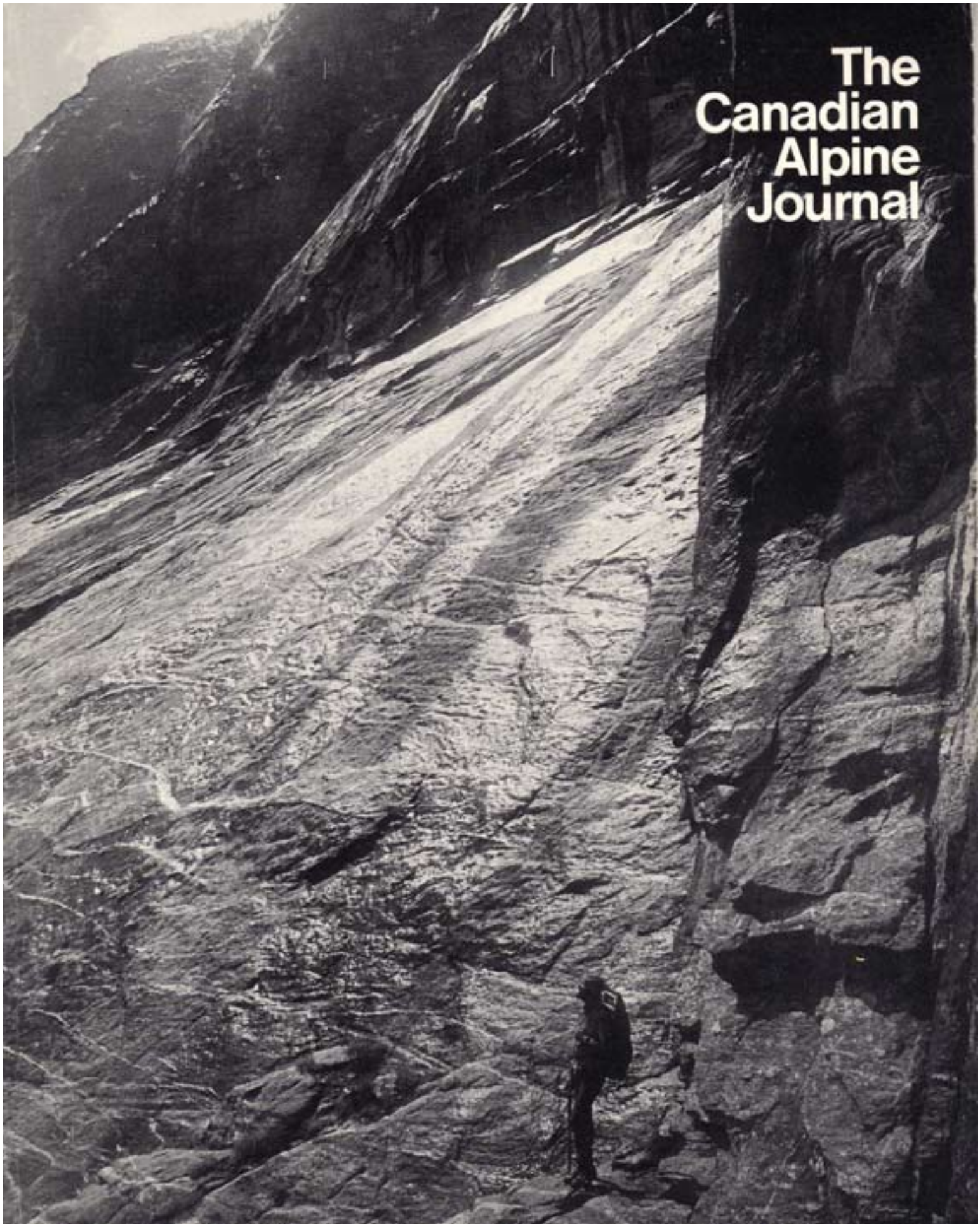

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Cover Photo: Slabs in Mulvey Creek, Valhalla Range. Peter Rowat

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Dhaulagiri IV: An Attempt from the South

Dhaulagiri IV (25,133') is the fourth highest peak of the Dhaulagiri Massif. Despite a number of attempts from both the south and north it was still unclimbed in the spring of 1973 when I was invited to join a strong British team attempting the mountain from the south. The northern approach is long, low angle and not particularly technical except for the final 1000 ft along a thin, rocky ridge. It has been attempted once, in spring 1973, by an Austrian party. The southern approach, as well as being extremely long (10 to 12 miles ground distance), is technically very difficult. It involves a two mile long narrow ridge, requiring fixed rope throughout, and a 5 or 6 mile wide glacial basin to the foot of the peak itself. The summit pyramid of 5000 ft presents a steep ice face and a very long, thin summit ridge. The southern route has a history of tragedy—five Austrians and one Sherpa disappearing mysteriously from a col at 22,500 ft in 1969 and four Japanese dying during expeditions of 1971 and 1972. Our attempt was sadly no exception.

On 19 of November 1973 Alan Dewison, 27, was killed in a fall of 1500 ft from a col on the south west ridge of Dhaulagiri IV. Four days later Raju Pradhan, 'Little Kansa', was buried in an avalanche several thousand feet above base camp. After 40 days and nights of privation, exhausting work and constant danger it was virtually impossible to feel anything. All emotions drained, I simply felt ill and a little more numb. The black cloud hanging over the expedition from the beginning had burst and taken two of our finest and most innocent. Quiet, inoffensive Alan and laughing 'Little Kansa.' The question whether it was worth it, the loss and the sacrifice, no longer had any meaning. Everything had lost meaning.

From the beginning the expedition seemed 'an exercise in unreality'. Underestimating the magnitude of the undertaking it departed Britain leaving behind a massive debt and bringing barely sufficient resources to deal with essentials: sherpa and porter wages, peak royalty etc. Partially through lack of information our equipment and stores were only just adequate to conceive tackling a route such as the south side of Dhaulagiri IV.

Misfortune in the form of an overdue ship followed by a dock-workers strike in Bombay, delayed most of our food and equipment until well into October (the Japanese reached the summit of Everest this year by mid-October). Alan Dewison and Scotsman Allen Fyffe festered five weeks in India, sifting through dust covered offices, entertaining themselves watching the rats through their hotel window.

Living on rice, dahl soup and an occasional egg or chicken curry, four of us—Richard McHardy, Ian Rowe, Roger Brook and myself—went on ahead with two sherpas and an absolute minimum of supplies (air freighted at the last minute from Britain or borrowed in Nepal) to try and get things underway. We slogged 13 days in the monsoon rains under 60 Ib. packs through streams and rice paddies, up and down hills in the mud contending with leeches for our blood, through jungles with never a view of the mountains behind the clouds finally to the base of the mountain in a drizzling rain.

Bypassing the site of the previous Japanese and Austrian base camps we located ourselves 1000 ft higher on a steeply sloping moraine between two mountains, 'slumbering' avalanche cones (one 1000 ft across). Above an 8000 ft rock and ice face.

Then the deluge came! We had been told that the end of the monsoon was signalled by the snow level descending. That it did. Four days and nights it poured. The moraine was awash, streams 6 inches deep ran through our camp. The avalanche cones were alive—silent, wet masses, 100 ft across, pouring down from thousands of feet above. We began to move camp across to a safe position a quarter mile away, ferrying loads across the gullies, balancing on blocks of snow and ice, climbing in and out of monstrous avalanche channels; one eye always uphill, watching for the white, churning cascade.

Fortune still frowned upon us. One of our members had suffered from epilepsy for several years. He had overcome this and maintained his high standard of climbing, doing such routes as The Pillar of Freney and El Capitans' Salathe Route. It was hoped that he would be able to cope with the rigours of an expedition as well but the turmoil of the walk in and of base camp began to show. During the storm and the havoc of shifting base camp Richard was discovered one morning in the throes of continual seizures. For a minimum of six hours (they may have started during the night) he suffered one every 10 to 15 minutes. After filling him with phenobarbitol we took turns sitting with him in a swimming tent during our frantic work of carrying loads across 'between avalanches'. During this time a boulder 18 inches in diameter tumbled past our cook shelter crowded with people. Several days later the weather cleared and Richard recovered sufficiently to begin the long trek back to civilization. Ian Rowe accompanied him leaving only two of us, Roger and myself, to try to make some ground towards the elusive peak.

The following day (about 7 October) Roger, Sherpa Wongyll and I moved up to establish and occupy camp I (ca. 16,500'). Where a week previous there had been no snow there was now enough to dig a snow cave. The clouds rolled in and it began to snow again. For three days snow piled up and soon our tent, sagging on a broken ridge pole, was in a six foot hole. When the weather showed signs of worsening Roger quite intelligently decided to descend to base: Wongyll and I opted to stick it out another day. Late in the afternoon we peered from the tent. The clouds were clearing! The 15,000 ft face of Dhaulagiri I appeared pink in the evening light through a white veil of mist. Wongyll and I danced and sang for joy. This was our first view of the mountains. In our perch high above sea of clouds it all seemed more than worth while.

For three days the weather was superb. It seemed as though the fury of the monsoon was spent. In chest deep snow, surrounded by a world of radiant peaks, we fixed the first 4000 ft of rope up the immense ridge towards the basin. Not to be forgotten, Nature once again showed who makes the rules in the Himalaya. It stormed—4 a.m. and a ghostly howling morning found us digging out the tent again. The snow turned to sleet and soaked us, digging furiously in our down gear. My respect for Wongyll (age 21), already

substantial increased tremendously as he scorned our small shovel and bailed with his bare hands for an hour in our little white hell. Unable to clear the tent as rapidly as it was buried, we retreated. In zero visibility we felt our way along the ridge and wallowed down the 4000 ft avalanche slope to the relative comfort of our bamboo shelter and wood fire at base camp.

By this time our food and equipment had reached Pokhara. Attempting to recover from the delay, it and the remaining members were air lifted to base by helicopter. Weight limitations imposed by our pocketbook limited what could be transported. Amongst many other items, 25 of our 50 high altitude food boxes were left behind—to our ultimate disadvantage.

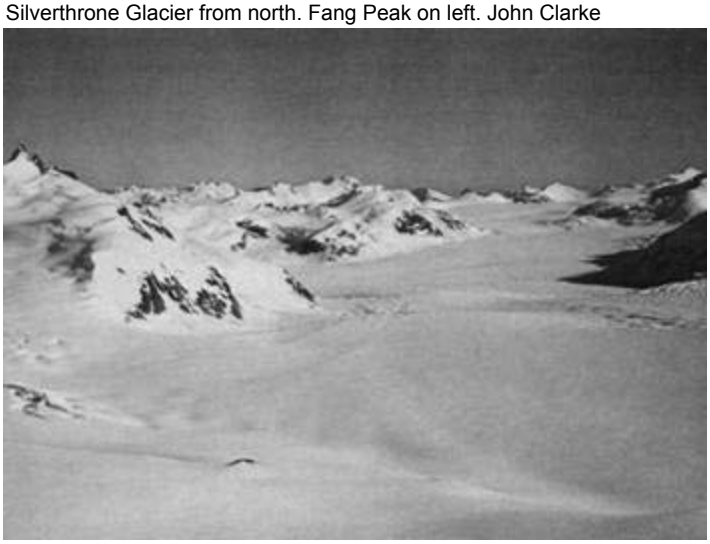
Roger, Wongyll and I were once again established at camp I when the others began arriving. In slowly improving weather we continued up the ridge towards a large sérac barrier and an ice plateau 3000 ft above. Despite friable rock the climbing was excellent: narrow snow arêtes, short steep rock steps and chimneys, traverses on steep snow and ice slopes—over a void of many thousands of feet into the dark and sombre jungle below. With clear weather and support materializing from the rear there seemed some point to our endeavours. Once again we felt there was a possibility of success.

As our fixed rope stretched further and further we established a temporary camp II on a small ledge beneath an overhang, on a vertical wall. The corner of the Whillans Box dangled in space and the view through the tunnel door seemed straight down 7000 ft to base. One clipped one's jumar on the fixed rope from the tent door and one's first step was onto the caving ladder hanging against the wall. The elevation was about 18,500 ft. Four very exciting days were spent here (I took my first sleeping pills at this camp) until, after a total of 8500 ft of rope, we reached the plateau above the séracs and established a permanent camp II.

From the plateau the sunlit view stretched from the massive walls of Dhaulagiri V and I across to the many summits of the Annapurna Massif. The final challenge of our ridge, a lovely 1000 ft ice peak, stood above camp. After several carries from below to stock the camp we continued upwards in the now very Himalayan atmosphere. Camp II was 19,500 ft and Roger and I, having acclimatized well, were feeling much the same as on any alpine ascent. The presence on the mountain of the rest of the team, the radios and the equipment provided the much needed security (as we were now edging towards 10,000 ft above the almost invisible dots which were base camp).

Beneath blue sky and frozen peaks raking the jet streams we cramponned our way upwards. After fixing another 1300 ft of rope we front pointed the last pitch, 50° hard snow with short vertical steps, into the wind and wisps of cloud onto the summit. The basin slowly appeared—far across on the other side the monolithic pyramid of Dhaulagiri IV. We shook our heads as we studied the scene and realized the peak was a minimum of 5 to 6 miles away. To reach it involved angling 2500 ft down a steep snow slope and crossing the monstrous basin surrounded by more icefalls and hanging glaciers than I had ever seen in one place. It really looked like thee end of the world. We became aware of the almost continuous roar of falling ice. Above towered a peak which would

Silverthrone Glacier from north. Fang Peak on left. John Clarke



Allen Fyffe starting out from temporary camp 2. Chic Scott

be a challenge to any climber in the Alps. The familiar afternoon storm clouds began to roll in as we began our descent. The joy of that day still shines through and remains a prized memory—perhaps my most enjoyable day on the mountain.

By this time Ian Rowe and Allen Fyffe pushing hard and suffering the effects of altitude, were catching up to relieve us. We spent several more days ferrying loads up from below and began carries over and into the basin while the Scotsmen acclimatized with us. Then we descended. It was storming, we had spent about 25 days above base and were more than ready for a rest. As well it was only fair to hand over the lead to someone else. All the other members except the doctor, who was acting as base camp manager, were now on the hill at camp I. Through storm and fresh snow we plowed our way down the fixed ropes, stopped for tea and a cigarette in the snow cave at I, then continued down to base. Smoking cigarettes (Gitannes!), drinking gallons of tea and listening to the exotic Eastern music on our radio, I spent several days simply staring into space. I had very nearly forgotten that there was a world beyond the snow and ice of the mountain.

After 4 or 5 days luxuriating we moved up the hill again. Alan Dewison and Tony Johnson had joined the Scotsmen out front. I chose to carry loads and bring up the rear while Roger continued up to provide some additional manpower. Over the radio I attempted to follow progress higher up. Camp III had been established at about 20,000 ft, just beyond the peak which Roger and I had climbed a week earlier. Wongyll and I made five carries over the next five days then under mammoth 70 Ib. loads climbed up the ropes to camp II. Supplies running short, we began a series of carries next morning over to camp III, moving up ourselves in several days. Here we were joined by Allen Fyffe who, experiencing chest pains, had dropped back for a check with the doctor who had now moved up as well and was occupying camp II.

For some added security at camp III Wongyll and I carried into the basin and across the glacier to camp IV at about 18,000 ft. The following day Allen, Wongyll and I, joined by Geoff Tabbner, moved to IV with the final supplies. In the sunlight we laughed and joked as we soloed down the steep slope under heavy loads. Beneath it all there was some apprehension. Occasional cirrus and particularly some cotton batten cumulus, forming during the past few days at about 25,000 ft, indicated a possible change in the weather. It would be an epic retreat, perhaps impossible in a storm.

After a night at camp IV serenaded by collapsing séracs, Allen and I continued up, still under heavy loads. Wongyll Sherpa, a 'young tiger', was visibly less than happy at being left behind. The route up was all new ground and since food was so low and time so short it had been minimally charted. Bamboo wands ended between III and IV, ropes had been fixed only where absolutely necessary.

From IV we continued across the glacier, through ice blocks and rubble from the séracs above to the base of a 500 ft cliff. Once again on fixed rope and ladders we jumared up, impressed by some of the rock climbing which must have been involved. The cliff led into an icefall. In the early afternoon clouds and mist we groped our way upwards. Grotesque forms looming from the mist led us to a solitary 50 ft ice 'needle' marking the start of a 'bowling alley'—a chasm of thousands of blocks of ice surrounded by tottering towers of ice cubes. Halfway up this creaking nightmare Allen hollered asking if we were on the right path. In the shining blue ice there were no marks so all I could reply was, "I don't know, but I'm not stopping". After belly crawling across ice bridges and climbing a wall of moving blocks overhung by shattered séracs we arrived at the top of the icefall to be greeted by a thundering avalanche from another higher icefall. In the afternoon shade and cold, dreading the return trip, we threaded crevasses to camp V at about 20,000 ft. This was definitely becoming a bold route!

Roger and Ian were having a rest day. Realizing how extended and poorly equipped we were they had made an unbelievably bold attempt on the summit. Starting at 3 a.m. they had climbed up the 5000 ft shining, blue ice face of the peak to over 22,500 ft then retreated feeling the route and the venture too dangerous. Further up the basin towards the col on the south west ridge, Tony and Allen pitched a temporary camp, hoping to carry it to the col the next day. Over the radio that evening our plan was made—all six would carry to the col in the morning, Ian, Roger, Alan Dewison and myself remaining there. Carrying one more camp higher up the ridge, Roger and Ian would make a summit bid with Alan and myself in support. In our sleeping bags that night Roger and I decided that all four of us might as well go for it, having one cramped night.

Thin sunlight, 7 a.m.—we began climbing up the glacier through some crevasses towards the 1500 ft, 45° to 50° wall below the col. Feeling strong, Ian and I were soon sitting at its base waiting for Roger and Allen who were feeling poorly. High above Alan and Tony soloed, heavily laden. The clouds boiled over the basin's surrounding walls, unusual for so early in the day. The other two arrived, we reassessed our situation. Reluctantly we agreed we were dangerously extended in view of the changing weather. We could not risk being trapped in the basin with barely two days food and a monstrous route to retreat across and down. Clouds filled the basin as we made our way back to camp V. It was 19 November—the weather had held for over a month. Back in the tents we radioed Alan and Tony who had now reached the col. They agreed with our decision. After dumping their loads they would begin making their way down.

A few minutes later I looked from the tent. There was only one figure near the top of the slope. I looked again 15 minutes later— still just one dot, much lower, climbing fast. I knew what had happened. The face was steep, all were very tired and undernourished, the day getting late and cold and ropes were being ignored in favour of speed.

Several hours later Tony rushed into camp, gasping out the sickening news. Alan had fallen near the top of the face for some never-to-be-known reason. When Tony reached him he was dead: multiple fractures, abrasions. Tony spent 30 minutes searching for hopeful signs but there was no pulse, no breath and a pair of glasses pressed to his mouth remained clear. In our semi-paralysis we tried to conceive of anything we could do. It was suggested we climb back up to Alan in hope for the impossible but sobering we realized it was nearing 5 p.m. Return meant 3 to 4 hours across the glacier and a night out in —20°F at 21,000 ft. The risk—complete

disaster. We accepted Tony's appraisal of death.

Dinner was several spoonfuls of potatoes and a cup of peas split five ways with sugarless tea heavily laced with sleeping pills. We attempted to sleep, to forget the icy tents, the tragedy. Next morning we began our way down the glacier and through the icefall. The streamers reaching out horizontally from the summits above.

Four days later, attempting to carry some food up to Allen and Roger retreating last down the mountain, a small avalanche carried away 'Little Kansa'. Under the stars, by lamp-light, the slopes above heavily laden with several feet of snow, we dug his body from beneath two feet of snow. After four days the weather cleared. Huge avalanches poured down as Kansa was cremated under a sparkling blue sky. We began our slow walk through the jungles and foothills, homeward, leaving two more inscriptions at the base of the mountain.

The storm had broken two days after our decision to retreat. Had we continued we would have found ourselves descending the summit ridge in the holocaust, exhausted, with sugarless tea and perhaps a handful of porridge to take us down 7000 ft, across 5 miles of glacier and icefall then up to 2500 ft to the top of 10,000 ft of fixed rope. It is not surprising that we did not manage to climb the mountain. What is surprising is that we made it as far as we did.

Back in London, I sit in a house where I spent ten days this spring. I am cut off, isolated—a different person. I have changed too much to be able to reconstruct my past life—what I was and did and felt. I sit and do nothing and feel nothing. The Himalayan cold permeates more than the body. I suppose I will laugh and feel joy again but I have learnt the truth of the statement "In the Himalayas there are no conquerors, only survivors".

Chic Scott

Attempt on the south side of Dhaulagiri IV, 25,133 ft, in the Nepalese Himalaya. British Expedition consisting of Tony Johnson, Ian Rowe, Alan Dewison, Allen Fyffe, David Awbrey, Roger Brook, Geoff Tabbner, Richard McHardy and Chic Scott (Canadian).

Klinaklini Clouds

Remoteness coupled with mighty glaciers is the great attraction to climbing in the Coast Mountains. The giant Klinaklini snowfield (by far the largest in the Pacific Ranges) lies some 200 miles north west of Vancouver, like part of a continental ice sheet. It occupies 400 square miles and the great glacier issuing from it is fully 25 miles long and terminates only 700 ft above sea level.

The Mundays saw the snowfield from a ridge above the Franklin River in 1927. During all their Waddington explorations they dreamt of visiting this great glacier. Joined in 1935 by Jim Varley for a trip there they walked up to the glacier snout but the torrent of Tumult Creek crossed in front of them, joining the main river just below the ice. Access to the Klinaklini was barred. As a consolation they investigated the Tumult Valley. Finding its glacier snout at only 1800 ft they ascended it to just above the icefall and made a trip to 7200 ft on the ridge north of Tumult Glacier. From here they first saw the huge glacier trunk in its entirety. Don wrote, "It was a scene to shine in memory among the great ones of all our climbing days".

Naturally enough they returned in 1936, this time armed with a cable bridge to force a crossing of Tumult Creek and joined by Henry Hall, Hans Fuhrer and two energetic young fellows from the U.S.—Bill Hinton and Sherry Chase. They climbed Mt. Silverthrone and Fang peak and the struggles with clouds, grizzlies and swarms of wasps can be read in the 1936 CAJ.

In early 1973 Roy Mason wasn't a bit surprised when I asked him if he could "drop me off" with his ski equipped super cub on a broad pass at the head of the Kilippi glacier north east of Silverthrone. Three weeks of poor weather in June delayed the trip until the 30th. We left Pitt Meadows, flew to Powell River for refuelling, and at last saw the great glacier while flying over Bute and Knight Inlets. Entering the Klinaklini Snowfield in a tiny aircraft one is drawn into a vast chamber of white space and distance —the dazzling whiteness increasing with every minute. Soon we were circling the pass at the head of the Kilippi Glacier—Mt.

North face of Wahshilas Peak from Klinaklini Peak. John Clarke

Pashleth Glacier and Mt. Silverthrone from summit of Mt. Somolenko. John Clarke

View across Satsalla valley from south east side of Kolos Peak. John Clarke

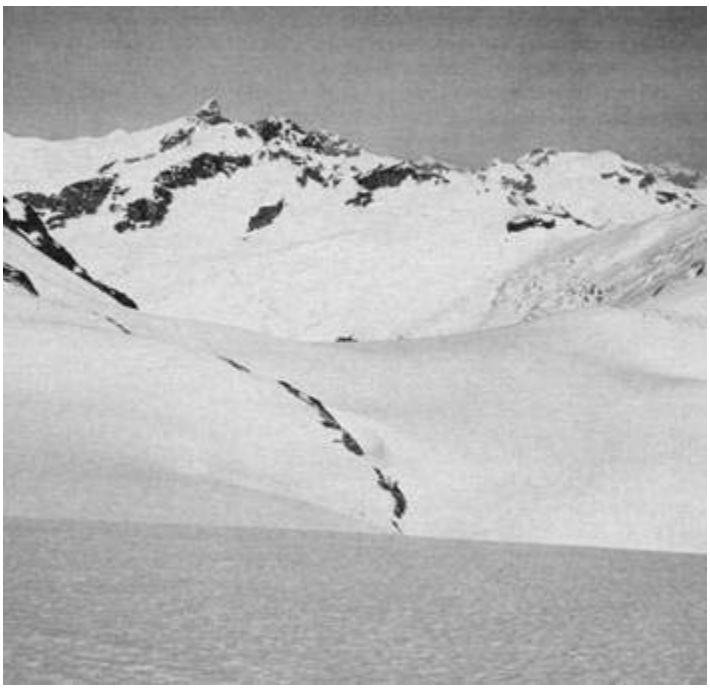
Tumult Glacier peaks from Klinaklini Peak. John Clarke

Camp on Tumult névé with peaks of Shaman Mtn. John Clarke

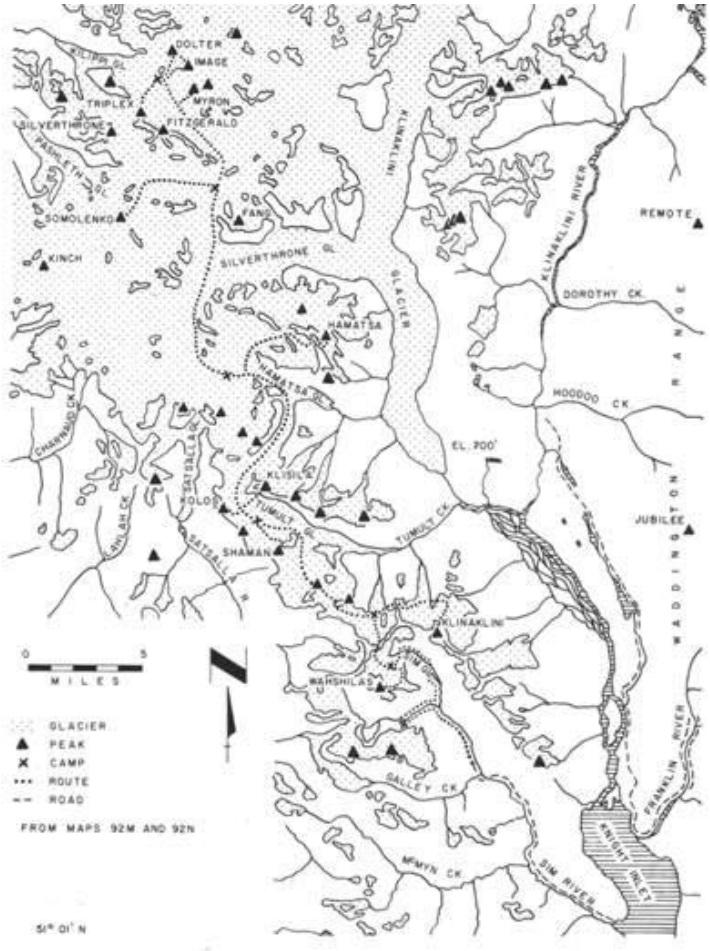
Hamatsa Peak from Hamatsa Glacier. John Clarke

Silverthrone (looking like other mountains would in January) rose to the south west. We dropped toward the glacier; the skiis brushed the surface of the pass once, twice, then slid to a halt. I stepped out and started wildly snapping pictures from every angle. Expecting the worst I brought three and a half weeks food and gas, winter clothes and ski mountaineering equipment. I was to find this was the least amount to be armed with for a summer trip to this region. Roy stayed with me as long as he could but he had a long flight home. As he climbed into the plane all the things I might have forgotten raced through my head. He taxied in a broad arc and applied power for take-off. The plane raced across the pass, rose and fell with the gentle undulations of the glacier. Airborne, he banked round for a last good-bye and flew south toward Knight Inlet—the little dot got smaller and smaller, the sound died away.

Klinaklini Peak from the west. John Clarke



Klinaklini Glacier. John Clarke/M. Irvine



I moved everything over to a glacier island nearby and a level spot by removing some large boulders and adding a few to the low spots. As always one immovable rock protruded from the middle. The day was fine with only intermittent cloud and the tent wasn't necessary. I lay down and got the stove going for lunch and fell asleep to dreams about tomorrow. I woke in the dark with an inch of snow on the tent fly I'd thrown over the sleeping bag. "Welcome to the Klinaklini." I set up the tent in the wind cirque next to the Glacier island. "This will probably last two or three days." (I talk out loud to myself a lot in the mountains). It snowed day and night for 11 days. Only by keeping a diary did I have any idea what day it was when it was over.

"This is July. It will go away." On the 2nd I put only two words in the diary—"snowed today." July 3—"boredom is no problem. The tent is being buried in new snow at night with 40 mph winds. I don't have to worry about nothing to do." Next to 8 Ibs. of Klim and the same weight of home made Granola my best friend in the storm was the stack of novels I brought "in case of bad weather".

Outside I couldn't believe it was July. Spindrift poured down the walls of the glacier island. A slow drip of water at the top of a considerable rock climb on the island saved fuel. After dinner I soaked macaroni, dried veggie flakes and dried meat for the following day. Using granola meant I didn't need the pot in the morning. Cooking I used a tightly fitting lid and after bringing dinner to a boil cut off the heat and let it stand for ten minutes. The result was seven dinners from one third of a pint of gas— hardly necessary really but a nice game to play. The wind cirque probably meant the tent was hit by stronger winds but at least the direction was always the same.

On the morning of the 5th something strange. Silence. Nothing bashing off the tent fly. Outside still misty and snowing of course. I skied to the top of the island about 400 ft above camp having a marvellous run down in light powder. Back at the tent two pleasant surprises—half an hour of sun poking through and two humming birds stopped for a rest in one of the overhangs. How can they stand the brightness of these névés? There must be so much men don't know about these tiny fellows. During the lull camp was moved about 20 ft away and about 2 ft higher because of accumulation. On the 7th I wrote "at sunset ten minutes of sun and stars afterward. Big hopes. Bedsores an occupational disease of coastal climbers." On the 8th "it's beginning to feel like I've lived like this and always will and I'm the only man in the world and everything is OK. If there's anyone else in the world they live on their snowfield and go for water, shovel out their tent and doze and read. Wind has been howling for hours—real blizzard—there must be some mistake with the month." On the 9th "wind and light snow a.m., no visibility. Went outside and decided not to dig out

the tent since it's covered over and the wind blows nicely over the whole thing instead of under the fly sheet. The tent door looks like a snow cave entrance." Breaks in the clouds around noon prompted me to try Dolter Peak, the one closest to camp. Once out of the wind cirque on the glacier the strong tail-wind made it ridiculously easy skiing up toward the base of the peak where skiis were left, the skins flapping wildly. The summit had a nice flat rock and I waited half an hour for views to the north. Occasional glimpses of the upper reaches of the main glacier opened up some photos and then the gale drove me back to the skiis. I later regretted the side trip to Mt. Image as it put me in camp quite late. "Dug out the tent again because the space inside was getting too small. Lulls are always mistaken for the end of the whole thing. Real blast after sundown—new snow. 10th—"snowed all night, worst yet. Snowed hardest after the wind died. Tent buried again. Dug it out twice this morning, 11/2 ft of new snow since last night (no wonder this glacier is 25 miles long). Some bright spots at noon. Afternoon very windy— hanging onto tent poles. Wind charged with ice pellets after dusk." On the 11th "Dead calm a.m.—heavy cloud and lightly snowing. Moved camp again—to the original site only 4 ft higher. Just before dark could see down glacier toward Mt. Jubilee."

On the morning of the 12th the peaks were still wrapped in mist but decided I had to get going for Knight Inlet regardless. I set out early with a day pack for Mts. Triplex and Fitzgerald hoping to get a close look at Silverthrone before heading for the Inlet. The peaks were easy snow climbs but clouds on Silverthrone were too stubborn. After the long storm my legs had a wobbly "just got out of the hospital" feeling.

Returning to camp I packed up and last moved out for the Inlet skiing south east toward the pass 2 miles NNE of Fang peak. After an hour compassing in fog the weather cleared completely during a lunch stop. I sat looking at the view, preferring to think about the work ahead than start doing it. I left everything and climbed Mt. Myron, a sharp rock peak north of the glacier, returning to the pack in deep softening snow. As soon as I rounded the corner of the pass and saw Mt. Somolenko I knew I had to climb it—rising out of ice at its feet and covered with ice right to the top. I skied down to the Silverthrone Glacier and put up the tent near the base of Fang Peak. There was no wind—just snow and sky. A quiet lay over everything. To the north west Mt. Silverthrone glowed pink in the evening sun and shadows lengthened across the wide corridor of the glacier. Don Munday wrote about this valley—"No green fleck of plant life showed. This is the home of the snow".

In the morning (13th) it felt good to have just the day pack again. I skied up the Silverthrone and turned into an ice valley spilling down from Somolenko. Silence. It was impossible to hear a thing—no wind or trickle of water on a rock. This had been in shadow longer than the main glacier and gave good footing for the zig-zags to the plateau just below the summit pyramid. After kicking up the final slope to the little snowy knoll of the summit I couldn't believe the view. Mt. Silverthrone rose higher to the north—a perfect pyramid. In the north west the Pashleth Glacier wound down toward Machmell Valley and even a corner of Owikeno Lake showed. In the south east the Tumult peaks had a terrifically jumbled appearance and didn't look one bit like the route home. In the east was the junction of the Silverthrone and Klinaklini Glaciers here 3 1/2 miles broad and only 3000 ft above sea level. Beyond the Pantheon, Waddington and Whitemantle Ranges. Somolenko is one of the very few peaks I've seen in which ice moves from the peak toward major glaciers in every direction. I stayed on top almost two hours and took 360° photo panoramas. After an excellent ski run back I broke camp and set sights on a campsite 8 miles due south. The vast ice plain of the Silverthrone Glacier and its tributaries stretched out into the distance toward the confusing Tumult country. The route ahead was broad and flat and a long, long way to go—but no more beautiful place to travel! Camp 3 was made that night on a 6000 ft pass at the southern extremity of the Silverthrone system.

In the morning (14th) everything was moved one mile east and I left here with day pack for "Mt. Hamatsa" four miles farther east. Only a mile from the peak a deep intervening valley meant descending to 5500 ft, climbing up the other side in soft snow and completing the ascent by the south ridge. From here new corners of the big glacier showed themselves along with parts of the route ahead which looked more broken than air photos had shown. Returning to the pack I skied down the north branch of the "Hamatsa Glacier" which I knew contained a big icefall. Keeping to the true right (south) side of it I was stopped only twice by jumbled ice coming right to the edge. Broken ice here involved carrying the skiis on the frame and donning crampons, returning to skiis on better ground. Lower down the trough between the glacier and the rock gave a nice ski run in evening light to the junction where the 4th camp was made. I was down to 4000 ft and water trickling nearby was a friendly sound. Now two weeks out I took a half crazy, almost Robinson Crusoe-like amusement in a cheeky pika who lived in the trees above the ice.

In the morning skiing up the broad arcing south branch of the Hamatsa Glacier was a pleasure. The pass at the head connected with Tumult glacier and it was good to be getting closer to the Sim River at last. At the 6000 ft pass I hung everything out to dry and continued on toward "Kolos Peak" circling behind the rock tower on its east ridge. The south east ice slope had open crevasses covered with a few feet of soft mush so I stayed on the rock ridge. Summit views were completely different. The Satsalla glacier and valley drew first prize. The last three miles of the glacier flowed between 2000 ft walls completely shadowing the ablation area from sun, the snout terminated in a lake at 1500 ft. Just across the valley a minor peak had a 2500 ft broken ice face which I'd seen from near Silverthrone. This little 7000 ft peak had a zone of glaciation of 5500 ft! Down the valley the river curled between 3000 ft walls 15 miles to the Kingcome River. At the edges of coastal icefields the proximity of such deep green valleys accentuate relief, showing frozen sterile snowfields and green warm valleys in one glance. The Satsalla valley is definitely one of the finest halls of remoteness in the Coast Mtns. Back at my belongings it was still early enough to pay a visit to the easy "Klisila Peak" north east of the pass but I was very tired when I moved everything one mile south east into the center of the Tumult Névé. The icy twin peaks of "Shaman" glowed to the south east. There certainly was never any trouble finding a flat spot at night—just a matter of dropping the load in the snow just before dusk. It had been a long day. Crawling into the tent too tired to cook I, gasped like a beached fish. I fell asleep, woke a few hours later my boots still on.

Monday, the 16th was a great day. The twin peaks of Shaman were climbed by the north east ice face and then each peak from the intervening col. The snow ridge on a 7500 ft peak to the south showed a long sinuous line of animal tracks leading right to the top neatly avoiding cornices along the way. This viewpoint gave valuable information on the complicated country that lay ahead toward Sim river. Breaking camp I moved down glacier and up the biggest southern tributary of the Tumult, continued south 2 miles up this easy glacier and crossed a 7500 ft pass on its eastern limit visiting a rock pyramid on the way. A delightful ski run down the other side to a broad snow pass made me realize camp would be much farther ahead than I thought. In another hour I was established in the glacier basin 21/2 miles north west of "Klinaklini Peak," a major objective of the whole trip.

On the 17th I had an early start climbing over a 1500 ft ridge and dropped the same amount to the next glacier valley. From here Klinaklini Peak was a magnificent snow climb of 4000 ft, the slender top consisting of very steep ice. Again incredible views in all directions. I carefully sketched and noted the last leg of the journey to the Sim river, even spotting the highest patch of logging—a welcome sight! Across the Sim glacier on "Wahshilas Peak" a 3500 ft wildly broken ice face gave way to a small bench, turned almost 90°, plunged into another 1000 ft icefall before terminating in a lake at 2500 ft. The winding medial moraines of the Klinaklini glacier faded into the whiteness to the north. It was good to return to the same camp as last night but I was tired from climbing 7000 ft.

I woke late on the 18th. All the accumulated tiredness caught up on me. I had a leisurely start after drying everything in the sun before stowing it away. I left the skiis stuck in the snow where they held up the tent and started moving up a crevasse free trough to the pass with Sim Glacier. The sun was broiling hot and the air still. A sérac slumped in the icefall to the right. The pass! One more step and it was all downhill to camp 7 on the bench between the two icefalls of Sim Glacier. During the evening a cool breeze blew down from the icefalls and when supper was finished I enjoyed a rare treat—a leisurely walk with just ice axe and camera among the ice scenery around camp. A huge waterfall sprayed out of the ice, spilled over a small glacier island and disappeared back under the glacier.

On the morning of the 19th the 8500 ft Wahshilas Peak south of camp was climbed via the ridge on the left (east) side of the 3500 ft icefall. I detoured into the icefall occasionally to photograph the dark blue crevasses and blue green ice grottos lining the face. From the peak a corner of Knight Inlet showed. Time on top was spent gazing around and even dozing off for awhile. The tent was an uncertain looking dot on the bench 400 ft below. The descent was a long swim in ridiculously soft snow, many avalanches starting below my boots. This was the eighth day after the big storm and conditions still hadn't improved. I broke camp and started down the Sim Glacier to the left of the lower icefall, crossed the ice and went around the steep loose sides of the lake to gravel bars beyond. At 2500 ft this was the lowest elevation in 19 days and I could feel real heat and smell the forests—everything was alive. The first mile of Sim river was a mixture of 15 ft boulders and slide alder. The big western tributary was in flood and as expected impossible to cross. Rock slides were welcome for the two mile hike to the glacier snout which comes lower than the map shows. I crossed the ice and camped. This valley is actually an ice hung canyon and summer ice avalanches from steep glaciers higher up discharge into the valley floor and keep the lower glacier safe from ablation. Camp, of course, was placed on the lee side of a boulder 25 ft high. I slept out and between the dark walls was a ribbon of tightly packed stars and the night was so still that a candle stuck in the sand burnt almost without wavering.

In the morning the battle began. The south side of the tributary was all slide alder with a swamp at the confluence with Sim river. Another five hours of wrestling brought me at last to the logging road. I sat down with the loggers who thought I was raving to be talking so much especially after one question asking if there was "snow all year round up there."

John Clarke

Warrior

Cautiously we pick our way through vast granite faces and buttresses. The chopper creeps under the heavy cloud, circles and drops beneath the huge Howser face, only the bottom third of which shows. The chopper and half our food have been generously supplied by the mining company I'm working for. He leaves us laughing at the absurdity of the system and waiting for a glimpse of the towers.

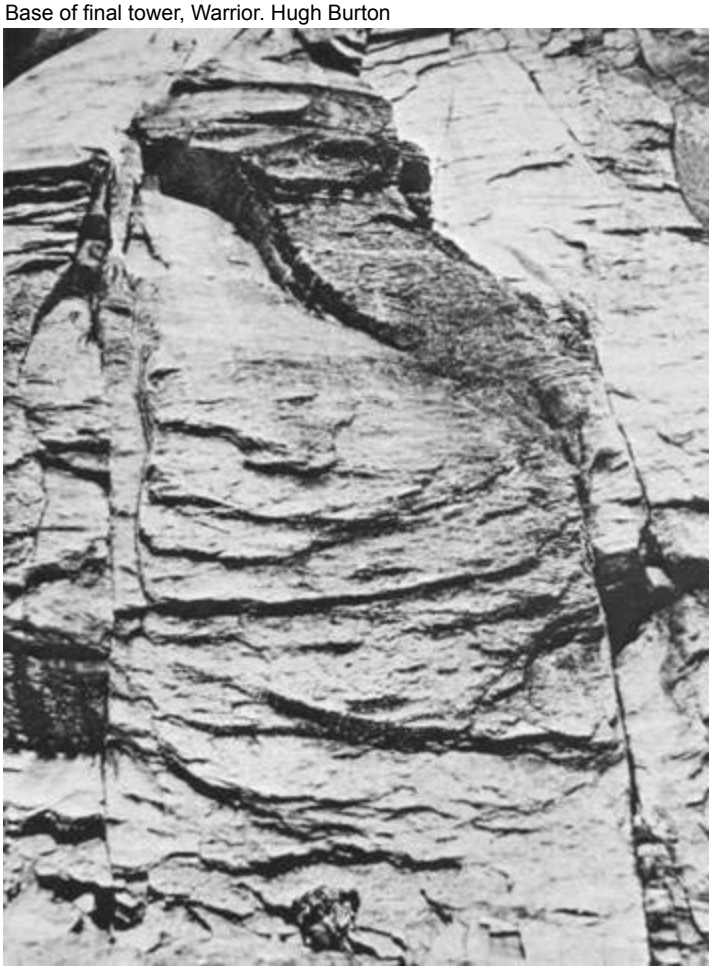
Next morning weather doesn't look good, storms everywhere. Clouds swirl around the towers, thin for brief glimpses. Foreboding shapes in the mist. Big, steep, wild. Accustomed to Yosemite weather; two weeks without a cloud, the violent winds and lightning storms have us wondering.

Finally it clears. We spot out the possible routes and pick a line. To the left of the West Face route on North Howser the wall steepens. The upper half is split by several tremendous vertical cracks and corners. The most appealing one is a straight in face crack that goes for about 800 ft. The bottom half looks interesting; mostly free following an obvious chimney and crack system.

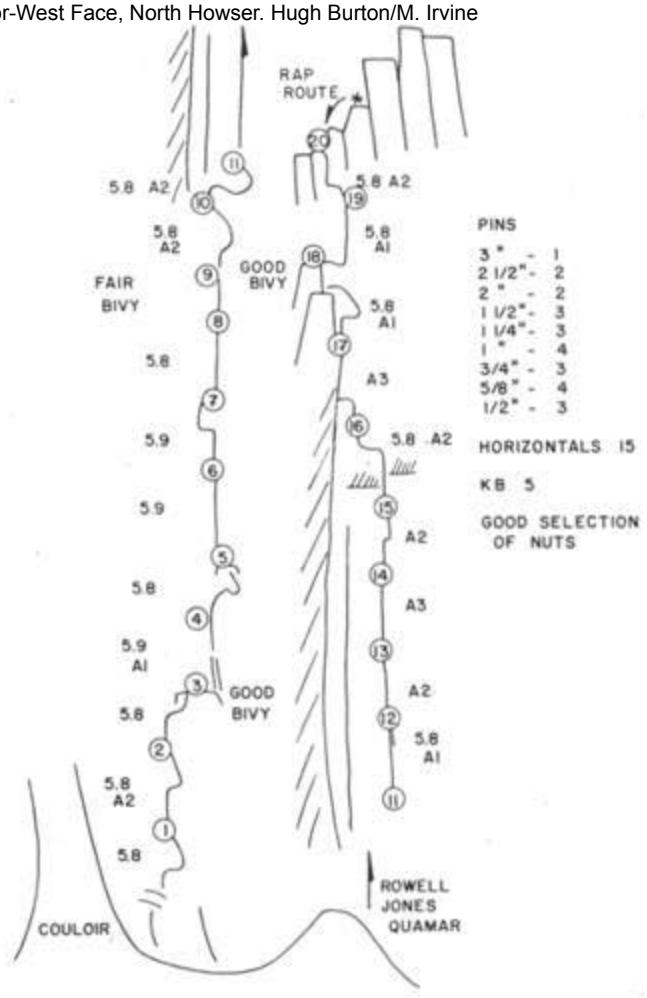
Quickly we haul gear to the base of the climb and start off. Varied free climbing up cracks and ramps. Two or three pins of aid and we hit a large ledge beneath the obvious chimney which narrows off and steepens into hand jams. It's wet in the back so I have to nail it for 30 ft. Back to the ledge for our first bivy and an incredible sunset. Packrats make a bid for our food, get us scrambling in the middle of the night. You feel a little incompetent, slowly struggling up the wall with all this gear while these furry little members are running circles around you. Unroped 5.11 with no boots.

Morning dawns, weather's holding. Beautiful leads of crack climbing lead to a snowpatch in a low angle section. We fill our water bottles and push on. Above the final tower rises. Unbelievable face cracks split the clean steep wall. A couple of pitches of hard mixed (free and aid) climbing and we're on to the base of the face crack. For the next four and a half pitches we follow the single

Base of final tower, Warrior. Hugh Burton



Warrior-West Face, North Howser. Hugh Burton/M. Irvine



crack. Nailing at first it slowly widens out to 3 inches. Hammocks tonight. Twilight is incredible. All around jagged towers, ice and desolate valleys.

Morning and we're off. Nailing higher and higher, the crack slowly bottoms out giving a beautiful pitch that stays hard all the way. High above several magnificent eagles circle the towers. God what an incredible world. Weak and lazy and caught up in things we miss 99% of it. The Indian sorcerer Juan keeps drifting into my mind. We're into some overhangs now that exit on steep face climbing. A dicey section of aid then corners lead to a big ledge system atop a pillar that juts out from the wall. Weather is deteriorating. Half way through the night rain and snow began. Inside the wall tent we wait. With dawn comes a break in the storm. Two more beautiful steep leads and we break out on the summit ridge. Several pitches up to a step in the ridge and we stop to survey our situation. The peak is still a good quarter mile away over 5th class jumbled boxcars—with a 70 Ib. haul bag—no way. Lightning cracks up all around. It hails furiously for half an hour and we huddle half sheltered by a huge block. A pretty dangerous perch—an easy target for lightning, so we decided to get moving. Off the other side of the ridge it drops 800 ft to a long 60° ice slope with rock cliffs at the bottom. Beautiful, we don't go that way—no crampons either. That leaves one choice, the west ridge. So we start rapping. Overhanging and a long way to go.

Ten raps and we're at the base of the steep rock. Interesting bivy. Huddled in the wall tent, soaked, lightning exploding all around, six hours of furious hail, 50 mph winds. By morning things have calmed down. We start rapping down the mixed ground. Snow, ice, rock. Ten more 150 ft raps and we finally hit the glacier at the bottom. We stagger back to camp and collapse in an exhausted heap.

Next morning our free chopper comes and plucks us away. We check out other possibilities as we leave. Some of the best routes are still to be done. The chopper carries us back to work and man's world leaving the Howsers as they are this very day; eagles slowly circling mist enshrouded towers.

Hugh Burton

On the Ecstasy of Defeat

It's odd how we are sometimes unsuccessful at a task. It's equally odd that we put so much more importance on being successful than on being unsuccessful. Emotionally more pleasant to languish in success, it is important to realize that both success and defeat are states of mind. There is as much, if not more, to be learned from defeat as success. If we understand this then both success and defeat can be used as equally powerful tools for restoring and building strength and energy. In my mind, this is what climbing is all about.

I had long dreamt of climbing Mt. Cook. I had a very clear but somewhat overdramatic picture of what the summit would look like. I dreamt of a pyramid of white thrust upwards into the clear blue with only me at the apex breaking the perfection. I never considered that I would fall short. I had dreamed and planned so

Mt. Silberhorn. Brian Norris

On the East Ridge of Mt Dixon, Mt Cook National Park. Brian Norris

Hochstetter Icefall and top part of east face of Mt. Cook. Grand Plateau lies at too of the icefall. Brian Norris

long. How could I fail? When the time finally arrived I had to do a lot of fast thinking to try to comprehend why I had been doomed to fail on a mountain that I so much wanted to climb. At first, it was a cruel blow to my ego. After a time though, I began to realize that as long as I revel in everything I do there is nothing that needs to be comprehended. If a path is true, trying to justify it only wastes energy that could be otherwise used in moving along the path.

When I finally left Christchurch for Mt. Cook, it was very near the end of the climbing season so I was in a hurry. That in itself is rather odd since I didn't even know where I was going. It was on the road to the Hermitage that I met Florian, a young German climber who, like myself, was also in a hurry to get nowhere. That chance meeting brought us together to share one of the most memorable climbing and emotional events of my life.

Florian had done many hard climbs in the Alps and had even been on an expedition to the Himalayas which had an unclimbed 20,000 footer. Since we automatically equate success with excellence, I thought he must be a very good climber which, fortunately, he was. Wanting Florian to make a similar association about me, I tried to impress him with my somewhat meager supply of mountaineering exploits. I don't know whether I fooled Florian but I sure didn't fool myself.

In the valley we waited while storm after storm hammered the peaks. I made a half-hearted attempt at getting in shape by hiking some of the park trails, climbing some of the lesser peaks, and walking the two miles to the bar every night. I had packed ten days carefully chosen food from Christchurch, since I knew from an earlier visit that prices at the Hermitage were inflationary and selection was poor. Florian, however, had no such prior knowledge and since his budget, like mine, was limited, he had to compromise between weight and expense. Florian, therefore, ended up with a lot of noodles and rice. I chuckled at all this but was not without a certain sense of apprehension.

We waited patiently for the norwesters to subside, knowing full well that conditions on the glaciers were rapidly deteriorating. As the snow bridges dissolved our chances of success grew slimmer. For those of us who persevered the wind finally shifted and a cool southerly was predicted for the next few days.

Florian and I raced up the Tasman Glacier at full tilt to prove to one another what perfect condition we were in. We proved a couple of things all right but not necessarily what we set out to prove. The competitiveness and excess energy sweated from our blood, we began the long, dry, cruel climb up Haast Ridge, gateway to the Grand Plateau and New Zealand's highest peaks. It should have gone faster to Haast Hut but we had awfully heavy packs. This time, at least, we had an excuse. The next day, we were off at the crack of noon for Plateau Hut, perched somewhat precariously on a rock just above the Hochsetter icefall. Ice faces and peaks swirled all around us as we tried to gain some perspectives as to where we were. It was some view!

Florian and I spent the next few days getting to know the Grand Plateau. It was truly 'grand' walking among the crevasses and smiling with the wind. I learned to apply what I knew of climbing rock to ice climbing and was surprised at how similar the two

were. There is an extra sense of freedom to climbing ice—a matter of moving as fast as possible so as to minimize fatigue without the restriction of a deliberate route line or series of moves. But warm, solid rock is equally uplifting. Both are good ways to travel. We carefully considered the possible routes we could try to climb. We were both accustomed to climbing on solid rock and, since most rock in the Mt. Cook area is rotten, we immediately discarded any route that had very much rock on it. But with ice routes we were in a dilemma too because of the lateness of the season. The route that had appealed to us most, Syme Ridge on Mt. Tasman, appeared to be cut off by a huge bergschrund near its top. We didn't want to have to retreat from so high on the ridge especially with the risk of a crossing of the Mad Mile late in the afternoon. So we decided at first to attempt the Silberhorn Ridge on Tasman since the most highly crevassed part of the ridge was at its bottom.

The skies were cloudless when we went to bed at 9 p.m. but when the alarm went off at 1 a.m. it was snowing and storming so we went back to bed. After a day of rest we were up early again. A universe of stars shone and the moon lit the way. But even with perfect weather we were frustrated again—our route was blocked by a huge crevasse passable only with the use of direct aid. We then began to worry that maybe we wouldn't climb anything. It was a dreadful thought ... so we again changed our objective and decided to try the Linda Glacier, the easiest route to the top of Mt. Cook.

At this point Florian confronted me with the fact that he had lost all desire to climb and wanted to leave for the Hermitage. He had been sick the last couple of days and this, added to his poor diet, had robbed him of his strength and drive. Our positions could easily have been reversed so I knew exactly how he felt. It was unfortunate though, that this time we didn't feel the same about leaving. I was so desperate to climb that I begged him to stay on for an attempt on Cook. In hindsight I have only respect for Florian for agreeing to stay on another day to climb with me. I couldn't have blamed him for going down because I knew he was really not into climbing at that time. His sense of responsibility was strong enough to make him stay even though he had no desire to do so. But where was my responsibility to Florian? How could I, in effect, 'force' him to do something he didn't want to do? In the end, I couldn't.

At midnight we arose for a silent breakfast in the cold dark air of the hut. I could sense the feeling of unhappiness in Florian and this made me come to a sudden realization ... I knew there was no way. A couple of hundred feet from the hut I had to ask Florian if he really wanted to climb. He said he would have had I not asked but since I had asked, he had to answer truthfully. I always knew if I was in his position I wouldn't want somebody to force on me some false sense of responsibility but I wanted to climb so badly I found it hard to think of responsibility or positions or anything else until this time. So, to keep it simple, I turned back to the hut without speaking while, inside me, there was a sadness I have never felt before.

The next day I was completely deflated. Florian told me he was going down that day but I coaxed him to stay on for another day. Since Florian was the only other person in the hut I was clinging to the hope that he might have a change of heart. When Florian finally did leave, I don't know whether to leave with him or stay and wait for another party to arrive, or to try to solo Cook. I decided to stay since, if I was to be unsuccessful I at least wanted to have given it the best try I could. It would be a long time before I'd be back in New Zealand. Perhaps I am too selfish to realize that when 'we' are partners and 'we' cannot climb the mountain then 'we' must retreat together. Perhaps for this reason, when Florian turned to leave the hut he could perceive that in my eyes I felt I had disappointed him as much as he felt he had disappointed me.

The next few days I spent by myself in and around the hut. It was good to be alone for once. I tried to figure out why I wanted to climb Cook so badly. I considered all the usual explanations and tried to weigh their relative importance in explaining my unusual desire. But I had done all this many times before and this time it was no different. In the end the only conclusion I could reach was that it was not really important or necessary that I explain why I wanted to climb Cook or, in fact, if I even did climb it. It was, and still is, inexplicable to me why we do anything— why some people have to justify or explain their existence. We are all so serious. I marvel at this mystery. I spent those days walking around the Grand Plateau. The purity and the silence around me helped clear my head of the confusion of the days before. Although we say the mountains have no life they seemed to come alive for me. I talked to the mountains and, watching over me with years of wisdom, they seemed to answer. They stopped me in my tracks and said, "Look, man, don't take us so seriously." Sometimes I still wonder if those "inert" masses really talked to me. The voices seemed very close.

In spite of all this rationalization I still often looked towards Glacier Dome to see if anybody was coming up to the Plateau. My daily radio communication with the ranger at the Hermitage would always pose the question, "Is anybody coming up?" I really didn't want to try to solo Cook. I just couldn't convince myself that I would never fall in a crevasse. But everything seemed to be pointing towards climbing alone if I wanted to climb. It was probably just as well though since I like to climb by myself.

I had a tough time getting to sleep and when the alarm finally went off at 11.30 p.m., I was tempted to say, "Forget it." Not without a sense of reluctance (for more reasons than one), I hauled myself out of the sack. It was especially cold and lonely in the hut at this hour and more than once I thought, "What am I doing?" I didn't care to try to answer this question so as soon as I had my stuff together I was crossing the Grand Plateau in full moonlight.

I really bombed up the Lower Linda Glacier and, at one time, I even thought I'd be on the top by 8 a.m. Usually, I was able to weave in and out of the crevasses but some I had to climb into and out of. At Teichelman Corner, where the Linda takes a turn towards the summit of Cook, I ran into problems. I got lost in the icefall in the dark and could find no way through it to the Upper Linda. As the batteries of my light were pooping out I had no choice but to wait for dawn. I sat on the top of a huge sérac in the cold stillness for three hours. During this time I thought nothing more about reaching the summit. My mind struggled with telling myself not to be cold. As a diversion I concentrated on my surroundings. The cold seemed to accent the dark, forbidding nature of the crevasses. The strangely sculptured crevasse walls had an ethereal quality

about them. I did not seem to be able to judge the size of anything or how far away it was. The sound of my crampon jingling as I switched the position of my leg seemed so loud and out of place that it startled me. I watched the moon-shadow grow across the Plateau and as inevitably, as the moon set, the sun come streaming over Malte Brun.

With the aid of daylight I tried traversing high on the face of Malaspina to by-pass the icefall but the way, for me at least, was barred by impassable crevasses and 'schrunds. As rock fall clattered past me I felt no sadness as I turned to retrace my steps down the mountain. I was so close to the top that sometimes I think I should have tried a little harder. But I made the right decision then, and now I can only say what I may do in the future. Under more agreeable circumstances the Linda would have been quite easy. But then it would probably be the East Ridge, or the East Face, or the Caroline. The thin line between 'success' and 'defeat' is a very serious place. But that is a mystery like everything else. I didn't climb a peak during my time on Grand Plateau —but for some reason I feel I gained more from the experience. In the final assay I guess that's all that really matters.

Brian Norris

The Mountain Landscapes of J. B. Taylor (1917-1970)

Jack Taylor, who was a native of P.E.I., first saw the Rocky Mountains during the Second World War when he was posted to Alberta while serving with the RCAF. He returned to Alberta after the war, in 1947, to take a position as lecturer in Fine Arts at the University of Alberta and, while teaching summer school at the Banff School of Fine Arts in the summer of 1948, was first able to explore the mountain trails. From then until his untimely death in 1970 Taylor never allowed much time to pass between visits to the alpine meadows, the lakes and the glaciers that he came to know so well.

His earliest mountain paintings, done near Banff, were of the conventional type, where the mountain itself provides a backdrop to a lake or trees in the foreground. But Taylor quickly tired of these obvious compositions and began to experiment with approaches which might capture and express the essentials of mountain scenery (Above Lake O'Hara).

He soon dispensed almost entirely with the horizon line and directed his attention to the lower slopes with their moss, trees and outcroppings of rock. His compositions were made up of close-ups of these elements with dramatic lighting as the unifying factor (Columbia Ice Fields, 1952, Untitled, 1952).

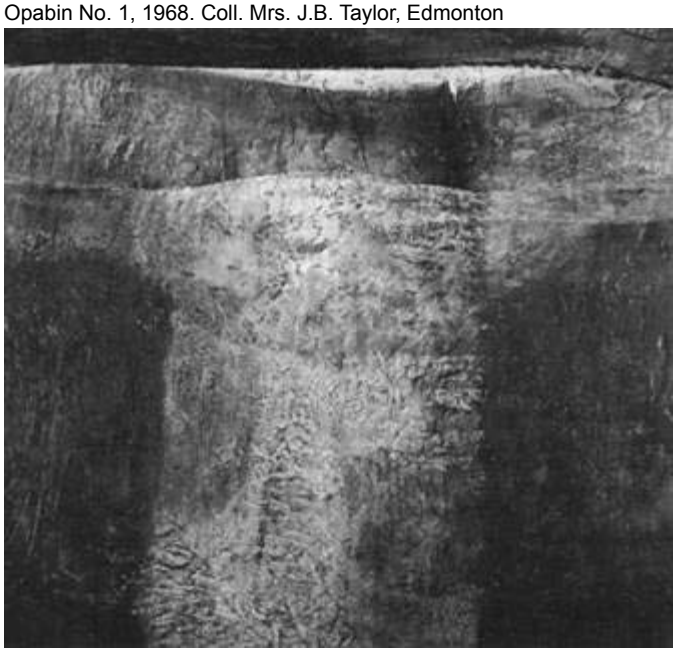
In the sixties his work became more abstract as he concerned himself with rock faces above the lakes and meadows. His increasing interest in abstraction and his concentration on rock itself as subject were well-matched. The rock by its very nature

Above Lake O'Hara, 1953. Coll. Mr. & Mrs. H.P. MacDonald, Edmonton.
This and other photographs by Jim Dow

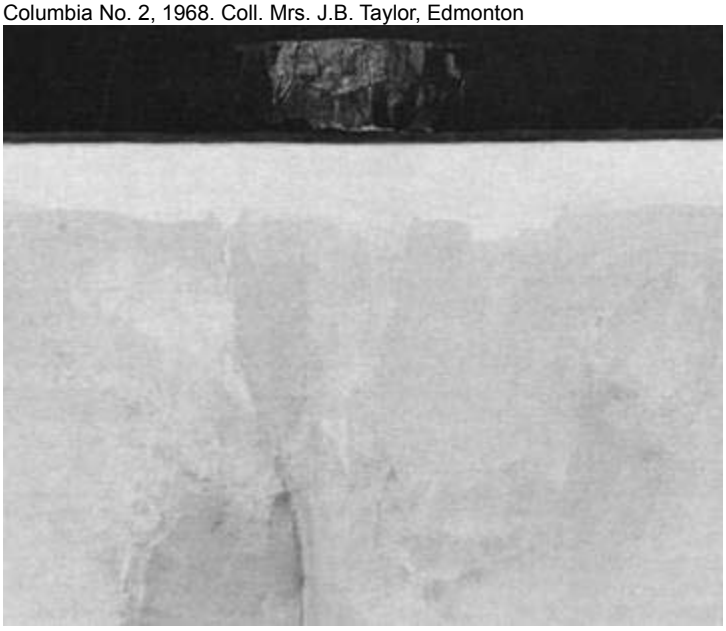
Columbia Icefields 1952. Coll. Dr. & Mrs. C.A. Stelk, Edmonton

Untitled. 1952. Coll, Mr. & Mrs. M.I. Friedman, Edmonton

Opabin No. 1, 1968. Coll. Mrs. J.B. Taylor, Edmonton



Columbia No. 2, 1968. Coll. Mrs. J.B. Taylor, Edmonton



Tree Wishes

When the night rises
from the phoenix fire of a setting sun
and the shivering trees
turn dull
and dark in the half light

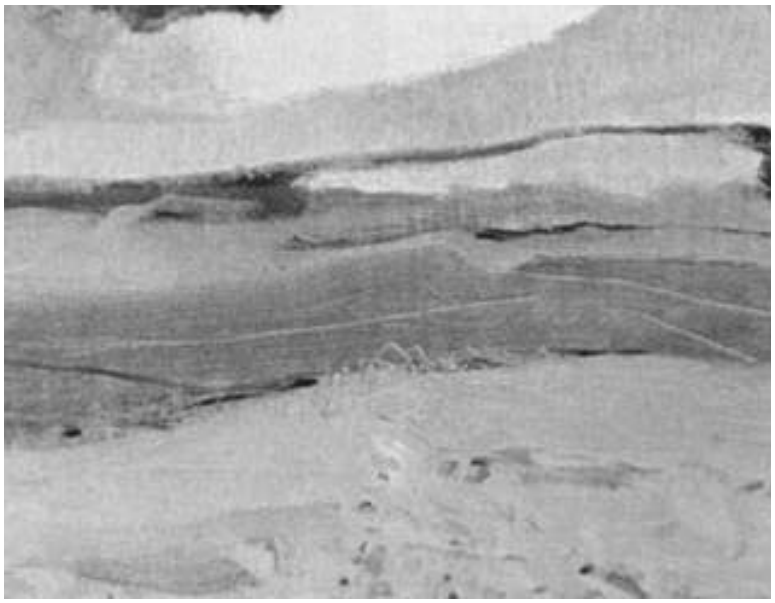
I am filled by a desire
to go walking
in that shivering forest

and never come out

Karen, Smitty's poetess

Reprinted from Allied Tribes News February 1974

Sketch No. 4, 1970. Coll. Mrs. J.B. Taylor, Edmonton



is often cubistic and the dramatic contrast between the dark rock and the white snow beds above offered exciting visual material. He finally stripped the elements down to their bare essentials—rock and ice. By varying the relationships of these elements he produced a series of paintings that has no counterpart anywhere in the field of art. He contrasted the ageless rock formed in pressure and intense heat with the ice and snow formed by bitter cold. He rang the changes from warm to cold, from hard to soft, and from white to black and did so in compositions that are at once abstract and naturalistic (Columbia No. 2, 1968; Opabin No. 1, 1968; Sketch No. 4, 1970).

Those who have seen Jack Taylor's exhibitions are familiar with the place names that identify the locale of his subjects. He was not a climber but enjoyed hiking the trails in such areas as Lake O'Hara, Columbia Ice Fields, Bow Glacier, Sunshine and Moraine Lake. Some are immediately recognizable (Consolation Lake and Lake McArthur), but in many of his paintings Taylor has simply excerpted his material from the source and then dispensed with recognizable details in his search for a more timeless and universal theme.

The last summer of his life proved very fruitful in the harvest of beautiful sketches which he produced while visiting Garibaldi Park and the Mt. Baker region of Washington. These sketches indicate a new breadth in his mountain studies. It is a great tragedy that this interpreter of the beauty of our mountain landscapes was not given time to finish what he had begun. He has, however, left us a rich legacy of works which have no equal in the landscapes of our country.

J. A. Forbes, Harry Habgood

J. A. Forbes is Professor in Dept. of Art and Design, University of Alberta, Edmonton.

Buddha Ridge, Mt. Rundle

Perseverance has its reward. This climb might have been called Perseverance, but Buddha Ridge came naturally. But to the beginning. John and I set out early one May morning with heavy loads but the rain soon put a stop to all that. The weather made us puke. In June Lorraine, John and I set out again. It was blistering. The route to the climb is long. An hour on the mine company road then sharp left up a wash bed which leads to the north east base of the ridge tower which we girdled, gaining access a little higher up on the inside face of the ridge. It's three hours to the begin-ing of real climbing.

I have the first lead. Hard limestone some 5.5 moves up a layback, easy going, put in a runner (it's 600 ft to the bottom by now) and to a belay point. Up they come. Then John, up a ragged book. A false line. But we don't know it yet. All up on the ledge. Then John off and up left in a curving line. Dead end. I join him and clean his route on the way. Then down climb to where Lorraine is sitting, watching. All the possibilities are choked with loose boulders. John tries one more line, this time out of sight around a pillar. A confidence move. Then he's gone. Just the rope going through my hands.

By now it's four in the afternoon. We have been up there since noon. I'm about to dry up like a prune. Also being an Easterner I'm not exactly sure I like a 1000 ft between my toes when I'm climbing. John has returned. But he's unsure and that's enough for me. Down we go. A 100 ft rap and then interminable down climbing. It's a long way home.

But working as custodian of the Canmore Clubhouse I see the ridge every day from the big windows. It eats away at me. 28 July we leave the clubhouse at 7 a.m. By 10.30 a.m. we're on the climb, just the two of us, soloing fast to our previous high point. No runners now. I scratch my head in amazement that I ever felt the need for them. A quick lunch and then John leads off, turning that pillar again. I've watched him do it twice by now. I start out too high, gripped like hell, thrutching in a crack. Hop, change feet. Down two feet. Then across and around the pillar with its overhanging top pushing me out into space. But really, once the move is made, its easy. And finally I can see.

We cross a small gully easy scrambling, and are finally on the ridge proper. It's big. Quite a lot of fun, this. Airy drops on all sides, firm rock. Nothing over a hard 5.5. It's strange climbing—40 ft of vertical, then walk or scramble for 50, then the whole process is repeated. An overhang. John is in his element, grinning. "It's splendid climbing Matt," he calls down, By now I've learned that 'splendid' can be correctly translated as hard, but with firm rock. It is. I thrutch until a hidden jug saves both of us from falling to the Bow River.

And so on until the angle eases considerably. There are quite a few pitches. I wonder if it's worth the risk. But John is insistent At one point, on a knife edge which I am straddling, I drop my hammer and the sling has chosen that moment to come untied. Miraculously it comes to rest on a wrinkle 10 feet down. Saved.

The last few towers and then we unrope. A ceremonial handshake. We solo the last short tower and very undramatically walk off onto scree, 8000 ft up in the cool clean air. The climb has taken three hours. Not counting the three to get to it. On the go for six. I'm really tired but home is still off in the hazy blue.

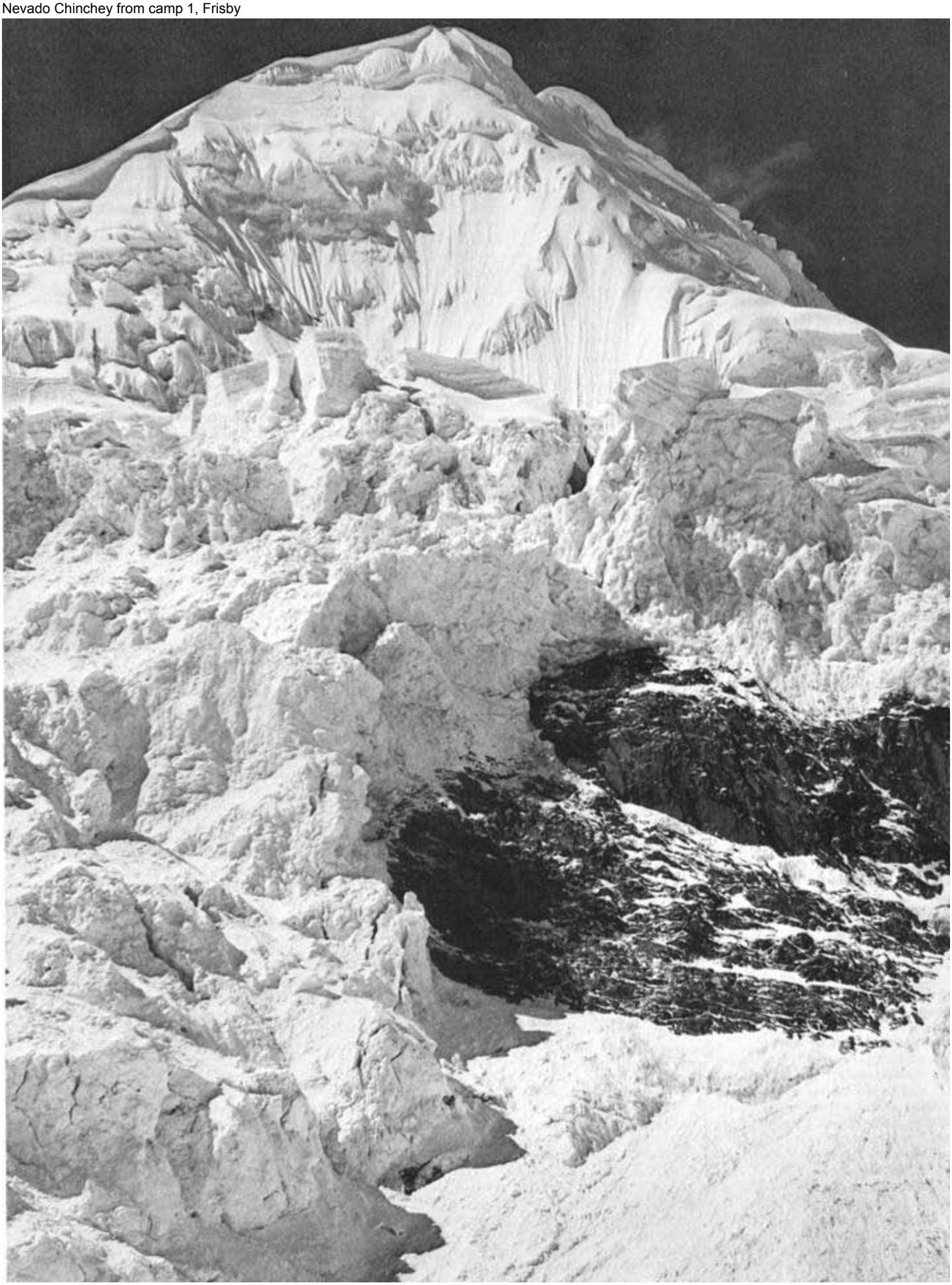
Matt Scott

First ascent. John Martin, Matt Scott. 5.5. 28 July. Third buttress on the east face of Rundle, ridge in middle of buttress.

Peruvian Pedants

I was clear my invitation to join an expedition was to be slower in coming than senility. A solution to this harsh reality necessitated guile. I wormed into the august ranks of the Wyoming Peruvian Expedition 1973—a mixed blessing. My home, Montreal, is far from Wyoming and a few deliciously nebulous phone calls about tactics "Quasi-Himalayan or pseudo-alpine, if the former maybe we should get a few eh-Whillans boxes?" and food, "Preference

Nevado Chinchey from camp 1, Frisby



lists and plenty of variety. Mike Thompson had the right approach on the South Face of Annapurna," were my total input before meeting the team in Miami en route to Lima.

Our plan, I say, slipping undeservedly beneath the expedition umbrella, was an ascent of 5959 m, an unclimbed subsidiary summit of Nevado Chinchey (6222 m) in the Cordillera Blanca. We would approach in classic style from the acclimatization baths at the Hotel Monterrey (Huaraz) via the Quebrada Honda. The masterly choice of the Honda, the longest, and so by climbers least used, of the valleys showed the devious backup capability of academics (4/9ths of the team) long used to coping in a publish or perish world. Now, subsidiary Peruvian summits may not figure on programmes of 'the quality', but there is an intense, if civil, competition for them. Predictably the higher, technically easy, accessible ones are climbed soonest; 5959 m which falls into none of the above categories was typical of the remaining desirable subsidiaries. "Maybe we will fail," muttered one professor, "Mountaineering is the art of the soluble, what will we tell our slide-show audiences next winter?" "Well," said another, "The Honda allows access to the Copap icefield, a seldom visited area, remote because its peaks are only 5100 to 5500 m high and will not be desirable using current projections until 1978. Why not," he said (revealing his biggest grant-drawing ploy) "Anticipate the trend, and do them this year?" A few louts attempted to extrapolate these arguments further and they were left where they belonged, bouldering and muttering about gross travesties of the vision of Tejada-Flores. In retrospect we found that the ploy had been all too well used already. The 1973 AAJ lists all recorded ascents in the Cordillera Blanca and the list contains the suggestion that the Copap peaks were climbed in 1963 by some avant garde go-low-high and get-them-first artists. Immorality via the back door remains a slippery customer.

As we went high in Peru we became paranoid about oedemas. Our minds, prepared by a municipality of tragic events and articles in the climbing journals, were honed for early diagnosis of these killers. At Monterrey, one lung gurgling mountaineer had (he sheepishly admitted from under the oxygen) fallen asleep and sunk beneath the hot baths after a late night surfeit of pisco. At base camp, 4200 m, a victim diagnosed by all as a textbook case of cerebral oedema promptly vomited 2 quarts of blueberries secretly scarfed from the nearby bushes. The weeks passed, and we acclimatized. Our warm-up climb of Tocllaraju (6032 m) will be glossed over, except to say that it dispelled the myth that uncertainly of outcome in the mountains was a thing of the past.

Our main goal, 5959 m, presented a problem; it required an ascent of Chinchey before we could even see the peak. We made a nine man, two camp, load-ferrying, acrimonious ascent of Chinchey, picking our way through oriental garbage piles left by a Japanese party; and returned knowing one another and the mountain better. Unfortunately We were not happy with our hard won facts, which fell into two general categories: 1. Any further attempts to fuse the team into a single unit would lead to violence. 2. That tiny white summit of 5959 m, seen far below through the clouds at the summit of Chinchey, and accessible only by a traverse of several kilometres along the summit ridge, was out of the question.

At base camp we pressure-cooked deeper into our pile of local ham, beans and onions. We sat, we read, we entertained the local miners and learnt that 'things go better with coca'. It was time to attempt our alpine climbs on the peaks of the Copap plateau. Little ice tongues slopped over the rim south of base camp. We looked at them over our plastic bowls of food (all cups and bowls the same size to avoid quibbling over quantization of foods), we knew what was up there. We savoured the erroneous thought that we were just slightly ahead of its time.

From base camp a trail zigzagged up to the Tomo la Mana lead mine, high on the way to the Copap rim. At the huts of the mine, Gary Poush 6'6" and me 5'6" were greeted with some mirth by the miner Luis Cafferata. We were offered and ate red jello out of a small chipped enamel bowl and generally amused the entire operation who downed tools to watch. Poush was loaded up further with a gift of a great lump of lead sulphide ore 'plumbo', and we left.

Above the mine, mud and rock and a way up through the ice. We peeped over the rim at the icefield. Nevado Copap was just a high point on the ice, but to the east were many snowy peaks. To the south lay a gem of a rock peak, 5276 m, with a hanging glacier on the north west side. The buttressy north ridge we decided was for us.

Camp 1 which we installed above the mine was in the industrial wasteland of the Honda. The muddy two man tent was pitched by three pools bottomed with gray-black mud. Mud was all around. The ice above was all hemmed in by metamorphic ridges running from the icefield; austere. We got up around 5 a.m. Poush cursed at the cold and the stove. We drank chocolate and coffee and ate instant paste, light came with a clear sky, we left by 6.30. The usual grind up the ice to the rim, then onto the icefield and down to 5276, sitting there. Between the icefield and the ridge was a lateral moraine. We climbed this heap of morainal dirt (as Ortenburger euphemistically terms these horrors) and were forced by the glacier on the north west side onto the rock of the north ridge. It was 9 a.m. Easy climbing up the open books of the ridge we each picked our own line until the first big wall refused to lean back at our approach. We slunk around that one by scuttling onto the edge of the hanging glacier and climbed back onto the ridge via a huge slab all boulder strewn. An immense block perched close to the top. From here a steep 30 ft wall required roping up, some cracks 5.4 perhaps, a lot of thrashing and gasping for air and a thread runner or two put us on a platform above. Unroped we continued up a delightful mixed section of snow and rock with verglas, a fine view down the steep east face to a valley with two lakes. We drew closer to the next big wall, 140 feet, and steep. Poush climbed up some 40 ft of loose blocks at the base, blocks rotten enough for a connoisseur of the Rockies (say 1970 Hungabee); 30 feet above the blocks an overhang, above it 70 ft of steep rock. Poush belayed at the top of the rubble, I climbed cautiously up and past, placed a peg and traversed along to a likely spot in the overhang, under a big crack by a 3 ft cube of perched block. I fumbled with a placement over the lip, filled my eyes and hair with moss and dust, gave up and traversed along a bit more. I placed an angle into a balanced block beneath the bulge, the peg moved but wouldn't come out until the block did; standing in a bit of sling on the wobbly peg I grovelled about for holds above. The enormity of the position rushed in, flashes of life insurance and all the rest. We rappelled

off and were at the base of the wall with nowhere to go. After an ample lunch prolonged by our predicament we peered hopefully for a way. The glacier to our right was steep and only accessible far below; at our level the rock wall ran toward and was engulfed by the glacier, we had tried the wall at the easiest place. We were left with a traverse across the east face to our left, to some steep snow beyond which might lead to better things. We roped up for our traverse of the sods—150 exposed feet. It went reasonably. The crux, a huge boulder plastered to the face, I climbed over with good protection. Two psychological runners, one on a rock spike, the other a jammed knot, put me across on the snow with no real belay. Poush coolly moved across despite the dubious protection and my bleating. We climbed another lead up the snow, unroped above the rock wall and peered over the cliff we had abandoned; it looked desperate. A few hundred feet up the final rise of steepish rock and snow put us on the top about 3 p.m. Descent by the west ridge and lower part of the hanging glacier was not hard, one rappel down the ridge and a hilarious episode where we fell one after the other into a small crevasse. We scrambled back to the ridge to get to the moraine and the icefield and a long surrealistic flog up the immense whiteness of wet, icefield snow back to the rim and our muddy camp below where we arrived close to dark; a superb alpine day.

Howard Bussey

Vancouver 1974

One day last week the monsoon paused—
Let the sun shine through
Push dark clouds away.
Give the earth a rest
From soaking up the water.
Give us a peek
At the north shore mountains.
The Lions distant sparkling,
Virgin white.
Black Mountain black as ever
(The forest never hides itself in snow).
Grouse and Seymour
Pushing toward me
Through the clear air.
The only thing to stop them
Is the little toy city
Of black cubes and bridges
Placed at their feet—
White man's offering
To the mountain giants.

Peter F. Rowat

West Ridge of Mt. Hubbard

"Hubbard; sounds more like an old woman in a shoe than a mountain."

"It's not a very pretty thing is it? Looks sort of like an old woman's shoe."

"But beauty isn't everything, look at these three lines up the unclimbed west side."

"I was just looking at that. All I see is slightly under 8000 ft of terror. A body could get blown off any one of those ridges in any of about a million places. What about that strong Italian party that was blown off a few years back?"

"I'm sure it must have been a freak storm that delivered the Italian's first camp abruptly to that icefall."

"From what I've heard of the weather in those parts, the only freakish part of that storm was that it gave the climbers a chance to descend before really opening up."

"One thing's for sure, none of us are qualified to attempt, let alone to put together a climb of that magnitude."

That was April 1973. Six of us, all undergraduates at Harvard, Ken Andrasko, Randy Cerf, Doug Dolginow, George Pugh, Will Silva, and I had been planning an attempt on the unclimbed Wiesshorn (11,620') just south of Mt. Kennedy for nearly six months. Attention was suddenly shifted to Mt. Hubbard when Bradford Washburn asked Ken and Randy why they wanted to spend three weeks wallowing through hip deep slush. We all respected Wash-burn's long experience but it wasn't really his advice that changed our plans. The advice was only a starting point. From there, Washburn's incredibly detailed photographs, his inclusion, in the 1968 AAJ, of Hubbard's west side in a list of desirable Alaskan possibilities, and our own desires for good rock, a pleasing line, and personal satisfaction brought us to a tentative decision to attempt one of the ridges on the west side of the Hubbard, Alverstone, Kennedy Massif.

"Anyhow, we can always chicken out and fly over to the Weisshorn if things look too desperate."

By the end of the first week in June as we lumbered down the Alaska Highway laden with nearly 7000 ft of fixing rope and about 100 homemade nuts, pickets, and flukes, we had formed a semi-balance of group consciousness that we hoped would make any climb much more than a mere physical adventure. We had decided to fly from the AINA field station at Kluane Lake to the Alverstone Glacier. None of us felt really good about winging to the base of the climb but we concocted myriad excuses for the decision not to walk in "It would take a week each way; we would need magical free porters to carry a huge pile of hardware and food; we might get lost; and we can all pay for the airplane trip by working during the time it saves us." We were determined if naive aviators, but neither Trans North Turbo Air of Whitehorse, nor our pilot John Nutchiak was either determined or naive. "We would like the estimated total cost in advance. Don't be surprised if the final cost is twice the estimate. Take enough food to wait two weeks for pick up. And have fun." Hardly an encouraging beginning for six would-be climbers who had scraped together the originally estimated cost thanks to the benevolence of the founder of the Harvard Mountaineering Club, Henry S. Hall Jr. and the

The upper Honda. looking south west from base camp. The main peak, Portachuelo, and the ridge forms the Copap rim. Trail to lead mine visible at lower right. Frisby

West face of .Hubbard to right, Mt. Alverstone to left. Bradford Washburn

North east face of Deltaform, at top of couloir, George Lowe

Harvard Traveller's Club.

On 16 June, after waiting out five days of rain, Ken and Randy made the first flight in and fell instantly in love with the ridge in the middle of Hubbard's west face. They asked the pilot to set them down at a pleasant looking site for a base camp, about 100 yards from the base of the climb and protected from the wind by a large crevasse. The pilot wasn't thrilled. After about 20 minutes soul and glacier searching and a final radioed pat on the back from the AINA flying ace Phil Upton, John put his shiny new Helio Courier a very creditable half mile from the base of our ridge. In two more trips, John flew the rest of us in, and by evening we had a cozy base camp at 7300 ft and a 2000 ft reconnaissance up to the ridge proper under our belts. We felt like big time mountaineers.

For the next three days we fixed ropes through snow-ice gullies averaging about 35° to a dip in the ridge just above our first day's high point. Here, in the light snow we had come to expect, we dug out a palatial tent platform; Logan, Vancouver, Foresta, and Saint Elias out a picture window to the west; Seattle and Disenchantment Bay to the south. A regular Ocean View Estate, utilities extra. Ken and I were the first residents of this new community and had the right to name it. After one night, a name was obvious; we lived in Schia Kussiat (Tlingit for cold mountain), elevation 9700 ft, population two. We were there because we fancied ourselves the rock experts. We adopted the coming rock section as our own and delegated to our companions the responsibility of keeping us and our endeavour well nourished. Group solidarity developed incipient cracks, big enough for RURPs and an occasional knifeblade. Rock expert, doubtful but maybe. The stuff we found for about 1200 ft above Schia Kussiat, never!

"No handholds? Dig some out with your axe. What have you got for protection? A six pin nest backed up by four nuts? Four pins and two nuts just fell out? Try going to the left. I know you don't have any decent protection for 75 ft but if you don't fix a belay pretty soon, I'm going to die of hypothermia!

" Well, we could try brushing away the snow and ice climbing, or chopping away the ice and rock climbing."

"I bet we could just pretend the snow will hold steps and wallow up."

"If you want to brave the terror factor, I'll pretend to belay."

For four days, Ken and I fixed rope over and around rotten black pinnacles until one chilly morning we rounded a delicate traverse to face nearly 500 ft of pale pink orthoclase. "I knew we would run into good rock higher up. This must be the granite that forms Kennedy's north ridge."

Doesn't look much like granite to me, but I can hardly wait to see what it is."

A 60° ice gully and a short snow bowl led to the base of the pinnacle. We were too tired to begin work that day.

By this time the rest of the crew had moved up to Schia Kussiat and had ferried loads somewhat higher. Randy and George got the

first crack at the pinnacle but managed only a disappointing 50 ft on vertical rock and ice in nearly 12 hours. The next day, Ken and I returned with enthusiasm dampened only slightly by the falling snow. We covered 70 ft of snow covered ice with the now common two handed wallow to reach a narrow ledge guarded on two sides by awe inspiring 3000 ft drops.

"You lead on."

"No, you lead on.'

"You do this pitch and I'll do the next one."

Ken led up over icy rock, one . .. two pins for aid through a narrow snow band to a hanging belay. I was impressed. I started up, declared the rock above unnegotiable in near white out and moved left on tension toward a corner. A handhold broke loose, and it was the 20 ft upside down pendulum blues again. I burst out laughing. Ken joined me. What were we doing hanging this mountain in a snowstorm? Next day the snow stopped and Randy finished the pinnacle; about 5.6, no more aid. That night we celebrated the end of the technical difficulties with Randy's special one bag curry. "But Randy, this is the third night in a row we're celebrating with your special one bag curry. How about something original like macaroni and cheese?"

We fixed lines to the top of the pinnacle but climbed in rope teams above that. One day of easy if wearisome snow climbing established steps to the site of our second camp in the large col at 11,600 ft. We called the place Anacrusis, point of suspended motion. It was a fine place to rest for a summit push, 3400 ft down and surrounded by incredible cornices. We dug our camp in very deep but the south winds had yet to really scream.

From Anacrusis we hoped to climb nonstop to the summit. Ken wanted to do the rest completely Alpine style, disregarding even the one rope Randy and George had fixed on reconnaissance. Randy and George didn't want to risk anybody's needless injury for an aesthetic question as silly as whether or not to use 150 ft of rope already fixed over dangerous climbing. Will and Doug sided with Randy and George. I vacillated. Group solidarity really opened up. Cracks held standard angles, four inch bongs. People wanted to do the rest completely Alpine style, disregarding even summit, some wanted to experience danger, others sought only a good time, and still others wanted to create a thing of beauty. For two days we stewed. Positions shifted. New options opened up. We grew farther apart. The climb itself finally began to bring us back together. We all wanted to go on and all wanted to be able to look back on the climb with pleasure.

Just before midnight on 4 July Ken and I set out to relead the pitch previously fixed. It went so quickly and smoothly that we felt guilty about the anguish it had caused. We fixed another rope beside the first and waited for the others. Higher there were knife edged ridges, crevasses, ice pitches from 30° to 60°, a short afternoon bivouac, and a little slogging through deep snow. About 10 p.m. on 5 July we reached the wind swept summit ridge and waltzed over to the summit at 15,015 ft. It was hardly climactic We were all tired, still sour from the earlier arguments.

Descent was clumsy—we were asking for an accident. By 5 a.m. when we reached our sleeping bag cache we could hardly stand up. We slept soundly huddled in a single tent fly but hardly felt refreshed after five hours. When we reached Anacruisis, we ran homeward, gathering pins, ropes, and food bags at a fast trot.

"Is this the mountain we climbed? What happened to all the snow?"

"What happened to the gullies we came up?"

"I can't believe the power those avalanches must have had. I don't even recognize the lower 500 ft of the mountain."

"Do you think the weather's good enough for a pick up today?"

"Get on that radio and ask for one at least. Tell them we have scattered clouds at 16,000 ft and 20 mile visibility."

"That's a damn lie!"

"Merely an exaggeration."

"Can't get contact. I guess the weather isn't great."

It snowed and the wind blew hard for four days. Our first storm hit only after we were off the mountain. In the St. Elias Range, we climbed for 20 straight days. There were snow showers on about ten days, clear skies on the others. On the mountain the wind blew one evening for about six hours.

"This is the fabled Saint Elias Range weather? I was prepared for storms two days out of three."

"Fabled only for its unpredictability, friend. Lets see when we get to fly out."

Four days later we flew back to civilization, welded our trailer back together and hurried off to summer jobs.

Chris Field

First ascent, north branch of central ridge on west face. Base (7300') to camp 1 (9700'): mostly snow, some ice, average 30°. Camp 1 to camp 2 (11,600'): mostly steep rock, 5.6, A1, some snow and ice averaging 50°. Camp 2 to summit (15,015'): snow ridges and icefields averaging 30°. All members reached summit on 5 July after 20 days climbing. Descent from 5 to 10 July, removing all but handful of pins and one rope. Hardware for fixing: 6500' 5/16" two in one nylon rope, 40 pickets and 10 snow flukes (few only used), 20 nuts, 50 soft iron pins; for leading: 2 very complete leading racks, 3 leading ropes; general: several large snow shovels, snow shoes (never used), 4 kerosene stoves, 12 gals, fuel, melt tarps (provided all water below 10,000'), 35 days food (all used).

Mt. Deltaform: North East Face

Chris' transmission gasped and died just as we pulled into Calgary. A check with the local repair shop confirmed our suspicion: the repair would take at least three days. The prospect of staying in Calgary for the Stampede weekend was uninviting at best. Jones and I both remembered the ice couloir in the north east face of Deltaform. We decided to try it, threw our gear together and were on the bus to Lake Louise in less than an hour. By evening we were under the face.

The face was obviously not in condition. It was plastered, with snow and avalanching continuously. Exhaustion and fear kept us from starting in the morning. By midday no big avalanches were coming down so we rationalized our way into starting at 5 p.m. With winter snow still covering the ice we climbed unroped until the last few pitches before the end of the lower part of the couloir. There we bivouacked, a 5 star site cut into a narrow snow arête flanked by 55° slopes.

Morning found us frontpointing up the upper couloir—thin ice over rock, bulges over 60°—always with a good screw or two for protection. Only small chunks of ice came down as the sun hit the face.

About 12 leads and seven hours later, we were under the top rock band—100 yards below us an enormous section of cornice cracked off and disappeared down the couloir where we had been an hour earlier. Another lead and we were under an overhanging chimney seated on a hummock of ice. Off came the summit cornice, crashing out over our heads. Five minutes later down came a large rock fall. Our thoughts could be read in our eyes. Thank God we hadn't procrastinated another half hour in getting started!

Chris stemmed up loose flakes of the chimney getting bits of manky protection here and there. We had no hauling line, so he cut off the pitch at 25 metres. Then I took my turn. The pitch started with some very difficult, but good overhanging rock. Then came a groove, not very steep, 65°, but with only bits and pieces of rock sticking out of the thin ice. No crampons, no hauling line, no protection. Metres of chopping holds, balancing carefully—so carefully—between them. Hours passed in tense concentration until the rope ran out, just as I heaved over the cornice on the ridge. It was the most horrible pitch of my life.

Chris followed on prussik as I anchored the rope with my body, shivering in the wind, wondering if I could hold out until he made it. Then I had to go down after my pack.

Finally we were on top at 6.30. It had required eight hours to climb two pitches. With hauling line and jumars it would have been halved. By night we were on the summit: by that time we should have been down.

The next day we raced to get off the mountain before the helicopter came looking for us. We spotted it in the afternoon as we were starting the last rappel off Neptuak. "Our bodies are OK," we waved. It's our minds that are bruised.

George Lowe

North east face, Mt. Deltaform, ice couloir. NCCS IV (?) F8 or 9. 8 and 9 July. Chris Jones and George Lowe.

Huandoy Norte

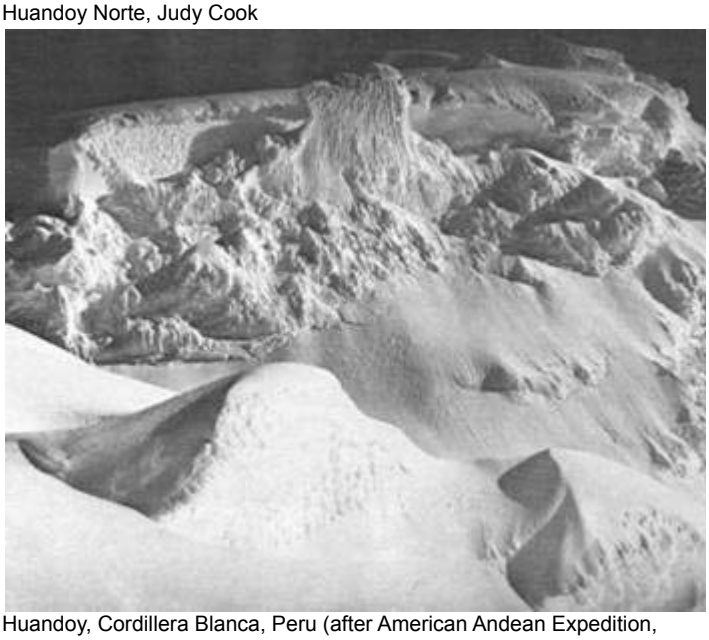
Huandoy—a fine lofty princess of four peaks, each named for their relative compass direction from some imagined core each formidable, each over 20,000 ft. The north peak, highest at 20,981 ft, dominating eastern approaches, least accessible, most massive, became the objective of the Peru 73 Canadian Expedition. We were a motley crew of leftovers. Originally Scipio Merler, Fred Douglas, Paul Starr, Davy Jones and myself, plus six others, were scheduled for the long awaited attempt on Batura Mustagh. In March Pakistan refused permission to enter that region but we five still wanted to climb. The B.C. members met and decided on Peru, the objective to be either Alpamayo, Huandoy, or Yerupaja depending on conditions in Peru when we arrived. Neil Humphrey, though in Mexico, was commandeered as our sixth member. From then until 27 May Vancouver was a quiet bustle—Dave doing food, Scipio equipment, Paul eventually doing himself and his bicycle both in ... now we were five (we hoped Neil would meet the plane in Mexico City—if he got his mail!?). Sure enough the unmistakable climber emerged from the holidayers in Mexico and we were finally together.

Two days in Lima completed our provisions and gave us a chance to visit some favourite spots and tour some of the finer sections of the old city.

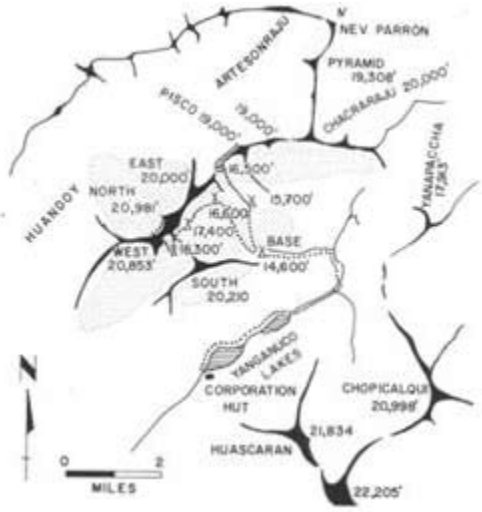
We hired a small bus for the journey to Huaraz—a quick and uneventful trip. Three days in Huaraz enjoying the scenery, mountain air, and luxury of the Monterrey hot pools. We learnt there were two parties (10 people) on Alpamayo, supposedly an American team on Huandoy, a Swiss party sitting below waiting for conditions to improve, a Scots team supposed to be vying with an Austrian party for a first ascent of Huandoy South, South Face. We discovered a Polish party leaving the valley as we arrived and a group of West Germans. Busy wasn't the word! A council of war quickly agreed that if we had to share a mountain Huandoy from the east offered the least cramped quarters. Yet another discouraging rumour—an American base camp for an assault on Huascaran had been 'ripped off in the current lingo. A base camp guard was advisable. Several parties visited our base camp while we were absent, either on Pisco or Huandoy. None saw our base camp porter.

Early on 3 June we were ready and waiting to move up to the Yanganuco Lakes (12,100'). We hired a bus for 8 a.m. At 11 Neil and I went to Huaraz to rouse the Hefe . . . Hefe was not in but would be for lunch. By 1.30 we had a bus though all wondered how far it would get us. Forty-five minutes and two flat tires later a tired engine gave out; 3.45 p.m. after phoning Huaraz a second bus and we resumed the trip to Yungay and thence the climb into the Yanganuco valley. A much better bus, it nonetheless just made it to the First Lake before the drive shaft was so loose the driver feared to go further. Fortunately we could use the corporation hut

Huandoy Norte, Judy Cook



Huandoy, Cordillera Blanca, Peru (after American Andean Expedition, 1954), Judy Cook/ M. Irvine



Scipio enroute to camp 1. Huandoy Norte behind, Judy Cook

for the night. Warmed by a Coleman and with a good supper we were on our way.

We had arranged with the porter Osvaldo for burros from Yungay. While some of us rushed madly around photographing everything from frost on grass to the north ridge of Huascaran, virtually on top of us, the arrieros loaded the animals. We were away by 9, up a truly exquisite valley. Smooth towering granite walls frame the distant Cordillera Negra. High pale mountain lakes are sunk in multitudes of flora from the polylepus to scented lupine bushes. Near the broadening of the valley we turned north and began to climb into the quebrada leading west to Huandoy. North rose the Pisco ridge. The Portadores wanted to go right to base camp but we finally halted the cavalcade at 13,300 ft. Dave and Fred were both feeling the effects of a long, foodless hike. We were all ready for a long siesta beneath Chopicalqui's majestic face.

The following day was misty, drizzly and atmospheric but as we moved over the headwall of the quebrada, remains of a terminal moraine of ages past, the clouds lifted to reveal the great white face of Huanday Norte. Base camp (14,600') was set up under a convenient granite boulder half the size of a small house. Next day as Dave's condition had not improved he retired with Osvaldo to 12,500 ft until he was better. The rest of us unpacked and took short trips up to the moraine edge to view an unpleasant half mile gravel hilly wilderness or up the east ridge shoulder of Huandoy South to look on or up the vast white crevasse interlaced amphitheatre. Sharp rock outcrops highlighted long, multi-fluted flanking ice ridges. At the head of the amphitheatre a huge vertical icefall guarded the entrance to the col between the south and north peaks, the only break a well-cleaned chute on the right. Our eyes always were held here. Even were there a route through the lower glacier how did we get over this?—and get a camp over it?

While David was recovering we decided to climb Pisco. Her 19,000 ft would help us acclimatize and perhaps give some different views of the lower Huandoy glacier. On 8 June with 60 Ib. loads we set off up the moraine into the wilderness of rock covered glacier. For two hours we fought the hot greyness. I emerged done in onto the icefield (15,800') leading to the Pisco-Huandoy East col. We camped by a wee lake 100 ft lower. Fred and Neil, not the least bit tired, set off to explore the ice and snow for the remainder of the afternoon. The following day we pushed up to 16,500 ft and set camp below the col near a great granite face. A nagging headache persisted but I joined Fred and Neil on the col to practise self arrests and belays and to revel in the view across the quebrada Parron. Next morning I could scarcely stand for altitude sickness. Scipio offered to wait another day while Neil and Fred went on to the summit. By 1.30 they were romping back. The climb, although without technical interest, offered excellent views until the 10 a.m. cloud cover settled. The ridge is surmounted by the splendid gendarmes and glistening cornices so typical of Andean mountains. The summit would offer superb views of Cracraraju, Yannapaccha, Chopicalqui. and over back toward Artesonraju, Pyramid, and the Nevados Parron and Caras. Neither group reached the summit before virtual whiteout Next morning was perfect—24°, clear, pale blue sky and crisp snow. Scipio and I set off up Pisco, Fred and Neil for base.

Back at base we began laying plans for Huandoy by the cold

light of the Coleman. Doubt had nagged whenever we examined the face in the bright noon sun but Dave. Fred and Neil returned from a recce up the base of the East Peak to 17,000 ft which looked like a good starting point. The'd even spotted a possible new route on the East Peak to do later! With spirits high we adjourned late to bed.

Wednesday the 13th we all took the first loads to set up camp 1— just cross the glacier then up "a short stroll" Fred had said. I thought the short stroll would never end. On and upward 1100 ft from the far side of the moraines. At 16,600 ft we set camp 1, Return was superb in late afternoon—hardening snow and packless. Even the moraine and glacier weren't as wicked and the weather, cloudy until late evening, had co-operated. Next day Fred, Neil and myself carried equipment to camp 1 and returned to base again while Scipio and Dave moved up for good and planned a recce across the face on the edge of the moraine and watch two small black flies on a white field arduously work their way into a labyrinth of crevasses then retreat to try another way, so blatantly a dead end from our vantage point below. Osvaldo had rejoined us and now told us about a 1971 expedition which supposedly spent four days looking for a route through from this side and had eventually retired. Benjamin Morales, the Peruvian glaciologist, had cautioned us in Monterrey that to his knowledge this route had not been done in 10 years. However in camp 1 that night when Scipio and Dave returned they weren't at all discouraged. We would have to traverse higher but there was nothing insurmountable and much of interest there!

June 15 Scipio, Fred and Dave set out again while Neil and I returned to the moraine to bring up the last of the provisions and gear Osvaldo was given instructions for our return and we bade him good-bye until we either had done the peak or given up. We returned to camp 1 by 2 p.m., grilled into wet mops; at 2.05 the temperature dropped almost instantly 40° as we were plunged into shadow and the long afternoon. The others returned shortly in high spirits. The first icefall barrier was through and they'd found the only spot possible for camp 2. By now we were becoming gourmet cooks on our mixture of Peruvian and Canadian food and this night we ate royally.

Next day (17th) we all hauled loads to camp 2 (17,400'), a perfect spot protected nicely from above by a small hill/lump with a handy crevasse for a very exposed John. The route to camp 2 was "interesting"—weaving among numerous crevasses, climbing séracs, dodging multitudes of small bullet-like rocks which had left their perches high on the east face of the North Peak above. It was our first climbing and whetted our appetites for the broad icefall beyond.

The 18th we moved with record speed into camp 2 and earned a half-day's holiday to contemplate the next move. The chute to the side of the icefall had not avalanched recently but was badly overhung by séracs. Fred and Neil set off later in the afternoon to have a closer look and afforded the rest of us endless entertainment. What were they doing? Four days later when we moved on we discovered the snow they'd been wallowing in!

Meanwhile we were trapped. June 19 didn't dawn properly. The thick cloud covering the lower valley gradually encased us and as soft snow enveloped our small camp we quickly declared a Day of Rest. In the tents we alternately froze and fried depending on the cloud thickness; at one point we got the larger one to 98°. Sleeping could occupy a morning but not all day and eating was taboo so we took up Davey's card game "Drak!" with a will, only breaking when five eager bodies ran out of air in one small tent. June 20 was a little better but at 5 a.m. on the 21st I poked my head out; "It's clear" I shouted to a white world but only Dave broke the grunts and snores. We dug ourselves out and rung all out to dry. Avalanches thundered off the ridges. By 10 the clouds closed again and by early afternoon it was snowing. Despite this and thanks to Scipio's prodding we got ready to move the next day—we were running short of time and food.

Friday dawned not as well as the previous day, still the word was "go". The chute above had avalanched slightly the previous morning and we wanted to be early through. We would make one carry to set up camp 3 on the col. It was slow work. By the chute I had to share my load with Dave and Neil. Mist closed in and we saw only blurred figures at 20 ft and occasional ice walls to shelter behind. The icefall was surmounted by 2—hard work but nothing near impossible and much shorter than it had looked originally. Now began a long plod into the col in poor visibility and frequent thigh deep snow. We saw a wand in the distance but never got around to investigating. There had been signs of the Poles on the glacier and in the chute but nothing above the col. At 3.30 we set up camp in precision order and in succession downed lunch, tea and supper while fresh snow fell.

Saturday the 23rd called for breakfast in bed—granola again. Away about 7 behind Neil wading waist-deep up the first slope to the col between the west and north peaks—a huge expanse cut by plunging crevasse walls. It felt like a quarter mile round each one, all on semi-level grade, all in deep heavy snow. At the col a fierce wind struck from the north and enveloping clouds grew. We tried to follow remembered outlines searching for a mist hid peak. The cold, even in duvets, was fierce. At 2 p.m. Scipio and I reached the others perched on the summit—then a higher point revealed itself about a half mile beyond. We discussed the merits of being on the summit. The purists, Fred and I, clinched the argument and off we all set. The final steps were short steep and made all the difference. We huddled on top in wind and cloud unable to see 10 ft for our labours. By 3 we were floundering down to camp 3 just at dusk.

Next day we broke camp, made a quick retreat to camp 2 by fixed lines, packed up again and retreated to camp 1. Deep snow again — in places the route wands were covered. In very poor visibility we relied much on memory to wend our way back among the crevasses that had taken Scipio and Dave so long to work through. Considering all that had happened since we'd left camp 1 was in good shape. After an excellent three course feast we talked far into the night. Far to the east lightening flashed over the Amazon headwaters.

Unfriendly weather brought forth curses as we rose next day. We made a quick trip to base to find all covered with almost a foot of slushy snow. Dave, Fred and Neil loaded up with the remaining provisions and set out back up the mountain to try a new route on the east face. By 5 p.m. light had faded. Cloud sat in the valley, rain drizzled. Warm snorting donkeys, arrieroes shouts— sounds

from another world. Harsh contrast to my vision—camp 1 on the great chilling plateau.

Judy Cook

Sometimes You Know—Sometimes You Don't

I knew it was the crux. It had taken two days to get here, in some ways much longer. I was 60 ft out from Chris, between us was a tied-off knife blade, a small part of it into the incipient crack. The rest of its length protruded out and down, but it would have to do. It was like walking down Granville Street with every neon sign selling the same message . . . "It won't hold a fall."

I tried to calculate it. I'd drop 25 ft if the pin held, and I could extract myself easily enough. But if it didn't, I'd go 120 ft, probably hit the ledge 30 ft below Chris and at best be seriously hurt. Perhaps 15 minutes had gone by and I hadn't moved; 19 years of rock climbing was working in my head—I just didn't know if I could get over this last bit or not. There was no bolt kit, no crack—not even a cliff hanger helped. It was free it or go down. Going down was tricky but no major problem. But could we go up?

There seemed to be a microflake at knee level on the steep wall. Was that another six ft above it? Eyes inches from the rock, the hand caresses over it. Yes! A ripple perhaps 1/32nd of an inch ... but a ripple! Somewhere in the deepest being the pro's and cons of justification are being weighed. "You've stood on as small things before," the pro's say. "I know, I know", you tell your other self. "But this could lead nowhere. I wasn't facing death then ,or maybe I was. I don't know. But that was then, this is now. World do I love life! Why do I come up here anyway? There stupid, up there, above the right hand." The demon pro's never let go. The judgement must be exact, precise, infinite. I stood on tip-toe feeling very secure on the 1/2 inch ledge I was standing on. Strange, when I'd first reached it I was apprehensive about stepping onto it. Now, 20 minutes later, it felt like a ballroom floor. I was safe, if only I didn't try to use the microflake. Yes! Yes! It was there—a little finger hold. I wouldn't quite reach it from the ledge but it was there, inches above my reach. The years of climbing, worn out klettershue, discarded ropes and the voice of judgement convinced me it was there. But I couldn't quite reach it.

This was no boulder problem, no jump off and try again game. It was the ability to move up and judgement of whether you can or not. You get one chance in the game. You judge right the first time or you don't play again. The left foot went to the microflake and immediately skidded off. "How you doing up there man?" Chris secure on his ledge, two comfortable pitons for a station and basking sunshine. "It's HAIRY buddy, I just don't know about this." No answer, then—"How's that pin?" "The shits," I call down ... no answer.

Again, for reasons unknown, the left foot creeps toward the micro-flake. Slowly ease my weight to it and even get a few pounds off the right foot before retreating back to the ballroom floor. It had held! Incredulously my left foot had held!

I lit a smoke, trying to get the green taste out of my mouth and waiting for it to happen. What a beautiful thing a horrible thing like a cigarette was at a time like this. Far down in the valley a crow glided. Below him little toy cars weaved their way through the forest following a white line that never ended. The cigarette finished, with no conviction to do or die, but rather attracted as to a magnet, I again brushed off the little hold. The left foot went up, weight eased over just right, right hand reaching for the sky. I touched it, tips of fingers deep into its ripples. The right foot is 10 inches from the ballroom floor ... 15 inches! Don't come off now left foot. Please don't come off now. The neon signs are exploding in the head and you know, absolutely that the piton will not hold a fall. You're committed, it's only 15 inches to the ballroom floor but there was no getting back.

To the onlooker you suspend there, climbing to nothing, defying gravity to the extreme. Perhaps a suicidal maniac with a death wish, at best a misled youth surely to die. The tricouni set would call you an engineer, safe on your ladder of pitons and hardly climbing at all You reach a state of near total fusion with what you're doing. Every fiber of the body is instinctively controlled to place the fingers a few inches higher to the hold that must be there. To breed your left foot with the microflake, to seduce it and so to be a part of it. No longer is anything done consciously. The years of training have taken over. The instincts are in control of your body, mind, nerves and soul. They creep your fingers upward even as you know you're moving off, you're on the brink. There is no time but the minute part of the second difference in which is first, the left foot coming off or the fingers touching the ripple above. There is no distance but the 15 inches back to the ballroom floor. There is no problem in life greater than the placing of a finger an inch higher. Then it's there, the left hand goes out, a good hold, mantle up ... it's over.

We were on easy terrain, moving fast to the top and I wondered. What if we'd climbed to the crux and retreated off? Did we climb to the crux or were we leading up to the climb? Did we do a two day route? A 200 ft wall? Or did we do a one hour climb, 15 inches high?

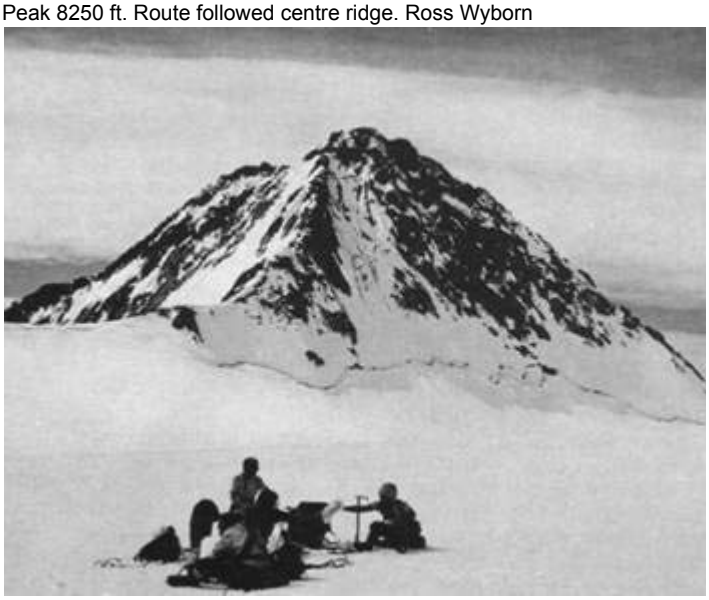
Jim Sinclair

Chutine Lake

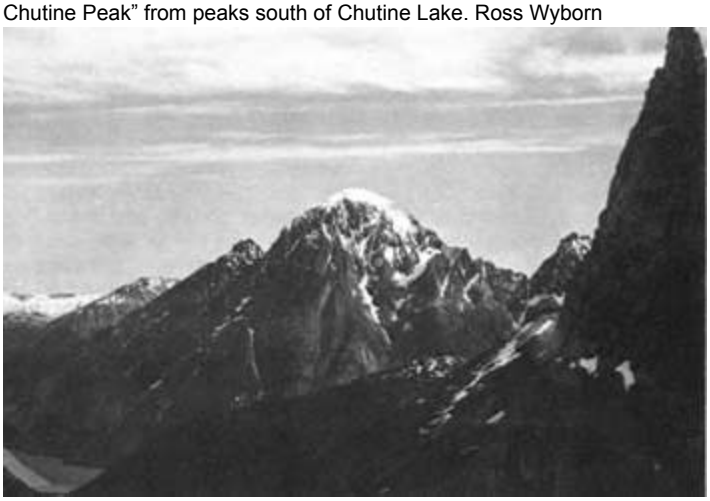
A shower of spray hit the windows as the big plane skimmed across the surface of the lake. On our right, smooth granite slabs dropped into the water from the peak 9000 ft above. Food and equipment unloaded onto the shore, the hot sun started to melt the chocolate and cheese, aircraft droned into the distance, the mosquitoes began their persistent attack.

A map search for unclimbed peaks in the B.C. Coast Range revealed Chutine Lake at 950 ft on the Chutine River, a major northern tributary of the Stikine. Our group quickly grew to seven: Alice Culbert, Marilyn Starr, Fred Douglas, Nigel Eggers, Mike Feller, Margriet Wyborn and myself. On 13 July we boarded the ferry in Seattle with 22 packs and duffle bags containing 3 weeks food and equipment. Late on the 15th we arrived in Petersburg.

Peak 8250 ft. Route followed centre ridge. Ross Wyborn



Chutine Peak" from peaks south of Chutine Lake. Ross Wyborn



Rafting down Chutine Lake. Ross Wyborn

A Grumman Goose, an ungainly amphibian able to accommodate the whole team plus gear in one trip, was chartered from Alaska Island Air. The flight up the Baird Glacier gave spectacular views of Devils' Thumb and the ice clad peaks of Burkett and Burkett Needle. The landscape suddenly changed as we turned up the Stikine and Chutine Valleys.

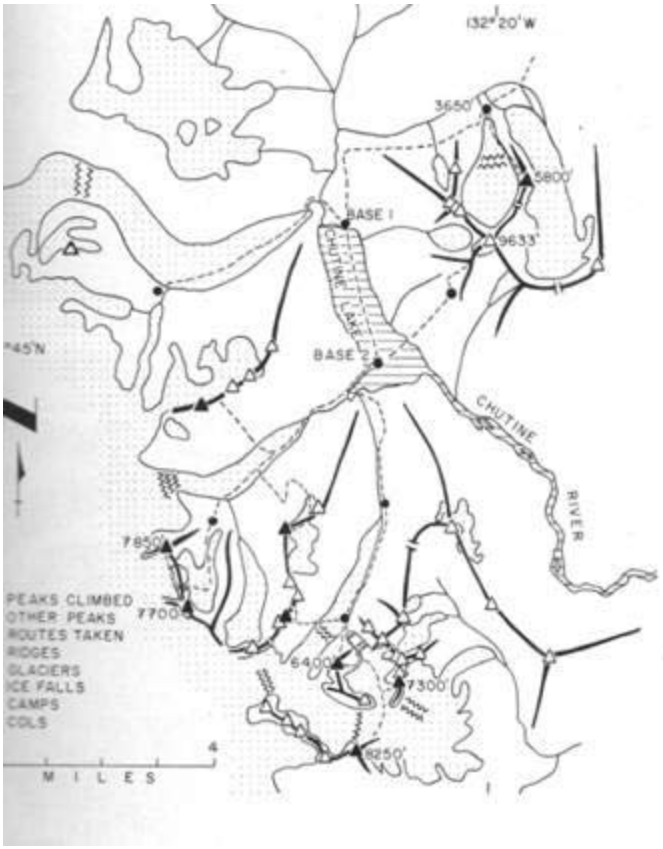
We established our first base camp at the northern end of the lake and turned to the highest peak in the area, a 9633 footer right alongside the lake. "Chutine Peak" was an obvious name. No easy route was visible from camp so with four days food we set out to find the "easy back-side route". About one mile north of the lake we climbed, slowed by steep slopes of thick devils' club, alongside a creek draining from the pass at the head of the Barrington River. On reaching a shoulder easier ground followed to the snout of the first big glacier where we camped. A glimpse through the clouds of our objective, still 6000 ft above, revealed steep ice-clad ridges. Next day a reconnaissance confirmed that there was no "easy back-side route." An attempt on a triple-summited peak to the north west of the main peak, failed in a whiteout. Our food ran out so we returned to Chutine Lake.

Having accomplished nothing from this base camp it was decided to move to the other end of the lake. Fred and Nigel set out in our small rubber raft while the rest of the party spent two days exploring the large glacier west of camp. The weather was poor and no peaks were climbed. Fred and Nigel constructed a raft from six empty helicopter fuel drums and lumber from the remains of an old survey camp. They rowed the raft back up the lake and we loaded up its 8'x 14' plywood deck. On 23 July we set off down the lake with Alice and Nigel in the rubber dingy, the rest on the raft. Four people rowed with oars made from 2" x 4" for four hours to reach the peninsula Fred and Nigel had chosen. Now the party split. Fred and Mike attempted "Chutine Peak" directly from the lake while the rest of the party visited an interesting group of peaks south of the lake. The "Chutine Peak" party paddled across the lake and ascended a series of ledges and gullies through sparsely vegetated cliff bands. About 3000 ft above the lake they levelled a camp site on a narrow ridge. With an early start next morning the two climbers traversed a ledge into the main couloir on the east face. The snow was sloppy and sugary, and 15 ft deep avalanche grooves scoured the couloir. Climbing quickly they kept to the rotten class 3 rock where possible. It started to snow and visibility was reduced to about 50 ft. Finally at about 8200 ft they decided to retreat. "The most miserable mountain I have ever tried to climb," is how Mike described the peak. The following day they returned to base camp and spent two days climbing two peaks south west of camp.

Meanwhile we in the other party penetrated a forest of giant devils' club and swarms of biting red flies, to establish a camp at the snout of the glacier coming in from the south. On 25 July we climbed an outlying peak of 6400 ft which gave us an idea of the geography of this complex "knot" of mountains. On the same day camp was moved to a snow patch on the glacier about two miles closer to the peaks. The highest of the granite peaks was the target for the next day. A cirque below the peak was gained using a snow couloir to avoid an icefall. Reaching a shoulder of the ridge we were puzzled by foot prints. After an enjoyable scramble to the summit on good granite rock we found a cairn and note revealing

Nigel and Marilyn roping up below icefall. “Complex Peak” behind. Ross Wyborn

Chutine Lake area. Ross Wyborn/M. Irvine



the full story. Terry Rollerson and Chris McNeil had climbed the peak six days before us. They were working for a mining outfit with helicopter support. The note gave the name “Complex Peak.” Our estimate of the height was 7300 ft. A higher peak could now be seen about one mile further south. Alice noted that the closest ridge looked “chinsey.” Of course we didn’t know what that meant so decided to try it next day.

Using the “Complex Peak” route we climbed onto a large névé further south. An eating stop was called at the bottom of the short north east ridge of our objective. Avalanches frequently swept down the flutings on the east face, eliminating a possible snow route. A scramble up the ridge led us to the first step. We roped up again and Alice led an enjoyable granite pitch. Expecting the difficult section to be short we didn’t hurry. Above the rock deteriorated to a pile of rubble and we were forced to dig trenches in the soft snow between rock outcrops. On one horizontal section it was necessary to dig a route across the top of a large cornice. Steep loose rock continued and it was not until 21.45 that we were all on the summit. After estimating the height at 8250 ft we started the slow process of rappelling down in the dark. Solid rappel anchors were difficult to find. Fortunately, summer nights are short in this area and morning light started to creep across the sky while we were making our fifth rappel. Two more rappels brought us to the bottom of the ridge and we ambled back to camp for a rest day.

On the 29th we were due back at base but were tempted by a small, nicely-shaped granite peak on the opposite side of the valley. The plan was to climb it and return to the lake on the same day. Following heather benches to the snow, we had lunch on a col north of our objective. The granite ridge proved to be most enjoyable, with pleasant 3rd and 4th class climbing. A huge chockstone about the size of a small house was wedged into a gap just before the summit. Climbing under this presented the last of the difficulties. Needless to say, we didn’t arrive back at camp until 22.30 so it was next morning before we returned to base camp.

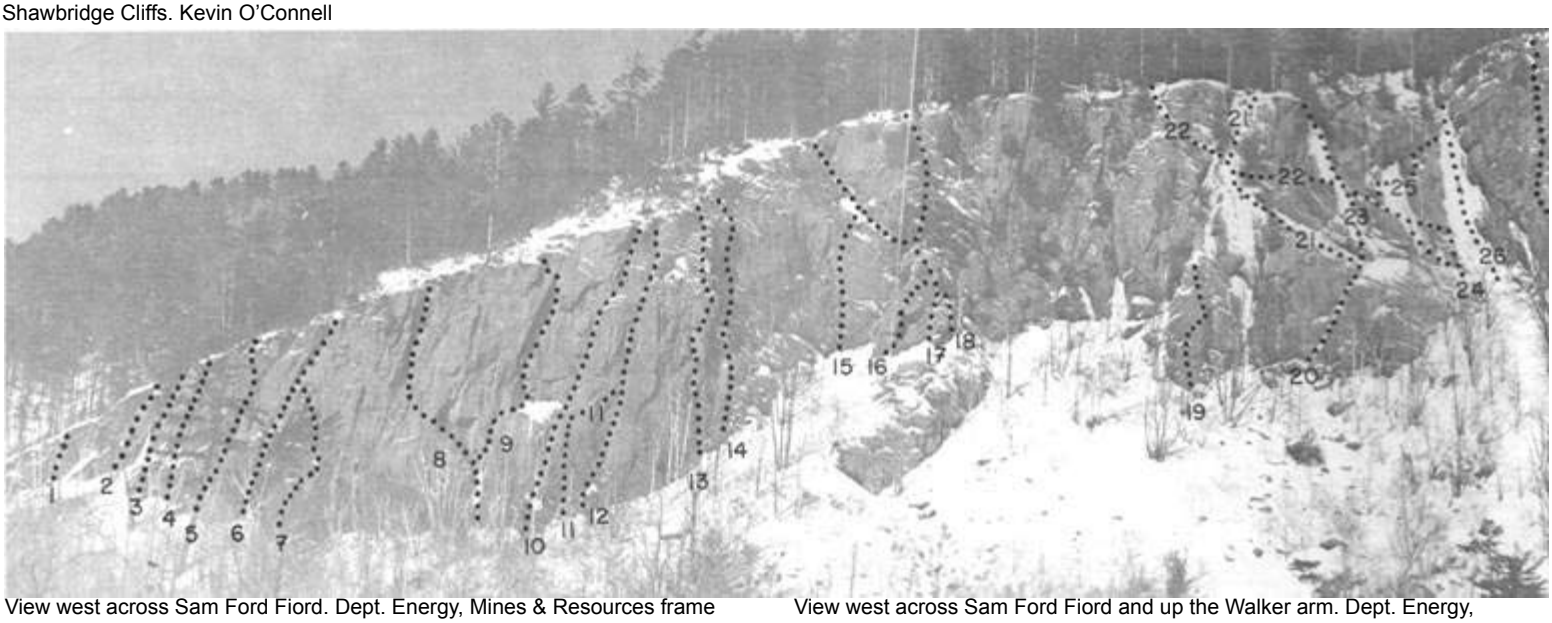
The last couple of days were spent climbing two peaks 7850 ft and 7700 ft on the edge of the icecap south west of base. Some interesting snow and ice climbing on a steep narrow glacier led to the icecap from which the summits were easily accessible. Returning to the lake we were surprised to find grizzly tracks on top of our own foot prints on the sandy river flats. During our stay we saw no bears, although we found many fresh tracks. Bad weather delayed our pick-up for a few hours on 3 August but eventually the plane landed and we were whisked back to civilization from our paradise in the Chutine.

Ross Wyborn

A Climber’s Guide To The Shawbridge Cliffs

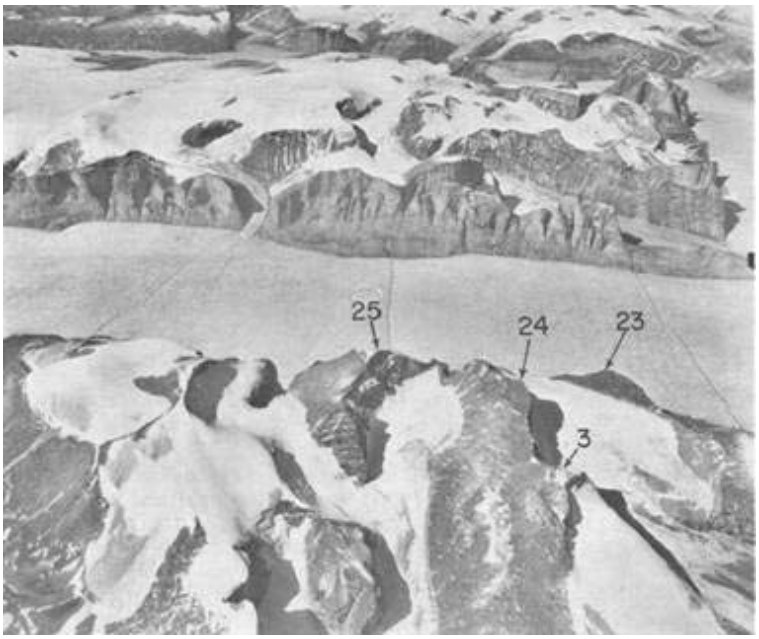
The Shawbridge cliffs have become, in recent years, an increasingly popular area. The face is easily accessible, and due to its western exposure, is often free of snow in winter and always receives light late into the day. Recently a climbing access trail has been constructed along the base of the cliffs.

Shawbridge Cliffs. Kevin O'Connell

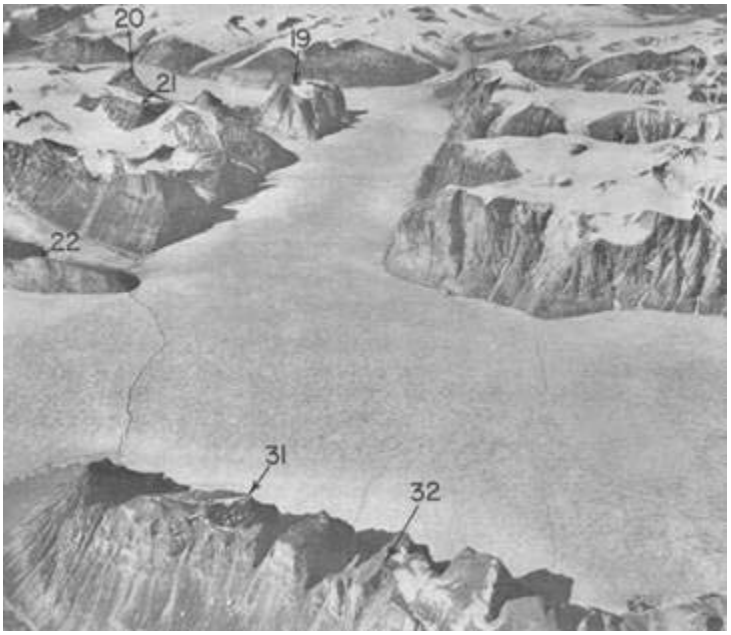


View west across Sam Ford Fiord. Dept. Energy, Mines & Resources frame T215R-105

View west across Sam Ford Fiord and up the Walker arm. Dept. Energy, Mines & Resources frame T215R-100



View east along Revior Pass towards Elington Fjord. Dept Energy Mines and Resources frame T215L-103



View east, Revior Pass and Elington Fjord on left, Ayr Lake centre, Clyde Inlet background. Dept Energy Mines and Resources frame T318R-164

The rock is a mixture of solid and highly fractured granite. On many of the more established routes much of the dangerous loose rock has been cleared off. This does not apply to the harder and newer routes and consequently, hard hats should definitely be worn when climbing on the cliffs. The rock is steep and overhanging in places, although where the rock is good, the holds are excellent. While several routes have pins fixed in place most have been climbed almost entirely with the aid of chockstones and nuts. While the trend here is clearly towards climbing clean, if pins are required, wedges, knifeblades and small angles will be found to be the most useful.

While the cliffs are naturally divided into several sections all of which have routes completed on them, this article deals only with the climbs on the main and most popular escarpment. Routes vary generally from 50 to 350 ft and provide both interesting and challenging eastern granite rock climbing. One additional caution: learn to recognize poison ivy, abundant in the scree at the base of the cliffs. The base trail is appropriately named the "Ivy Way." Fall is definitely the best climbing season although the cliffs are regularly climbed in the spring and winter. Summer climbs generally depend upon the degree of harassment from insects, however as partial compensation, many cool and inviting lakes will be found nearby.

The Shawbridge cliffs are located about one mile east of the town of Shawbridge, about 40 miles north east of Montreal and can easily be seen from either the Laurentian Autoroute or from route II. One may park at the train station and follow either the train tracks or the numerous trails at the edge of the nearby woods. The McGill Outing Club maintains a clubhouse in Shawbridge and maps of the area may be obtained through them. Write in advance for accommodation, if so desired, c/o Student Centre, 3480 McTavish Street, Montreal, P.Q.

After completing a climb, an easy descent may be made via a trail running along the top of the cliffs. Refreshments may be obtained back at the parking lot at the ever popular and tolerant Moccasin Hotel. Route descriptions have not been detailed in this article due to space limitations and the listing of the routes run from left to right facing the cliffs (north to south). An attempt has been made to grade the climbs using the National Climbing Classification System (NCCS). All of the climbs can be done easily in a day and generally a party can climb several routes without difficulty.

It is inevitable that as climbs become more established and routes become cleaner, safer and better known, that the ratings may be downgraded. Present ratings are objectively based upon comparisons with ratings on similar climbs elsewhere. Above all, the climbs on the Shawbridge cliffs are varied, interesting and enjoyable.

1 Jam Crack, I, F7, 1972, K. O'Connell, J. Sanford.
2 Slack Crack, I, F5, 1972, K. O'Connell, J. Sanford.
3 Kiss Me Quickly, I, F5, 1966, U. Embacher.
4 Troll, II, A1, F5, 1972, K. O'Connell, J. Sanford.
5 Necronomicon, II, A2, F5, 1972, K. O'Connell, J. Sanford.
6 Red Squirrel, II, F5, 1972, K. O'Connell, J. Sanford.
7 Arvo, II, F5, 1970, A. Koppel, J. Kraulis.
8 Animal Farm, II, F6, 1972, K. O'Connell, H. Bussey.
9 Lloigor Corner, II, A2, F5, 1973, K. O'Connell, H. Bussey.
10 The Silencer, II, F6, 1968, U. Embacher, L. Brown B. Poisson.
11 M-C, II, F6, 1970, C. Schlacter, M. Schneiderman, J. Kraulis.
Hyperboreal, II, A2, F6, 1972, K. O'Connell, H. Bussey. Direct start to route 11.
Cthulhu, II, A2, F6, 1972, K. O'Connell, H. Bussey.
Difficult overhangs on prominent corner buttress.
14 Stagiere 72, I, F5, 1972, K. O'Connell, C. Schlacter.
15 Ketchup, I, F6, 1968, J. Kraulis, P. Greenhough. No free ascent.
16 Triangular Chimney, I, F4, 1966, U. Embacher, P. Golightly.
17 Beginner's Pinnacle, I, F4, 1966, U. Embacher, P. Golightly.
18 Variant of route 17.
19Hariplunk, II, F6, 1964, U. Embacher, P. Golightly.
20The Ramp, II, F5, 1964, U. Embacher, P. Golightly.
21 Lower Traverse, I, F4, 1970, K. O'Connell.
22 Upper Traverse, I, F4, 1970, K. O'Connell.
23 Miche's Perch, I, F5, 1966, U. Embacher.
24 Silvy Slabs, I, F4.
25 Chris's Exit, I, F5, 1970, C. Schlacter, J. Kraulis.
26 Little Eiger, I, F4, 1957, B. Poisson, R. de Repentigny. Mixed rock and vertical ice in winter.
27 Little El Cap, II, F6, 1970, C. Schlacter, J. Kraulis.

Kevin O'Connell

Baffin Island 1973

Imagine yourself flying towards a range of mountains on Baffin Island. You have planned for two years. Now you sit next to the pilot as you are supposed to know more about the area than anyone else, and no one has ever landed in the place you want to go. So you fly over the tundra, hardly any time to look at the icebergs grounded on the shores of Baffin Bay and held in the land-fast ice. Two days before you talked to three different people in the village of Clyde, who supposedly know the area. They all said, "You can't land there!", and all gave different reasons.

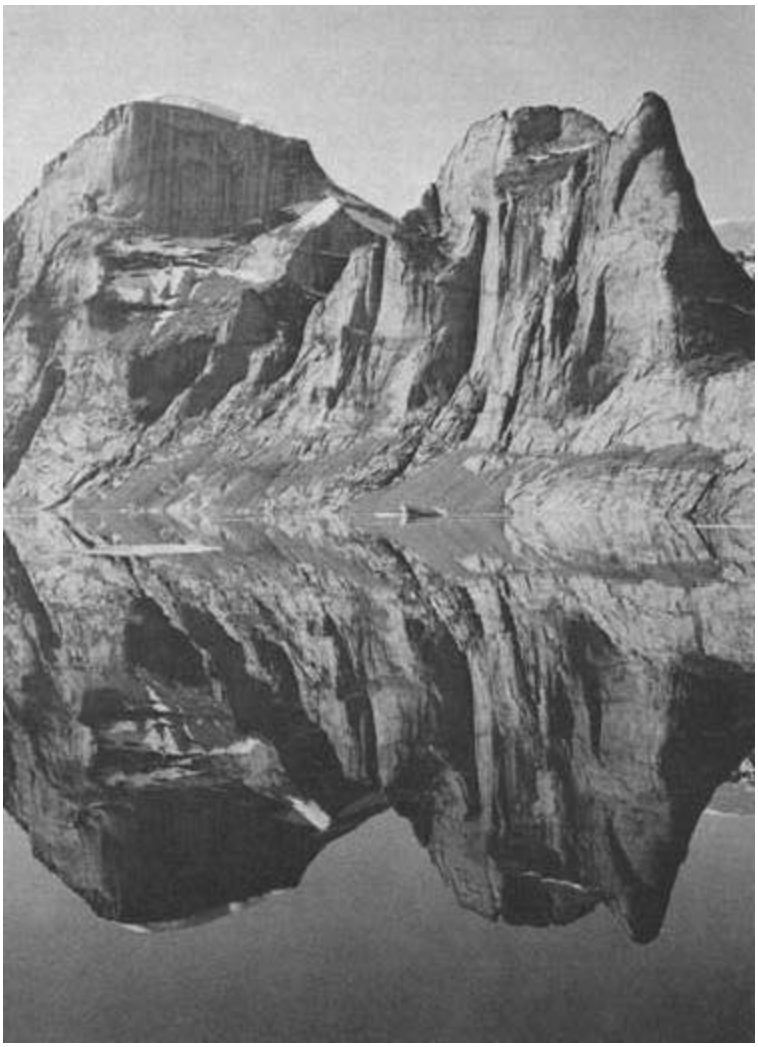
We plan to land on the sand and boulder flats near the head of Swiss Bay on Sam Ford Fiord but are told that: 1) they are still covered with aufeis formed by the river overflowing, 2) rafts of ice at the head of the bay are piled too high and 3) the flats are at an angle of 15 degrees. After agonizing discussion we decide to try anyway; we cannot get there by any other means.

We fly in from the east, over the east end of Ayr Lake, past a fine range of mountains which has not been visited at all; past the magnificent Cookscomb and Eglinton Tower and into Revoir Pass and our first glimpse of the mountains south of the Pass near Pioneer Peak. We catch sight of the flats and to our immense relief there is neither aufeis nor rafted ice on them, and they are horizontal. We might land!

We landed at 1900 h on the first dry land from the head of the bay, a strip of sand and small boulders slightly south east of the

Peaks in vicinity of Sam Ford Fiord. Pierre Langevin

Broad Peak and the Unnamed Tower to the north from across Sam Ford Fiord. D.P. MacAdam



middle of the flats about 300 by 15 ft. The following three weeks we covered the whole area of the flats on foot—there were no other places to land.

By 2130 h the second load arrived. The best campsite near the head of the bay was 1/4 mile south east of the landing strip on a dry gentle slope of mixed sand and boulders with talus slope shoulders both up and down valley to protect from wind and blown sand.

The expedition originated in the desire of the Ottawa Section to explore a range of unclimbed mountains. The eastern Arctic seemed a suitable objective. There are many fine mountains still unvisited around Pangnirtung Pass but we wanted to try a relatively new area. After studying maps, air photos and accounts of preceding visits, we chose the area of Eglinton and Sam Ford Fiords, on the middle of the east coast of Baffin Island about 60 miles west of the settlement of Clyde.

Two climbing parties had visited the area before us. On 21 August 1934 four men landed from J. M. Wordie's expedition ship to the shores of Baffin Bay. M. H. W. Ritchie and P.O. Baird, then a student at Cambridge, traversed Pioneer Peak up the north face and the north east ridge and down the south west face, making the first ascent of a significant mountain on Baffin Island2. Later the same day Sir John Hanham and T. G. Longstaff climbed Eglinton Tower, a spectacular rock tower at the head of Eglinton Fiord, via glacier no. G392 and the south buttress.

In 1950 P. D. Baird led a major expedition to the area of Clyde to explore the geology, geography, glaciology, fauna, and flora of the area and of the Barnes Icecap3. Three Swiss climbers from the Swiss Foundation for Alpine Research, H. Rothlisberger, F. Elmiger, and H. R. Mülli, and an American, M. H. W. Ritchie were part of the expedition and spent three months in the mountains being "socked in for days and weeks," but they managed 15 first ascents4 and the second ascents of Eglinton Tower by the original route and Sawtooth Mtn. (2950 ft). The ascent of Sawtooth Mtn. on 26 May was probably the first ascent on Baffin using skiis. The mountains they climbed from their two base camps, except for two on the north west shore of Stewart Valley, are marked with a circle on the map and numbered. No. 18 (4600 ft) was not reported4, but was traversed by P. D. Baird in August 1950 up the south ridge and down a snow gully to the east5.

The members of our party and their responsibilities were Murray Anderson, communal tentage; Pat Baird, advisor; Herb Blades; Die Butson, doctor; Mike Frame, radio communications; Keith Ingold, treasurer; Barry and Liivi James, boat; Dave MacAdam; Mike Piggott; Roly Reader, transport; and myself, (leader).

We left Montreal at 0900 h by Nordair's scheduled 737 service to Frobisher Bay. Nordair has a "scheduled" weekly service by DC 3 from Frobisher to Clyde. Operating under a class 2 or 3 licence, it goes only when there is enough traffic. A party of four failed to reach our area in 1972 although they

had "reservations." Our party of 12 was large enough and Nordair obliged by flying to and from Clyde to suit our plans.

We left Frobisher at 1430 h, flew through Pangnirtung Pass at 7000 ft called at Broughton Island and arrived over Clyde at 1945 h. Both Clyde and Cape Christian were socked in. We returned to Frobisher arriving at 0015 h on 12 July. Since the local restaurants were now closed Nordair arranged a much appreciated breakfast at the Nordair hostel. We left Frobisher again at 1300 h and flew directly north to Clyde, arriving at 1645 h.

Clyde has few tourists but the local people were helpful in many ways and we were made very welcome. A good part of the village appeared to be at the air strip to meet us, as they do all airplanes. We and our gear were driven to the village and we were offered a campsite on the northern edge of the town on ground that had been recently gravelled and surveyed, presumably for housing. The water cart delivered our water and the Bay store opened so that we could buy food for dinner and breakfast.

Friday and Saturday we picked up our supplies ordered from the Bay and some sent by mail, bought gasoline for the outboard, raided the settlement dump for lumber for our camp, and arranged with the Eskimo Cooperative, to be transported back from Swiss Bay by canoe.

Herb and Mike Piggott spent 4 h one night ascending hill 1570 ft about 4 miles south east of the settlement, across Patricia Bay. Dave MacAdam ascended Sawtooth Mountain in 4 h on the same night. This appears to have been the fifth recorded ascent, the earlier ones being by E. Jordan 19494, F. Elmiger, M. H. Ritchie, and H. Rothlisberger, 26 May 19504, B. W. Donaldson, 7 May 1951, (summit record), and J.S.P. Grenier, 1972 (summit record).

Our chartered airplane from Atlas-Kenting at Resolute, arrived on Saturday at 1830 h. In retrospect the travel arrangements from Clyde to Swiss Bay went very smoothly but in prospect it was not so simple. The best plan seems to be to leave the dates of flying to and from Clyde as flexible as possible and arrange to fly when planes are otherwise in the vicinity. Thus positioning charges, which in 1973 were about $2.25 per mile ($1500 each way between Resolute and Clyde) are more reasonable.

Transport out was almost the exact reverse. We intended using Eskimo canoe around Erik Point and Baffin Bay. It seems breakup is not expected until mid-August, about 10 days later than we wanted. We called in an Atlas-Kenting Twin Otter again. It arrived on 7 August at 0900 h, a day later than scheduled, with positioning from Pond Inlet the DC 3 arrived at Clyde at 1430 h the following day and we left Frobisher on Thursday at 0400 h on a freighter that had come up from Montreal overnight.

It proved more difficult than we expected to find out the ice conditions on the fiords and lakes. When we arrived on 14 July the fiords and Ayr Lake were frozen solid although, judging from the fiords we flew over to reach Clyde, they were probably open near the head. On 19 July we had the first good view up Sam Ford Fiord—it was open about 15 miles south of Swiss Bay. The fiord itself was clear to beyond Swiss Bay late on 24 July but there was a band of ice across the entrance to Walker Arm. Both the fiord and the arm were clear on 27 July but could not be crossed due to high winds. The first crossing was made on 28 July although wind-driven ice completely blocked the entrance to Walker Arm and the party had to wait 2 to 3 hours for the outgoing tide and wind to open a lead near the shore. The return on 1 August was through heavy pack. By 5 August there was little or no ice in the fiord, although it was still frozen from about 10 miles north of Swiss Bay out to sea. A party crossing Walker Arm later that day had a few anxious moments when an ice pan several miles long and a mile or two wide drifted across the entrance to Walker Arm and blocked their exit for 90 minutes. Our airplane was due in 15 hours and they had visions of having to call their own. On 27 July Eglinton Fiord was open about six miles from its head, by 2 August it had melted to beyond glacier G79. Ayr Lake was still largely frozen when we left on 8 August although there was a wide lead along most of its shore.

The glaciers were much less crevassed than I would have expected in temperate regions. The reason is undoubtedly melt water running into a crevasse and freezing to the wall; the ice is well below freezing except near the surface. Frequently columnar crystals grow. During our stay the snow never froze enough to form solid bridges.

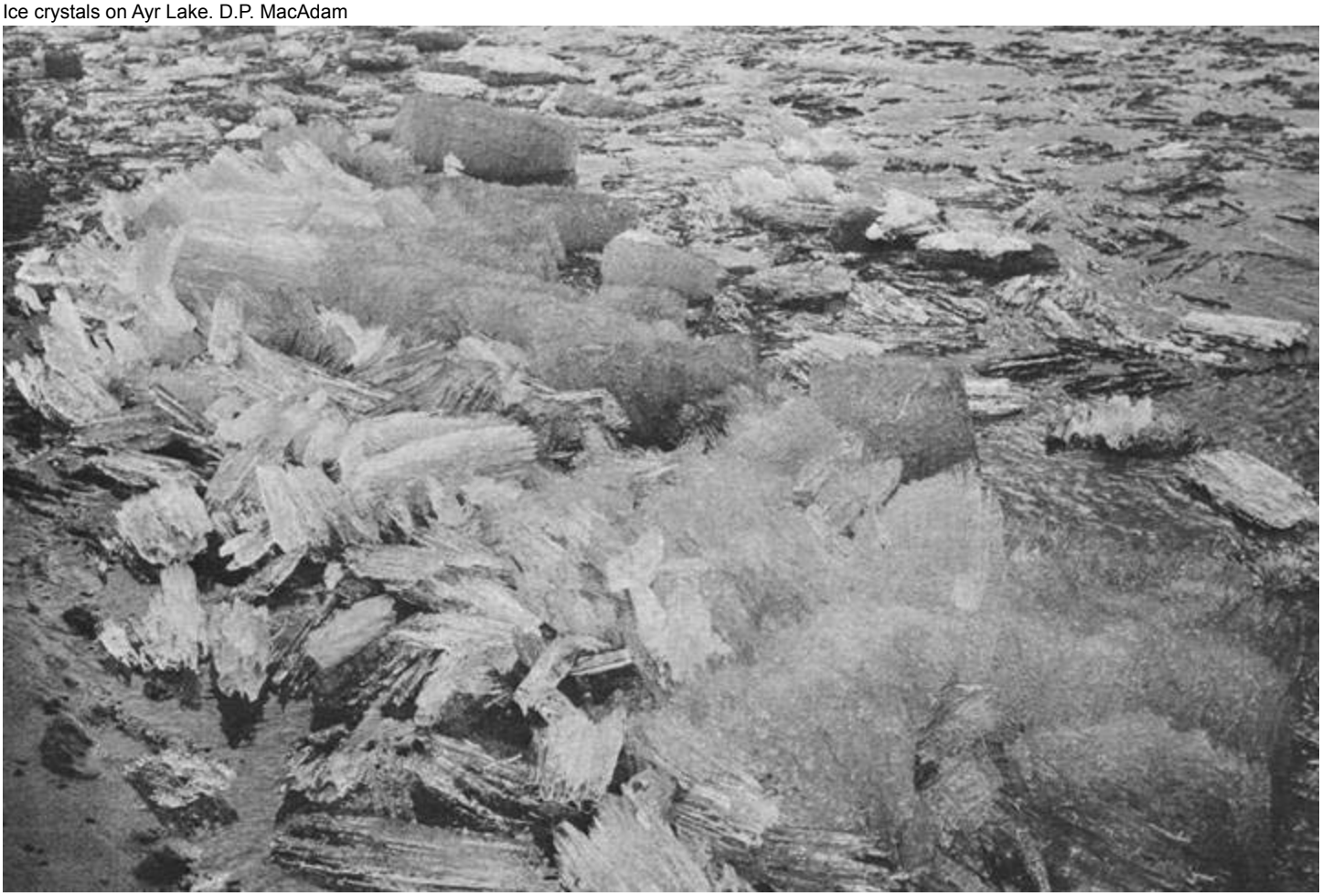
On early trips in the third week of July there was much soft snow on the glaciers above 3000 or 3500 ft. Since it did not freeze even at night steep slopes were in danger of avalanching, steep snow climbs were unsafe. Snowshoes were taken but although used on one or two of the early days they were rarely worth their weight as we could reach most of the mountains we wished to climb without crossing too much deep snow. If we had had to travel more on high glaciers, or if the snow line had been lower, light snowshoes would have been worthwhile. Crampons on flat snow-covered glaciers raised the boots out of the worst slush— even the best boots quickly became saturated. Perhaps polyethylene bags on the feet would help keep the socks dry.

During the last two weeks much snow had melted and there were some cool nights to freeze what remained. Since it was light all night the hard snow could be used as long as it existed.

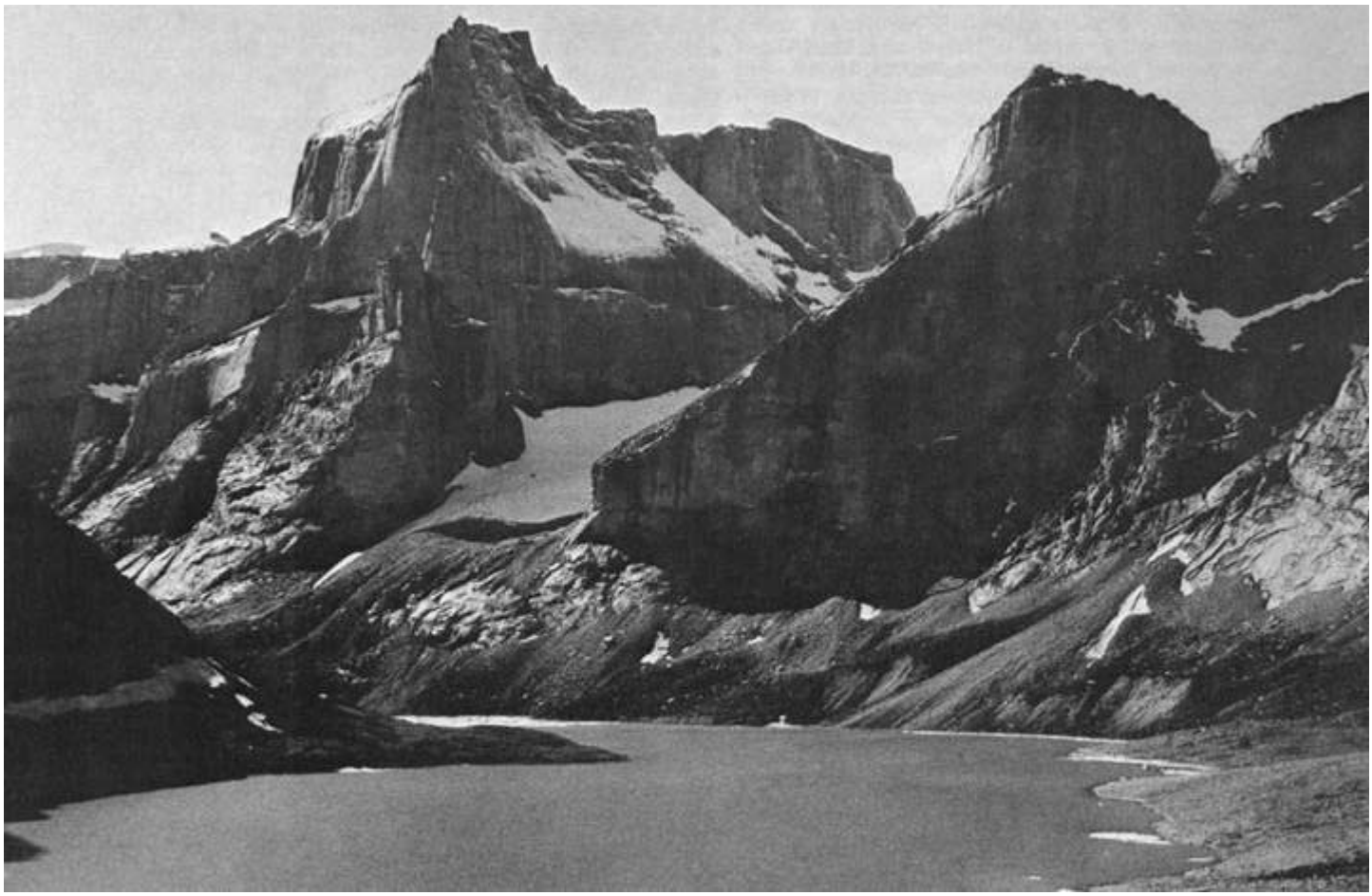
South-facing snow slopes seemed always to be soft and frequently deep. Presumably they have the full force of the low sun but their inclination makes radiative cooling less effective than for a horizontal surface. Permafrost was rarely far below the surface. The ice, always near the surface on boulder strewn mountain slopes, melted on days above 32° F and the many trickles could be drunk by using a rubber tube.

The rock was almost uniformly excellent and we were aware of few rock falls. There was an occasional gully lined with rotten rock, most notably on peak no. 27, and the two south west gullies of "Castle Mtn." had frequent stone falls at times. On 22 July, during and for a short time after a heavy rainstorm—almost the only rain we had in the valley, the cliffs on both sides of Swiss Bay near the camp were alive With falling stones. On one occasion a large rock fall turned black the stream across valley from camp for 2000 vertical ft. Falling rocks often stop on slabs where friction will hold them as long as the slabs are dry but not when they are wet. Total rainfall in Clyde is only a few inches annually and heavy

Ice crystals on Ayr Lake. D.P. MacAdam



The 5000 ft peak DJ3816 from across Eglinton Fiord. D.P. MacAdam



rainstorms are presumably rare even in the mountains. When one comes there is a large accumulation of boulders ready to be washed off.

The weather was, for mountains, excellent. Only two ascents failed for bad weather. Occasionally ascents were cancelled for low cloud but could usually be started later in the day when the weather improved. A major advantage of Arctic mountaineering in the summer is that, because of the perpetual sun, ascents can be started at any time of the day. A 2200 h start was as common as the usual alpine 0400 h start. Our weather seems to have been much better than that of the Swiss party one member of which wrote, "If it (the 1950 weather) was anything near average, then the only possible conclusion would be not to recommend the area for a purely climbing trip . . . the mountains were completely socked in for days and weeks . . . the snow peaks were impractical because of the complete whiteout lasting for weeks,—not just days—and the frequent high winds"6. Either the 1950 party had exceptionally bad weather or we had exceptionally good weather. Probably both are true.

Birds were relatively common, particularly snow buntings whose young were being fed throughout our stay, and Baird Sandpipers, whose young were not seen. There were also longspurs, horned larks with young, glaucous gulls, ravens, fulmars and guillemots. Red-throated loons lived on the lakes towards the east end of Revoir Pass. Several ptarmigan families were sighted, Revoir Pass had the marks of a goose pasture. Snow geese were seen flying once but otherwise fled on foot and mostly kept out of sight. Towards the end of our stay flights of 50 or more king eider were seen near Sam Ford Fiord, but no young.

Insects were surprisingly and pleasantly absent. There were almost no mosquitoes near base camp but some on warmer days on the tundra further east in Revoir Pass.

A rented inflatable boat (French-made Zodiac Mark II) rated to carry six passengers, was fitted with a 20 hp Johnson outboard. Four with gear was probably the maximum safe load in the fiord where winds were unpredictable and the water cold. Pitons, hammers, carabiners, and rope were always carried so that the boat could be anchored to the steep fiord walls if necessary. In calm weather she planed at about 20 mph fully loaded and ran about 6 mpg. Much water was shipped in rough weather and a long trip would be unpleasant.

A Spilsbury and Tindall SBX-11 radiotelephone was loaned by Spilsbury and Tindall Ltd., Ottawa. It was fitted with crystals for two Bell Canada frequencies, 5680 kHz (air-ground frequency), and 5626.5 kHz (international civil aviation). Good communication was only possible on 5680 kHz and, due to our location, only the DOT at Resolute could receive us, and then only at night. Through their kind offices we were able to call in an airplane to evacuate us but this frequency should be used only in emergency as it is reserved for aircraft.

Four Johnson-Messenger 109 walkie-talkies were taken primarily for communication in case of accident. Two radiotelephones would have been better than one radiotelephone and walkie-talkies because two radios are more reliable and could be used as superior walkie-talkies in an emergency. In retrospect, frequencies should be chosen with the advice of the DOT station nearest the final destination7.

A rifle and pistol were taken in case polar bears became a nuisance but we saw no signs of them. Clyde residents said they are out on the sea ice at the time we were there, only returning to land in the fall or early winter.

The outboard motor and the communal tent were readily sold in Clyde on the way out, other equipment could probably have been sold if it had not been packed for mailing. The Eskimos were particularly interested in buying carabiners, apparently for attaching sleds to skidoos.

Thirty-three first ascents, four new routes on previously ascended mountains, eight second ascents, and two third ascents were made. Innumerable passes were reached or crossed, many glaciers visited or traversed for the first time. Mountains are identified by numbers (see accompanying map) and by the grid reference on sheet 27F, Edition 1, 1967. The numbers of the 1950 Swiss party have been used. Our numbers follow theirs.

None of the mountains climbed, except Pioneer Peak, or the glaciers or passes crossed, except Revoir Pass, has been officially named. The names suggested by the Swiss have been followed, a few others that seem particularly appropriate have been used, and these and a number of others have been suggested to the Permanent Committee on Geographical Names.

Elevations quoted are mostly altimeter heights, accurate to perhaps plus or minus 50 or 100 ft, indicated as c. elevations. Figures followed by * are heights of the highest contour on sheet 27F.

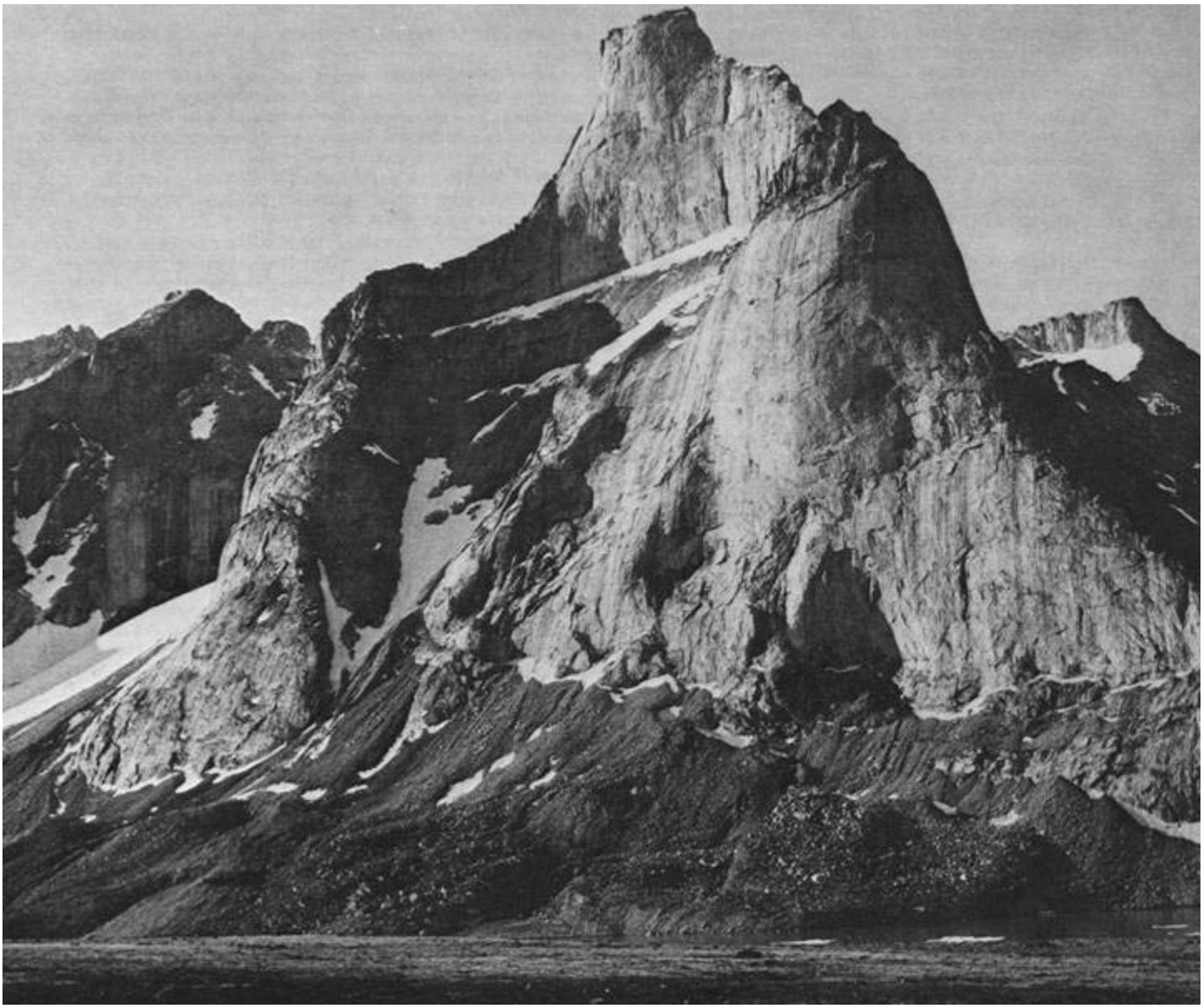
"Castle Mtn." DJ079311 4000* ft. A spectacular mountain at inside corner of bend in Walker Arm with almost vertical walls from the fiord or the low pass on the south to summit plateau at about 4000 ft. 1st ascent, Ingold, Piggott, Reader, 29 July via eastern most of two gullies splitting the south face. A prime objective, it was inaccessible for the first two weeks because of the ice on Sam Ford Fiord. The crossing was made on 28 July when waves were calmed by many ice pans, necessitating a devious route. The entrance to Walker Arm was completely blocked by sea ice, blown so hard against the south wall of the fiord that six ft thick blocks stood on end, piled to 20 ft and more. After about an hour the ice started to drift down the fiord with the turned tide and a wide lead opened into Walker Arm. The boat was beached in the bay south east of the mountain and camp made by a small lake, not marked on the map, near the summit of the low pass south of the mountain.

The obvious line of ascent was the wider easternmost of two gullies that split the south face. Camp was left at 0700 h and the first 2000 ft was scree and boulders, the next 1500 ft mixed hard snow and ice at angles up to 45-50°. Stones started falling about midday and the final 300 ft to the summit plateau was ascended on the rock rib on the right (true left) side of the gully. The icefield was ascended to the summit, at the south west corner of the plateau, by 1230 h.

Waiting for ice to move, north of Belvedere Ridge. E. Whalley

It's cold. E. Whalley

North face of Eglinton Tower from across Eglinton Fiord. D.P. MacAdam



Ropes were not used on the ascent but belays were used all the way down the steep ice and snow slope. Rock falls were more frequent than during the ascent.

20 DJ065251 5000* ft. 4 miles south south west of Castle Mtn., the west wall of Walker Arm. 1st ascent, Ingold, Piggott, Reader, 31 July, by the south face. Camp on pass south of Castle Mtn. left at 0530 h and rock ledges followed south past the outlet of the unnamed lake marked on map at point DJ082288 to reach glacier E14 at about 1500 ft. The glacier followed to about 400 ft on south side of the peak and summit reached over boulder slopes of south face at 1100 h. Descent by same route.

21 "Beluga Mtn." DJ116268 c. 5750 ft. Snow and ice dome elongated in north-south direction with steep cliffs on north, east and south, 31/2 miles south east of Castle Mtn. Highest mountain ascended by the expedition. 1st ascent, Butson, Frame, James, 3 August, via west face. From camp on bay south east of Castle Mtn. at 0100 h, glacier E14 reached as far no. 20 and ascended to 2500 ft. The steep boulder slope of the west face ascended to 4100 ft, thence snow and ice to the summit at 0830 h. Descent followed same route and all swam in a small lake at about 1000 ft overlooking upper part of Walker Arm.

"Belvedere Ridge" DJ185266 c. 2220 ft. Northernmost peak of the west wall of Sam Ford Fiord south of Walker Arm. 1st ascent, Ingold, Reader, Whalley, 5 August, via north ridge. The party was landed by boat near snout of glacier Ell at 1215 h, climbed boulder slope of west face to ridge at 1120 ft and followed the fine slabby ridge to summit overhanging the fiord at 1345 h. The day brilliantly sunny and windless. An unsurpassed viewpoint, surrounded by magnificent fiords and mountains.

DJ229230 c. 4100 ft. First mountain south of Swiss Bay over looking the fiord.

1st ascent and traverse, Anderson, Whalley, 20 July, via south east face and south ridge. From camp on Swiss Bay at 1230 h via glacier F35 and scree slopes of south east face, second summit from north at c. 3700 ft reached. Ridge traversed south over towers at c. 3340 and c. 3590 ft to summit. Magnificent ridge walk with fine views all around. The rock is so solid that there were few loose stones near the summit for a cairn. South ridge traversed to col between mountains 23 and 24, and glacier F35 traversed over its entire length for first time.

2nd ascent and 1st north—south east traverse, 1st ascent north summit, Ingold, Piggott, Reader, 26 July. North ridge reached from camp in Swiss Bay, leaving at 1300 h, by an ascending traverse over boulders. Scree and ledges of a gully on west side of ridge followed until difficulties forced party onto nose on west side of the gully. Moderate climbing for nearly 1000 vertical ft, with rope required only occasionally, lead directly to north summit at 1800 h. Summit reached at 2000 h and descent by the south east face and glacier F35.

3rd ascent, MacAdam, 4 August. Route of first ascent followed except that true left lateral moraine of glacier F35 and meadows at base of cliffs north east of the peak followed, instead of the glacier.

3 "Walrus Head Mtn." DJ215216 c. 4780 ft. Flat-topped mountain 1 1/4 miles south east of no. 23. So named unofficially by Swiss party, apparently on account of its appearance from across Revoir Pass.

2nd ascent, Frame, Piggott, Reader, 15 July, by variant of original route. From camp in Swiss Bay at 1530 h, glaciers F35 and F36 crossed to north face of mountain east of the slabs. Face ascended by a gendarme, using rope for one pitch, and east ridge followed to summit.

3rd ascent, 1st traverse north east to south west, Butson, R. B. James, Whalley, 18 July. From camp in Swiss Bay at 0930 h over boulder slopes east of glacier F35 to glacier F36, crossed near its eastern ice cliff. North east ridge followed in several pitches of grade IV rock climbing, at first on left, then right, and finally finishing on ridge. Rock is very sound, many cracks for protection with chocks. The summit plateau reached at 1830 h at 4600 ft. Summit was left at 1905 h and south west ridge descended with one 90 ft rappel. Traverse continued to peak 24 (q.v.).

4th ascent, 3rd ascent of east ridge, Baird, 3 August.

J232215 c. 5120 ft. 1 mile west of Walrus Head Mtn. over looking Sam Ford Fiord. 1st ascent, 1st traverse east-south, Butson, R. B. James, Whalley, 18 July. After traversing Walrus Head to col between it and the mountain at c. 4280 ft, east ridge ascended over excellent sound slabs giving grade ll-lll rock climbing if main difficulties avoided on south side, to reach summit at 2300 h at c. 5120 ft. Almost vertical drop from the summit to a few 100 ft above the fiord. West ridge has several fine-looking towers, but only the first, at c. 5020 ft, ascended by grade III rock climb. No material for a cairn. Descending traverse over boulders of south east face to col between the mountain and peak 25, and peak 25 (q.v.) ascended.

DJ226201 5119 ft (Forces helicopter survey of a point about 20 ft below summit) 1st ascent, Butson, R. B. James, Whalley, by north ridge. Steep nose guarding ridge climbed on west or fiord side by two dihedrals which seemed grade IV plus, perhaps because we were tired after moving for 13 hours. Winding, snow covered, 50 ft wide north ridge, followed to summit at 0315 h. Ridge descended and camp reached via true left edge of glacier F44 to 3000 ft and north east shoulder of Walrus Head. In retrospect, a better return to Swiss Bay would be to traverse under east ridge of Walrus Head and cross glacier F36.

26 DJ244155 4000* ft. Peak 0.6 miles north of twin lakes in east-west valley 6 3/4 miles south of head of Swiss Bay. 1st ascent and traverse, Baird, R. B. James, L. James, 22 July, from west to east. Camp by twin lakes reached from Swiss Bay via glacier F49 after crossing terminal moraine of glacier F44. The mountain ascended from camp at 0830 h over broken gently sloping slabs and short chimneys and cracks of west ridge to reach summit at 1030 h. East ridge descended over easy broken slope, keeping south of prominent ice sheet which was crossed after 1 mile to a point below glacier F42. An attempt on the spectacular glacier-hung mountain DJ235180 abandoned due to storm.

27 DJ185291 c. 4160 ft. North and lowest of four peaks of long mountain running south from Revoir Pass between glaciers F49 and F33. 1st ascent, 1st traverse, Butson, Frame, Reader, Whalley, 23 July by north east and east faces. From camp at Swiss Bay at 0930 h, north east face ascended over turf and boulders close to glacier F33 until it abutted a wall. Traverse left (south east) across two very loose and unpleasant gullies containing steep ice and soft snow lead to boulder field of upper east face which was ascended to ridge and it followed to minor ice summit. Several rock towers crossed or bypassed until final nose of ridge reached. We rappelled about 15 ft down face of last tower into a narrow crack and climbed about 10 ft to a ledge. Nose bypassed by a loose gully on west side, fortunately frozen. A short scramble led to north summit at 2130 h. The nose descended by a rappel down east face and scree slopes followed to glacier F33, which was crossed and descended.

28 "Revoir Mountain" DJ318203 c. 4380 ft. Massive mountain dominating south side of centre of Revoir Pass.

1st ascent, Frame, Ingold, Piggott, Reader, 17 July, via south face. From camp at Swiss Bay via glaciers F33, reached at about 700 ft, and F31 to pass south of the mountain. South face ascended easily over boulders. Descent by same route. Time 61/2 h up, 5 1/4h down.

2nd ascent, Butson, Frame, Whalley, 21 Jury, After traverse of Fortress Mtn. (q.v.) to pass between Fortress and Pioneer Peak, the pass descended to east, past magnificent towers on north east ridge of Pioneer Peak, and pass between Revoir and Fortress reached from the east. From here south face was ascended.

3rd ascent, R. B. James, 5 August, by route of 1st ascent.

29 "Fortress Mtn." DJ330180 c. 4830 ft. Large mountain between Revoir Mtn. and Pioneer Peak. Misnamed Pioneer Peak on 1965 edition of map 27 F.

1st ascent, 1st traverse, north west to south, Butson, Frame, Ingold, Piggott, Whalley, 21 July. North west ridge reached at 2680 ft, leaving Swiss Bay at 1030 h, via glaciers F33 and F31. Ridge is dominated by a large tower with no obvious free route. A buttress abuts west side of the tower and is split by a grade II chimney leading to a ramp under cliffs of west face at c. 3900 ft. The ramp followed to a small ridge abutting the cliffs. Crest of ridge reached by grade III gully and followed by an ice cap, not marked on map 27F, which overhangs the whole north face and whose summit is at north east end at 4830 ft, reached at 2100 h. South face descended by scree gully. Ascent and descent routes appear to be only practicable ones not involving very difficult or aid climbing. At pass between Fortress and Pioneer Peak, the party split, some going down the west side directly to camp, some down east side to make 2nd ascent of Revoir Mtn.

2nd ascent, first by south face, Baird, R. B. James, 31 July, after making 2nd ascent of Pioneer Peak.

Pioneer Peak DJ328161 c. 4600 ft. Second mountain south of Revoir Mountain. 2nd ascent, Baird, R. B. James, 31 July, by north face. From camp in Revoir Pass at 0030 h, up glacier F30 and, with crampons, the steep ice slopes of north face of the peak, arriving at small rock summit at 0600 h. 2nd ascent of Fortress Mtn. made on the way down.

30 "R Peak" DJ373188 4100 ft. 15 "C Peak" DJ382175 3700 ft. 13 "V Peak" DJ371172 4000 ft. Triplet of peaks immediately south of east end of Revoir Pass. R Peak forms south wall of the Pass. Named unofficially by Swiss party in 1950 for call sign of Clyde radio station. Butson, Frame, R. B. James L. James, Whalley made 1st ascent of R Peak, 1st traverse and 2nd ascent of C Peak, and 2nd ascent of V Peak on 28 July. From camp towards east end of Revoir Pass at 1130 h, over boulders and vegetation of north west ridge of R Peak to west summit (c. 3700 ft) at 1500 h. South face below summit tower traversed to gap in east ridge at c. 3940 ft. Two or three grade III rock pitches up east ridge lead to summit at 1800 h. Descent by rappel down summit tower and down south east ridge, then up north west ridge and west face of C Peak to summit at 2100 h. C Peak descended by easy slopes below west ridge, and east face of V Peak ascended to reach summit at 2215 h. Glacier G61 and its terminal moraine descended to valley and tundra, snow, and aufeis of river followed to Revoir Pass and camp at 0030 h.

31 "Kigut Peak" DJ239290 3500* ft. Second mountain north of Swiss Bay, overlooking Sam Ford Fiord. 1st ascent, Baird, Frame, Ingold, Piggott, 19 July, by east face. From camp on Swiss Bay at 0910 h, across Swiss Bay by boat to the stream from glacier F24, left at 1000 h. Main stone chute between peak no. 2 (about 3/4 mile south west of Kigut Peak) and the mountain followed to about 1400 ft and several ridges and gullies traversed towards north to gully leading to notch immediately south of main mass of the mountain. Gully was ascended to a cave with smooth wet nose above. Right wall of gully ascended to scree ledge from which three pitches up a diedre led to sloping scree slopes on south east of the peak. These ascended to south ridge and the long roof of the mountain followed to summit, at 2040 h in mist. Same route followed in descent, the water reached at 1645 h.

32 and 33 DJ255322 and 259323 3500* ft. Two peaks about 400 m apart, 4 1/2 km west of peak marked c. 4455 on sheet 27F. 1st ascent, MacAdam, 23 July. From camp in valley of south branch of glacier F24 at 0400 h via easy south east slope. Returned to camp at 1100 h.

34 DJ276345 4000* ft. 1st ascent via easy south slopes, MacAdam, 19 July.

35 DJ288372 3500* ft. 1st ascent via west ridge, MacAdam, 21 July. True right of glacier F26 followed to west ridge which was traversed to west summit, and narrow 1/4 mile long summit ridge crossed to true summit. Descent by a direct route from lower summit.

36 DJ303321 4455 ft. The peak marked c. 4455 on sheet 27F. 1st ascent, by south west slopes, MacAdam, 20 July. Four hours up from camp, three hours down.

37 DJ276286 c. 4950 ft. 1st ascent, 1st traverse west east, Butson, Frame, Whalley, 4 August. From end of stream flowing

from glacier F24 to Swiss Bay at 1500 h, up boulders and vegetation of west ridge to south summit at 1930 h, 4060 ft. Ridge to main summit followed northward, turning several towers on east. Summit tower ascended along ridge on good slabs, arriving at 2145 h.

A vertical wall cuts the ridge immediately north of the summit and prevents a direct traverse to "Bastion" (no. 9). East ridge descended on good slabs to first tower, the screes descended to glacier F26. The bay reached at 0115 h on 5 August.

6 "Crystal Peak" DJ288267 c. 5120 ft. 2nd ascent, 1st ascent by south ridge, 1st traverse south east, R. B. James, 26 July. From camp in middle of Revoir Pass at 2045 h on 25 July up gully south of the peak on heather and boulders to snout of glacier F28, from which a steep loose gully followed to south ridge of the peak. Minor summit no. 38 reached for second time by following ridge south. Snow and loose rock of south ridge of Crystal Peak followed to summit, reached at 0430 h. On the summit are large blocks of quartz which presumably suggested the name to the Swiss party. Almost an inch of snow fell during the ascent, but visibility was generally good. Descent via loose rocks to south of east ridge to pass between glaciers G24 and G25, from which peak no. 39 (q.v.) ascended.

38 DJ285250 3500* ft. End of south ridge of Crystal Peak. 1st ascent, by north west ridge, Anderson, Reader, 21 July. Up stream descending south west from Crystal Peak to north ridge, which was followed to the summit. Second ascent is described under 'Crystal Peak'.

DJ304264 4500* ft. 11/2 km east of Crystal Peak. 1st ascent and 1st traverse west-east, R. B. James, L. James, 26 July. From pass between peaks 37 and 39, up west ridge on crampons, either on or to left of ridge, arriving at summit at 0815 h. Although the map does not show it as higher than 5000 ft, it appeared to be higher than Crystal Peak. East ridge descended by loose rock on right to col between peaks 39 and 40, from which peak 40 ascended.

J315252 4500* ft. 1st ascent, 1st traverse north to south east, 1st descent of south west ridge, R. B. James, 26 July. From col between peaks 39 and 40, the ice of north ridge ascended to summit ridge, passing ice cliff to right, and summit, which was reached at 1045 h. South east ridge followed on ice to junction with glacier F29, but no easy way down found (later inspection from below showed lower part of the ridge can be descended to the south). Ridge re-ascended almost to summit, and the blocks of south west ridge descended. A flat part about 400 m long had an ice wall on right (north west). A 600 ft 45° ice slope descended on crampons with some belays to glacier F28, which was descended to snout and camp at 2145 h.

11 "Cracked Peak" DJ334278 c. 5410 ft. The name was suggested by the Swiss apparently because summit is composed of two large blocks, separated by a north east to south west cleft about 12 ft wide. 2nd ascent almost complete, 1st ascent of south east ridge, 1st descent of south east face, Anderson, Butson, Frame, 30 July. From camp in Revoir Pass 2 km from Eglinton Fiord at 1145 h along Pass and up glacier F29 to glacier bowl south east of peak. Left side of south ridge ascended, passing three large towers and over steep ice, in six pitches. Steep 130 ft grade III plus crack leads to summit ridge, followed easily to north summit block. Five routes to unclimbed north summit attempted, the most successful being a 55° 150 ft ice gully leading to cleft between two blocks. An icy ledge on south block reached by a 20 ft grade IV-V pitch but, as the party had no pitons, no further progress made. Because of the time, (2310 h) the relatively easy traverse to the north summit not made. Descent made easily over south east face to glacier and asecnt route followed back to camp.

"Cleaver Peak" DJ332260 c. 4260 ft. 2 km south of Cracked Peak. 1st ascent, 1st traverse south north, Blades, Whalley, 30 July. From camp in Revoir Pass, 2 km from Eglinton Fiord at 1145h. along Revoir Pass and up glacier F29 to glacier bowl south east of Cracked Peak. The party split here, part going to Cracked Peak. The mountain traversed up south ridge and down north ridge, the summit being reached at 1805 h. South ridge is clean and slabby, 10 to 20 ft wide, with steep slabs on both sides. Traverse was continued to nunatak, no. 42, and peak 43 (q.v.).

DJ3526 c. 4080 ft. Large nunatak not marked on sheet 27F occupying centre of glacier basin ringed by peaks 41, 11, 43, 44, and 45. Summit at north west end, only ca. 80 ft above the glacier. South east end rises much further above the glacier, which is much lower there. 1st ascent, from north west, Whalley, 30 July after ascent of no. 41.

DJ360275 c. 5340 ft. 1st ascent, first traverse, south west—south east, Blades, Whalley, 30 July. After ascending nunatak 41 and peak 42, curving south west ridge reached and followed over slabs, snow, and ice to west summit (5320 ft at 2200 h), a block eroded in layers, presumably by wind. After a 1/2 h lunch break summit ice ridge traversed about 300 m to east and higher summit at 2300 h. The ice of the south east ridge descended part way across to snow gully on south side which leads down to glacier south east of the peak. Probably a mistake as snow in the gully very soft. Would likely have been easier to follow the ridge to the foot as snow on the glacier was firm. Pass between peaks and 46 crossed and glacier followed to pass north west of the Cockscomb. Camp reached at 0500 h.

J400255 about 3800 ft. 44 DJ377252 about 4800 ft. 45 DJ372243 about 4500 ft. The semicircle of mountains west of south west end of pass north west of the Cockscomb. 1st ascent, 1st traverse of ridge between peaks 46 and 47, Ingold, 3 August. From camp in Revoir Pass up behind Cockscomb south ridge of no. 46 ascended up 1000 ft of scree followed by pleasant scrambling on firm rock. Descent to west, crossed ice col and reached peak 44 by very pleasant ridge walk. Descent to south, another ice col crossed to peak 45. Continued to peak 47 whose east slope descended to camp. About 12 leisurely hours.

DJ381227 c. 3800 ft. West wall of south end of valley behind the Cockscomb, overlooking Revoir Pass. 1st ascent, via east face and north ridge, Whalley, 2 August. From camp in Revoir Pass at 0430 h, summit reached over boulders, an ice gully and snow slopes at 0800 h. Summit left at 0900 h, camp reached at 1030 h. 2nd ascent, via north ridge from peak 45, Ingold, 3 August.

DJ403220 3000* ft. Westerly outlier of Cockscomb Mountain. 1st ascent, R. B. James, 30 July. From camp in Revoir Pass over loose rock and ice patches of west ridge. Ascent 2 h, descent 11/4 h.

DJ425063 3500* ft. First peak overlooking Ayr Lake north east of Eglinton-Ayr valley. 1st ascent, via west slopes, MacAdam, 30 July. From camp about DJ407110 in Eglinton-Ayr Valley at 1430 h via west slopes to summit at 1900 h. On descent valley reached at 2000 h, camp at 2330 h.

51 DJ487175 about 4600 ft. 50 DJ480175 about 5000 ft. Two peaks ca. 1km apart and about 6.8 km east of Englinton Tower. 1st ascent, by south east slope, MacAdam, 2 August. From camp at head of Eglinton Fiord at 0900 h along shore of fiord to glacier G36 at 1100 h. Glacier ascended, crevasses being avoided on true right moraine until a height of about 2000 ft just beyond glacier G36. West face traversed over steep boulder fields to easy south east slope, followed to summit of peak 51 at 1745 h. Summit of peak 52 reached via connecting ridge at 1845 h. Descent by same route started at 1930 h, glacier reached at 2215 h, fiord at 0045 h on 3 August, and camp at 0300 h.

E. Whalley and members of the expedition

1 J M. Wordie. An expedition to Melville Bay and North East Baffin Island in
Geog. J. 86, 297, 1935.
2 T.G. Longstaff and M.H.W. Ritchie. The Shores of Baffin Bay in Alpine J. 72,
49, 1935.
3 P.D. Baird et al. Baffin Island Expedition 1950: a Preliminary Report in Arctic
3, 131, 1950.
4 Berg der Welt 6, 1951.
5 P.O. Baird. Personal communication, 1 August 1973.
6 H. Rothlisberger. Personal communication, 1973.
7 For the Clyde area, Mike Frame, our radio man, recommends two Bell Canada
frequencies available at both Clyde and Frobisher, for example channel 10;
the single-side-band frequency monitored by the nearest DOT station, which
is 4356 kHz at Clyde; 5680 kHz for emergency use, as it is monitored by all
DOT stations; and the Hudson's Bay radio frequency if it is appropriate, for
example 4834 kHz at Broughton Island and Pond Inlet.

Leaning Tower the Hard Way

On climbs throughout the Kootenays we again and again caught sight of a unique range of mountains in the Purcells east of Kaslo—beautiful sculptured 90 degree wedges. Gunther Offer-man, Dieter Offermann and myself decided to climb the tallest— Hall Peak, commonly known as the Leaning Tower. The first ascent was in 1933 by the McCoubrey-Neave-Blanchard party (CAJ 1934-35).

The approach to the peak was long and difficult since the closest logging road was 12 miles distant and no trails existed. As long as it is humanly possible it is not our philosophy to be flown in to the base of a mountain . We planned on a three day hike. On the evening of 13 September we drove up a logging road which ends near the headwaters of Powder Creek and made camp. The following morning we hiked to a lake (6000') where we pitched camp. Along the way we saw many grizzly, elk and mountain goat tracks.

Morning—eagerly we set off. A magnificent view of the Leaning Tower even though still three miles away. Now we descend into Pinnacle Creek, about 1000 ft below, amid abundant huckleberries and wild raspberries. At valley bottom numerous rock avalanches alongside the creek made walking easier. After about three miles down the creek we began the 2500 ft climb to the great cirque directly below Hall Peak on the west side and made camp at the 8000 ft level. Leaning Tower, Block Tower, Shark's Head and all the rest of the range were aflame as darkness set.

The following morning we set out for the final ascent. First a huge headwall—enjoyable solid granite with good cracks. Next the col (9000') between Block Tower and the Leaning Tower. Left—Block and Wall Towers rising vertically for 1000 ft! Right— the abrupt rise of the northern ridge of the Leaning Tower. The rock face was extremely smooth with few hand and foot holds. We utilized the layback technique repeatedly. The most difficult part was 200 ft below the top where the only route was up a fine vertical crack with adjacent smooth rock. Next a few more larger cracks and jutting rocks, and finally the top. In the rock cairn we found the register with only three entries—the 1933 party, the 1956 Crosby party and the August 1973 party (Calgary Mountaineering Club).

The next day snow started to fall so we packed our gear and left hurriedly. Extreme terrain and weather made it impossible to achieve our objective in three days. Despite the time factor the trip went according to our plans and we completed the ascent of the Leaning Tower.

Elena Underhill

First reported in the Kootenay Karabiner, volume 16, 1973.

Skiing Down Mt. Logan

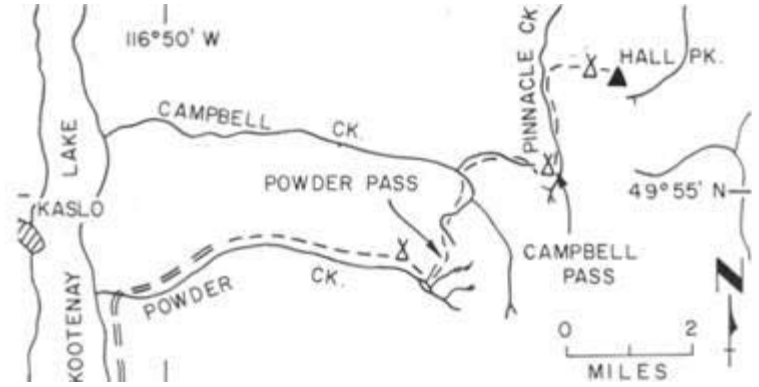
Throughout seasons of mountain climbing we have used skiis as one of the techniques. Captivated by the freedom skiis give us we found ourselves skiing almost every suitable mountain of the Japanese Alps. We succeeded in skiing down Mt. Fuji. Since then it had become our earnest desire to conquer much higher mountains. We focused our aim on Alaska and the Yukon. Mt. McKinley had already been tried so we discussed the possibility of skiing down Mt. Logan. We decided to take a route extending 18.6 miles; starting from the Central Peak, skiing down the northern plateau to cross Aina Peak, through the southern slope of the west route to the glacier sandwiched by the ridges branching from Queen and King Peaks. The group consisted of Yoshio Ohkubo, Kiyoshi Takabayashi, Junichi Saito and Keiji Shimizu of the Tokai University Alpine Club.

On the afternoon of 16 May we flew across the "Green Kingdom of Wild Animals" by chartered jet helicopter and landed in the world of snow. At 120 mph over such vast surroundings the sights below changed very slowly. Our base camp was on the glacier at 11,000 ft sandwiched between King Peak and Mt. Logan. Within an hour, from feeling spring just around the corner, we were suddenly placed in the midst of a world of nothing but rocks, snow

Skiing down from camp 2. Seward Glacier beyond, Gulf of Alaska behind Mt. Augusta. Keiji Shimizu

Near Mt. Logan West Peak-the sun surrounded by a seven colour rainbow. Keiji Shimizu

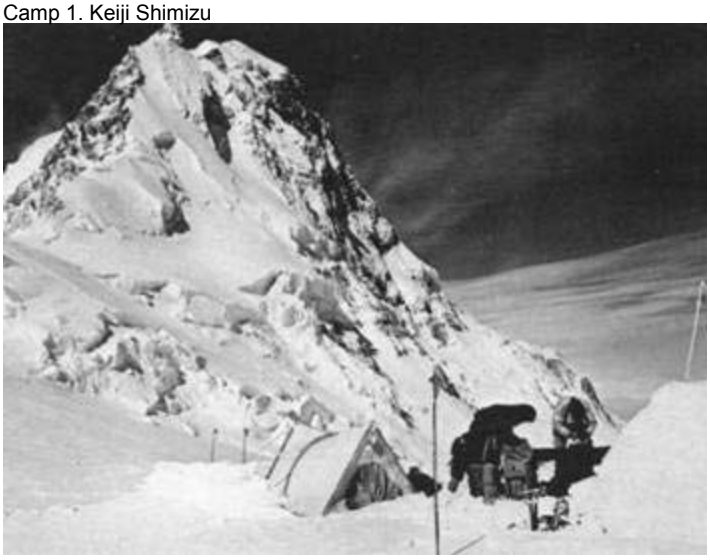
Access to Hall Peak. Elena Underhill/M. Irvine



Base camp, 11,000 ft. Keiji Shimizu

Helicopter. Keiji Shimizu

Camp 1. Keiji Shimizu



and ice. We were embarrassed both mentally and physically at this sight which we had only seen through pictures. In front of our base camp was the glacier leading to King Col. The foot of the west route of Mt. Logan cut into the glacier from the left side and there stood pyramidal King Peak on the right like two Eiger north faces overlapped together. At 60°N latitude the sun sets only for three or four hours a day. The "white nights" gave us a different way of life we had never experienced before.

The weather was unusually bad but we carried up to King Col, our camp 1 site, as long as possible. The route was not difficult but being puzzled by the vast surroundings it took us twice as long as expected.

On 24 May, our ninth day on the mountain, we finally set up the first igloo and tent on King Col. The clouds which had always hung over King Peak and Mt. Logan cleared away on 26 May. Scouting showed us one route leading to the upper slope on the right hand side of the crevasse area. We had two fine days on 30 and 31 May. In the crevasse area, at 15,000 ft we built a snow cave to set up camp 2.

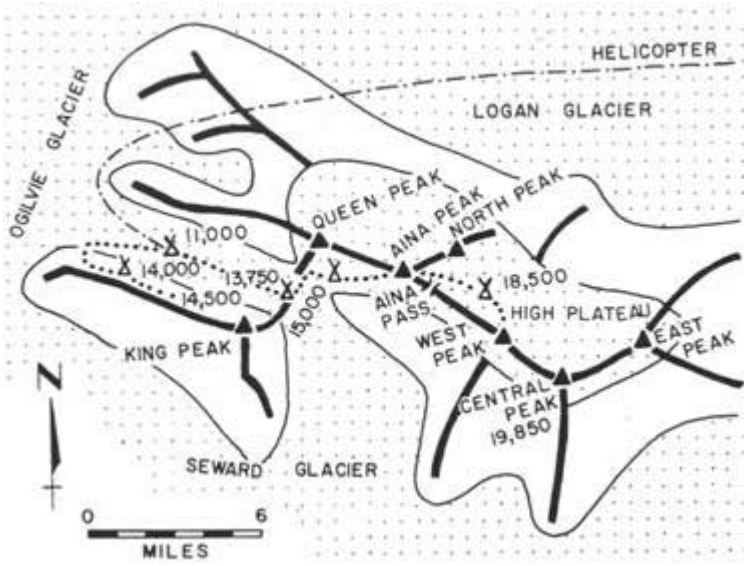
The supply of food at camp 2 finally hit bottom on 7 June and we faced a decision: go down to camp 1 for food or go up to the point where we had lifted our food and then go on toward the top. In the morning the heavy clouds which had covered the southern face of Mt. Logan began to clear out so we decided to take the latter course. Though visibility sometimes became poor the sky was clean. Getting to the food depot in three pitches we filled our rucksacks. We had to change our skiis to crampons because of ice slopes. Going across the windy western shoulder we reached the northern slope of Aina Peak. We climbed down to Aina Peak and farther along the slope of the plateau began to ascend on skiis again but the weather worsened, the snow storm finally depriving us of sight. At the third pitch it had become impossible to go forward any more so we dug a snow cave in the slope of the crevasse area. The 45°F temperature gave us pain; our contemplative faculty numbed, we became drowsy. Waiting for our turn with the shovel our breath turned into ice and stuck on our whiskers. In the snow cave we massaged our legs and feet but they still remained numb. Shimizu was frost bitten for the second time, his toes turning purple and blistering. Next day we set out again. While taking a rest visibility became very poor and we were forced to return to the snow cave. All of us were suffering from headaches, nausea, fatigue and poor appetite.

On 9 June we had very severe snow storms. With no food left we decided to climb down in the storm. The surroundings of nothing but snow deprived us of our balance and we often fell. Sometimes we became victims of an illusion, one of us stood still in a posture as if he had been skiing which made us laugh. When we finally got to camp 2 after midnight we were all exhausted.

At base camp we rested and reorganized, climbing to camp 3 again on 16 June. On 18 June we started at 7 a.m. Soon the ridges and then the high plateau were entirely covered with mist. Nonetheless we dared to continue as the supply of food and gas was very low and we could not afford to wait for another chance. Then the clouds over the ridges cleared away and the upper point of the high plateau appeared above the clouds. Until today every

Steep slope above camp 1. Keiji Shimizu

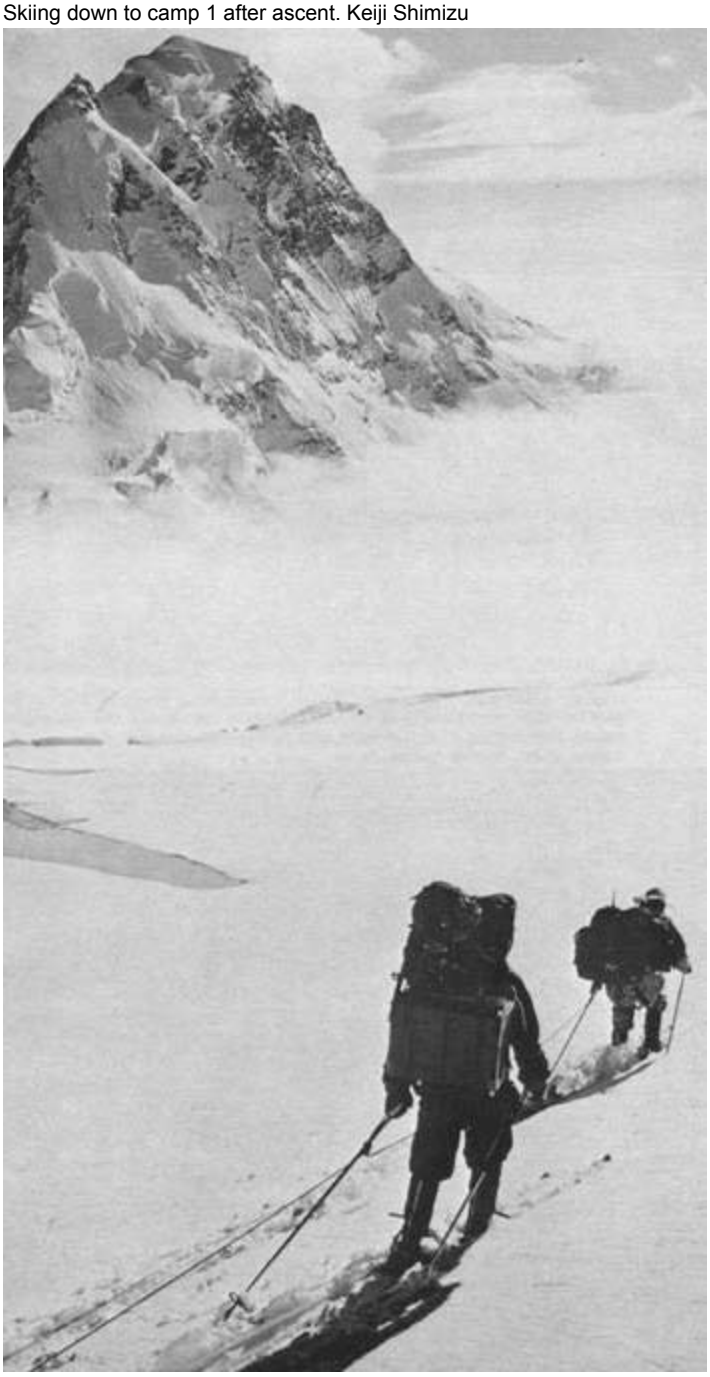
Skiing down Mt. Logan. Keiji Shimizu/M. Irvine



time we had come close to the top we had had bad weather and had been unable to tell which was Central Peak; we decided to climb up the highest peak in front of us.

Climbing along the ridge running down north from the peak the air around us shone brightly, a phenomenon called diamond dust caused by the floating crystallized ice shining in the sun light. The sun was surrounded by a seven colour rainbow and we felt as if we were walking on a planet somewhere far away from the earth. East Peak came into sight to the left. We reached the peak seen from below—another sharp peak appeared in front of us. On the sharp peak we saw no higher peaks around us and so concluded this was Central Peak. It was 10.15 a.m. During the 34 days since landing on the mountain we had had only seven fine days. Climbing under bad conditions was hard. The average temperature of -4°F., carrying equipment in bad weather, frost bite, mountain sickness were all far more severe than we had expected. Filled with joy at reaching the top we firmly shook hands with each other. Happy tears froze on our cheeks. Now clouds which had stayed in the north started moving and the top was an island floating on the clouds.

Skiing down to camp 1 after ascent. Keiji Shimizu



Immediately we started skiing down, beginning from the shoulder one step below as the top was a narrow knife edge, and heading obliquely toward the northern plateau. Turning back we could see the other two appear in the mist. We went on, smooth skiing down picking up our trail markers in turn. After a rest at Aina Pass we began to climb with great difficulty to Aina Peak. On top we found some AINA members. Skiing down to camp 2 there were no clouds. We had smooth skiing on soft snow, We broke camp 2 and made our way toward camp 1, again in clouds. The snow became much worse making us gasp for breath at each turn. At the crevasse area we took off the skiis and went carefully down to camp 1. Three days later we skied down to base camp.

On 23 June we started climbing King Peak from the west ridge but had to give up at 14,500 ft as we had spent most of our food and other equipment on Logan. On 10 June we landed on the green earth we had not seen for six weeks.

After returning to Japan we became doubtful about the peak we had ascended. A query to the Senshu Alpine Club in Osaka, who had traversed from the east to west ridges after our skiing down, revealed that we had mistaken the West Peak for the Central Peak. The day we climbed Central Peak was hidden in the clouds and we were unaware of its existence.

Keiji Shimizu

First reported in Gakujin, vol. 317, 1973.

The Columbia Icefield

"The view that lay before us in the evening light was one that does not often fall to the lot of modern mountaineers. A new world was spread at our feet; to the westward stretched a vast icefield probably never before seen by human eye, and surrounded by entirely unknown, unnamed, and unclimbed peaks." These are the words of Norman Collie describing the view, after he and Hermann Woolley had set foot on the summit of Mt. Athabaska, discovering the great Columbia Icefield which lay beyond. It was an August day back in 1898.

After toiling for hours we can see the two weary figures slowly approach the summit late in the afternoon (5.15 p.m.) and stand in wonderment at the view around them. To the west lay the great snowfield bathed in shadows of the late afternoon sun.

I would imagine that the view we now see from Mt. Athabaska is little changed, but the great snowfields' tributaries are receding at a phenomenal rate. For instance in a study by W. O. Field Jr. made on the Columbia Glacier, a tributary on the icefields' west side in 1948, Mr. Field estimated that the Columbia Glacier had lost in volume an astounding 11,000,000 cubic yards per year over the 29 previous years. This tells the story of what is happening in the last half century. Maybe a small icefield in comparison to other mountain ranges, such as the Coast, or St. Elias Range, but to the Rockies it holds a special charm.

Most tourists who bounce up the short track in snowmobiles on the Athabaska Glacier are amazed at the glaciers' magnitude but they are unaware of the secrets hidden beyond the headwall where the icefield sprawls out for miles in all directions.

On a map the icefield looks much like an octopus. The main mass of the névé sits on a high plateau between 8500 ft and 10,900 ft dipping slightly to the south. It rises like a blanket over 12,000 foot North Twin and 11,000 foot peaks such as Snowdome, Mt. Kitchener and Mt. Stutfield only to break off in huge ice cliffs above the high rock walls of these peaks facing away from the icefield. The summit of Snowdome is unique in that it is the hypographical apex of the Rockies, snows from its summit, melt and flow in three great river systems to the Pacific, Hudson's Bay and the Arctic Ocean.

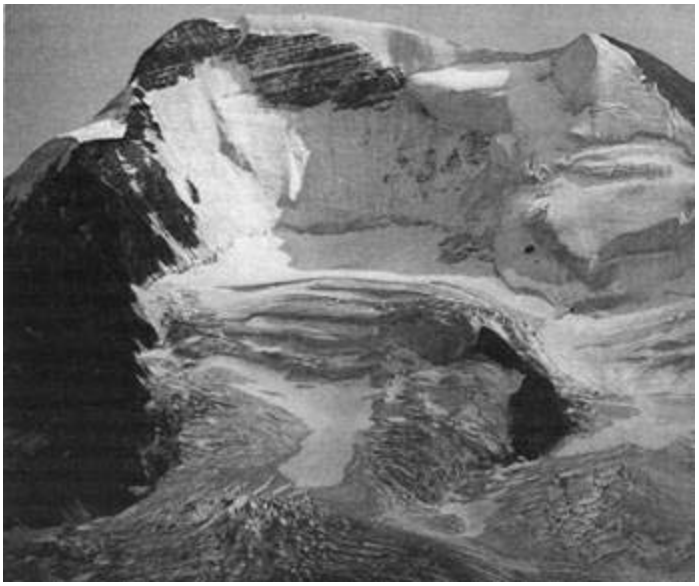
Mountaineering parties gain access to the icefield usually by the Athabaska Glacier, most in late spring when skiis make for

Looking down the Athabaska Glacier from the headwall. One of the many fingers of ice stretching out from the icefield. Glen Boles

Most late spring mountaineering parties use skis to attain the icefield via the Athabaska Glacier. Glen Boles

Looking north east from summit of Mt. Columbia at northern end of the icefield at right. Mt. Alberta at left.
The icefield terminates the great group of peaks, culminating at its northern end in Twins Tower, the Twins and the two domes of Mt. Stutfield. Glen Boles

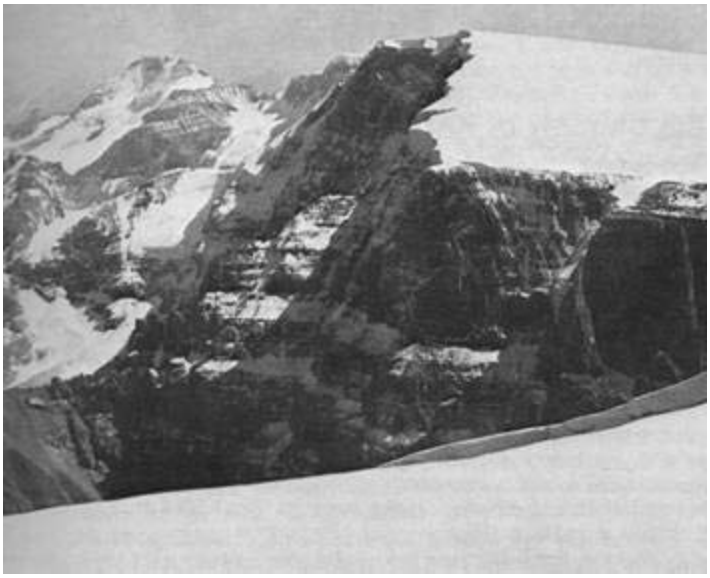
Mt. Athabaska from where Norman Collie first saw the icefield. Glen Boles



A large group camped on the icefield south of Snowdome. Looking west at Mts. Columbia and King Edward. Glen Boles

Looking south east from slopes of Mt. Stutfield to ranges to the south. Left to right: Mt. Forbes, the Lyells, Mt. Oppy, Mt. Alexandra, Spring Rice, Bush Mtn. and Mt. Bryce. The Stutfield icefall starts to descend from the icefield at the left. Mt. Castleguard. the small peak centre, is 14 miles distant. Glen Boles

The north east side of the icefield. Ice cliffs drop over huge rock faces. Mt. Kitchener as seen from Mt. Stutfield. Mt. Athabasca at left. Glen Boles



Twins Tower from summit of North Twin.
The Athabaska River valley below to the north. A prime example of the escarpment on the north end of the icefield peaks. Glen Boles

faster travel. In the past five years the great faces on the icefield peaks have attracted many expert climbers and some have been ascended by extremely difficult routes. Mt. Athabaska and Andromeda are the most popular peaks, for they are close to the highway and possess good snow and ice routes.

How long the icefields will last no one knows, but some of us are blest for having seen it from above the tourist line the way Collie and Woolley did on a day in 1898.

Glen Boles

In the Shadow of Karnak

The short range of complex, jagged rock peaks north of Jumbo Pass, which I have called the Egyptian Peaks, first caught my attention in 1968 and 1969 when we were exploring and later climbing the Horsehoe Peaks of the Truce Group (CAJ 1970: 36). From a camp along the south fork of Glacier Creek these peaks loomed as impressive rock spires with formidable western faces and ridges. In 1971 we were able to get a good view of the Egyptian Peaks from the 8555 ft summit of Bastille Mtn., just south of Jumbo Pass. We could see the advantages of an eastern approach: logging roads up the valley and more climbable faces and ridges.

Two years later we had the chance to return to the Jumbo Creek valley with the family of John Jeglum. This time we drove about 9 miles up the recently improved Jumbo Creek road along the north terminal fork to the old logging camp at about 5500 ft.

After the first day the weather seemed to be stabilizing, so on Saturday 28 July John and I left camp at 6 a.m. and set out up the valley. Leaving the improved road at the first switchback we continued northward up a much older road for about an hour until it turned into an overflow channel for the major sidestream coming down from the Commander Glacier between Karnak Mountain and the Lieutenants. At this point a large talus slide from the peaks to the west (our objectives) partially filled the valley floor, allowing a relatively easy crossing of Jumbo Creek. We crossed and headed up over an interminably long slide of granite talus and boulders. Studying the long irregular south ridge of our 9200 ft objective, we decided to ascend the south end of the small east glacier and then climb directly up the east face to an 8500 ft low point on the ridge about a half mile south of the summit. The rock was delightful, firm granite and gave rapid third class access to the ridge. We were glad we had not come over the false summit to the south because of its steep drop down to the 8500 ft notch.

The western face of the ridge was breathtakingly sheer quartzite, the eastern face high-angle granite. The remaining half mile of ridge crest was delightfully jagged, jumbled and exposed third and fourth class. Just north of the notch we dropped down the east face about 100 ft in a steep couloir, to avoid a short, exposed vertical step, returning to the ridge via a chimney out of the couloir onto the face. Some two hours from the notch and six hours from camp we arrived on the 9200 ft twin summits of “Mt. Isis”, where we built a large cairn for our first ascent record.

From this vantage point we finally could begin to see and study

The Egyptian Peaks. View south from Mt. Osiris.
1-Red Top Mtn., 2-Mt. Atmu, 3-Mt. Storus, 4-Mt. Isis, 5-Mt. Amen-Ra, 6-Mt. Toby. Curt Wagner

the complicated geometry of these peaks. To the north the 9550 ft highest rock peak of the group looked imposing and spectacular, out of reach from the peak we were on but beckoning us to its ascent another day. Taking our cue from Karnak Mountain to the east we finally decided to name the eight peaks after Egyptian gods of old: Anubis (8450'), Thoth (8950'), Isis (9200'), Storus (9100'), Amen-Ra (9550'), Atmu (9200'), Osiris (9400'), and Aten (9800'). The sets of lakes of appropriate numbers to the west we named Seti I, Thotmes l -lll, and Amenhotep I -IV after Egyptian rulers who established or continued worship of these gods.

After the lengthy ancient history review we continued north to climb the next major god-peak, 9100 ft "Mt. Storus." The final 100 ft to the summit were vertical, so we resorted to our earlier stratagem of ascending some 100 ft in a steep couloir, traversing onto the east face, and trying to locate a reasonable route up the face. After much searching we finally located a delicate exposed fourth class route (3 leads), reaching the summit about 11/2 hours from the summit of "Mt. Isis." Leaving another cairn and record, we descended the face and couloir to the east glacier, rejoined our ascent route and returned to camp in 41/2 hours. i

The weather was somewhat unsettled for the next two days, but on 31 July it was once again perfectly clear and still, a prerequisite for a one-day attempt on the next three unclimbed Egyptian peaks. Leaving camp at 5 a.m. we retraced our route up the valley to our previous point but then continued on the east side of Jumbo Creek through alternating sections of forest, meadows and avalanche fans to the broad open upper valley at about 6100 ft. Here we easily crossed the braided creek and ascended meadow, talus and snowfields northwesterly to the large glacier east of Mts. "Amen-Ra", "Atmu", and "Osiris". Initially we ascended the south end of the glacier towards the south east ridge of "Mt. Amen-Ra", but the gaping 'schrund and the very steep rock looked like they would take more time than we had for all three peaks. So instead we cut back and up across the glacier to the 8900 ft col north of "Amen-Ra", some 6 hours from camp. From this spectacular spot we climbed the very enjoyable third and fourth class granite and quartzite of the north ridge to the 9550 ft summit of "Mt. Amen-Ra" in one hour. In "honour" of this most important of the early Egyptian sun gods, we constructed a giant 6 ft cairn and deposited our hard-earned first ascent record. After a lunch we descended the north ridge to the col in about 1/2 hour (loose, rotten rock just above the col).

Next we scrambled up the south ridge of 9200 ft "Mt. Atmu" in 15 minutes, where we built a rather small cairn as the time was getting late. We descended its north ridge to a tiny notch between "Atmu" and a small northerly subpeak but rather than go over the subpeak we carefully traversed its west face to the knife ridge on the north. This knife edge was so spectacularly sharp and jagged that we decided to bypass it on the east. Thus we climbed up a short distance and then descended the rock of the north east face of the subpeak to very steep snow, dropping down further to a northerly snow traverse just below the ridge at about 8800 ft. Finally we ascended the class 3 broken rock of the south ridge of "Mt. Osiris" to its 9400 ft summit in some 11/2 hours from "Mt. Atmu". We hurriedly built a large cairn in view of the other four Egyptian rock peaks which we had climbed to the south. Looking longingly at the lovely twin snow domes of 9800 ft "Mt. Aten" to the north west (climbed in 1928 and in 1960), we were forced to bid adieu to all the peaks as it was by then almost 6 p.m. We raced down the north east snowslopes of "Osiris" to the broad glacial saddle at the head of the valley of Jumbo Creek and hurried down the long snowfields and glacial moraines to rejoin our ascent route on the glacier east of "Mt. Amen-Ra", Once again we descended to the main valley below, this time crossing the braided creek on a huge snow bridge still filling the upper valley. We finally arrived back in camp under the stars at 10.30 p.m., very tired but decidedly triumphant.

We had planned to climb the lesser peaks of the Egyptian range after a day of rest but nature intervened as she often does in climbers' plans. First we rediscovered the real hazard of Jumbo Creek car-camping: the local porcupines had chewed the radiator hoses in my car plus a new tire and one brake line in John's brand new car! After we had finally taped, bandaged, and plugged these wounds, we looked up to see an ominous and menacing fire cloud mushrooming up above and behind the Anubis-Isis ridge. Apparently a forest fire had broken out in the valley of Glacier Creek, casting an eerie and infernal reddish light over the Egyptian god-peaks and the entire valley. The snowfields at the head of the valley looked as though they were drenched in crimson blood. Was it mere coincidence, or the wrath of ancient gods angered by our invasion of their sacred alters? As the fire-clouds began to cover Karnak, the very temple of these gods, with its fiendish and foreboding red glow of destruction we made our Exodus from the Egyptian Peaks.

Curt Wagner

Mt. Sir Douglas: North West Face Direct

While working for a mountaineering camp in the British Military Group, I had many opportunities to gaze upon the rearing north west face of Mt. Sir Douglas. Always my eyes came to rest on the central line of icy ramps and depressions leading directly to the summit. The lower part of this line was done in July '71 by

Boles' party, but due to unstable conditions they left the central line about half height and escaped out the left hand line to the north east ridge.

By mid-August the winter mantle of snow was long gone and the true north face character was exposed. A fine ribbon of blue ice extended from top to bottom—the conditions were perfect! With the added incentive of a previous party that backed off a few days earlier rumouring 60 degrees plus ice I took my first opportunity to have a look at it. On the morning of 15 August Mel Reasoner and I left our warm bivy and wandered through crevasses in the north west glacier. Climbing a couple of short moderately angled ramps we arrived face to face, so to speak, with the real thing. The first six pitches involved traversing the bottom ramp which led diagonally into the base of the main line. The fourth pitch of this section offered some fine technical ice manoeuvers. It was necessary to step around an old avalanche fracture line into a steep saucer-like depression sitting on a vertical chute which dropped to the glacier far below. Front points in hard blue ice, axe in rotten hoar ice, a wart hog, then finally a few dubious pins in the shattered rock above, and we were across the crux on this lower half of the route. At the end of the ramp we made a bee-line for the top, passing through a narrow one pitch bottleneck, then across a clean blue apron, and finally up the arcing ice dolphin just below the summit. There were some interesting moves getting from one section to another. Traversing into the summit ice proved a duplication of the first crux on the diagonal ramp below, only this time the ice was steeper and layered. As the surface ice was insulated from the base by a layer of hoar it meant tying off screws at three inches. Some protection for the steepest ice on the route! However at length it went, and after 18 pitches of belayed climbing we were standing on the summit of the highest peak of the group, very tired but happy with our efforts.

This route is suggested with the "wilderness" climber in mind—the individualist who enjoys getting away from the groupies and climbing in more remote situations. Added pluses include the fact that the climb is north-facing and does not get sun until late afternoon. The face has a minimum amount of rock fall when all ice, i.e. late August. The other routes on the mountain tend to be quite rotten; the normal route a bore on easy angled slabs, but making for a fast no rappel descent. The angle of the ice was never less than 45 degrees and seldom more than 55. Some short sections were steeper and these were treated as highlights, taken straight on. Although not exceptionally steep for modern ice tools the climb is sustained at 50 degrees and combined with its length, makes for a good alpine ice route.

Murray Toft

North west face, Mt. Sir Douglas. Line follows obvious ramp and direct line to summit. Murray Toft

Tellot Lake to Knight Inlet

Party: Fred Thiessen, Roland Burton, Eric White, Erich Hinze, Ellen Woodd, Jennifer Lilburn, Sara Colling.

July 1. Nabob Pass is snow-covered except for islands of heather, lakes of reflections, scattered garbage and long-forgotten caches. Our tracks decorate the snow from above Ephemeron Lake (known to our pilot as Tellot) to Nabob Pass, and separate there into seven curious lines wandering from heather island to flat rock to lakeside to garbage heap and back.

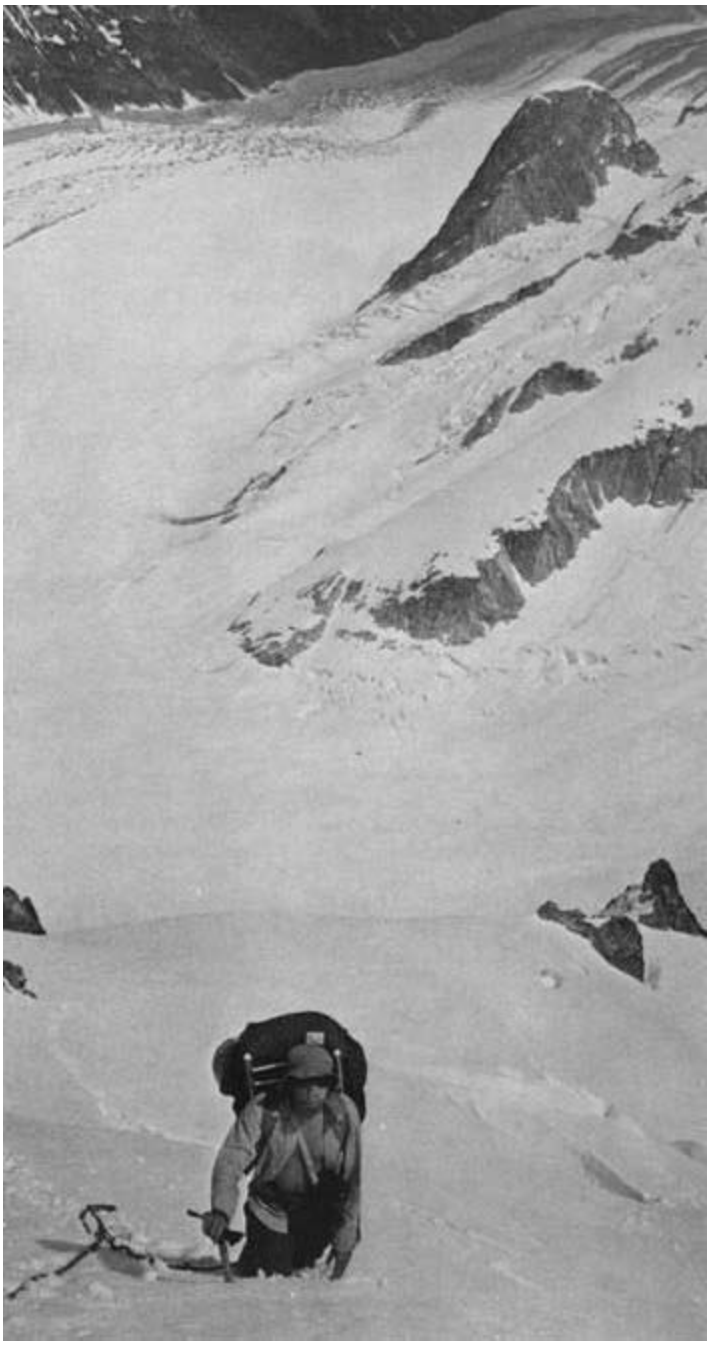
July 2. Seven weirdly bulging creatures in shouting colours, hooded, flapping and wet, weave between crevasses to gain the uninterrupted snow in the middle of the Tiedemann Glacier. Dull grey the world, and small; nothing exists but fog, snow rain, wind, and six other grotesque forms, suddenly plodding.

July 3, 4. We peer out of our three tents at the base of the Rainy Knob, see the grey world unchanged, hear the continual speckled sound of rain.

July 6. It's hot. Fred, Eric, Erich, Jennifer and I each struggle to remove one leg from the wet cement we're mired in, thigh-deep, so we can sink again one step closer to the Claw hut. We try crawling; a cry of despair bursts from one who has suddenly sunk in to the

Claw Peak. Grenville, Ferris and Griffon in back. Fred Thiessen

Ascending Mt. Munday ridge. Teidemann Glacier in background. Fred Thiessen



tops of his legs.

July 10. Eric, Erich and Fred climbed Serra III yesterday, while the rest of us explored less ambitious peaks: Dragonback, Eaglehead, Tellot, and Argiewicz. We looked from our sunny cirque to the Serras, and saw swift-swirling mist tumbling toward us. Today we are trapped. The hut shudders, windows whistle and moan, and candle flames flicker. The hut's aluminum sheathing ripples thunderously.

July 11. On the peak of Heartstone it's warm enough to sunbathe . . . until the wind begins to blow. Roland, Fred, Jennifer, Ellen, and I bask under the intense blue of a storm-washed sky.

July 12. There is a little pool of water at the very edge of the summit of Claw Peak but one could suffer vertigo drinking from it. Jennifer and I must be the most exhilarated pair ever to sit here; neither has done much rock climbing at all, and this was the first leading either of us ever tried. We look westward to the massive form of Waddington; so long hidden from view it now draws our eyes as irresistibly as it has drawn our thoughts. The boys are all out climbing Serra I. We hope they aren't blown off.

July 13. We've all known about this since Roland and Ellen came up to the hut on the 7th and told us. Now we're looking at it: an avalanche that buried and scattered our cache at Rainy Knob. So we dig, and dig, and dig ... "Yahoo! Found the kitchen!" "Yippee! Here's the toilet paper!"

July 14. Roland is halfway up the face of a sérac, waist-deep, shovelling with his hands. Avalanches roar down the rock faces just north and the sun is now shining full on the 1800 ft of icefall below, softening it to a deep mush. Without a shovel we can't go up any further... we two are in the icefall between the Arabesques and the northern bulge of Munday. The other five are investigating Munday's northeast ridge.

July 16. "Oh, let me go first," Ellen offered, "I've never fallen in a crevasse before." Five minutes later, only her head and arms were visible. "I can't touch anything with my feet!" Eric pulled her out and we trudged the rest of the way to the Bravo-Spearman col, camped, and hiked up Bravo. We started from the base of Rainy Knob this morning with supplies for a week and took a long time to wallow through the soft deep snow between gaping blue crevasses in the Bravo Glacier. When the headwall stopped avalanching Fred and Eric put a handline up it, using all our ropes—and it reached down almost to the bergschrund; not quite.

July 17. We've all climbed Spearman now and our camp is set up in the Spearman-Waddington col. We can see our other airdrop site at the lower end of Glacier Island.

July 18. "ICE" I yell. Four helmets duck, chunks of ice and rock smash down. We check the ropes and keep climbing ... On the main summit of Waddington I look about amazed; it's so tiny, the drop so sheer. I saw this blade of rock broadside from the Claw and it was massive; now its slenderness astonishes me. Fred, Jennifer, Erich and I perch and eat and gaze for too long.

The other three climbed the Northwest Peak today; straddled

huge, rotten ice feathers at the summit and returned to camp at a sensible, sunlit hour. Our descent is slow—ropes tangle, further down they snag. At the Notch blackness creeps up from the shaded eastern side and a bitter, icy wind howls and buffets. We are cold, fingers numb and stiff, and we move with great deliberation, darting beams from our headlamps down the jagged rock. Back on the snow we still operate in slow motion with the exaggerated caution of drunks. We are drunk. Finally at camp in the Spearman col we see traces of pink in the east.

July 19. Everyone but me slept most of the day and now, at dusk, we are hurriedly packing up camp. Weather has moved in today— wisps of cloud streak past. We haven't enough food for a prolonged siege so we move—with regret; Roland and Eric wanted to climb Waddington too. The crust breaks and bruises shins. Half a moon provides illumination until flying clouds blot it out . . . the Tiedemann winds sinuously down the valley far below and in a dream we see lights there gleaming at us, winking glimmering. Pools of water mirror the moon. Snow bridges solid a few days ago hang snagging and tattered over wider crevasses. Further down a spectacular dawn lights our way. We arrive at the Rainy Knob camp around 8 on the morning of the 20th.

July 22. We are camped high on the Munday plateau in thick fog and freezing wind. We left Rainy Knob for the last time late yesterday afternoon and gained about 1300 ft on the north east ridge before carving tent platforms. Trail breaking was heavy and there was no compensating view.

July 23. Frost feathers—on everything! Blue patches! We all make tracks up the highest peak of Munday and stand there drinking in the view then pack up camp and head down to set it up again in the Munday-Agur col. Snow slopes from between the two eastern summits provide a quick and easy route down. Later, all but Ellen and me traipse up into the mist shrouding Agur.

July 26. Erich and I are sitting on top of Jester feeling slothful. The wind carries voices clearly from the west—Fred, Eric, and Jennifer are energetically climbing all four peaks in this group today. We strain our eyes to see Roland and Ellen's tracks—they have trekked away to see Fury Gap and Mt. Chris Spencer.

July 27. Returning from Mt. Repose I scrambled up some steep gravel on the southern side of Glacier Island (where we have been camped since the 24th) and find a miniature garden of rare beauty: a tiny stream sparkles brilliantly down a bed of dense emerald-green moss, clusters of alpine flowers bloom, their soft colours vibrant in the sun.

July 29. A muffled, thundering roar issues from a small, bottomless hole in the bare ice of the Franklin Glacier. A powerful river is flowing beneath us. We walk beside a noisy stream rushing along on blue ice. Then it becomes a moulin, plunging into a hole six feet in diameter to join the main river below. We left Glacier Island this morning, followed the south east margin of the Franklin until we were below Icefall Point, then worked our way through disorderly crevasses toward the middle of the glacier. Here the travelling is straightforward. Getting off the glacier is less pleasant. We traverse slopes of unstable gravel, mud and boulders covering glassy black ice; rocks teeter and boom around us. We camp on sand above the boisterous newborn Franklin River with grit in our hair, grit in our eyes, and grit in our mouths.

July 30. At this time of year, there are few sandbars to walk on. We are forced to climb over a noticeable bump of rock and slither down a gully on the other side before we find any. Then there a few brief encounters with brush and one odoriferous little bog before we get to an old logging road and begin to develop blisters.

At the logging camp that evening there are rows of sleepy-eyed men leaning on bunkhouse railings to watch us straggle in on our aching feet. One of them mutters a comment to the man beside him and the warm evening air carries it to our ears: "Hey, those wimmin ain't wearin' any brassieres!"

Sara Golling

A Family Trip to the Valhallas

The helicopter heaved at the grab net full of climbing gear, baby's diapers and fresh food. It might as well have been an anchored ship. Christiane, our baby sitter, got out—she would walk up Mulvey Creek after all. Rosemary Coupe with her charges lain Coupe (2 yrs), Ruby Rowat (3 yrs) and Lena Rowat (6 months) remained. The helicopter rose slowly and disappeard into the mountains surrounding Nelson. My vision must be a common one amongst climbers with a family. I wanted a high camp in alpine meadows, completely snow free so that kids and babies could crawl and play, with easy access to challenging peaks or rock faces. The Valhalla Range seemed to fit the bill .The helicopter reappeared and in a few moments Ev was telling us "four feet of snow around the hut!" We'd go anyway and if necessary come out early with the kids. Besides the helicopter party we were Greg Shannon, Peter Koedt, Peter and Wendy von der Porten with their dog Heidi, Christiane Peloquin and myself. Nona Rowat and Robert Coupe would follow later.

Next day we walked up Mulvey Creek, Tiger Lily and other flowers in great abundance. Soon the mist raised its hems a little. Great acres of medium angled granite slabs steepened then disappeared from sight. Streams ran from narrow gullies. At the hut Rosemary and the children were in good spirits. Over the next ten days the snow melted very fast, exposing large patches of meadow so my vision was not entirely unfulfilled.

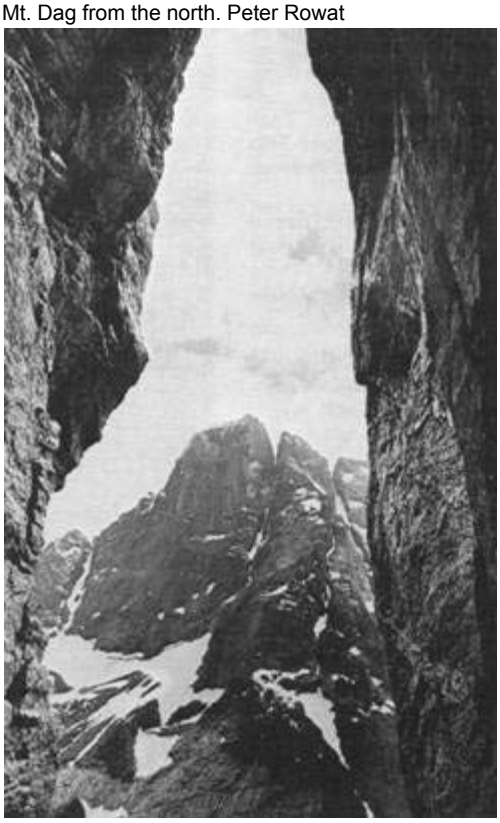
Our first climb was a mass ascent of Asgaard. On the way back along the ridge crest we peered down the steep south face through occasional ragged holes in the mist and were excited to see that the highest and lowest parts of the face were obviously climbable.

Since ours was a large party various things were happening at one time. Midgard, Gimli, Wolves Ears, Nothing, Dag, West Molar and Gladsheim all had ascents. One day Peter K. collected delicious wild vegetables from the foot of the headwall, another day the kids had quick, icy baths in a stream.

Over two beautiful days Peter K., Greg and I climbed the south

South ridge of Gimli, first pitch. Peter Rowat

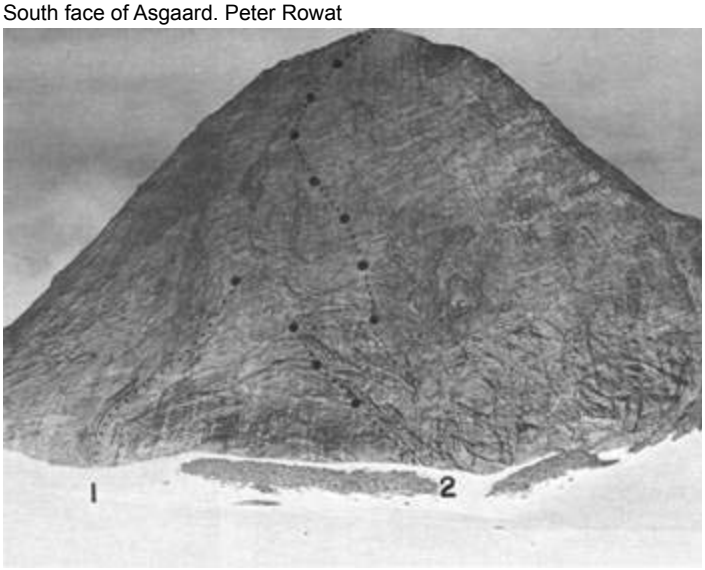
Mt. Dag from the north. Peter Rowat



Approaching the black overhang, south face of Asgaard. Peter Rowat

Dag, the Bat, and Nothing from foot of Mulvey Creek headwall. Peter Rowat

South face of Asgaard. Peter Rowat



West Molar. Peter Rowat

face of Asgaard. Fantastic rock—solid and very rough, with little knobs and holes, good nut protection, and can be climbed almost anywhere at a high enough standard. Keeping to the weaknessess, our climb stayed in the 5.6 to 5.7 range.

One day Peter K., Greg, Nona and I walked up to the most southerly point of Gimli where its south ridge abruptly terminates in a wide vertical diedre capped by an overhang, with a magnificent jam crack snaking up its centre. A snow storm blew up on the first two pitches so Nona and Greg ran back to the hut while we two Peters cleaned up and rappelled off.

On 3 July Robert, Peter K. and I were joined by two Americans, Tom Dodson and Peter Rankin, on an attempt on the West Molar. From the top of Red Gully we traversed slightly downwards across steep grassy slopes to reach a narrow, steep and bottomless snow gully running below Gladsheim's east face. A large chock stone intersects at right angles. We ascended the broader gully a little way then traversed back on some ledges into the first gully. From the col at the top of the gully the west face of the Molar looked uninviting—overhangs, ledges that petered out, cracks leading nowhere. By traversing 400 ft beyond the col on its north side we found a system of gullies and chimneys that led in several easy pitches to the ridge. Easy scrambling led to the top, a big flat field! Descent was by two 120 ft rappels directly to the col.

Peter K. and James Hamlin returned in September for three days. They finished the ridge on Gimli, did four pitches up curving cracks on the left hand side of Asgaard's south face and rappelled off for lack of time, and did a two pitch slab climb on the big sheet of slabs at the west end of the Mulvey Lake that one passes on the way to Asgaard.

MT. ASGAARD, SOUTH FACE

Route 1: P. Rowat, P. Koedt, G. Shannon. 1 Start up obvious slanting crack in right centre to wedge shaped slot, traversing left onto face occasionally. 2 Zig-zag up ramps and ledges in leftward trending line to ledge beneath overhanging wall. 3 Take overhang directly, work slightly right then back to reach ledge above right facing corner. A conspicuous black water streak diagonals left above the ledge. 4 Traverse right on easy ground, ascending very slightly to stance on side next to small black left facing corner. 5 Attain huge jug on steep wall above stance. Mantleself, traverse right for 10 ft, go up small crack, then back and forth to another mantleshelf. Traverse left and up to stance on small horizontal crack. 6 Go up to niche beneath overhang. Get into niche, go over overhang, then up left and reach large diedre. Stance 40 ft up. 7 Traverse left on slabs beneath overhangs on left wall of diedre, go up steep ramp cleaving overhangs and continue straight up to big ledge at bottom of big diedre system with black overhang at its top. 8 Easy ground in the diedre for 60 ft. Make a traverse right, then head straight back up to and over the overhang to a good stance (140' pitch). 9 Go up left around a nose, then straight up the nose for a rope length. Very easy on magnificent rock. 10 Right and up for a rope length. 11 Ascend the final slabs directly to the summit. Rating: IV, 5.7. Gear: 12 pins, knife blade to 11/2", 12 nuts. A direct line from the top of pitch 1 to bottom of pitch 5 would be better. 12 hours.

Route 2: P. Koedt, J. Hamlin. Start up the obvious curving

cracks on left side of face. Four pitches on great rock take you almost to a kind of narrowing in the face. The party rappelled off here for lack of time.

MT. GIMLI, SOUTH FACE

P. Koedt, P. Rowat, N. Rowat, G. Shannon, J. Hamlin. From the Wolves Ears the convex south ridge of Gimli is a prominent feature. The climb takes the crest of the ridge all the way. 1 The most southerly point of Gimli, the start of the ridge and the hardest pitch of the climb, consists of a curvaceous jam crack at the back of a 120 ft high steep wide chimney capped by an overhang. Can be well protected with nuts and exits right at the top to a stance beside the overhang. 2 Go straight up for 6 ft then back left onto the ridge crest and climb easier ground to the first notch (seen from the Wolves Ears). 3 Go up to obvious flake, aim for obvious crack but traverse round corner to right. Continue up broken ground to stance. 4 Continue to big flat step. 5 Continuous 5.6 for 200 ft going right occasionally, to stance. This pitch could be divided by a belay at 50 ft. 6 Continue up circumventing overhang on left. 7-10 Ridge rounds off gradually, scramble to top. Rating: IV, 5.7. Gear: 6 pins from small horizontal to 11/2", 12 nuts.

Peter Rowat

Portions of this article first reported in the Kootenay Karabiner, volume 16, 1973.

The Cirque of the Unclimbables

"Galen Rowell would like this place," I said as Klaus and I looked up at the towering north east face of Mt. Harrison Smith. Around lay mountains as beautiful as the Bugaboos and as remote as the St. Elias Range. After two weeks of portaging, tracking and running the white water of the South Nahanni we had seen no sign of man other than some initials carved upon a piece of driftwood and the occasional far-off drone of an aircraft. We were looking up after a brutal 12 hours of bushwhacking, at some of the most impressive peaks that I have ever seen.

Ten minutes later we staggered into the remains of an old hunting camp. Oil drums, tin cans, plastic sheets and all manner of other garbage littered the area. We were back in civilization. Next morning we were awakened by a helicopter and visited at breakfast by a wandering climber. (We almost shot him for a bear.) We learnt that our beautiful, remote and untouched mountain range was neither remote nor untouched. Remoteness had long since succumbed to the roar of the helicopter and floatplane while untouchedness was soon to be overwhelmed by the hammers and arms of Galen Rowell, Jim McCarthy and the rest of their party. We were looking up into the Cirque of the Unclimbables. As I poked my toe at our 9 mm rope, six carabiners and four nuts, I thought "My wife was right; five days was not really enough time to plan a trip of this magnitude." (Our original plan, to run the Alsek River and climb in the St. Elias Range, had fallen through at the last minute.) The drone of a floatplane and we were helping a party of hard-looking lads from California unload their gear.

Feeling a bit sheepish we tagged along somewhat disconcerted and still not a little puzzled as we listened to them enthusiastically telling of the big walls up in the cirque. I still had it in my mind that Lotus Flower Tower was somewhere near Mt. Logan. Oddly enough I once taught Geography. A careful look at the map quickly cleared up the confusion. We had unwittingly wandered into one of the finest rock climbing areas in Canada. And we only had one day left before we had to head back to our boats and continue on our way down the river.

Our one day was enchanting. We wandered through the gigantic cirques looking for possible and impossible routes up the forbidding walls that rose 2000 and 3000 ft. I felt like Frodo in the land of Mordor: intimidated frightened, overawed, yet conscious of the incredible beauty. To look down over the lush green meadow spotted with gigantic boulders and laced with a delicate network of streams converging near our camp and plunging down into the valley below brought a sublime peace.

Further into the Ragged Range there are undoubtedly many routes that would offer fine climbing for the intermediate climber. In the cirque itself there are a few mountaineering routes but on the whole this is a big wall country. Such good mountaineering routes as we did see looked both difficult and dangerous. This, plus the terrible weather in this area, makes the Cirque of the Unclimbables no place for anything less than first rate climbers.

As we prepared to head back down towards the river the traditional Ragged Range weather descended. A day later as we drifted down the Nahanni in brillant sunshine the towers of the range were still enshrouded in glowing clouds. We thought of the Americans bivouacing on the walls and wished them luck.

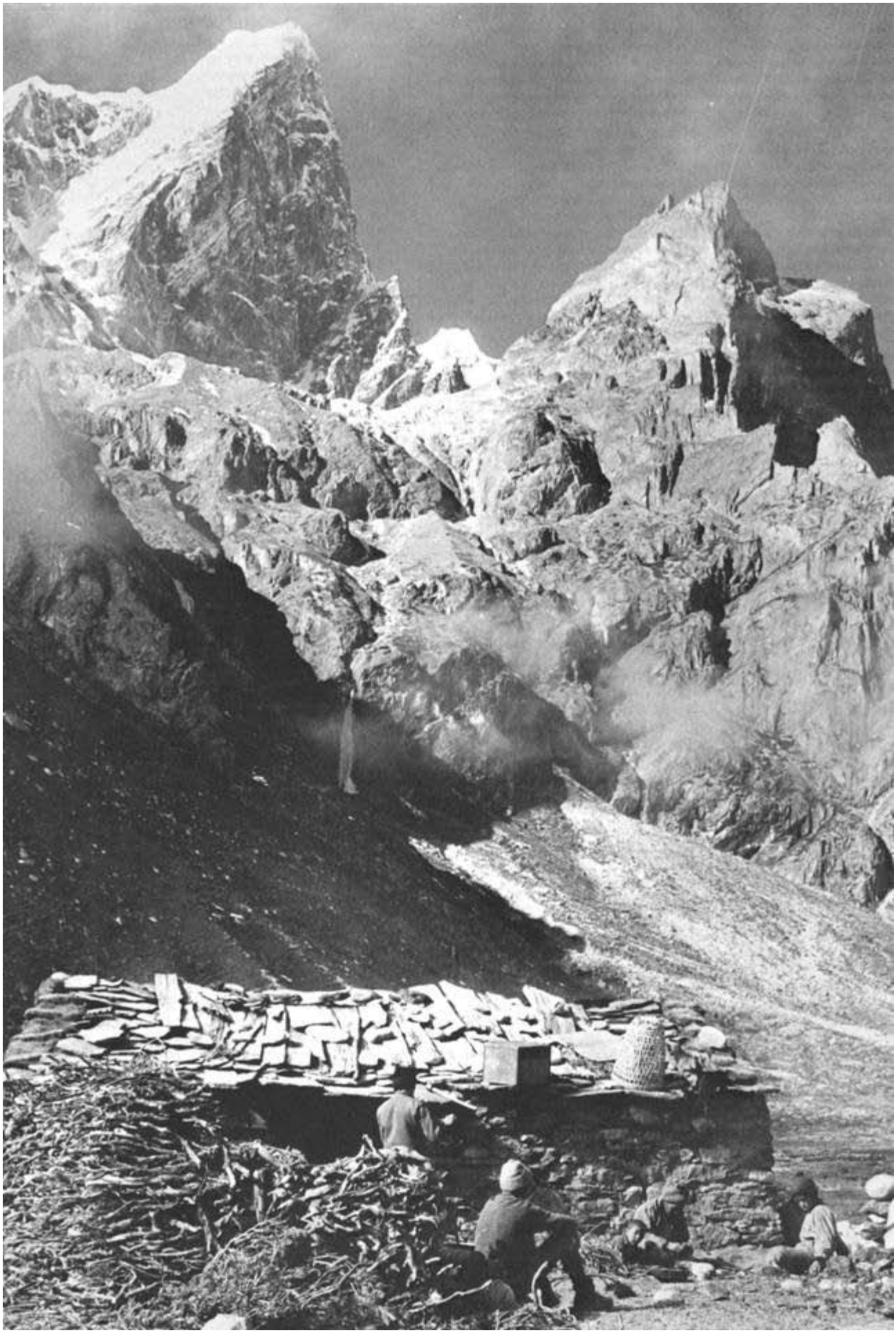
Jim Mark

Rambles Along the Caledonian and Alpine Chain 1971-72

In early 1971 our friends Dr. Brian and Margaret Ellis wrote us from their exile in the heart of the Ruhr Valley of Germany. Would we similarly eye-strained research types join them on an overland trip to Nepal for the oncoming autumn? The Canadian contingent to this superb hiking area grows every year. Easy aircraft access has made the onslaught over burdening—and now the completion of a continuous paved route from Europe to Kathmandu has accelerated the overland rush as well. The overland is the basis of this account; however it is not an intrepid journey. Fellow member Byron Olson did the route in 1967-68 but never published it past the slide lecture stage.

Before setting out to Asia we caught the wet end of a season in the Alps and while in Nepal an installment of the Indo-Pak feud left us with our assets on two sides of a closed frontier necessitating eventual retreat from India with van in the hold of a British India

Taboche or Taweche (6367 m) rises above the Pheriche (4243 m) tea house. The head of the Khumbu Glacier is a day's walk from here. N. Ricker



steamer to the Persian Gulf. Shrugging off this economic loss, the snow deficit Alps were visited in the early spring of 1972 before floating over to the Caledonian fold belts. A final shortened summer during yet another blustery season in the Alps closed out these rambles.

ALPS—FIRST EDITION

The '71 season began with a leg stretch on an easy sub 3000 m peak in the Verwall Group of the Tyrol. We then hurried to Grindlewald to meet the Ellis' with friends who were already working on the Schreckhorn above the Strahlegg Hut. Our friends met us just short of the hut announcing bad snow conditions and electrical activity on the Schreck. Another area would be more suitable for them. Reluctantly we retreated to showers and then the climber's slums of "le Bois" at Chamonix a little Commonwealth Empire that Napolean would never have tolerated! A circus scene: tents, vehicles, sprawling gear, people spurting out and dragging in from climbs on the Aiguilles, and sanitation far from satisfactory. In a nearby vacant field we organized for a multi-day siege on the Aiguilles and then sat out wet days at timberline before closing with an enjoyable bright day of granite friction on two lowly needles adjacent to the Mer de Glace. The weather appeared to be stabilizing for an attempt on Mt. Blanc.

Teleferique break downs on the A. du Midi cancelled out the Grand Mulets classic approach to Mt. Blanc from the north but down valley at Les Houches another intercepts the St. Gervais cog train. This swaying old relic creaked up incredible grades to an inclined stop at le N'aigle (7800') feeding a mass of climbers to the Tete Rousse—Gouter huts on the west side of the massif. A hot morning soon dispersed the crowd—by afternoon rocks above the Tete Rousse (10,400') made for good missle practice. At the Gouter (12,500') the prime position of this silvery caboose became evident. The cost of staying there necessitates careful weather planning. In worsening weather the crowd grew, headaches and insomnia increased. A strong buffeting that night eliminated any chances of sleep and at the usual 0200 hour arousal neither people nor weather were agreeable. A few hours later in strong winds and snowfall large parties roped their way out of the hut vestibule somewhat similar to spaghetti pouring out of a bowl! We held back for the 1000 hour weather forecast but the news was doubly bleak so we dropped down to the Tete Rousse Hut during the afternoon in order to defray expenses. This was the only hut we found in the entire Alps that would honour an ACC card to at least a partial discount. Something smacks an European hut keeper about our cards as being utterly amateurish in appearance when compared to their photo embossed and sealed "Ausweisskarte"—finger prints not yet being required. New knee deep snow overnight gave us a following day of avalanche scares while trying to re-attain the Gouter—retreat to await stabilization was in order and our sights dropped to the north end of the Mt. Blanc massif, climbing the granites of A. du Tour and two lesser neighbors.

After the consolation Aiguilles a trip was made to Europe's highest auto pass (Col d'lseran, 9100') where because of the skimpy winter, summer conditions were miserable! Looking for alternate ideas it was a night of indecision beneath the pines below the Grand Jourasses. The weather was changing—hinting strongly for another Mt Blanc attempt—but Zermatt would give us a change. Over spacious, rural and quiet Simplon Pass into Switzerland to meet the antithesis—crowds, autos and encroaching highway to the world's most famous hamlet.

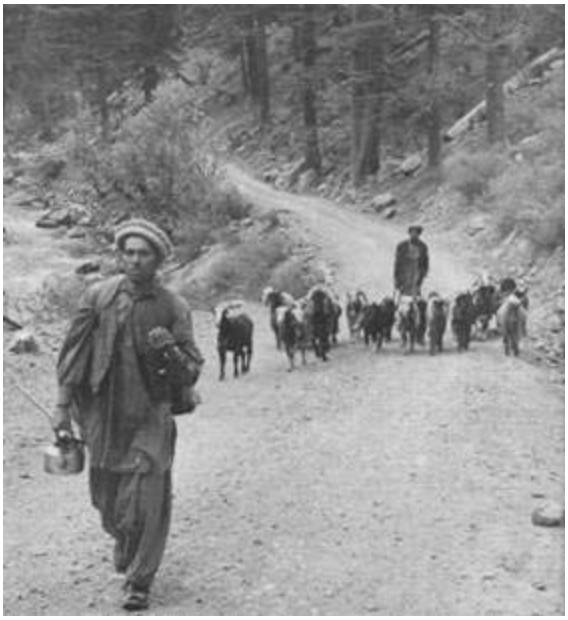
Stable weather prevailed during the grind up to the Matterhorn's Hornli Hut which yielded, understandably, one of the alpine world's crankiest keepers. In a few hours the fun began—following a string of about 100 headlamps. The lower section of the Hornligrat is loose like Mt. Assiniboine with its basal vertical distance to the Solvay emergency shelter (12,900') being equivalent to the entire length of climbing on its Rockies' counterpart. The first traffic jam developed on the Mosley Slabs just below the Solvay and a nearby guide remarked this to be the busiest day yet for the summer. Above the route changed to a style reminiscent of the north east ridge of Sir Donald with about the same vertical climb (1800') to the summit. After the odd bit of cursing at over anxious guides with cliental of diverse abilities the crowded Swiss summit was reached. A traverse on a narrow arête yielded peace on the slightly lower and quieter Italian summit. The view down the north face did not suggest great technical difficulties— the continual trickle of loose rocks did.

From the Hornli stop we began that afternoon to traverse to the privately operated Gandegg Hut by way of the edges of the Furg and Theodul Glaciers. Halfway there a very wet electrical storm suddenly erupted—and with many parties on the Hornli! Drenched, a retreat to the nearest alpine tea house and Oval-maltines in the dry eventually convinced us to descend for the night to Zermatt and Frau Biner's international climber's dormitory. This lady's independent and benevolent attitude clearly cuts the mentality of most other hotels or pensions in the village and she is a wonderful source of stories, wit, consolation and route advice. Savouring all we finally pried ourselves from her climber's kitchen and shouldered our packs next day to the Gornergrat— only to again be met by afternoon squalls while crossing the glacier to the Monte Rosa Hut. A cheerful group of proprietoresses ran this factory of Dufourspitze baggers but the production run dropped to zero with a storm on the following day. It was snowing, blowing and thundering hard and in the midst of a particularly noisy series of flashes a chopper darted onto the helipad to pick up the affluent who could not be bothered to walk out to the Gornergrat in the rain. All 100 of the hut occupants were equally amazed. Most vacated to Zermatt in phase with each departure of the cog train across the valley.

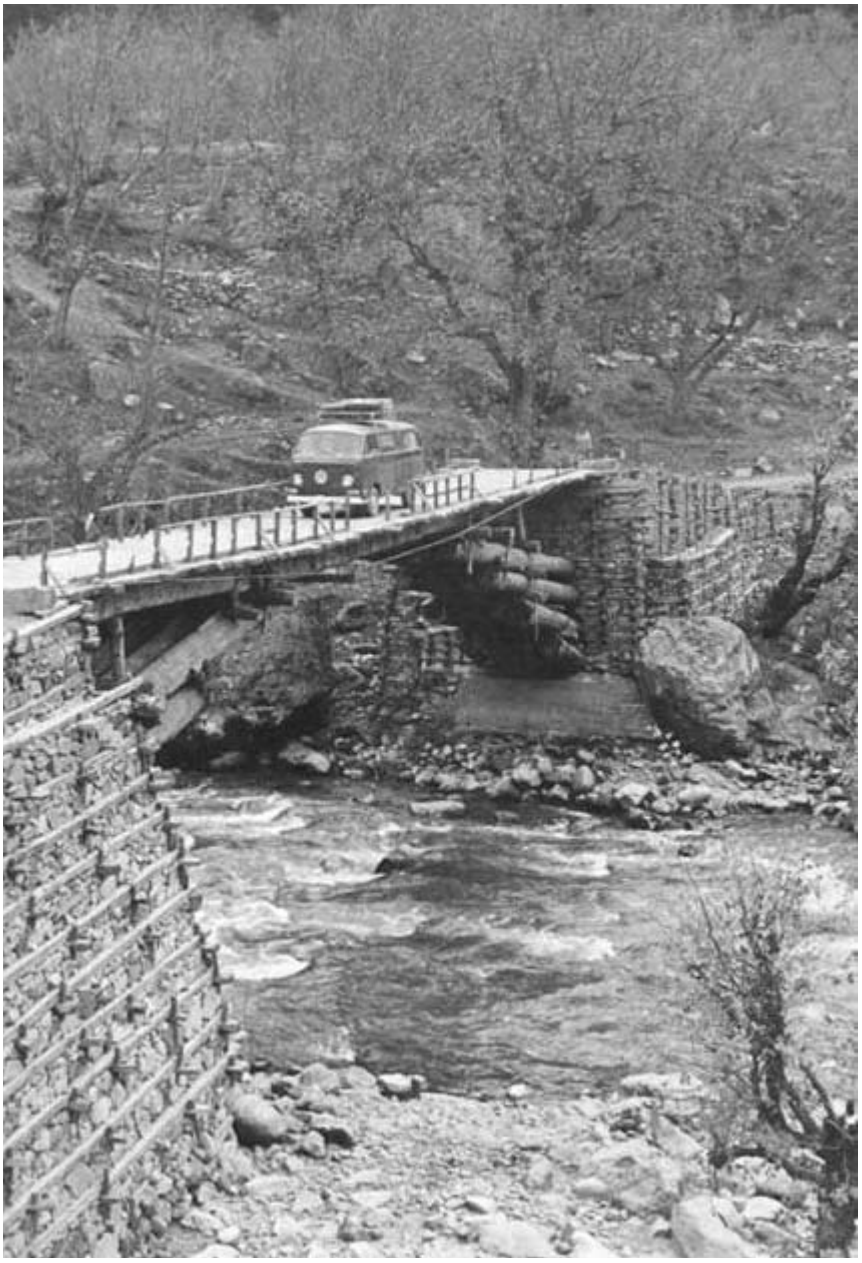
On the third day one of the hut keepers aroused us with an 0300 hour musical shout, "Das Wetter ist sahr schon!". We stumbled out onto the snow covered moraine toward the giants. German and French parties joined us for an attempt on the Dufourspitze (Monte Rosa's highest point); the glacier ascent was in knee-deep powder, but on gaining the arête above not even crampons would dent the wind polished ice. Clouds were rapidly moving, the wind increasing—scratch the French party, and after a few tottering leads on the arête in snow flurries Nancy became uncomfortable as did the anchor man on the German rope. Regrouping at the low point on the ridge the German leader joined Karl while Nancy led his mate back to the hut. Returning to the fray on front points tactics changed to brushing heaps of new snow off the rock arête in order to gain the summit. There were no followers! Groping back along the airy swirling scene visiblity disappeared in the upper névé. Obviously it was no longer a climbing season and we

Enroute to Hindu Kush from Kabul, Pakistan. K. Ricker

Mountain herders near end of road system, Valley of Swat, Pakistan. K. Ricker



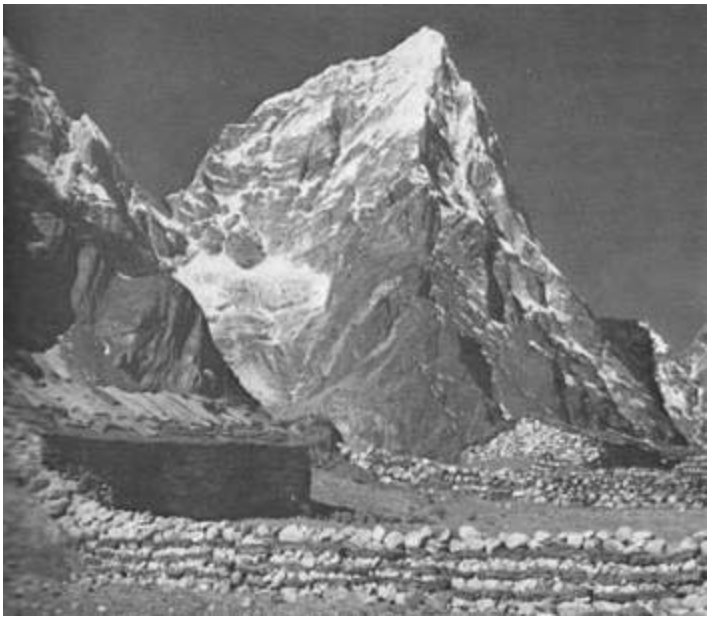
Immaculately built bridge without iron pins, screws or bolts, Valley of Swat, Pakistan. N. Ricker



Bridge on Dudh Kosi below Namche Bazaar. N. Ricker

Kongde Ri (6187 m) and chortens from Pangboche N. Ricker

Jobo Lhaptshan (6440 m) from Dusa—a summer village at 4503 m on lower Khumbu moraine. N. Ricker



Thame Gonda built into the cliffs. Route to the right leads over Trashi Labtsa (Tesi Lapcha) into Rowalling Khola and alternate route to the Sun Kosi-Kathmandu valleys. N. Ricker

countered with lowly Riffelhorn the following day while returning to Zermatt for our skiis. The skiis proved to be on the van at Randa and another day was used chasing them up for a ski tour to the summit of Breithorn and its neighbor, Little Matterhorn where summer skiing involves haywire access and is bearable for only a short period. We turned eastward to the trails and easy peaks of the Gurktaler and Julian Alps during final preparations for our expedition to Nepal.

OVERLAND ALONG THE ALPINE CHAIN OF ASIA MINOR

The 10,000 mile overland trip to India takes on a predestined course: usually Austria to Belgrade, Sofia, Istanbul, Ankara, north coast or Antolian Plateau of Turkey to Mt. Ararat and the border crossing to Iran and its large VW garage at Teheran for major auto checkups; Mashad via the Caspian coast to the desert crossing, in daylight only, into Afghanistan: Herat, Kandahar, Kabul and Khyber Pass to Peshawar, Rawalpindi and Lahore, Delhi, along the Ganges to Patna; the winding and colourful ascent to Simbhanjang Pass and the final descent into the Kathmandu Valley The route has only short stretches of gravel, all in eastern Turkey, kept in good condition. A more southerly but longer course along the coast of Turkey into Syria, Iraq and southern Iran to Teheran or southern Pakistan is sometimes used with the advantage of avoiding winter snows and being on continuous asphalt. Hundreds of Europeans in their camper vans are on the route.

We took a variant through eastern Europe by hugging the Dalmatian coast and crossing the alpine chain in Yugoslavia just north of Albania on a much publicized gravel road through Cakor Pass (6000') with views of a majestic snow-covered Komovi massif to the south—relatively tame to British Columbians but the end of the world according to various European auto clubs. This put us in the valleys of Macedonia followed by a crossing of lower ranges into southern Bulgaria and a look at their highest in the Rila Group—again in new snow cover. Mountaineering facilities are excellent here and several summits are 9500 ft and higher. The area warrants more attention.

In Turkey, after a run along the yet undiscovered beaches of their north coast we left the Black Sea on a spectacular road out of Trabzon. An ascent of a steep-sided valley in the Pontic Mountains yields views reminiscent of the Swiss Alps on the seaward side but a contrasting similarity to the limestones of the Dinaric chain of Yugoslavia on the dry side. Several passes later the last major Turkish city, Agri is reached before crossing into Iran. A mail check revealed no clues of the Ellis' whereabouts which essentially killed any hopes for climbing nearby Mt. Ararat— another high volcanic slagheap. The word from fellow trekkers having climbed it is: "Blah, boring, red tape, a rip off with the local mule skinner who rules the base area, a better possiblity for a late spring ski ascent."

At the Iranian border tourist officials handed out an attractive brochure on skiing and climbing along with a road map in Farsi and English. Directions to the ski areas were vague. Mountaineering access can remain a total mystery until reaching the offices of the Iranian Mountain Federation in Teheran. The 14,000 ft Elburz Mountains rise from the sub sea level Caspian and drop to the city's door-step on the inland side—a few volcanoes including Demavand rise several thousand feet higher above the other summits. Our friends caught up at Teheran and we made a recce

to the base of Demavand to check the conditions. Being early October this volcano was its uninspiring driest and at the village base hut in Rheineh red tape developed with the chief guide. Temperatures above the high altitude hut (14,000') were -30°C with accompanying high winds; the prospects of an ascent faded and completely collapsed when returning to Teheran to find an ill crew. A complete wipeout was avoided with a following day trip to the Touchal Mountain area on the edge of the city, its lower slopes braided with mule trails, chair lift and shaded tea houses which lead to an artificially aided section just below the large Mountain Federation hut. Above was pleasant rambling through very dry terrain.

In eastern Afghanistan a super highway swings south of the dry Hindu Kush; the alternate direct approach through the mountains usually consumes most non-four wheel drive vehicles on unyielding steep grades and dust. At Kabul a hike into the Paghman Range behind town gave rewarding views before our exit into the Kush proper. Rural roads lined with camels and guarded by several 10,000 ft passes led through the axis of the system. Hand pushing on some of the steep dusty roads was required in one or two cases with the local herdsman pitching in to help. Reaching the highland to the north of the Kush we closed in on some unusual tufa dammed lakes—beaded gems in this vast and parched scape. Returning to the main highway to the east we again crossed the Kush at Salang Pass (11,500'). The pass is a five mile tunnel under large composite alpine cirques and the rock climbing on their granites appears to be first class. Camel trains passing through the dark tunnel were not equipped with headlights! The Kush farther to the east is the higher mountaineering mecca but the pass area of 16,000 ft peaks is a worthy substitute. We concentrated on carpet bagging at Mazar instead.

Returning to Kabul and descending its spectacular gorge to the east of town (more potential cragging), famed Khyber Pass farther on was the forewarned scenic looser—a matter of history over scenery. Beyond Peshawar the Ellis' pushed off to Amritsar and the Vale of Kashmir while the rest of us split off to the Valley of Swat in the Kohistan-Kalam district of Pakistan. Depending on whose professional opinions used, the gneissic peaks here belong to either the southernmost Hindu-Kush, westernmost Karakorum, or westernmost Punjabi Himalaya—geologically we prefer the latter. This is one of the few areas in the Trans Himalaya where restrictions on climbing are at a minimum—owing perhaps to its history as a summer recreational area in colonial days. A spectacular 20,000 plus footer can be bagged starting from nearby public road without procedural paperwork, porter hassles and many of the other bugger factors prevalent elsewhere in the Himalayas. However the continental climate requires summer ascents for the snowline was already down to road level (8000-9000') during our short autumn visit. The relaxing climb into the hills of Nepal could not have come too soon and Kathmandu was reached on time for our early November rendezvous with the Ellis'.

AROUND ANNAPURNA ALMOST

Trekking in the Annapurna-Dhaulagiri district is hectic; our group met an average of four parties per day though most were small depending almost entirely on local food and shelter, keeping on course with Peace Corp mimeo notes or the latest in maps—the "Mandala" blue print series. Our jaunt was a 25 day—250 mile grind to the Sanctuary on the south, Kali Gandaki on the west and Tilicho Lake to the north of the Annapurna massif, and a more southerly route back to Pokhara. Including all local transport, food, porterage and even our film rations, this and the following Everest tours cost only $5/day/person.

After a few basic purchases the crew walked into the less popular Annapurna Sanctuary where the south face boys had their fun in the previous spring. There was still much local scuttlebutt floating around on that climb—not all of it being complimentary. The only rain of the trek was during our ascent of the Modi Khola access route which was reminiscent of the Tantalus trail in its ups, downs, arounds and unders with we tall personnel testing the water holding capacity of bamboo foilage—a hell of a lot as a matter of fact. A night in W. Noyce's Hinko Cave dried us out and the alpine phase of the access was on a following sunny day. Soaking up the view at a messy base camp area we slowly set up camp; the porters soon descended to their rocky caves near timberline. Our sherpa Ang Norbu had been here with a Japanese expedition only weeks before a crippling blizzard struck at the highest camp after a successful ascent of Gangapurna; several were lost and his brother and others suffered severe frost bite while protecting what was left. On the following day our gang floundered up to about 15,000 ft on the slopes of Hiunchuli (ca. 21,500') in hip-deep snow—the residual of the fatal storm plus a fresh foot.

In the course of the next few days we contoured through wild monkey country around the base of the massif to the west and eventually on to the main track in the Kali Gandaki Valley to its welcome hotspring, fresh oranges and colourful poinsettias at Tatopani. Cruising up valley the vegetation and cultural changes from semi-tropical and Indo-Nepali to arid Tibetan is striking. At Jomosum, north of the main massifs, we reorganized for side trips. The gang was footweary and the news of the low snow levels on surrounding points of interest 'suaded the Ellis' and Macek's to explore villages. Recalling photos of Tilicho Lake with its backdrop of the Grand Ice Barrier of Annapurna in Herzog's epic book the writers set out with Ang Norbu and two porters to the village of Thini (9400'). Then the trail took to high levels above the Thini Khola gorge on the north side; we stopped near tree line at 13,200 ft for the night.

On a clear morning we followed tracks through snow over an alp, across a gully and up onto a ridge crest lined with chortens into another alp basin. Here tracks led north east to a distant slagheap (ca. 19,500'). For our purposes a track leading south east was needed but the new snow gave no clues. Ascent to the next ridge led to the realization that we were much too high and Tilicho Pass was actually lower and one basin removed from us. Not wishing to relinquish hard won elevation we looked for a weakness on the ridge running north from the pass. Nancy, tiring, chose to botanize from our present viewpoint (16,500') while Ang Norbu and Karl headed to a large snowfield that promised easy access to the ridge crest. A bottomless and time-consuming morass of non-supporting "flunge" greeted us and floundering waist-deep, ten steps and breathe at a time, a steep rock rib was finally gained which led to a firmer snow buttress higher up. Ascending steadily from there it was already the middle of the afternoon before pulling up on the crest and a nearby cairned foresummit. Ang Norbu absorbed the classic view of Lake Tilicho from there while his client scrambled

Mt. Dolent (3832 m) left and Aig. de Troilet (3870 m) from summit of Aig. de Tour Noir, Mt. Blanc massif. K. Ricker

Aiguille de Tour Noir (3837 m) from Glacier d'Argentiere, Mt. Blanc massif. K. Ricker

Grande Darrey (3514 m), north east side of Mt. Blanc massif from Aig. de Tour Noir. K. Ricker

along the rocky crest onto a higher snow and rock dome to its high point and a view into Tibet.

This peak, or perhaps the foresummit, is possibly the "Tilicho North" (ca. 6000 m) of the 1968/69 Mountain World and is marked as Pk 19,609' on one recent trek map but is not distinguished at all on the "Mandala Map" series other than being encompassed in a rather vague 19,000 foot contour. A 1:75,000 scale map accompanying a recent and worthwhile geological report on the area shows the peak, enclosed within a 5250 m contour, south of Thini Chu but considerably north of the ridge of peaks from Tilicho Pass referred to as the "Crete de la Thini". At any rate we may have been as much as the seventh ascent and this just could become the busiest peak of all Nepal. Unknowingly the legal altitude limit had been reached at almost 1600 hours. There was still the 5000 to 6000 foot drop to camp. A very long schuss on the west facing slope and couloirs took care of the first 1500 ft and the ridge crest below where Nancy had obviously picked over its minor summit loaded with fossils. And Norbu quickly spied her far below on the alp leading to the chorten-lined ridge. More rapid glissades to that level in a fading sunset. It was a long descent of the ridge and a very long drag through the lower alp to camp at darkness fully shagged.

In the next two days we caught our overfed crew at Larjung; they had spent one day on the nearby meadows of Dhaulagiri in a queer mixture of bamboo, pine and low alpine vegetation. Treading down the Kali Gandaki valley to the customary bath at Tatopani, the final leg of the journey was the circuitous route to Pokhara through Culbert's Beni (CAJ 1971)—a pleasant waiting place—open valleys and of the subtropical vegetation of Baglung and Kusma farther downstream. At the latter we ascended the lower Modi Khola valley into a tributary infested with landslide debris. Beyond this the trail threaded through small hill hamlets onto a drafty pass thence into a huge terraced besin of golden autumn colours. The stop for that night was Naudanda, a basin rim village with a famous view of Machupuchare, but the interest lay mainly in the noisier than usual transistor radios carried by the natives. The Indo-Pak war was confirmed as on by a trekker with all the news. Our vehicles were trapped in Asia for the time being. A few days later in Kathmandu the process of sorting out rumours from fact began—Ang Norbu coming daily to check our progress on this score.

EVEREST TREK

We uncommitted types slowly prepared for the hike to Everest. Having just treaded to near stress thresholds we adopted Dave Payne's solution (CAJ 1971) and flew part of the approach to Lukla in the Khumbu country, saving about 100 miles in the classic 300 mile return trip though an additional 20 mile side trip into Nangpa La country to the west of Namche Bazaar was also taken. Usually groups walk in and fly out thus not spoiling the climax arrival to Everest Base Camp but war threats on aviation fuel supplies forced the fly now, walk later plan.

The flight above and south of the edge of Sherpa country revealed terraced foothills intersected by deep major north south valleys separated by 8000 to 12,000 ft high intervening passes. The valleys drain a panorama of giants dominated by the relatively isolated 23,000 footers Gauri Sankar and neighboring Melengste. , A

postage stamp airfield (9000') sits on the edge of a high escarpment within the Dudh Kosi and to it the Cessna swooped unhesitatingly to land on a short uphill gradient—a modified farming terrace. The village throng swarmed the plane but a friendly seasoned Sherpa, realizing we were travelling light, quickly pulled us aside and helped find a single Sherpa-porter. Our 25 kilos of food and gear required no more help than this and by late afternoon we were already a long way up valley in quiet pine forests.

At Namche Bazaar the Macek-Deas party headed west to Thami on the Nangpa La trail while we pushed on to a very quiet Thyana-boche (Tengboche) and its outstanding views of Ama Dablam. Passing through the next village up valley, Pangboche (14,000'), the son, Ang Zangbu, of Ang Norbu's brother (also called Ang Norbu) was hired to carry a load of wood to Everest Base Camp. To allow for acclimatization the next stop was at nearby and deserted but large Dingboche (15,000'). Crystal clear weather accompanied us during the next few days on the moraines of the Khumbu Glacier and even the usual snow plume on Everest was absent. Huts appear every two or three miles along the moraines right up to its end at Gorak Shep pond (17,100'); the actual base camp sites are down below on the glacier surface close to the icefall.

Our porter made the mistake of setting us up in the largest of several huts for the night. Yak dung supplemented the wood fire which luckily faded out before winds sprang forth in the middle of the night to fill the drafty shelter with swirling dust. Choking, gasping and wheezing, all emerged in the bright morning sunlight distraught with headaches, sand embedded. Strolling up the local yak pasture and bump beyond, called Kala Patar (18,200'), heads began to clear but the view of Everest from there was not quite up to standards. We traversed north on a ridge of rubble and blocks to the base of Pumori where the route stops on a gendarme at about 18,000 ft with the buttress of the peak rising abruptly up just beyond. It takes a good hour to sort out the local geography realizing only too slowly that this is the end of the line—we are looking at the third pole as well as over the Lho La into Tibet. This windless and warm day was 23 December.

To avoid another dust storm we moved a few miles to the next huts down the moraine at Lobuje (16,200'). Here trek junk is the eye sore but the backdrop of a golden afternoon glow on the fluted shoulder of Nuptse was overpowering. It was conducive to a few days rest but the Christmas rendezvous was now near so reluctantly we descended next morning. Everyone collected at Pangboche in Ang Norbu's (#2) home. The Christmas holiday was no rest for Ang Zangbu. He set off at 6 a.m. for Namche to buy supplies for the family because his father was still handicapped by severe frostbite of the extremities—he was back at 8 p.m. after a hard day of walking. At the nearby Gompa the winter caretaker brought out a Yeti scalp and hand. An attached label by an American zoologist verified by x-ray analysis the skeleton to be of human origin while the scalp had a non-specific Asiatic anthropoid label but it could have been cowhide pulled over a baseball bat to our untrained eye!

On Boxing Day the other couples re-hired Ang Zangbu for his second trip within a week to carry wood to Base Camp, while we proceeded to Khumjung-Khunde (and the adjacent new Japanese built "hotel" complex) by way of Phorche on the north east side of the valley, by far the more scenic route on open yak pasture most of the way, finishing with a novel spiral stone staircase descent through the cliffs to Khumjung. The elevated position of the large population here is precarious because water and wood are of only limited supply and, unfortunately, the new low profile hotel needs these commodities at present. Tourists will probably become a nuisance and bring a host of other social, economic and cultural changes. The educated Sherpas now living in Kathmandu are disturbed by this invasion while realizing the need for local employment to use the new educated being turned out of Sir Ed's schools. The doctor at Khunde hospital expressed the same view and hoped the immediate problems will eventually reduce to balance the long term benefits (see NZACJ/1973). The hotel itself is a low one story stone structure out of view of the villages and has its own phenomenal overview of all the surrounding peaks—it fits the site as a piece of immaculate masonry. Would you believe a price of $65 per day—with an oxygen bottle surcharge? A visit to the nearby airstrip then under construction showed us why the oxygen may be needed. About 100 labourers were hand carving it out of a grassy hillside between Namche Bazaar and hotel—the elevation is nearly an unreal 13,000 ft but with the advantage of lying above the fogs that plague Lukla down valley. We left this haven with confused ideas over the long term effects and did our side trip to the gompa at Thami. A look up a side valley revealed an error in planning—the Everest trek can be a circuit route. By proceeding up valley beyond the gompa over an easy but glacier covered 19,000 ft pass, called Tesi Lapcha, one is in the Rowalling Valley—a branch of the Tambu Khola, thereby making only a few bits of the Everest trek between the Tambu and the Sun Kosi repetitious. Porter committed to the usual route on the southern side of the front we turned back to Namche.

With a porter change at Lukla the return on the classic approach route on beautiful trails went smoothly to the Sun Kosi in 6 1/2 days at the rate of about one pass crossing a day. Thousands of feet of ups and downs probably discourage most but each village has its own character be it rakshi at Those, the giant stupas at Junbesi, the old iron bridge at Sheri or the mountain views from the tea houses at most of the passes. To overfly the route is sacrilege, what the new hotel will perpetuate. On the 20th day the chaotic staging point of Lamosangu down in the Sun Kosi valley was reached in a dramatic descent of the village-lined ridge crest; a crowded bus slowly meandered its way back to Kathmandu along the Lhasa highway. Though gaunt, our conditioning was superb; the impact too fresh to evaluate. Unfortunately, the muscles softened within a few weeks while sitting out the 11 day voyage across the Persian Gulf though our acquired acclimatization remained to permit easy travelling months later on the highest of the Alps.

SKI SEASON IN THE ALPS

After ship life we drove rather steadily through Iraq and Syria to Lebanon and winter snow—lots of it as confirmed by a ski trip into the Lebanese hills. The Alps tormented us into driving on—stopping only for a minimum of sight-seeing between Beirut, Ismir, Athens, Rome, Monaco and Geneva. Finally on the almost snowless Alps some warmup ski tours at St. Moritz led to a soggy and super warm wipe off in the adjacent Dolomites. Up to this point the weather had been brilliant. Now Good Friday, we were on the classic Oztal ski tour; but as typical to British Columbia the weather deteriorated into the usual Easter blizzard. We went

Kantega (6779 m) from upper Khumbu terminal moraine. Chorten commemorates sherpa killed in recent action on Everest. N. Ricker

Karl curling a rock on the Gorak Shep pond (5200 m). West face of Nuptse (7879 m). N. Ricker

armed with our newly acquired OAV memberships but were jolted, nonetheless, by a good dose of high hut rates while waiting out the weather along the way. Our first sunny day led from the Karlsruher Hut (2430 m) through the crevassed headwall of the Langtaler Glacier to the summit of the Hohe Wilde (3419 m)—a few rock moves to the summit—then a lesser peak and finally a descent to the winter room of the Hochwilde Hut (2883 m)— otherwise closed because of difficulty of finding spring hut keepers. The following day sticky new snow through a crevassed zone to position for an ascent of the Schalfkogl (3540 m) and adjacent neighbor. Then a long descent on powder, sticky powder, corn snow, wet breakable crust and final unsupporting slush to the large Martin Busch "Hut" at 2500 m (hotel would be close to the truth). A raging blizzard on the following day quelled any idea of going to the Similaun Hut (3019 m) on the Italian border or a positional hut for the Wildspitze (3774 m) and regretfully a retreat to the village of Vent (1896 m) rounded out the circuit. We learned a lesson from this—never go to an alpine hut with less than $20 of local currency in your pocket!

On the way back to Innsbruck we toured a day on the north end of the Stubai Alps under severe avalanche conditions. Then a week off to reorganize. Packed and ready for the "Haute Route", we positioned ourselves alternately at nearby Sion and Geneva to await the change in weather. A full second week passed with no let up—then a third week began as tempers grew short—a drive up to Col St. Bernard didn't help nor did a yo-yo day at Chamonix and as the end of April and three full weeks of waiting approached, patience gave in—the rain chased us all the way to the English Channel.

THE CALEDONIAN CHAIN

To relieve cultural overkill in London we stepped out of the van onto a very wet Brecon Beacon (2906') slog as a warm up to an evening in a pleasant Welsh pub. The weather remained decidedly sour; we left for Perthshire vowing to be back to Wales when the skies cleared a few weeks hence. After stretching the muscles on the heathers of Ben Lawyers (3984') an army roll call at the summit. Continuing to the Cairngorms we were prepared for skiing or rock climbing. The weather took on an epic polar slant for two days and it was only the example of a headmaster with his eager students that pried us out of our cocoons on the third morning to follow to the rime-plastered summit of Cairngorm Mtn. in zero visibility. Mad Scots nearby were actually trying to ski on this kind of a day! Not being that desperate we motored on to Skye in a looping drive along the empty and scenic north and west coast lines of Scotland.

The approach to the Cullin Hills by the usual Glen Brittle route leads to an immaculately kept beachside campsite that is not too crowded in May—the opposition being more military on recreational manoeuvers. After sorting the gear for a long siege on the ridge for the morrow a heavy deluge washed-in the morning. By afternoon it had slowed to permit a squishy romp to the obvious gabbros alongside the tarn at Gorie Lagan, but the fogs were thick. It was a long night of boot drying back at the van. By now our do or die 32 day budget for the British Isles was in jeopardy; we utilized a following long morning traverse of several peaks on the Cullin Ridge to Inaccessible Pinnacle (3226')—the plum for the day. Great portions of the ridge, surprisingly, are rubble and a convenient chute of it quickly speeded the descent to the campsite.

By late afternoon we were crossing back to the mainland and by nightfall camped at the Scot's mecca of Glencoe in more weathery muck. By now our patience level was zero and the Lake District offered an escape.

A walk to Hevellyn summit (3113') for the late morning featured a flock of aggressive sheep that recognized and snaffled lunch bags at 100 paces. In the late afternoon a move to quaint Wasdale Head and the famous climbers' pub gave an equally worthy evening. It was raining and drenched craggers were slogging in after a hard afternoon on Scafell, Great Gable and other popular vintage routes. We could not match their consumption because of the distraction of classic black and white photos in the place. Scafell on the following day was in the wraps of a full fledged storm. We were the only fools on the thing groping from cairn to cairn to a frost-rimmed super cairn at the top. Any idea of rock climbing would have been suicidal but late carousers had other ideas on this matter when returning to the pub in the early afternoon. They were just heading out to the cliffs as the clouds began to pull apart—that was our trouble—forgot to sleep in!

On another blustery low overcast Welsh morning the objective was invisible Snowdon via the classic Cribgoch route—a long ridge of good scrambling with the odd airy stance. Once on the thing there was a terrific buffeting along with the odd shower. A crescendo of a 74 mph gale was reached on the summit! Retreating to the summit restaurant we learned that it was much too windy for the cog train and there was only a handful of visitors seen in the last two days—or so they thought. For safety we left by way of the rail route and encountered a gang of track followers with some showing purple legs in short pants! It was back to the pubs to think this situation over but we couldn't drain enough inspiration out of the glass to tackle Tryfan's famous routes on the following equally atrocious day! A more peaceful ramble on Cader Idris provided a final evening glimpse of the Welsh upland before our too soon return to London.

Norway was entered from the north via the Lappland of Finland and a day was spent at Nord Kapp with an elusive midnight sun and various snow patches for skiing. Farther south along the majestic fjords a deviation out to the Lofoten Islands brought a surprise! Grantitic pinnacles of Bugaboo style shot up from the sea bed on some islands to elevations of 3000 ft or more—roping up at the high tide level would not be an exaggeration for some of the routes. Most of the pinnacles have long been climbed by the quiet Norsk though much of the climbing in northern Norway had a British exploration phase as a glance through their guide books reveal.2 This neat find was about the best "gem" uncovered in our European explorations.

Our rambling in the Romsdal began with a view of the Trolltind Wall—vertical enough to send us scurrying to the back side of it with a warm up ramble on the Bretind (1700 m). Camping nearby for the night on the Thollstig way we pondered whether to go back to the valley in the morning and pay the road entry fee needed to gain access to the famed scrambles on the Romsdalhorn (1555 m) or climb some of the royalty at our present position. The latter won out and the Bispen (1475 m—Bishop) was duly traversed on the following overcast day. If the weather had been more agreeable continuing to Kongen (1593—King) would have been mandatory but with much potential scenery and skiing to do yet the afternoon led to Geiranger Fjord's sheer walls. After a day of skiing nearby at Norway's only organized summer ski area, the glacier at Videseter, amidst the distraction of many bikinis and blondes on skiis we forsook even the added asset of good corn snow and pushed off to the Jotenheim farther south. The area sports the highest and easiest mountaineering in Norway and is well adorned with alpine hostels, marked trails and people. Daylight not being a problem, Norway's highest (Galdhoppigen— 8100') was set out for at a risk—0730 hours! No more than a hike by the usual long slog, it was full regalia packs for an attempt on an arête route. The elements however were chilling on the ridge crest and by the time the summit was reached there was no enthusiasm for a descent to start on another route. Hardly a soul was on the summit but a huge mob struggling on the soft snow during our descent. Because of the continual daylight Norwegians do not bother to start a climb until 1000 hours! The second highest peak of Norway (Glittertind) was on the agenda for the morrow. Not wishing to out rise the Norsk again we held off until 1100 hours before starting this ascent—miserable morning weather having some part in this delay. To counteract yesterday's soft snow Karl took the skiis and we ground off through the tundra—the first problem being a stream at flood stage— wet, super slippery, lichen covered stepping stones are typical of high latitudes. With ski poles as braces it was not so bad but the girls with shorter ice axes had a harrowing time. Reaching snow in a broad gully soon after it was a standard slog and ski ascent to the summit in a blustery wind. A small shelter built on embedded piles marks the apex. The ice cap is sometimes higher than Galdhoppigen across the valley but at bedrock level Glittertend is about 30 to 40 ft lower which probably explains the lack of traffic for the day. The second highest is never as attractive as the highest!

After a sojourn in the Oslo area the eastern portions of the Jotunheim were visited with a member of the Norsk Tinden Klub —a very exclusive group with only 120 or so members and very closed door to outsiders including Norwegians of other club affiliations. The area was entered by small public boat on a long narrow steep-walled lake called Gjendevatn. Our friend had a route on the Knutholstind (7680') which is situated at the head of the lake opposite the Norwegian Tourist Club's (the popular club) Gjendebu hostel. A cold wet rainy day kept us confined to the fireplace and with one day on the weekend shot the gang tumbled into bed quite gloomy about the prospects. Early sun came through however and pleasant alpine slopes soon gave way to a churn through new snow to the summit. The weather was closing in and a herd of wild reindeer were skittering on a snow patch far below, a fitting end to our Caledonian tour.

ALPS 1972—FINAL EDITION

The plans for the '72 alpine season were of course greater than what could ever be accomplished. The season began in the Dachstein, south east of Salzburg. Enough groceries were carried from the base at Hallstatt Lake to the Simony Hut to ward off any weather delays. So far the season had been tempestuous on the 4000 m peaks, and the lower local areas and the eastern Alps were suffering from a rash of electrical storms; while slogging into the Simony we experienced our first. The following day was initially good as the opposition was out distanced over easy snow fields to the firm limestone of the summit tower of the Hohe Dachstein

(3004 m). Darn it! Another one of these peaks where the routes are infested with chains, cables, steel pegs and other aids. The ascent was pushed to near continuous belaying in order to avoid all the iron mongery excepting the colossal summit cross. Guided parties of five and more on clothesline style ropes were beginning to feed up the easy back door route. On the descent by their route a couple of lesser peaks were traversed absorbing heavy rains and exceptionally bright electrical discharges enroute. We were okay under an overhang near the hut but for all those on the ironed up summit??? This inhospitable twist called for a retreat to lake level.

Weather being continually unfair, the only recourse was to pilgrimage to Nasswald, Konrad Kain's birthplace, over the next few days. The community lies deep in forested valleys of the Rax Alps reminiscent of the deep green valleys of the Purcells. In the lower village locals quickly identified the British Columbians wishing to see the Kain memorial and steered us to the upper village. An old gentleman put us onto a restricted forest road leading to a short narrow canyon where the bronze plaques are attached to a low limestone wall. The serene surroundings are conducive to admiration or reflection, a record photo, and a follow up commemorative and chatty visit to the local pub. On the following day a hike by way of a quiet route to the highest point of the Rax (Heukuppe, 2007 m) revealed a shortage of climbing terrain—intermittent limestone cliffs with a few dams resting peacefully on the ledges, rolling alpine meadows with the local "high" altitude beef herds on the back sides.

One of the few inexpensive areas left in the Alps, the Julian massifs of Slovenia, were again revisited. Triglav, Yugoslavia's highest at 9390 ft was our grudge match and is the centre of an extensive climbing area. The base hut (Aljazev Dom) lies below the 14 long north face routes and a nearby giant karabiner and piton monument presumably reminds one not to forget hardware! The locals were astonished at our desire to climb Triglav by the north west (Plemence) ridge rather than the usual grind through the headwall on an artificially aided trail to the upper huts and north east ridge beyond. Longstaff, as quoted in a brochure, advocated the former for it has a long 3500 ft rise of rock scrambling from Luckya Col but it was a muggy 2500 ft rise to that col from the Aljazev. There was not another soul on the route and the limestone was reasonable; it eventually gave way to an easy snowfield below a vacated war-time fortress demarcating the former frontier with Italy. The final summit block was a scramble reached after five hours of enjoyment at only 0930 hours. A log book, in a hideous summit shelter shaped after a rocket nose cone, indicated that there were only 43 ahead of us for the day. Inside someone had very carefully painted the 360° panorama which on this cloud-capped day gave us the idea at least. Registration equipment also included a cachet or stamp of the peak and after picking up the trademark as a souvenir in our passports Nancy led the descent on the normal route eventually meeting up with tens of people on hand lines, iron peg, chiseled steps—you name it—it was there to degrade the climb! A large Triglavski Dom below brewed a good milk coffee and while sipping this it became obvious that this is the busiest peak in all of the Alps. Perhaps Mt. Egmont of New Zealand or a comparable volcano near Portland or Seattle would be pushed for the award of traffic density.

We continued over a pair of minor peaks to a quieter Dom V. Stanica and after checking in took on Rjavina (8300') for an afternoon project and just barely returning in time to escape another electrical storm. We hope the nose cone on Triglav performed its duty as a radiation shield because there were others on it at the time. Hut life here is lively and melodious with the keeper having a vast supply of cheap wine to keep it this way. In the daytime he sets up shop at the top of the headwall access route—each level of the pack frame harbouring a different brew. Tens of sweaty climbers kept business brisk.

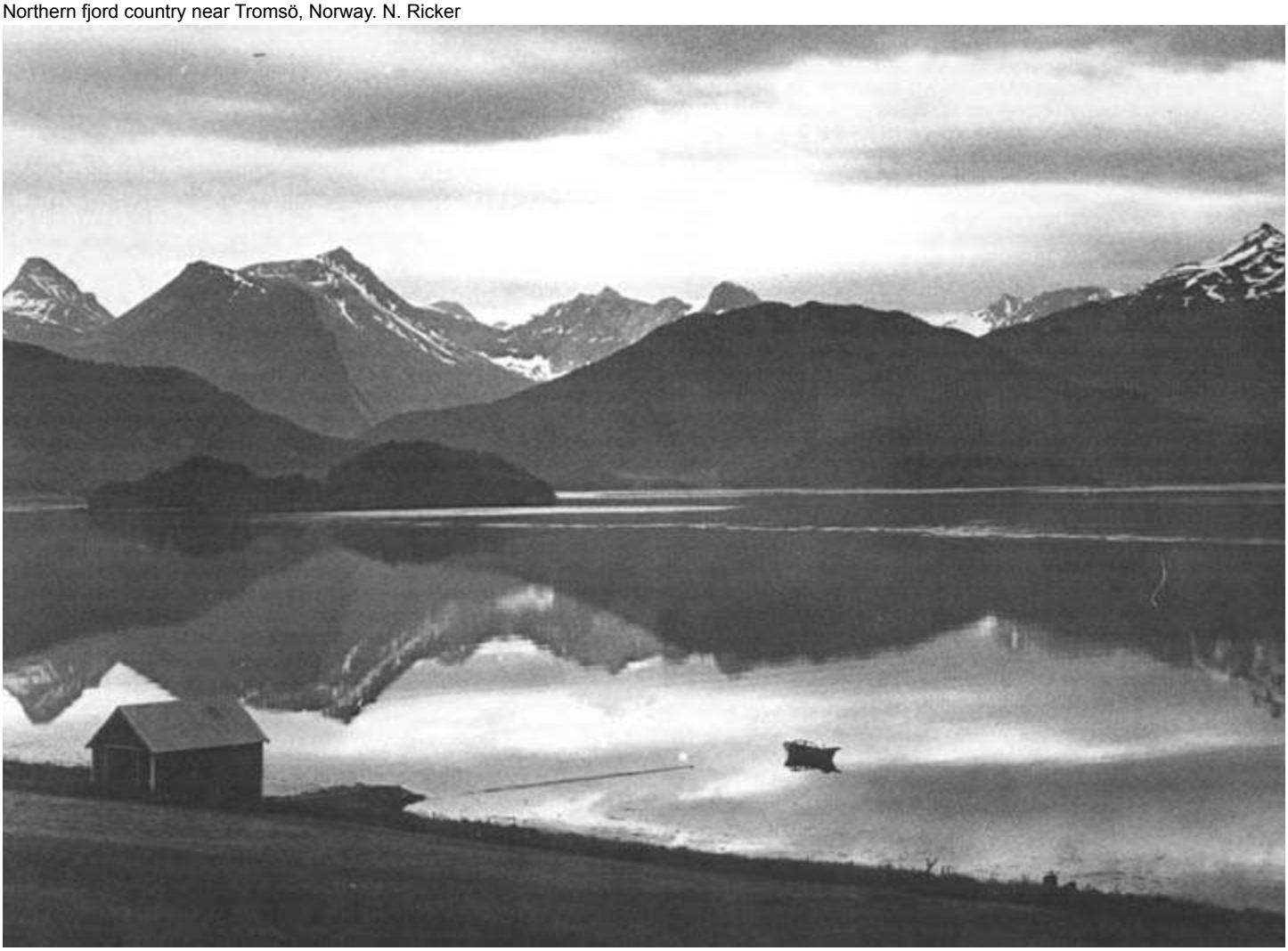
The Gross Glockner was short but punctuated with threats from the heavens. Like all other highest designations, Austria's in this case, its popularity was obvious and the artificial aids were there of course, but it is a poor second to the world's largest alpine gift and curio shop located on the edge of the glacier below; this almost consumed more time than the actual duration of the climb! More lightening and sparks greeted us a few days later at the summit of the Tre Cima Lavaredo in the Dolomites precipitating a near record descent time on the highest peak— one hour—Nancy still quaking months later. The gods remained angry for the next few days but in a lull we walked into one of Austria's few unspoiled alpine lakes, the Finstertaler See, behind Kultai of the northern Stubai Alps. On to the base of the nearby Wildspitze, Austria's second highest (and easiest) where another night was roughed in the OAV-DAV hut-cum-hotel. A foot of new snow and winds made for a cool morning on the summit and an afternoon attempt with climbers from Munich on a lower peak stalled out in avalanche prone conditions and deteriorating weather. The unsettled days were spent moving west to 4000 m peak country.

On the list of big ones we quickly picked up the pace with a return to Mt. Blanc's the Gouter Hut and the same cheerful proprietoresses. The object, to grand traverse the beast but a storm sprang out of nowhere on a too warm morning and in polar conditions it was an epic merely to reach the summit, after an hour long stop at the Refuge Vallot (14,350') to thaw out Nancy's feet.

To confound the critics of their usual blanket charges of an overly crowded Alps, the Grand Combin with Rene Achard will hopefully create some rationale. From the village of Bourg St. Pierre on the Grand Bernard Pass highway we walked into the Valsorey Hut on a bright cloudless Saturday afternoon. We cramponned the initial steep snow slopes in the early morning and ascended the loose rocks of a long west buttress to the false summit. Traversing over to the main peak there were only a handful of climbers who had chugged up the glaciers on the north side. Rene had climbed the 4000 m giant, despite his long spell of inactivity since leaving the Selkirks nearly two years previously, with hardly any effort. Down at the hut the keeper teased us for meandering off route, having spent a good part of the day checking our progress. Descending to car level the trail had only a few Sunday strollers and a custom guard checking on illegal entries. There are many similarly quiet areas in the Alps, but critical foreigners are perhaps sheep!

With our third trip to Zermatt a giant farther afield was desirable and to check conditions on this possibility we used the vantage point of the Mettlehorn summit. Both the Weisshorn or the Dom-Taschhorn combination looked excellent but a 'phone call later in the day to Rene tossed out both ideas. His friend had already

Northern fjord country near Tromsö, Norway. N. Ricker



been on them and he wanted us to join him on the north ridge of the Zinalrothorn from the West (or French-speaking side). Groan! We were out of position and bade Frau Biner a farewell on the following morning. On a moonless night the trail threaded and barely hung to the upper edge of the steep Zinal moraine. On the glacier we caught up to a heavily ladened guide obviously still under the effects of a pub. This did not deter non-stop chatter until the Cabain du Mountet was reached at 2330 hours. Everyone had been in the sack for hours and the place was jumping at a too soon 0300 hour. The Zinalrot via the north ridge is a pleasant initial snow arête followed by above average gneissic rock typical of the upper ridge of most peaks in the Zermatt area. The good weather generated a bumper crop of rivals on the route but Willy quickly sped to the top of an unnecessary gendarme which left the eager followers gasping. The rest of the ridge was left to ourselves for the final summit run. With some German speaking Zermatt climbers we sorted out the descent; Willy's English consisted of 'okay' which was slightly less than our French. The end of the trip came only too soon that afternoon in Sion.

There was one last project at Chamonix provided the partner needed could be found, but he was overdue on one of his usual north face ventures. We called it a season finale with a trudge to the old Argentiere Hut and took in a snowy and blustery day on A. Tour Noir—the climb was straightforward which in this weather is essential for such inspired terrain. Commonwealthers spend an entire summer on the faces and classic routes at Chamonix. One of the best is non-assuming J. Fantini of Australia who discussed the mountaineering scene with us over wine in his base tent. The fluids are the best of the inexpensive fruits of an European holiday. Months later the overall benefits are savoured amidst slide shows, discussions on further devaluations of the dollar and other heavy expenditures such as houses and misused North American land.

Karl and Nancy Ricker

1 Bordet, P., et a/. 1971. Recherches Géologiques dans I' Himalaya du Népal Région de la Thak Khola. Centre National da la Recherche Scientifique (France), Comite de L'HImalaya de la Fédération Française de la Montagne. 279 pp.

2 Guidebook in English, 'Mountain Holidays in Norway» published by the Norway Travel Association, is quite useful.

Editorial

"In future I will not write any further articles for any publication whatsoever. Everywhere I went this season I ran into more and more climbers and psuedo-climbers. Two's company, three's a crowd."

To escape the crowd—an understandable desire but self-defeating. Everyone must be aware by now, and tired of hearing, that we inhabit a finite planet. Well—the wilderness is also finite. There are too many people and too many of them are probing its last recesses. The conclusion seems obvious—restrictions on access and use—otherwise sheer weight of numbers will destroy the very wilderness we seek. Whether or not we find tolerable such restrictions of our "freedom" is irrelevant—they will happen. Indeed the entire concept whereby we regard as a god-given right this freedom to wander unopposed must be carefully considered and rethought.

To flee these threats, to turn away and search out a new wilderness, a new mountain retreat, untouched, is to run down a dead end road. When we can see the end it will be too late. We have all understood what was being destroyed and done nothing. Now we must become involved. Now we must formulate workable policies —workable in that they accept and make provision for other points of view.

Sure climbing magazines and journals such as this one have helped to publicize climbing, helped make more people aware that there are attractive, desirable things out there beyond the High-rise perimeter fence. To end the reporting of new climbs, new areas, will not stem the flood. But everyone writing has to carefully consider just what it is he or she is trying to report and why.

The last word goes to W. H. Auden.

Those who will not reason
Perish in the act:
Those who will not act
Perish for that reason. [1]

Moira Irvine

1 Collected Shorter Poems 1927-1957, Faber, 1966.

Readers will notice the disappearance with this issue of the familiar name of Andrew Gruft as editor. He found himself too busy to conduct the job with his customary vigour and diligence and reluctantly tendered his resignation. His four years as editor have been short in comparison with the 11 and 15 years of his two immediate predecessors, but from the first of his four issues, the Journal was given a new look and new fields of influence. He introduced the present magazine format with its whole-page photographs and pictorial cover. He found controversial writers whose target was often the Club. Their comments, not always fair and balanced but including many truths, have aided a process of change, which unknown to some readers, had already seriously begun a decade before. By his fourth issue, Andrew had refined the format to a degree which has earned praise from both conservative and radical sectors. On behalf of the Club I thank him for his services.

Stan Rosenbaum, President

Address all editorial material to Moira Irvine, Editor CAJ, 1565 Haywood Avenue, West Vancouver, B.C. V7V 1W4, all business enquiries to ACC manager, Box 1026, Banff, Alberta TOL OCO. The deadline for submissions is 20 DECEMBER 1974. It is most helpful to receive material as soon as the ascents are made. Contributors who wish to read their mss. after editing must submit it no later than 15 November 1974 and must return it no later than 15 January 1975. This does not preclude further editorial changes if we have too much copy. No changes can be made on galleys—only typographical errors can be corrected.

Submissions should be typed in normal letter fashion (upper and lower case), DOUBLE SPACE, with a 2 inch margin on the left hand side. Maps submitted should include a north arrow, latitude and longitude, and a scale. Photographs should be sharp and clear, minimum 5 by 7 inches, glossy finish. Black and white prints should be made from colour slides. When photographs with routes marked on them are sent a separate unmarked print should be included. Alternately the route may be marked on an overlay.

In naming peaks or other geographical features it would help if the outlines in Principles and Procedures Canadian Permanent Committee on Geographical Names were followed. Proposals concerning new names should be submitted in writing to the Executive Secretary, Canadian Permanent Committee of Geographical Names, Geographical Branch, Dept. of Energy, Mines and Resources, Ottawa. Proposals should be accompanied by adequate information on the origin or usage of the name or names, and identified on a map, sketch or air photo. The Committee welcomes reliable information concerning corrections or additions to nomenclature appearing on Canadian maps and charts.

Persons wishing assistance with the selection of geographical names should contact Dr. Neal Carter, ACC Geographic Names Advisor, 1122 Millstream Road, West Vancouver, B.C.

Of People, Trees, and Environmental Extremists

Conservation has almost certainly passed its high mark as a fashionable cause among the public. Enough poetic prose, militant excesses and emotional appeals have gushed from various sources to sate the average citizen (and, I suspect, the average ACC member) for quite some time. "Environmental extremism" seems to be the going label for previously honoured viewpoints. Now on top of public boredom comes the energy crisis, and who can doubt how governments will decide if forced to choose between the fragile beauty of alpine meadows and the coal deposits that lie beneath?

Those of us who are still committed to conservation need to do some cold hard thinking about priorities and tactics. A number of arguments for conservation have just about exhausted their

usefulness (I'm referring to practical results, not validity). Two I would mention in particular are prophecies of doom and praise of the beauties of wilderness and wildlife.

The public always reacts more emphatically to immediate crises than to long-range forecasts. It is, after all, easier to understand an unheated house in a Canadian winter when one is sitting in it than to appreciate the ultimate effects of polluting the distant oceans. Politicians are well aware of this fact, but if conservationists can't be politically sane, they might at least remember history and not emulate Cassandra.

As for wilderness salesmanship, we should ask what our goals really are. Do we want the world's population flocking to the last remaining wild spots? When someone shows me an area that accommodates a lot of people without significant change from pre-people days, then I'll believe that the wilderness experience is possible for everyone. Until then, I'll have to hope for controlled access whether by government regulation or as a side effect of fuel shortage, geography, lack of money or physical conditioning.

Do we want to preserve wilderness just for ourselves? Selfish desires are hardly unknown in the world but selfish conservationists have surely established a new low in practicality. The person who hoards money doesn't rely upon the altruism of others who covet the same thing. He doesn't say "Being rich is wonderful, but since we can't all be rich I'm asking you to at least let me enjoy this great experience." It's folly to extol the spiritual uplift derived from camping by a mountain stream unless you've got your own private stream or there are enough streams to go around. Maybe we should mention the mosquitoes instead.

The practice of portraying cuddly polar bears and flaming alpine sunsets not only draws multitudes into lands that can't handle them, it does little to convince non-wilderness types of the value of preserving these lands. Beauty is very much in the eye of the beholder, tastes vary, and I see no reason to expect everyone to enthuse over flora and fauna. How many people are going to feel personally impoverished if the whooping crane fails to survive or if the caribou can't cope with oil pipelines?

Our problem as conservationists is this: how can we develop a general willingness to preserve wilderness in a world where most people have never experienced it or even wanted to? I would suggest the following for a start:

1) Stop touting wilderness as an antidote to urban living. We'll be more effective conservationists if we can convince people, including ourselves, to stay home. That means providing some pleasant recreational alternatives and making cities more livable. A good conservationist could well be a traffic engineer, a city planner or a local recreation director.

2) Stop maligning people who prefer non-wilderness recreation. Of course we don't want Disneyland, ski runs, discothèques or symphony concerts along the Nahanni. But every time we block a proposed development without providing (not just mentioning casually) suitable alternative facilities, we make enemies. A good conservationist could be someone who proposes, finances or runs attractive recreational facilities in non-wilderness areas, someone who welcomes and promotes a variety of tastes in leisure activity.

3) Let's be reasonable in our goals and knowledgeable in our requests. There's no point in trying to set aside half of Canada as absolute wilderness. In fact, if we're going to preserve any of it we had better devote ourselves to intelligent development of the rest. That means large areas given over to flora and fauna that get along with man. Most people are happy to see a deer or a rabbit in the woods, an experience possible even in jaded, overcrowded Europe. Canada could provide really spectacular parks designed for people with magnificent scenery and wildlife. There would still be room in this country to protect our threatened species and perhaps less resentment at keeping them "off limits". But all too often we speak as if there were no middle ground between untouched wilderness and urban sprawl.

4) Let's get seriously involved in land reclamation. Resource development and industry aren't about to go away. Instead of sanctimoniously calling on companies that aren't interested to propose reclamation we would be more effective if we had specific, practical proposals of our own. Get the backing of some recreation groups or businesses, pressure the government, show them exactly who would benefit and how from salvaging the land

The above are general suggestions. As a member of the ACC conservation committee I'm particularly interested in what we as an organization could or should be doing. Some ACC members are true get-away-from-it-all wilderness buffs but by and large we are a recreation minded group whose active interest, like that of hunters, downhill skiers and snowmobilers, happens to take us into or near wilderness areas. As a recreational club we have a legitimate and knowledgeable interest in the management of land for recreational use. What sorts of areas do we want and need for our activities? What facilities of access and accommodation? How do we coordinate our activities with others in the same areas? Where do we stand when wilderness preservation conflicts with our recreational interests?

I would suggest that a lot of what we do is either incompatible true wilderness or doesn't require it. The weekend climber or hiker wants quick access to a mountain, cliff or trail, fresh air and exercise, pleasant scenery, and usually minimal contact with machines or other humans. Most of our group camps require the same things. Now it's possible to provide these amenities to large numbers of people, but not in a "living museum preserved in its natural state for future generations." Most of our accessible mountain areas lie in national parks. We could give up weekend climbing, we could further erode the already overtaxed parks, or we can work actively to develop additional recreational land. But let's not call for more undeveloped wilderness and then expect to use it as a privileged group. We've no more need or right to crowd into grizzly territory than have those who prefer to drive cars or snowmobiles.

I don't want to be misunderstood. I'm strongly in favour of natural museums, i.e. areas of untouched wilderness. They are at least as valid as art museums and they have one of the same problems: only a few people can ever get there in person. The rest of us have to be content with reproductions or less valuable originals.

I am also in favour of getting as many people as desire it in contact with some version of nature whether in city parks, game farms, ski resorts, lakeside cottages or in large recreation parks. That means we accept a certain amount of environmental change in these areas. It doesn't mean we rape the landscape or turn every inch of Canada into a "development". Change induced by human use is not bad in itself. It's bad in areas we want to preserve untouched and it can be awful if not controlled in other areas, especially scenic ones. But if we admit that man is a natural animal we must also admit that natural areas may consist of man and whatever wildlife can co-exist with him.

Planning and compromise are essential if large numbers of people are to enjoy the outdoors. Each of us puts some strain on the territory we use. For example, some of us hate huts and trails and love to cook over an open fire. But tents in great numbers do more damage than one hut, hordes of people following paths of least resistance are worse than one well built trail, and forests need most of their deadfall for natural growth. On the other hand, trails disappear under snow, and winter camping seems to leave far less evidence of human passage than the summer kind. I for one would be willing to get my back-to-nature kicks in winter, climb from huts in summer and save true wilderness for the more lengthy expeditionary-type trip it deserves. I'm also willing to promote downhill ski resorts, scenically located motels, European-style mountain huts linked by wide trails or accessible by road, and a host of other things I may find personally distasteful. Our problem in Canada is not lack of space but rather trying to answer all conservation and recreation needs in the same space.

The national parks, at least the accessible ones, are verging on disaster under the press of too many visitors. Unfortunately it's the backwoods people who will likely suffer restriction. Car-bound tourists confine their impact to narrow corridors while backpackers in sufficient numbers can spread destruction far and wide. The price of conservation will hit home with a vengeance if we have to limit our climbing for the sake of the parks environment. A cynic might say we'll find out then who the true conservationists are. Realistically I admit that I could more easily give up regular trips to Jasper if I didn't at the same time have to give up climbing and backpacking. If, that is, there were someplace to go where my presence would be not only harmless but expected.

This is not the time for the ACC to slacken its conservation activity. On the contrary, I would like to see us as a club support and propose both more wilderness preserves and more recreation areas. If we want to continue to pursue our own pleasures I think we are going to have to trade off, to help other people pursue theirs. We have in our membership the talent to make a significant contribution to recreational development in Canada. We fought Village Lake Louise and helped win the first round for the national parks as museums. The second round is just as important— what happens to all the people who would have used that resort? It's a battle we had better join.

Jo Ann Creore

An Analysis Of Alpine Hut Use In Banff And Yoho National Parks

The controversy over the use or misuse of alpine huts and shelters in National Parks is a continuing one which has recently resulted in the adoption, on a trial basis, of a permit system for hut and shelter use in Banff National Park. The Parks Administration complain that few users of the hut system show real concern for the use or misuse of the available facilities and consequently, it becomes difficult to service these facilities with inadequate information regarding their use or present state. On the other hand, there are those who maintain that most of the time, all the Wardens do is to fly in by helicopter from time to time and leave notes in the register threatening to close down facilities unless the situation improves.

Will the new permit system provide better service to the public and better information to the Park Administration? Only time will tell, of course, but having tried the new system out towards the end of December 1973, this author can truthfully say that it did not result in a great inconvenience and provided a better picture of what to expect at a particular shelter. The effectiveness of any such system, however, will eventually depend upon the basic good will shown on the part of all concerned parties.

As a personal contribution in this direction, this author recorded the use of the Bow Hut (Banff) for 1973 (fig. 1) and the Stanley Mitchell (Yoho) for 1972 and 1973 (fig. 2 and 3) by referring to each hut's sign-in records. While the present sign-in system naturally leads to some underestimation of actual users, the overall picture does seem to reflect seasonal variations quite well. In any case, the data presented here should give a fairly good idea of the use of two very popular alpine huts, the Bow, which is operated by the Parks and the Stanley Mitchell which is operated by the Alpine Club. The results are in graphical form and may help one in planning future trips, for there are clearly many times when the facilities are underused, just as they are, on occasion, overused. The graphs consist of plots of Person-Days Occupancy (PDO) v.s. Month, and show the totals for each month (histogram) and the cumulative totals. In some cases, data was missing from the register for a particular month. This is indicated as DM (data missing). Finally, the year's average has been listed as AV (average use). This latter figure could perhaps lead to a system of Hut Use Indices (HUI) which could be published annually by the Parks and by the Alpine Club. It is proposed that this indice be simply the (PDO Total) divided by (365 x RHC) and all multiplied by 100. RHC is simply the Rated Hut Capacity. This indice is of course, simply the average yearly percentage occupancy, and could, if applied to all huts and shelters, give one a quick indication of high or low use facilities. It might also be tied into cost of repairs or maintenance. HUl's have been calculated for the following: Bow Hut 1973-11.7 (RHC 20); Stanley - Mitchell 1972-5.25, 1973-10.0 (RHC 32).

The question might well arise as to what would be the chances of a hut being crowded on any day during a given month. A

Fig. 1-Bow Hut Occupancy 1973.
Fig. 2-Stanley Mitchell Hut Occupancy 1972.
Fig. 3-Stanley Mitchell Hut Occupancy 1973.
Fig. 4-Frequency Distributioq for occupation of Bow Hut, by month 1973.
Kevin O'Connell/M. Irvine

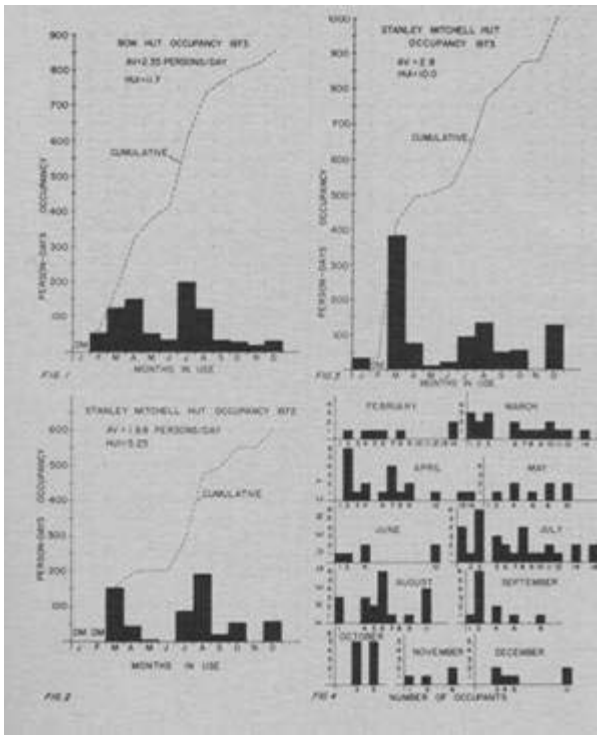
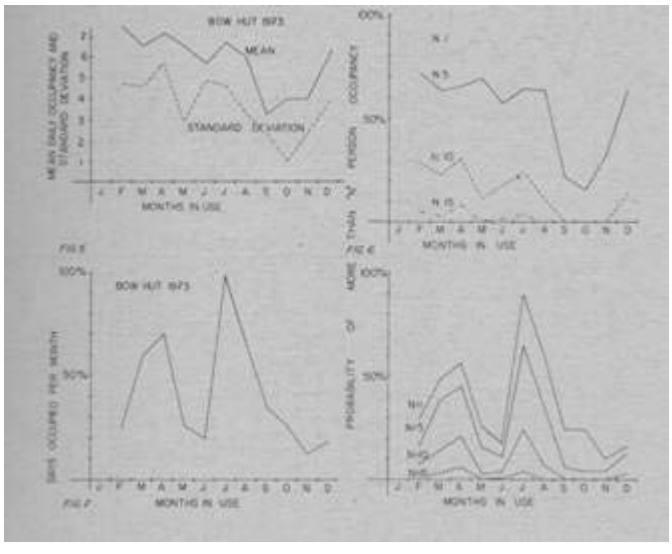


Fig. 5 - Monthly mean and standard deviation, Bow Hut 1973.
Fig. 6-Normal probability distribution (Z statistic) for 1, 5, 10 and 15 person occupancy, Bow Hut 1973.
Fig. 7-Variation of days occupied in given month as percentage of maximum number of days available, Bow Hut 1973.
Fig. 8-Probability of more than N person occupancy.
Kevin O'Connell/M.Irvine



satisfactory answer depends upon the number of other people one is willing to tolerate in a given hut. An attempt to answer this can be made if one analyses the raw data on a daily basis within a given month. Certain assumptions must be made preliminary to such as analysis, particularly with regard to the frequency of use on a monthly basis. Obviously, weekends will receive the most use during the year, but this is not necessarily true during the holiday seasons. An analysis has been carried out on the data obtained for the Bow Hut for 1973 and are presented in Figures 4, 5, 6, 7 & 8. Figure 4 shows the frequency distribution for the months of February through December of individuals or groups using the facilities. No really clear pattern is in evidence although, if taken on a yearly basis, a poisson distribution would seem to best describe the data. In the absence of any other background data it was decided to approximate the monthly patterns by means of a normal distribution. Hopefully, future data will help to clarify the exact nature of the monthly distribution (if there is one) if this article does not influence future use. Using the data in Figure 4 a monthly mean and standard deviation were calculated as shown in Figure 5. These calculations provide the basis for the normal probability distribution (Z statistic) for one, five, ten and fifteen person occupancy as shown in Figure 6. Figure 7 shows the variation of days occupied in a given month as a percentage of the maximum number of days available. This latter graph is then used to modify the normal probability distribution which yields the final result in Figure 8. Having now carried the analysis to this extreme (there may be many howls of protest) one is now in a position to predict the chances of finding N persons at the hut on any day in a given month. Naturally this will depend upon whether the data is representative of the past and future and whether a better analysis will yield significantly more accurate results based on equally contestable grounds. As a guide to the use of Figure 8 let us take as an example, the month of August. Here one sees that the probability of finding more than one person in the hut is 60%; more than 5, 35%; more than 10, 7% and more than 15, about 0%. Bearing in mind that the weekends may well contain the peak number of users in a given month, we now ask whether the theory checks out with the observed data for the month of August. It is easily seen that of the days occupied in August, 65% had at least one occupant, 39% at least 5 occupants, 13%, at least 10 occupants and 6% at least 15 occupants. So much for theory, who knows what the future may bring?

Kevin O'Connell

Postscript: The foregoing analysis could be improved by considering the frequency distributions of some months as being Poisson and others as being Normal. Certain groupings might also prove valuable, such as holiday and non-holiday seasons or months. Clearly, there is a tendency to use the huts mainly on weekends during certain months of the year.

Mountains As Scenery

The lure of mountains asserted L. J. Burpee, defies analysis. But in outlining how "it stirs the blood strongly when, far out on the plains of Alberta, you get your first glimpse of the Canadian Alps," Burpee himself provided clues for such an analysis1. Mountain environments exert many different lures2 but their most basic attraction is aesthetic. The large majority of visitors to the mountain national parks go there simply to look. And whatever our personal taste in mountain activities seldom is the enjoyment of scenery not a basic ingredient of the experience.

The way people look at and react to mountain regions and the Rockies in particular is the theme of this essay. It is mainly historical in content and literary in its mode of analysis although it does include elements of direct research in the perception of mountain

landscape.3 The study is presented as a preliminary reconnaissance of responses evoked by the scenery of the Rockies. Its limitations are defined by the subjectivity and limited representativeness involved in appraising what people have thought and felt about landscapes through their writings4 and by the restricted range of literature incorporated here.

In the Rockies, as elsewhere, what is seen and how it varies depends partly on what is there, partly on who is looking and partly on how the observers interact with the landscape5 To provide context for the study of these themes in landscape perception I begin with an analysis of mountains as scenery from the perspective of traditional attitudes that have evolved over time.

The Development of Modern Attitudes towards Mountain Scenery The psychological reactions we associate with mountains are neither permanent nor universal. They vary over space and time. The mountain has traditionally been more evocative in Far Eastern rather than Western tradition.6 And in the western realm each age has had its characteristic view of mountains.

The present taste for mountain scenery has only been acquired over the last two centuries. Before this time mountain regions were, in general, avoided. Ancient and medieval man passed through high regions only when he had to, usually travelling in a state of apprehension and misery.7 "The first person to climb a mountain for its own sake, and to enjoy the view from the top," claims Kenneth Clark, was the fourteenth century scholar Petrarch.8 But another two centuries elapsed before Petrarch's enjoyment of mountain scenery was shared by many others.

In the 16th century some of the old aversion to mountains disappeared with the beginning of the scientific exploration and description of the Alps.9 But the transition was slow. Throughout the 17th century the influence of biblical cosmographies reinforced the old antipathy towards mountains. In this period the belief in the sacred theory of the earth as a smooth, uniform egg that had been shattered by the deluge10 established a new way of seeing mountains.11 As cataclysmic upheavals resulting from God's wrath mountains were initially felt to be unsightly and sinful. The Alps, wrote John Dennis in 1698, "are not only vast but are horrid, ghastly ruins."12

During the next century, this commonplace view of mountains was transformed "by a more sanguine view of God and Man, and by a new aesthetic standard: to eighteenth century observers mountains seemed majestic and sublime,"13 evoking fear and awe, but also joy and exhilaration. The sublime perception of mountains as both terrible and magnificent became formalised into the aesthetic of the infinite, with its antithetical emotions of mountain gloom and mountain glory.14 These emotions became part of a wider feeling and delight in wild nature which was evident in western literature in the later part of the 18th and in the 19th century. Within this new veneration of nature mountains occupied an important place. To Ruskin mountains were "the beginning and the end of all natural scenery; in them ... my affections are wholly bound up."16

Similar appreciations of mountain scenery became widespread in the mid 19th century.17 By this time, an increasing number of tourists were visiting the Alps; most of them were content to view the peaks from the towns at their base but others participated in the new vogue of mountaineering. This activity added a recreational dimension to man's response to mountain environments. In the image of the early Victorians the Alps were no longer a place of natural hazard and danger but a recreational and scenic attraction,18 Increasingly the sense of mountain glory as distinct from a vague horror of mountain scenery came to dominate perception and response.

Our basic attitudes towards mountains have changed little since this time. However, our feelings about mountains may well have lost precise meaning. Contemporary taste for mountains as scenery is essentially based on the sense of beauty they evoke; but present concepts of scenic beauty, states Lowenthal, "denote anything that gives pleasure."19 Modern man's aesthetic responses to mountain scenery may thus be more eclectic than those contained in the perspectives of past ages.

The underlying concepts of beauty which structure our perceptions cannot, advises Newton, be defined, nor even described.20 But we can state that North Americans, by and large prefer mountains to other landscapes as scenery. For example, an early visitor to the Rockies aptly mirrored contemporary opinion when he observed that the scenery rapidly improves between Calgary and the foothills, until "in the heart of the Rockies it becomes very grand and striking indeed."21 In the popular image plains are monotonous and unattractive, mountains spectacular and beautiful. The strength of the stereotype is reflected by the fact that the adjectives "mountainous" and "alpine" stand in most people's minds as attributes of aesthetically pleasing scenes while "plain" connotes an unappealing scene.22

But thoughts and feelings about mountains also vary with personal inclination and experience. Each individual has its own characteristic way of looking at and responding to mountains. No two people see the same scenery even when they are standing at the same location.23 For scenery, strictly defined, is a result of interaction between the observer and the landscape.24 Some images are shared, others are purely personal and private, and this is true even of landscapes that are buried deep in the collective consciousness.

Psychological Landscapes of the Canadian Rockies

In the minds of many people, the Canadian Rockies,25 more than any other alpine region, stand as the symbol of the mountain aesthetic. They have caught the attention of a wide range of people of differing backgrounds and tastes, evoking varied responses. The region impressed the wildlife painter Carl Rungius in a way no other high country did; on visiting it for the first time he felt "the urge to paint straight landscape—landscape for its own sake."26 A variety of other sources, including scientific texts, point to the Rockies as the most magnificent mountains of the American Cordillera.27

In many instances the Rockies provide the standard against which other landscapes are judged; these may be similar mountain ranges such as the Swiss Alps,28 or a hill Of trash in Virginia Beach, U.S.A.29 Travel books and guides are particularly prone to citing the Rockies as the scenic benchmark for the whole of North America; "the continent's most magnificent and exciting

scenery"30 Those who know the mountains more intimately often extend its superiority in terms of a wider geography of scenery. "It is the most beautiful country I know of," wrote Norman Collie, the widely travelled British mountaineer.31

Beyond their aesthetic meanings the Rockies also carry a more freighted significance. Thorington relates the story of an old prospector who on returning home after many years was asked what he had to show for his lost years: "he answered simply, "I have seen the Rocky Mountains!"32 For the old-timer, real or fictitious, the Rockies somehow incorporated the meaning and purpose of life. The early pioneers of the region perhaps understood this response more than most. For others the Rockies can have a spiritual meaning, manifesting the handiwork of God, or in Mabel Williams' words, "the Great Landscape Architect of the Universe."33 Such views were common in literature at the turn of the century but are much rarer today.

It is as scenery, however that the Rockies exert their strongest attraction. Descriptions of the region vary but as we have seen they invariably draw on superlatives to portray the scenery. The majority of Canadians will concur with such portraits but personal assessments of why they are valid are more elusive and complex. Not only is the landscape of the Rockies varied in form and function but perception changes with activity and location.

The view from the distance is, perhaps, the simplest. Its effects nevertheless, can be deep rooted. Alexander Henday, the first white man to see the Rockies, never came closer than 60 miles to them, but MacGregor, in a evocative piece of writing, imagines how they would remain forever firmly embedded in his memory.34 It is out on the plains that the Rockies can be seen as a spatial unit; a cohesive landscape that provides an abrupt and marked contrast to the seemingly endless prairies.

Within the Rockies perspectives change radically, at least for some. To a perceptive observer each section of the region has its own special characteristics and scenery. The gentler charm of the front range mountains around Banff contrasts, noted Stokes, with the higher more spectacular main range mountains further west.35 And to Palmer nothing seemed clearer than that the Rockies and Selkirks are separate ranges with different scenery.36 But though these gross differences are obvious to those familiar with the region, or to the sharp itinerant eye, how clear are they to the average tourist driving between Banff and Revelstoke? His appraisal of the scene is more likely to be stereotyped, comprehending the Rockies as a unit, rather than making the distinction between its various sections.

The aesthetic relationship tourists have with the Rockies is less refined and intimate, more distant and simple than the interaction between mountaineers and their environment. The view from the highway and the view from the mountain peak can be defined as the poles of aesthetic response to the mountains. Responses associated with other activities fall within this range, with the view from the ski slopes defining the median position.37

Tourist activity in the mountain national parks consist of looking at the landscape from on or near the roadside. Although the majority of park visitors do not venture further, the physical and aesthetic qualities of the natural landscape still penetrate their consciousness and allow them to be experienced. The composite of sensations inherent in back country users however cannot be adequately duplicated. This is essentially a wilderness experience that includes the elements of challenge, solitude and the refinement of sensory impressions.39 There are, however, various stages of aesthetic awareness of wilderness. They reach their purest form, contends Graves, at the mountain peak and become diluted as we proceed down the slopes.40 At successively lower levels man and his artifacts increasingly intrude upon the aesthetic response of the tourists. For if Lowenthal's assessment is correct, they seldom distinguish between cultural landscapes and wild ones.41

Differences in aesthetic response to the Rockies then, hinge partly on what people see as natural, and this, in man, varies with the way people interact with the landscape. But even where this relationship is similar, and unique, as in the case of climbing, individuals may exhibit varyng preferences for particular areas or landscapes. The Selkirks, asserted Outram, are "not nearly so attractive as the Rocky Mountains proper."42 Others hold an opposing view. "The Selkirks have their own lovers," noted A. O. Wheeler, to whom no landscape is more beautiful.43

Most visitors to the region seem to have an area they are particularly fond of. A rudimentary sampling of literature suggests their favourite area is Lake Louise. "No other part of the Canadian Rockies or possibly no other equal area in the world can surpass it," boasted one of the area's earliest admirers.44 But there is also a wealth of minority opinion; for what makes a particular area or a specific view preferable to another is the total experience of the observer.

Individual perceptions and responses to the scenery of the Rockies are not only in some measure unique, they are also transient. They vary with mood and circumstance, location and environmental condition. Weather season, time of day, the presence or absence of other figures in the landscape, all influence our perception. "No approach to the mountains," noted Phillips and Niven, "is entirely the same."45 Many aesthetic responses to the Rockies are thus fleeting, personal, and if not secret or inchoate, then subtle and difficult to articulate. Except within vague limits such responses cannot be satisfactorily defined but they add a richness and colour to our own private images of the Rockies. And it is often this fine detail, which is absent from collective images of the Rockies, that stands as significant mnemonic referents when we think of the lure of the mountains.

Barry Sadler

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The Canadian Glacier Inventory

At the start of the International Hydrological Decade (IHD) Canada agreed to participate in the world-wide glacier inventory programme. A group was established to undertake an inventory of all the perennial snow and ice masses in Canada. Basically the programme consists of three projects—the glacier inventory, the Glacier Atlas of Canada and the glacier archive. Combination of these elements will provide the most comprehensive information system ever on the glaciers of Canada.

THE GLACIER INVENTORY

Every individual ice stream or perennial snow patch is identified and delineated on aerial photographs and the outlines transferred to work maps, usually at a scale of 1:50,000. The

constituent parts of the glacier the accumulation (névé), ablation and moraine-covered areas are shown. The information required for each glacier has been specified in a UNESCO guide book and is compiled on data sheets. This information is as follows: a region and basin identifier for each glacier with a glacier number (this provides an unique reference for each ice mass), geographical and Universal Transverse Mercator coordinates, orientations of the accumulation and ablation areas, elevations of the highest, lowest moraine-free and lowest moraine-covered parts, mean elevations of the accumulation and ablation areas and of the snow line (with the date of its determination), the length and width of the ice stream, the areas of the constituent parts, estimates of mean depth and volume, and a classification and description of each glacier. The glacier name is included, if available, and one additional 5 digit code provided that gives information on: a) studies which have been done on the glacier, b) the nature and extent of the photographic record, c) special characteristics, such as surge features and ogives, d) types of moraines, and e) the number of glacier-dammed lakes. This information is made available in the form of computer printouts and published reports. At present only data from Axel Heiberg Island has been published and data from Vancouver Island is available as a printout.

The datum that will be established once the inventory is completed will be used in conjunction with ERTS (Earth Resources Technology Satellite) imagery to monitor changes and determine fluctuations over a much larger area than has been possible in the past. In terms of specific research applications we will be able to select glaciers which are truly representative for detailed study. By using glacier melt models and data from the inventory on the area of ice within certain elevation belts we will be able to calculate the glacier ice-melt contribution to streamflow in many different areas. Analysis of the data will permit us to assess much better the role of perennial snow and ice in the world's water and energy balances.

THE GLACIER ATLAS OF CANADA

The location and number of each glacier in Canada is shown on a four-colour map published at a scale of 1:500,000. Maps of Axel Heiberg, Devon, Bylot, Baffin and Vancouver Islands have been published as well as the four sheets of the Nelson River basin, which cover the glaciers on the east slope of the Continental Divide from Waterton Lakes to the southern end of the Columbia Icefield. The glacier maps of central Baffin Island were used by the 1973 ACC expedition to the Clyde area. About one third of the estimated total of 150 maps have been printed so far. Unfortunately with the limited staff available it is unlikely that the series will be completed much before 1980.

THE GLACIER ARCHIVE

The collection of historical information on glaciers is naturally an important part of the glacier inventory programme. The ACC, through the CAJ and its invaluable library and photo collection in the Archives of the Canadian Rockies, has provided much of the basic material needed for this work. Although many of the aspects of the glacier archive are still being developed and the data files have to be integrated, a brief description of what is being done will indicate the type of information that may be available to those interested. Furthermore, it may indicate areas where members of the ACC can contribute to the development of the file if they wish.

Photographs: The photo files of a number of agencies have been searched for glacier pictures; the Archives of the Canadian Rockies (in particular the ACC collections), the Scott Polar Research Institute, the Royal Geographical Society, the Film and Photographic Branch of the BC Government, and the International and Provincial Boundary Survey records. Some individuals have generously donated material and we are always interested in receiving glacier photographs or lists of private collections that can be entered into our system for reference. Eventually, we will be able to provide for any one glacier, or glaciological feature, a list of all the relevant photographs with the names and addresses of those from whom a copy of the photo, or authorization to reproduce, can be obtained.

Computerized Bibliography: One important aspect in any information system is that, within reason, all existing information is identified. This is being achieved through a computer based bibliography of all material relating to Canadian glaciers and the mountains where they are found. Approximately 1000 articles have been read, key-worded, and entered into the system, the bulk of these have been taken from the CAJ, the Journal of Glaciology and Arctic. By defining appropriate search profiles bibliographies can be prepared on a specific glacier, region, subject, individual etc. Once all the elements of the information system have been tied together it will be possible to find a representative glacier through the inventory data and then through the bibliography and photo lists compile the source material on published literature and historical photographs for that glacier.

Glacier Names: Several years ago the Department of Energy, Mines and Resources produced a list of Named Glaciological Features in Canada. This list contained all glacier names that had been approved by the Canadian Permanent Committee on Geographical Names. Unfortunately, some names, such as Vaux Glacier, although appearing frequently in the early literature, have never been approved whilst others, such as Green Glacier, appear very infrequently, having been replaced by an acceptable approved name (Victoria Glacier). To aid in such identification a computer based list of all glacier names is being compiled and includes detailed coordinates and map references.

Mountain Ascents: Many glacier photographs have not been, nor likely will be, deposited in archives or other areas where they are readily accessible. As the mountaineering community is the one most likely to have photographs of glaciers, taken at different times, a list is being compiled of Canadian mountain ascents. We hope thereby to identify those who have been in the vicinity of a particular glacier and the date they were there. Thus when we find an unidentified photograph with only a photographer credit, we should be able to fix its approximate location and date. Also, should we require a photograph of a glacier taken in a particular year we may be able to identify a source.

The glacier inventory programme still has a long way to go and some of the information files mentioned above are still extremely small. Although the information system will be primarily a research and management tool there are many parts of it that may be of interest to those who look on glaciers, and the mountains where

they are found, as objects of recreation rather than research. It is our hope that by bringing together the existing but uncoordinated material on glaciers in Canada a mutually beneficial exchange of information can be initiated.

The activities of mountaineers place them in a unique position to assist us in our work, not only by donations and advising us of information they have, but also, by reporting any unusual glacier phenomena that they may observe in the mountains. Unusual glacier activity, the development of new crevasse fields, etc., may be indicative of the start of a surge and extensive flooding may be evidence of a recent jokullhlaup. Any material or reports would be most gratefully received. On our part we can provide further information about our programme, maps, reports, and access to any of our data files that may be of interest. Correspondence should be directed to the Head, Perennial Snow and Ice Section, Glaciology Division, Water Resources Branch, Environment Canada, Ottawa, Ontario, K1A OE7.

Simon Ommanney

Acute High-Altitude Illness in Mountaineers And Problems of Rescue

Syndromes of acute mountain sickness share hypoxia as a cause, but expression of the illness varies. Cerebral edema is a cause for the development of headache, selective neurologic defect, and coma and perhaps even for high-altitude pulmonary edema, although microthrombi in pulmonary capillaries are often seen in the latter and may be casual. Retinal and preretinal hemorrhages frequently occur at high altitude. Acute mountain sickness is difficult to treat on a mountain, even with oxygen. Drugs are of uncertain usefulness; therefore immediate attempts to lower a victim are in order. Rescue by air is best, but is hazardous to leave unacclimatized rescuers above 2400 m (8000 ft) without oxygen and the assistance of a ground party. The features of acute mountain sickness and principles of rescue are discussed. Humans have a remarkable ability to adapt to high terrestrial elevation. Although they do not live permanently above 5300 m (17,500 ft), they go higher to work1 or to reach the tops of mountains. Men have climbed without supplemental oxygen to 8500 m (28,000 ft).2,3

Acute adaptation to high altitude involves many physiologic adjustments, cardinal among which are (1) increase in ventilation; 4-8 (2) alkalosis;4-8 (3) displacement to the right of the oxygen-hemoglobin dissociation curve in response to increase of erythrocyte 2,3 diphosphoglycerate, favoring release of oxygen to tissues;9,10 (4) movement of water from intravascular and interstitial spaces into cells;11,13 (5) a transient rise followed by fall of cardiac output;14,15 and (6) augmentation of erythrocyte production in marrow in response to increased levels of erythropoietin.1e,17 The sum of these adjustments supports the transport of oxygen from mouth to cell, despite substantial loss of oxygen pressure in air at high altitude.

Some individuals, however, tolerate hypoxia poorly. Several syndromes or illness are observed among climbers, skiers, snowshoers, rescuers, and others who go to high places. The major manifestations are in brain, eye, and lung.

"Acute mountain sickness" is the usual designation for these illnesses. The phrase "acute form of mountain-sickness" was used as long as 1895 by Hepburn.18 In Peru acute mountain sickness is called "soroche";19 in Bolivia it has been known as "puna"20 or "puno".21 "Acclimatization" and "failure to acclimatize" are words that are also used to designate the condition. I suggest "aero-adaptation" and "acromaladaptation", as more specific words applying solely to accommodation to high altitude because "acclimatization" applies to biologic adjustment, not only to high terrain but also to seasons and to environments that are hot, cold, dry, wet, windy, bright, dark, or polluted.22 Mild forms of acute mountain sickness are manifested by headache; irritability; mental topor; insomnia; lightheadedness; weakness; anorexia; nausea; vomiting; flatulence; transient chest, back, or limb pain; palpitation; and rapid, labored, or irregular breathing.23-25 These symptoms are almost always a part of the severer syndromes to be discussed.

SYNDROMES OF ACUTE MOUNTAIN SICKNESS

Cerebral Syndromes

The brains of rats and cats swell 4% to 6% during experimental hypoxia.26,27 |n man at high altitude or simulated high altitude cerebral blood flow24,28 and cerebrospinal-fluid pressure increase. 29,30 The brain tissue of three of four Indian soldiers afflicted with cerebral forms of acute mountain sickness was edematous on histologic examination.24,30

Swelling of the brain probably causes most of the symptoms of acute mountain sickness,31 such as headache, irritability, forgetfulness, giddiness, insomnia, nausea, and vomiting, as less common neurologic manifestations, such as cranial nerve palsy, ataxia, paralysis, hallucination, seizure, stupor, and coma.30,32

I observed an instance of coma in a woman on Mt. McKinley, Alaska, at 5000 m (16,400 ft) elevation. Consciousness returned when she was lowered to 4400 m (14,300 ft), and full recovery came at sea level after air evacuation. The case was reported by Fitch.33

The following case is an example of selective neurologic defect.

Case 1: A 22-year-old man led a climb on Mt. McKinley in 1970. At 4900 m (16,000 ft) he experienced occipital headache and neck pain. At 5300 m (17,500 ft) he slept fitfully and had nausea but climbed the next day to 5500 m (18,200 ft), where dizziness made him turn back. He vomited on the way down to the camp at 5300 m (17,500 ft). There he noted increase in headache, tinnitus, blurred vision, weakness, unsteadiness, and constriction in the chest, as if he had "run a 440-yard race."

His companions gave him furosemide, 80 mg, which produced copious, incontinent urination but did net relieve the headache. He was now so weak and unsteady that he could not stand. Breathlessness ensued but was never a prominent manifestation.

He was finally lowered on an improvised stretcher to 4600 m (15,000 ft), where a helicopter transported him to a hospital. Headache disappeared during the flight.

On admission he was fully conscious. He complained only of residual substernal tightness. Lungs were normal on auscultation and on X-ray examination. Subhyaloid and perivenous retinal hemorrhages were seen bilaterally, but papilledema was not found. The patient was unsteady when he walked; he crossed his legs when walking a line, and his body weaved when he kneeled. Nystagmus was not present. The imbalance was considerably lessened after 2 days.

The cerebellum is particularly sensitive to hypoxia, such as occurs in carbon monoxide poisoning and drowning. Truncal ataxia in this case suggested mid-line cerebellar damage from edema or acute mountain sickness exhibiting ataxia it has been postulated that the lesion is located in the anterior superior vermis.32

Acetazolamide, 500 to 750 mg daily, before or during ascent has been recommended for prevention or treatment of acute mountain sickness, particularly for headache and insomnia.34,35 Although mechanisms of action have not been fully elucidated in man, the drug increases cerebral blood flow, reduces cerebrospinal-fluid production and pressure, and raises cerebrospinal fluid hydrogen ion concentration.36,37 The respiratory center in the medulla responds to a lower pH by augmenting the rate and depth of breathing.8 This, in turn, causes alveolar Pco2 to fall; but the net effect, albeit a weak one, is to produce metabolic acidosis because acetazolamide also enhances excretion of bicarbonate by the kidney by inhibiting carbonic anhydrase. Metabolic acidosis thus counterbalances respiratory alkalosis,4-8 which is usual at altitude.

Although the pharmacologic effects of acetazolamide should be helpful, it is doubtful that the drug can ameliorate cerebral mountain sickness once it has begun. Aspirin, codeine, and phenothiazines are of little help either. They are notoriously poor for affording symptomatic relief and sometimes worsen nausea and imbalance.

Singh and co-workers30 advocate the potent diuretic agent furosemide for prevention and treatment of cerebral as well as pulmonary forms of acute mountain sickness. Nineteen of 24 cases with neurologic manifestations improved when given furosernide and a synthetic corticosteroid, betamethasone. Gray and his colleagues,32 however, saw severe ataxia develop in five persons who were given furosemide in a study to test the efficacy of the agent for preventing acute mountain sickness.

It seems illogical to provoke diuresis in individuals already dehydrated from the effort of climbing and at times vomiting as well, despite observations24.30 that individuals immune to altitude sickness urinate more ("Hohendiurese" of alpinists) on reaching altitude than those who become ill. It is more likely that the good effects observed by Singh were caused by betamethasone rather than furosemide, because betamethasone and similar corticosteroids, such as dexamethasone, are widely used in other clinical situations to reduce brain swelling. A climber with high-altitude cerebral edema was recently treated with dexamethasone alone, with apparent benefit:

Case 2; A 27-year-old climber complained of heaviness in the head, inability to concentrate, somnolence, anorexia, and unsteadiness 1 day after helicopter rescue from Mt. McKinley in 1972. He had felt well at the summit, 6200 m (20,320 ft), 4 days earlier but several hours later, at 5500 m (18,000 ft), had suffered pulmonary edema manifested by dyspnea, bubbling noises in the chest, cough, and frothy sputum. This was treated on the mountain with penicillin and furosemide, 240 mg in divided doses over a 6-hour period.

His breathing improved, but, as in Case 1, diuresis to a point of incontinence ensued. Because he was too unsteady to stand, he was lowered on a litter to 4900 m (16,000 ft) for evacuation. At sea level he exhibited slow mentation, wide-based gait, inability to walk a line, finger-to-nose dysmetria, blurred optic-nerve-head margins, perivascular retinal hemorrhages, and rales in the right lung. Truncal ataxia and nystagmus were not seen.

A chest X-ray showed pulmonary vascular congestion and perihllar alveolar infiltration on the right, consistent with subsiding pulmonary edema. Cerebrospinal fluid pressure was 340 mm H20; leukocyte count, 2/mm3; protein, 89 mg/100 ml; lactic dehydrogenase, 49 Ill/ml; creatine phosphoklnase, 0. Dexamethasone, 3 mg every 6 hours, was given by mouth for 3 days, then in progressively smaller amounts for 7 more days. Oxygen and other medications were not used. In less than 24 hours alertness, appetite, and gait were much improved. On the fourth day cerebrospinal fluid pressure was 85 mm H O and protein, 36 mg/100 ml. Mild head pains and clumsiness persisted for several more days, but full recovery ensued.

Dexamethasone apparently lessened symptoms, abnormal physical signs, and cerebrospinal fluid pressure and protein, but recovery in this mild case might have occurred as rapidly without medication. Gray and his associates3? used betamethasone in unstated amounts in treatment of three cases of ataxia, but it is not clear in their report whether the drug was used alone in any instance or whether it was beneficial.

Furosemide may have precipitated or aggravated ataxia in both Case 1 and Case 2. Gray's warning that the use of furosemide to prevent or treat acute mountain sickness may be dangerous should be heeded.32 Certainly the extraordinarily large dose (240 mg) administered in Case 2 was unwise.

The use of betamethasone or dexamethasone, 12 to 40 mg daily in divided doses for 5 to 10 days, is justified on a mountain, if prompt removal of an individual ill with a cerebral form of acute mountain sickness is not possible. An unconscious person would of course, require parenteral medication. This is often difficult to manage on a high mountain because vials of liquid medication freeze and break. Betamethasone and dexamethasone are not marketed in this country in a powdered form in vials.

Ocular Syndromes

Ocular abnormalities, such as occurred in Case 1 and Case 2, are frequently seen among persons who climb high on mountains. These abnormalities Were first identified by Singh and his

associates in the mid-1960s.30 They noted blurring of vision and engorgement of retinal veins in 17 soldiers at high altitude. Papilledema was found in four cases and vitreous hemorrhage in three. Frayser and her co-workers 38.39saw nine cases of retinal hemorrhage at a research camp at 5300 m (17,500 ft) on Mt. Logan, Canada, in 1968. They described hyperemia about the optic nerve head, increase in diameter of retinal arteries and veins, retinal and preretinal hemorrhages, shortened retinal circulation time, and increased retinal blood flow. The latter parallels the increase in cerebal blood flow measured by others.24.28 Ocular hemorrhage is a serious hazard for mountaineers, for permanent loss of vision can result if the hemorrhage is extensive and complete resportion of blood, which is usual, does not occur. Hemorrhages resolve slowly in any event, as is illustrated by the following case.

Case 3: A 34-year-old climber with congenital ocular nystagmus noted a film before the right eye at 4000 m (13,000 ft) on Mt. McKinley in 1968. He did not proceed higher.

Three days later an ophthalmologist saw vitreous hemorrhages and a retinal hemorrhage along the superior temporal artery in the right eye and a retinal hemorrhage nasally, below the optic-nerve head in the left eye. Six weeks later the hemorrhages had not yet fully resolved, although vision was clearer.

If a high-altitude team has a physician member he should carry an ophthalmoscope (batteries can do double duty in a flashlight). If a companion complains of blurred vision and retinal, subhyaloid, or vitreous hemorrhages are found, the climber should descend at once. If papilledema is seen, it is a sure sign that cerebral edema is present, making the situation grave.

There is no specific treatment for ocular hemorrhage. The climber should be instructed not to rub his eye or jar his head, for fear of precipitating more bleeding. Whether hemorrhage will regularly recur on return to a similar altitude is not known, but a victim of eye hemorrhage should probably not climb so high again.

Respiratory Tract Syndromes

The principal respiratory syndromes of mountaineers are disordered breathing and pulmonary edema. Infection and pulmonary infraction, such as occurred in the following case, are probably no commoner than at sea level.

Case 4: In 1971 a 29-year-old climber on Mt. McKinley complained of diarrhea, postnasal catarrh, and hacking cough at 4600 m (15,000 ft). He was given codeine and diphenoxylate with atropine. He went on to 5200 m (17,000 ft), where cough and diarrhea continued. Great weakness, oliguria, fever, and delirium supervened. A physician companion heard no rales in the chest. The man was removed on an improvised stretcher to 4600 m (16,000 ft), where he improved enough to walk down the mountain. Painful leg swelling, scapular pain and hemoptysis occurred during the march out.

Chest x-rays showed a density like a tuberculous infiltrate in the posterior segment of the left upper lobe, but pulmonary angiograms and scan showed embolization and infarction in this area, as well as in the right lower lobe.

It is likely that the illness was originally an infection. Later it was complicated by thrombophlebitis, embolism, and infraction. Coagulation defects and intravascular thrombosis do not occur more frequently among residents of high altitude than among persons living at sea level.40 Whether acute exposure to heights predisposes to thrombosis is not known.

The capacity of white blood cells to phagocytize bacteria is impaired at altitude, but there is no lessening of antibody formation in animals at heights.41 There is no substantial reason to believe that mountain climbers are prone to infection, even though they crowd together in tents, bivouacs, and caves, share utensils, and do not wash their hands. In the past, bronchitis and pneumonia have been described among climbers, but it is now clear that many of these episodes were examples, not of pulmonary infection, but of high-altitude pulmonary edema.19.42

Sore throat caused by mouth breathing of cold, dry air is common at high elevation,3.43 but frostbite of the respiratory tract is rare, if it occurs at all, because the respiratory mucosa has the marvelous ability both to warm to body temperature and to humidify to 100% saturation quietly inspired air in the course of a single breath, even if ambient air is -100°C.44 Even when extremely cold air is breathed for long periods of time, lower respiratory tract injury does not easily occur.45

An increase in the rate and depth of breathing regularly occurs in thin air.4-8 The sensitivity of peripheral chemorceptors to lowered arterial oxygen saturation is preserved during acclimatization,48 but during sleep the response of medullary neurones to CO2 is depressed.47.48 This may be responsible, at least in part, for irregular or periodic breathing, which is frequently noticed at high altitude.23,30,31,49

Irregular breathing is commonly dismissed by climbers as harmless, but it should not be considered innocuous, for at least temporarily, there is under-breathing. Cheyne-Stokes breathing presaged severe hypoventilation and coma in Fitch's case.33

High-altitude pulmonary edema is the most dramatic syndrome of acute mountain sickness. Hultgren and associates19 credit Hurtado with the first precise description of the disorder in 1937, although three cases of "puna of a cardiac type," described in 1913 by Ravenhill,20 were undoubtedly examples of high-altitude pulmonary adema. It has been recognized in North America since 1960.50 Although the condition has been extensively studied, its cause remains unknown.

High-altitude pulmonary edema occurs principally among young adults who rapidly climb to heights. 19,50-52 it has occurred at elevations as low as 2600 m (8400 ft),53 2600 m (8500 ft) after skiing at 3100 m (10,300 ft),54 and 260 m (8600 ft) after hiking to 2900 m (9500 ft).19 It afflicts women19,51,55,56 as well as men. The disorder has appeared in individuals as young as 3 years19,55 and as old as 53 years.51 older sportsmen are affected, probably in proportion to their numbers on mountains. Strenuous effort usually precedes onset. 19,50,54 pulmonary edema often recurs on re-exposure to lofty terrain. It may also strike an individual who has not previously experienced trouble at similar or higher conditions

of altitude and effort.

Onset is frequently at night, when respiratory excursions are dampened by recumbency and sleep.47.48 Cough, cyanosis, fast pulse, weakness, and rapid, gurgling respirations are salient features. Death is uncommon but not rare. As mentioned earlier, the condition has been mistaken for infection, as I mistook it in 1960.57

Case 5; A 24-year-old climber was flown from sea level to 3100 m (10,300 ft) on Mt. McKinley to help in the rescue of injured and ill climbers who were above 4900 m (16,000 ft) on the mountain. In 1 day he snowshoed rapidly to 4400 m (14,300 ft) and labored arduously there for several hours, setting up a rescue camp. On the third day he noted weakness, dizziness, shortness of breath, and an unremitting dry cough.

His pulse rate was 130 and respiratory rate, 30. The man was so weak that he could only lie helplessly in bed for 3 more days until evacuated by air. Demeclocyline had no effect on the cough. He recovered so quickly on return to sea level that he refused hospitalization and a chest x-ray.

Despite lack of documentation, it is highly likely that he suffered acute high-altitude pulmonary edema.

A more recent example illustrates how treacherous pulmonary edema can be, particularly among uncomplaining mountaineers.

Case 6: A 38-year-old man climbed Mt. McKinley in 1969 without experiencing illness. In 1971 he was flown onto Mt. Sanford, Alaska, to assist in a search for survivors of an airplane crash high on the 4900 m (16,200 ft) peak. After 2 days at 4000 m (13,000 ft), where he had been deposited, he climbed with a companion to 4500 m (14,800 ft), helping to dig a snow cave for shelter at the end of the third day. He slept poorly and said that he felt ill while strapping on his crampons the next morning. He did not complain of cough, shortness of breath, chest pains, or headache.

His partner gave him furosemide, 40 mg, and placed him in a sleeping bag, where he dozed. His breathing was shallow. He was then given furosemide, 40 mg again, and oxygen by an ill-fitting, stiff plastic mask, which was soon discarded in favor of sucking on the end of the tubing. He was next fed soup, which he promptly vomited. Shortly thereafter he was fitted out to try to walk to a lower level, but he could negotiate no more than 6m (20 ft) because of weakness and imbalance. His companion placed him in the cave atop his sleeping bag, turning his back to him momentarily. When he faced him again, the climber was dead, with froth at his lips. Eight hours had elapsed between the first mention of feeling poorly and death. At no time did his friend, who was familiar with the syndrome of high-altitude pulmonary edema, notice shortness of breath or cough.

At autopsy 1 day later (done by Dr. Michael F. Beirne) the trachea was opened Just below the larynx. Watery fluid filled the trachea. There were food particles and brownish soupy material similar to stomach contents in the pharynx, larynx, and tracheobronchial tree. Pulmonary veins were dilated and engorged. The lungs were heavy, together weighing 2140 g. Lung tissue was rubbery and firm, oozing fluid when cut. Lower portions were denser and wetter than upper segments, but all portions were edematous. Dilated pulmonary capillaries, intra-alveolar petechial hemorrhages, and fluid-filled alveoli were seen on microscopic sections. In addition, all areas of the lungs showed acute inflammation, characterized by the presence of polymorphonuclear leukocytes in alveoli. Microthrombi were not identified in pulmonary capillaries.

The heart was dilated; it weighed 510 g. Coronary arteries, heart valves, and myocardium were normal. There was no increase in pericardial fluid. Liver and spleen were enlarged and congested.

The brain was edematous, exhibiting flattened convolutions. It weighed 1610 g. Microscopically, edema and occasional petechial hemorrhages were discovered throughout the brain. More hemorrhages were found in thalamic nuclei and pons than elsewhere.

The victim had vomited barely 1 hour before death. He had been ill for at least 7 hours before this. It is unlikely, therefore, that the profound pathologic changes, including infiltration of polymorphonuclear cells, could have been produced solely by aspiration of stomach contents, which was a terminal or near-terminal event. Infiltration of leukocytes suggests infection, but the extent of edema is unlike primary pneumonia. Similar changes have been noted in other fatal cases.53,55,58-60

The puzzle of the cause of high-altitude pulmonary edema is that fluid will not escape from pulmonary capillaries into interstitial spaces and into alveoli unless the capillary pressure is above 25 to 30 mm Hg.61 Although pulmonary-artery pressure may be increased to many times normal in cases of high-altitude pulmonary edema, pulmonary-capillary wedge pressure and left-atrial pressure have been normal on the several occasions in which measurements have been made of the disorder.54,62,63 Such studies apparently exclude left ventricular failure and pulmonary-vein spasm as causes. It is possible, however, that before catheterization arterioles opened widely to transmit a full load of high pulmonary-artery pressure on capillaries. This might occur during work at high altitude, when peripheral venocon-striction caused by hypoxia64 shifts fluid centrally, or it might happen as an inappropriate response to exertion, as suggested by Wood and Roy64 and Arias-Stella and Krugeress

Overperfusion of particular capilliaries may be the problem, either because preterminal arterioles or arteriocapillary shunts open or because certain pulmonary capillaries thrombose.58,65 Platelet and fibrin agglutination and microthrombi have been found in capillaries of the lungs of individuals diving of acute high-altitude pulmonary edema.40,53,55,58,60 if several of a cluster of capillaries branching from an arteriols are occluded, then the capillaries remaining open are subjected to greatly increased pressure and flow. Hultgren65 proposes this pathogenesis to explain the patchy roentgen pattern of the disorder.

Finally, it is surmised that high-altitude pulmonary edema may be caused by generalized cerebral edema or by focal lesions in the brain, such as were found in Case 6. Comparison has been made61 to pulmonary edema complicating head injury, epilepsy,

cerebral malaria, narcotic intoxication, and experimental lesions in the floor of the fourth ventricle.

Mild cases of high-altitude pulmonary edema subside without treatment. Severe cases require prompt evacuation to levels below 2400 m (8000 ft), where quick recovery is the rule, or oxygen therapy. Oxygen predictably and dramatically lowers pulmonary-artery pressure.62 It is not certain how many times this has been done successfully on recreational or expeditionary climbs, but correction at altitude has been demonstrated in special facilities. 19,55,59 Oxygen should be delivered through a tight-fitting mask for at least 24 hours.67,68 but efforts to arrange descent should not await oxygen therapy, which can be continued en route. Ideally, the rate of flow should be 6 to 8 litres per minute; but, if supplies of gas are small, lower flows may be used beneficially.

Morphine, 10 to 15 mg parenterally, may be helpful because it calms a victim and dilates peripheral veins, pooling blood there. Unwanted depression of respiration can occur, however, particularly if cerebral edema is also present. Experience with morphine has been extensive and favorable in india,30,59,66,67,69 but there has been less confidence in it in the Americas.68

Acetazolamide does not prevent high-altitude pulmonary edema. 32 Physicians in India,30 as mentioned earlier, claimed that furosemide, 80 mg daily for 2 days forestalled high-altitude pulmonary edema and other forms of acute mountain sickness in soldiers arriving at 3500 m (11,500 ft); but others32 found that the same dose preceded anorexia, vomiting, headache, ataxia, and, in one case, coma at 5300 m (17,500 ft) in Canada.

Once pulmonary edema begins, the cautious use of furosemide, 20 to 40 mg every 12 to 24 hours, is warranted. But until further studies are done, diuretic agents cannot be relied on to prevent or correct high-altitude pulmonary edema.

PRINCIPLES OF HIGH-ALTITUDE RESCUE

Treatment of acute mountain sickness on a mountain is difficult, even if a supply of oxygen is at hand. The best management, with or without oxygen, is to retreat as quickly as possible to lower levels, where all manifestations, except for ocular hemorrhage, usually dramatically recede. This cardinal principle of retreat is sometimes forgotten, in an effort to get an ill or injured climber to a closer but higher camp:

Case 7: A 21-year-old climber on Mt. McKinley in 1971 had headache, nausea, and weakness at 4400 m (14,300 ft). At 5000 m (16,200 ft) on the West Buttress of the peak he fell several feet from a rock and slid about 60 m (200 ft) down a steep snow slope with his partner on a rope before they came to a halt. He did not appear to his companions to be hurt but complained of headache and soon afterwards, of somnolence.

Rather than return late in the day to a camp at 4300 m (14,300 ft), members of the party took the ill man's load and assisted him to 5200 m (17,200 ft), where there was known to be a large snow cave. He deteriorated steadily through the night, never speaking. He was found in the morning out of his bag, lying on ice. During the second night his axillary temperature was 40°C (104°F) and pulse rate, 168. Cough and frothy pink sputum appeared in the morning. Rescue attempts by air were unsuccessful, but oxygen and a litter were dropped. He stopped breathing at 4900 m (16,200 ft), while being lowered down the ridge.

Observations were too few to ascertain the exact nature and sequence of medical events. It is likely that he had cerebral edema and, terminally, pulmonary edema. He was already ill when he suffered the unnerving and perhaps otherwise injurious fall. At this point, return to a camp below would have been wise, even though higher shelter was closer. The difference between 5000 m and 4700 m (16,400 and 15,500 ft) was the difference between coma and partial consciousness in Fitch's case occurring on the same ridge.33

It is not likely that instances of severe acute mountain sickness will diminish in frequency, for high-altitude climbing is ever more popular. Experienced mountaineers, although aware perhaps of the syndromes of mountain sickness, will probably foolishly trust their physical conditioning and past achievements rather than pack enough bulky, expensive oxygen to be life-saving, should illness occur. Inexperienced adventurers are not likely even to know hazards.

If one were thinking primarily of safety, one would not climb big peaks at all. But challenge and objective danger are necessary for certain individuals whose lives ordinarily hold no elemental risk or chance to prove the physical capacity to endure. Sporting activity can satisfy a primitive need to test one's self. Although injury is not sought, the possibility of personal harm is variously accepted, minimized, or denied as a part of the psychologic preparation for hazardous recreational endeavor. Some mountaineers even openly announce a preference to die in activity at a height of prowess rather than to succumb abed in valetudinarian desuetude. It is not likely that persons such as these can be induced to protect themselves fully on mountains.

Risks of high-altitude rescue activity, on the other hand, should be assiduously minimized, for the matter of personal choice is not the same. Rescues above a level of 2400 m (8000 ft) are dangerous if individuals are transported abruptly from near sea level to such heights. Two volunteers were afflicted with high-altitude pulmonary edema during a single rescue operation on Mt. McKinley in 1960—the man in Case 5 and a victim described by Hultgren.68

In high-altitude rescue enough oxygen to last at a brisk flow for 24 to 48 hours should be taken, and persons in the group must, of course, know how to use it. A small amount of oxygen was available to the Mt. Sanford rescue volunteer (Case 6), but the mask did not fit and gas was administered too late to help.

Moreover, rescue planners should consider routes of escape. If weather, terrain, radio failure, or other circumstances prevent air pick-up of rescuers, then surface descent is the only alternative. This posed a critical problem on Mt. Sanford, when rescuers were on a lofty snowfield. Retreat to a low level would have been over steep, broken glacier that had not been tested by prior ascent. The problem of negotiating such a route from above by two men, one desperately ill, would have been overwhelming. In high-altitude rescue, then, at least three persons should be deposited on a

mountain by air, unless landing is made exactly at the location of a victim, and intact climbers are at his side. Then if a rescuer falls ill, there will be at least two persons to help him.

Just as important, a ground party should start up the mountain at the same time that an air team is dispatched. If immediate pick-up is made, the ground party may descend; if immediate rescue is not made, the ascending group will eventually be in position to assist both the airlift saviors and the climbers who called for help.

To provide less than this—oxygen and a party of three above and a ground party below—asks more than is justified of a volunteer for rescue work above 2400 m (8000 ft).

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Reviews

The Massif Of Mt. Hubbard, Mt. Alverstone And Mt. Kennedy

Scale: 1:31.680. National Geographic Society in collaboration with Museum of Science, Boston (Bradford Washburn), University of New Brunswick (Gottfried Konecny) and Michigan State University (Maynard Miller.) 1968.

Contour maps of exacting Swiss standards are few in Canada. This production is an outstanding example of the art. Meticulous and thorough survey control was supported by the federal governments during the ascent of the mountain. Considering the early spring, sub polar survey conditions, the instrument men are to be congratulated as are the European cartographers responsible for the excellent format. Crevasse patterns, rocky ribs, couloirs, buttresses and all the other essential ingredients of mountaineering are vividly illustrated.

Despite these overpowering virtues the map suffers from a few tactical errors and omissions. Obviously of interest primarily to the mountaineer and perhaps, should the area justify an unusual detailed study, the geologist, one wonders why the routes climbed up to 1968 were not superimposed. Next, although there is a good attempt to name the principle glaciers, only four summits are named—those in the title and Mt. Weisshorn (11,620', 3545m). The survey pinpointed at least 20 control points exceeding 10,000 ft (3024m)—some of which warrant names as do outstanding lesser elevated summits. Named unclimbed peaks would promote mountaineering activity and greater utilization of this map—government requires a practical end to any supported research these days. About 80% of the map area is Canadian terrain and, fortunately, is plotted on our standards of a transverse Mercator

projection. However, the edges of the map lack individual minute marks and there is no attempt to fit the map into the National Topographic System (NTS) sheet series. If the NTS is to be ignored one would have expected a location map. The scale is another rub. The international standard, to which Canada adheres, would have been 1:25,000 or 1:50,000. Obviously the American peers who set up this project are not buying metrication. The first fully European style map involving Canadian terrain uses English units of measurement. Protocol expects and in this case International etiquette demands 25 or 30 metre contour intervals, but an unfortunate 1:31,680 scale receives 100 foot contours. Despite these pointed criticisms the map is a must for any mountaineers remotely interested in the St. Elias Mountains—Japanese will probably be the largest force of users.

Karl Ricker

Peyto Glacier Map Sheet

Inland Waters Branch, Dept. of Energy, Mines & Resources. $1.00. This fine topographic map has been produced by the Inland Waters Branch as part of their glaciology research program for the International Hydrological Decade. Printed at a scale of 1:10,000 with metric contours and elevations, the map covers the Peyto Glacier drainage area and part of the Bow Glacier. Compilation was done from aerial photography flown in August 1966. The cartographic representation of the surface features of the glacier areas and of bedrock and moraines has been especially well done. Prominent icefalls and crevasse patterns are shown as well as the "surface expression of ice structures." It is regrettable that relief shading was not applied to this map. The topographic convention of contour numbers "reading uphill" was not followed.

On the reverse side of the sheet considerable information about the Peyto Lake region has been printed under the following headings: Introduction, History, Mountaineering and Routes, Geology, Weather, Landforms and Glacier Features, Biological Communities, Glaciers and Glacier Responses, Peyto Glacier Variations and Glaciological Research. Included are several photographs, an overall map of the region and a map showing the position of the glacier tongue at various times back to the year 1710.

The map comes folded in a 6"x9" cover and is available from the Map Distribution Office, Surveys & Mapping Branch, Dept. of Energy, Mines and Resources, 615 Booth St., Ottawa, Ontario. K1A OE4.

W. A. Tupper

Climbers Guide To The Rocky Mountains Of Canada-South

William L. Putnam and Glen W. Bolas. American Alpine Club and The Alpine Club of Canada. Sixth edition. Springfield, Mass., 1973. 20 maps, 4 sketches, 330 pages. Paperbound, plastic cover. $7.15 for members.

This Sixth Edition of the original book by James Munro Thorington is certainly in keeping with the times. As the authors are quick to point out, the book was outdated even as it was being printed. The many maps and photos, along with the attractive cover photo of Assiniboine, help enliven what would be normally a straight technical digest. It has retained many of the former positive attitudes of the earlier editions and added sections: even converting feet to metres for the approaching day when Canada hopefully goes metric. For those of us concerned with conservation, the book is published on 100% recycled paper!

This South edition covers the Rockies from the Saskatchewan—Howse—Blaeberry Rivers down to the 49th parallel. There is more in depth material on some of the more popular climbing areas which is enhanced by the superb photographic skills of Ed Cooper. So much additional detail has been added that the South edition is as large as the previous edition which covered the entire Rocky Mountain system. Still, the book hints that many of the local rock-wall areas deserve guide books unto themselves as has been done in the case of Yamnuska (Mt. Laurie, courtesy of the Geographic Names Board). The scouring of older journals, club magazines, personal letters etc, has led to the voluminous growth of the book size.

In spite of its comprehensive coverage of the southern Rockies, the book has retained its compact size. It is still a pleasant evening's browsing to plan armchair expeditions and rub elbows with the famous, up difficult routes. The more one reads this edition, the more noticeable it is how many mountains really have been climbed or recorded only by one ascent or one route. May there remain forever, a few untrodden summits.

The sister volume of this edition is expected to be published in mid 1974 with Chris Jones and William Putnam as co-authors. I hope that the quality of the and future publications measures up to the fine work of Putnam and Boles.

Peter Spear

Cascade Alpine Guide: Climbing The High Routes, Columbia River To Stevens Pass

Fred Beckey. The Mountaineers, Seattle, 1973. $9.95 Fred Beckey plays his strongest suit in this sequel to Challenge of the North Cascades. His activities over the past 36 years have earned him the astounding record of hundreds of first ascents and pioneering routes. In 1949 he was instrumental in preparing the first comprehensive climbers guide to the Cascades and Olympics—fondly referred to as Beckey's Guide.

With the Cascades attracting climbers from all over the world the need for accurate, up to date route information in one compact volume has been considerable. Measuring 7 x 81/2 inches and covered in flexible plastic, the book offers durability without being over large. The 100 pages of maps, sketches and black and white photos are carefully route marked in red and their written descriptions are concise. An excellent Introduction offers an interesting treatise on the physical geology of the Cascades, basic climbing techniques and standards and some topographical references. The Guide is then divided into four climbing regions each of which begins with an historical sketch.

More that just a climber's guide—it offers a wide range of interesting topics. Fred Beckey has done his homework and it looks like he has a winning hand with the Cascade Alpine Guide.

Bert Parke

103 Hikes In Southwestern British Columbia

Prepared by BCMC, G. John Harris, book committee chairman. Text, David Macaree. Maps, Mary Macaree. The Mountaineers, Seattle, 1973. 220 pages, 7x81/2", 150 photos, 100 maps. Paper $5.95

This book is the first large scale description of trails ranging from Vancouver Island to Manning Park and from the U.S. border to Lytton. A soft-back, easy to handle, with clear print, well set out and concisely written, the first few pages include its purpose and philosophy, general safety tips for hikers, equipment lists, hiking club addresses and map sources—all very useful. Next several pages cover some general and interesting details relative to "Southwestern B.C. i.e. geology, climatic zones, vegetation, flora and fauna, concluding with a short booklist for those interested in further investigation.

The hikes are listed in two ways, firstly in the areas in which each particular hike comes and secondly in alphabetical order—very thoughtful! Each hike is well described with clear access and trail details, the timing involved and points of interest on the way. Black and white photographs and maps accompany each description. Each hike description ends with a list showing the length of the trip and elevation involved, the time required, the best time of year in which to go on the hike and the map reference. Hikes covered range from easy low level ones to those that are long and/or high.

There are areas in Southwestern B.C. not covered. With this in mind, the author asks for trail and access information that might be included in a subsequent volume, also for any changes that might occur in trails already described. The increasing popularity of hiking has encouraged the publication of a number of books. This one will satisfy the demand for a book with concise and adequate descriptive quality. It is nice to know that there might be another of the same calibre to follow.

Janet Street

The Parks Of British Columbia: A Comprehensive Guide To B.C.'S Provincial And National Parks

Doug and Bobbie Tatreau. Mitchell Press, Vancouver, 1973. Colour photographs courtesy Department of Travel Industry, Province of B.C. 26 parks described, 5 different areas, 133 pages. Paperbound.

Diagrams and descriptions include location, access, accommodations and attractions. This is not a climber's guide. The writers suggest that hikers, canoeists, prospectors and those who like to have a very detailed map of an area write to the B.C. or Federal Government offices—addresses given. This book has been compiled by two Californians who, in their search to appease their wilderness hunger have discovered British Columbia and wish to share their findings.

Evelyn A. Gee

Wandering: A Walker's Guide To The Mountain Trails Of Europe

Ruth Rudner. The Dial Press, New York, 1972. 329 pages, over 70 black and white photographs, 4 route maps. Cloth $8.95, paper $3.95

An informative book on trails and huts throughout the European Alps however much of its information is extremely easy for one to find for oneself once in Europe.

Nancy Ricker

Mountain Search And Rescue Techniques

W. G. May. Rocky Mtn. Rescue Group, Boulder, Colorado, 1973. $4.00

The accumulation of 25 years rescue experience combined with references from several existing Mountain Rescue and Climbing books. Written by a long time member and training officer of the Group, it is clear and should be easily understood by mountaineers. Chapters of special value because of the changing trends are the ones on High Angle, and Long Face Evacuations. The very first paragraph on High Angle rescues, indicates the trend to nylon rope rather than steel cable and winch, and will appeal to the rock climber. Using the equipment he is most familiar with he can soon learn to be a good rescuer capable of handling most situations. Long Face evacuations are another thing and the chapter on this is very thought provoking especially if you are a rescue member. The problems could be enormous—a 2000 ft cliff in some remote valley. Would you take your 300 ft ropes or bring in your heavy cable gear? Mr. May has done an excellent job of combining, in one book, all the good rescue techniques of the past, and added updated and new ones.

Dave Blair

International Mountain Rescue Handbook

Hamish Maclnnes. Charles Scribner's & Sons, New York, 1972. $10.

This book, possibly aimed at the professional rescue man or team leaders of volunteer groups, is well illustrated with drawings and pictures—about one half of its 200 odd pages. They are of a high quality and clearly illustrate the techniques described. The more technical text is complimented by various charts and diagrams. The chapters on Winter Rescues and Avalanche Search are particularly good, with emphasis on the use of trained dogs for avalanche search. The international theme is accomplished through the inclusion of notes and pictures supplied by rescue team members from many widely scattered areas of the world.

Dave Blair

Practice Climbing

Larry Griffin. Pronto Print, Englewood, Colorado, 1973. 16 pages, 1 diagram, paper bound. $1.00.

This little booklet deals entirely with rock climbing. It is intended for beginners practicing on cliffs of 75-80 ft high where, by means of a running belay at the top of the cliff, the belayer can stand at the bottom and observe the climber. The author emphasizes that it is not an instruction manual, but is obviously intended to at least partly fulfill this purpose.

Brief descriptions are given of equipment, belaying, signals, rappelling, rigging a climb, and techniques. The booklet concludes with a "Summary" of do's and don'ts and a "Recommended Qualification Test". It is not indicated for what this test would qualify a person. Some people might take exception to the statement that, "Unless you have fallen several times on a difficult climb, your day has been wasted."

This booklet would no doubt be of some value to beginners by familiarizing them with terminology and procedures in rock climbing.

Roger Neave

Wild Flowers Of British Columbia

Lewis J. Clark. Gray's Publishing Ltd., Sidney, B.C., 1973. $24.95.

A beautifully illustrated and delightfully informative book about B.C.'s native flora. The descriptions for the flowers are written to be enjoyed.

Nancy Ricker

Chouinard Catalogue

The Great Pacific Iron Works, P.O. Box 150, Ventura, California 93001, 66 pages illustrated, $1.00.

When is a catalogue more than the name implies? When it's Chouinard's of course! A copy is a necessity on every serious climber's bookshelf for if the production of promotional literature can be said to approach perfection, Chouinard's catalogue does so. The format can scarcely be faulted, for the artwork, photography and layout are superb. The book is replete with diagrams, knots, tables and many useful equipment application techniques. Within these "recycled" pages is also to be found (at absolutely no additional charge) a healthy dollop of the "new look" in current American rock climbing philosophy. Basically this is an expression of the by now familiar "clean climbing ethic." Simply stated, it encourages the use of nuts and natural anchors over pitons and bolts which are destroying the spirit and fabric of many fine routes. This leads to the curious observation that Chouinard's main stock in trade is chrome nickel pitons. Excellent though these may be, it would seem they represent a serious dichotomy of interest. Perhaps "apple pie" economics have ridden roughshod over moral responsibility.

Overall the catalogue has considerable artistic and technical merit; how unfortunate that its impact is lessened by divergence of thought and action.

L. P. Michaud

Alpinismo Italiano Del Mondo

Mario Fantin, editor. Commissione Centrale delle Publicazioni del Club Alpino Italiano, 1972. Vol. 1: 568 pages, 104 photographs, 86 maps. Vol. 2: 1300 pages, 244 photographs, 158 maps. 27,000 lire.

Each of the three times that members of the Italian Alpine Club have prepared an overall survey of Italian mountaineering outside their fatherland (1953, 1967 and 1973), they have produced an ambitious volume with excellent illustrations and charts. This last one, of 1973, is a massive work in which quality in every aspect is the main characteristic. This is not surprising since the club entrusted Mario Fantin with the direction of the project. Fantin must be by now the most prolific mountain writer in the world, with some 25 books to his credit. As usual, Fantin performed his job meticulously, to such an extent that one senses that he left not one single Italian foreign expedition out of his recording.

These two heavy volumes attest to the labouriosity of Italian mountaineers in almost every mountain region of the world. They include introductory notes, text (original reports by climbers), bibliography and charts. Pictures are large, with some that are panoramic and all extremely well reproduced; and if there is anything adverse to be said about them it is that one misses the contrast of flowers, trees and lakes that would soften the severe grandeur of the heights. Particularly impressive are the pictures of Peru, Patagonia and the Karakorum. Maps are more than adequate and some of them, like those of the Apolobamba and Viuda ranges of Peru, have more detail than any others previously published. This map collection of the text can also be obtained in a separate volume named Atlante.

While this two volume book has been designed only as a survey of Italian mountaineering abroad, I regard it also as an encyclopedic work of the world's mountains. Plates, maps and geographic descriptions are far richer and better than, say, Anthony Huxley's Standard Encyclopedia of the World's Mountains (1967). This book is one to consult, to admire and to keep.

Evelio Echevarría

Sherpa-Himalaya-Nepal

Mario Fantin. Bologna, Italy, Tamari Editor!, 1971. 168 pages, copious colour illustrations, maps.

The purpose of this book is twofold: to portray the Sherpa, the people of the high valleys that drain southward from the Nepal-Himalaya, and to provide a sort of hiker's guide to the trek that leads from Kathmandu to the base of the southern side of Mt. Everest. There are many fine colour plates of sharp detail and brilliant contrast of ice peaks against blue skies. There is a Sherpa-Nepalese mountain vocabulary, and the picture captions also have an English translation.

Evelio Echevarria

Tierro Del Fuego: The Fatal Lodestone

Eric Shipton. Charles Knight & Co. Ltd., London & Tonbridge, 1973. £4.

This is an account of the explorers who discovered in Tierra del Fuego and its channels both challenge and fascination, from Magellan to Shipton, for the author undoubtedly feels some involvement with one of the least known parts of the world. A legend amongst the climbing fraternity, Shipton acknowledges the spell of adventure and exploration as related to mountains.

This, his latest book, sets the stage in the first chapter by describing his first trip to Chilean Tierra del Fuego when he and his Chilean friends made first ascents of Monte Darwin and Cerro Yahgan in the Cordillero Darwin, and traversed the range to the Beagle Channel. He then plunges directly into a review of the

exploration and survey which discovered and slowly increased knowledge of the intricate channels of the region. He is not content to outline the accomplishments of these people but attempts to explore their background, character and motivation. The inclusion of recent history as made by the Bridges family, first settlers on the island in 1868-69, brings us back to the present. Some of the material will be familiar to many (Voyage of the Beagle) but it ties the history of the region together and concludes with an account of a further expedition by Shipton in a nearby area which has been completely unknown to any but local Indians. The fact that Chilean Tierra del Fuego and its neighbouring archipelagos is almost as remote and unchanged as when it was discovered, obviously provides satisfaction to the author as it does for his ilk of younger climbers today.

The book has a few well chosen illustrations from history, landscape drawings and portraits, as well as photographs which include an early picture of a group of Ona Indians, now extinct, of whom Lucas Bridges gives a fascinating and detailed account in Uttermost Part of the Earth (a book you may find in your library if you are lucky). There are line maps printed on the end papers which enable anyone reading Shipton's book to follow the voyages and expeditions. For those interested in Eric Shipton's further involvement in this part of the world, read Land of Tempest: Travels in Patagonia 1958-1962 (E. P. Dutton 1963) and his autobiography That Untravelled World, which of course includes his climbing experiences in other parts of the world.

Aileen Harmon

The Snows Of Yesteryear: J. Norman Collie, Mountaineer

William C. Taylor. Holt, Rinehart and Winston of Canada Ltd. 25 photographs, 9 maps, 2 drawings, 185 pages. $7.50.

This is William Taylor's first biography and he has done an excellent job of researching Norman Collie's life as a mountain explorer and climber. Other aspects of Collie's distinguished life are covered in less detail.

Written in a comfortable style reminiscent of Collie's own era, it is a refreshing volume about the mountains. The descriptions of Collie's climbs are creative enough to allow a picture to form in the reader's mind but leave something for personal interpretation. These descriptions are amply supported by frequently-quoted and colourful original writings.

J. Norman Collie was born in Scotland in 1859, obtained a Ph.D in Chemistry from Wiirzberg University and started climbing at Skye in 1886. Over the next 35 years, his mountaineering drive was spent against the British peaks, the Alps, Nanga Parbat in Sikkim, the peaks of the Loftofen Islands and the Canadian Rockies. Many expeditions were in the company of other mountaineering greats of that time and author Taylor does well to exploit these associations although sometimes he seems to lose sight of his principal objective,—J. Norman Collie. This is especially the case when he describes the attributes of A. F. Mummery and his efforts with Collie, Hastings and Bruce on Nanga Parbat.

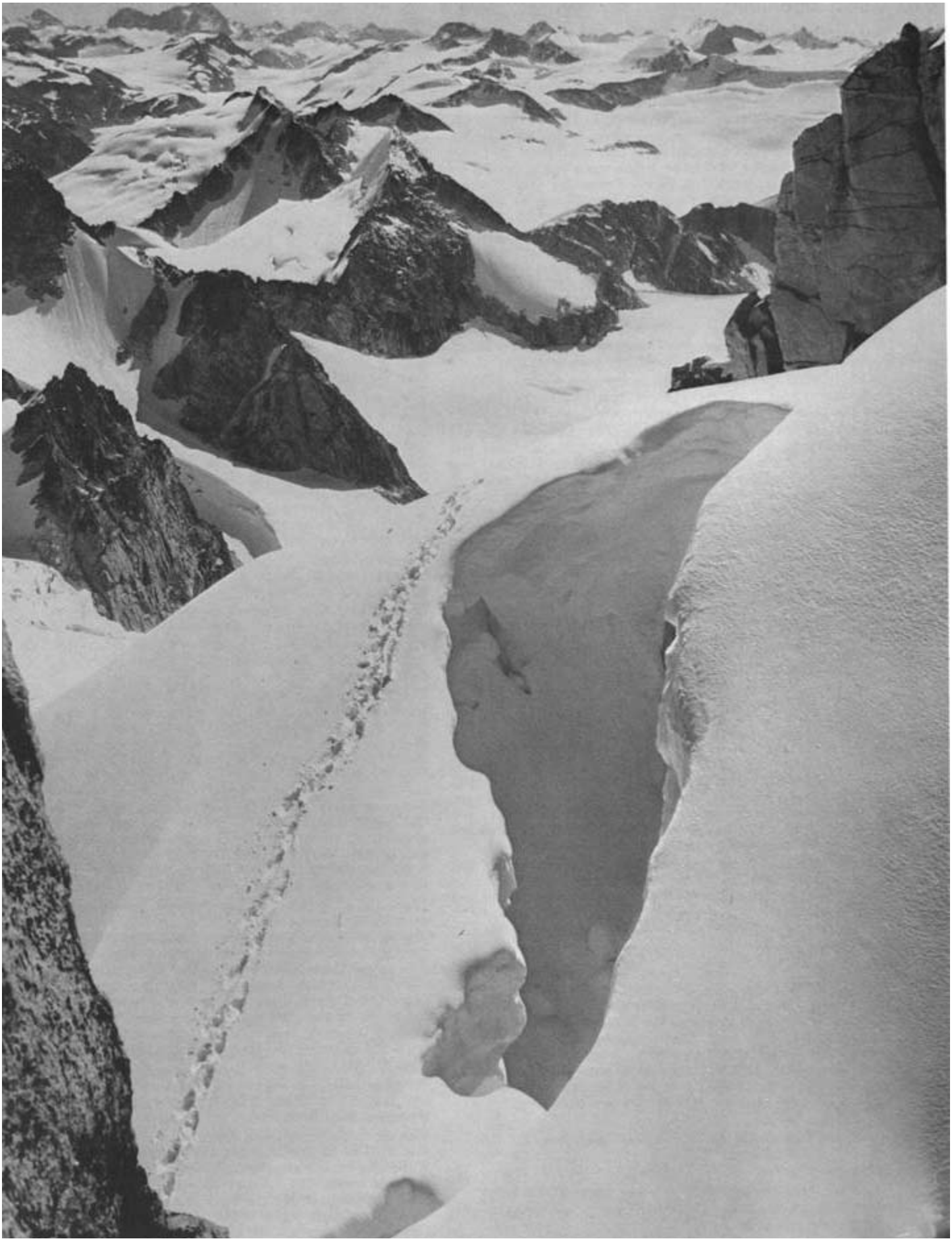
However Taylor has captured the spirit of explorative adventure and physical capacity possessed by the mountaineers of Collie's day. Imagine travelling overland to reach Nanga Parbet in 1895, let alone trying to climb to 26,660 ft in the then accepted "Alpine" style! Such endeavours hold the attention of the modern day climber as he reads of this fascinating combination of 19th century naiveté and outright heroism.

This book is enhanced by 25 black and white photographs. Collie no doubt took some of them himself but their authorship has not been fully acknowledged. However though many are dulled in quality by the passage of time, the photographs make the stuff that excites the mountaineer and the general reader. There is a picture, for instance, of Mummery actually climbing the crack which bears his name during the first traverse of the Aiguilles de Grepon. Fortunately, the publishers chose to make many of their photo engravings in the double page format which increases the reader's delight.

Perhaps regrettably, Dr. Taylor had only a Canadian audience in mind for his book or at most an audience familiar with the Rocky Mountains. Collie's Canadian exploits are well related but only his first ascents in Canada are listed whereas it would have been best to attempt a list of all his first ascents regardless of region. The last chapter deals with Collie's family, his friends and his considerable distinction as a scientist. Taylor claims that Collie first discovered neon and made the first x-ray photograph although he was not credited with these achievements. More detail about his professional life would have given the reader greater feeling for the man and Dr. Taylor might keep this well in mind when he draws his next portrait of a mountaineer. He should be encouraged to do so. The Snows of Yesteryear is a fine and entertaining book. It is suitable, not only for the mountaineer but for the general reader who is interested in travel adventure. It's an excellent addition to that mountaineering library stuffed with books full of camp numbers, classification figures and boring details about load sizes and elevation differentials. This is an historical biography one can read with pleasure.

Phil Dowling

Among the peaks above Doran Creek. John Clarke



Climbing Reports - Coast Mountains

Summer never really did come to the Coast Mountains in 1973, and a lot of expeditions suffered. Not surprisingly, some of the most successful undertakings were on skiis the notable example being the B.C. Mountaineering Club ski camp which climbed 17 new summits in the northern parts of Lillooet Icecap.

There has not been much to report in the way of new routes this year on the coast, most innovations going to the old style expeditions. An obvious exception was the south face of Devils Thumb in the Alaska Panhandle, a fine three day climb put up in storm by Chris Jones, Lito Tejada-Flores and George Lowe. A bit farther north east a group of seven Vancouver climbers explored Chutine Lake area for the first time—nice country.

Bella Coola area was active again, especially the sector between Ape Lake and the Bella Coola Valley, where both local and Seattle parties were at work. Waddington had fewer visitors than usual, but a Varsity Outdoor Club based party crossed the range after climbing Waddington, traversing Mt. Munday in deep snow and exiting by the coast. John Clarke continued his string of solo expeditions this year with a wild three week traverse of Silverthrone Snowfields and the Tumult Range, and also an exploration of the northernmost Homathko Snowfield.

Closer to Vancouver there was an outstanding traverse of Garibaldi and Golden Ears Parks, clear from Wedgemont Lake to Alouette Lake, by Klaus Haring and Peter Alig.

BCMC's 103 Hikes in Southwestern B.C. is finally out, and the new Alpine Guide to Vancouver Area will be published this coming spring. Mountain accidents were few for a change and cabin building by the clubs has pretty well ceased, mostly in view of the crowding they cause. Trail building has continued but is being taken on increasingly by government crews and grants. Old trails are being consumed by logging just about as fast as new ones go in. The mountain community also seems to be taking more interest in conservation issues, a field which had been partly neutralized here recently by change of government but now seems to be reviving on a solid base of disillusionment.

Dick Culbert

Slesse: North East Buttress

In July Peter Rowat and I made probably the 5th ascent of the north east buttress in a single day (13 hours) with bivouacs at timberline in Neskawatch Creek and just above timberline in Slesse Creek. We avoided the aid climbing on the initial buttress by traversing over the glacier above the séracs, crossing the 'schrund via ice blocks and making two diagonal leads of mid 5 class onto the top of the well defined initial buttress. The 'schrund obviously varies from year to year. On the 4th ascent the Seattle team found two hard aid pitches which a subsequent party slipped from and retreated injured. The main advantages of this approach are that the route is converted into a mainly free climb and the considerable hazard of falling ice is avoided. During our ascent both glaciers were very active.

Like Paul Starr we found Beckey's description fairly active. The steep section at mid height is the crux with a very strenuous pitch just right of the crest. We found only 16 roped pitches and used six points of aid on the whole climb. Generally we found it most enjoyable and worthwhile with the most spectacular surroundings.

Robin Barley

South Face Mt. McKeen (Mt. Grimface), Okanagan Range

From Wall Creek scramble up to Wick Gully on south side of Mt. McKeen. At bottom of gully traverse left to gain foot of chimney that splits the south face. Climb chimney to boulder covered ledge. From ledge climb twin cracks on left hand wall to gain deep cleft. Climb cleft and short wall, under enormous chock stone, to reach terraced area. At top of terraces climb crooked squeeze chimney to finish on west shoulder of McKeen.

Bob Cuthbert

First ascent September 1973. Robin Mounrey, Dave Nicol, Bob Cuthbert. 700 ft, 5.7.

Joffre Peak

"John are there any unclimbed faces or ridges in this area?"

"Well I don't know. The rock around here is very good. Maybe you can find a route on Joffre."

So we took John's advice and from his mountaineering camp at the end of Joffre Creek hiked up to the glacier, climbed over the icefall close to the rock and then traversed over to the west face of Joffre Peak.

We climbed a route on the left side of the big gully which goes from the glacier all the way to the ridge north west of the peak. The route took about 2 hours. On the north west ridge we returned via a class 3 route with 2 pitches of class 4. A six hours round trip.

Ed Zenger

North Ridge Sphinx

Len Soet and I climbed this beautiful ridge at the eastern end of Garibaldi Lake in late April. Two days of frustrated skiing in porridge and a whiteout and surprise—Wednesday dawned clear! A four hour slog up the glacier landed us at the base of the ridge. Several days earlier Julian and Grant had tried to gain the ridge by its right hand face but the only results were several large holes in the 'schrund. We attempted to avoid the initial overhangs by deeking out on to the east face, reasoning that it must be easier than it looked.

A long lead of 5.7 climbing with minimal protection from our nine pins and nuts passed the overhang but we had a long way to go. Several enjoyable leads of medium difficulty on slush plastered rock lead us to a point opposite the prominent step visible just below the summit. A drop into a windy notch and some hard crack

climbing brought us to a cramped pedestal halfway up the step. Len lead the final, tricky, extremely exposed last pitch and after falling off several times I arrived on the summit sometime after sunset. No time to admire the view. We bombed down the west ridge and slogged through deep rotten snow along the base of the north side to our skiis. Alas skiing was impossible and so shouldering our skiis we trundled off, taking as long going down as we did going up. Eventually we met some kind souls coming to help us to the cabin, where we arrived sometime after midnight.

Anders Ourom

NCCS 111, F7.

Vancouver Island

The winter months saw an amazing increase in cross-country skiing on the island. Four winters ago hardly anyone even knew what XC was. Now it seems everyone is discovering the Island's miles of unplowed roads, which provide ideal terrain for nordic touring. In some areas, people have even discovered the real purpose of the snowmobile: that's right—packing out XC ski trails.

The Island's Mountaineering clubs all had impressive-looking schedules but a lot of trips seemed to never get off the ground. I think this was more due to climbers being away during the summer than lack of interest. A lot of good things did happen though many of them not planned or foreseen before the season. In early September Mike Walsh and Joe Bajan traversed all six peaks of Mt. Colonel Foster from south to north. This is the first complete traverse. Mike and I skipped the north peak in our north-south traverse two years ago. Joe was also involved in establishing a new route on Elkhorn's north ridge earlier in the summer. An Island Mountain Ramblers group visited Flower Ridge and Mt. Septimus in July, and most one-day hikes and climbs were well attended.

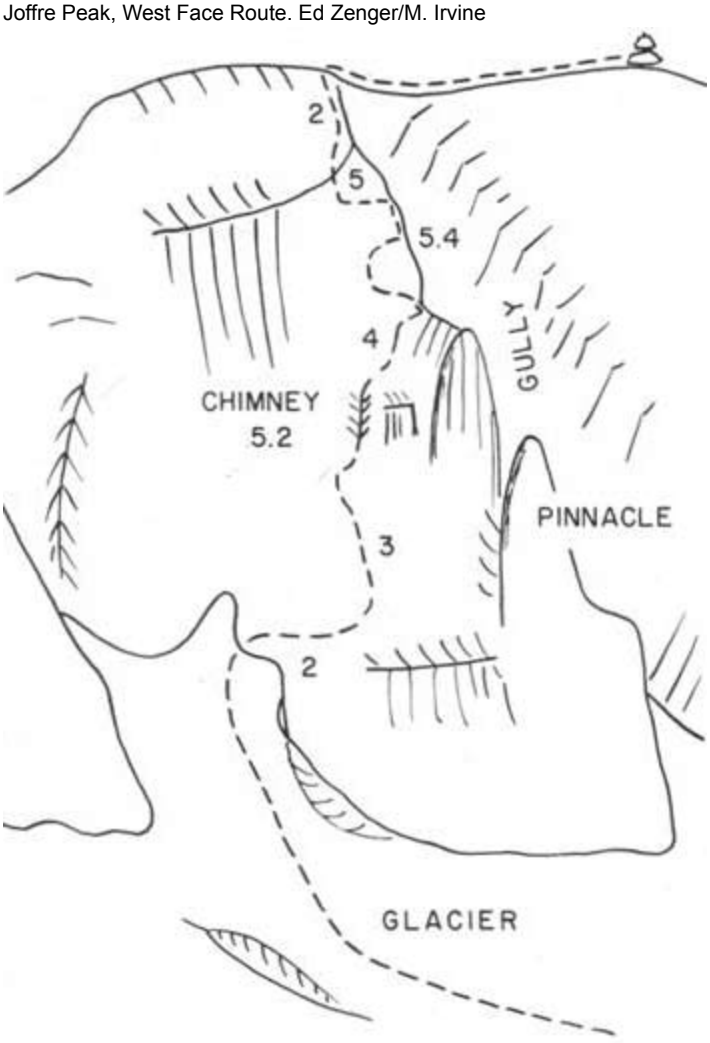
Interest in all aspects of mountaineering seems to be slowly increasing in the area. We now have the first ever course in the subject (outside of Victoria) being taught by Bob Tustin in Port Alberni. It would seem that while not so many new things are being done there is more interest in less difficult climbs. I attribute this to there being more beginning climbers. From this broad-based group there will emerge a few who will be more turned on by the challenge of the Island's peaks than turned back by the brush and uncertain weather. I think the next few years will see more new routes and first ascents of Island mountains by Island climbers.

Bill Perry

Homathko Snowfield

With an entire summer to spend in the mountains our minds wandered to British Columbia. Bill Morris, Larry Lemaster, John Wood and I had that summer. We had been able to decide that a free summer gave us time instead of money, so our choice must depend upon a good road or water access. As we leafed through the maps again and again the Franklyn Arm of Chilko Lake became an arrow pointing into one of the greatest expanses of snow and ice along the coast: the Homathko Snowfield. This choice dictated a new purchase: two canoes to carry us and our gear on the lake. With our new green canoes perched atop the trucks we were off to

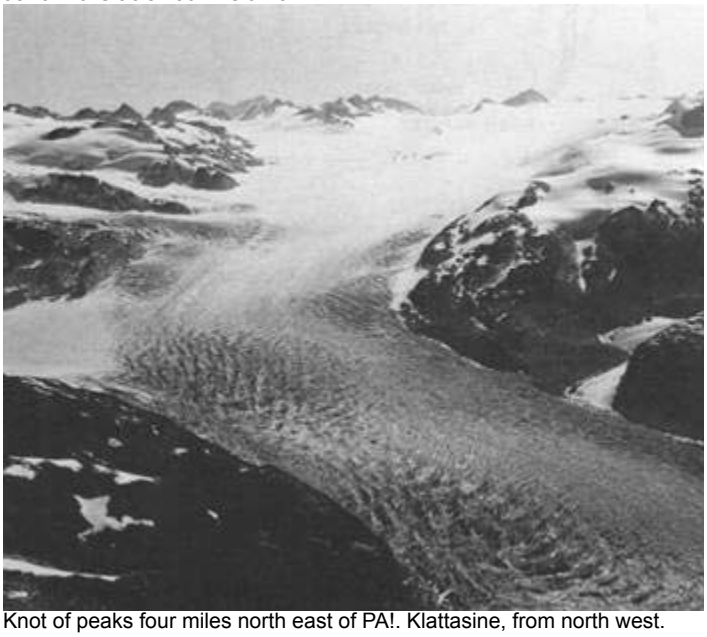
Joffre Peak, West Face Route. Ed Zenger/M. Irvine



Klattasine region of Homathko Icefield. John Clarke/M.Irvine

Mt. Waddington and Tiedemann Glacier from 8500 foot peak 3.5 miles north east of Klattasine Mtn. John Clarke

Jewakwa Glacier. John Clarke



Knot of peaks four miles north east of PA!. Klattasine, from north west. John Clarke

Canada.

We arrived in Williams Lake on 7 July. After repacking our gear for the canoe trip and picking up our mail we were off on the 155 mile drive to Chilko Lake. Leaving the trucks at the northern end of the lake we began our trip under the overcast skies of 11 July. Two days later, after canoeing on the unfolding spectacle of Chilko Lake, we sat in an old cabin near the end of Franklyn Arm loading 75 Ibs. of gear and food into each pack.

With only 10 or 11 miles to tramp up the Nine Mile Creek drainage we expected to view the snowfield within two days. After an eight hour thrash that netted us less than two miles we revised our schedule. Droves of blood hungry mosquitoes accelerated our snail's pace for the next two days. Finally out of the damnable thickets we reached the headwaters of Nine Mile Creek and needed only to hike over Snowsquall Pass. In two more days we entered the eastern edge of the snowfield by way of the Alph Glacier. That fifth evening we camped on the snowfield at the base of Cloister Peak.

The following day Bill and I were off early to climb St. John Peak (9100'). Moving easily across the only hard snowpack we found on the entire trip we quickly reached the summit via a southwestern snowslope in less than two hours. We descended north west across the snowfield and climbed Cloister (9000'), again from a southwesterly snowslope. In neither climb did we encounter any technical difficulties. For such little effort we were rewarded with awesome vistas of Mt. Waddington and the snowfield under cloudless skies. On both peaks we found the cairns placed there by John Hall's 1968 party.

While Bill and I lounged like lizards on rocks, John and Larry climbed Cloister to enjoy the visual spectacle the two of us had discovered the day before. That accomplished, we continued onto Sasquatch Pass to establish our base camp—the name itself dictated that it be chosen. Mt Waddington grew to dominate the horizon as the orange sun lowered itself. In the evening light the snowfield took on the aspect of desert sand dunes stretching towards beckoning peaks.

Next day our eight days of sunshine ended. Clouds ranged in and out of the peaks and passes of the snowfield. We were unable to travel far from the base camp for most of the morning. By mid-day it cleared enough for us to dash to the nearest peak: Walsingham (8500'), thrashing through soft snow then scrambling up tumbled rocks to the summit. We found no cairn on top so like many hoping for a first ascent, erected our own.

With the maelstrom of clouds higher the next day we chose to try one or both of the peaks to the west of Walsingham. Initially the snow seemed hard enough to try both but it remained too soft to move easily so we decided to try Howard Peak (8000'). Again a time consuming slosh through soggy snow preceded an easy scramble to the summit. Through the wandering clouds we glimpsed the black tooth that is Mt. Queen Bess. Our return to the base camp was a slow trudge through a white out.

Because of the loss of my food contaminated by a leaking stove, and the unsettled weather, we decided to return to Chilko Lake.

The clouds rose to give us one last reminder of the expanse that is the Homathko Snowfield. A slight rain and breeze down Nine Mile Creek reduced the mosquito onslaught. With lighter packs and recently gained information on how not to come up the valley we descended in less than two days. One cannot measure solitude until one meets civilization. Soon we were back on our way to Williams Lake on the dusty roads that now seemed expansive and overused.

L Kirk Hall

Klattasine

The trip started with the slow bus ride to Campbell River and a marvellous flight up Bute Inlet ending with tricky landing against the current of the Homathko several miles above the mouth. I spent that night at Bruce Germyn's logging camp and received lessons in riding their trail bike from his son Mike with their dog "Homathko" yapping behind. Next morning (11th) I started up the road toward Jewaka creek driving the bike very carefully with a 74 Ib. pack. Since there were no lakes to land in the Klattasine country and everything was carried, weight was kept to a minimum but I felt I needed the 40 Ibs. of food in case of prolonged storms. The food featured 6 Ibs. Klim, 7 Ibs. granola, almond paste, pressed dates, 2 Ibs. fat, cheese, pumpernickel, dried meat and halva. I left the bike at the end of 1.6 miles of road on the south side of the river and started off. The pack felt ridiculous. In fact the first lunch stop was 15 minutes later in easy forest. This was the first day alone yet I carried on a conversation with a small black bear who walked close by. That night I camped beside the river just above the bend and listened to the boulders rolling in the creek. 'Muffled thunder' seems a good description—the ground actually vibrated.

August 12 I made about 3 miles in 9 hours—surely a good time to appreciate the credit that climbers of former days are due. This is where slide alder was invented. Even two miles below the snout big chunks of ice were bobbing down with the river. A family of goats were on rocks above the snout. I stared. They were faithful to their usual (and a bit disconcerting) habit of standing motionless on a safe vantage and staring right back. The glacier was smooth going for one mile to the icefall which cut completely across. I kept to the right but was gradually forced off the glacier entirely and camped on a bench in the moraines above the glacier. The Jewakwa glacier rises only 350 ft per mile for the first seven miles but is completely torn up with crevasses. Camp was pitched on the only flat spot anywhere—the bench was composed of dry dust, much like camping on flour.

I got up late on the 13th. You can't get up early after a day like yesterday. Followed the trough at the ice edge for half an hour on extremely loose steep gravel and sand cones. Finally the icefall pitched against a wall with no way to go but up. After climbing 1000 ft above the glacier traversed above it for 11/2 miles noting that the broken ice continued up the main trunk beyond where a crossing was necessary to reach the Klattasine country. Spotting a possible route I dropped to the ice and tried crossing but had to camp on a patch of snow in the middle. The ice groaned and murmured once or twice before I fell asleep.

In the morning an almost comically sinuous route got me to the north side of the glacier. The first northern branch was in bad shape—rotting snow covering almost open caverns. Skiis were definitely needed here. Soon the right foot shot through into a small crevasse—my first ever. A second one followed five minutes later. The upper part of this tributary was easy but I don't think I've ever been so desperately tired. Camp was placed on the 6500 ft snow col at the head and it immediately started to snow turning to driving clouds of sleet the following morning. The 15th was cloudy and the 16th brought 2 inches of snow and wind. Three more inches of snow overnight was followed by a sharp drumming noise on the tent fly. About an inch of ice pellets fell in less than half an hour.

On the 18th I looked sleepily out of the tent. It was over. Glittering new snow lay everywhere and the small 7500 ft peak one mile west of camp was a slow climb but showed glimpses of the rock peaks that lay along the route home. Fog floated below my peak. Banks of mist really add a strange beauty to glaciers. Only a fraction of the ice in this region is shown on the map.

On the 19th and 20th the storm died away but gusts continued during climbs of all but one of the peaks south of lower Doran creek. The farthest western 8500 ft peak was missed through lack of time. This area showed tremendous views of Waddington country and the 16 mile long Tiedemann glacier.

On the 21st I hiked back down the big northern tributary of the Jewakwa, then north west over a pass to the Klattasine glacier and camp. Next day in perfect weather the 8000 ft rock peaks at the head of the Klattasine glacier were climbed. The rock was a welcome sight for cold feet. The second most northerly of this group was class 3-4 for 300 ft via the west face. Camp that evening (22nd) was at a 5500 ft flat green meadow in a side valley north of lower Jewakwa glacier.

In the morning (23rd) after an hour strolling the meadow I moved toward Jewakwa mountain climbing a 7500 ft peak enroute (contoured 7000). In the early afternoon clouds forced a camp on top of the 7000 ft summit 1 1/2 miles north east of Jewakwa Mountain. Next morning was clear and I moved the pack to the base of the east ridge of Jewakwa which was a steep mixed snow and rock climb. Mt. Waddington, rimmed with mist, looked very wild from this unusual angle. Back at the pack I didn't want to go much farther but a hot drink gave me new life and I started across the north face of Jewakwa. This took several hours in the maze and I reached the broad glacial pass 2 miles north east of Landmark Mtn. in late evening. Camp was made at 6000 ft on a shoulder of Landmark.

The 25th was the last day in the mountains. The peaks of landmark were climbed, the highest one being the centre peak of the western group of three. The descent to the Homathko was along the sinuous ridge running south from the peaks. I left the pack at Jewakwa creek bridge and walked up Jewakwa creek to the little motorbike. The ride down to the logging camp was filled with the feeling that all climbers know after a stay in the high country.

John Clarke

Ape Lake

The ACC Climbing Camp was held at Ape Lake from 21 July to 3 August. Our approach to Ape Lake was from Williams Lake to Nimpo Lake whence Wilderness Airlines flew us into Ape Lake. New snow had fallen over the area in heavy quantities and initial trips experienced heavy going when traversing the snowfields. The snow climbs themselves were extremely unstable and remained so until the Monday of the following week when summer returned in command. Crevasses opened up, snow consolidated and flowers bloomed.

Short climbs of 6 to 8 hours were possible from base camp. Most climbs were of 10 to 14 hours duration, whether from the base or one of the five high camps established. By rough estimation, the Ape Lake—Monarch area is four times as large as the Columbia Icefields, without tying in the Waddington Group to the east. 20 peaks were ascended for a total of 38 climbs, 9 new routes, 3 second ascents, 4 first ascents, 10 climbing days.

The rock for the most part was excellent, with a granite intrusion running through the area. Face climbs were very often barred by rather large bergshrund, however the determined climber could quite often surmount them in some weak spot. Crevassing was rather extensive but did not greatly limit glacier travel. Cornices were awesome and treated with utmost respect.

Base camp fare was luxurious considering it was all prepared under canvass and on Coleman stoves. Our cooks, Janet Street and Phyl Munday, excelled themselves in the quality of food and the variety. Who will forget the mountains of fresh green salads, which greeted them on their return from a long high camp. The only complaint heard was for more.

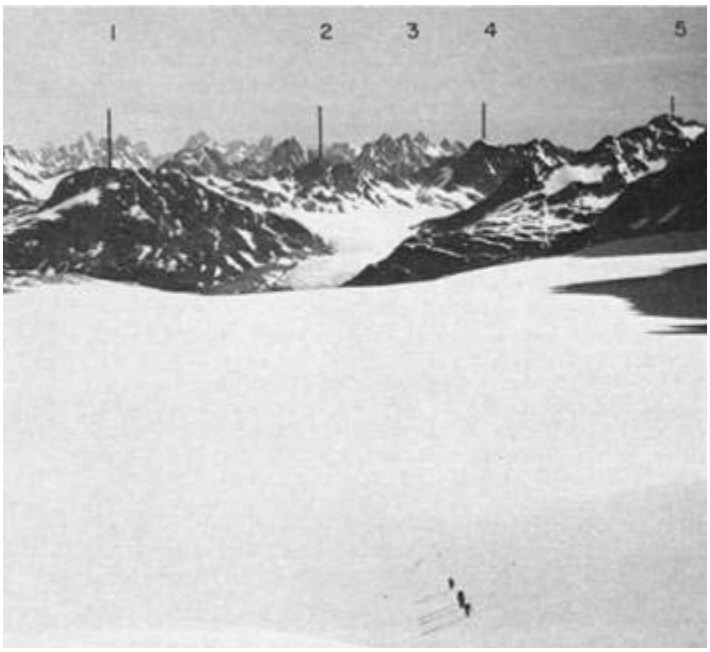
R. Matthews

Views from peaks north of base camp suggested a high camp near or on the West Jacobsen-Lesser Mongol col. Here all peaks on the Jacobsen, Mongol-Fyles, Glacier were easily accessible in day trips—very short trips if on skiis.

The first project was the Lesser (East) Mongol. The Guide mentions only the roundabout south approach to the Lesser-Central Mongol col which incidentally is not the advertised grade 4 rock climb in that direction—it's easy glacier capped by upper rock rubble slopes. Our line was the rock buttress rising from the West Jacobsen-Mongol col to a minor summit. The hummingbird population was obviously unaccustomed to we treaders of their lichen encrusted rocks of grade 3 to 4. The traverse northward from the minor to main summit was an airy walk; Hamish signed us in as "Hummingbird Buttress—probable new route". In the afternoon Hamish, Ron and the writer scrambled south below the ridge to bypass the minor summit to gain the ridge crest again before an abrupt grade 4 pitch on the north side of a peak dubbed as "South Mongol"—our cairn marking probably the first ascent.

Our next project was an unknown—the Guide omits it from the peaks of the Mongol-Fyles ridge system. Initially we thought it to be the West Mongol, despite the mismatch of ridges. The West proved to be west of the Central in the final analysis. Unfortunately the panorama in CAJ 1966 indicates this peak is a Mongol—not the diagnosis of Woodsworth's previously published map as given

Approaching Jacobsen-Mongol Col on Ape Glacier. Borealis Glacier in back¬ground. 1-Throwback, 2-Icarus, 3-Edwards Range. 4-Hyperion. 5-Poet. K. Ricker



The churches at top of "Horsefly Gulch" on Poet Peak. East and West Jacobsen Peaks behind. K. Ricker

in the Guide by Culbert. The unknown sports a fretted east face furrowed with avalanche chutes and the task was to gain the long ridge crest above the face at low cols either to the south and adjacent to the Central Mongol or to the north. Hamish's party chose the latter but only reached it after three attempts on avalanche snow slopes and no time left for the ridge run to the summit. We others fought with a major 'schrund near the south east col. It was a tough bit of grade 5 fiddling beneath dripping overhangs. A crux move on overhead ice put us on good grade 4 rock ribs leading to the ridge crest slightly north of the col. Beyond the route was stepped with buttresses which were usually bypassed on good granitic rock to the east. After a full seven hours away from camp one last lichen encrusted rise gave a view of... "A cairn!?!" From the summit the Mongol riddle unfolded; West Mongol lay opposite with brutal north face exposure and a hell hole of avalanches below. The Brunton level showed our unnamed prize (8850') to be much lower than the Central, higher than the Lesser, and about the same elevation as the West Mongol and Mt. Fyles. Obviously the latter could only be matched with a fellow—"Mt. Dudra". First class pioneer of Coast mountaineering, Dudra had a great expedition to these parts in 1953. During the day other activity was directed by John Peck and Ilse Newberry on two minor "thumbs" on in the Mongol-Jacobsen col. The higher already had a cairn while the lower to the west was capped in indecisive ice and snow.

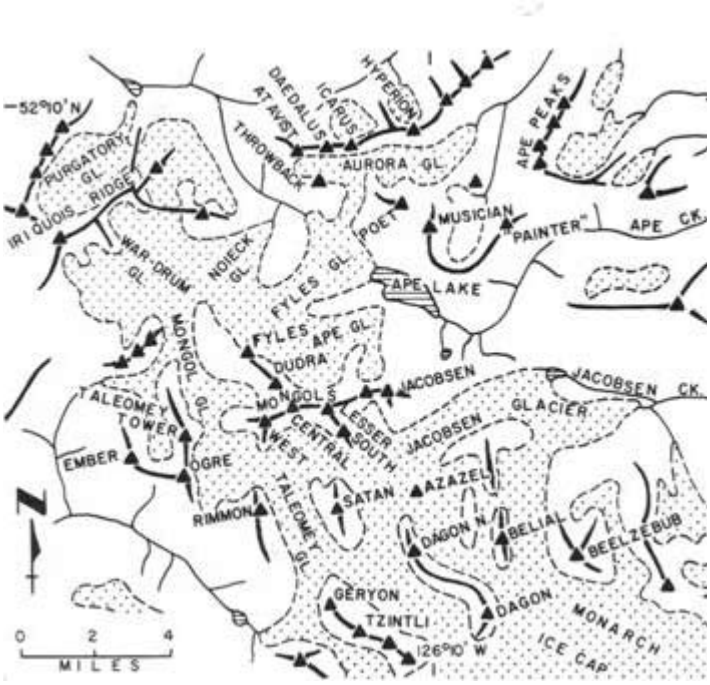
On another day East Jacobsen fell to a mob approaching with a traverse around the south side of the "West Jake" on easy glacier into the basin separating the two. Steep snow lead to the south ridge crest—35 to 40 degree avalanche runnelled slopes rising for 1600 vertical feet. The rock above was a stroll in comparison and the summit gave views suggesting the "West Jake" could be ascended in much the same way from the south. Our descent into the basin was a pot boiler and any enthusiasm for the lower peak was squelched by heat exhaustion as the gang slogged it back to camp.

Nearing the end of camp some of us skied and hiked to Satan via easy glacier travel over the col to the base of the peak miles beyond, the north ridge route being followed on the best crampon snow of the whole trip. A stop at the relocated Iroquois Ridge boy's camp in a neat hole just south of the Jake-Mongol col revealed action by some on the snow slope of East Jacobsen and sun bathing and tea brewing by their slacker components. They too had wandered up the Hummingbird Buttress and upon our suggestion retraced our steps on Satan on the morrow. Meanwhile Ted Church and the writer put a second ascent appearance on Mt. Fyles. An easy high level, great circle, traverse below the Dudra-Fyles ridge crest on ramps and shelves eventually emerges onto a col splitting the summit pinnacles of Fyles. A short scramble on the north side led to the east and higher peak (checked by Brunton levelling). Somewhere behind us Hamish's party had disappeared from view. Checking the track on the way back they were spotted on the Dudra-Fyles ridge crest overhead—thwarted by pinnacles. On the next day they too followed the snow route to Fyles for the third ascent while our efforts fell to the survey of the scene of our week's handiwork from the "Horsefly Snow Gulch" route on Poet.

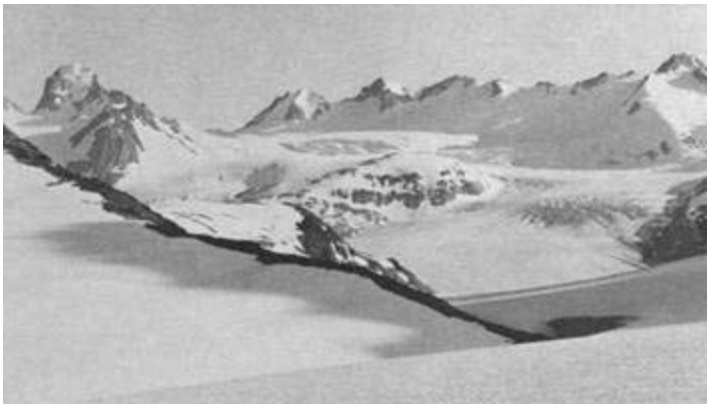
Karl Ricker

The silhouette of the south ridge of the most accessible peak

Peaks around Ape Lake. M. Irvine after G. Woodsworth



View from camp above Borealis Glacier to West Jacobsen, Mongols and Fyles. M. Irvine



Azazel from high camp. P. Guilbride

of the Iroquois Ridge offered a novel alternative to the much shorter east ridge. Four of us, Lyn Michaud, Murray Foubister and Chris Brann and myself, cut platforms for our two tents close to comfortable boulders and running water on the Wardrum Glacier near the foot of the objective ridge.

The following morning 17 July, the promise of the initial rocks arising straight out of the glacier was not fulfilled for the first third of the ridge when the climbing became continuous. Two sections of snow divide the Ridge into three steps otherwise continuous grade IV climbing on dream-quality granite, blemished only by patches of the brittlest lichen which was stripped from the rock like black crushed Kellogg's Corn Flakes by our passing boots. The ridge rose threateningly but the rock never becomes technically difficult until 300 ft below the summit when the direct ascent of the ridge seemed prevented by an overhanging block close to the summit. We traced out footsteps, traversed a few hundred feet of snow to the right and gained the summit a few feet on its east side by two pitches of gully work. Inspection from above showed that the obstructing block could easily have been turned on the north side and future parties should not deprive themselves of the pleasure of taking the ridge in its entirety.

The descent down the east ridge was brief but enlivened by a 30 ft bergschrund crossed by a rappel on two 150 ft ropes anchored from the lowest rocks of the ridge. A continuous glissade to end all glissades returned us to the very doors of our tents as the ice worms in their thousands emerged in the late evening shadows. Climbing on two ropes of two the ascent took 8 hours, descent to 1 1/2 in excellent settled weather the snow soft and unconsolidated.

The second camp we made gave us access to Jacobsen, Mongol Peaks and Satan.

Peter Roxburgh

The morning of 26 July saw Bob and Harriet Kruszyna, Pat Guilbride, Dominic Neuhas, Peter Vermeulen and Francis Soges being ferried by canoe across the lake to the east moraine of Ape Glacier deposited among the mosquitoes. The creek east of the moraine was followed up to a col at 5000 ft then east across boulders heather, and snow. Next we angled upwards high above Deer Lake, across snow, ice and rock to a plateau at 6200 ft. Some of us were by now aware of two things—we were not as fit as we thought and we were carrying too much gear. Fatigue and the delightful prospect of a camp on warm rocks and heather with running water near soon decided us to pitch camp on the spot.

On 27 July we set off for Satan Peak. We glissaded down to the glacier, roped up, crossed a small area of broken ice. Then began a long slog across softening snow towards our peak. Satan's ice-sheathed east face shone rose-tinted in the sunrise, but still three miles off. On our right was East Jacobsen. Why not try it? Tomorrow might bring bad weather. The snow leading to the col between East and West Peaks was knee deep and avalanche debris from both sides filled the valley. The very steep ice face of West Jake had obviously tossed some of this down but we thought that a direct ice route to the West Peak could be made, given an early start and no new snow. From the col Dominic led up the west ridge, on airy but excellent class 3 rock, veered right onto very steep hard-frozen snow patches, then more scrambling on good rock to the summit. Our route actually was more west face than west ridge.

A fantastic panorama of peaks and glaciers! We were suitably impressed by the immensity of Coast Range ice caps. Cerberus and Monarch looked beautiful, but difficult to climb and much too far away for our limited time and resources. We scouted out a different route for the descent. Bob led, wading (swimming?) through soft wet snow down the large steep snow field in the middle of the west face. We could see recent avalanche tracks. We had in fact to descend into the main snow-chute to cross the 'schrund. A small avalanche cascaded down this 20 minutes later, triggered by the hot sun and our passage. Returning to camp we had to pay for our lovely camp-site on the plateau. That last 500 ft up at the end of a long day.

July 28th two parties headed up the glacier. Harriet, Pat and Francis for Satan, the others for Ogre. From high on the north ridge of Satan we saw the Ogre party stop, then turn and head directly toward us. They caught up near the summit, swearing that after walking for two hours Ogre was farther away than when they started. Satan was an enjoyable climb, all snow. Harriet kicked steps up the initial steep slopes then an easy ridge walk led to the top. Another perfect day with Cerberus looking even more magnificent from this closer vantage point. The Taleomey Glacier, winding westward into a deep dark-forested valley thousands of feet below, showed an interesting pattern of waves and medial moraines.

July 29th the whole party made a new route, the elegant south ridge of the S.E. Mongol, a subsidiary of the East Mongol Peak. The route mostly on rock, class 3, some interesting pitches, a route just suited to our party's taste and standards. The descent to the col between the S.E. and E. Mongol was nasty, with the holds coming away under hand and foot, no belay stance, and rock too rotten to hold a piton. The East Peak was ascended in fog, then a long detour was made down the glacier on the south face of the East Mongol, through the worst snow yet. The hike back along the Jacobsen Glacier was the longest of all; how we longed for skiis here.

July 30th, our last climbing day from this high camp, Peter and Francis rested in camp, not inspired by our goal for the day—Azazel, a flat-topped nunatak rising out of the ice directly south of us, castle-like and surrounded by a huge wind-carved moat. When abreast of Azazel we liked the look of a steep snow arête leading to the unnamed peak one mile south of Azazel. We named it Dagon North as a long ridge connects to Dagon Peak. We romped up this, built a mammoth cairn (1st ascent), lunched, and waded down softening snow to our original objective. This writer succumbed to lassitude and the warm sun in the bottom of the moat while Bob, Harriet and Dominic climbed the south boulder slopes of Azazel. Here they built another cairn. Two firsts in one day.

Next morning we broke camp, leaving the site as nearly as possible as we found it, and packed back to Ape Lake in one and one half hours. Here we made a tremendous smoke signal fire. This soon caught Phyl Munday's eye and the canoe was dispatched to ferry us back to the comforts of base.

Pat Guilbride

Immediately north of base camp are Musician and Poet Peaks

(each about 8500'), popular day outings providing fine views of Jacobsen, the Mongols, Fyles and Iroquois Ridge to the south and south west and the jagged, black peaks of the Bella Coola area to the north. Even mighty Mt. Monarch (11,720') to the south east was visible on clear days.

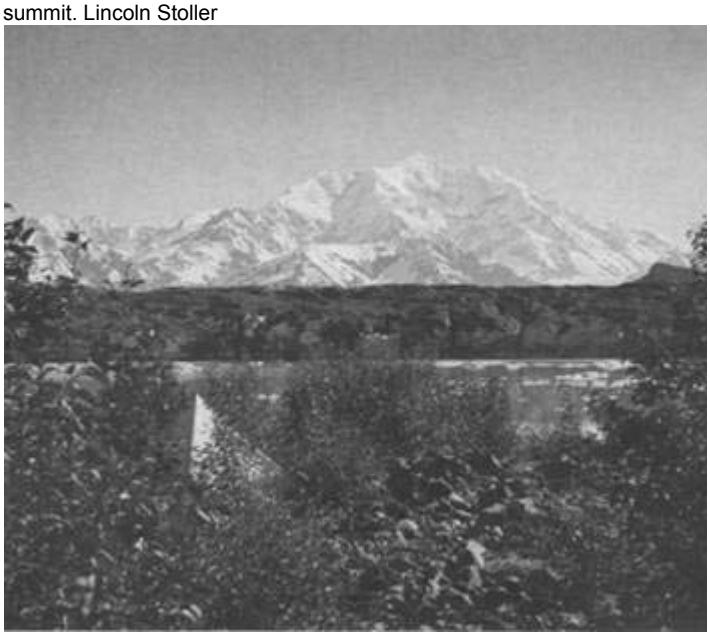
The easiest route up Poet and Musician was via the creek draining the glacier between the two peaks—a handy goat trail up the west side of the gully avoids the dense B.C. bush (only devil's club lacking). At tree-line Musician can then be ascended by a gradual traverse to the south ridge (right skyline ridge as seen from Ape Lake base camp) and scramble to the top.

Poet Peak had the distinction of being climbed by a different route each time, all but one party started the climb via the goat creek gully. A party lead by Karl Ricker traversed from the goat track to a steep gully, dubbed "Horsefly Gulch", leading to the south west ridge (left skyline ridge as seen from base camp). A 1000 ft scramble up the ridge placed them on the summit. A second party led by Ron Matthews ascended via the south-facing scree slopes to gain the summit. Descent was via the ridge leading to Poet-Musician Col and was followed to the summit of Musician—a nice airy traverse! Another group led by Bob Kruszyna tried a third variation by ascending, the south east buttress to the summit. A last variation was led by the writer. To avoid the monotony of goat creek gully we walked along the north edge of Fyles Glacier, north up Borealis Glacier to a steep snow slope on the west facing side of Poet, and finally diagonally ascended the steep snow field to the south west ridge. This route proved to be longer but relatively easy (class 3).

One other peak easily reached by goat creek gully north of base camp was an unnamed and previously unclimbed peak immediately east of Musician. A party led by John Peck traversed east below the peak of Musician, across a col where gentians were blooming, to a ridge running mainly north-south above an ice berg lake. By scrambling north for about half a mile along the ridge crest the summit of the unnamed was reached. John named it "Painter Peak" to compliment it's neighbors: Musician and Poet. Other persons on this climb included Jack Cade, Moira Irvine, John Christian, Joe Wagner, Ilse Newbery, Walley Joyce and the writer.

The Fyles-Borealis Glacier complex also provided easy access to many other peaks north and east of base camp—Throwback Tower, Atavist, Daedalus, Icarus and Hyperion to name a few. Throwback Tower was popular and consequently approached by a variety of routes all leading from the Borealis Glacier. A steep, moist, mossy gully on the east side provided one group access to the high east facing snow field leading to the east ridge of the peak. A couloir filled with hard snow and running parallel to and south of the gully was used to gain the snow field by a second group. Another party contoured slightly on around to the north east side where a steep snow slope led to the upper east-facing snow field. Once on the ridge a walk or easy scramble west led to the final summit overhung tower which required two pitches of class 4 climbing to gain. Brunton leveling by Karl Ricker revealed this tower to be at least 3 ft higher than the surrounding pinnacles of the Throwback complex. Only a couple of parties actually succeeded in attaining the true "summit" of this airy peak. Views of the surrounding Ape Lake area were spectacular from Throwback ridge and the

Mt. Fairweather from sea level. South west ridge is central ridge to left of summit. Lincoln Stoller



Southwest ridge, Fairweather Glacier and sea from camp 1. Lincoln Stoller

tower proper. Continuing west of the ridge one could then quickly descend to the far north western edge of the Borealis Glacier via a steep snow slope and head back to camp (this route also served as an ascent path to Throwback ridge for one group).

From the north west region of the Borealis Glacier Hamish Mutch and others made their way through heavy snow and ascended the steep south east-facing snow slope of Atavist (8000'). On top they all reported the view of Mt. Saugstad (9640') in the Bella Coola area to be terrific. The Borealis Glacier, which sometimes tried to eat people who stepped in its hidden crevasses, also provided easy access to the ridge of Daedalus, Icarus and Hyperion. Bob Kruszyna led one small group up Icarus (7500') and traversed the south west oriented ridge to Daedalus (7500'). Another group consisting of Moira Irvine, the writer, Ilse Newbury, and John Peck established a high camp near the base of Icarus and watched a fantastic evening alpenglow on Poet and Second Fiddle to the south east and Throwback Tower to the south. The following day while waiting for Joe Wagner and John Christian to join the party a quick ascent of Icarus was made using the steps provided by the Kruszyna party a couple of days previous. It was a rush back to camp where Joe and John now patiently waited to start the traverse of the ridge immediately north east of Icarus to the summit of Hyperion (8000'). After several hours of scrambling and careful route marking the summit was reached and after eating lunch in the sunshine, taking a few photographic panoramas, admiring the terrific scenery of the area and thinking of the flora and good times of the previous two weeks, it was back to base camp and Vancouver the following day.

Nancy Ricker

Bella Coola Mountains

Twelve sunny days in August provided the opportunity for ten ascents in a northeastern group of the Bella Coola Mountains sometimes referred to as the 'W Peaks at the head of Noomst and Nordschow Creeks. Eight are believed to be first ascents including Mt. Nyland c. 9200 ft and East and West Arjuna, c. 9000 ft and 9100 ft respectively, (Stuie Quad.). The second ascent of the Horn c. 9450 ft, highest of the group, was via a new route. The Fireys and deSaussure made the second ascent of the highest summit of the Edwards Group by traversing the head of Nordschow Creek to the south with bivy packs. North-facing couloirs in the group provide challenging routes. The rock varies from crumbly to reasonably firm. Access was by helicopter from Stuie using Transwest Air to the glacier south of Mt. Nyland. Party consisted of: Bruce Albert, Talbot Bielefeldt, Frank deSaussure, Wes Grande, Dave Knudson, Joan Firey, Joe Firey, and Peter Renz.

Joan Firey

Squamish

As in most areas of the Americas, free climbing, nut protection and emphasis on how the climb is done is prevailing more and more. Apron Strings, Exasperator, The Flake, and others have all seen pure ascents by the minority of climbers. Here it is still a "do as you please" game, and hopefully will remain so, but a certain aura flickers about the heads of the gifted few capable of leading 5.9 and better with a gentle nut between them and terra firma.

Perhaps the most interesting climb was Kevin McLane's solo (ropeless) ascent of Clean Corner. In Geordie brogue Kev describes it as being "bloody desperate". But I suspect his attempt and subsequent descent of the South Gully was worse. The tie-string from his pack, his shirt and long johns tied together for a hand line?

Bert Overt did Bens (V A4 5.8) with Greg Shannon and a week or so later again with Kon Kraft... it must be this kind of perseverance that got him up the N.A. this summer. McLane and Wilfert also did Bens, McLane the Salathe as well.

The Sheriffs Badge saw attempts by McLane, Karl Karllstrom and Scot Baxter (a couple of Arizona boys) and a John Burton party. It may be time for a first ascent done in winter if the rumours are valid. John Burton and Claudette did the first man and wife ascent of the Grand Wall. "Unreal" said Claudette.

The Chief saw its first "telly" production with Jim Sinclair and Jeannine Caldbeck having the dubious honour of starring in The Vertical Desert. This 12 day filming epic documented an ascent of the Grand Wall for the CBC. Directed and produced by Alan Bibby and with help from BC Mountain Holidays, John Wurflinger, Kon Kraft, John Burton and a host of others.

Bolts were placed in the stations of Diedre Route by Neil Bennett, Jim Sinclair and Tony Cousins after a clean ascent and chopped for some reason a week later. I wondered if that party used pitons?

The Coast Range Guide revision will be out for next season with a good supplement to the Chief but Culbert tells me a Chief Guide is still needed badly.

Gordon Smail and Steve Sutton and then McLane and Overt all backed off attempts on the Dike. Small also got married this year. Hugh Burton with Jim Sinclair put up a pretty route called Misslead (5.9) and Hugh and Graham Barber also led the second ascent of the Phew, 5.9 face climbing (McLane and Herchmer—third ascent).

The rip-offs are practically non-existent, not too many climbers and guess what... No bears.

Jim Sinclair

Mt. Fairweather

On 10 June Henry Florchutz, Toby O'Brien, Pete Metcalf and I headed west from New York in a VW van loaded to the brim. We arrived in Prince Rupert in 2 1/2 days to board the ferry to Juneau where we met our bush pilot, Ken Loken, and another party consisting of Fred Beckey, Jim Wickwire, Dusan Jagersky and Greg Markov. Our aim was the virgin south west ridge of Mt. Fairweather (15,320'), chosen for the remoteness of the area, the infrequent ascents, expected difficulty and an unclimbed ridge. Soon after our decision became final I received a distressed call

from Fred Beckey. This was his objective also and, understandably, he tried tempting us with alternatives. When we stuck to our plans Fred changed his objective to unclimbed Mt. Salsburg, one of Fairweather's neighbors. Now, not knowing quite how to react, we shook hands and smiled apprehensively.

On the 18th, after a spell of bad weather, a Lokins 8-man turbo prop took us to a small inlet at Cape Fairweather, 100 miles north west of Juneau. The hum of his engines droned into the distance. We were left only with the pounding surf, stormy sky, our huge pile of equipment and a queasy feeling in our stomachs.

Next morning we awoke to a sparkling sky. Twenty miles inland Fairweather extended massive ridges like tentacles. The good weather soon deteriorated and for the next week and a half cold storms accompanied us. The packing up the terribly crevassed Fairweather Glacier, with 90 Ib. loads, was harder than any of us had expected. Terrain progressed from sand and earth to dense tree covered ice. Rolling plains of boulder covered ice were followed by miles of crevasses and flat glacier, thigh deep slush pools and finally snow and the first icefall. In the centre of the glacier below the first icefall we experienced our worst storm, a battering by heavy winds, rain and snow. Here we went out through the icefall, off the glacier and up the slopes along the side. Above the icefall a furtive attempt to find a way through the crevasses and across the first step of the glacier forced us onto a circular route skirting the second icefall, gaining 500 extra altitude and cutting back across the upper glacier. The last and most difficult icefall was unexpected, hidden in a trough at the sides of the glacier. Finally we slogged up the easy slopes to our first objective, base camp at 4000 ft.

During the next few days we moved supplies up some dangerous avalanche slopes to a col in the ridge at 5500 ft. Below the rock band and at the beginning of our route we established an advanced base camp. Reconnaissance showed the only way out of the col and ridge—straight up the 200 ft rock band above, then a 3000 ft snow ramp leading to a great rock wall above.

On the 29th we made our first attempts at pushing a route up the rock, trying to avoid being directly below the snow ramp. Visibility was very bad. The climbing was 5.4 in a gully also serving as a small avalanche chute. Waiting for Henry to finish the lead we were startled by a low rumble. A few hundred feet to one side tons of wet snow roared over the lip of the cliff to disappear into the clouds below. The rock was terribly rotten. After attempting to set up a fixed line jumaring and later rappelling off we pulled out our anchor with our fingers. We settled for reclimbing the gully, self-belayed with a Gibbs ascender, each morning.

Next morning we were up at 2 a.m. Bright alpen- glow encircled the horizon. We were over the rock by sunrise at 3 a.m. Peter and I led up the ramp, emerging on the left top at 8000 ft to look over the other side of the ridge for the first time. The glaciers far below were dark and deep. Clouds parted revealing the sea miles away. We put down our packs to rest when suddenly I thought I was dizzy. The sky reeled, the whole earth rose and fell beneath my feet. I slammed my axe into the snow to keep from falling over, my image of the impregnable mountain shattered. "Holy shit— an earthquake!" Across the valleys tremendous avalanches descended.

Up the crest then skirt to the north around a large tower to a protected indentation at 9300 ft and camp 1. The next three days were spent supplying the camp and putting 1800 ft of fixed rope in the main snow ramp and on difficult spots on the ridge above.

On the serrated ridge crest above we avoided the last tower by traversing along the steep north side of the ridge, rejoining it by tunneling through the overhanging cornices. The new gain in altitude plus heavy packs, the usual horrible snow conditions and lack of visibility made the going extremely slow. At 12 a.m., when the altimeter read 12,300 ft we stopped and began chopping a platform in the 25° slope. We sweltered yet it only was 21 °F. After two hours hacking at the ice, we made a platform big enough for our two tents set end to end. The late hour meant we were unable to get the early start necessary for the summit the next day. Bad weather kept us two days—eating, sleeping reading, playing cards and trying to survive in tents that got as hot as 90°F.

The morning of the 10th was a clear and crisp 14°. Above a sea of clouds we made good time on firm snow up the base of the summit pyramid at almost 14,500 ft. We had a quick glance down the north side before large cloud masses began to move in from the south. As we ascended the ridge of the summit pyramid the wind came up and it began to snow heavily. We were up to our thighs in crusty powder. The altimeter said 15,400 ft yet there was no sign of the summit. Then I heard Peter whooping up ahead and strained up that last 100 ft. The summit was a broad plateau. It was 7.25, there was no visability, it was a windy 7° and snowing. The altimeter read a deceptive 15,800 ft—the summit has been known for unusually low pressure on previous ascents. Elated we took pictures of each other, tired but satisfied.

After 20 minutes with no improvement in the weather we began the descent. Then at 13,000 ft the weather broke. Hedged in by the main massif we were only able to see south, but the view was magnificent nonetheless. Clouds swirled in the valleys. We could trace our route all the way from the beach.

Leaving camp 2 a small avalanche swept one of our packs off the ledge. Rolling it glanced off my shoulder and went tumbling into oblivion. Consequently the four of us spent the next night in one two man tent at camp 1, two of us sharing a sleeping bag and being $400 poorer.

We descended quickly and, having a route through one of the icefalls that had stopped us on the ascent, got to the lower glacier in a few days. By chance we spotted Beckey's party also on the way out. They too made the summit of Fairweather by a new route up the east ridge, having reached the summit on the 9th. Next day Fred, Greg, Peter and I continued down the glacier in a nightmare trip lasting 14 hours.

The morning of the 17th we awoke to one of the best days and soon heard Lokens sea-plane. An hour after a memorable flight through the now familiar area we arrived in Juneau, amazed that after 30 days it was all over and we were back again to hamburgers and civilization.

Lincoln Stoller

We wish to thank the American Alpine Club and the Boyd Everett Fund for $225, Atlantic Richfield Co. for $100, Leon Greenman, Outdoor Traders and Alpine Designs for discounts, and Cresca Co., Seabord Packing Co., Wasa Ry-King, Saflon Corp., and Sunbird Packs for their generous contributions.

Climbs from the Kaskawulsh

5-14 August we pack from the Alaska Highway to the Kaskawulsh Glacier with one rest day enroute and one day in camp due to bad weather.

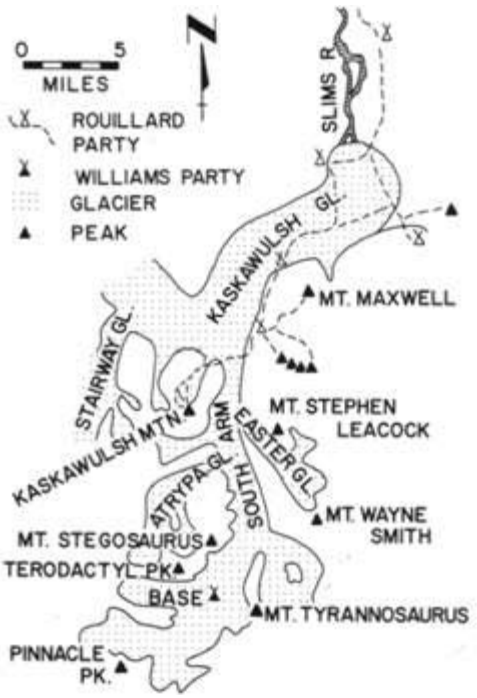
15 August we leave at 7 and ascend a wide rocky dale to the east. At about 1800 m we rope and climb up a second glacier to our right (south). The glacier has many crevasses, dangerous to cross as they are hidden by at least a 40 cm coat of snow. The view on the immense glacier is absolutely extraordinary—the Kaskawulsh is enormous. We progress through many séracs and start climbing more steadily and abruptly. There is a possibility of snow from a black cloud on our right. We reach a snowy dome near the main summit which forms an arête with a rocky cornice in very bad conditions. It snows and our view is very limited—nothing can be seen to the south. The final assault is not encouraging and finally we turn round and descend. It is about 1300 h. Making our way back to the camp we hear many frightfully long avalanches.

16 August. Horror! It snows all morning. The chances to reach a good summit are diminishing.

17 August. Traverse of the Kaskawulsh (ca. 3150 m). We leave around 0730 h. The weather is splendid, a clear blue sky. We follow the right bank of the South Arm glacier, cross, then over come about four to five moraines, then set foot on a small glacier affluent to the main one. Two bars of séracs are easily negotiable on the left side. Along easy slopes, we reach a large col at about 2500 m. The weather is always splendid and we see many peaks.

We divided the group into four parties of three—our plan to attack the icy northern arête of Kaskawulsh. The arête presents the form of a facet. The snow is unstable so we attack a little higher up a rocky overhang. The rock is extremely rotten and we progress with difficulty and slowly. Further up we come up again to iced snow and arrive on the first north summit. The arêtes with their coats of snow are splendid and the view of the mountains extraordinary. A problem, however, has to be solved: how to get back to the

Peaks off Kaskawulsh and South Arm Glacier Jacques Rouillard.
Martyn Williams/M. Irvine



Camping on the Kaskawulsh. Jacques Rouillard

bottom; we now all felt justified to noddingly acknowledge the excellent judgement, rather than the faint-heartedness, of our very early decision to scrap the direct route up this tumultuous, avalanche swept face to the col. Instead our group, which also included Jim Adare, John Bridge, Ian Saxton, Jim Tearoe and Dave Whitburn, directed its energies at a first ascent of St. Elias (18,008') via the south ridge of Haydon Peak (11,945'). That attempt ran out of steam about one third of the way up a long, complex and remarkably rotten ridge. Hopes for new route were then set aside and we headed for the summit along the southwestern buttress of the massif which rises above the Tyndall Glacier and was climbed in 1947. At this point we were exposed to the perversities of Alaskan weather and it turned out that our view from the col was the high-point of what finally amounted to a thorough reconnaissance of the southern approaches to Mt. St. Elias.

The reconnaissance began on the afternoon of 2 July when

col? To retrace our tracks would be extremely dangerous and the progress very slow. Fortunately, while climbing up I noticed a possible route to the north face, through the séracs. Bruno takes the lead down and is faced with steep slopes covered with unstable recent snow. Finally we reach the bottom of the col and sigh with great relief. The battle is over. With patience we walk down the kilometers of the glacier, make our way through the interminable moraines, finally reach our camp on the right moraine of the South Arm at 2130 h. Without this direct route, a bivouac would have been certain!

18 August after this long journey we stay in camp to rest. It is cloudy in the morning but later on a warm sun invades the camp.

19 August. The Maxwell (ca. 3100 m). At 0700 h we head north, progress through moraines and climbing up rapidly amongst broken stones arrive on a large col at about 2500 m. After a few moderate snow slopes we reach, on the left, the south arête which leads to the summit of Maxwell. We continue on this arête covered with beautiful snow and soon reach the summit. It is

quite narrow, simply a thin snow ridge which forms a cornice to the north. It is crowned with a solid stone cairn. The clouds are grand, the day warm. We go back the same way, trying to avoid the field of broken stones by going more to the west. At the moraine we follow the heat swollen torrent to arrive back at 1900 h.

20 August. The Summit (2850 m). At 0730 h we start immediately from the moraine located south, going rapidly enough following the arête, much faster than hiking through the broken stone field. About 1900 m we set foot on the snow and move on towards some easy slopes which lead to the top ridges. The weather is splendid, the heat is almost suffocating. I am tired and, near the summit, stop to enjoy the sun. Monique and Maurice do the same. Bruno continues on and with three companions reaches the summit on which there is no cairn.

21 August. Around noon we start slowly down, heading for the valley. We camp at the bottom of a rocky wall. The shelter is excellent, with a lot of wood and a small spring nearby but a high cliff is close to the camp and there is a great possibility of a rock fall.

22 August we leave camp in a strong wind, cross two moraines, continue on the immense glacier to recover all the material left at camp IV, after which we cross the large moraine. It is getting late. We hike down slowly following the Slims River bed, finally finding an excellent place to camp.

23 August we leave our camp at about 0830 h and walk down to the Alaska Highway.

Jacques Rouillard

Translation: Monique Gillespie.

Dome de neige (2800 m). Jean Bertucca, Jeannine Carrette, Eliane Hoste, Monique Larmoyer, Bruno Martinetti, Christian Michalski, Francois Mordant, Maurice Nonde, Regine Pasero, Jacques Rouillard.

North Arête Kaskawulsh (ca. 3300 m). Descent via the glacier, north face. Party as for Dome de neige except delete R. Pasero and add Gerard Fize, Alain Mercier, Roland Mougel.

Maxwell South Face (ca. 3100 m). Party as for Kaskawulsh with addition of Regine Pasero and Annlck Touvet.

Sommet (2850 m). Jean Bertucca, Eliane Hoste, Bruno Martinetti, Francois Mordant.

First Ascents Off the South Arm of the Kaskawulsh Glacier

Liz and Jurg Hofer and Martyn Williams flew in to the 7000 ft level of the South Arm of the Kaskawulsh Glacier on 5 July to attempt unclimbed peaks in that area. We climbed three 10,000 ft peaks over a two week period, each giving us very enjoyable ridge climbing on good snow or broken rock gendarmes. The structure of these prickly ridges reminded us so much of prehistoric animals that we called these peaks Mts. Tyrannosaurus, Stegosaurus and Pterodactyl Peak. A 50 mile glacier walk brought us back to Kluane Lake.

Martyn Williams

A Modest Proposal — Yukon Style

"I live not in myself, but I become
Portion of that around me; and to me
High Mountains are a feeling, but the hum
Of human cities, torture."
Lord Byron

The expedition actually began as a modest proposal to climb Mt. Wood (15,885) in the St. Elias Range in the spring of '72. Late in '72 another opportunity seemed to present itself. This time the modest proposal was to climb not only Mt. Wood but several other peaks in the area as well. In spite of organizational problems, financial difficulties and tight timetables, all our plans materialized at the right moment. The problem of finding a means of transportation into the mountains almost became as large a problem as driving from Montreal to Whitehorse as we suddenly discovered that the originally planned upon fixed wing transport did not exist. Still, good fortune seemed to smile upon us. On 19 May we found ourselves airlifted by jet Ranger helicopter to a base camp at 9700 ft on the upper Anderson Glacier a few miles to the

Mts. MacCaulay, Slaggard, Strickland and Wood. Kevin O'Connell/M. Irvine

west of Mt. Wood. While it took some time to adjust to the new surroundings, the realization that the expedition had finally begun was dramatically underscored by the chopper disappearing high over the mountains to the east on its last trip out. Alone at last!

By using cross-country skiis we were quickly able to establish camp 1 at about 11,300 ft between Mts. Macaulay (c 15,300') and Slaggard (c 15,300'). We had still not yet decided how we were going to pull off whatever it was we were going to do. No matter, for our ambitions were soon tempered by reality as we reluctantly abandoned plans to traverse Slaggard and climb an as yet unclimbed peak to the south, appropriately dubbed "Ego".

After two storm bound days at camp 1, we established camp 2 at 13,000 ft to the north west of Mt. Macaulay and above an ice-fall. Aside from affording us a fine perspective of the area, this camp was strategically well-placed, and on the morning of 26 May, in clear and cold weather we ascended the easy but unclimbed north west ridge of Mt. Macaulay. Ambitions undaunted, we then descended via the unclimbed north east ridge, thereby completing the first traverse of this major peak and the third ascent the following day. 27 May, saw us once again embarking on a climb in similar weather conditions. This time the objective was Mt. Wood although by what route we knew not. Much to our surprise we found ourselves tackling the south west face and emerged amidst steep snow and ice at a point a little to the right and just below the summit. This was the first ascent of this peak via a direct face route and the 5th ascent of the mountain. After joyously celebrating the ascent on the summit we then proceed to descend via the easier south west ridge and rejoined our route on the lower face, continuing to the bottom and then back to camp 2, It was now time for a rest.

The psychological boost that these two successful climbs gave us was simply tremendous. We were no longer stuck in the valley and, as a group and as individuals we had finally established a perspective. We now settled down to a serious game of monopoly. Our next real problem was in deciding what to climb. Our thoughts once again turned to Slaggard, but this time it was via the unclimbed west ridge. On 30 May, we made a reconnaissance of the ridge by climbing its north face directly opposite the camp. While it was certainly possible to reach the ridge by this route, once we were there we weren't so sure that the snow conditions would permit a safe descent let alone another supply trip! While we were elated with the prospects for camp 3 on the ridge, we were equally depressed about the snow conditions. However, following a tense but safe descent, we revised and otherwise rationalized our fears to the extent that on 31 May, we found ourselves comfortably established in camp 3 on the ridge. On 1 June we made the very long, cold and tiring third ascent of this mountain via the north west spur. Strangely, there seemed to be little joy on that cold and windy summit. For from the summit, we could look down upon the two unclimbed peaks which secretly, I suppose, all of us had hoped to climb on the expedition. Eyes spoke what words could not. Our present successes not withstanding, those two peaks would, for the present, remain unclimbed. We descended to camp 3. The following morning we discovered, much to our chagrin, that we were in near whiteout conditions. The weather was deteriorating once again. June 2 finally saw us back at base camp under 18" of new snow.

On 3 June, however, the weather once again improved and we carried out a reconnaissance on a formidable knife-edged ridge on the south face of Mt. Strickland (13,818') and directly opposite our base camp. Obviously, by this time, we were favouring routes which led directly out of our 'back door'. A little to our surprise, we discovered that it appeared to be a feasible route. By this time, the name 'camp 4' had become a dirty word, and we were determined to make the ascent alpine style or not at all. Fortunately, the former wish was granted, and on 4 June we again found ourselves on top of our objective. We had completed the second ascent of this peak by another entirely new route. We were not amused. We were elated but tired. The Odyssey was drawing to an end. With our last nostalgic views of the peaks we had climbed around us, and the endless islands of rock, in a vast sea of ice, as yet unclimbed, we descended to base camp for the last time. Time had flown so quickly in such a timeless land. Now it was time to head home to other commitments and other peaks further south. The weather on the morning of 6 June seemed appropriate for the ideal exit and we established radio contact with AINA at Kluane. Before we could receive a reply however, reception was drowned out by all things, a CBC time signal. Civilization was upon us in a bizarre form. Almost as quickly, the weather had changed and we were once again in the clouds. Frantically we radioed out that the pick up should be cancelled but we received no reply. Had our messages been received? Surely no one would fly in under these conditions! We were caught literally with our pants down as we heard the familiar sound of a chopper flying over the ridge. How Bob Dunbar landed the Jet Ranger is still a mystery to me today, but suddenly there he was. Almost as suddenly we were faced with a two minute ultimatum. It was either us or the equipment. A mere hour later we found ourselves back on the airstrip at Burwash with only the clothes on our backs and car keys in our pockets. The realization that we were back in civilization truly struck home as I discovered that my van had a flat tire. Were such things possible? The mind boggled at the thought and the senses were overwhelmed with the smell of growing things all around. But first a bath and some real food for a change. Within a few days we had managed to rescue our equipment from the Glacier. It could not have been sooner for much fresh snow had fallen. The last great challenge lay ahead. The Alaska highway in the tourist season. It would seem that modest proposals are not without their hidden surprises.

The expedition members, John Foxall, Dave Hobill, Dave Malcolm and myself (and Poo Bear) soon departed from Kluane on our separate ways. The return trip for me was uneventful, except for being chased by a black bear near Ft. Nelson. I concluded that worse things could happen on an expedition. It had been a small and highly successful expedition and whatever else, surely the challenge had been its own reward. "

"Tis disance lends enchantment to the view,
And robes the mountains in its azure hue"
T. Campbell

Kevin O'Connell

Mt. St. Elias Expedition

Robin Lidstone, Scooter Hildebolt, Pete Robinson and I stood in the Haydon-St Elias col and gaped down the immense southern wall of the massif to the Libbey Glacier. I, at least, was relieved to see that it looked as formidable from the top as it had from the

Robin, the expedition Leader, Pete and Dave flew from Yakutat to have a look at the approaches and possible routes. They were unanimous in their dislike for the objective hazards posed by the direct route up the Libbey Glacier to the Haydon-St. Elias col. A great pyramid-like bastion of rock was also reported to block the south ridge of Haydon Peak, our alternative route. "It overhangs," they said, "terrific." A good route through the two miles of rugged, ice-cored moraine that separated the Chaix Hills airstrip from the Malaspina was a more immediate result of the flight. It was also apparent that we would have to swing well out onto the glacier to avoid heavily crevassed areas. Even so there was some considerable zig-zagging and our first camp was pitched on the mountain at about 5000 ft, just east of the south ridge, after three days of slogging. It was our best streak of good weather and, unfortunately, not properly appreciated. More typical weather began the following day (July 7) and our first airdrop was delayed a day. Robin, Scooter and I worked up the south ridge and found it rotten and discouraging. It was difficult to visualize us moving the entire expedition nearly five miles and 6000 ft vertically along that mess to the summit of Haydon with the prospects of St. Elias and another 8000 ft to go—not to mention the still imposing rock band blocking the ridge. Dave, Ian and the two Jims spent 18 hours on the ridge the following day and returned to confirm our notion that it would be a tedious affair.

Prompted by careful reckoning of the time available to us we scouted a route down to and across a fork of the Tyndall Glacier. Now hell-bent on climbing the mountain, the 1947 route up the southwestern buttress would do. A sleeting rain welcomed us there 10 July after two heavily laden carries across the glacier. Robin and Pete were established some 2500 ft higher on the ridge (also rotten) on the 12th. The remainder of the party descended to our lower camp in time to be part of its devastation by winds gusting, we think, in excess of 100 mph (at least no one could stand up). Some ill-coordinated and hilarious (in retrospect) digging fashioned some shelter for our sullied tents and sodden gear. Aside from shivering there was very little movement until 14 July when it cleared partially. We carried our half-dry gear up the ridge on the 15th and prepared for our second air drop. The drop was accomplished quite satisfactorily owing to a heroic dash by Dave and Pete to mark a site at about 9600 ft and Jim Tearoe's frantic instructions transmitted on our lethargic radio to the pilot in probably several dozen one or two word bursts. We all moved up to the drop site in high spirits. The weather was great! This view was superb! We were finally on the mountain!

It snowed for four days. I finally learned to play "hearts", Dave got into Nietzsche and many of humanity's problems were more or less resolved. Robin and Jim Adare's alarm watch maintained a daily morning vigil and when 21 July dawned clear we were already well underway with a camp on St. Elias itself in mind. Every step however, was at least knee deep and often thigh deep in snow and we were already nagged by the advisability of our efforts. And justifiably so—while traversing into the col we triggered a slab avalanche about one third of a mile wide which went whooshing 1800 ft onto the head of the upper Tyndall Glacier. Robin, Pete and I were left perched on the very brink of the scar and Scooter dangled at the end of Pete's rope. The remainder of the day was spent at the col hoping for some settling of the snow slopes. We realized it would be foolhardy to move into the col with the entire

Mt. St. Elias region. Jan Smith/M. Irvine

View up Libbey Glacier to south face of Mt. St. Elias; Haydon Peak in centre, south ridge in left foreground. Jan Smith

South west buttress of St. Elias-Haydon massif. 1947 route along skyline. Jan Smith

party for several more days and madness to attempt the snow-laden slopes of St. Elias above us. We had no time left for waiting. The retreat began 23 July with Mt. St. Elias gloating in perfect weather and us cursing and fuming through thigh-deep crusty snow. Curses again raged skyward and glanced harmlessly off Wells' Cessna as he prudently declined to pick us up with a ski-landing on a snow field at the southernmost end of the south ridge. So the walking began again and, naturally, also the rain.

Several things can be learned from all this. The Malaspina Glacier, although less direct, is certainly the best approach to any of these three southern routes. Any attempt up the badly broken Tyndall Glacier would be tough. The Malaspina would be easier on foot a month earlier with more snow, and also the prospects of ski-landing would be better. One would have to be lucky with weather to manage to climb the mountain in 30 days. Perhaps Don Lyon (Chairman of the Expedition Committee) can get some measure of satisfaction out of these few observations. He deserves it. His organization and coordination made the whole thing possible; and we would have enjoyed his company on the mountain.

Leaving Yakutat we missed seeing Sven, a local who on our arrival lent us the hospitality of his cabin and solemnly assured us that St. Elias had never been climbed. Next year he'll probably be telling more stories about the party that is still "there".

Jan Smith

Mt. Logan

A party from Colorado led by Gerry Roach with Barb Roach, Bill Hamann, Bill Glinkman, Bob Cormack, Jerry Hinkle and Charlie Campbell climbed Mt. Logan by the standard King Trench route. We flew in on 10 June with TNT air and ferrying loads above our King Trench base established four camps at King Col, about half way to the 18,200 ft pass in a flat area called the Football field, adjacent to the site of the research camp and high camp at about 18,000 ft on the west flank of the West Peak. On 30 June in perfect weather we traversed under the north side of the West Peak and reached the main summit at about 5 p.m.— temperature a balmy -4°F. Return to high camp was by traverse over the top of the West Peak. Numerous crevasses were encountered near the West Peak.

Of 26 days spent on the mountain we were unable to move because of bad weather on only 3 days. Temperature dropped as low as -30°F—a few days before we arrived on the plateau the research camp recorded -41 °F.

On our ascent we met a jolly four man Japanese ski team. They claimed to have skied right off the top and described their climb and flag to us in some detail. We found their flag on the West Peak which they apparently mistook for the main summit.

Gerry Roach

After waiting four days at Kluane Lake for the weather to clear over the mountains the first section of our party was flown by helicopter to 11,200 ft on the Quintinno Sella Glacier on 10 May. Representing the Seattle Mountaineers, our party was made up of Sean Rice, leader, Bernie Bolton, Dick Bardon, Jay Snodderly and Norm Benton. The second part of our group, Dr. Les Harms, Del Fadden and Bill Arundel were able to fly in three days later.

We reached King Col, at 13,800 ft, on 18 May and moved camp up the following day. On 23 May good weather came in. We started up the mountain carrying supplies. We reached about 14,500 ft before turning back as a storm approached. On the evening of the 25th, having had only one good day in the last six, the decision was made to give up the attempt.

While four of our group went to pick up supplies left above the others used snow shoes and other items to make two sleds to drag supplies while also carrying packs. We had had strong winds and bad weather most of the time on the glacier, spending much of our time in snow caves and igloos after two tents were collapsed by winds. On 26 May we returned to base and were airlifted out.

Norman Benton

The Southern Logans, Correction

CAJ 1972, p. 38 correct as follows: a) 21 July, "Gahk Peak" NCCS 11 F4; b) 28 July, Mts. Eurydice and Charon, round trip from the Sanctuary—11 hours; c) Reference—AJ vol. 71, p. 23.

Mt. Steele

One Friday evening after work, 27 April to be exact, John Adler, Ed Bennington, Rick Checkland and I, all of the ACC Edmonton section, packed up our gear and set out for the Yukon, bent on climbing Mts. Lucania and Steele. After 36 hours of more or less steady driving we arrived at Whitehorse on Sunday morning, ready for a day of rest before embarking on our adventure. On Monday morning we completed our arrangements with Trans North Turbo Air and set off for the AINA airstrip at Kluane Lake.

Our original plan called for a flight via fixed wing aircraft to the upper Chitina Glacier (8000') from where we would climb to the Lucania-Steele col (about 14,000'). We would make camp on the col, climb Lucania, then traverse to Steele, carrying camp over or around the summit to the south east ridge of Steele. We would then descend the long south east ridge to the head of the Spring Glacier at the Steele-Walsh col. Here we would be picked up, once again by fixed wing aircraft.

We made our first modification to the plan when TNTA advised us that they considered the Chitina Glacier too heavily crevassed for a safe landing. They suggested that they land us at the Steele-Walsh col from which we could carry out our plan in reverse. Although the climb would be easier from this side, and we would be starting 2000 ft higher, we would have a long (10 mile) approach to reach Steele. The next change came after we had spent three days at the AINA base waiting for the weather to clear sufficiently to fly. With time running short (none of us could spare more than 4 weeks away from Edmonton, including driving time) we decided to take the warden's advice and switch to a helicopter which could land under more difficult conditions. The next day found us camped at the Steele-Walsh col after two flights in a Bell Jet Ranger helicopter. We could have landed closer to the summit but we didn't want to go any higher than the col (slightly over 10,000') the first day for fear of acclimatization problems.

From base camp, we trundled up the long, gently sloping bowl that splits the south east ridge of Steele and established camp 1 at

11,500 ft near the foot of the headwall that leads out of the bowl onto the ridge. Camp 2 was above this headwall at 12,500 ft. Above camp 2 we traded skiis for crampons, climbed the 14,000 ft dome that forms part of the ridge and descended to the col between the dome and Steele itself. Here we established our third and final camp at 13,500 ft. By this time it had become apparent that we would not have time to climb Lucania but we still entertained hopes for Steele.

On 18 May we launched our attempt on Steele. We found that we had underestimated the length of the ridge and hiked for two hours before reaching the steep climbing. Two vital hours. At 4.30 p.m. we had reached 16,000 ft but were still about 500 ft short of the summit. We were on hard packed snow at an angle of about 45 degrees and, at the pace we were setting, the summit was still 45 minutes away, even for Ed and Rick who were a couple of hundred feet above John and me. Furthermore the weather, which had been unsettled all afternoon, was beginning to deteriorate. Even considering the long sub-arctic days, we dared not delay our retreat any longer and we therefore made the painful decision to turn back.

At this point, a snagged crampon point initiated a rather spectacular chain of events. I heard an oath from above which was uttered with more than usual fervour, even for Rick. Looking up I saw Rick falling and Ed desperately trying to attach himself to the slope. A fraction of a second later Rick hit the end of the rope and they were both peeling off altitude at quite an alarming rate. They passed within 20 ft of John and me, travelling around 30 mph and covering about 10 ft with each bounce. John and I both had visions of the countless yawning crevasses that lay between us and the valley floor over a vertical mile below and all sorts of speculations passed through our minds, none of which were pleasant. A combination of luck and good management, however, allowed Rick to get his axe into position to take advantage of a patch of softer snow where the slopes eased off slightly. They came to a grinding halt about 500 ft below John and me. Rick had a sprained ankle and both were somewhat shaken up but there was no serious damage. Ed's axe had been torn away from him despite the wrist loop but Rick's wrist loop held, allowing him to recover the axe even though it had been torn from his grasp on several attempted arrests. We tied our ropes together to form a single party and managed to stagger back to camp in a total whiteout with only our wands to guide us. On our 11 p.m. arrival at camp, we dug out a thermometer and read a temperature of -15°F.

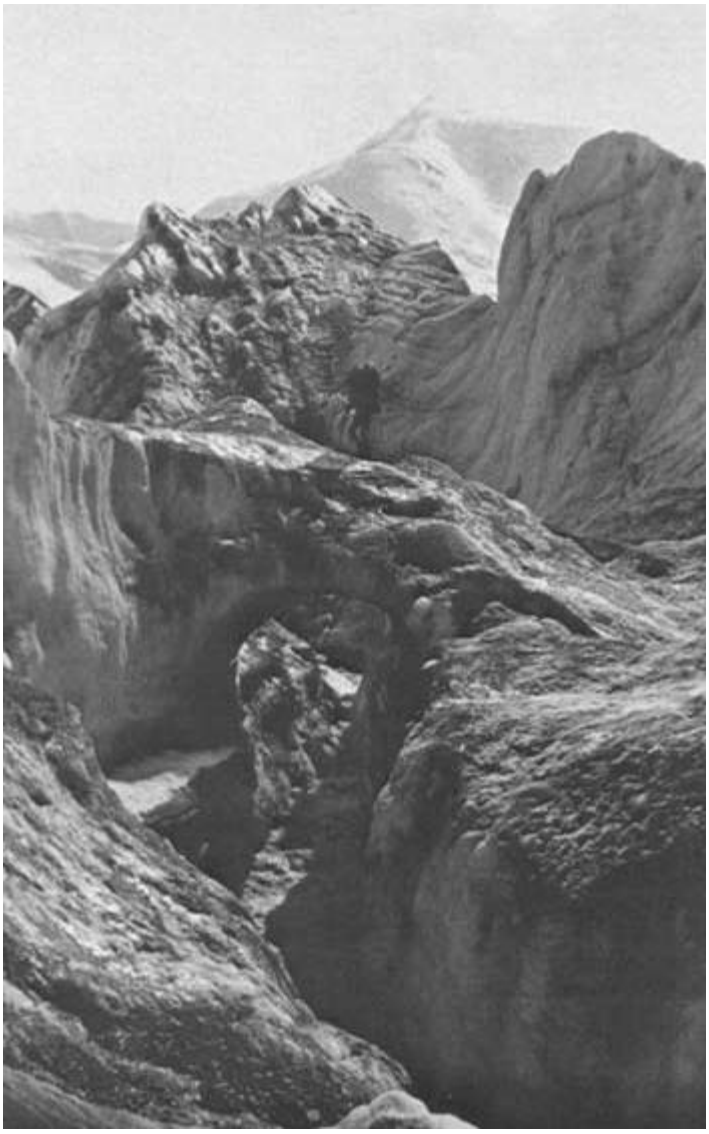
Next day the radio we had rented from TNTA proved its worth by putting us in contact with the outside world to arrange for our flight out. We were picked up at camp 3 that very day and on the way out recovered most of the gear that we had left at the other camp sites.

Bill Mclntosh

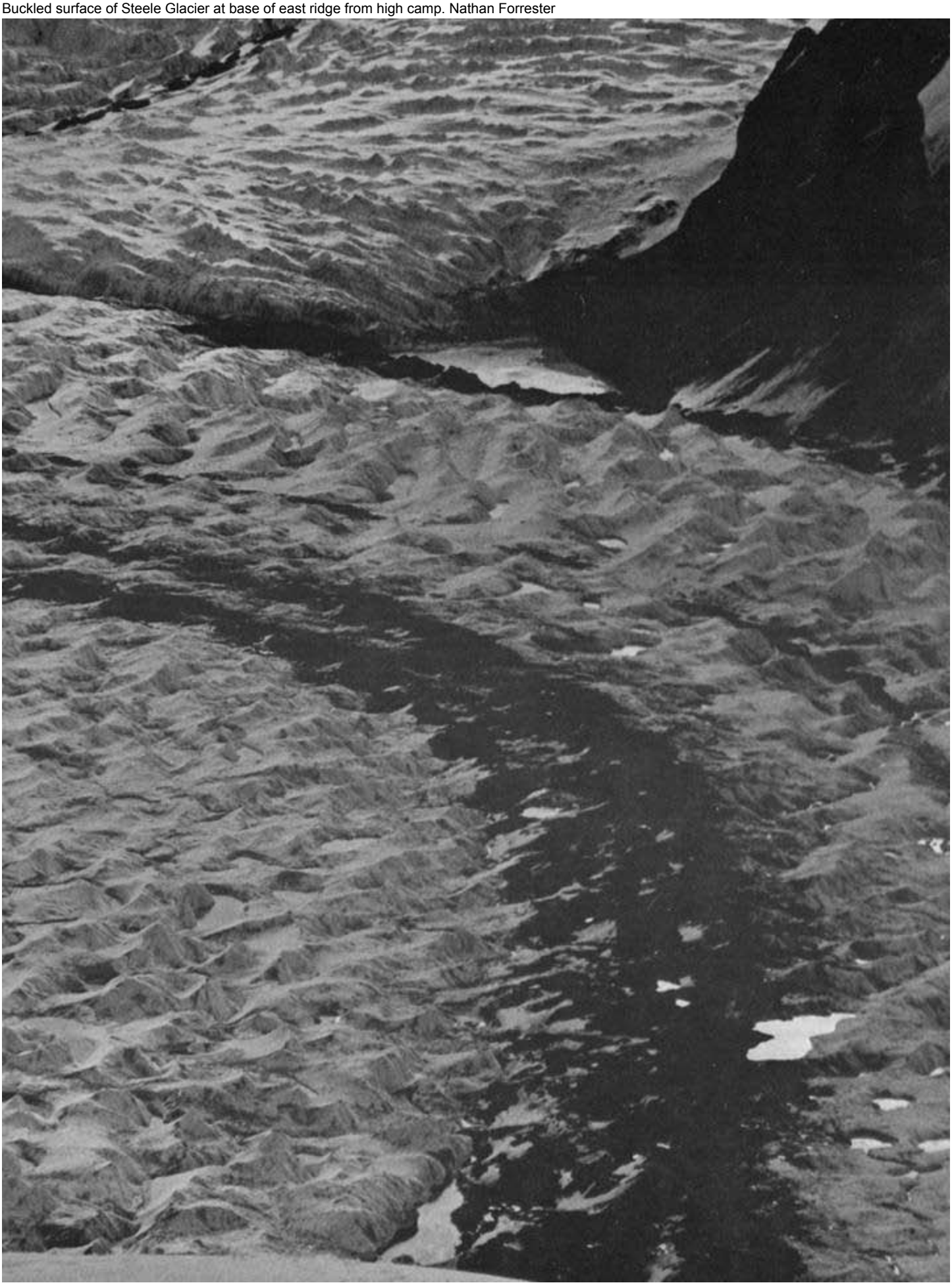
Walking in to Mt. Steele with no external assistance seemed an attractive target for our small expedition consisting of Jeff Elphinston, Kipp Drummond and Nathan Forrester. After 14 days of load carrying up the west bank of the Donjek River and southern moraines of the Steele Glacier we were convinced otherwise. It seemed that most of the trip was in muskeg, heavy brush, rushing water or loose rock.

Afternoon sun on clouds blowing over the east ridge of Mt. Steele from base camp at 8500 ft on Steele Glacier, below the ridge. Nathan Forrester

Ice bridge over surface stream on Steele Glacier. The bridge afforded the only safe crossing for two miles or more. Nathan Forrester



Buckled surface of Steele Glacier at base of east ridge from high camp. Nathan Forrester



On 1 August we moved from base camp up the east ridge to a snow cave "high" camp at 10,800 ft. The next day we climbed to about 16,400 ft on the summit cone in a variety of worsening conditions. We turned back with visibility near zero and the wind increasing. As we wandered down, the wands were difficult to find, convincing us we were wise to retreat.

Not wishing to repeat 5500 ft of climbing to bag the summit, we started the journey out after a day of rest. River levels had fallen leaving many new gravel bars exposed, making the hike out much easier than the trek in. We forded the Donjek below Cement Creek and followed a new mining road from Arch Creek to the Alaska Highway. Although the route posed no technical difficulties, the rough terrain, heavy packs and grandeur of the St. Elias Range were sufficient compensation.

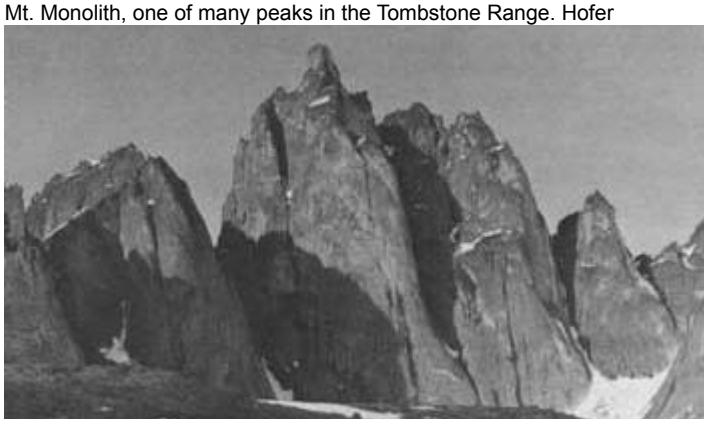
Nathan Forrester

Tombstone Mountains

The Tombstone Mountains, situated 30 miles north of Dawson City were visited in June by Jurg and Liz Hofer and Martyn and Kate Williams. We flew into Talus Lake on the north side of the range. This area of steep Bugaboo type granite walls and pinnacles has only just been "discovered" by climbers and no major difficult ascents have been made. We spent two weeks in the area exploring and attempting some of the easier looking ridges but found these far longer and more technically difficult than we had supposed. We did climb Mt. Tombstone, the highest peak in the group, which involved a long approach to get to the south side and walked out of the area to the Dempster Highway on 28 June.

Martyn Williams

Mt. Monolith, one of many peaks in the Tombstone Range. Hofer



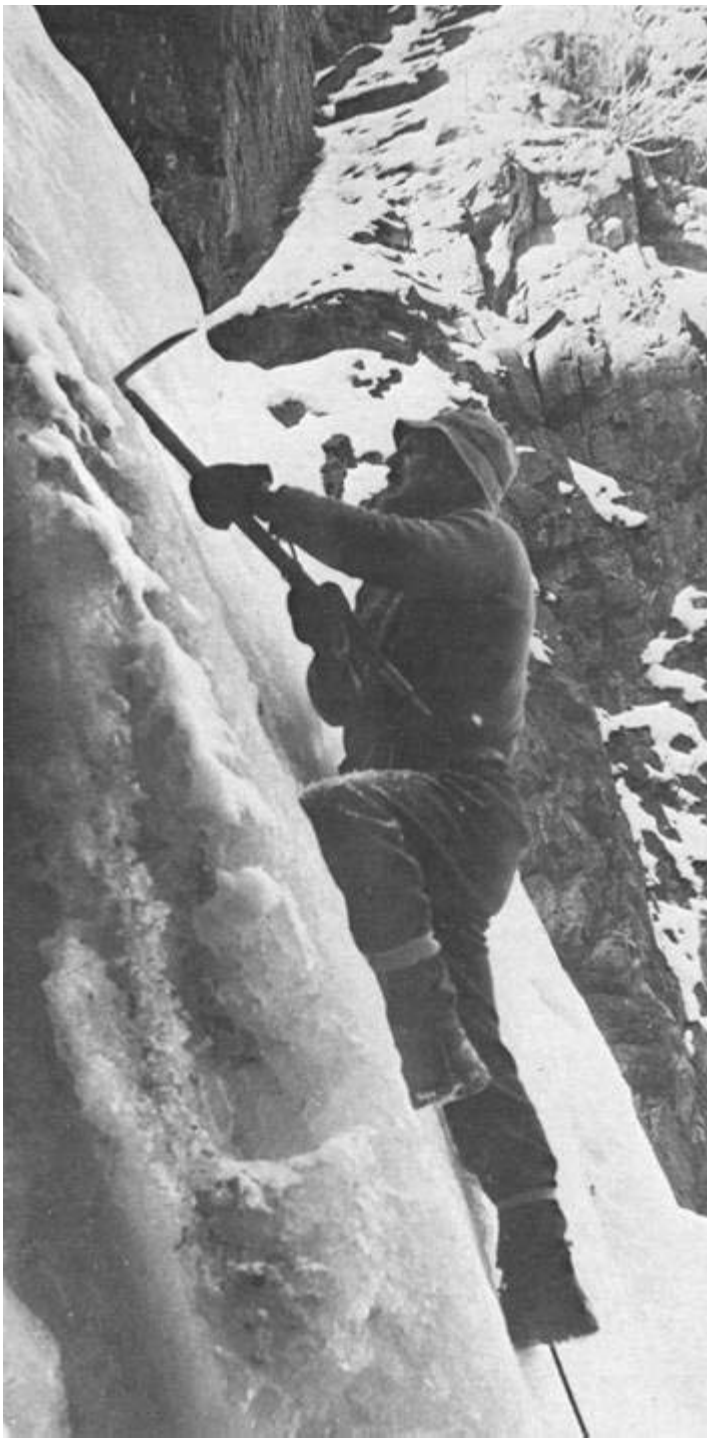
Interior Ranges

Mt. Sir John Abbott

On 6 August John Ellwood and I made what we believe to be the second ascent of Mt. Sir John Abbott (10,550') by a new route up the north west face and west ridge. The face was six 165 ft rope lengths of snow covered ice, the ridge a series of rotten steps to the summit. We descended the north ridge to the Kiwa Névé then back to camp on the summit of Bivouac Peak Round trip took 14 hours.

Gary N. Bruce

Ice climbing within city limits of Kamloops. Hugh Neave on Bridalveil Falls. Peter Cowan



Kamloops Communiqué

Climbing around Kamloops continues to be very much in the ascent. The local rocks have received a more thorough going over this year than ever before, with the result that quite a number of new stimulating routes have been established. Both Lion's Head and Scarface have generated some more good free climbs and a few airy artificial routes. One of the latter has recently emerged as a hairy free climb after a comprehensive documentation of Newton's Law. We even have a very interesting ice climb within about a mile of the city centre. Bridalveil Falls, in Peterson Creek canyon, gradually build up a great thickness of ice during the winter and became a perfect practise pitch. The angle is fairly close to the vertical in places and provides plenty of height for step-cutting, frontpointing, and belaying techniques.

The Rockclimbing and Mountaineering courses I have been running in conjunction with Cariboo College continue to be well supported. Of the 75 people who have completed the course, eight have already joined the ACC. A party of 25 greatly enjoyed a brief visit to the Wheeler Hut in the spring.

Hugh Neave

Adamants

The Adamants are two days from Revelstoke by car, boat and foot or 25 minutes by helicopter. This year's BCMC summer climbing expedition chose the helicopter which gave us 14 potential climbing days in a two week expedition. There seemed to be many prospects for new routes from the Austerity glacier and that is where we decided to make our camp. As far as we know we were the first party to ever camp on or climb from the Austerity glacier.

We met at the Okanagan helicopter office in Revelstoke on Saturday 14 July. We were Bill Casselman, Ray Hilborn, Rob Taylor, Bill Thompson, Rob Kirby and Rich Miller. We looked at our pile of gear and decided that the best strategy was to have Rob T. and Ray fly to the Austerity glacier with most of the gear and then have the helicopter pick up the rest of the group at the Bush River.

We flew over the shoulder of the Blackfriars and onto the Austerity glacier, anxious to get our first real look at the walls we had seen in the pictures—we were not disappointed. A few circles around to find a proper landing site gave a fantastic look at the faces of Ironman, Austerity, Adamant, Blackfriars and the incredibly smooth face of Turret. We were soon deposited at the 8000 ft level on a very flat section of the glacier with no crevasses. It was really incredible to be in a fantastic mountain camp 25 minutes after leaving Revelstoke. Soon the helicopter returned with the others and we pitched the tents and searched for some source of water. Rob T. and Bill C. returned from one likely spot having stood under a shower of water and stones for over 20 minutes to get about two gallons of water. The next day we found a spot with less objective danger and used it whenever time and weather permitted. Sunday morning Bill C., Rob K. and Rich set out to try the south west ridge of Turret and Rob T., Bill T. and Ray went up to look at the south west ridge of Ironman. It looked to be a serious undertaking so we decided to check out the retreat and bag a few peaks by climbing the normal routes. We third classed the last 200 ft of rock up to the Ironman-Horn col still looking for the third class sloping ledges up to Ironman. Met at the col by incredibly strong cold winds, we tried three separate ways up Ironman but were turned back by wet snow plastered over ice and the strong winds. We finally gave up and got out of the wind, quite discouraged and very cold. A 1500 ft bum slide back to camp made up for the long uphill slog of the morning.

On the way back we dumped all our climbing gear at the base of the ridge forcing us to start the serious work in the morning. As we cooked dinner we picked out the group on Turret with our binoculars. They had ascended the couloir under Austerity and traversed out under the Turret ridge. It had been obvious from there that the climbing would be almost all aid for five to seven pitches near the top and since they weren't prepared for extensive aid they attempted an unpromising snow finger leading up to the notch between Turret and Austerity. They also ran into very bad snow conditions and were nearly avalanched off. They ended up in a dead end and had to wait until evening for the snow to solidify to get back to camp, also quite discouraged.

On Monday Bill, Rob and Ray again set out for the Ironman ridge; a broken area about 200 ft above the lowest point on the ridge provided access to several crack systems. The climbing looked quite serious up to a broad flat area about 700 ft up which we figured would make a good bivy site if things were slow. The first lead was very nice fifth class with one aid move. The second pitch had several spots requiring aid but we had chosen the right of two prominent systems and the one on the left looked to be nearly continuous aid. Our crack turned into a vertical knife blade crack for 75 ft on the third lead, followed by some hard free climbing to a small stance. From there Rob led up a very awkward flaring overhanging chimney. One more lead of moderate fifth class took us up the big flat area which was approximately 20 ft wide and 100 yards long. The rock had been very solid and the climbing enjoyable despite the wind which had forced us to belay from our bivouac sacks with all of our clothes on. This was in mid day with the sun out! When we reached the ledge we were distracted by a approaching thunder storm but one more pitch led up to a smaller but still spacious ledge with an overhanging boulder that looked like it could provide some shelter in the event of bad weather. As it was we just got some blowing snow. We figured that the others were probably thinking how lucky they were down below in the tents but we were quite happy munching on our dinner and enjoying the view. We hoped to get off moderately early the next day.

Tuesday dawned clear and cold. After a few false starts we found a vague crack system that led up over a small bulge. A bit of overhanging aid led to a suitable belay from which a moderate fifth class pitch led to a lower angled section. A fourth class pitch led from there to another big flat area just below a headwall. The headwall was split by a single thin crack. Sixty ft of easy nailing put us up a broken section at the top of the south face. Stepping off this headwall onto the broken section provided instant exposure—about 1500 ft straight down. Easy climbing led to a slightly overhanging section that required a few more aid pins. After this it was easy climbing to the top of the ridge where we figured to walk over to Ironman and go down the normal route.

As I was waiting for the others to get to the top our friends yelled to us from Ironman. It seemed that there was a gendarme between us and the summit of Ironman. The adjectives used were 'enormous', 'gigantic' and 'impossible'. Once on the top of the ridge we walked over to look at the gendarme and decided to rappel down our side of the gendarme instead of traversing to our friends on top of Ironman. The climb involved 11 pitches, 1300 ft of climbing NCOS IV or V 5.7 A3. Four nasty but uneventful rappels down a snow-ice gully ended on a snowfield below where we discovered that Bobbins shoes are not well suited to snow and ice climbing. The long bum slide again took us back down to camp where the others soon joined us and described how they also had been unable to find the easy way up Ironman, finally climbing a dirty icy crack on the north west side with one pitch of 5.6 climbing. All the routes so far were characterized by good rock and generally difficult climbing on the steep sections. The headwalls tended to be split only by very thin cracks that usually involve aid. As we looked around the cirque we realized that we had done the most obvious and probably the easiest line in the area. No wonder we were the first party to climb from there.

We spent the next day sight seeing and re-hydrating. At mid-afternoon we were surprised to see a helicopter coming over the horizon. It became obvious that it was going to land right by us and we had visions of intense rivalry for the rest of the climbs in the valley. Since we were camped on the flattest part of the glacier the pilot set down 100 yards from our camp, unfortunately landing in the middle of our privy. It turned out to be a supply dump for the Dartmouth Mountaineering Club. They were going into Fairy Meadows and planned to come over to this dump in a week. We were sure that by then we could have climbed everything worthwhile in the area and would probably be cleaning up all the major lines of the Gothics from the Adamant Glacier.

Next day we set out to try to traverse the whole area, going down the Austerity glacier, dropping over to Silvertip pass, down to the Adamant glacier and then up to the Austerity glacier. We climbed Silvertip via the north face which seems to be a new route, although a somewhat avalanche prone one. On top we awarded ourselves the snow slogging merit badge and admired the views of Sir Sandford, the Gothics and the remains of a large slab avalanche 100 yards to the left of our line of ascent. The crossing from the Austerity glacier to the Belvedere glacier is tricky. Although the notch is obvious from the Belvedere side, there are several apparent possibilities from the Austerity side but only the highest one is reasonable. It consisted of a dirt and snow filled gully about 300 ft high which proved unpleasant no matter how many times we passed through it. When we dropped down toward the Adamant glacier we were disturbed by its general poor condition and how far we would have to descend to get to it. We had also learned that afternoon travel was quite difficult due to the soft snow on sunny days. Having seen what we wanted to, we retraced our steps back to camp.

Back at camp we took out our binoculars and picked out Rich and Rob K., two-thirds of the way up the vague south buttress of Austerity. It was obvious that they were in for a bivouac and the high cirrus clouds indicated that our good weather was coming to an end. Next morning was heavily overcast with storms in the distance but Rich and Rob were moving rapidly up the ridge and over to Ironman from the top of Austerity. It started snowing and raining later in the day and continued through to Sunday. Rich and Rob K. decided to hike out via the Cairn Cabin and Palmer creek and down to the mouth of the Gold River. The trip took them three days.

By this time we were fed up with sitting in the tents and decided to try the south ridge of Redan which had looked from Ironman to involve some interesting climbing. We set off in bad weather dropping through the gap and were soon stumbling up the Belvedere glacier with about 40 ft visibility. A brief clearing showed us that we were just below the ridge so we ate some lunch and waited till we could see our way across the 'shrund where we were startled to hear a thunder clap apparently at the top of Redan. We found our way up the ridge and were some what disappointed to find that it was only second class right around the corner but given the intensity of the snow fall we were really relieved. We got to the top with buzzing ice axes and hastily went down. The return involved following our tracks in high wind and blowing snow and when we finally got back to camp we found about four inches of new snow on the ground and all the rock plastered.

The next day was clear but with all the rock still plastered we decided to climb something easy near Horn and Unicorn. We went up to the Horn-Ironman col but were confused by the guide book and ended up climbing a unnamed bump just towards Ironman from Unicorn. The names for "Horn" and "Unicorn" are obvious when viewed from Fairy Meadows but not from the Ironman-Unicorn col. We had finally picked out a third class route up the last 200 ft rock band to the col and were able to all climb down unroped. But by the time we got back to camp the weather had socked in again and it was beginning to look like we had seen all the good weather we were going to get. We spent Wednesday ice climbing on some local exposed sections of glacier and generally complained about the weather. We had decided to go over to Fairy Meadows, where we were to be picked up, Sunday if the weather was bad, hopefully using a day of bad weather to make the trip. We had valiantly resisted the temptation to drink some of the five cases of beer sitting in the Dartmouth dump. The fact that there were only four of us and we expected to see 15 hairy giants coming over from Fairy Meadows was largely responsible for this extraordinary feat of abstinence. Thursday we packed all our gear and hauled the heavy packs up to the Ironman Unicorn col. When we got to the third class section we went ahead without the packs and fixed ropes that allowed us to climb them with a jumar auto belay. The wind was blowing and with the heavy loads and fixed ropes the whole scene seemed like a mini version of Annapurna. We plunged down to Fairy Meadows where the Dartmouth group gave us some soup and even their last three beers. At this point we were happy we hadn't consumed their beer near our old camp.

We spent the next two days climbing in the Gothics and checking out the big walls above the Adamant glacier. On Saturday Rob T. and Ray climbed the west face of Quadrant following a obvious crack system three leads up and right to some third class ramps leading to the summit. It was fine climbing up to 5.8 although some of the climb seems to have been done by the Dartmouth group.

Saturday afternoon part of Putnam's group came in after a five day pack in from the south and Sunday the helicopter took us

out to the Bush River. We were greatly impressed with the area. There are several prominent lines waiting to be done but they will involve grade V and VI climbing exclusively. The flooding of the Columbia removes the traditional foot approach so I suspect that nearly all future parties will be using helicopters out of Revelstoke or Golden.

We spent two weeks in the area and had seven days of good weather which seems a little worse than average for the end of July. The area is ideal for lightweight expeditions with only two weeks to spend in the mountains. There are some classic lines waiting to be done by someone willing to wait for spells of good weather.

Ray Hilborn

Good Times in the Adamants

Under the umbrella of the Dartmouth Mountaineering Club 14 of us (Bill Brinton, Dirk Brinkman, Helen Curio, Ted Davis, Budge Gerke, Peter Gilbert, Mark Field, Tom Fisher, Phil Koch, Warren Kortz, Rex Holsapple, Mike Paine, Kay Swift, Chris Winship) swatted the mosquitoes and deerflies of the heather and brooks of Fairy Meadows, slogged in the pink slush of Granite Glacier and Friendship Col, and waited impatiently for the weather to finish breaking up. We feasted on beer, pancakes and onions, sugar and meat (alas, my vegetarianism!) and despite being fat and unfit, when the weather did break managed nearly three weeks of excellent climbing. We chortled up new routes, slept in the sun on Austerity Glacier, lunched on summits and bathed in the pools above Great Cairn. We created an outrageously fine trip and were reluctant to part when it was over.

After hiking up Swan Creek the ACC hut at Fairy Meadows was a welcome sign that camp had been reached, but slowly the hut became an irritation—now I resent it being there at all. At first it was simply the tin roof from the summit of Austerity that bothered me but after seeing Great Cairn—a stone hut—the prefabricated construction began to annoy as well. Eventually I came to see the hut not simply as an intrusion into the mountain environment but as a major step and focal point in the 'development' of the area. Huts are irreversible environmental decisions; damn few are ever torn down and sooner or later most are expanded. What you hut builders either don't realize or care about is that many climbers don't want your alpine homes and hotels cluttering up our mountains.

One afternoon I was sunning myself when Phil, all fired up from his hike down and up Swan Creek came sliding into camp and before Budge could get him a beer asked me if I wanted to go fix a pitch. Right now?!

I had being eyeing the dark, sunless feature for three days, noting with repulsion the loose looking blocks, water streaks and vegetation. It runs straight from glacier to summit. A beautiful line and the most obvious grade V in the cirque.

Phil's enthusiasm roused me from my pleasant reprieve and reluctantly yet fully committed, I followed him up to the shadowy face and cautiously fixed the first pitch.

The next day I was more enthusiastic, but the rather dirty and mixed aid climbing made the climb, despite the excellent rock, a heartless grind. I only really got moving on the last few pitches when the climb was over. I think Phil enjoyed it more than I but he did have an exceptionally miserable time on his last lead. The crack was full of water, ice and mud—so much mud that he spent five minutes trying to clear it away from the pin so he could clip in.

If you're thinking about repeating the route try exploring the line to the right at the great "Y", three pitches from the top. We moved left ending up with pendulums and that mud and ice business to come out ten feet from the summit. We also passed up some 5.9. Two bivies half in hammocks; North West Face Blackfriar; V, 5.8, A3.

The descent was much more satisfying than the climb itself. Short rappels, then third class, rappel again. Down the snow, third class, rappel. Third class and the rain commences. I rested half under a boulder, half out of the rain, with the near certainty of a miserable bivy, yet it was a beautiful moment. The light was delicate and glowing turning the moss royal green, the granite grey-gold. My body sore from three days climbing; a few flowers, .. the mist... "off rappel." My turn. The snow, the glacier, white-out. I didn't want to spend the night away from my tent and dry clothes so was full of energy. At one point I followed some 'tracks' to no end for several rope lengths—Phil trailing along behind looking for a bivy site. Over Silvertip Pass and around the corner—huge cliffs to nowhere. "This isn't it. Let's try that gully." It was right and we arrived in camp just at dark and just as supper was ready, exhausted, wet, happy, and high.

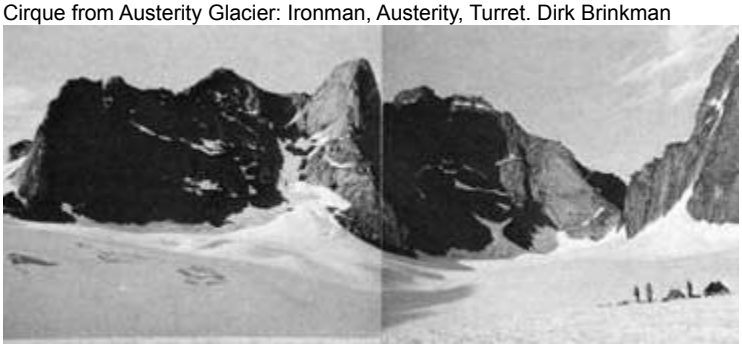
Budge and I did a climb out of that same camp that was one of the finest climbs I've ever been on. Up to the notch between Blackfriar and Adamant, up the ridge pitches of roped climbing several of third and fourth class, easier to the right and harder to the left. At the snow ridge below the south summit, cut west along a ledge system to the north summit (lunch stop one). Third class to Turret (lunch stop two). Third class and one rappel (beware the rotten snow) to Austerity (lunch stop three). Third class to Ironman (lunch stop four). One rappel from the summit of Ironman puts you on Ironman Col whence third and fourth class ledges down to Austerity Glacier and back to the club. Grade III, 5.7. Nuts only please and I highly recommend it.

Eight of our party repeated this route in three groups. The third group was benighted on Turret and descended the south east Turret snow shoot. I hope that descent is not repeated. I wasn't there but it looks dangerous.

Almost everyone in our party climbed Mt. Sir Sanford by the usual hourglass route. Budge and I set off to try the north buttress and ridge which another party essentially climbed in 1969. They were turned back near the summit by threatening weather and bad ice. We had had bad omens from the start which, with our mutual reinforcing optimism we ignored. Budge steps in some glacial cement up to his knees, the rock is crumbly—"Sure hope it isn't like this above." The rock is decaying marble, tiny ball bearings on rounded friction holds topped by our stiff mountaineering boots. " Sure hope it isn't this up above."

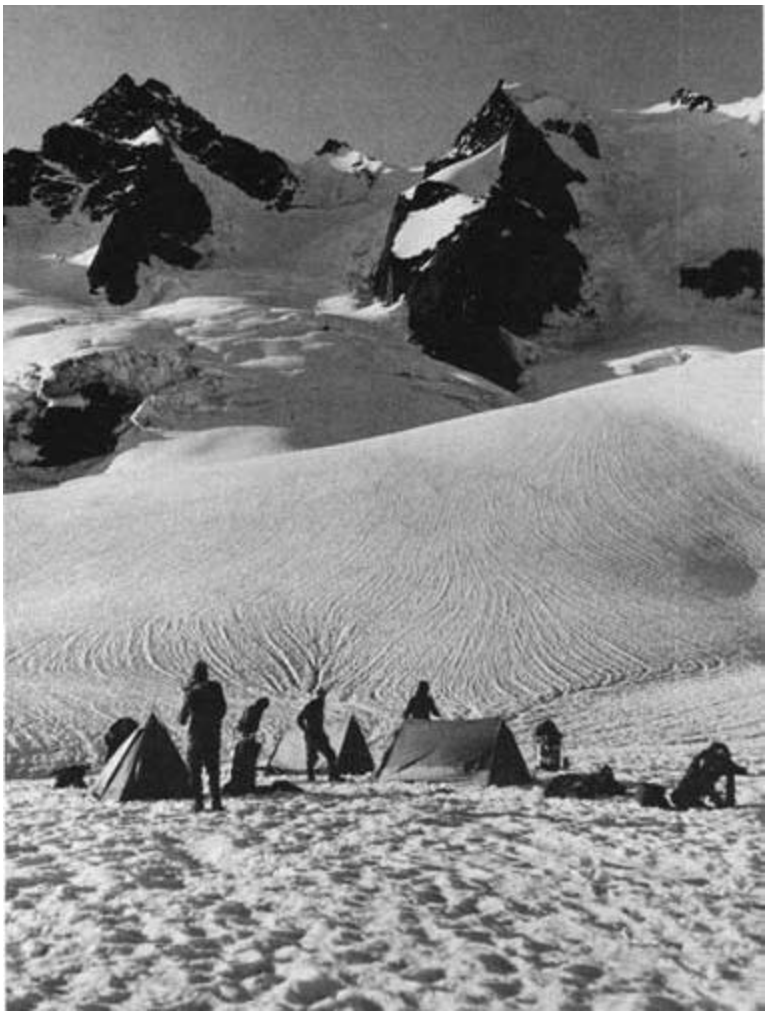
Cirque from Austerity Glacier: Blackfriar. Dirk Brinkman

Cirque from Austerity Glacier: Ironman, Austerity, Turret. Dirk Brinkman

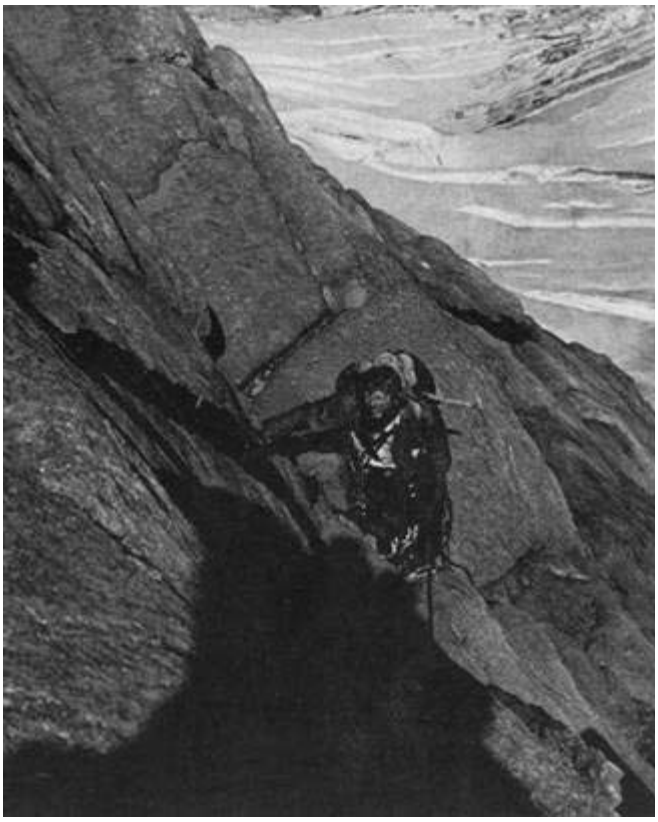


Mt. Sir Sandford Great Cairn. Budge Gerke

Adamant, Turret and Austerity from camp on Granite Glacier. Dirk Brinkman



Ted Davis on North buttress of Sir Sandford



After the first two pitches it seemed to ease off so we kept doing our 150 ft unprotected leads. Because there were few places to anchor we had committed ourselves to moving upwards. One well placed nut, when set with two jerks, neatly grooved the rock and fell out. It was a rare and frustrating experience to experiment with protection. Mostly there was nothing. "What a piece of shit" was the word of the day with an occasional "sure hope it isn't like this up above" to break the repetition.

The acme of the climb was the most frightening lead I've managed in years. It was continuously difficult with a very shaky belay, for sure bad protection and lots of dissolving holds. The crux was 5.8 which dissolved into l-don't-know-what while I was on it. Somehow I stayed on and losing plenty of blood got onto some loose water ice. I was hugely relieved when the ice mostly stayed put which is more than can be said for the rock. When we finally did reach the ridge we discovered 40 ft séracs ready to fall. We started moving together and quickly. Budge found a forgotten piton. Perhaps the previous party was in a hurry also. Out of the danger of the séracs onto potential avalanche slopes Budge labouriously kicked steps and front pointed up the summit. Thank you Budge! We bivied just above the hourglass that night and arrived in camp the next morning around noon—just in time for breakfast. An easy climb to get chopped on.

A few days later Budge, Dirk and I, the last to leave Great Cairn and "the hardest of the hard" as Budge fondly named us stragglers, set off towards Fairy Meadows and the trail down. We planned to team up with Phil and Chris who were camped on Austerity. Hurrying over to Austerity—I don't know why we were hurrying but glad we did—Chris took an 80 footer on the excellent line he had pioneered up the south face of Adamant. The three of us dragged into camp to hear Phil screaming "Help!' insistently, high on the face. Budge and I made it up to them that evening while Dirk moved camp to the base of the climb. From what we could tell Chris had broken his femur and pelvis (it turned out he hadn't but it looked that way at the time). After fooling around for an hour or so with an air splint with a hole in it (manufacturer's defect!) and other sundry pack parts we moved Chris 30 ft where he spent the night in a sleeping bag and plenty of clothing (which was considerable as I found out the next day getting it down).

Next day went smooth to perfection. I had Chris splinted with tent poles and ready to go by the time Budge was up the fixed lines. With Chris on Budge's back and me belaying and lowering from above we were down to the third class in very good time. Dave Jones and Bill Putnam arrived from Fairy Meadows at just the right moment to help us down and across the bergschrund and the rest of that party came shortly after with splints and much equipment that we might have needed but fortunately didn't. Much thanks for that trip over and subsequent help.

To our surprise and pleasure Phil and Dirk soon landed in the helicopter as amazed to see us down as we were to see them. Our itinerary that morning had called for an all day cruise on the face with Chris while Phil and Dirk would return with the chopper the next afternoon. Considering the initial situation we certainly had good fortune.

There were a sack full of other adventures I was party to and many more I was not. Several attempts by Phil and myself to traverse the range were discouraged by bad weather. Late one day Mike, Chris, Dirk and I, aborted the north ridge of Austerity largely due to taking the hardest line. Several promising lines from Austerity Glacier never got started due to logistics or weather. On Quadrant Peter and I backed off a hard line on the west face (5.9) while Dirk, a rope length to the east, first with Mark and then Budge finished "Dirk's Dike" in two attempts (5.7). This is the obvious pitch on the south face of Quadrant's middle peak. Many of us climbed Gog and Magog by various routes and hiked up several of the easier summits early in the trip when the weather was bad. First ascents not yet mentioned include the west arête (adjacent to the west ridge) of Outpost (5.6) by Phil and Budge, the west side of Ironman (traverse from Ironman Col to west face and up crack—Mike and Kay), the classic snow ridge from Granite Glacier on Adamant (Budge and Mark), and the steep left hand ice gully on Pioneer (Mike and Chris). Mark, Chris, and Rex climbed the north east arête on Sentinel.

I could have easily missed something. Damn near everything up there was virgin ground and the climbs were hard, committing and excellent. Even so, I did not experience the excitement of a wilderness adventure. The wildness was before our visit. Please don't trash the place. Please be gentle.

Ted Davis

Austerity Buttress

Looking north from Austerity glacier one sees the south face of Mt. Austerity with Ironman on the left (west) and Turret on the right (east). Towards the right side of the south face of Austerity is a buttress which leads to the Austerity-Turret ridge about 100 yards east of the Austerity summit. This was climbed on 18-19 July by Rob Kirby and Richard Miller. The route contained eight full pitches of excellent rock climbing, rated up to F7 with 20 ft of A1 (it probably goes free). Interspersed were a few pitches of fourth class climbing on loose rock and several trivial pitches on snow. There was comparatively little danger from falling rock but there was frequent rock and snow fall elsewhere on the south face.

The climb starts about half way up the couloir between Austerity and Turret where a snow chute comes in from the left. The first two pitches are easy. Three pitches of F6 and F7 follow, zigzagging left and then right up the buttress. One easier pitch leads to a horizontal break in the buttress. Three rope lengths (up to F7) lead to the short aid pitch; 8, 9 and 10 hex nuts are useful here. Three more pitches with one F7 move end at the ridge. The climb is easily protect with nuts.

To ascend go down the ridge to Ironman, starting with three easy rope lengths of rock and then easy snow. One rappel from the far north west corner of the summit of Ironman ends at a col. Two pitches of third class rock lead to the upper west reaches of Austerity glacier. The descent took 5 hours, after reaching the summit at 9 a.m. on the second day (there are frequent bivouac ledges).

Rob Kirby

Climbs from Roger's Pass

It started out as our vacation ... 3 weeks in a mountain hut, away from it all, nothing to do but a little maintenance on the hut and collect the fees from the visiting members. Then we thought, "Wouldn't it be nice if there was another family to share the fun with us? Maybe a couple of families would be better? Oh, what the heck, we might as well advertise in the Gazette as willing to run a casual family camp and see who is interested." And so we did.

The weather was gorgeous, the other families interesting and friendly and the children played well together. We had a grand time doing a variety of things from "Biffy Bashing" to wood-chopping. We hiked to the Hermit Meadows, Glacier Crest, Avalanche Crest, Sir Donald Meadows, Marion Lake, Balu Pass, Cougar Valley, Asulkan Valley and the Great Glacier trail to the base of the Illecillewaet Glacier Slabs. We even did some climbing, Mt. Tupper, Mt. Avalanche, Mt. Abbott, Mt. Eagle and Uto Peak. Three fathers and three children climbed Mt. Eagle by the easy west ridge and face. We swam at the New Canyon Hot springs and shopped in Revelstoke.

The only obstacle encountered was weather so fine that the fire hazard became extreme and ALL trails were closed until, alas, the rains and snow came ending the 1973 Unofficial Family Camp.

Bruce Fraser

Glacier Circle

Early on 4 August George and Keith Stefanick, Russ Varnam and myself slung nine days gear onto our backs and headed south out of the Rogers Pass. We trudged the 4000 vertical ft up to Perley Rock, roped up and moved onto the Illecillewaet névé. By late afternoon Deville Glacier had come into view, by evening we had descended into the basin of Glacier Circle. There lay the log cabin originally built over half a century ago by the CPR.

The need for the cabin soon became apparent as for the next two days the Selkirks were in 'one of their more frequent moods'. Wheeler's words of 1902 still seemed appropriate. 'Clouds of mist and all is grim and back and wet'. Despite the weather a three man American party attempted the north ridge of Fox. Slipping on wet rock one member fell 20 ft spraining ankles and wrists. It took 16 hours to get him back to Glacier Circle. On the fourth day the weather improved and by 8 a.m. we had scrambled up a headwall and gained the Fox Glacier. From there we headed for a ridge which led up to the highest peak of the Dawson Range (11,123'), named after the early Swiss guide Christian Häsler. The only technicality was a bergschrund which forced us to go out onto cornices. As we ate lunch on the summit the sun drenched view south into the Bishops and Purity Ranges confirmed the name Glacier Park. It was a sea of snow and ice.

A long grind back out of Glacier and we turned west round the head of the Geikie Glacier. Careful route finding by Russ avoided all apparent crevasses and by mid afternoon we were brewing up tea, pitching tents and enjoying the panorama of the Sir Donald Range.

One more day and we were down to Asulkan Pass, up over the three peaks of Mt. Jupiter (9100') and into the Sapphire Col hut. From there Russ and I did the upper third of the north ridge of Swanzy (9572')—one of the classics of the Selkirks involving, among other things, belly crawling under cornices with packs being dragged behind on ropes. Then onto Clark Peak (9947') where buzzing ice axes and lightning quickly decided that we should descend rather than ascend Mt. Bonney.

The last day was spent traversing The Dome (9039') with the inevitable snagged rope on a rappel. (Now there is a sling left up there.) Then a ridge walk over Rampart, Afton and Abbot and so back to the Rogers Pass. Another very good week in the mountains.

John Cumberbatch

The West Kootenays

New routes and repeats of good routes accumulate in the Kootenays, slowly pushing up the standard and introducing to this part of the province a wider climbing perspective. Further integration results from the attendance of Kootenay Mountaineering Club members at avalanche and mountain rescue workshops around B.C. Increasing activity brings with it the controversy over cabins, trails, guidebooks, overuse and wilderness experience.

The Valhallas saw a fair amount of activity, with new routes on West Molar, Asgaard and Gimli by the Coupe/Rowat expedition from Vancouver. Slightly to the north, the second ascent of the Devil's Dome and first ascents of four lesser peaks were made: Chariot, Trident, Rosemary's Baby and Mephistopheles.

The fourth ascent of the Leaning Towers (9975') was made by a local party of three which experienced fine climbing. Approach was via Powder Creek rather than from Campbell Creek.

The KMC's summer camp was held at the southern end of the Gold Range under the impressive north face of Odin. A possible first ascent of Mt. Grady was made via the airy west ridge by two parties on consecutive days.

Bert Port

The Devil Made Us Do It

The lure of unclimbed granite was too much for Gordon Stein, Peter Wood and myself. We departed Nelson at noon on Friday of the Labour Day weekend in persistent rainfall and cool temperatures for a remote corner of the Valhallas known as the Devil's Range. The sky cleared towards evening and a few stars popped forth.

Saturday morning we shouldered our near 50 Ib. packs and headed into the brush. Drinnon Pass took two hours. Beyond Devil's Dome and Lucifer Peak capped with several inches of fresh snow stood out on a backdrop of blue sky dotted with puffy clouds. Dropping from Drinnon Pass we crossed Gwillim Creek near its origin in Gwillim Lakes and worked our way across broken rocks, up a steep wall and into the fabulous meadow surrounding the lake beneath Devil's Dome—our home for the next three days.

With camp established someone suggested Devil's Dome should be attempted. We arrived at its base at 3 p.m. About 500 vertical

feet of solid granite with ice and new snow rose above us. The route starts at the centre of the south face, the first 10 ft fairly thin over a wet layback move, then up a steep, slippery crack (pins not necessary). At 150 ft, out onto the south east corner of the Dome to wet lichen and snow and ice covering many holds. The second lead up the corner on several wide cracks where angles and chocks necessary, then right onto a wide ledge. The third pitch free up two sloping ledges, back onto the main ridge and up a chute (two more chocks). By now the sun was behind the Dome and it was getting quite cold. Two chocks and two pins brought me over some thin climbing to a snow covered ledge at the end of the fourth lead. Peter and Gordon came up and provided a standing belay off two pins on the vertical wall as I led pitch 5, by far the most difficult on the route. It was extremely wet and very cold on the hands. Two thin blades, two small angles, and two Leepers were used to reach the point where Bob Dean and I rappelled off two years before. Our sling and pin we had left there were still intact though very much deteriorated. Peter and Gordon were so cold that climbing and cleaning the route was difficult. While Gordon and I set up a new rappel Peter scrambled to the summit where we joined him a few minutes before 7 p.m., quickly took photographs then, with the sun setting, began our descent. Down climbing and three rappels brought us to the bottom of the Dome in total darkness at 8 p.m., a total of five hours on the rock. Reaching camp took 45 minutes without lights as we felt our way down the broken rock and moss.

Sunday we decided on a first ascent of Chariot Peak immediately east of the Dome. A long session of side hill traversing brought us into a wide basin, thence a very easy traverse from east to west—we regretted bringing all our hardware. Cairns were constructed on all three high points. The same route was used to return to camp except for a slight detour on the last section to avoid the side hill gouging.

Labour Day Monday dawned clear and spectacular. We chose the three unclimbed high points between Lucifer Peak and Devil's Dome and set out towards the most westerly peak up easy meadows and broken rock. A truly beautiful morning. It appeared as though a scree chute would lead up to the ridge where the climbing would be easy. Looking for a rock climb we chose instead a crack and sloping chimney system leading up the face for two good rope lengths. I led, Peter came second and Gordon again did a great job of cleaning! In places the route was quite thin but the rock was warm and friendly. Several thin blades, angles, and chocks were used. A cairn was built to mark the summit of "Trident Peak". After lunch we moved east along the ridge to scramble up Brewster's "Rosemary's Baby" and then Mt. Mephistopheles where a truly large cairn was constructed. An easy route down led to camp by 3 p.m. Gear was packed and by 4 we were on the way back to the truck, beer, and a late evening arrival in Nelson.

A fantastic weekend of companionship and climbing—a second ascent and four firsts: Devil's Dome (9100'), Chariot Peak, Trident Peak, Rosemary's Baby and Mt, Mephistopheles (all 8900').

Howie Ridge

First reported in the Kootenay Karabiner, volume 16, 1973.

"Paramount Peak", Farnham Group

At 9900 ft "Paramount Peak" is the higher of two prominent rock peaks located at the southern extremity of the Farnham group and visible along parts of the Toby Creek road west of Invermere. On 23 July my wife Gretchen, our 4 year old daughter Kara, and I approached the Paramount massif via an old mining jeep road that leaves the Jumbo Creek road at 4500 ft about a mile north of the first bridge over Jumbo Creek. Following this road over several steep overgrown and washed out sections to about 5500 ft, we set up a high camp to the east of the jeep road just below some short cliffs and close to a small stream. The next day we headed east and upward through much fallen and burned timber to the large stream draining the south east slopes of 10,000 ft Monument Peak. Leaving the lush meadows around the stream at about 5900 ft we continued north-easterly up over meadows and talus slopes to the 9000 ft saddle west of Paramount Peak (6 hours from high camp). From here there was pleasant class 3 climbing on the firm rock of the south west ridge, along the sheer south face, with Kara rock climbing the last 600 ft herself (11A hours to the summit). Realizing that we would not have time for the long traverse over to 9810 ft "Paradise Peak", we hurriedly built a cairn for our first ascent record and descended the same tedious route to high camp in 4 1/2 hours just as the darkness settled in.

Curt Wagner

"Bastille Mtn.", Truce Group

In July 1971 with the first break in the rainy weather my wife Gretchen, our 2 year old daughter Kara, and I decided to do a warm-up climb of Peak 8555 just south of Jumbo Pass. We drove about 7 miles up the old Jumbo Creek road to set up camp at 5300 ft near the logging road bridge over the south fork of Jumbo Creek (just west of the junction of the south and north forks). The next morning, 14 July dawned perfectly clear and still, so we started out for the long east ridge of Peak 8555 which we had decided to name "Bastille Mtn." after Bastille Day and the fortress like character of the peak guarding the pass. Leaving the logging road as it turned south along the south fork, we bushwhacked up through thick timber and then hiked easily up the lower ridge (after a morning bottle for Kara!). Above the second shoulder of the ridge there was delightful class 3 climbing over excellent quartzite slabs of the north east face and the upper east ridge. On the summit we built a cairn for the record of our (apparent) first ascent of the mountain and enjoyed the panoramic view all around us. We descended the same route to our camp in about four hours, with Kara luckily sleeping through the most exposed climbing on the upper ridge. The next morning we tackled the only technical part of the climb: taping all the radiator hoses that had been chewed by the local porcupine!!

Curt Wagner

Rocky Mountains

Mt. Worthington, East Face

On 25 August, after wandering through the Forest of a Million Blazes, John Foxall and I set up camp near the South Kananaskis Pass on the northeastern end of Three Isle Lake. From this point we ascended a scree slope to the northernmost buttress of Mt. Worthington's east face. Easy climbing on poor rock was found on this buttress which eventually led to a steep, shallow gully paralleling it on the left. Using only nuts for protection, we followed this gully for 200 ft to a point where it branched into two smaller, but equally shallow gullies. The rock of both branches is quite sound and the climbing not difficult in either one. Choosing to follow the right branch which ended after 50 ft at a smooth wall, we then traversed across the face (5.6, 100') to gain the left gully which led to a series of easy ribs and chimneys (5.4) on solid rock. (Following the left branch all the way from the main gully would certainly be easier and less time consuming. About 200 ft more of easy scrambling brought us to the shattered north east ridge at a point some 500 ft below the summit. The ridge, a walk on rotten snow and rock with only one 20 ft steep section ascended by a chimney leads to the broad summit of Mt. Worthington from which impressive views of the Royal Group, Assiniboine and Joffre may be had. The total time for the climb was approximately five hours and the descent was made via the south ridge toward the Defender-Worthington col. An alternative descent may be made down the north east slopes toward the South Kananaskis Pass.

David Hobill

High Horizons' Climbs

ZEKE'S PEAK, 9800 ft.

Northern ridge of Sir Douglas. Summit 1 mile north of Sir Douglas. Approach from Burstall Lakes and pass to Palliser Valley (NW of objective). North end of ridge attained from west side, ridge then traversed to its south end and summit. Rock on ridge very good; the ridge very sharp for its full length. Descent by same route with 1500 ft glissade.

1st ascent, 18 July, 5 hour ascent, 1-4-0. L. Jennings, J. Connell, C. Evenchick, J. Wheeler, S. Dayton, guide B. Schiesser.

THE FIST, 8200 ft.

Prominent rocky crag north of Birdwood Creek ca. 1 1/2 miles east of Mt. Smuts. Take game trail up Birdwood Creek ca. 2 miles. Route up open slopes to ridge south of mountain; then up easy rock to summit.

1st ascent, 22 July, 4 hours from Birdwood Creek, 1-4-0. C. Crosby, D. Grey, B. McDonald, G. Kubac, leader M. Toft.

MT. WILLIAMS, 8900 ft.

From camp near Palliser Pass, up to west side of mountain. Follow series of gullies and ridges to south ridge, about 300 ft from summit (last 100 ft, F4). 60 ft of exposed ridge with 15 ft of F6 leads onto summit.

1st ascent, 24 July, 3 hours from base, 1-6-0. L. Jennings, C. Evenchick, J. Wheeler, J. Connell, J. Vogt, guide B. Schiesser.

Mt. le Rol (centre) from south west ridge of Sir Douglas, looking south. Bernie Schiesser

Mt. Williams from Palliser valley looking north. Bernie Schiesser

WIND MTN. (north peak of Lougheed).

Ascend from Spray Lakes to ridge north of peak. Follow ridge to first buttress. Route starts 300 ft west of ridge and works toward ridge occasionally moving to west of ridge. Excellent rock on this route. F7 A1.

North ridge, new route?, 6 hours from lake, descent via ridge to SW, 11-7-1. J. Sloan, J. Connell, R. Mulloy, P. Findlay, B. Davis, C. Rohlicek, guide B. Schiesser.

MT. BIRDWOOD, 10,300 ft.

From camp near Burstall Lakes take trail west to base of ridge. Ascend clean slabs to where they pinch out (F4). Two rope lengths of more difficult climbing (F7) and the ridge flattens. From the easier section ridge is followed and meets the standard route about 9400 ft.

SW ridge, new route, 10 August, 11-7-0. G. Rouse, J. Sloan, R. Mulloy, P. Findlay, C. Findlay, B. Davis, C. Rohlicek, guide Bernie Schiesser.

MT. BURSTALL, 9000 ft.

South ridge is attained from west via logging roads and scree slope at point where ridge steepens. Ridge followed on west side to crest (6 rope lengths) then easy traverse to summit (500').

South ridge, new route, 14 August, 1-6-0, 4 hours ascent. P. Findlay, J. Sloan, B. Davis, guide B. Schiesser.

MT. BURSTALL, 9000 ft.

West face reached by logging trails and scree slope. Ascend prominent buttress which leads directly to summit.

West rib direct, new route, 14 August, 1-5-0, ascent 4 hours. C. Findlay, C. Rohlicek, J. Connell, leader G. Rouse.

MT. LeROY, 9800 ft.

11/2 miles SW of Mt. Monroe. From camp south of Palliser Pass ascend west face to south summit (F4). 3 major summits traversed to east. Descent to NE on small glacier to large cirque. Descent route makes for superior ascent route.

1st ascent, 6 August, 6 hours from camp, 1-4-0. B. Davis, J. Connell, P. Findlay, C. Findlay, leader G. Rouse.

MT. MONROE, 10,150 ft.

11/2 miles south of Sir Douglas. Base camp 2 miles SE of Palliser Pass. From major cirque to NW, north ridge reached via broken rock and large crack diagonally across smooth face. Ridge traversed to east summit.

1st ascent, 6 August, 41/2 hours from camp, 1-5-0. R. Mulloy, C. Rohlicek, J. Sloan, guide B. Schiesser.

MT. BULLER, 9600 ft.

From logging road directly up north ridge to summit. Steeper sections were bypassed to west. F4. Descent to west and down a large bowl to north.

New route, north ridge, 26 July, ascent 5 hours, 11-5-0. L. Jennings, J. Connell, C. Evenchick, guide B. Schiesser.

Bernie Schiesser

Mt. Aurora and Unnamed 9600

On a climbing trip in the vicinity of Marvel Pass, Robert Becker, Monte Lennox, Robert Yekel and Kent Heathershaw may have climbed a new route on Mt. Aurora and made a possible first ascent. We climbed Aurora (9150') from the Byng-Aurora col (F4) on fairly good rock then traversed the entire mountain which contains three summits. Descent from the west peak to the Currie Creek Aurora Creek pass.

On 20 August we made a successful ascent of an unnamed 9600 ft peak one mile south of West Aurora from a camp on Marvel Pass. The Currie Creek Aurora Creek pass was crossed, then turning south we passed an ice filled lake and cramponned a steep snow chute leading to a notch just south of the summit. We traversed broken loose ledges on the east side where two nearly vertical routes were used to gain the summit—one an exposed face route coming out south of the summt, the other a deep chimney which terminates directly at the summit. Both routes have loose rock and are exposed. For descent we used two rappels in the chimney.

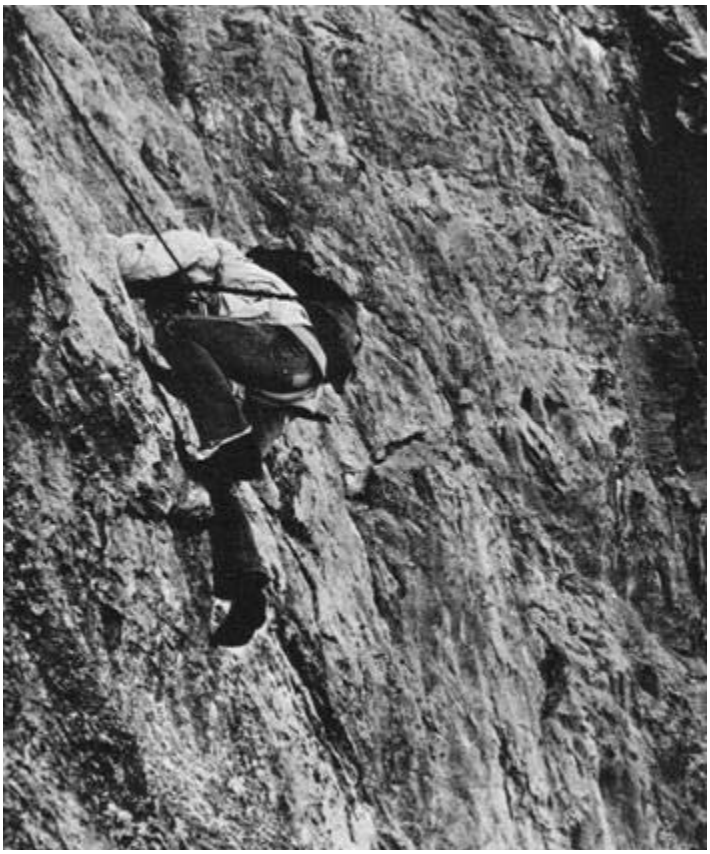
Kent Heathershaw

Six hours up, six hours back. NCCS 111 F4.

Gibraltar, East Face

A new route was put up in June by John Lauchlan, Jack Firth and Pat Morrow. An obvious gravel and boulder spur leads up to the base of the face. The first 500 ft of easy scrambling brings you to a series of short, steep, well protected pitches. Angle to the left slightly until a ledge leads right for a full pitch. Scramble up a long, easy pitch until a short, seemingly blank wall confronts you.

John Lauchlan just completing a 5.7 move on a new route on east face of Gibraltar. Pat Morrow



Several long, loose pitches above this bring you out onto the east ridge almost directly above the gravel spur below, and 200 yards from the summit.

Pat Morrow

1500 ft, III 5.7.

Some Activity on the Fortress

Immediately west of the controversial Snow Ridge ski resort lies the Fortress (9850'). Before the development access was discouraged by a crossing of the Kananaskis and a long slog on burnt over slopes. To the west roads on the east of Spray Lakes leading into Smith-Dorrien Creek were not fashionable despite interesting alpine lakes about Mts. Galatea and Inflexible. From Snow ridge the floor of the ski basin leads to a headwall of Paleozoic carbonates; another bowl beyond the chair lift to the north west is similarly hung, the Fortress being the barrier between the two. Most ascents are up a steep scree slope to a high col south of the peak, thence west to contour a south facing bowl to rather easy south west scree slopes from the main (back) summit.

To skiers the east buttress was an obvious inspiration. Early in 1971 a party led by John Howard ascended it direct from the ski slopes—about 700 ft of near vertical climbing on ill sloping strata. Near the top of the buttress the weather deteriorated to near blizzard conditions. A series of 30 to 50 ft high loose pinnacles were bypassed on their south side via a broad shelf to its west end where the elements forced retreat via a broad but steep open gully and step system into the bowl below. A narrow couloir feeds from the broad shelf to the east face of the highest peak.

Mindful that the route chosen had residual snow atypical of later on, Tim Mason and the writer picked one of the few dry days in early June to continue exploration. Unusual amounts of snow in the main bowl brought embarrassment without skiis. A broad platform at 8800 ft was reached via two steep snow gullies. Muttering about grade 6 on the first honest day of the season we roped to ascend the first pitch axing left up a short gully and rib onto a sloping scree shelf which contours across the south base of the buttress to a point west of and above the south col used in the normal route. We followed it westward onto the uppermost scree of the south bowl (Smith-Dorrien drainage). Overhead the east face is bisected by a series of gullies of which the first encountered was narrow and loaded with spitting snow and ice overhangs—a later season proposition. The next weakness on the traverse were gullies broken up by intervening shelves or stepped cliff bands—no doubt the snow covered area used by the previous party in descent. We kicked up a soft snow gully and followed with some serious straining on an out-sloping, loose cliff band. This could have been avoided by starting farther to the west. Ahead another gully loaded with rotten ice led to a left hand (west) rock rib and a piton belay point. Another cliff band above created more sweat but excited on the west end of the shelf below the ridge cresting gendarmes. The steep couloir of snow and water ice above put us into a notch on the east ridge early overlooking the north face. A half rope length on a small buttress sloping in our favour and Tim looked over the crest square into the summit cairn only yards away.

No summit records denied the originality of our ascent. The descent required a lot of slogging in soft and sluffy recent snow across the south bowl to the col. In 6 hours we are back to the Lodge and reflecting on the merits of the route—about 7 full pitches of easy 3 to difficult grade 4 with the advantage that it is the most direct to the summit and a compromise of the other extremes.

Karl Ricker

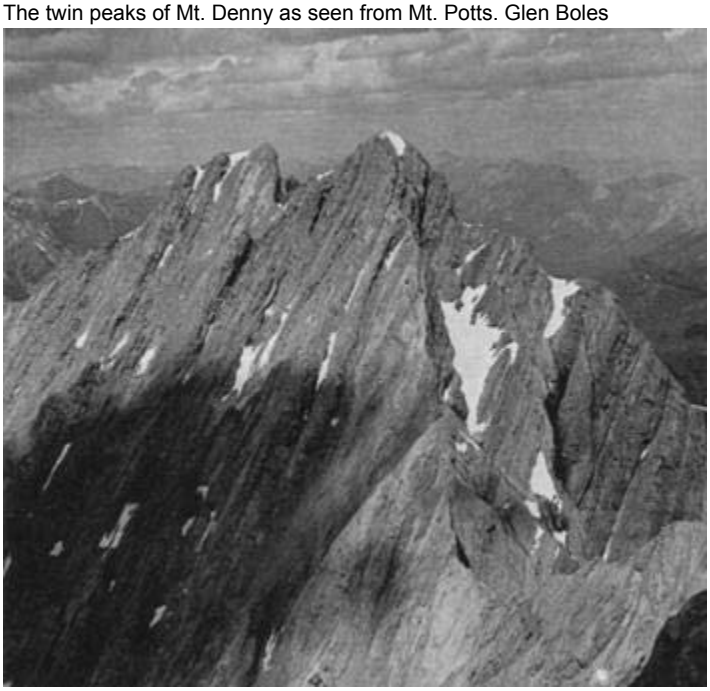
Mt. Denny and Mt. Potts

After writing the short article on the Opal Range for the 1973 CAJ I began to think about the three unnamed peaks north of Mt. Evans-Thomas which were as far as I know unclimbed. In June Don Forest, Mike Simpson, Gordon and Bruce Scruggs and myself entered the area via the creek west of Mt. Evans-Thomas from the Kananaskis road. Due to a lot of snow, rain and big gaps on the west ridge of the first peak north of Mt. Evans-Thomas we ran out of steam and time.

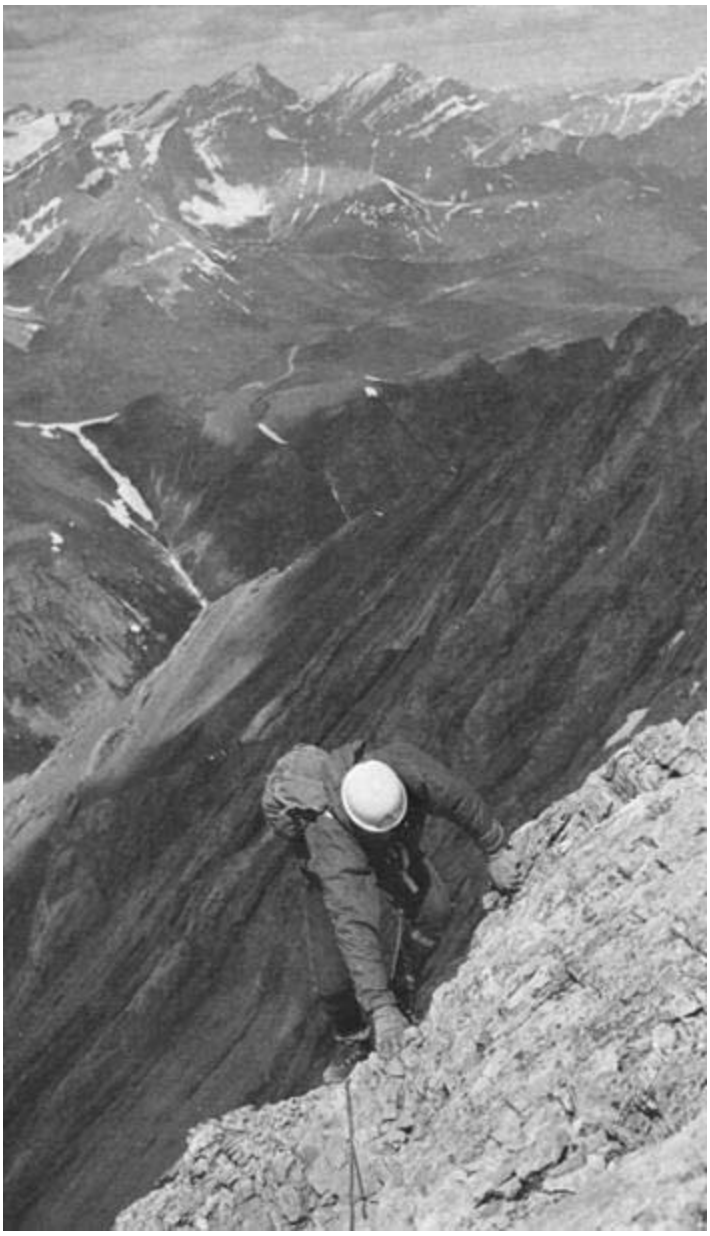
On 7 July, Mike, Don and I were back again. To give ourselves enough time we packed up the same creek in the afternoon and crossed a wide meadow to the north, then descended slightly toward Rocky Creek. We camped directly west of the twin peaks which are north of the mountain we had attempted in June.

Next morning we crossed to the west face of the twin peaks and at 7 we started to climb to the right of a small waterfall. It proved to be easy, very enjoyable scrambling and the 2000 ft to the col between the twin peaks took us an hour and a quarter. We climbed the north summit then the south one. It was a beautiful morning and we spent considerable time taking in the view and building

The twin peaks of Mt. Denny as seen from Mt. Potts. Glen Boles



Mike Simpson gaining the ridge near the summt of Mt. Potts. Glen Boles



cairns on each for there was no evidence of any previous ascents. We looked longingly to the south at the next peak between us and Mt. Evans-Thomas which we had attempted in June. It looked a long way off and the long ridge did not appear to be too tempting but we decided we had lots of time to give it a try. Off we moved at a fast pace, soon slackened by steep gullies interspersed with smooth slabs and rotten ledges. At 11 we stopped short of the col to have a bite to eat. From our vantage point smooth slabs made the col look inaccessible but the ridge beyond it appeared much easier. To our surprise the slabs were no problem and the ridge provided some good climbing. At several places we dropped down below the ridge on the west face and traversed along on ledges. After surmounting a mass we thought to be the summit we were confronted with another hump, from the gap between them we tried several places. Finally a direct little wall from the gap proved to be the hardest pitch of the day. (1.15 a.m.).

We were surprised to say the least to find a cairn. It contained a copper canister placed in 1954 by a party which climbed the south ridge thinking they were on Mt. Evans-Thomas.

After our stay on the summit we retraced our steps part way down the north ridge then traversed diagonally to one of the prominent gullies descending from the slabs below the col. It took us straight to the base of the west face and on looking back up, all the other gullies ended in sheer slabs 500 ft above the scree. Luck was with us and ended another perfect day.

As 1973 was the Centennial Year for the RCMP we thought it would be a good idea to name the peaks after famous personnel of the force in years gone by. The northern peak with the twin summits we named Mt. Denny, the northern summit Sir Cecil and the south summit Edward after Sir Cecil Edward Denny and the southern mountain north of Mt. Evans-Thomas we thought Mt. Potts after the famous scout Jerry Potts. All three summits are very near the elevation of 9850 ft.

Glen Boles

Mt. Cornwall and Mt. Glasgow

On 2 September Don Forest, Gordon Scruggs, Bruno Struck, Glenn Beattie and myself made the first ascent of the north west ridge of Mt. Cornwall. We left camp on the Little Elbow and followed the creek issuing from the valley north west of Mt. Cornwall. We eventually cut diagonally up to the right coming out above treeline on an open ridge, which we followed until it ended in a sloping platform below sheer cliffs at the 7800 ft level. These cliffs, 500 to 800 ft high start at the north west ridge and run south forming the west face of the mountain for more than a mile.

We roped up on the platform and had some interesting climbing to the right of the ridge. Eventually a sloping snow chocked chimney gave access to the sharp ridge which we followed to about 9100 ft. At that point the ridge widened out and the east side dipped down to the col between Mt. Cornwall and Mt. Glasgow. We had lunch then trudged on in deep snow. The ridge sharpened and in the deep snow we floundered on to the summit. In the cool air we had a tremendous vista of the Opal Range to the west and could make out some of the larger buildings in Calgary, 45 miles to the east.

After a short stay on the top we retraced our steps part way back down the north west ridge then descended the bowl east to the col. Glenn Beattie continued to the valley but the remaining four were determined to climb to Mt. Glasgow. This we did by its south ridge, getting to summit at 6 p.m.

A few days previous the area was blanketed in an unusually heavy snow fall for the time of year and we found ourselves in as much as three feet of snow in places, making it a long, strenuous, but fulfilling day.

Glen Boles

Mt. Huber

Probably the most demanding part of our winter climb of 11,000 ft Mt. Huber was the six mile trudge along the road to Lake O'Hara. The rest was joy. Ask Chris Perry. He did the trudge on downhill skis fitted with skins.

It was the end of February. Inclement weather had averted two attempts by Calgary climbers. So here we were, breaking through windslab at every step on the lower reaches of an avalanche path that extended down from the north slope of Huber. Our only consolation at this point was the seemingly settled weather.

The normal route on Huber is, apparently, on the south side. We chose the north side because the south side was so much further around. Doffing our skis at the top of the basin which feeds the avalanche chute we continued on crampons. The route we selected led up left on smooth, packed avalanche debris, toward the north summit of Mt. Victoria. Part way we spied seven goats grazing on wind blown ledges. They ignored us.

We came to the base of a 30 ft frozen waterfall. Skirting it to the left on the tips of our toes we carefully angled back above it to the middle of the gully. Chris suddenly broke through the partially frozen snow surface into ankle-deep slush. With ice-encrusted boots he danced coltishly off to the side, like an upright Clydesdale. What an arresting phenomenon I thought, as he guffawed and mumbled.

From this point we could see the upper two thirds of the route. It looked fairly straight-forward, with a couple of sideways and backwards and tip toeing toward the top. Since we had forgotten to bring a timepiece we opted to dig a cave before it grew dark. By late afternoon we were encased in a cozy snow hole at the foot of a 100 ft high buttress, at about 8000 ft. This buttress stood impassive in the middle of an avalanche slope and seemed to have diverted the flow of previous avalanches.

After a comfortable night in our tunnel Chris led off into the embrace of dawn. Temperature was moderate (above zero anyway) and the wind was hardly noticeable. Immediately the slope steepened and the snow deepened. Rather than cutting across the slope we kicked steps up several 100 ft to the base of a 40 ft rock band. A long traverse along the base of the rock band, to the right, and 30 ft of scraping and knashing up this band brought us onto the upper 1000 ft.

Up and up we went, on wind packed snow and low angle ice patches. All that remained was the summit ice cap. And that could have been bypassed by kicking steps on steep snow to the left. However, being in the state of mind we were in (congealed) we chose to front point up the three long pitches of 40° ice.

On the summit we absorbed the scenic splendour cast by Mts. Hungabee, Victoria, and Odaray, and Sherbrooke Lake behind Wapta Lodge, through our wind-buffeted, frozen open eyeballs. In a couple minutes we began the descent to the cave. Another night of refrigerated bliss and we continued down to the O'Hara road.

Our wives had skied in halfway and met us with cherry smiles. How did it go? Chris glanced languidly at the metal boards under his feet, then answered them with a grin.

Pat Morrow

Narao Peak: Ice Gully

Must be getting old. A month in and around Banff and only five routes. But what variety! Unlike, say Yosemite, where most of the climbs are variations on a theme. Mt. Louie, Matterhorn-like proportions of ball bearings with hailstones and a hung up rappel for spice. Reprobate on the East End of Mt. Rundle, 1500 ft of classic good limestone. Odiferous (I, 5.7), a short Valley type thing near the Bugaboo Hut, to while away an afternoon. New, with Mini Hindert. The East Ridge of Bugaboo Spire, beautiful holds, beautiful partner. The perfect climb, the perfect day, not a cloud in view. The once-a-year climb good enough to make up for all the other epics. And the new route—the pure green ice gully with Tim Auger.

We picked up Tim's ice climbing gadgets from his warden's hut on Lake O'Hara, a picture postcard setting apt to give clichés a good name. The loveliness of the approach was graced by my first close encounter with a mountain goat. The gully was longer than we figured, perhaps longer than its neighbour to the left, first ascended by Chouinard and Carman. Not so steep, average 45° (?), but hard, and we were doing it free, step cutting as everyone now knows being artificial. Some rock fall. As the pitches wore on, began hugging the left bank, looking for piton anchors rather than screws. But this a time-consuming error in poor rock, avoided by those with more ice experiences and trust in screws. Forced bivy on top, warmed by burning twigs, and illuminated by northern lights, my third "first" of the excursion.

Rick Sylvester

NE gully on Narao Peak. 10 pitches? More? Tim Auger and Rick Sylvester. 1 September 1972.

Mt. Temple: North Ridge

In August 1970 Jeff Lowe and George Lowe climbed the central rib (directly below the summit) on the north face. The lower half of the face was excellent quartzite with difficulties up to F7 although mostly easier. Some easy poorer quality rock then led to two pitches of steep good limestone. After several pitches of more rubble scrambling the upper rib provided delightful climbing on firm rock up to the base of the ice cliff. The ice cliff required three pitches of mixed aid and free climbing with spectacular views. Immediately above the ice cliff the party bivied then climbed directly to the summit over easy ice the next morning. A recommended climb—never extreme with little objective hazard in a dry year due to the protection of the rib. The rock was always excellent in the more difficult sections. Many ice screws were required to pass the ice cliff.

George Lowe

NCCS IV F8. Aid used in surmounting the ice cliff.

Howse Peak: North East Buttress

Jock Glidden and George Lowe climbed the north east buttress of Howse Peak in June 1970 under the assumption that it had not been climbed. Later inquiries produced a first ascent party although no write-up could be found. (One might note here that this certainly keeps the spirit of adventure up.) The climb required 21/2 days mainly because of the difficulty of bypassing the many large ice mushrooms which had not melted. The route taken differs from the first ascent in that it followed the south side of the top half of the buttress. With the exception of a very bad yellow band (1 pitch) half way up the rock was generally fairly good.

George Lowe

2nd ascent with variation. NCCS V, F8, A1.

Mt. Patterson

Jack Firth and Urs Kallen climbed the east face of Mt. Patterson via the Bluebird Glacier (10 pitches) and finished the upper section with a new variation (18 pitches). 29 July in 14 hours from the moraine.

Urs Kallen

Glacier Lake

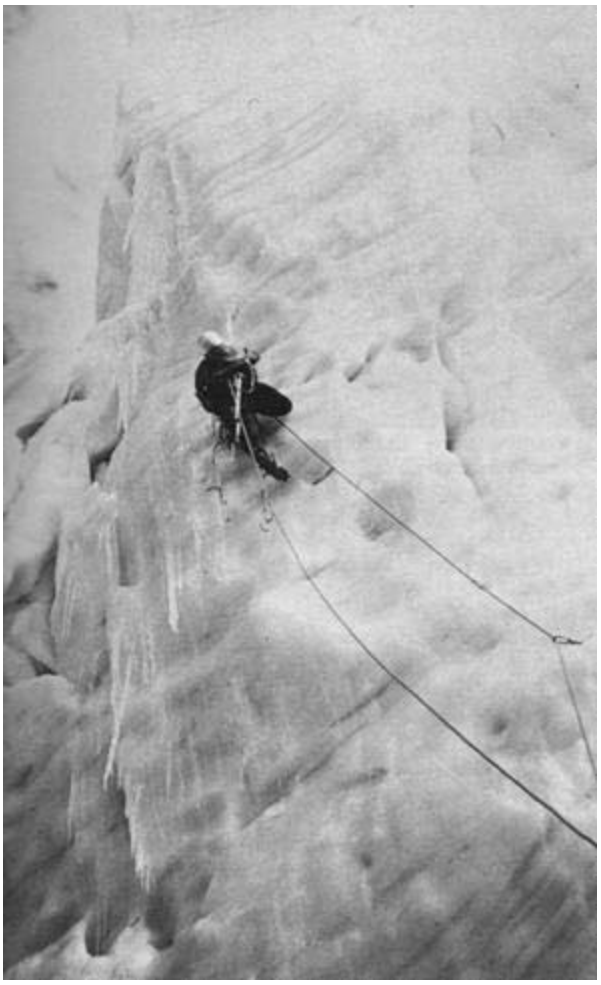
About 55 climbers took advantage of a new venture in learning the art and techniques of mountaineering—the 1973 Training Week, held before the regular two week ACC General Mountaineering Camp. It afforded an excellent opportunity to learn the basics of modern mountaineering from qualified guides. The five professional guides were Herbert Bleuer, Hans Schwarz, Ottmar Setzer, Ferdl Taxbock, and Don Vockeroth. They were assisted by amateur guides John Amatt, Pat Duffy, John Fox, Skip King, Ron Langevin, Dave Morris and Peter Verrall.

The instruction covered a range of subjects from bushwhacking and glacier river crossing to belays, rappels and demonstrations of rescue techniques and the Tyrolean traverse. Emphasis was placed on arresting slips and falls, crevasses rescue, and the safe negotiation of difficult conditions on rock, snow and ice.

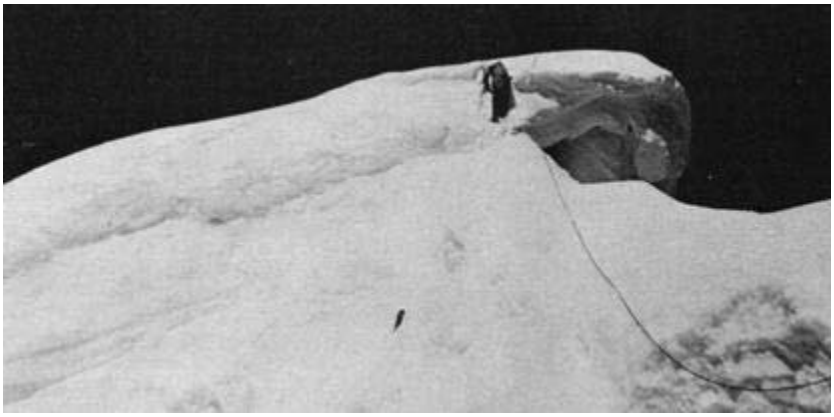
The structured program provided for groups of 10 climbers to undertake rock schools for two days at cliff banks about one mile from camp. One day snow schools were subsequently held near the Mons Glacier, a one day ice school on the south east Lyell Glacier. Later in the week there were training climbs on F1, Mons,

Mt. Patterson, east face. Urs Kallen

Ice cliff at top of north face of Temple. Jeff Lowe leading. George Lowe



On summit cornice of Howse Peak. George Lowe



North face of Temple. Jeff Lowe following near ice cliff. George Lowe

Arctomys, Forbes, and the Lyells. These were supplemented by evening sessions on rescue methods, equipment, and local geology. A random grouping of climbers afforded the advantages of learning to cater to the slower climbers and the opportunity to review and learn basics from highly qualified guides, using up-to-date techniques and equipment. A few problems attended the experiment. It became obvious early in the week that many new climbers were not physically fit for the easy long climbs. Boots were not adequately broken in and this caused the perennial disappointment of some climbers having to miss climbs. A few climbers arrived in camp expecting a full daily schedule of climbs and were initially disappointed to find themselves in rock and snow schools but as the week passed there was increased enthusiasm for the thorough training sessions preferred by the guides.

Pat Duffy

Hiking in to the General Mountaineering Camp of the ACC at Glacier Lake was a good 12 miles. Bear scats along the way announced a recurring theme. Misting rain fell off and on all day, with rain all night. The weather cleared though, and only one day out of two weeks was so bad that climbs were cancelled.

The camp was located on Glacier River, two miles west of Glacier Lake. Division Mtn. dividing the Mons and Lyell Glaciers, stood watch on our west, Forbes and its outliers were across the river to the south, Sullivan to the north, and Mt. Murchison was spectacular down the valley east.

I saw the camp long before I finally arrived—my first lesson as a tenderfoot mountaineer—distances can be deceptive. The camp's altitude—a mere 4700 ft—should have been a warning too. Much vertical distance would have to be gained just to get to the base of climbs. Morning calls at 4 a.m. were not unusual.

When climbing got down to earnest, the Lyells 1 and 2 proved popular, one reason being the high camp. About 2000 ft higher than base camp, it was situated in an idyllic meadow of cold rivulets and multitudes of flowers. Ptarmigans liked it there too— a mother hen and nine biddies were taking a sun and dust bath the day I was there. John Kevin Fox led a few tigers to the summit of Lyell 4, returning very late to high camp, despite a 4 a.m. start. Skip King, the next day, took a small group up a different route, proving that Lyell 4 could be done faster. Mons attracted many climbers. Arctomys, on the other hand, was considered by most to be a baby peak of no moment but I loved the view of the Valley of Lakes and all the surrounding ranges. And Peter Hind will confirm that there are other than easy routes up that mountain! Forbes was the mountain to climb. Several groups challenged and won its glacier-hung heights. A high camp was established to make the assault a more reasonable one-day effort, and one guide, Don Vockeroth, made so many trips up Forbes he practically lived at high camp.

Hoary marmots loved sitting on the Lyell Glacier north lateral moraine, talking to each other at dusk. They greeted Bob Hind, Joyce Jamieson, and me upon our return from a particularly exhilarating ascent of one of Division's summits. That morning Bob had spotted a new route that ". . . if it will 'go' will be something special." We didn't know where our route would lead us but the incentive to keep going up was strengthened when we considered the alternative—down climbing. The tower we were on involved something less than 1000 ft of rock, which took us 4 1/2 hours of climbing with no rests. And this after having struggled up a murderous scree slope and across a snow field. Only two women had signed up for Division the previous night but instead of our climb being cancelled, we had a demanding 15 hour day. Supper was long since finished when we dragged in but Mrs. Harrison and her girls always took care of latecomers.

My two weeks at Glacier Lake were climaxed by flushing out a bear as I was walking solitarily back to the trail head. Near the Howse River the large fellow was momentarily frightened enough to run 300 ft from the trail but then he decided to walk along parallel to the path—in the same direction I was headed. Not having eaten my lunch at the time, I began seriously to wonder who would ultimately end up with it. I was much relieved soon to come upon another human being eating his lunch on a little rise just off the trail. I gladly joined Don Redmond for the remainder of our trek back to the Banff-Jasper road.

It had been beautiful weather, beautiful country, and beautiful people.

Martha Crawford

Mt. Gee—25 Years Later

"... After walking over all this crud... "

First ascent 1948 by G. Harr, Mr. and Mrs. C. H. Wilts.

Fighting deadfall, rough creek beds and avalanche swept slopes, slowly the three of us gained some elevation. The main valley ended below at the huge cirque of the Mt. Diadem glacier plateau. Balancing over the high lateral moraine ridge, the northernmost valley to the right opened and a good passage to the glacier plateau above is visible.

A glorious September day with a deep blue sky and the sun moving at a low angle over the horizon of Mt. Diadem, we gained another 2000 ft of elevation over the most colourful rock labyrinth. Finally after four hours we sat down beside the magnificent stretch of the high glacier plateau. Here we roped up and started the gradually slanting slope across the glacier which was covered with up to two feet of new snow. With the afternoon sun warm on our backs we trudged onward, tranquility surrounding us. Suddenly we were startled by a tremendous swoosh, starting from the bergschrund, sweeping rapidly past us. With astonished faces and Bob flat on the ground ducking all evils, I realized that the whole snowfield around us had settled. Shortly we crossed the bergschrund to the saddle between Mts. Diadem and Gee. Climbing over the cornice to the wide open saddle we were rewarded by the outstanding view of Mt. Alberta's north face and the surrounding peaks of the Columbia Icefield. We took our time enjoying lunch in the presence of the giants. Leaving most of our equipment behind we headed for the easy south east ridge, over yellow shale and hiding trilobites. Climbing up between large boulders we arrived at the first summit posing only for a few photographs. Approaching the base of the main peak we decided to ascend via the west face which looked the fastest and easiest way to climb unroped.

On the summit, we shook hands and searched for the

registration in the much battered cairn. In a small aluminum can we found the names of the first ascent party with the comments of their experience. Seeing the beauty that surrounded us, we wondered if they named the mountain after the expression. The sun made its way westward—time became limited. Descending and looking back at the mountains becoming silhouettes against the red sky, the valleys already dark in their shadows, we could not waste any more time. Thinking of making better progress by taking an alternate route down the westerly valley, we were held up by cutting steps down the steep glacier tongue between two cliffs and by the assault of flying rocks from above. Finding our way out of the trap, dark was closing in. Tripping over moraine boulders and sliding down blueberry patches grabbing berries as we slid by, we finally arrived at the valley floor. Groping in the dark, stumbling and falling over deadfall, our only source of light a $1.39 flashlight which helped out at the worst situations. The distant carlights inspired hope—bang down on your nose again, feeling like staying there, up again, back down. We stumbled into the clearing of the Sunwapta river. Influenced by scrapes and bruises we thought never again. At midnight we crossed the river. After a good sleep—we packed up for our next venture.

Hans Fuhrer

Clemenceau

Geographical Names Committee approved five names assigned by the '72 ACC Climbing Camp as follows: Mts. Sharp, Morrison, Ellis, Rhodes and Cowl. Mt. Speke was not approved. It could not be supported as a peak because a closed contour was absent, i.e. it was not over 200 ft high, even though the ridge on which it stands is over 9000 ft.

R. Matthews

Skiing in the Eremite

The Wates-Gibson hut was the site of the 1973 ACC Ski Camp. Take-off point was the gravel pit 20 miles beyond Jasper on the Yellowhead highway and six miles outside the Park. The helicopter took skiers to Moat Lake on the Divide in Tonquin Pass (6400'). From here it was a relatively easy six miles along the valley of the Amethyst Lakes with a glorious view of the Ramparts on the right. The last mile through the woods and around Surprise Point, dropping to Penstock Creek, then a short steep climb through trees to the hut.

Favourite ski mountaineering trips included the Fraser Glacier rising to about 9000 ft along the side of MacDonell, Three Blind Mice above Eremite Glacier and Thunderbolt Peak (8745') rising to the left from Eremite valley. Ski touring areas were numerous, among them being Chrome Lake, upper Astoria valley, lower Eremite valley, the Amethyst Lakes and the slopes of Clitheroe and Maccarib though the most popular was perhaps, the lower part of the Fraser Glacier. Specially noteworthy were the number and variety of short ski jaunts, from easy to most challenging, within a few minutes of camp. These provided good fun and thrills on the stormiest of days.

Leo Kunelius, Bruce Harding

Roche a Perdrix, West Face

One morning in early June my son Richard and I finished our breakfast at Rocky River campground and headed east towards Roche a Perdrix and his first climb. Observing some activity at the Disaster Point hut we stopped and met Bill Godolphin who had no climbing partner. He decided to join us on the "gully route"; then if time permitted we would try to reach the two outrider peaks beyond Perdrix. It was after 9 a.m. when we started up the north ridge, the wind was bitterly cold, so we were glad when we finally turned onto the west face and proceeded into the gully which provided some shelter. A short way into the gully the route appeared different from the description we had been given so we decided to go out on the face for awhile and perhaps return to the gully later. We continued on the face for awhile, Bill and I kept discussing the possibility of returning to the gully but we never did. Good belay points were always just out of reach and three of us on a 120 ft rope progressed rather slowly. We traversed upward along a rock band then up a dry waterfall to another rock band. It was getting very late and my instincts kept telling me we should have gone back. Finally we intersected the west ridge. Three more rope lengths and a short walk placed us on the summit at 8 p.m. After a leisurely supper we scrambled down the east face a way and turned right down a gully which took us to the trees. It was almost dark so we found a reasonable bivouac site and settled in. We reached Poco the next morning where our friends welcomed us with hot soup. This climb can be easily done by two climbers using a 150 ft rope in about half the time. The route which we believe new, is F4 and requires a small selection of chocks and some slings for protection.

John Adler

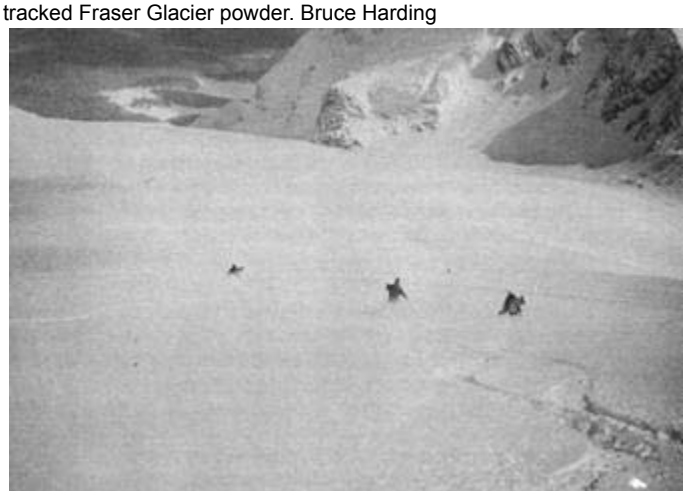
Looking down Fraser Glacier and Astoria valley. Edith Cavell centre right. Bruce Harding

Starting out for Mt. Clitheroe beneath the Ramparts. Bruce Harding

Murray Foubister and Sepp Renner silhouetted against Mt. Erebus. Bruce Harding

Sepp Renner and Ernst Buehler demonstrating fine powder skiing. Bruce Harding

Murray Foubister, Sepp Renner and Ernst Buehler and 12 inches untracked Fraser Glacier powder. Bruce Harding



Québec

This year's report could quite easily begin with the first paragraph of last year's report, that is, a "frenzy" of activity in organized climbing and big new routes by the Quebec City group. However certain differences are worthy of mention. In organized climbing, larger numbers were involved. More persons were initiated using the 'découverte populaire' theme, a greater number of climbing schools took place, etc. One young climber provided the major spark for the rash of new routes — Leopold Nadeau.

The FCMQ, through its club members, spent roughly 90 days introducing people to mountain activities. The University of Montreal club (now a member of the FCMQ) initiated some 600 youths of the Montreal area.

Seven climbing schools of the 'formation de cadres' type were organized jointly by the FCMQ and the EQSM (Ecole Quebecoise des Sports de Montagne). There are now 225 persons who have successfully completed these climbing courses. The 'Canadian Mountain Guides' of Banff, Alberta now recognize our instructeurs as aspirants guides.

A 'new routes camp', held in early September in the Malbaie river valley was a week of initiation for the participants, who were mainly climbers from small crag regions. However everyone was enchanted with the valley and presumably these disciples will now encourage their followers to come and enjoy the world of big wall climbing.

A mountain jamboree was held in October in another enchanting valley — la "Jacques Cartier" — just north of Quebec City. Although having fewer possibilities than the Malbaie valley for rock climbing it offers tremendous opportunities for hiking and in the winter cross country skiing and ice climbing.

Leopold Nadeau of the Club d'Escalade Laurentien (Quebec City) was the major driving force behind the impressive new routes in 1973. The outstanding aspects of the season were the three new routes on 'Cap Trinité' the first ascent of the Tableau' and increased activity in the St. Urbain area.

Ice climbing was not as intense as expected. A climbing school was held at Montmorency falls by the FCMQ in February and two new routes were done—one in the St. Urbain area and the other close to the St. Marguerite River—both of medium difficulty and of about 500 ft in length.

Judging from the normal course of events we should now expect a winter ascent of Cap Trinity as the next step in the evolution of Quebec climbing.

François Garneau

Le Dôme

Pierre Pilon m'ayant parlé du Dôme depuis un bon bout de temps, je profitai d'une fin de semaine de liberté pour m'y rendre avec lui et ma Lise. L'aspect de la montagne est au premier abord inhabituel dans la province et le rocher à I' air terriblement compact et lisse.

Nous décidons de faire une première sur la face nord de la paroi. Nous faisons cordées réversible et les longueurs se succèdent sans présenter de difficultés supérieures à 4+ (voir description technique dans ce numéro). Les prises sont plus souvent qu'autrement si nombreuses que l'on perd du temps à choisir la meilleure. Au fur et à mesure que l'on monte, je deviens de plus en plus enthousiaste face à cette sorte de rocher si inhabituel dans nos parois les plus fréquentées et je regrette sincèrement que Lise n'ait pas décidé de nous suivre. Nous arrivons au sommet en même temps qu'une pluie de dix minutes qui nous rafraichira tout de même un peu trop.

Poignée de main, nourriture et breuvage et nous nous engageons dans le sentier de descente âpres avoir dressé un petit cairn. Une demi-heure plus tard, nous sommes à I' auto avec Lise, Roger Nadeau et Réjean Bouchard qui sont venus en passant.

En conclusion, je pense que le Dôme est actuellement la meilleure montagne connue ou l'on peut amener des débutants et leur faire apprécier les joies propres de I' escalade sans qu'il n'y ait aucune tension trop forte de leur part.

Réal Cloutier

This and the following Quebec reports first reported in La Varappe.

Première au Dôme

Le «Dôme» est constitué en majeure partie de dalles. II est situé un peu plus loin du «Gros Bras», à la droite du chemin. Réal nous explique que cette paroi présente de I'alpinisme intéressant et accueillant en certains endroits.

RENAISSANCE

Pour situer la voie sur un plan général, deux points la caractérisent: cette voie sur la face nord-est de la montagne est située a I'endroit le plus rapproché de la route; cette voie se situe a I'extrémité droite du grand mur caractéristique de la face de I'Initiation.

Pour atteindre le départ de la Renaissance, une marche d'une dizaine de minutes suffira. Le départ se trouve dans une zone de dalles et de rochers fracturés sur une distance d'une trentaine de pieds et se terminent par un ressaut vertical d'une vingtaine de pieds. Nous le franchirons par la gauche. Cependant, il aboutit à un petit boisé qui nous coupe du départ réel de la voie que nous trouverons âpres avoir traversé vers la gauche une quarantaine de pieds plus haut.

Ce deuxième point de départ nous offre un dièdre incliné, bloqué par un surplomb. Après quelques pas dans le dièdre, nous sortons par I'arête gauche (4+). Celle-ci débouche sur une magnifique dalle qui nous dicte enfin le chemin à suivre. On suivra donc une fissure, on ne peut plus évidente, et ce jusqu'au bout de la corde. Second relais (4).

De ce relais, on progresse légèrement vers la droite pour atteindre une fracture qui permet le passage en libre du ressaut. Relais immédiatement âpres ce passage.

Progression dans un dièdre incliné jusqu'aux buissons se trouvant à quatre-vingt pieds plus haut et sortie sur la dalle à gauche du dièdre. Relais (4).

De là, progression dans des blocs cassés pour atteindre un ressaut légèrement déversé se trouvant à quelques trente pieds au-dessus du relais. On franchit celui-ci à I'endroit où il diminue de hauteur, (grosses poignées). On continue sur une dalle caractéristique de la région de St. Urbain pour en rejoindre une autre d'environ trente pieds offrant de petites prises très tranchés et régulières. Relais (4). De là, faire une trentaine de pieds sur une dalle facile qui mène au bois. Sortie...!

Réal Cloutier, Pierre Pilon

10 juin, 4 heures, 500', 4+, R. Cloutier, P. Pilon

La Moustique

Partir de la même dalle caractéristique en forme de poire qui constitue le départ de «La tour de contrôle» (voie passant au centre des deux toils).

A la lisière du bois, aller vers la gauche de cette dalle. Le premier pas consiste à un petit ressaut d'environ deux pieds (2); continuer pour en passer un autre, une quinzaine de pieds plus haut. Poursuivre selon cette ligne. Le relais se situe 10 pieds plus bas que le début du mur obliquant vers la gauche (-5).

Ce mur, plus que vertical, mène à un autre très surplombant. À leur rencontre (gauche du mur oblique et droite du mur surplombant), il y a a un arc de cercle semblant offrir une possibilité. Le passage est là. Avec la sangle coincée que vous y trouverez probablement, ce n'est plus que du 5 (ouf). Ce serait un très beau pas à faire en libre! Le relais se fait une dizaine de pieds âpres ce passage.

De là, monter quelques pieds pour effectuer ensuite une traversée oblique vers la gauche menant à une sorte de gros bloc soudé à la paroi, mais décolle (j'y ai presque perdu la marteau à Réal à I'intérieur!) Relais.

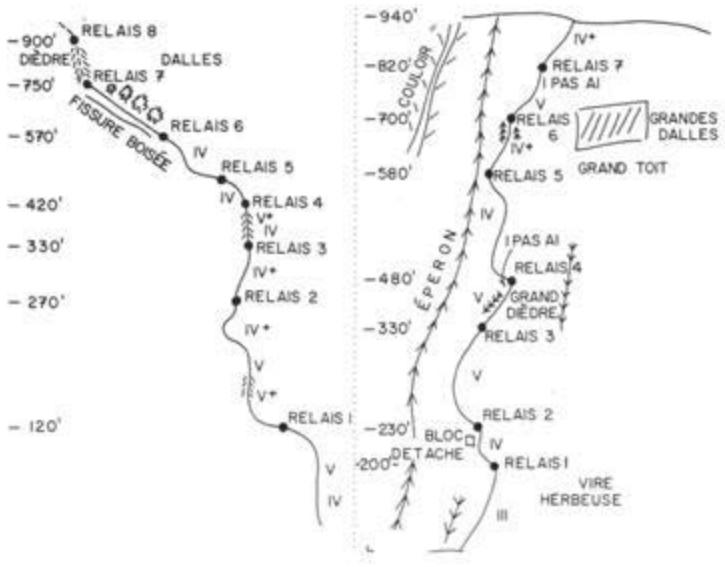
Du relais, faire une traversée oblique vers la droite...sur mm -grattons(5) pour rejoindre un petit ressaut d'environ 2 pieds. Monter quelques pieds pour rejoindre le début de la ligne longeant le mur vertical: y faire le relais.

Le relais précédent celui-ci peut être évité en continuant simplement selon la description.

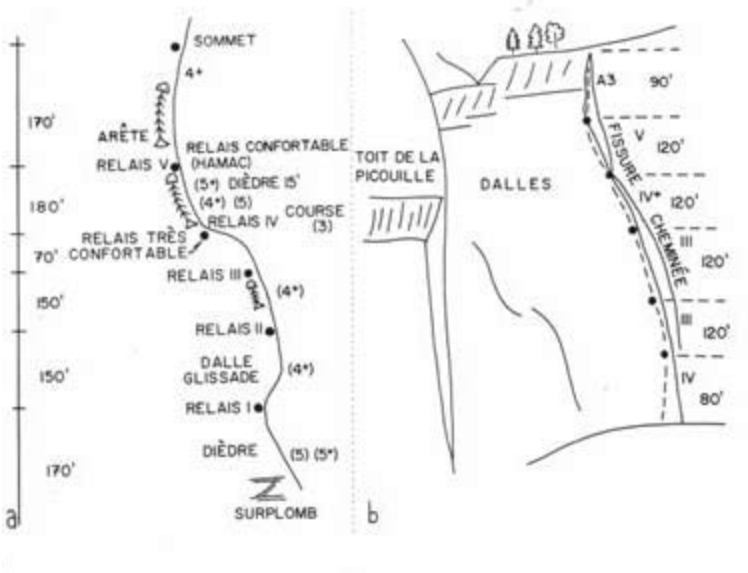
Suivre la ligne sous le mur (V) jusqu'a ce que celui-ci ne mesure plus que 5 ou 6 pieds: le franchir à cet endroit. Relais immédiatement au-dessus.

Du relais, franchir ensuite le petit mur vertical à droite. Continuer tout droit et obliquer à droite avant les arbres. Vous verrez une trentaine de pieds plus loin une série de murs cassés. Plusieurs sorties possibles (on la choisit selon euh...l'envie qu'on

a-La Brunante, Cran des Erables. b-La Pitoune, Mont de l'Ecluce. Jean Luc Pittion/M. Irvine



a-Hals and Bein Bruch, Mont du Gros Bras Claude Bérubé b-Crescendo, Cran des Erables. Jean Luc Pittion/M. Irvine



a de se baigner: ces murs sont rarement ses).

Ce fut la première fois que notre ami Stephan Frick grimpait au Québec: des autres articles de ce numéro, on se rend bien compte que ce n'est pas la dernière.

Pierre Pilon

17 juin, 600', 5, P. Pilon, S. Frick.

Premières au Gros Bras

Ce mont n'avait qu'une voie jusqu'à cette année. Mais, il fut rapidement abordé de toutes parts durant I'été. Pour s'y rendre, il s'agit toujours de suivre la route 15 jusqu'a environ deux milles passé Baie St. Paul. Là se trouve I'embranchement pour St. Urbain. Cette route mène au Parc des Laurentides. Arrivé à la barrière «il» est là à la gauche, on ne peut I'ignorer.

HALS UNO BEIN BRUCH ET PANORAMIQUE Le départ

de Hals et Bein Bruch est assez facile à trouver. Une équivalence québécoise de la dent du Géant s'élève au début de la voie. Nous la surnommons «La Dent de...

Nous escaladons la dent par la droite et établissons le départ sur son sommet. De là, Claude escalade une longueur de cinquante mètres dans une difficulté de 5,5+ très soutenue. Stéphane et moi avec les sacs, en apprécions la finesse et la beauté. Comme assurance, Claude mettra deux pitons dans la longueur pour être enlevés par la suite. II est important de noter ceci; car dans cette longueur si la densité des pitons était aussi importante que dans certaines voies, comme l'Arête, les passages perdraient toute leur valeur. Nous avons laissé un piton au premier relais mais nous déconseillons à tous grimpeurs de souffler dessus.

Les autres longueurs ne présentent pas de difficultés extrêmes sauf, un petit toit rendu plus difficile par le rocher pourri qui le compose. II est possible de mettre une bonne assurance pour ce passage. Un autre pas très difficile s'architecture près de la sortie. C'est un petit dièdre vertical de quinze pieds dont une face est dépourvue de toute prise.

Esthétiquement, cette voie est une des plus polies que j'aie eu le bonheur d'escalader. L'arête qui constitue la plus grande partie de la voie est propre, le rocher solide, I'ambiance intéressante et le paysage incomparable. Je crois sincèrement que cette voie est appelée à devenir une très belle classique de ce massif. C'est le genre de voie qu'on se plait à répéter. Même si la première longueur est difficile, le reste vaut la misère qu'on s'y donne. Allez-y et vous ne le regretterez pas.

La Panoramique se situe à I'extrême gauche lorsqu'on regarde la paroi de face. C'est un arc vertical qui semble débuter par une arête. La première longueur monte dans un dièdre à droite de l'arête et sert à la rejoindre. Le rocher est très pourri dans cette longueur. La seconde longueur suit I'arête tandis que les trois autres montent un peu n'importe comment à travers les blocs. Cette voie ne présente pas de difficulté sauf le rocher pourri du départ.

Comme son nom I' indique, la «Panoramique» est photogénique. Le paysage vaut le déplacement.

Léopold Nadeau

Hals und Bein Bruch: 14 juillet, 5 heures, 900', V+. Panoramique: 15 juillet, 4 heures, 900', V. C. Bérubé, S. Frick, L. Nadeau.

Andante

Des sept heures, nous sommes au pied d'une dalle raide bosselée dans sa partie basse et se redressant par la suite tout en devenant plus fracturée.

Première longueur: Le départ se situe à environ 200 pieds à gauche de I'épron central. Nous attaquons la dalle mentionnée plus haut. Bonnes prises, rocher plutôt compact; 2 pitons (100 pieds) IV+.

Deuxième longueur: Changement de décor. Cette longueur comprend une cheminée bien caractéristique. L'ensemble est instable; le roc friable. Le pitonnage est mauvais. L'emplacement est encombré de broussailles. (80 pieds) IV+, V.

Troisième et quatrième longueur: Nous rendons compte que nous sommes très éloignés de I'épron central; (qui était notre objectif), nous entreprenons une traverse ascendante vers la droite, jusqu'a la base de I'épron. De nombreuses broussailles rendent cette traverse fastidieuse. Déplacement horizontal: 150 pieds, vertical: 100 pieds. Ill et lll +p.s.

Cinquième longueur: On se retrouve dans un dièdre vertical compact, coupé de deux ou trois surplombs peu importants (avancés de 2 à 3 pieds). La longueur se termine sur la face gauche du dièdre Ensemble de V- avec quelques pas de V. Regroupement des forces sur un relais plus vaste une dizaine de pieds plus haut. Un mur plus raide nous incite à entreprendre une halte «grand format».

Sixième longueur: II s'agit de progresser verticalement une vingtaine de pieds pour se retrouver à la base d'une cheminée très raide coupant un mur surplombant. Piton...Coup d'œil vers le haut puis vers la gauche...Encore en haut, puis à droite...Contemplation de la cheminée...Interrogation du regard au second intrigué de I' immobilité du premier...Regard de nouveau vers la cheminée, soupir bruyant, puis enfin amorcé d'une délicate traversée vers la droite. La longueur se poursuit en suivant une vire allant s'amenuisant. A I' extrémité de cette vire, il faut s'élever sur des grattons (2 pas) et saisir le bord de la tablette et se rétablir délicatement. Vient ensuite un écart de 6 pieds vers la droite et à nouveau un rétablissement puis on gagne le fil de I'épron et on le suit sur environ soixante pieds. Le départ est en V puis a partir de la traversée, c'est un V+ soutenu. Cet éperon se retirant immédiatement au-dessus de la grande tache blanche se trouve à être le passage le plus aérien et le plus «transcendantal» de la voie.

Septième et huitième longueur: La voie se termine par une progression facile jusqu'à la ligne des arbres (250 pieds).

15:30 heures: nous sommes au sommet; les mouches n'y sont pas.

Projet: refaire les quatres premières longueurs de la voie plus directement sous I'épron.

Réal Cloutier, Jean Pelletier

27 juin, 7.30 heures, 800', V et V+ ps, R. Cloutier, J. Pelletier.

La Campanule

Lorsque nous regardons le «Gros Bras» de face, nous pouvons voir se dresser la Campanule dans sa partie gauche. On y voit à droite un grand toit, à gauche une dalle verticale et séparant cette dalle du reste de la paroi, un grand dièdre en arc atteignant le haut de la paroi.

La Campanule emprunte les trois-quarts de ce dièdre avant de traverser à droite pour finir dans un autre grand dièdre en arc. Au départ, on se met vis-à-vis la grande dalle. À droite, à trente pieds du sol, une plaque de rocher se détache de la paroi. On monte en oblique derrière cette plaque pour continuer tout droit jusqu'au ressaut vertical. De là, on traverse horizontalement jusqu'au pied du dièdre.

II est à noter qu'un départ en ligne droite est possible mais la dalle étant mouillée, nous avons préfèré traverser. Nous avons découvert un piton rouillé dans le départ droit.

Les deux longueurs de cent cinquante pieds sont les plus intéressantes car elles présentent un mélange de libre et d'artificiel.

Ces deux longueurs contiennent quatre-vingt pour cent de libre. II est possible de faire I' ensemble de la voie en artificiel mais, elle fut ouverte en libre et, dans une voie semblable, seulement deux ou trois pitons de plus font toute la différence. Par contre, je ne crois pas qu'elle soit possible à faire tout en libre; peut-être qu'un jour un certain phénomène le fera.

Quoi qu'il en soit, Stéphane et moi avons conclu que c'était le morceau le plus difficile que nous n'ayons jamais fait mêmes avec les répétitions. Si je compare à «ORC» North Conway coté 5.8, je crois que la difficulté est équivalente. Les trois dernières longueurs furent faites dans un autre dièdre car, continuer nous paraissait problématique et dangereux à cause de la roche pourrie dans la partie supérieure. Une chute de pierre coupa la corde.

De toute manière, je crois qu'elle ne s'adresse qu'aux adultes avec réserve...

Léopold Nadeau

28 juillet, 10 heures, 900', V+, S. Frick, L. Nadeau

Lit D'eau

Samedi matin, dix heures. II est tard pour se lancer dans une première au Gros Bras. Pendant que Stéphane et Léo se dirigent vers la partie gauche du massif, Louis et moi nous rendons au pied de la Glissade, étrange suite de dalles et de ressauts verticaux dans lesquels Pascal, accompagné de Jean Pelletier, eut la malencontreuse idée de se casser un pied quelques semaines auparavant.

Notre voie connait le même départ que celle de Pascal et de Jean. Nous nous encordons et j'attaque la première longueur, un grand dièdre en bon cinq. Le passage est délicat. Je plante quelques pitons et bientôt le dièdre s'incline et je me retrouve sous un gros surplomb. Un piton laissé par Pascal et Jean. Je mousquetonne la corde et une traversée délicate me conduit au relais, sur la droite. Je m'installe du mieux que je peux dans un étrier et après quelques difficultés pour hisser le sac, j'assure Louis qui commence à grimper. Je n'ai jamais eu I' occasion de grimper avec Louis mais je connais son habileté et le voyant grimper rapidement, sans hésitation, je suis vite rassuré. II me rejoint, me dépasse et va s'installer a vingt pieds à ma gauche. Petit instant de repos; nous nous passons cigarettes et allumettes sans rien échapper puis, enhardis, nous nous passons une canette de liqueur accrochée par une pince Hiebler, à la corde qui nous relie. Nous rions de notre exploit. C'est du délire.

Louis s'arrache à la paresse qui nous envahit et, à deux cents pieds au-dessus du sol, refait la traversée à I' envers, redescend la dalle-dièdre et franchit un mur vertical très délicat (51/2), qui I' amène sous I'énorme surplomb qui marque le début du grand dièdre que nous devons gravir en artif. Louis se démène comme un beau diable dans ses étriers jusqu'au relais.

Voici mon tour. Je dépitonne, me fais bloquer sur la cordée qu'un large pendule me conduit sous Louis que j'atteins en quelques instants. Je refais provision de pitons et j'escalade un mur vertical de vingt pieds qui semble aboutir à une grosse vire. Je grimpe lentement et oh, surprise! La grosse vire n'est qu'une dalle inclinée à quarante degrés et sans prise. Ma position est inconfortable, je me fatigue vite; impossible de me rétablir sur cette maudite dalle. J'entame alors une digne retraite vers le bas, mais tout va plus vite que prévu. Louis me stoppe après un dévissage d'une douzaine de pieds. Je repars et ça passe en artif. Traversée à gauche de quinze pieds, je m'amuse sur étriers pendant un temps et fais relais. II est quatre heures; Louis dépitonne la longueur. Je commence à douter de pouvoir finir avant la nuit. Louis attaque le grand dièdre sur ses étriers, il progresse lentement. Le pitonnage est délicat, et comme nous n'avons pas emporté beaucoup de matériel, nous manquons de pitons et de mousquetons. Enfin il atteint un relais minuscule, s'installe et me fais monter. Parvenu jusqu'à lui, il fait noir et je décide de monter encore un peu plus haut pour trouver un bon emplacement de bivouac. Erreur, erreur tragique. Dans I' obscurité, quarante pieds au-dessus de Louis, je ne peux ni monter ni descendre. Mes chevilles se fatiguent vite. La demi-heure se passe ainsi.

Je suis coincé, pas de fissure. Je préviens Louis que je vais essayer de descendre. Je coince un bloc dans une fissure de cinq pouces, met un piton entre la fissure et le bloc, pose un étrier et lentement, très lentement, je transfère mon poids sur I' étrier. Ça grince, ça craque, mais ça tient. Je prie Louis de bien m'assurer, un peu nerveux, je I' avoue. II me rassure en me disant que les deux pitons de relais ne sont pas solides et que, si je tombe, je I'entraînerai probablement dans ma chute. Silence. Je descends, enfin je touche le relais. Ah Louis, je t'embrasserais. Nous passons la nuit une fesse dans le vide, I'autre sur un cailloux, les pieds dans les étriers. II pleut. Nous mangeons une boite de sardines, du fromage et nous discutons montagne et escalade.

Dimanche, cinq heures. Le soleil se lève. Une brume épaisse nous recouvre très vite. Je fais deux longueurs de corde en artif et arrive en haut du dièdre. Louis termine la dernière longueur avant le sommet. Une marche facile jusqu'au sommet et après dix-sept heures d'escalade, une tonne d'émotions et un bivouac, nous voyons les visages souriants de Léo et de Stéphane venus nous accueillir avec de la bière. Je suis heureux. Louis et moi avons ouvert une nouvelle voie et nous avons découvert une amitié de celles qui ne se forment qu'en paroi.

Claude Bérubé

29 juillet, 16 heures, 900', V+ A2, L. Babin, C. Bérubé.

Premières au Cran des Érables

Situé dans la vallée de la Rivière Malbaie. Pour se rendre, il suffit de suivre la route 15 jusqu'à l'intersection de St. Aimé-des-Lacs passé Baie St. Paul. Le «Cran» est à environ vingt milles de la route 15.

Cette montagne est assez bien connue et plusieurs voies y ont

déjà été ouvertes. Le dessin de Jean Sylvain que nous reproduisons ci-contre nous indique les voies déjà effectuées par les années passées ainsi que les premières de cette année.

Crescendo

Cette voie se déroule dans la grande fissure-cheminée qui borde à sa droite la grande dalle située à droite du toit de la Picouille. Cette fissure qui se termine dans un toit à ras du bois est très évidente depuis la route.

On attaque dans un petit pilier à l'aplomb de la cheminée (IV). Les deux longueurs suivantes sont faciles (III) puis les difficultés augmentent en crescendo. Dans la quatrième longueur (IV, IV+) on trouve un anneau de rappel (retraite américaine). La cinquième longueur est soutenue avec deux marches à l'envers; le début se pitonne dans une position très pénible (coins de bois restés en place) en suivant la fissure au contact de la dalle. Ensuite, la fissure s'élargit trop, il faut traverser dans la dalle et sur 50 pieds le meilleur piton est une lame Chouinard, plantée d'un demi-pouce (Bravo Léo). La sortie du toit, pendu à une branche de sapin, les pieds dans le vide laisse aussi une impression inoubliable.

J.L. Pittion

17juin, 10 heures, 750', VA3, L. Nadeau, J-L. Pittion.

La Brunante

La voie se déroule en gros à gauche du bouclier de dalles à gauche du toit de la Picouille. L'escalade commence là où la paroi descend le plus bas dans le pierrier et se déroule d'abord le long puis à droite d'un éperon secondaire assez bien individualisé (bordure gauche de la dalle). La première longueur se fait sur la dalle dans un peu de végétation (IV, V); le premier relai est sur le fil de l'épron (bouleau). La deuxième longueur comprend le passage d'un surplomb débité (V+) que l'on passe par la gauche de l'épron puis on grimpe 100 pieds dans la dalle (IV+, V). Relai sous un petit surplomb. La troisième longueur (IV+) permet de rejoindre une première vire de bouleaux.

Les deux longueurs suivantes (deux dièdres), (IV, V+) étaient très mouillées lors de la première d'où une éolation peut-être trop sévère. La sixième longueur permet de rejoindre la grande vire de bouleaux caractéristique que l'on voit très bien de la route. La septième longueur est un dièdre surplombant difficile mais assez court (V+) qui était également trempé. On sort dans le bois sommital en traversant facilement à gauche. Nous avons attaqué la voie à 15 heures et sortions à 21 heures. Bivouac au sommet.

J.L. Pittion

17 mai, 6 heures, 900', V+, C. Bérubé, L. Nadeau, J-L. Pittion.

Première au Mont de l'Écluse

Ce mont se trouve à environ une dizaine de milles du Cran des Érables en suivant le chemin vers la gauche après avoir traversé le pont de la rivière (en direction de Chicoutimi). Il A été vaincu pour la première fois cette année et la première reproduite ci-dessous en est donc une double: pour le Mont et pour la voie.

LA PITOUNE

Le Mont de l'Écluse est constitué par un amphithéâtre entouré par deux piliers. La «Pitoune» se déroule sur le pilier de gauche. Elle débute à la droite d'un éperon bien marqué et la ligne d'escalade passe entre les deux zones de surplombs supérieurs.

Par une dépression (III), on aboutit à une grande vire herbeuse et on gagne ensuite un bloc détaché (IV). La troisième longueur dans un petit dièdre (V) permet d'atteindre un grand dièdre de 150 pieds bien visible du pierrier (c'est le deuxième à gauche des dalles). II est encombré de quelques arbustes (V soutenu). Le haut du dièdre nécessite un ou deux pas d'AI. Avec les deux longueurs suivantes en rocher délite (IV) on rejoint le fil de l'éperon.

Après un relais sur une vire sapineuse, la longueur suit un dièdre en (V); un pas d'AI permet de passer un petit plomb. Une dernière longueur (IV+) tirant à droite aboutit au sommet. Là on découvre un plateau sans un arbre couvert de mousse; point de vue remarquable sur les montagnes de Charlevoix.

La descente s'est effectuée par la gauche (N.E.) du sommet de l'Écluse. C'est raide mais il y a des arbres pour se retenir. Attention aux jambes dans le pierrier couvert de mousse.

Jean-Luc Pittion

15 septembre, l'approche 2 heures, l'escalade 7.30 heures, descente 1 heure, 900', V, pas en A1, C. Bérubé, L Nadeau, J-L. Pittion.

Premières au Cap Trinité

Ce cap «international» a peu besoin de présentation. Situons-le tout de même. À partir de Québec, on se dirige vers Saint-Siméon. Ensuite, il faut se rendre au village de Rivière Éternité. De ce village, une route de terre d'environ six mi lies mène à la Baie Trinité. II s'agit alors de se trouver un bateau pour se rendre au Cap. Le voyage environ est de 160 milles.

LA VOIE LA VOIE

«Ta...quosé que ch'fa icite?». A moitié réveillé, on découvre que le soleil est déjà haut à l'est. André s'occupe du petit déjeuner. Au menu: gruau, chocolat, noix et «sperme de singe». On range le relais et hop... Le grimpeur de tête remonte sur jumar jusqu'au point extrême atteint la veille. II se rencarde et bientôt son jeu de marteau accompagne la demi-conscience du second. Et les heures passent, le soleil chauffe, le second bouffe des noix, classe et reclasse le «stock», envoie au premier ce dont il a besoin...la gourde.

Le premier pendant ce temps «trippe», pitons psychologiques, sacres, terre dans les yeux, sueurs, gorge sèche. «Ta...il faut un piton à expansion». Et ceci continue, du mou su le rouge, traction sur le bleu, le tout accompagné de chants barbares et de secousses pour vérifier le piton. Attention le rocher n'est pas de ce qu'il y a de plus solide.

«Qu'osé que ça l'air après?»

«Pas pire, pas pire...»

«La friction est épouvantable, mais hop...le relais».

Fixe la poulie, envoie la corde à bagage et, un jumar en main, la danse synchronisée des deux hommes commence tandis que le sac monte lentement en glissant sur le rocher. On prend notre souffle et cela continue.

Le premier fixe le relais, la seconde monte sur jumar et, rendu au relais, on s'installe pour la soupe. Menu: soupe à I'oignon, ragout de boulettes, sardines, sperme de singe, chocolat, noix et enfin salade de fruits. On change de premier et cela continue. Une heure avant la nuit, le premier fixe la corde et vient rejoindre le second au relais. On se glisse dans les hamacs le plus confortablement possible, on parle, on fume, on dort...

Et ainsi va la vie durant les cinq jours qui suivront.

Léopold Nadeau

juin, 6 jours et 5 nuits, A. Robert, L. Nadeau.

Les Grands Galets

12:30 hres p.m. II neige. Léopold s'élance en escalade libre dans la première longueur, une large fissure-cheminée (5-) pleine de terre et de boue et atteint le premier relais ou nous avions laissé des pitons et des coins de bois à Pâques. Nous hissons les bagages et je dépitonne la longueur. Je remonte la corde fixe laissée à Pâques, arrivé au plus haut point atteint lors de notre première tentative (A3), pendule de 6 pieds sur la gauche, une belle fissure à bongs (A2) et à bout de corde, et fait relais. Je rappelle, je dépitonne, rejoint Léo qui a préparé la popote et les hamacs. Seul incident: nous échappons un sac qui s'écrase 150 pieds plus bas. II contient deux gallons d'eau et les vêtements de Léo.

21 octobre: Je redescends au sol récupérer le sac. Les gallons d'eau sont percés. II nous en reste trois. Je remonte au deuxième relais et nous hissons les sacs. Léo me rejoint et commence la troisième longueur. La fissure à coins de bois, pleine de terre (A3), lui demande 5 heures d'efforts. Je rejoins Léopold au relais sous un énorme toit de 25 pieds. On soupe et on s'installe dans les hamacs.

22 octobre: Après le gruau bien sucré et un thé bouillant, j'attaque la quatrième longueur. Les 20 premiers pieds en libre (4) sur des plaques de rocher pourries me donnent des émotions après deux jours passés sur étriers. Quelques coins de bois me conduisent au surplomb. Je traverse à gauche en mettant deux pitons à expansion et arrivé dans le creux de I'immense dièdre surplombant sur 450 pieds et termine la longueur (A2) sans mal. Je fais relais et rappelle en dépitonnant jusqu'au relais. Arrivé au surplomb, les forces me manquant, je retourne au relais et Léopold doit remonter sur jumars pour dépitonner la première moitié de la longueur, tandis que je prépare la popote, prend des photos. Pour la troisième fois, on s'installe dans le hamac, on parle d'escalade, on regarde les lumières des bateaux sur le Saguenay en attendant le lever du jour; il gèle cette nuit encore.

23 octobre: Je remonte comme d'habitude la longueur sur jumars et une fois au relais, c'est le quatrième, c'est la corvée: remonter les sacs...Léopold dépitonne la longueur et je commence la cinquième. Les coins de bois pénètrent de deux pouces parfois moins. Aux trois quarts de la longueur, le coin de bois qui me supporte s'arrache d'un coup. La paroi défile devant moi et, quarante pieds plus bas, je rassure Léopold. II à plus de mal que moi. Assis sur son escarpolette de bois, il a été soulevé de quatre ou cinq pieds et sa joue s'est contrée la paroi surplombante. Je remonte pour terminer la longueur. Les sacs puis Leo me rejoignent. Je m'installe sur une escarpolette pour passer la nuit et Léo, après avoir passé dans le hamac m'invite.

24 octobre: La fissure devient pourrie et le pitonnage très délicat (A3) demande une grande dépense d énergie nerveuse. Je fais tomber sans cesse des blocs, des galets sur Léo qui courbe I'échine et rentre la tête. Je parviens à la base des immenses toits qui couronnent le dièdre. Ils font quatre-vingt pieds au moins. Relais. Léo dépitonne. On est heureux. La sortie n'est plus loin. On passe la nuit sur escarpolette.

25 octobre: Léo prend bien son temps lorsqu'il met ses bottes sur ses pieds enflés; ses mains enflées méconnaissables, mettront comme pour servir d'ailleurs environ une heure avant de retrouver leur complète mobilité. Léo traverse d'une quinzaine de pieds sur la gauche à I' aide des pitons à expansion pour atteindre le grand dièdre qui nous mènera au sommet. Nous ne tenons pas à passer dans les toits. Léo pendule pour traverser I'arête et s'élève avec d'infimes précautions sur des lames qui pénètrent à moitié et qu'il doit tordre et recourber avant de leur confier son poids. Je le pousse à se dépêcher impatient d'en finir. Léo fait relais sur deux pitons dans la fissure verticale, on hisse les sacs deux par deux tèllement on est pressé d'arriver. Je dépitonne, renseigne Léo sur la qualité de ses pitons.

Je termine les quarante ou cinquante pieds qui nous séparaient du sommet. J'empoigne le premier arbre à pleine main, je hurle. Léo me rejoint en vitesse; poignée de mains. On I'a eu qu'on se dit. II est 6 heures et nous sommes le 25 octobre. Après six jours dans le Cap, nous devons faire deux milles dans le bois avec chacun 120 livres sur le dos pour atteindre le sentier, puis le fond de la Baie Éternité. Après 6 milles de marche dans un chemin de gravier, nous arrivons fatigués, mais heureux au village de Rivière Éternité. C'est ça I'escalade au Québec. Après le Cap, les grimpeurs interprètent la nature!

Claude Bérubé

20 au 25 octobre, 6 jours et 5 nuits, 96 950', relais 7, A3, L. Nadeau, C. Bérubé.

Première au Tableau

Pour se rendre au Tableau, ce qu'il y a de mieux à faire, c'est de s'y rendre avec une bonne chaloupe. On part de Ste. Rose du Nord et on navigue pendant environ huit milles. Cherchez à arriver lors de la marée basse: alors vous verrez une plate-forme d'environ 40' par 20'. Cette plate-forme permet de commencer à sec la voie non terminée. Cependant, pour ce qui est de la Métronome, elle se débute de toute manière à partir d'un bateau.

LA MÉTRONOME

'Eul Tableau ce n'est pas plus haut quelle écran d'en face; mé apic en Christ».

Le Tableau: une paroi de trois cent cinquante à quatre cent pieds dont I'inclinaison varie entre soixante-quinze et quatre-vingt degrés. La face est semi-circulaire et s'enfonce directement dans le Saguenay. A marée basse, une vire permet de circuler sur la demie de la base de la paroi. L'autre moitié ne peut être atteinte qu'en bateau.

La face présente trois grandes fissures. Des voies furent entreprises cette année dans chacune de ces fissures.

Vendredi, le 14 juillet 1973. 12.00 heures. André Robert, Claude Bérubé et moi, stationnons I'auto sur le quai de Ste-Anne du Nord. II pleut. On cherche le voilier et on le découvre ancré dans la baie. On s'assoie dans I'auto pour finir la nuit.

A 17:00 heures, samedi, François Garneau, Pierre Pilon et Réjean Bouchard arrivent. On charge les sacs sur le voilier et prenons le Saguenay. Assourdis par le ronron des moteurs, nous apercevons enfin le Tableau. Le débarquement sur la vire se fait sans problème. On déjeune.

André et moi devons établir le premier relais. On s'embarque avec un sac de matériel dans un pneumatique où il ne reste plus beaucoup de place. Je reste sur ce relais liquide car, entre temps, on s'est fait doucher et, avec les petites vagues, le pneumatique s'est transformé en baignoire. À vingt pieds du départ, André fixe le premier relais. Je m'occupe du transport des bagages.

Du Saguenay au premier relais, le rocher est propre et le pitonnage un peu délicat.

J'ai le plaisir de pratiquer I'horticulture et de me consacrer a I' étude de la mousse toute la seconde longueur. Enfin, à dix-huit heures, tout le monde est sur le second relais. On déguste une soupe aux champignons, un coucher de soleil, du ragout, le confort «relatif», des hamacs et un thé à faire sécher les dents à froid.

La nuit est calme mais à trois heures, nous sommes éveillés. À cinq heures, on se lève, on déjeune et à six heures, le premier piton de la troisième longueur s'enfonce sous la poussée du marteau à Claude. Nous avons abandonné la fissure chlorophyllienne aux insectes et, Claude emprunte un réseau de fissures quelques pieds à droite. II plante un piton à expansion pour changer de fissure. Claude fait quelques pas en libre et établit le troisième relais sur une immense vire. On balance quelques blocs en bas pour faire peur aux marins d'eau douce non imperméables à I'eau salée qui les entoure.

André grimpe la dernière longueur à une vitesse telle qu'il oublie même de pitonner. (quelques pas de libre). La cordée voisine nous offre un spectacle son, lumière et descente plus rapide que les ascenseurs de la place Ville-Marie. À quinze heures, nous sommes au sommet.

Le retour au pied de la montagne n'est pas dépourvu d'intérêt. Excusez, nous ne sommes pas là pour vous entretenir des plaisirs post-escalade.

Enfin, I'eau est apparue et, devant le reste d'une expédition contemporaine, nous observons une minute de silence en souvenir des grimpeurs qui attaquaient cette paroi pieds nus.

Quelques temps après, le voilier revint et déjà, le poids du lendemain est plus lourd que nos sacs à bagages.

Léopold Nadeau

14 et 15 juillet, d'escalade 18 heures, Artif I, bivouac I, C. Bérubé, L. Nadeau.

Le Cap Tourmente

Tous connaissent bien ce site pour son sanctuaire d'oiseaux et spécialement pour le passage des oies blanches qui s'en servent comme halte à chaque printemps et chaque automne durant leurs longues migrations.

Pour se rendre au Cap (en partant de Québec), il suffit de suivre le boulevard Ste-Anne jusquà la grande courbe ascendante passé Ste-Anne de Beaupré. À partir de cette courbe, il faut surveiller une intersection qui indique St-Ferréol à gauche. II s'agit d'emprunter la rue à droite au même niveau. Ensuite, tourner à gauche au bout et suivre jusqu'à St-Joachim. Arrivé à la maison qui est présentement en restauration et qui est «dans la rue», on tourne à droite. Sur cette rue, se trouve I'église. II suffit ensuite de suivre ce chemin qui longe le fleuve. Au fond, on aperçoit la grosse maison canadienne qui sert de kiosque d'information. Pénétrer dans I'allée de terre recouverte par les arbres. Vous y êtes.

Au point de vue escalade, le Cap est assez dangereux, étant presque entièrement composé de calcaire. De plus, une de ses parties a été dynamitée. II faut être très prudent. Le pitonnage est très mauvais. Par contre, le calcaire permet d'exploiter au maximum toutes la possibilité techniques de I'escalade de par le fait même de développer le sens de I'esthétique dans le style. Toutes les prises y sont, mais toujours au minimum et des plus dédiâtes.

En somme, c'est de la belle escalade (presque du ballet, mais on n'est jamais à I'aise. Ouvrir I'oeil et le bon? Vérifier la prise et la bonne!

Louis Babin

Premières au Cap Tourmente

LA CONCASSÉE

À I'opposé de la «Croulante», la «Concassée" est située à I'extremité ouest du Cap Tourmente. Elle se trouve dans le premier mur au fond des champs non loin de I'entrée du site touristique.

Le départ est un rocher-école des plus amusants d'environ 40 pieds à gauche d'un éperon. Vient ensuite le mur vertical qui «fait» la voie. D'environ 90 pieds, il est presque impossible de se satisfaire pour pitonner. À prendre ou à laisser. Très délicat (sacré calcaire)! Bravo Antoine. En haut de ce mur un relais accueillant. La deuxième longueur suit I'arête à gauche de la grande coulée (genre de chute). On ne peut dire que c'est très difficile mais c'est branlant! Les assurances dépendent des petits cèdres qui veulent bien pousser quelque part. Deux belles longueurs complètes.

Princess Margaret Range, Axel Heiberg Island. A.J. Mouston /M. Irvine

Le Tableau, Saguenay River. 1-La Métronome, 2-La Maree (non terminee). Jean-Pierre Riffaut

Ascent of Peak 5750. Curt Saville

Toujours délicat et instable cependant; ce qui rend toujours exposé et la cote remonte un peu pour prévenir.

Louis Babin

16 septembre, 2 heures, 300', V ps, A. Babin, L. Babin.

La Croulante

La «Croulante" se trouve à I'extrémité est du Cap Tourmente. À partir de la maison du gouvernement, suivre le chemin de terre et dépasser la barrière (autre kiosque d'information) jusqu'au chemin de fer. II y a environ cinq minutes de marche le long de la voie ferrée. Là où la paroi se rapproche le plus des rails, on peut voir une immense flèche blanche peinte sur le mur. La «Croulante» se trouve à environ 200 pieds à gauche de cette flèche.

À cet endroit, le rocher s'avance très près de la voie ferrée. Il forme un genre d'arête et on peut le situer par le gros pin qui se trouve au-dessus à environ trente pieds. La «Croulante» part sur la face gauche de I'arête et se dirige dans la fissure qui fait une grotte; puis elle bifurque à la gauche sous un léger surplomb et remonte immédiatement tout droit dans un genre de dièdre plus ou moins prononcé. La première longueur se termine sur un grand talus plein d'arbres. (longueur: 140 pieds avec un passage de V).

À partir de ce point, on se retrouve en présence de granite. Ceci s'explique comme suit: le calcaire est un résidu de I'ancienne mer Champlain qui avait un niveau de plus de 100 pieds au-dessus du fleuve actuel. Sous ces sédiments, il est normal de retrouver le granite qui constitue la masse précambrienne du bouclier Laurentien. Ce granite est plus vieux que la mer et les dépôts de la mer lui ont fait une couche. Le Cap Tourmente est de calcaire et si on fait quelques ascensions, on retrouve toujours le granite au haut des voies. Mais on ne peut guère le voir car il est presqu' entièrement recouvert par la végétation.

Donc, la deuxième longueur se déroule sur 100 pieds dans du granite on ne peut plus franc, quelques 30 pieds en II puis soudain un petit dièdre fermé par une dalle et c'est du V au moins pour quelques pas. De nouveau un talus puis une sortie d'environ 60 pieds en oblique vers la gauche en suivant la saillie. (Ill) et sale.

Louis Babin

12 mai, 3 heures, 300', V ps, A. Babin, L. Babin.

Première au Weir

VOIE DES CORDONNIERS

«II pleut, il pleut toujours. La froide ondée tombait en avalanche».

Oui, il pleut. Qu'importe, on charge les sacs et on se dirige vers le pied de la paroi. Dans le champ, on monte la tente et on y dépose le matériel. Les nuages fuient enfin et, bientôt, le son du premier piton se fait entendre.

La longueur allant jusque sous la vire ne présente aucune difficulté. C'est du libre avec quelques pas d'artificiel. Au relais, André continue et gagne encore quarante pieds avant la nuit. II redescend à la vire et nous organisons le bivouac. La première moitié de la nuit, nous sommes tous les deux assis sur les sacs. À une heure, André réussit à placer son hamac. Heureusement, les étoiles nous sourient.

Au lever du soleil, je remonte et continue par une traverse horizontale jusqu'à un bloc instable. II mesure trois a quatre pieds de haut par cinq à six pieds de large et est éloigné de six pouces de la paroi. II est donc en plein dans le chemin et il faut passer dessus. Son mouvement micrométrique me communique des sensations non prévues au programme. Enfin, j'atteins le dièdre à droite du bloc et établit le relais; relais riche en émotions.

Les pitons se déplacent lentement dans la fissure de sorte que quand je repartirai, je dépitonnerai à main nue. En hissant les sacs, j'en échappe un. Après une chute de soixante pieds, il s'arrête au bout de la corde. Par miracle, les pitons ne sautent pas. Debout dans mon étrier, je passe la corde fixe autour de mon épaule pour éviter les coups directs sur le piton. Je continue et heureusement la fissure devient très belle à pitonner. Le troisième relais est établi

sur une vire. L'ambiance est extraordinaire. Sous nos pieds, plus de rocher, on ne voit que des feuilles.

André progresse toujours, il est maintenant dans un système de petites fissures en déployant tout son savoir dans I'art du pitonnage. Les fissures ne débouchent pas. Les pitons de progression ou plutôt de descente se succèdent. Par bonheur, il n'y a pas de perte d'altitude. Le relais suivant est établi sur la première grande vire à cinquante pieds du sommet. L'artificiel est fini. J'envoie le tampon noir à André pour qu'il assure le relais. Mais, il I'échappe et tombe dans le pierrier. La derniere assurance est un pied sous la vire. On se déplace comme sur des écailles d'œufs.

Je continue à avancer dans du trois jusqu'à la sortie mais, avec la fatigue et aucune possibilité de pitonnage certain. Je m'amuse comme un fou. À huit heures, nous sommes sortis et bientôt, la pluie nous tombe dessus.

«II pleut, il pleut toujours. La froide ondée tombait en avalanche».

Léopold Nadeau

20-21 mai, 20 heures, bivouac I, art 1 -2, Iibre4+, L. Nadeau, A. Robert.

Eastern Arctic Mountains

British Army Axel Heiberg Expedition

A 12 man British Army expedition led by Major A J Muston flew into Axel Heiberg Island NWT on 27 June and left on 14 August 1972. The primary aim was to explore and climb peaks in the area east of Middle Fiord. Secondary aims were to carry out a simple scientific programme and to give members experience in planning and executing a major expedition of this type. The RAF flew the expedition to Resolute Bay from where Atlas Aviation took them to a base camp established near the glacier snout some six miles east of the head of Middle Fiord. On the following day the same RAF aircraft dropped the rations, fuel, etc. onto a dropping zone some eight miles further east on the glacier at an altitude of about 2000 ft.

The expedition split into three parties and explored up to some 25 to 30 miles radius from Base Camp. Parties reached Li Fiord, White Crown Peak, well down Iceberg Glacier and East Fiord. In spite of mixed weather some 48 peaks were climbed. In most cases the obvious route was taken and generally no serious climbing difficulties were encountered. The use of pulks (one man sledges) meant that a party could move independantly for up to three weeks without the need to relay rations and stores. Clothing and equipment were as might be used in normal summer Alpine climbing and the need was not felt for anything more specialised.

A general wildlife survey was carried out on behalf of the Canadian Wildlife Survey. Musk-ox proved to be the most frequently seen mammal and the snow bunting the most common bird. Botanical samples were collected for the Arctic herbarium at Lancaster University (UK) and an intensive study made of a 200 metre quadrat on behalf of Durham University (UK). The results of this last study are still being worked on but the initial response has been that the material collected, botanical and soil samples, is 'very exciting'.

As far as is known the area explored had never been visited before and all the peaks climbed, with the exception of White Crown, were first ascents.

John Muston

Climbing statistics are as follows: Swiss Range 24 first ascents,1 second ascent; Hercules Massif 7 first ascents, 2 second ascents; Scaife Glacier Massif 12 first ascents; Ice Cap Party 4 first ascents, 1 other (believed to be first ascent in the traditional manner). Climbs have been graded, tentatively, on the continental system but readers will appreciate that in glaciated mountains these vary with conditions.

SOLDIER'S PEAK (5100') 5 July. Muston, King, Ebdon and West by NE ridge. Mixed rock and snow. PD. Cairn left.

JUDITH'S PEAK (5980') 6 July. Muston, King, Ebdon and West. Approach by skis to NE ridge at 3500'. Remainder snow route. PD. Cairn left.

WHITE LADY (5700') 6 July. Climbed after Judith's Peak by same party by following NW ridge 11/2 miles up succession of snow slopes and plateaux. Cairn left. PD. 2nd ascent by Dilly, Lane, Scaife and Lewis on 20 July by E ridge from Traverse Glacier snow route. PD.

SCANNER (4500'). First of five peaks ascended by Dilly, Lane, Scaife on 19/20 July from Traverse Glacier. Up W slope to N ridge. PD.

GRIT (4000'). Along same N ridge to summit. F.

PARSON'S NOSE (4200'). Glacier traversed (sic Traverse Glacier) to SE slope. Along NE ridge. PD.

STIRLING (5000'). Reverse along NE ridge to main Swiss Range ridge. Go SW along ridge traversing Judith's Peak to furthest peak. Ice pitches. PD.

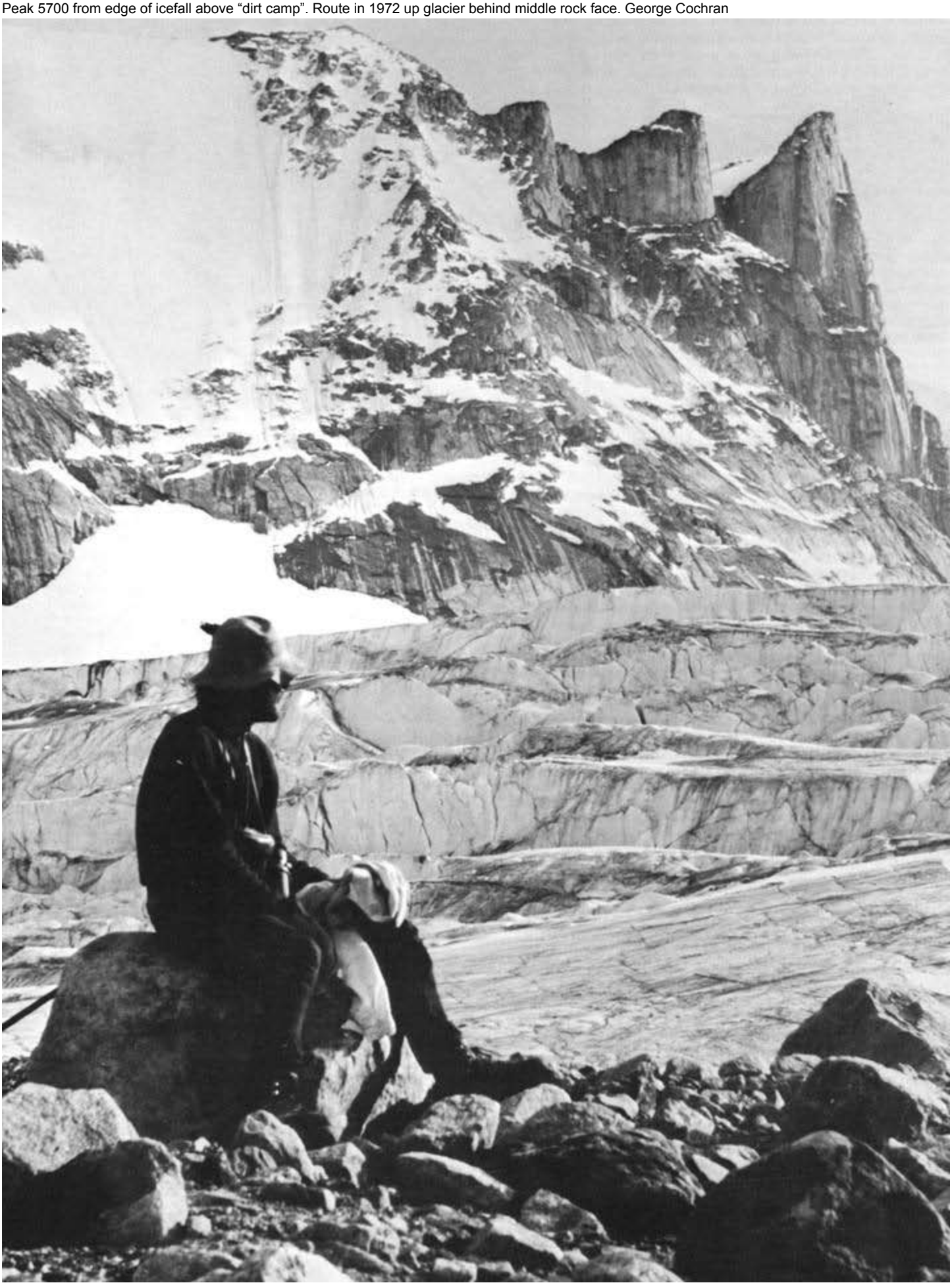
GENDARME (3400'). Dilly, Lane, Scaife and Lewis on 20/21 July as first of three peaks attached from Recce Glacier. By NW ridge. F.

SICKLE (4500'). From Recce Glacier up NW face and along SW.

DOC'S PEAK (5325'). Map spot height. From base of glacier up N face and along summit NW ridge. AD.

KEY PEAK (5100'). Pivot or key to three peaks ascended by Dilly Lane, Scaife and Lewis on 22/23 July. Route problems were met at the icefall in Sérac Glacier. Onto N ridge to summit. AD.

Peak 5700 from edge of icefall above “dirt camp”. Route in 1972 up glacier behind middle rock face. George Cochran



BIRTHDAY PEAK (5700'). From 'Key Peak' along NW ridge AD.

PAL'S PEAK (5420'). Reverse along NW ridge, traverse south of 'Key Peak' along SE ridge to summit. PD.

FORTRESS (4350'). 27/28 July. Ascent by Dilly and Lane from By-Pass Glacier. Direct up N face. AD.

DROP (4000'). First of two peaks climbed by Scaife and Lewis on 27/28 July. From By-Pass Glacier onto NW ridge. AD pitches.

BREW (4000'). Continue along NW ridge. Again AD pitches.

LAST FLING (5000'). 29/30 July. Climbed by Scaife and Lewis by E ridge. PD.

CAMELS HEAD (5600'). Scaife and Lewis continued along N ridge on PD snow route.

SUNSHINE (5000'). First of four peaks climbed by Dilly and Lane on 29/30 July. Up E ridge onto summit. PD.

CRACKED (5400'). Continue along plateau on SE col to AD NW face. 300'.

KNEECAP (5200'). Continue along SE ridge up face. PD.

BATU (5500'). Last of obvious peaks in area. Ascended by NW face for 300' AD ice route.

ECHO (3600'). 1 August. Scaife and Lewis up 1000' SE ridge to W face. Final 300' PD route.

CONFETTI (3900') 1 August. Dilly and Lane. Through Ice Fall Glacier to obvious SE Gully. AD ice route.

PEGASUS (5500'). 19 July. Muston, West, Ebdon and King direct on foot from camp up rocky SW ridge to S summit then for 1/2 mile along summit ridge to N summit. PD. Cairn left.

HERCULES (6700'). 20 July. Muston, West Ebdon and King skiing from "Pegasus's Camp" up glacier then north to apparent col between "Pegasus" and "Hercules". Continuing on skis up ridge to W summit (6650'). Cairn built here. Then still on skis up to E top (snow dome) at 6700'. Descent into snow-bowl to col between "Bellerophon" and "Hercules". F.

BELLEROPHON (5700'). 20 July. Same party as above. From col traverse left onto NE ridge between "Pegasus" and Bellerophon". Final 200 ft on foot. Cairn left. F.

GUN PEAK (5360'). 21 July. Muston, West, King, Ebdon, by skiing up glacier from camp veering right then up E slope of peak to obvious rocky ridge. On foot up ridge for 500 ft onto summit ridge, then 1/2 mile march to top. PD.

PROW (6390') First of three peaks by Muston, Ebdon, King and West on 22 July. On skis from camp up glacier veering right onto col between "Prow" and "Mercury", then up SW ridge to "Pic Katherine" (6200') followed by slight drop onto snow col. Final 300 ft on foot. Summit is dangerous cornice. PD.

SYMMETRY (6240'). 22 July. Continuing from "Prow" traverse on skis to obvious col between two peaks. On foot for final 700 ft to summit. PD. 2nd Ascent 25 July. Dilly, Lewis, Lane and Scaife by skiing up "Slush Glacier" onto ridge between "Symmetry" and "Pilgrim's". On foot for final 1000 ft up SW Face taking obvious route. PD.

MERCURY (5470'). 22 July. From "Symmetry" ski across snow bowl to E face, then on foot to summit. F. Cairn left. 2nd Ascent 26 July. Dilly, Scaife, Lewis and Lane. SW Face. AD route.

PILGRIM'S PEAK. (6050') 25 July. Dilly, Lane, Scaife and Lewis after the 2nd ascent of "Symmetery". Follow NW ridge to arête. Final 800 ft on AD route.

DAGGER (5700'). 27 July. Dilly and Lane from Camp V by skiing along the bottom of "Cym Cnifeon", contouring round SW ridge into snow bowl. Then on foot up SW face. Final 200 ft AD.

RV PEAK (5600'). 27 July. Scaife and Lewis from camp 5 by skiing to centre of "Cym Cnifeon", then traversing on foot round "Blister Ridge" onto col between "Pilgrim's Peak" and "RV Peak". Follow col to summit. F.

INDEPENDANCE DAY (3150'). 5 July. First of three peaks on ridge. Ascent Dilly, Scaife, Lewis and Lane from camp 1. PD.

PIMPFAN (3350'). Continue along ridge to steep slope to summit. PD.

SNOWBALL (4500'). From "Pimpfan" join N ridge up steep side. AD.

PIC PRESIDENT (3200'). 6 July. Dilly, Lane, Scaife and Lewis north ridge. F.

KARLSBERG (5560'). 7 July. This peak was the first ascended from Camp 2 (4200') by Dilly, Lewis, Lane and Scaife. Climbed by the S Face. PD.

SURVEYORS (5160'). Continue along SW ridge to summit. PD.

TRIG POINT (4840'). Dropping from "Surveyors" to col ascend summit ridge. PD.

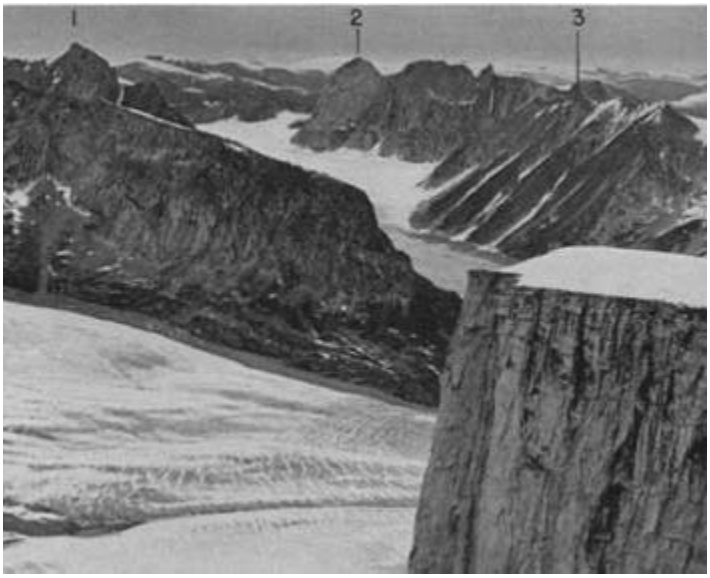
PEN-Y-FAN (5100'). Final peak on ridge. PD.

PERSEVERANCE (5495'). 10 July. Dilly, Scaife, Lewis and Lane by skiing from camp 2 to bottom of NE ridge (4000'). Continue up ridge to summit. PD.

HORIZON PEAK (4690'). 26 July. West, Muston, Ebdon and King from camp at 2340 ft skiing up Scaife Glacier until level with E face. Then up snow slope. PD.

1-Peak 5750, 2-Valhalla, 3-unclimbed. Route up 5090 is up snow gullies at right. George Cochran

View north east from Peak 5700. 1-Peak 5750, 2-unclimbed, 3-Peak 5090. George Cochran



East face (ca. 3500 ft) of Peak 6600. Route past icefall up glacier lying west side of face. Lawsing

L1 PEAK (4600'). 28 July. Ebdon, King, Muston and West moving from camp to glacier S of Ladies Peak. Up glacier turning north and traversing snow-bowl to W ridge. On foot to summit. PD.

LADY'S PEAK (4270'). 28 July. Traversing back from "Li Peak" onto "Lady's Peak". There are two summits the main top being east. PD.

THE PULK (5300'). 13 July. First peak climbed during a ski-tour by Malcolm, Lane and Chuter from camp 2 at 4500 feet. First a large snow dome above the camp is climbed. Going west descend onto a ridge running up a small dome. 3 miles on skis. Traverse right onto col between this dome and "The Pulk". Climbing on foot for 700 ft past a prominent rock shelf onto the summit ridge PD.

THE TRIPOD (5225'). 13 July. Reversing the above route onto ridge between the original snow dome and "The Tripod". Skis left at bottom of arête to summit climbing for 300 ft. PD.

WHITE CROWN (6750'). 18 July. Chuter, Mackenzie, Lane and Malcolm. This peak is the highest in the area. This ascent is believed to be the first from sea-level. From camp (6200') on the E side of the two dome summit ski to col between them. Final 200 ft on foot through large cornice to highest dome in the South. PD.

HILARY'S PEAK (4860'). 23 July. Lane, Chuter and Malcolm from camp 4 at 2000'. Ski east up into N corrie to furthest gully on right (2300'). On foot up 500 ft to short rock band. Beware of loose rock. Traverse left and up snow ramp to arête at 3000 ft. Traverse right under rock tower and up onto summit of minor peak. (3500'). Traverse below cornice of ridge between minor peak and W face. Up face for 700 ft to summit ridge. Left up to summit for 300 ft. Continuous AD.

UBIQUE (3250'). 7 August. Ascent of major peak north of base camp by Malcolm, from camp at Middle Fiord using SW ridge. Climb for 5 miles through boulder and snow fields to col beneath summit. Final 300 ft up boulder scramble on right edge of sloping peak. F.

D. A. Malcolm

Baffin Island—Unexplored Arctic Mountains

It was early August 1972. We had started with a plan for an expedition to Clyde Inlet. One of our companions, Rick Kullberg had gone to Clyde earlier with much of our equipment. The rest of us, my wife Caroline, Cecil Grace and Jerry McCue, had arrived in Frobisher only to find that the flights to Clyde, scheduled twice weekly, did not exist. Rick had just chanced onto one. After four days camping in the Frobisher Airport we had decided to give up Clyde, switch to Pangnirtung and head for our alternate objective: a 6600 foot peak I had spotted on the map, north west of the head of Kingnait Fiord. Pangnirtung Pass was not for us; we were after unexplored mountains, one of the fascinations of Baffin.

It was not the first Baffin trip for Cecil and me as I had organized the 1967 Cape Dyer Expedition1. The contrasts that five years had

brought were all too apparent but the vast mountain ranges along the eastern coast lay, as ever, undisturbed.

We arrived in Pang 1 August only to encounter still another obstacle. The ice was too heavy in Cumberland Sound to get around into Kingnait Fiord to the south. So while waiting to start for our remote destination we went up Pang Fiord by boat to a valley on the east shore that led to the little known south east slopes of Overlord and Turnweather Peaks. We spent three days in this beautiful valley, reached a 4000 ft summit on the east side and had a fine view of many excellent potential climbs. Back in Pang we found the ice clearing but Rick still in Clyde. We could only proceed to Kingnait hoping he might follow.

It was over 80 miles one way and our boat was heavily loaded with 4 climbers, 2 Eskimos, 500 Ibs. of supplies and 50 gallons of gasoline at $1.50/gallon. Early on the fourth day we arrived at the head of Kingnait to wander for several hours seeking the best landing site and route up our unknown valley. Late in the day after the Eskimos had departed we packed loads to a cache an hour up the valley. Desperate with curiosity, Caroline and I dropped our packs and hurried on over the ancient moraines. Finally came a high point and beyond in the dusk the upper valley was visible, choked by a glacier. Rising in the middle was a symmetrically beautiful rock mountain that culminated in a perfect point. Beside it was another massive mountain with twin summits , . . here at last was something worth finding. Only Eskimo caribou hunters had ever been in this valley and it was almost certain (later confirmed) that no living being had ever trod those distant peaks and glaciers, not the Eskimos, not the RCMP, not the geographical survey, no one.

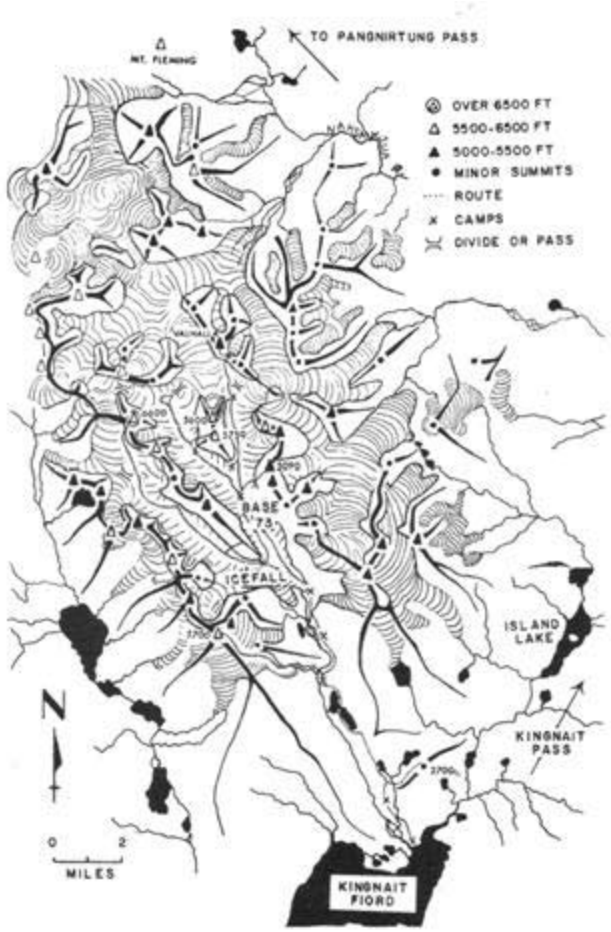
The following day we were departing on our major move up this valley when a light aircraft droned overhead; shortly thereafter Rick Kullberg appeared atop a hill. He had hitchhiked to Broughton Island with a friendly survey pilot in a Piper with ballon tires. This sporting gentleman then had agreed to fly him and our equipment to Kingnait to find us. Having spotted our tents they had landed on a nearby gravel bed. Reunited and elated we headed up the east side of the river.

A day later we crossed the river (with the usual difficulties) and climbed Peak 5700 by an easy glacier route. The top was one of those endless plateaux where, in the flat light, one point after another became an illusory summit. Finally there was no question about it—a 20 ft crest of snow culminated atop a 2500 ft cliff which stretched for miles in either direction. It was a staggering vantage point.

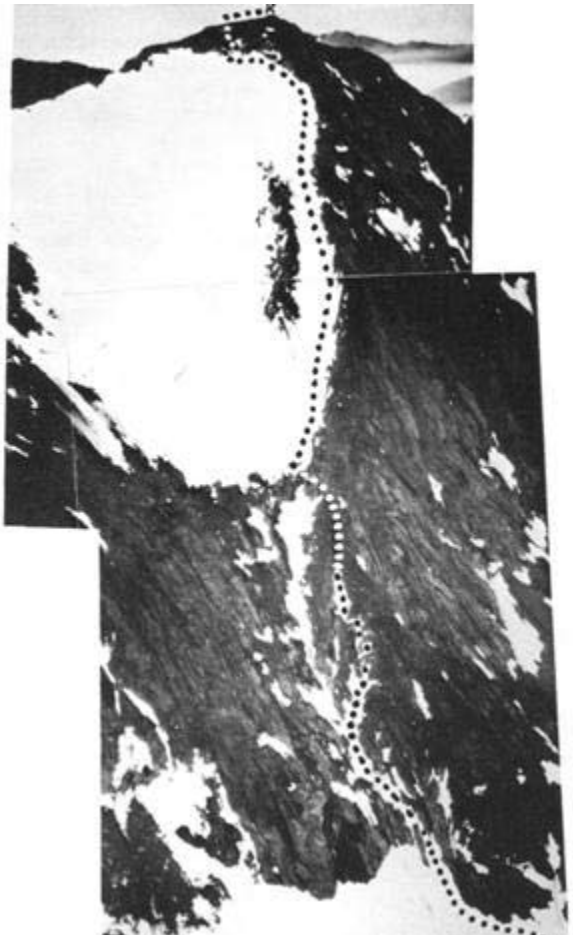
During a quick supply trip to the fiord we ascended Peak 2700, a beautiful rock ridge overlooking Kingnait Pass, then headed back toward our next objective, the pointed mountain (Peak 5750) in the midst of the glacier. Now our number was again four, as Jerry had arranged for an early boat pickup to insure a timely return for committments at home.

From a camp at the foot of the glacier, a reconnaissance indicated a need for a more advanced base, but our beautiful weather of the past 10 days was running out. A howling blizzard struck that night and lasted nearly 12 hours.

Kingnait Highlands. George Cochran



Route up 5750 from 6600. Curt Saville



The following day dawned fine for our all out attempt although everything was obscured by 12 inches of drifted snow. For the first two hours we struggled over the rough, buried moraines with heavy packs to reach our advance campsite. Then we continued toward the mountain, still over four miles away. Two days earlier travel had been a breeze on bare ice, now every crevasse and snowbridge was totally obscured. We were headed for the north east ridge, the only feasible seeming route, but this lay at least two miles beyond the nose of the mountain. By 4 p.m. we still had a mile to go before we could hope to gain access to the ridge. It was an incredible scene as we stood in snow to our knees among the evening mists at about 3500 ft. To the left was the sheer east face of our great peak, the summit now hidden in clouds. To the right was an unbelievable 2000 ft vertical rock wall, crested with a serpentine knife edge ridge over a mile long. Ahead to the north east was another towering, pyramidal mountain (Valhalla).

Despite the siren-song of these virgin peaks we had to turn back. At this late hour the weather was too uncertain, the light too dim, and the obscured crevasses in the near icefall we had ascended too numerous to consider an all-night attempt. Back in our tiny camp between two huge boulders we squatted for two days hoping for a break, but none came. Low clouds continued to settle on the glacier. With only four of us, totally isolated in unknown territory, an attempt under anything but perfect conditions seemed foolhardy.

Our time up, we reluctantly descended to meet our Eskimos for a long and extraordinarily cold trip back to Pangnirtung, complete with more unscheduled stops to escape high seas. While sheltering in one rocky cove we found a fascinating archaeological site of the Thule Culture, first recorded by Boas in the 1880's. Here were dozens of burial cairns complete with skeltons as well as pit houses dug into a hillside and roofed with whalebone. Unfortunately the modern Eskimos were excavating them to get whalebone for carving.

During this lengthy voyage we thought a lot about those mountains we had left unclimbed. By the time we reached Pang, a 1973 expedition had been planned.

1973 Baffin-Kingnait Expedition My wife, Rick Kullberg and myself returned as veterans of the Kingnait Highlands. Joining us were Curt Saville, Ron Racine and Jim Lawsing. Again we carried flag #192 of the Explorers Club and now had substantial support from the Olin Corporation.

Clad in immaculate matching outfits we departed Montreal via Nordair 17 July and miraculously arrived in Pang the same day after the inevitable change to a vintage DC-3 in Frobisher. Despite reports of an early spring Cumberland Sound was packed with ice.

In Pang disappointment waited. The Eskimos were too pre-occupied with seal hunting even to consider battling the ice to Kingnait. Our backup plan depended on a helicopter which had not arrived. Scheduled for National Park work as well as production of one of the John and Janet Foster films for CBC-TV, this bird was to be in demand; we had arranged to assist the film-makers by providing some climbing footage in return for access.

Five days late, the chopper finally appeared through the rain and mist. Progress came first when the chopper made a foray for aerial photography in the direction of our mountains. The crew kindly consented to take aboard half of our supplies and cache them on the glacier below Peak 5750. We followed a week after arriving in Pang, landing by choice in the lower valley not far from the fiord. This site was more economical and feasible in the persistant bad weather, but most important, having missed the opportunity for another fascinating sea voyage, we disliked the idea of being deposited in the midst of our objectives by air. We wanted at least to preserve the experience of an approach under our own power. We hope that helicopter travel will never become a routine for mountaineers in the Pang area.

After an inauspicious arrival in drizzle and low clouds, the discouraging weather continued. Packing up the valley our new-comers had only the barest glimpse of the fantastic peaks ahead. The first morning we found six inches of new snow had fallen at our altitude of 1500 ft.. Fortunately, by the time we reached rough moraines of the lower glacier, most of it had melted off the rocks. Higher it was a different story. All the crevasses again were hidden by those well-remembered powder snow bridges. Most of our rope was ahead in the cache, so all six tied into one 150 ft line. We must have looked like some 1890 party enroute to the Matterhorn. As dusk and snow fell in the late evening, the more convinced we became that the pilot had laid our stuff on the wrong glacier. At length a snowy mound of gear materialized on the medial moraine about two miles below our big peak. Up went the "party tent", Curl's well-travelled, orange McKinley, and basecamp was established.

Directly ahead was objective 1, Peak 5750, the pointed mountain that had drawn us back. Enthusiasm ran so high that there was no way to restrain a futile "dash" toward the north east ridge the next day. Later it was called a "reconnaissance". Back at base everyone felt considerably wiser and agreed that a higher camp was essential with the new snow. That night a full scale blizzard began.

A day later the storm had slowed to a desultory level after leaving 10 inches of snow. We donned our plastic "snowtreads" and started off. Progress was snail-like with deep snow, heavy packs and the necessity for constant probing for crevasses as the glacier steepened east of the mountain. Leading became unpopular as this hapless individual frequently dropped silently to pack depth in small crevasses not found by probing every few feet. Soon whiteout prevailed again. For a while wands left the day before were an aid but later we could locate ourselves only by a dim view of the wall to our left. Eventually we determined by intuition that we had reached the safest and most advantageous spot for a try at the ridge and dug high camp east into the snow. The plan was simple: gain the crest of the north east ridge, follow it to its junction with the north west ridge, then continue south along the backbone of the mountain, a mile or more to the main summit.

In two days conditions improved enough to try. After our now routine 10.30 Arctic-Alpine departure (made possible by the convenient absence of night) we ascended the face of the ridge about 400 ft on snow covered ice with one screw for protection.

Then we traversed to a steep couloir of about two rope lengths, requiring another screw for peace of mind. This satisfying route disgorged us onto the ridge proper. We overlooked a massive glacier, couched on the upper mountain and hanging over a cliff and deep depression enclosed by the pincer arms of the ridges. On up the narrow snow ridge we continued, now in cloud with only the vaguest idea of location. Six hours out we knew we had reached the end of the climb, wherever that was. The ridge ended abruptly on a rock tower with a 200 ft drop to a tiny saddle. Beyond was a lower tower, then more pinnacles disappearing into snow and mist. Steep faces dropped out of sight to east and west. Clearly there was no convenient route to the main summit from here; we had never seen this northern part of the main ridge. Later we confirmed that we had climbed a distinct north summit (Peak 5600) capping the confluence of the north east and north west ridges.

Back at our buried camp we slept as another six inches of snow sifted down. A unique trolley system for distribution of food reduced excursions between the tents to a minimum. Our segmented copys of Papillon and Lost Horizons had just finished making the rounds when the weather actually improved with blue skies above and clouds below. We started at the spectacular skyline of Valhalla across the glacier and at the great valley dropping northward from our camp on the divide to drain ultimately into the Naksakjua River. Lengthy discussions concerning the feasibility of climbing Valhalla ensued. With only one day of food for all remaining, it was decided that three would try, travelling light, while the rest descended to reconnoiter other routes up Peak 5750 and up a large icefall into the high tributary valley leading to Peak 6600.

After two days we all gathered at "dirt camp", a sandy haven on a moraine adjacent to the icefall. The Valhalla team had succeeded despite deep snow and overhangs on the airy knife-edge south east ridge. For the future our route past the icefall to Peak 6600 was easy but our main objective was still Peak 5750. After drying out in the near perfect weather we marched north again past basecamp, now toward the west side of our pointed mountain and a rudimentary west ridge or spur. Enroute we were interrupted by the helicopter bearing the CBC film crew. Fortunately, no one went into a crevasse during the excitement of filming our activities. Their footage, augmented by some of my own (as 1 lugged a 16 mm camera up two mountains) apparently turned out extremely well for their needs. Late in the afternoon high camp west was established.

From aerial photographs and our limited inspection the way up the west spur looked feasible. It turned out to be an ardous 2500 foot direct route, more up the face than the spur. It began with 1000 ft of cramponning up ice-filled gullies leading to the top of a headwall. Then there was a rock scramble for a few hundred feet to the base of a steep icefield lying on a slight depression in the face. Most of the recent snow had slid off but directly adjacent to the smooth slabs of the spur there was enough to make some steps. Finally we reached the tiny shoulder of the spur overlooking a huge precipice and a great couloir splitting the mountain to the south. From this point we had to traverse north beneath the summit ridge. We placed the third piton of the climb to protect ourselves on this exposed perch as we searched for a route up the final rocks to the summit. On top it was obvious that we had found the only practical route short of a very formidable rock climb. The ascent had taken over seven hours and the return trip just as long. Melting snow had left bare ice nearly all the way, requiring extreme care at a very late hour. An extensive post-midnight feast was enjoyed by all, starting with gulps of cold Bay Co. molasses straight from the can.

Time was now running short and a retreat to base got underway after a day of rest and brief reconnaissance to the attractive 5500 footer at the west head of the glacier. Ron now was suffering badly from overloading an ankle he had sprained prior to the expedition; he and Rick decided to continue down and hike to Kingnait Pass. The rest, determined to bag more summits, set off immediately for the "central summit" (Peak 5090) of a massif just east of base. The route was a pleasant couloir with some steeper ice near the top. North of this summit the character of the mountain changed abruptly as a winding, undulating knife-edge ridge led over a mile to the difficult unclimbed north summit. After capering about in great spirits on this relaxed climb in perfect, warm weather, we hastened down to base, prepared a cache of extra food and equipment and descended to Dirt Camp for the last time.

The beautiful weather was now failing and time was almost gone but we were still determined to make one try for the high one, the 6600 ft summit of the "Kingnait Highlands". This necessitated a long snow slog up the tributary valley past the big icefall. True to arctic-alpine form we left at 10.30 on 12 August with clouds down to the 4000 ft level. Following the moraine we bypassed the icefall, donned "snowtreads" and returned to the glacier, complete with the familiar crevasses bridged only with damp powder snow. About halfway to the peak we entered total whiteout and proceeded by compass and conflicting intuitions. At 5 p.m. we reached the edge of a scree slope apparent' on the aerial photos. Here we realized we could go no further as the route grew more complicated and would be impossible to find without visibility. It was our last chance as we were due to be picked up at the distant fiord in exactly 48 hours. We ate supper and were preparing to retreat (congratulating ourselves on "at least having tried") when we noticed the rocks higher up were becoming more visible. Then the ridge appeared above and gradually the way ahead, sloping steeply upwards on the valley wall. It was a classic reprieve. On we went traversing upwards and smiling from snowshoes to crampons for some ice slopes above steep glaciers which now plunged north west to another valley. At 8 p.m. we arrived on a giant platform of rock jutting out as a buttress in the 3500 ft wall which looked down on our main glacier and high camp west and extended unbroken all the way south to the icefall. On one edge of the platform was a great wave crest of snow, typical of Baffin, the actual summit. We were on what is probably the second highest mountain south of Kingnait Pass and one of the highest in all Baffin. Now a mile or two north of high camp west, our direct route up Peak 5750 was in plain view and looked most impressive. On the horizon to the north were the mountains bordering Pang Pass. West was an unknown valley of walls, endless miles of them. Entranced by these views which had lain unseen from the beginning of time, we lingered until after ten. A week later it would have been too dark in the middle of the night for such games but now even after midnight there was still enough light to navigate. At 4 a.m., nearly 18 hours after departure, we were back in Dirt Camp, wiped out. The trip had been over 7 miles and 4000 ft each way. Late the same day we cached the remains of

our snowshoes and headed for the fiord.

George Van B. Cochran

Peak 5700: first ascent 12 August 1972 via east glacier. G. Cochran, C. Cochran, Grace, Kullberg.

Peak 2700: first ascent 14 August 1972, west ridge. G. Cochran, C. Cochran, J. McCue.

Peak 5600: first ascent 31 July 1973, north east ridge. G. Cochran, C. Cochran, Kullberg, Lawsing, Saville, Racine,

Valhalla: first ascent 2 August 1973, south east ridge. Kullberg, Lawsing, Saville.

Peak 5750: first ascent 5 August 1973, west spur. G. Cochran, C. Cochran, Kullberg, Lawsing, Saville, Racine.

Peak 5090: first ascent 8 August 1973, west couloir. G. Cochran, C. Cochran. Lawsing, Saville.

Peak 6600: first ascent 12 August 1973, via glacier from south side of ridge. G. Cochran, C. Cochran, Lawsing, Saville. Adjacent summit to north also climbed.

Acknowledgments

We wish to thank Olin Corporation and Chromalloy Electronics (radio beacon) for their support. In addition we are extremely grateful to Messrs Robert Pilot, Mike Moore, William Cheffins, Ernie Seiber, and many other government and

parks officials who aided us.

1 Cape Dyer Arctic-Alpine Expedition, CAJ 1968.

South to the Arctic Circle, Explorers Journal, September 1969.

Foreign

Ha-yo-wap Ridge, Cathedral Peak, Washington

The route follows the very obvious ridge that runs south east from the summit. From Cathedral Pass traverse east to gain foot of ridge. Scramble up gully east of ridge to base of chimney with horizontal roof. Nail wall to right of chimney to gain crest of ridge. Scramble up to foot of the "First Step". Climb obvious chimney and easy rock to terrace. From top of terrace climb short hand crack to ledge system, climb and scramble over ledges to foot of the "Second Step". Nail wall to dance platform. Two more short hand pitches and some easy scrambing bring you onto summit.

Bob Cuthbert

1st ascent September 1973. Dave Nicol, Howie Richardson, Robin Mounsey, Bruce MacPherson, Bob Cuthbert. A1 5.8.

Climbing in Northern Utah

For nomadic Canadian climbers who may someday find themselves "dragging about" in the salt of northern Utah and wondering which way to the "Valley" or the Wind Rivers, here's a word of deliberation. Slow down! Don't move so fast. There is good climbing to be had right in Utah. Someone told me once that the granite found around Salt Lake combines the best of both the Bugaboos and Yosemite. Not being a geologist or a mathematician I only know that it is a fine medium to climb on; very sound and moderately coarse. Three areas hosting such granite are found in the Wasatch Mountains rising immediately east from Salt Lake City's outskirts.

The most frequented one day haunt is Little Cottonwood canyon which leads up to the renowned ski area of Alta. About half an hour's drive from inner Salt Lake one motors into the mouth of the canyon and is immediately impressed by the shadowed slabs of the north facing walls. Farther up the canyon one passes the "Fin", a bold rib standing high and proud above the lesser south facing walls. Topped by a forbidding summit block it remains one of the longer and more extended routes which surrendered to George Lowe in the late 60's. Still farther along the canyon one comes to a small parking lot. In the wall above is a slight "bay" as the "schoolroom". With only a five minute approach it offers a complete spectrum of routes from thin slab to strenuous vertical laybacks to hard chock ups. Almost every line has been climbed here and in order to keep all things "ethically clean" the locals have admitted to leaving selected fixed pins on the more popular routes. The rock accepts nuts exceptionally well and combined with the excellent nature of the rock, one can enjoy unequalled free-climbing with only a small selection of chocks. Chicken-heads profusely pimple the rock and often allow bomb proof protection by simply tying off with runners. Due to the south facing exposure and low altitude the season is long—from late March to late October. Last year offered shirt-sleeve climbing on in to mid-November.

A second more isolated climbing area is the Bell Towers. Necessitating a two hour approach these 600 ft towers lie back to back with the south walls of the Cottonwood. The most efficient approach is to leave the road running up Little Cottonwood at the mouth of the canyon and contour around the south ridge into the next canyon to the south. Obvious from the freeway south of Salt Lake, needless to say one of the early route pioneers was Fred Beckey, typically bashing up mixed free and aid routes. One could enjoy several days in this easily accessible yet seldom climbed area. Be sure to take aid truck, for the towers are steep and most lines require short sections of aid.

The third and least accessible area is the Lone Peak cirque. The highest and most remote of the three granite areas it somehow reminded me of a miniature Bugaboos, complete with a boulder camp and Hobbit hole—yet devoid of "berghutten". Situated on the high ridge dividing Salt Lake from the small community of Alpine, the three to five hour approach could be a real grunt in mid-summer. The more sensible seasons—spring and autumn, would lend fine climbing opportunities to those wishing a diversion either going to or returning from Yosemite. Bounded on three sides by walls of varying height, the cirque is dominated by the imposing face of Question Mark Wall. Barely overhanging in the lower half, the face leans back just enough in the upper section to offer superb exposed hard free climbing. The granite of the face is uniquely scalloped and combines the small cling holds common to limestone with the reaching crack systems typical of granite. One goes mad trying to comprehend the lines on the two remaining lesser faces. Every 25 ft yields a new crack or corner system cleaving the rock from top to bottom. There are probably easily 50 routes in this cirque, ranging from three to eight pitches. If the approach was

anything less, Lone Peak would undoubtedly become the climbing mecca of Utah, for the possibilities are staggering.

In conclusion a word should be said about the only reputable stocklist in Salt Lake. The lads at Timberline on Highland Drive are eager to relate their knowledge of climbing in the area and have an excellent book of photos showing routes in the Cottonwood. If this article needs further explanation see the people at Timberline Sports. Tell 'em "Slim" sent ya.

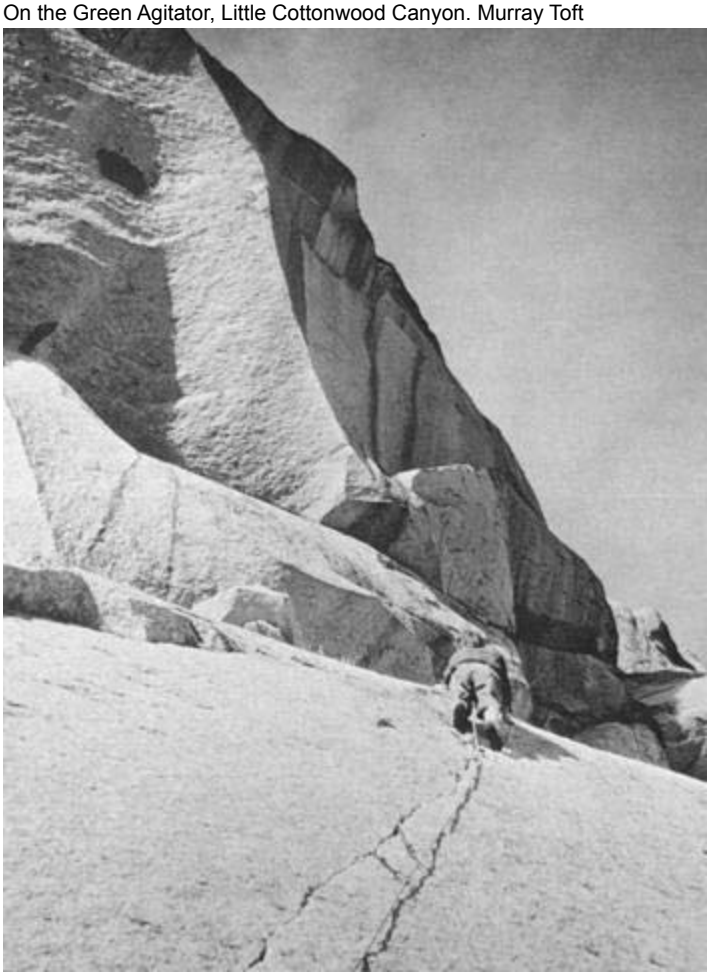
Murray Toft

Mexican Capers, Correction

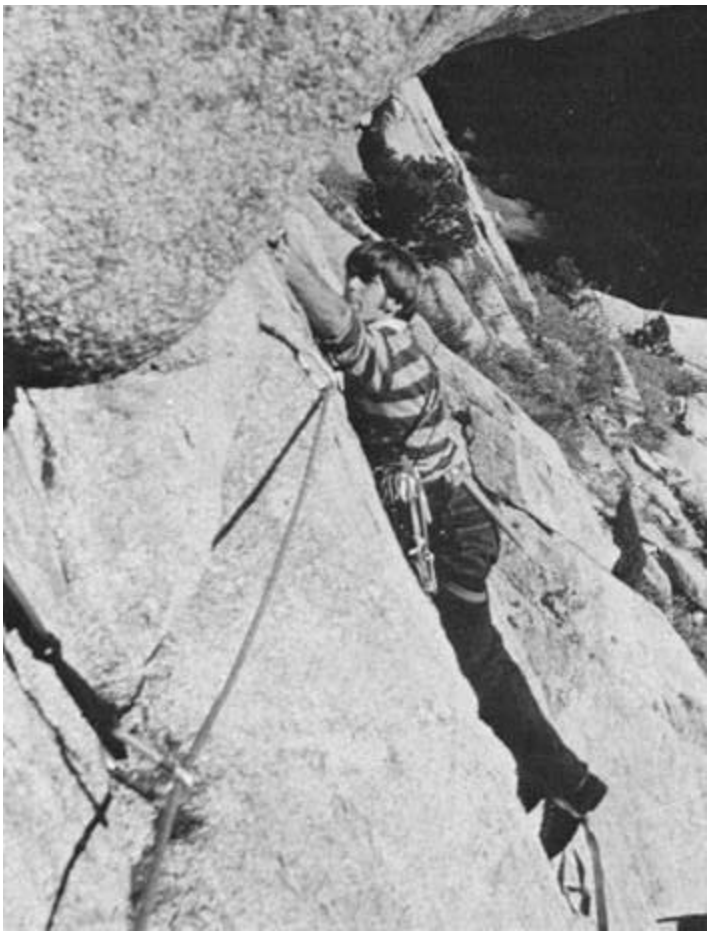
To reach Tlachichuca (map showing route to Orizaba, CAJ

In Silver Lake cirque. Murray Toft

On the Green Agitator, Little Cottonwood Canyon. Murray Toft



Cleaning the "Coffin" Little Cottonwood Canyon. Murray, Toft



1973, p. 43) turn off highway 4.6 miles beyond El Seco or 22 miles along 140 from Puebla Toll Road. The town of Zacatepec is beyond the turn off.

Base camp for Orizaba's popular ruta norte is the 14,000 ft Piedra Grande refugio, on the north (not the east) side of Orizaba.

Incidentally O'Connell makes this climb sound much harder than it is. The altitude is a bit of a problem but certainly no 'formidable barrier'. O'Connell's time up (some 9 hours) is unusually long. Five or six hours, from the Piedra Grande hut to the iron cross at the summit might be a more typical time for the average party.

Jim Jones, Liz Morton

Want Adventure? Climb the Matterhorn!

Directions to Pico de Orizaba. Liz Morton/M. Irvine

For the past few years the Canadian Armed Forces has encouraged participation in adventure training voluntary field missions of a military nature designed to develop endurance, initiative, leadership, and self-reliance in the participants, as well as giving them the experience of planning, preparing orders for, conducting, and reporting on the exercise. Mountaineering, canoeing (especially white water canoeing), long distance hiking, and skiing over difficult terrain are considered to be within the scope of the programme. Provided that the proposal is well prepared National Defence Headquarters will generally give the go-ahead, authorizing travel by military transportation, periodic safety checks, and the necessary clothing, stores, rations and equipment to support the exercise.

Two years ago while attending the College Militaire Royal de St. Jean I organized a climbing expedition that ascended the three highest peaks in the Canadian Rockies (Mt. Robson, Mt. Columbia, the North Twin) and some smaller peaks. During the 1972-73 academic year at the College Militaire Royal, three fellow officer cadets (who had done a fair amount of rock climbing in Quebec) and myself began to prepare another adventure training project. The proposal eventually received the full support of National Defence Headquarters and during the latter half of August 1973 Pierre Lemieux, Claude Boisvenue, Rejan Simard and I participated in what we called the CMR Mountaineering Expedition to the Alps. It was very successful, with ascents of Mt. Blanc (15,782'), the Matterhorn (14,701') and the Jagerhorn (13,200') and a reconnaissance of the North Face of the Eiger. Added to this was our aid to three separate groups of climbers which may well have saved their lives. Of many adventures our relatively easy ascent of the infamous Matterhorn remains the most vivid, partly because of its notorious reputation and awesome profile, partly because of the severity of the conditions we experienced upon it.

I lay for a long time, thinking of the route we would follow and of the special difficulties we would probably experience. Only 36 hours after our descent of Mt. Blanc we were to start on the Matterhorn, but the team was fit and raring to go. August 21 dawned bright and clear and we were under way early. We took a telepherique from Zermatt to Furri in order to cross the river valley and then set out to walk to the Hornli hut (10,759'). While sitting down for a short rest at 8500 ft I wrote in my journal "On the Matterhorn!! A beautiful warm sunny day with the Matterhorn rearing its cloud shrouded head far above us." The peace and contentment we each experienced climbing the lower ridges of the Matterhorn will long be remembered.

We reached the Hornli Hut well before 1400 hours, made arrangements for accommodations then I scouted the steep rock past the hut in preparation for the morrow's early start. Next morning we were stirring by 0300—much too late, as we found to our sorrow when we began climbing at 0345. Headlamps are a necessity on the precipitous rock and ice at this time of the morning and we could see numerous flashes of light ahead of us. All the tourists and guides had left earlier! Although most of these people did not make the summit they certainly cluttered up the route. At the first steep pitch about 100 metres from the hut we encountered a traffic jam—a traffic jam on the Matterhorn?! Primarily the result of some very incompetent climbing (the pitch was not difficult), the wait cost us a valuable 30 to 45 minutes. After a few more such queues we became tired of people pollution and began to climb around the normal route and its traffic jams. I led an interesting route up the east face, parallel to the normal route. The "pioneering" took much longer but was more aesthetically satisfying as well as taking us out of the danger of falling rocks.

We rejoined the normal route just above the Solvay Refuge at 13,500 to 14,000 ft. The climbing became steeper with much mixed snow, ice and rock. On one memorable ice pitch I led past an Italian party that was slowly descending. A muted scream—the last man slipped, shot down the slope. Going full tilt for the north face and a vertical drop of over 4000 ft, he slammed into Claude who had quickly self-belayed, his crampons ripping open Claude's hand. Without a word of apology (or thanks!) he scrambled past. After a short break to bandage Claude we pushed up the remaining distance quite quickly, Rejean and myself reaching the summit before 1500 hours. We planted a small Canadian flag then lowered a rope to aid Pierre and Claude up the last 100 ft. The peak was in thick clouds and we had a very limited view, but I nonetheless ran along the summit ridge to the Italian summit and snapped some photos of a large cross planted there. The summit of the Matterhorn—what a feeling! A Yugoslav party of three followed us up. There was no common language, the worldwide language of a wide, wide grin and shining eyes were all that was needed. But time was short and we had to get down. Quickly!

A series of long 220 ft rappels enabled us to lose altitude rapidly. Ominous clouds were swirling about us and we wanted to reach the Solvay Refuge before dark. I brought up the rear, attempting to provide a secure belay for the others. We had only gone a few rope lengths when encountered three of some British climbers we had befriended two days previously. Still toiling upwards they wearily asked for information. I had to say that although close to the summit, the late hour and unpromising conditions made continuing very chancey. After a short discussion—one (Alan) wanted to go back and two were determined to continue—they asked if Alan could accompany our team down. It was impossible to refuse. As five we moved very slowly. I remained in the rear, hoping to safeguard our retreat in the face of the steadily worsening conditions.

Then—I was face down in the snow; blackness, stars, blackness; my head—it's exploding! I can't move! What's happening?? Electric storm, LIGHTNING!! The stiff jolt knocked me down for almost a minute. Driving huge marble sized hailstones pounding our bodies. At over 14,000 ft on the Matterhorn and on the steepest part of the route, this was a dramatic introduction to a notorious Matterhorn storm. There was no protection on the ridge we had to get down—a theme that pulsed through my head as I struggled down to the others. In the process I was stunned six or seven more times by jolts of electricity that seemed to focus on my head with paralyzing jabs lasting 30 to 60 seconds each. Upon reaching the others, who had grouped together sitting on their packs for insulation despite which each had been struck a few times, I told them we must descend to find protection.

Again on rappel, we moved quickly and though I was hit once more we eventually got into an area that was lightning-free. The hail now changed to a wet, wind lashed snow that caked us white and soaked us in minutes, despite our special clothing. It was fast becoming dark, and visibility—nil. Although the team was rappelling down to save time I had climbed down but now could not even see where my crampons were on the ice. We were protected from the lightning here so decided to bivouac until morning. I traversed right hoping to find a ledge upon which to bivouac "comfortably"—there was no such place. We therefore tied onto two pegs sunken into the ice and snow coated rock only a few feet from the mile high precipice to our left. Pierre and Rejean had duvet jackets and were relatively warm. Alan had warm clothing as well. Claude had his ski jacket and I was wearing my light cotton anorak. A chilly proposition with the bitterly cold wind and wet snow. We attempted to take spare clothing out of our packs but it (and some other gear) slipped from our frozen fingers over the North Face. Before I could fully comprehend the fact I saw my ice axe slide over the gaping void at our feet and tumble into nothingness. Sacre papier! However, the hard candies and the few chocolate bars we had did much to keep our spirits up during the long night. Remembering the four Americans who had frozen to death a few weeks previously on the Matterhorn under similar circumstances we dared not sleep. There we were —five little bodies huddled together for warmth on a narrow ice-coated ridge, talking all the while to stay awake and keep up our spirits; thumping each other in a forlorn attempt to drive out the insidious cold. I reflected back on the eerie phenomenon that had occurred during the lightning strikes—St. Elmo's fire! Every piece of metal glowed phosphorescent green and gave off a strange low-pitched hum. This we had not found time to discuss before. Now we had eight long, long hours to discuss it and many other subjects. The two British climbers above us still going for the top were often in our thoughts.

The cold miserable night crept along. By early morning the weather had broken and we glimpsed the inviting lights of Zermatt, almost two vertical miles below. At 0300 we could see the headlamps of climbers starting up from the Hornli Hut, at 0430 hours we began stretching our frozen limbs and soon after started our descent with a series of long rappels.

P. J. Dearden

Kilimanjaro and Kenya

There are a few minor climbing routes on Mt. Kilimanjaro (19,340') but all of them together would hardly make an ACC expedition, as somebody proposed in late 1973. There is some fairly steep ice on the southern glaciers but if it's ice you want the world is full of better places. We (Skip Merler, Ralph Hutchinson, Roger Neave and I) took the tourist route to acclimatise for climbing on Mt. Kenya (17,058').

We approached from Arusha and Moshi in Tanzania and at the Marangu Hotel heard horrific tales of the dangers of the mountain. With a couple of porters to carry the wine and an assistant guide to see they didn't drink it—and all had to agree not to go near the top with us!—we ambled up via huts at 9000 ft, 12,335 ft, and 13,420 ft. The going was easy but dry and dusty, particularly the endless saddle above 14,000 ft. The huts became progressively filthier and were crowded. The "climb" to the crater rim at 18,640 ft (certified by the government as the tourist summit) was 3000-odd feet of cinders; the temperature was cold enough to freeze my water bottle almost solid in the pack. Of the horde who set out at 1.30 a.m. 2 Sept. only two of us reached Uhuru Point, 90 minutes along the crater rim. No climbing or equipment was needed and it wasn't necessary to step onto the very hard, plastic ice. In all the 70-odd miles take five days.

Mt. Kenya, a day's drive to the north in Kenya, is a different story. Its twin peaks, Batian and Nelion, have dozens of fine routes on splendid rock up to Grade VI with aid. We approached from Naro Moru Lodge to the south, driving to 10,000 then walking in two easy days through "hanging bog", then giant groundsel and lobelia to the new Austrian Hut at 15,720 ft. The weather (spring there) had been poor. At the hut four Scots with impressive Alpine records had been trying for almost two weeks to do the route we wanted, up Nelion's south ridge and south east face then over to Batian. They said it was so iced that it was "not on." In addition they had not acclimatised well. We had, so after walking up Point Lenana (16,355 ft) that afternoon set out to look at Mackinder's Route next morning.

The rock was superb although rather littered with pitons. But it was soon plastered with ice. A large piece fell at Mackinder's Chimney, cutting Skip's head but he was well tied in. Lots more began falling, and it was soon obvious that as the Scots had said, it "wasn't on." Roger and Ralph climbed up to the ridge crest off-route and confirmed that judgment, so we discussed following the

Scots around to Kami Hut on the other side of the peak to do the north face. It is longer but not particularly difficult. As we returned to the hut a parks ranger came by and told us the north side was in even worse ice condition than the one we were on. We would be wasting our time. With some effort we persuaded ourselves to rush back to Nairobi, then fly to the Indian Ocean at Malindi for a few days of scuba-diving on equatorial reefs.

We were out of Canada only three weeks and left little time for waiting. The south side is good only from Christmas to March; but the longer north side routes are usually good from July to the end of September when the weather cooperates. Then there is enough climbing to keep many people busy for a long time. Add the game parks and the fascinating people and there is scope for a first-class holiday.

Paddy Sherman