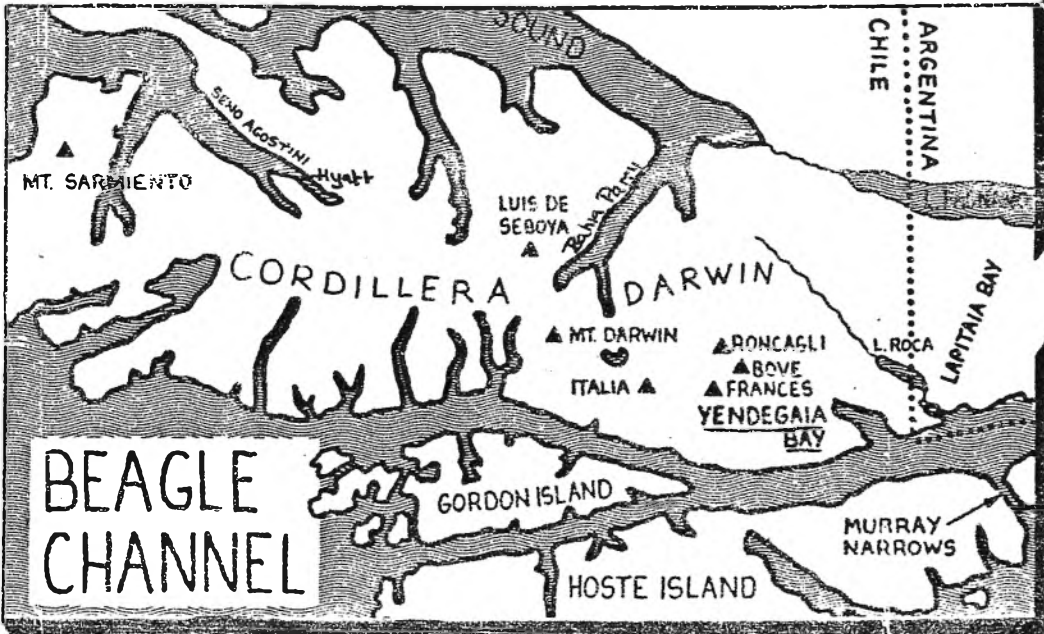
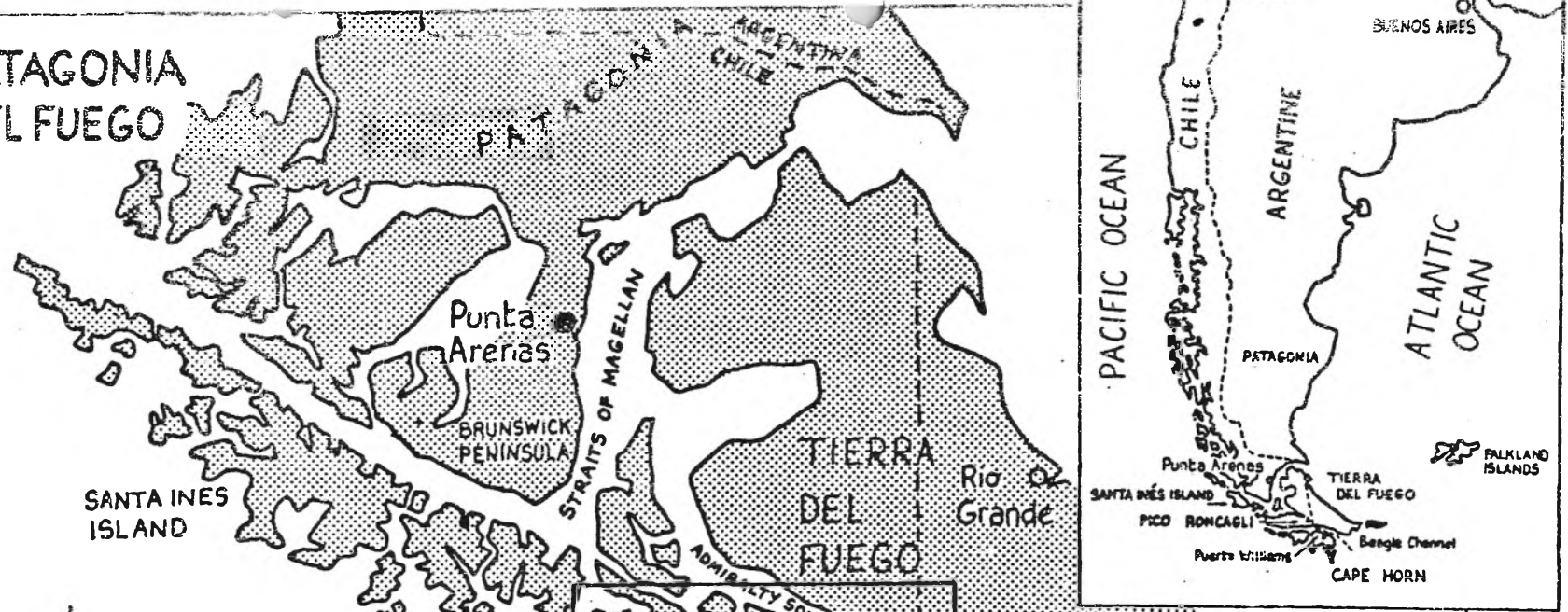
In addition, it is one of the pleasures of travelling on expeditions that many of the members of the official organisations which become involved, themselves become good personal friends and this has certainly been the case on our trips to Chile. The following people deserve specific thanks:-

Sally, Jenny and Tom Hillebrandt
Helen Rogers
Drs Mayers, Barker, Edwards and Page - my partners who tolerate my long absences
Mount Everest Foundation and Bill Ruthven (secretary) for their invaluable financial support
British Mountaineering Council - who joined with the MEF in enabling us to go on this trip.
Journey Latin America (specifically Chris Rendell-Dunn and Charlotte Robinson) - for advice, ticketing and liaison with Varig.
Varig (Mr Frank Fernandez) - help with excess baggage
Dick Turnbull (Outside, Hathersage) - equipment
Lionel (Moorland Rambler, Exeter) - equipment
Martin Doyle and John English - for giving the right type of reference to the MEF!
Iain Peters - for introducing us to this magnificent area and sowing the seeds for the 1990 trip
Capitan Arturo Wilson (Chilean Navy) - for his support and hard work on our behalf, both in Puerto Williams in 1988 and Puente Arenas in 1990
Capitan Santiago Murphy and the crew of the Yelcho - what better way could there be to arrive in Yendegia
Senor Miguel Serka - for looking after Yendegia and hopefully protecting its natural beauty, also for his help with horse transport and carrying loads
Senor Vicenta Gonzales Mimica - for recording the wildlife at Yendegia, translating for us, and also carrying loads.
Senor Peter Hill, Senor Alec Wotherspoon and the staff of the Andean Mining and Chemical Company, Santiago - for keeping a watchful eye over us
Senor Roderick William Matheson, Honorary British Consul, Punta Arenas
Senora Maria Fernandez - for her consistent hospitality
Don Sargeant - who produced the best (and only) map to the eastern end of the Cordillera Darwin
Pat Church - for battling with our tame word processor
Martyn Squire - for explaining the art of word processing .

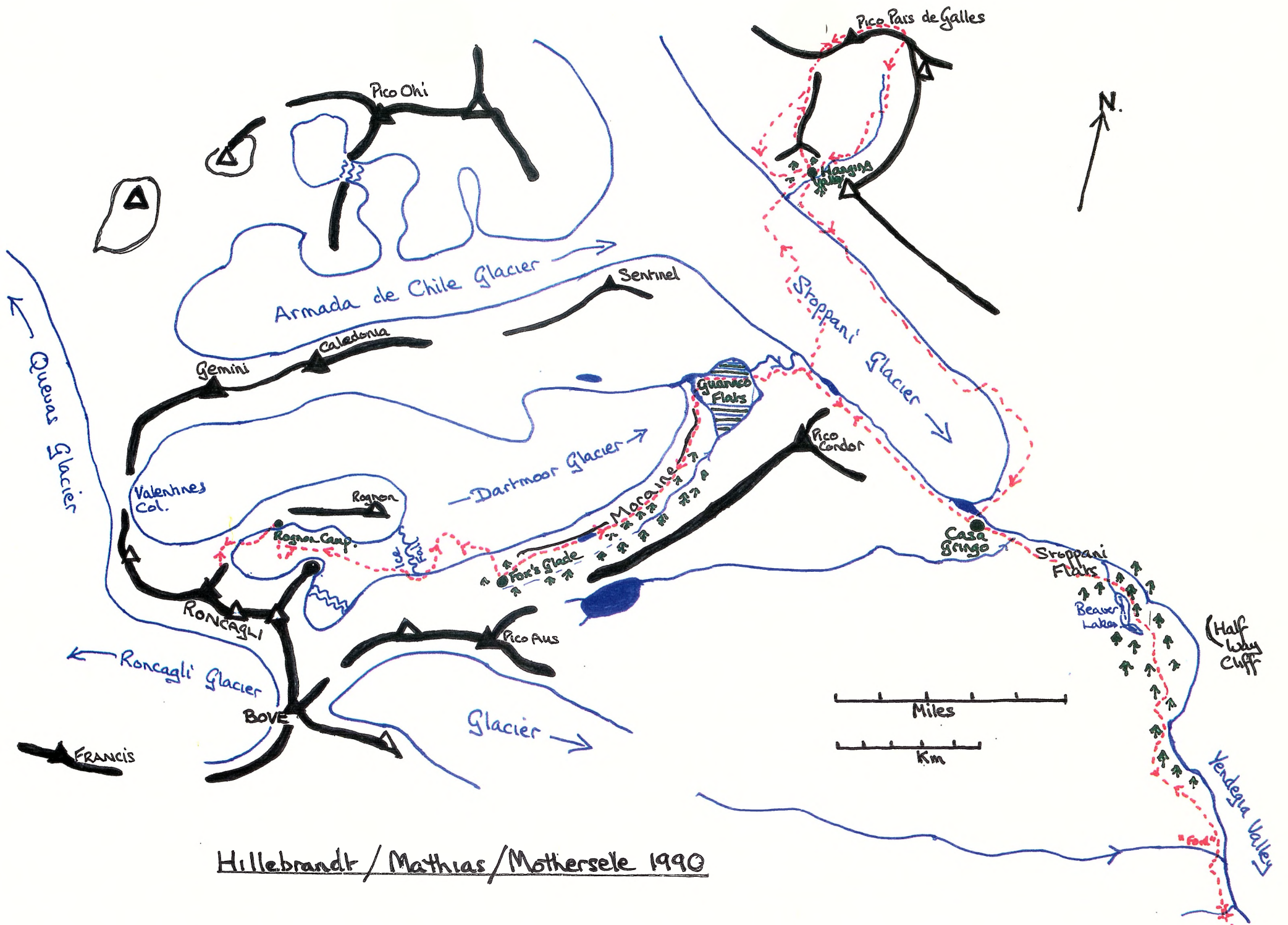
SOUTHERN PATAGONIA AND TIERRA DEL FUEGO



100 miles



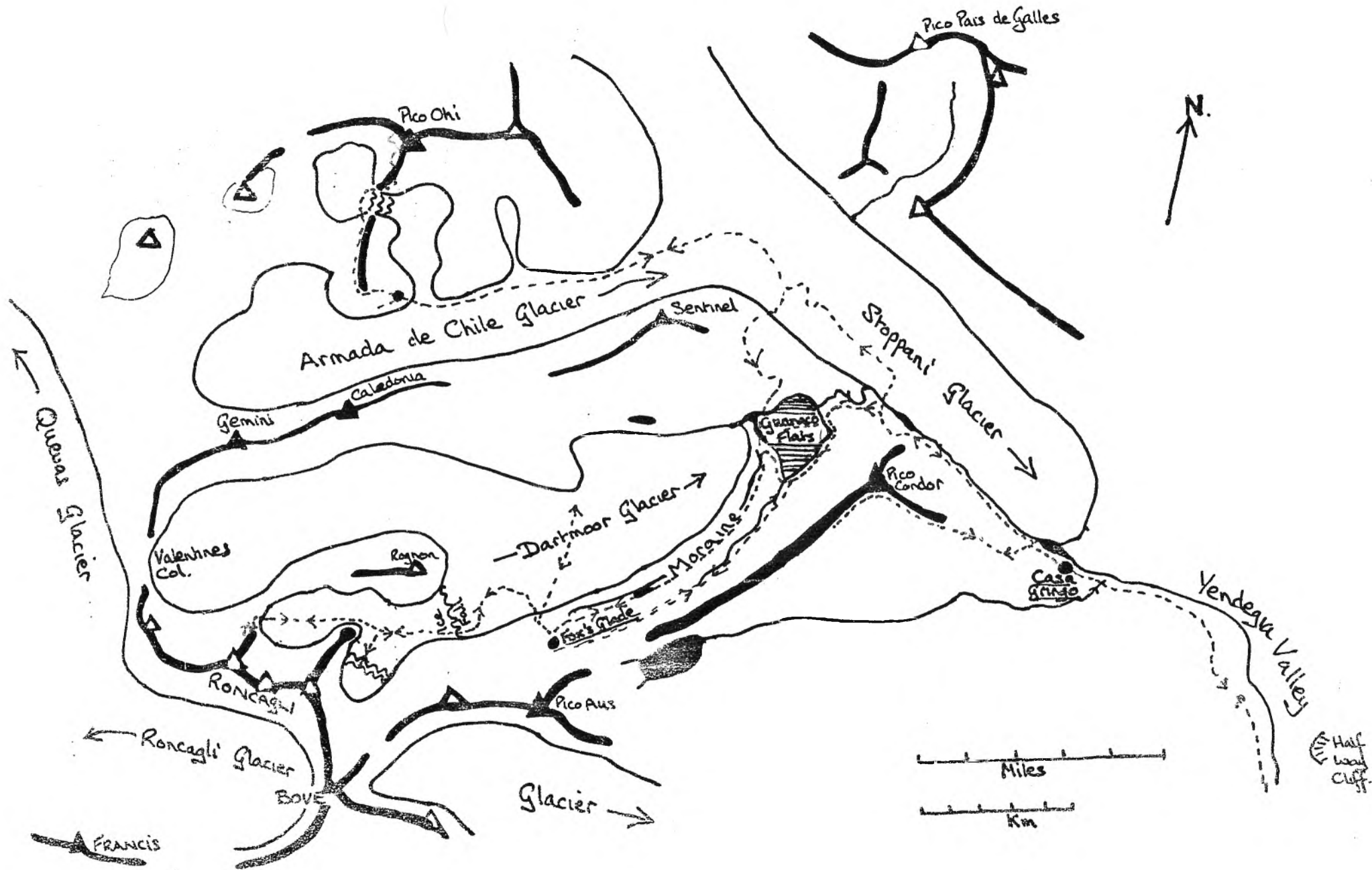
Don Seaman.



Hillebrandt / Mathias / Mothersele 1990

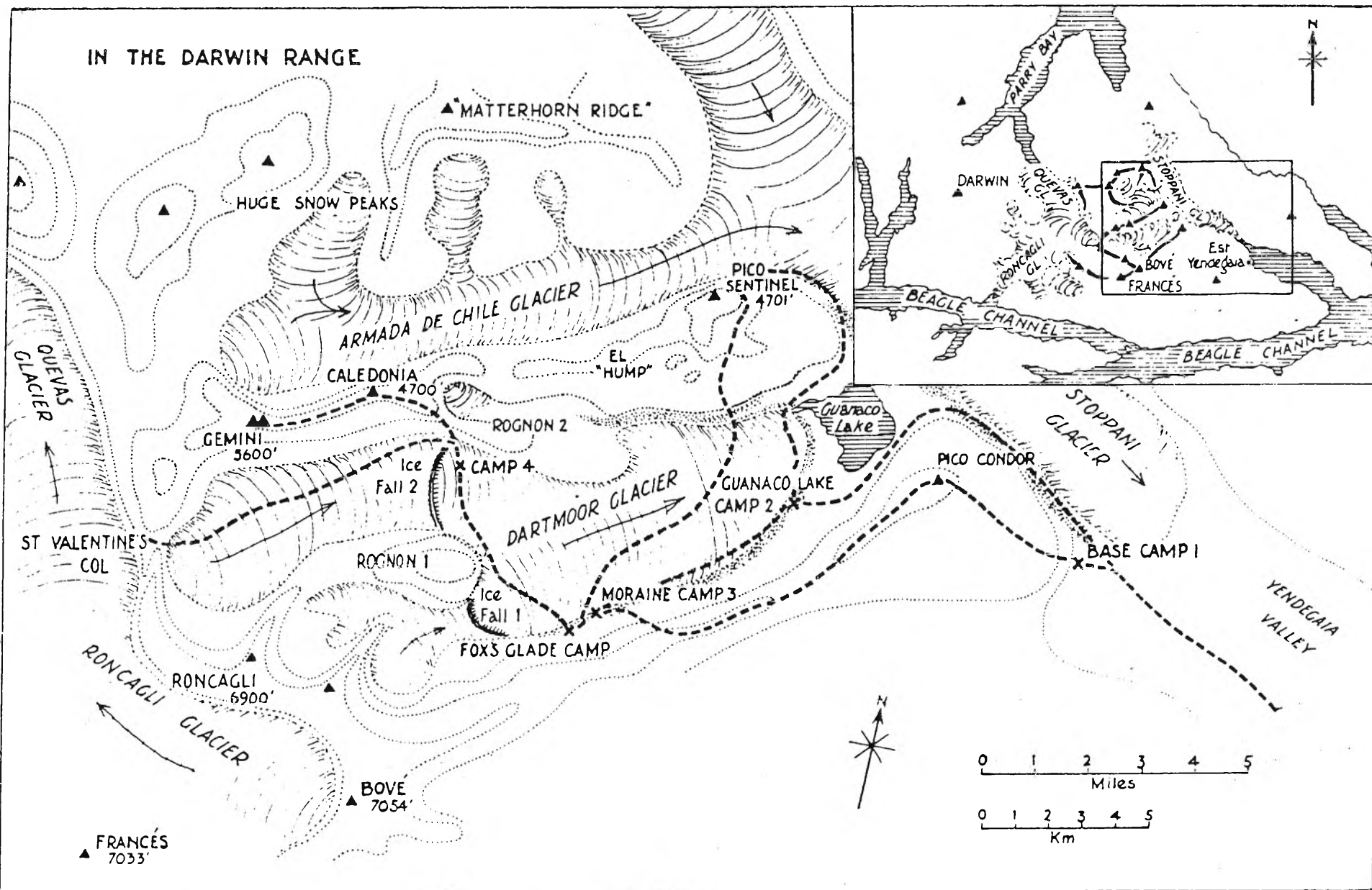


Cerro Ohi from woods above Foxes Glade ↑ 1988 Route up Ridge facing photo



Peters / Hillebrandt 1988

IN THE DARWIN RANGE



John Earle 1979.

165

PREVIOUS MOUNTAINEERING EXPEDITIONS TO TIERRA DEL FUEGO.

- 1832/34 Fitzroy with Charles Darwin on The Beagle landed Tierra del Fuego 16.12.32 and 29.1.34.
- 1869 Italian Expedition to Sarmiento with Domingo Louisato
- 1898 British attempt on Sarmiento with Martin Conway
- 1913 Agostini and Pession 1st Ascent Cerro Olivia 4,187ft and attempt Sarmiento.
- 1933 G Fester 1st Ascent Cerro Cotorra 4,978ft.
- 1937 H Teufel and S Zuck 1st Ascent of Monte Italia 7,748ft and Monte General Ponce 6,735ft and Cerro Piedrabuena.
- 1948 D Munzimagar Cerro Olivia
- 1952 T Duplar and A Johannensen Cerro Olivia
- 1953 E Colli and A Jazin Cerro Olivia
- 1956 Agostini's Expedition 1st Ascent of Sarmiento 7,369ft by C Mauri and C Maffei on 3.10.56.
- 1956 L Carrel and C Pellisier 2nd Ascent Monte Italia 3.10.56.
L Carrel and Pellisier and Barnasse Ascent of Cerro Olivia.
Tuefel and Zuck 1st Ascents Luisa, Miguel, Serka, location unknown, height between 3,000 and 5,000ft (Names make me suspect that these peaks are in the area of Yendegia and reflect the ownership and history of this Estancia which still continues).
- Early 1960's Peter Bruchhausen and friends approached the range from Yendegia but got caught up in gunfire involving both the Chilean and Argentinian military. It appears that no peaks were climbed but some entertaining stories have resulted. Peter Bruchhausen, 53 East 67th Street, New York City, 10021. U.S.A.
- 1962
Jan & Feb Eric Shipton with Eduardo Garcia, Cedimir, Marangunic and Francisco Vivanco with help from Chilean Navy (first of a long tradition of support) crossed the Cordillera Darwin from a base on the Marinelli Glacier and made 1st Ascent of Cerro Yaghan (7,500ft), Monte Darwin (8,700ft) and Darwin II (later called Monte Luna) and Darwin III (later called Cresta Blanca). AAJ 1963. AJ 1963.
- 1964
Feb/Mar Eric Shipton with John Earle, Peter Bruchhausen and Claudio Cortez. 1st Ascent of Monte Bove and Pico Francis from Olla Bay. In Shipton's book the height of Bove is given as 8,100ft and Francis 7,900ft. In John Earle's book height of Bove is 7,054ft and Francis 7,033ft. AAJ 1964
- 1966 American/Argentinian Expedition, Jack Miller, Paul Dix, Roger Hart and Peter Bruchhausen. Expedition approached Cordillera from north. 1st Ascent of Cerro Ahnikin 6,100ft (Dix, Miller). Cerro Ona 7,500ft on maps, 6,975ft by barometer (Hart, Miller). Dientes de Tiburon 5,730ft (Bruchhausen, Dix). Cerro Vela 5,850ft (Bruchhausen, Dix). Filo Helado 5,990ft (Bruchhausen, Dix, Miller). Cerro Casi 5,450ft (Dix, Miller). AAJ 1967.

Jack Miller can be contacted c/o Andean Outfitters, PO BOX 2230, Ridgway, Colorado, 81432, U.S.A.

- 1979 British Expedition to Stoppani area via Yendegia with John Earle (Dartmoor Expedition Centre, Widecombe in the Moor, Devon, England), Iain Peters (1 The Square, Main Street, Burton in Kendal, Carnforth, England), Don Sargeant (21 The Village, Milton Abbott, Tavistock, Devon, England) and Dave Harber.
1st Ascent of Pico Condor, Pico Sentinel, Caledonia and Ascent of New Route on Pico Gemini. Exploration of Dartmoor Glacier.
AAJ 1964.
- 1981 Alun Hughes (Gelli, Tregarth, Gwynedd, North Wales) and Paul de Mingle. A very elegant canoe and mountaineering trip to the western end of the Range. Simply take a taxi from Punta Arenas to the road end and then put your canoe in the sea and return 2 months later!
AAJ 1985.
- 1981 Iain Peters, Rowland Perriment and Maggie Clark Approach to Roncagli via Yendegia. Mountaineering and Botanical Research.
- 1982 Iain Peters, Don Sargeant, Paul Butterick and Angus Clark to Roncagli via Yendegia.
- 1983 Chilean Expedition. A North to South Traverse of the Cordillera Darwin from Fiordio Parry (Brazo Cuevas) to Beagle Channel via Cuevas and Roncagli Glaciers. Team from University of Magallanes - A A Jajam, M A Gonzales, J B Barriero, G G Pinto, E K Heinrich and L P Altamirano.
- 1987 Paddle Patagonia Expedition -
Geof Bartram, Michael Andre, Peter Getzelz, Steve Armstutz (1212 24th Street, Bellingham, Washington 98225, USA). Canoe trip from Puerto Williams and ascent of Monte Darwin.
- 1988 Iain Peters, David Hillebrandt and Ros Ryder (Australia) -
Approach via Yendegia. Assisted by Chilean Navy and Mark and Amanda Wilson.
1st Ascent Cerro Ohi (Peters, Hillebrandt) via South Ridge
1st Ascent Pico Aus (Peters, Ryder, Hillebrandt)
Ascent Cerro Condor (Hillebrandt)
Attempt North-east Buttress of Roncagli
2 Attempts on North Ridge of Roncagli (Peters, Hillebrandt)
- 1990 1st Ascent of Roncagli via North Ridge -
David Hillebrandt, John Mothersele and Julian Mathias
1st Ascent Pico Pais de Galles -
(Hillebrandt, Mothersele, Mathias)
via Yendegia Approach

A BIBLIOGRAPHY.

- 1 Charles Darwin Journal of a Voyage (Everyman paperback)
- 2 Alberto Agostini Esfinges de Hielo 1959
- 3 Alberto Agostini Zehn Jahre im Feuerland 1924
Spencer's Last Journey by Mearns & Penniman pub Oxford, Clarendon Press 1931
- 4 Michael Mason Where Tempests Blow 1933 (Hodder & Stoughton)
- 5 E Lucas Bridges Uttermost Part of the Earth 1948 (Hodder & Stoughton)
- 6 Robert Young FRSGS From Cape Horn to Panama - South American Missionary Society 1905
- 7 H W Tilman Mischief in Patagonia 1957 (Cambridge University Press)
- 8 Eric Shipton Land of Tempest 1963 (Hodder & Stoughton)
- 9 Eric Shipton An Autobiography - That Untravelled World 1969 (Hodder & Stoughton)
- 10 Eric Shipton Tierra del Fuego - The Fatal Lodestone 1973 (Charles Knight)
- 11 John Earle The Springs of Enchantment 1981 (Hodder & Stoughton)
- 12 Jack Miller Exploring America's Southern Tip 1966 (American Alpine Journal)
- 13 Nick Banks & Peter Radcliffe New Zealand Tierra del Fuego Expedition 1970, 1971 New Zealand Alpine Journal
- 14 John Earle & Iain Peters Tierra del Fuego 1979 (private publication)
- 15 Iain Peters Vegetation Notes - Tierra del Fuego 1981 (private publication)
- 16 Eugenio Mimica Barassi Traversia Sobre la Cordillera Darwin (published Universidad de Magallanes 1983)
- 17 E Echevarkia A Survey of Andean Ascents, Section on Tierra del Fuego, 1963 (Volume 13 No 37 American Alpine Journal)
- 18 Felix Riesenberg Cape Horn 1941 (Robert Hale Limited)
- 19 Bruce Chatwin In Patagonia 1977 (Jonathan Cape)
- 20 A W Johnson Birds of Chile 1965 2 volumes (Platt, Buenos Aires)
- 21 Michael Andrews The Flight of the Condor 1982 (Collins/BBC)
- 22 Claudio Venegas Guia de Campo para los Aves de Magallanes 1979 Monografia No. 11 Instituto de la Patagonia
- 23 Anales del Instituto de la Patagonia Volume 11 Preliminary Report 1970/71 New Zealand Expedition to Tierra del Fuego
- 24 Iain Peters Beyond Patagonia 1987 The Alpine Journal.