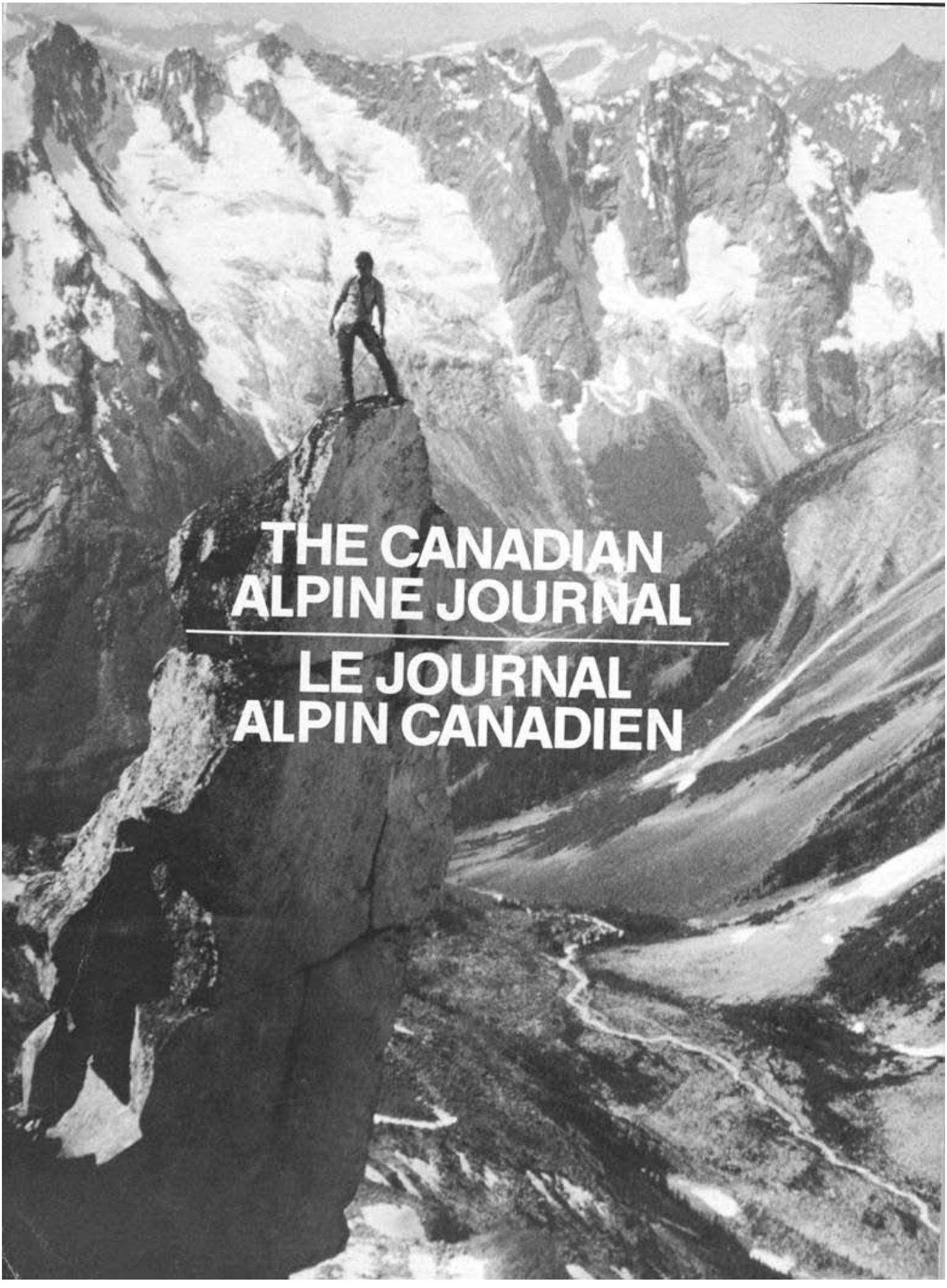

THE CANADIAN ALPINE JOURNAL

LE JOURNAL ALPIN CANADIEN

The Alpine Club Of Canada/Le Club Alpin Du Canada

Volume 66, 1983
Published by The Alpine Club of Canada/Le Club Alpin du Canada

CLUB ADDRESS
Box1026, Banff, Alberta
TOL OCO

ISBN 0-920330-13-4
ISSN 0068-8207

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The national headquarters of the ACC is in Banff, Alberta. Regional Sections are active in Banff, Calgary, Edmonton, Montreal, Ottawa, Toronto, Winnipeg, Vancouver, and on Vancouver Island. In the United States a Section is based at Portland, Oregon. Activities organized by the ACC and by the Sections include summer mountaineering camps and ski camps for all levels of experience, Club summer and winter training camps, and Section yearly climbing schedules. The ACC maintains several huts in the western Canadian ranges and has a Clubhouse near Canmore just outside Banff National Park. The Club assists members participating in exploratory mountaineering, represents the interests of mountaineers to government agencies controlling the use of climbing areas, and is involved with mountain management and mountaineering safety.

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Instructions To Contributors

Manuscripts, in English or French, for submission to the Canadian Alpine Journal should be sent to Moira Irvine, editor CAJ, Box 91880, West Vancouver, BC V7V 4S4, Canada.

The deadline for submissions to the 1984 CAJ is 25 November 1983. Submissions received well prior to the deadline are much appreciated. Contributors who wish to read their ms after editing must submit no later than 28 October 1983. This does not preclude further editorial changes if there is too much copy. Contributors who wish to see their edited ms must indicate as such with their submission.

Submissions should be typed, DOUBLE SPACE, with a 1 1/2 inch margin on the lefthand side, on 81/2 x 11 inch paper. If forced to submit handwritten material, please submit early, and please write on alternate lines, ie double space. Any corrections to a typewritten ms should be made in pencil. Please submit original copy, not xerox or photocopy. Maps should include a north arrow, scale, and latitude and longitude. Photographs should be sharp and clear, minimum size 5 by 7. Good colour prints are preferred over colour slides. If marking routes on photographs please include an unmarked print or mark route on an overlay. Please list photo captions on a separate sheet of paper, with title of your ms at top. Put sender's name on back of prints and on slides. If marking routes on photographs please include an unmarked print or mark route on an overlay. Please list photo captions on a separate sheet of paper, with title of your ms at top. Put sender's name on back of prints and on slides. When numbering back of photographs do not press hard, do not use ball point or felt tip pen.

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 be identified on a map, sketch or airphoto.

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Tous ceux qui soutiennent les objectifs du CAC sont élégies à être membres. Quelques bénéfices du CAC sont: Ie droit de faire usage des cabanes du dub et du clubhouse; la participation aux camps a prix de membre; l'usage réciproque avec d autres club nationaux; la réception du Journal Alpin Canadien (excepte les cadets) et d'autres publications: les prix spéciales pour les livres en vente au CAC. La cotisation annuelle: les adultes ou les associes $30; les couples $52; les cadets $15. La cotisation d'admission (excepté les cadets) $10. On peut être aussi membre viager.

Instructions Aux Collaborateurs

Veuillez soumettre vos manuscrits pour Ie JAC, en français ou en anglais, à Moira Irvine, Éditeur JAC, Box 91880. West Vancouver BC V7V 4S4, Canada.

La date limite pour les soumissions au JAC (1984) est fixée au 25 novembre 1983. Les soumissions postées avant la date limite seront reçues avec reconnaissance. Les collaborateurs ; qui désirent lire leurs manuscrits après l'annotation devraient les soumettre avant Ie 28 octobre 1983. S'il y a encore trop de texte, on peut faire d'autres changements éditoriaux. Les collaborateurs qui desirent revoir leurs manuscrits annotes devraient l'indiquer au moment de les soumettre.

Les soumissions doivent être dactylographiées, L'ESPACEMENT DOUBLE, la marge de W a gauche, les dimensions du papier 81/2" x 11". Si vous étés obliges de soumettre un manuscrit écrit a la main, veuillez Ie soumettre de bonne heure et veuillez écrire sur les lignes alternées, c'est a dire espacement double. Les corrections aux manuscrits dactylographies doivent être écrites au crayon. Veuillez soumettre la copie originale, pas de xerox ou de photocopie. En présentant des cartes veuillez inclure la flèche nord, l'échelle, la latitude et la longitude. Les photos doivent être nettes et claires; les dimensions minimums 5" x 7". De bonnes photos en couleur sont préférables aux diapositifs en couleur. Si vous tracez une route sur une photo veuillez attacher une photo sans trace ou un "overlay". Veuillez cataloguer les photos en pages séparées, Ie titre de votre manuscrit en tête et écrire Ie nom de l'expéditeur a l'envers de la photo ou Ie diapositif. En écrivant a l'envers des photos n'appuyez pas et n'utilisez pas de stylo à bille ou de stylo a feutre.

Vous devriez envoyer vos propositions pour de nouveaux noms de lieu, par écrit, au Secrétaire Exécutif, Comite Canadien Permanent de Noms Géographiques, Bureau Géographique, Ministère d'Énergie, Mines et Ressources, Ottawa. Les propositions doivent être accompagnées d'informations suffisantes au sujet de l'origine et de l'usage du nom ou des noms, et doivent être identifiées sur les cartes, les croquis ou les photos aériennes.

Cover: Rock Spire on Unnamed 9250', Vowell Group. Al Dunham

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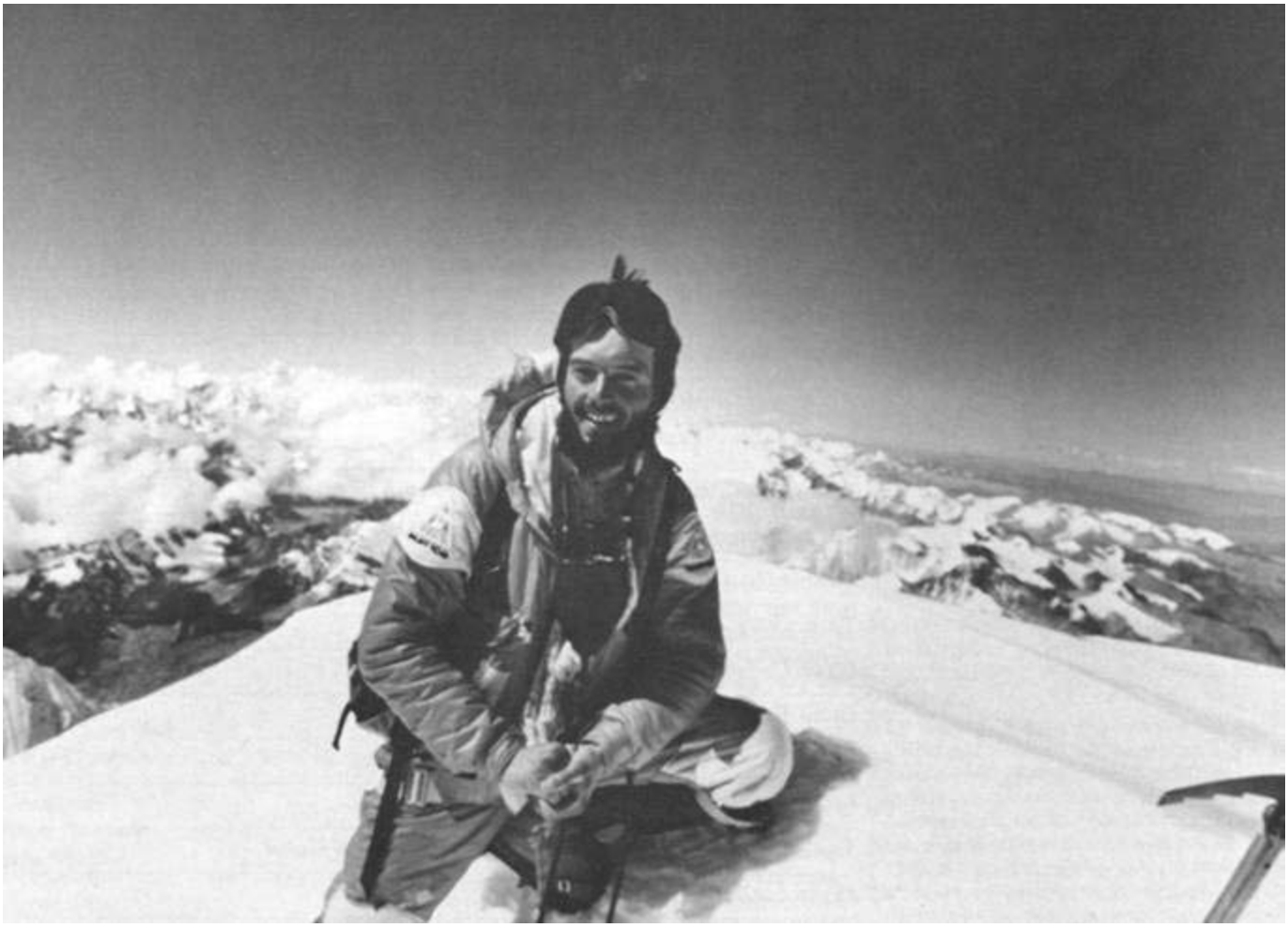
Canadians On Everest

Pat Morrow on summit of Mt Everest, 7 October 1982.



The expedition left Calgary on 17 July 1982 and after many adventures, including a three day layover in Bangkok, managed to arrive in Kathmandu minus the base camp cook who was interned at Bangkok airport because of an outdated passport. Since the majority of our equipment and supplies had been sent in during the pre-monsoon period for storage at Khunde and Periche, a few days march from base camp, there were few formalities in Kathmandu. Peter Spear and Dave McNab were dispatched ahead of the main group to organize the setting up of base camp and the movement of gear. Alan Burgess and Roger Marshall who had been in Nepal had also gone ahead saying they would meet us at Namche Bazar. The remainder of the team enjoyed a pleasant walk in, with relatively good weather for the monsoon. The exceptions were Jim Elzinga who injured his knee and remained in Kathmandu, and Laurie Skreslet and Steve Bezruchka who would catch up with us later.

At Namche Bazar Roger Marshall left the team after some discussion with the leader regarding a possible breach of his climber's contract. Meanwhile Jim Elzinga had managed to arrange a helicopter ride to Phakding, below Namche. He struggled up to Namche Bazar with a walking cast, hired a yak and rode it Western style to rendezvous with Peter and Dave at base camp. This was a valiant effort since as equipment co-ordinator he was required to issue clothing and gear to the Sherpas at base camp by 20 August. By 15 August the team, apart from Steve Bezruchka and Laurie Skreslet, were in base camp and busy preparing for the first big problem, the icefall.

Dave McNab and Peter Spear had made a few exploratory probes on the icefall and this provided much helpful information. We had permission to work on the icefall and carry to camp 1 between 20 August and the official start of the climbing season on 1 September. Three days later we had pushed through the icefall with Laurie and I having the honour of the first view up the Western Cwm. It was one of the highlights of the expedition for me. The top of the Western Cwm was split by huge crevasses and it took two more days of fixing and bridging before Jim Elzinga reached camp 1 on 22 August. By 30 August we had 120 loads at camp 1 and everything looked really good. Then at 5.30 am on 31 August tragedy struck — a huge avalanche swept down the west shoulder of Everest through a barrier of ice towers in the icefall to reach our fixed rope about 1500 ft above base camp. Three Sherpas were buried and killed by the slide. Above them Pat Morrow and Blair Griffiths were pummelled and shaken on the fixed rope by the edge of the avalanche. Below Peter Spear and Rusty Baillie were swept away with Rusty managing to swim clear. Peter was completely buried and was dug out by Rusty. Rescue teams set out from base camp and camp 1. Tim Auger did a first rate job of co-

ordinating the search and rescue effort at the avalanche site. Of the three Sherpas buried — Pasang Sona, Ang Chulden, and Da Dorje, only one was recovered — Pasang Sona. The body was carried to Lobuche for cremation the following day.

Leaving Lloyd Gallagher in charge of the expedition I accompanied the body to Lobuche with the intention of meeting the relatives of the deceased Sherpas. It was an emotional experience to say the least. Whilst there I received a cryptic note from Peter Spear informing me that Blair Griffiths had been killed in the icefall by a falling sérac. There had been a major collapse of several hundred square feet leaving the fixed rope 20 ft above the climbers' heads. Dave Read and a Sherpa had fallen into a crevasse and narrowly escaped death. Rusty Baillie who was within feet of Blair when he was killed, managed to rescue Dave and the Sherpa. Blair's body was later recovered and carried to Lobuche for cremation in a simple but powerfully moving ceremony.

Needless to say we all felt we had our backs to the wall in a hard place and I decided that we could not continue without the team members having the opportunity to review their commitment to the climb. It was obvious that the icefall was treacherous and uncertain, and in an atmosphere of restrained emotion six climbers decided to leave — Tim Auger, Rusty Baillie, James Blench, Dave McNab, Jim Elzinga, and Don Serl. They were accompanied by Dave Jones, the base camp doctor, who was having difficulty acclimatizing at base camp. This left eight climbers and four support personnel at base camp together with 24 Sherpas. An agreement was negotiated with the New Zealand team climbing the west face of Lhotse to co-operate between camps 2 and 4. Conditional on this the Ministry of Tourism granted us permission to change our route to the South Col. At this stage I sent John Amatt back to Kathmandu by helicopter to cover the media circus which had developed at the Everest Sheraton.

When everything was settled, with Lloyd Gallagher holding the fort, I left for a six day trip down the valley to prepare myself for the challenge ahead. In my absence bad weather prevailed at base camp and it was not until 16 September that Alan Burgess, Pat Morrow and Gordon Smith pushed through heavy snow to camp 1. Lloyd Gallagher carried Alan's pack whilst Alan broke trail and cleared the ropes. I returned to base camp on the 16th and Lloyd descended for a few days R and R down valley. There were still some loads to be taken to camp 1, and between 17 and 20 September I accompanied the Sherpas on three carries through the icefall. On the 20th I moved to camp 1 to join Dwayne Congdon who had moved up earlier. Two days later camp 2 was occupied by Alan, Pat and Gordon; and Lloyd and Dave Read moved up to join myself and Dwayne at camp 1. We had 12 Sherpas plus a cook and cook boy with us and at this time it was decided unanimously to close the icefall to further traffic including maintenance work. It would be re-opened after we climbed the peak. Laurie Skreslet, who was at base camp, came through the icefall after it was closed on the understanding that it was his own decision.

The closure of the icefall brought the team closer together and everyone worked really hard over the next few weeks. There was an air of total commitment to the task in hand and it was much easier to lead the smaller team. Progress was rapid in spite of some delays caused by periods of bad weather and strong winds. Alan and the New Zealanders fixed to camp 3 at 23,400 ft and then Dwayne and the Kiwis pushed the route just above the camp. Alan and Adrian Burgess fixed across the Lhotse face to below the Yellow Band. All this was achieved working from camp 2 and on the 28th Pat Morrow and I occupied camp 3. The following day we found the fixed rope across to the bottom of the Yellow Band had been swept away by an avalanche and I repaired the damage. Pat's oxygen set was malfunctioning and he returned after fixing through the Yellow Band. I continued with Lhakpa Dorje and Lhakpa Tshering to fix another 800 ft of rope using oxygen. On the 30th Dwayne and Gordon with two Sherpas pushed the rope further. The following two days were too windy and cold to complete the fixed ropes to the South Col and it was not until 3 October that Alan with Sundare and Lhakpa Dorje in a great effort reached the South Col. A full carry by Sherpas without oxygen from camp 2 to the South Col was accomplished on the 4th and camp 4 was established and stocked for a summit attempt. Laurie and Dave Read occupied the camp with Lloyd returning from just below the South Col because of faulty oxygen equipment. There was insufficient oxygen for four people in a summit bid and Dave Read opted to remain at the South Col. On 5 October Laurie Skreslet, Sundare, and Lhakpa Dorje reached the summit at 9.30 am and descended to camp 2 the same day.

On the 6th camp 4 was restocked for a second summit bid. No Sherpas were available to carry that day but Dwayne Congdon carried two bottles of oxygen to camp 4 from camp 2, returning the same day. Gordon Smith carried two bottles to within 100 ft of the traverse to the South Col whilst camp 4 was occupied by Pat Morrow, Alan Burgess, Pema Dorje, and Lhakpa Tshering. I carried a load for the New Zealanders above the Yellow Band. Next day, the 7th, the occupants of camp 4 set off for the summit at 5.30 am. At 27,500 ft Alan's oxygen equipment malfunctioned and he returned to camp 2, having climbed without any oxygen at all. Pat Morrow, Pema Dorje, and Lhakpa Tshering summitted at 11.30 am, descended to 4 by 2 pm, and to camp 2 by 6.30 pm.

Both summit teams experienced good weather but we could see the signs of change and had insufficient oxygen to mount another attempt. The group was also fatigued from living continuously above 20,000 ft for almost three weeks. On the 7th Lloyd, Laurie, Dave, Dwayne, and eight Sherpas descended to base camp through a "horror show" of an icefall. Gordon and I and the remaining Sherpas waited for Pat's and Alan's descent and on the 8th we all descended to base camp. Sherpa Pema Dorje was suffering from snow blindness caused by removing his goggles which were misting up with hot breath from his oxygen mask. Alan carried his pack and led him to camp 1. From there I took him through the icefall to below the dangerous traverse where I handed him over to Sherpas coming up from base camp.

The feeling of relief which swept over me as I left the icefall as tail end Charlie and was greeted by Lloyd with a can of beer is impossible to describe. It was the best beer I have ever tasted.

Bill March

EXPEDITION MEMBERS

Climbers: Bill March (leader), Lloyd Gallagher (deputy leader), John Amatt, Tim Auger, Robert Baillie, Alan Burgess, James Blench, Dwayne Congdon, Jim Elzinga, Roger Marshall, Dave

Sherpas and climbers establishing camp 3 on the Lhotse face. Pat Morrow

McNab, Pat Morrow, Dave Read, Gordon Smith, Laurie Skreslet, Don Serl.

Support personnel: Steve Bezruchka (high altitude doctor), Kurt Fuhrich (base camp cook), Blair Griffiths (video cameraman), Bruce Patterson (journalist), Peter Spear (base camp manager), Dave Jones (base camp doctor).

The final team: Bill March, Lloyd Gallagher, Alan Burgess, Dwayne Congdon, Pat Morrow, Dave Read, Gordon Smith, Laurie Skreslet, John Amatt, Steve Bezruchka, Kurt Fuhrich, Bruce Patterson, and Peter Spear.

ACKNOWLEDGEMENTS

The expedition was sponsored by Air Canada and received support from many other Canadian companies.

TECHNICAL NOTES

Oxygen System

Two systems of oxygen were used, diluter demand and constant flow. The former never really functioned well as the diluter demand valve froze both shut and open. All summiteers used constant flow.

Satellite Link

Teleglobe Canada set up an earth station to provide a satellite link for voice and video direct to Canada. This functioned perfectly throughout the climb. There was a communications problem between base camp and Kathmandu as the radio was not installed until 7 September. Accurate information from the mountain could not be transmitted until that date.

Video Cameras

Up to camp 4 over 20 hours of video were shot with solid state Hitachi video cameras using 1/4 inch tape. Above camp 4 the extreme low temperatures froze the tape machines necessary for the operation of the cameras above this height. Solar charging units were used successfully to recharge the battery power packs at base camp and camp 2.

Radio Camera

A specially equipped radio video camera was flown in to film the summit push. Paul Moores, a member of the New Zealand team, carried it through the icefall. Its total weight was 12 Ibs and it arrived at camp 2 with a dead battery and was not taken higher.

First Newfoundland Ascent Of Caubvick

Since this year the boys from upalong was climbing Everest, we Newfs decided we should do our bit. You see we has this mountain down the Labrador right on the border with Quebec which few of us has seen and none from here had climbed. Some of our neighbours impolitely called her "d'lberville", after this French pirate as burned our houses. That was some time back I'll grant but we is not into Imperial France and we was glad when a right gentlemanly cuffer out of Ottawa said she should be "L1" until we makes up our minds. Well we made our minds up and now it is official. We calls her "Caubvick" after this native woman who went to London with Cartwright and some other Inuit. I believes she was the only one in the group to survive the smallpox. Anyways she's immortal now and stands up there, the highest in the Torngat, a tall cone of rock at the meeting of three ridges, two of which we shares with Quebec. The third is ours alone.

The first Newfoundland ascent of Caubvick, and only the fifth recorded ascent, was not a fancy affair but we all had a real good time. One native son called Hazen Russell and two c-f-a's[1] Bob Rogeson and Tim Keliher (though add up the years the last two has been here and it's almost the same as Hazen's age), we climbed her on 27 July 1982 along the Minaret Ridge. Fine old view from there and though we hears that some has soloed it, we used a rope for the last three pitches. Nice feeling of security, like a handy sheet in the rigging when you's up for barrelman. We didn't have a fancy Air Canada flag so we just hoisted the Provincial flag and the flag of Labrador up there.

Now we wasn't really out for just the climbing; we also has our own Newfoundland glaciers — and I don't mean the bergs that comes right down home in the spring — but real glaciers in the mountains. I mark we is the only province east of Alberta as has them in this whole Dominion. We looks right careful at them since one at least has moved for'ard a couple of metres since last year, pushing his way down the valley right stroppy like. We drilled holes in them like you'd think they'd spring a leak but for the fact

we bungs 'em up with aluminium poles. We dug snow pits just like clearing the wheelbarrow path in winter, except it was swimsuit weather most the time. And we measures all kinds of fancy things; if we was tailors we could fit them with a suit of clothes by now.

Anyway the boys got right keen on this climbing thing and Hazen and Tim downs their tools just two days later to up and climb Mt Caubvick by another ridge; the one we shares with no one. We hears she's called the North Ridge but to us she's the Newfoundland Ridge and always will be. She's a longish climb on loose rocks with the crux a single pitch at the bottom, just above the col. She'd be a real exciting climb if you stayed right on the crest but would take more time. As it was we was ten hours from the camp at the terminus of Minaret Glacier. We reckons that's a new route anyways.

Seeing as how one of us at least will be back next summer and many years after that it looks like we might finally make it as a bunch of climbers at home instead of going upalong. It's pretty country in the Torngat and we be right proud of it.

RJ Rogerson

FOOTNOTE
1 c-f-a = come from away. Mainlander, immigrant, non-livyere, foreigner.

Mystery Mountain Hop

A three week sojourn in the Waddington area with five new routes.

Un séjour de trois semaines a la région Waddington avec cinq traces nouvelles.

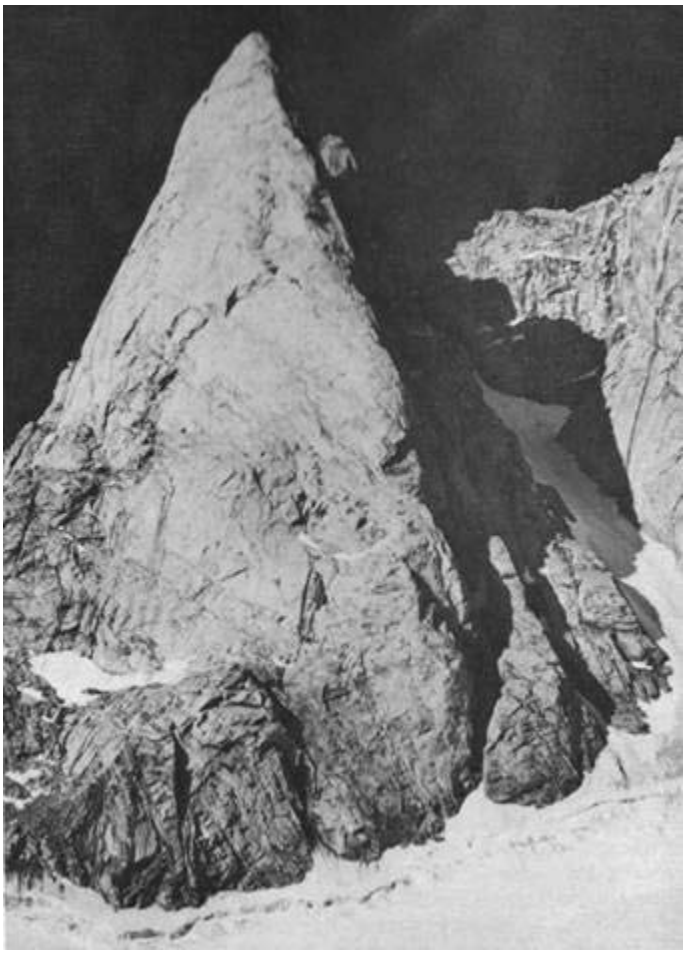
In late July 1982 Mike King of Whitesaddle Air Services flew four of us into the Waddington/ Combatant col where we set up base for a three week sojourn. We all acclimatized on the "Great Couloir" route of Mt Combatant then struck off to climb some of the previously neglected classics of the area. Between bouts of fabulous weather when it was too hot for safe conditions and a couple of severe tent obliterating storms the following first ascents were climbed.

Mt Combatant North-West Peak, South-West Buttress

Dave and Scott climbed the westernmost of Combatant's south facing buttresses in 22 pitches from bergschrund to summit. They abandoned alpine paraphernalia two pitches up a small couloir from the 'schrund and, donning EBs and free rack, took off left up a large corner/chimney to gain the buttress crest. They climbed as close to the crest as possible, the most notable deviation being a hand traverse on the fourth pitch which went right around the crest before gaining a short wide crack heading up again. The rock was excellent knobby, fractured granite, making the climbing absolutely superb. Difficulties were rarely easier than 5.6 and never harder than 5.9. With nothing in their pack but headlamps and hexes for the rappels they planned not to bivouac but ended up doing most of the 16 rappel descent in the dark. They were quite lucky to find their alpine gear again in the pitch black myriad of gullies at the bottom and arrived back in camp just before sunrise.

1st ascent Skywalk, V 5.9,22 hours return. Scott Flavelle and Dave Lane. 27 July 1982.

Mt Combatant-north-west peak, south-west buttress
Skywalk follows, more or less, the line between sun and shadow. Scott Flavelle



Mt Combatant Main Summit, South Buttress

This is the easternmost of the southern ramparts, arching directly for the highest summit of Combatant's tripartite massif. After crossing the bergschrund and climbing a short ice apron, considerable elevation was gained up a boulder strewn terrace before gaining the toe of the buttress. This was climbed directly on the crest except for turning a roof and gendarme about halfway up on the right. Again, superb knobby granite, most of it surprisingly moderate with some spectacular and delicate knife-edge climbing and an optical offwidth topping out onto the summit. Descent by rappelling and down climbing the route.

1st ascent Kshatrya Buttress, III 5.8,13 hours return. Cam Cairns and Mike Down. 30 July 1982.

Mt Waddington North-West Peak, North-East Face

The north-east face couloir route is best explained by the photo. With many 2 am and Glayva false starts Scott and Dave waited several days for a cold spell before venturing into the couloir, to be rewarded for their persistence with plastic ice and only scheduled (thus avoidable) rockfall.

1 st ascent north-east face, 820 m, IV A14 5.8,18 hours return. Scott Flavelle and Dave Lane. 2 August 1982.

Mt Tiedemann North-East Face

The prima donna ice face of the Coast Mtns. A full day approach was required to climb from our camp in the col over the west shoulder of Mt Combatant and down onto the upper Chaos Glacier

Mt Waddington north-east face with route marked. Scott Flavelle

basin to a bivouac on the north ridge of Tiedemann (Tiedemann/ Damocies col). From here down climbing ice and rappelling two bergschrunds put us on the upper bench of the Radiant Glacier, well above the tumultuous icefall that guards access to this spectacular cirque — the north buttresses and faces of the Serra Peaks, Mt Asperity, and Mt Tiedemann (see Dave Knudsen's photos, CAJ 1980:82). Some tricky climbing negotiated the bergschrund maze, well to the right of the séracs dominating the centre of the face. From here Cam and Mike climbed straight up in a wide, indistinct couloir bordered by the sérac barrier on its left, then broke out onto the face following a faint rib of biting alpine ice.

1st ascent north-east face, 700 m, III A13, average 45 to 50 degrees bulging to 60, 9 hours return to bivouac. Cam Cairns and Mike Down. 8 August 1982.

Mt Asperity North-East Spur/Face

From the bivouac site in the Tiedemann/ Damocles col Scott and Dave dropped down onto the Radiant Glacier and traversed its upper bench to the prominent ice arête of Asperity's north-east spur. When the spur merged with the north-east face they went straight up, then followed a chimney system trending right. This led to the lefthand fringe of the north ice face and on to the top. Conditions were excellent — plastic ice and sections of mixed climbing on granite.

1st ascent north-east spur/face, 700m, IVA13,16 hours return to bivy. Scott Flavelle and Dave Lane. 8 August 1982.

As well Cam and Mike wandered their way up the Angel Glacier to the north-west summit of Mt Waddington one blustery day. We all spent four wet and hungry days making the great trek back out to civilization via Bifrost Pass and Twist Creek, a must for Coast Mtn aficionados. After many miles and many, many more blueberries we stumbled back into the legendary hospitality of the King's ranch.

Mike Down and Scott Flavelle

To The West Greenland Icecap

"We could see the whole country to the south of the Godthaabsfjord lying spread out before us, a rough mountainous tract with many deep valleys and lofty peaks. It was a fine country, wild and grand.... A journey to Godthaab in this kind of country looked anything but a simple matter." So wrote Fridtjof Nansen after successfully crossing the Greenland icecap in 1888 and as we viewed the same landscape in 1981 we shared his sentiment.

"Nous pouvions voir toute l'entendue du pays au sud de Godthaabsfjord devant nous; un terrain montagneux avec de nombreuses vallées profondes et des sommets élèves. C'était un pays plaisant, sauvage et grandiose. On voyage vers Godthaab a travers ce pays ne s'annonçait pas facile." Ainsi écrivait Fridtjof Nansen après sa traversée réussie des champs de glace de Groenland en 1888. En contemplant la même paye sage en 1981 nous partagions son sentiment.

Greenland had attracted us as a place to hike and climb for a number of years but despite being a mere 15 miles or so away from Canada at its closest point it was largely inaccessible due to lack of convenient air service. Crossing the Atlantic Ocean twice to get there (via Denmark) was not our idea of the way to start a trip. However this situation changed in 1982 so on 1 August we boarded the plane at Frobisher Bay for the flight across the Davis Strait to Godthaab (now called Nuuk) on the west coast of Greenland. As in the Canadian arctic, Greenland's communities are scattered along the coast and the people depend mainly on the sea for their livelihood. For us as visitors the attraction was the mountains and icecap. Not surprisingly this difference in priorities led on occasion to some amusement but we were always tolerated.

We left Nuuk aboard a chartered boat and spent the next six hours travelling inland up a fjord, slowly passing by massive rock walls which soared up to 4000 ft from the water without any hesitation in places. Elsewhere were smooth U shaped hanging valleys surrounded by snow and ice. Even on the water we were faced with ice for the fjord contained numerous icebergs, large and small, which had been carried by wind and tide from a glacier's end in a connecting fjord. The scenery was superb, due not so much to any particular peak as to the overall massiveness of the landscape and the continuity of the mountains. Our captain, a man worthy of any portrait of Erik the Red, was less outwardly enthralled by the environment, preferring to concentrate on avoiding the icebergs, but relaxed now and then to beam us a great smile (with all of two or three teeth) at our amazement at the surroundings.

Journey's end was a fishing village, population 117, composed

A braided river flowing from a glacier terminus into the Amaragdla Fjord; peak in background is 920 m.

The Umanap Suvdlua Fjord between Nuuk and Kapisigdlit.

of houses scattered on the sloping hillside like a Newfoundland outport. All around were the mountains, perhaps less rugged than those closer to the coast but imposing enough by any standards. Despite the lack of a common language no words were needed to express the villagers' incredulity at the sight of us loaded with our towering packs as we set out on foot. With wilderness at the doorstep we were soon beyond the village's limits and alone in the mountains. Progress was slow for the first few days due to our heavy loads, especially over the wet tundra, but we found that distance was not really important for the complete isolation in such an expansive and wonderful wilderness was reward enough. The vegetation was very lush (for the arctic), covering the ground completely at low altitudes and there was no sight of snow. Or of the icecap either. This region of Greenland was green indeed.

Unlike other parts of Greenland the icecap here is a long way from the coast. In fact despite being about 50 miles inland, we were still 20 or more miles from the icecap in a straight line and further of course by foot. We followed a river valley south for the first few days, passing several large lakes, and planned to connect with another river heading east. Navigation was reasonably straightforward by sight (meaning don't climb the cliffs), with the difficult decisions being confined to finding the driest way across the frequently soggy slopes. At other times we crossed partially overgrown rock and boulder fields. Neither afforded particularly speedy travel.

The habitat was home to a zillion flying bugs which arose in hordes from the tundra when the temperature climbed above +7°C (daytime maxima reached +12°C). They were most distracting, not so much from biting as from their continual close presence around one's face. Netting proved to be a simple and effective remedy but without it we would have been tormented. The land was also home to hundreds of reindeer, grouped into herds of about forty, which were very wary of us. Rarely were we able to approach within half a mile of the herds though we did occasionally come closer to lone individuals. Actually vice versa would be more accurate as they could run circles around us (and did sometimes), so it was largely of their own volition or lack of awareness that they came close to us. The animals did provide a useful service however by carving trails through the thick stands of willow bushes which were widespread in places, especially along streams from higher ground. These bushes attained a height of eight feet and were as dense as they were high so the trails were a boon except for one oversight — there were no trail markers! But reindeer are not climbers so we knew that their trails would not take us into trouble and conversely when we lost the tracks we could tell the reindeer knew something we didn't. A skull, with both antlers attached, found wedged between two boulders in a difficult rockfall served to bring the point home.

After crossing the watershed of the initial valley we followed another river down a wide open valley to the shore of another fjord where we found the remains of a Norse settlement. Three longhouses had once stood here, each some 50 by 20 feet, revealed by rectangular embankments and singularly lush vegetation. The map showed many sites along the fjords and river valleys but this was certainly a major settlement and the local area showed signs of much more recent use as a temporary hunting or fishing camp. The location was ideal, being on the alluvial fan of the river and therefore afforded soft, dry and reasonably flat ground, which was a rare combination of desirable attributes. And the scenery was magnificent.

Route finding through assorted rocky lumps of hills now became an issue, requiring scouting sorties to avoid hauling our packs up dead ends. In this way we found a notch between cliffs which put us at the top of the slope overlooking Nansen's Austmannadalen ("way out") river which emptied into the fjord. Nansen had crossed the icecap from east to west and had travelled "laboriously" down this deep river valley from the edge of the ice to the fjord. For us we hoped it would be the way in to the icecap which was as yet still invisible except for one tiny tantalizing peek. But rivers in gorges tend to zigzag, bouncing off cliffs at the sides of the gorge to change direction. This one was no exception. After a short stretch by the river's edge we encountered the first bounce. We tried for two days to wade across to the other side but always found the water too cold, wide, and fast and the bottom too bouldery for safe footing wherever we tried. This was the consequence of travel at the height of the ice melting season. Although there was one point where we felt the crossing might be feasible, being a party of just two and mindful of our isolation, we were reluctant to put a major physical obstacle behind us lest we had to cross it in less favourable circumstances on our way back. We therefore abandoned the river in favour of trying a route over the high ground. Our inability to cross Nansen's river also excluded another potential route to the ice which followed another river visible across Nansen's river. It all looked so easy on the map!

We had some apprehension about the high ground as well since two or three days of fair weather was all that could be expected, after which the mountains would become enveloped in rain and clouds, making the lichen covered rock slabs acutely slippery and navigation more uncertain. In fact the weather held for five days.

The upper ground, called the Tungmeralik, had an irregular lumpy topography severed by valleys containing numerous lakes. Forward progress therefore entailed a circuitous path coupled with descents and ascents, although the trend was upward as we advanced eastward. There were few discrete peaks in our immediate vicinity but plenty could be seen around the horizon. They were no altitude record breakers for few exceeded 1500 m but the unending mountainous terrain was impressive. The vegetation thinned rapidly towards the east and with altitude, created the impression that the ice was not long gone. To our surprise there was no residual snow here either though there were patches on many of the higher and more distant peaks and ridge lines.

But of all the sights to be seen from the Tungmeralik none could compete with the icecap. It was a brilliant white sea spanning almost half the horizon and contrasted sharply with the dark and lumpy landscape. It was unmistakably higher than us on the horizon from which it gently descended to engulf the mountains in our foreground, now below our position. One is used to seeing mountains rising out of glaciers but here at the sharp boundary between the icecap and the land we were seeing quite the opposite. We had never seen anything comparable.

The route to reach the ice became obstructed by steeper cliffs and deeper valleys so we reluctantly turned around and spent the

A lake in the Tungmeralik.

Cliffs bordering Nansen's River (bottom)
Alternate route to icecap follows gorge in middle distance.

Cliffs and lakes defined the course up the first valley.

next several days retracing our steps until we reached yet another east west river which we had earlier discounted as a way to the ice. Fortunately we were able to skirt around the shore of a long lake despite a couple of days of heavy rain and several substantial rockfalls. But time was running out so on one clear afternoon we left our packs and scouted ahead. Climbing faster than before we progressed well and reached the top of the final high ridge after a few hours. The land dropped away from here in a clear route to the ice, spread before us again albeit still several miles away. Even from this distance the ice surface looked treacherous, all of it scarred by large crevasses. Nansen had also found his last couple of days on the ice in this area to be difficult. He wrote: "We now found ourselves amongst the roughest ice I have ever seen. Absolutely impassible it was not, but ridge upon ridge, each sharper and more impracticable than its neighbour, lay in all directions while between them were deep clefts often half filled with water." This situation coupled with our lack of time made turning around at this point a prudent choice. We had found a route to the ice and came away unscathed and satisfied.

Kalaallit Nunaat, as Greenland is now called (meaning "the land of the people"), offers endless opportunities for hiking as well as ice and rock climbing in a magnificent and undeveloped arctic setting. The Greenlanders we met are somewhat apprehensive about the potential deluge of mountaineers who might take advantage of the North American air connection for there is minimal infrastructure to cope with visitors, much less for mountaineers. Yet they want the tourism. Consequently some said they would prefer that climbers/hikers go in prearranged, guided groups in order to exercise control and ensure mutual benefit. Climbing expeditions are already subject to Danish law so the concern is largely one of exercising local control rather than instituting additional constraints. Certainly people were most helpful and friendly and we hope their hospitality will not be abused in the future. We are, after all, neighbours.

Roger Buxton and Judy Hazlett

Ha-Iltzuk Range Ski Traverse

A 220 km Coast Mtn alpine traverse on cross country skiis, over 200 kms on glaciers. From Ape Lake across both the Monarch and Ha-iltzuk ("Silverthrone") Icecaps - most of the large middle section unexplored -to the head of Knight Inlet.

Dans la Chafne Côtière, un raid alpin a skis de fond de 220 km, dont plus de 200 km sur glaciers. Traversée, a partir du lac Ape, par les calottes glaciaires de Monarch et de Ha-iltzuk ("Silverthrone") - parcours comportant une tongue section centrale dans une zone encore a peine exploree - jusqu'a l'extrémité du fjord Knight.

"A man should have wings to carry him where his dreams go but sometimes a pair of skis makes a good substitute."
HANS GMOSER, CAJ 1961:1

Over the past years a group of us have expended a good deal of energy on ski traverses in the Coast Mtns. For the most part the traverses are entirely alpine, almost entirely on glaciers, subject to long periods of bad weather, and we have done them all on cross country skiis. With the completion of each tour the mind runs wild with dreams of other possibilities. One such idea began to germinate two years ago, just before the Lillooet Icecap traverse (CAJ 1980). At first it was mostly imaginary but with the success on the Lillooet Icecap I began to think it should happen.

The Klinaklini River on its way from the Chilcotin plateau to tidewater at the head of Knight Inlet flows through the heart of the Coast Mtns. To its east lies the well known rugged Waddington Range. To its west however lies a surprisingly unknown area containing the Monarch and "Silverthrone" Icecaps, two of the largest in British Columbia. Together they occupy close to 2000 square kilometres, and the great Klinaklini Glacier issuing from the

Ha-iltzuk ("Silverthrone") Icecap is over 40 kms long terminating at an elevation of only 200 m above sea level. This large snow mass owes its existence to two main factors: the cool cloudy summers which inhibit ablation and the extremely high precipitation. Precipitation estimates are in the over 350 cm category. Using crude figures this would mean that the annual snowfall would be at least 18 m for these icefields.

The entire region remained unknown and unexplored until 1936. Henry S Hall, Jr and Hans Fuhrer touched the edge of the Monarch Icecap with their first ascent of Mt Monarch in the early part of the summer. In August of that year they joined the Mundays for a trip to the Silverthrone area. The Mundays had reconnoitered the great Klinaklini Glacier the previous year but had been thwarted by raging Tumult Creek. This time they were prepared and the party made the first ascents of Silverthrone and Fang Peaks. And more surprisingly they used skiis higher up on the snowfields. Don Munday refers to this area as the Ha-iltzuk Range in his article on their trip, and explains how the name was derived from that of a linguistic subdivision of the Kwakiutl Indians (CAJ 1936:26). The next foray into this region was in July 1953. John Dudra, Fips Broda, Jack Atkinson, and Howard Rode flew into Ape Lake and with skiis crossed the Monarch Icecap to climb Monarch's west face along with the first ascents of Page, Princess, and Jacobsen. They then exited via the canyons of the Nusatsum River (CAJ 1954:7-19). Their trip triggered off many climbing forays directed at the peaks around Ape Lake and also Monarch itself but the only other expedition to penetrate far into the Icecaps was the remarkable solo trip by John Clarke in July 1973. He flew in by ski plane to the head of the Kilippi Glacier in the northern portion of the Ha-iltzuk Icecap. His trip began with an eleven day snow storm — as he put it "No wonder this glacier is 25 miles long". At the end of the storm he traversed (also using skiis) the Ha-iltzuk Icecap to exit by way of the Sim River to Knight Inlet. He climbed many of the major peaks on the way (CAJ 1974:4-8). We learned after the trip that in the summer of 1967 Dick Culbert and Mike Warr were involved in some "helicopter" geology in the middle section lying east of the head of the Machmell River — referred to as the Rabble Range (CAJ 1968:195).

On 20 April 1982 Graham Underhill, Brian Sheffield, Steve Ludwig, Helen Sovdat, and I were dropped off at Ape Lake by Whitesaddle Air Services. Our plan was to negotiate a 220 km alpine traverse on cross country skiis from here to Knight Inlet. Of this over 200 kms would be on glaciers. This would take us directly across both the Monarch and Ha-iltzuk Icecaps, basically linking the routes of the Dudra party and John Clarke. Most of the large middle section remained unexplored. On maps and air photographs it looked feasible but there were several tricky spots — these would depend on snow conditions and the state of health of the glaciers. By far the biggest unknown was the weather. Aside from John Clarke's experience we had attempted the trip in 1981; in places such as Knight Inlet it rained for over 40 days straight. The consequences of being caught in such a bout of storm while up on the icefields is obvious but to add to the problem is the lack of any usable escape routes. We estimated the trip would take four weeks. Of this we figured at least 17 clear travelling days would be needed just to get through. Because of the rugged nature of the terrain any idea of using sleds was out. Our only option was to split the food into four lumps of a week each. Thus before getting

Monarch and Ha-iltzuk Icefields. John Baldwin/M Irvine

out at Ape Lake we placed three food caches along our route (well marked with wands). To allow for any severe storms we further added three days of emergency food to each drop. This still meant that at the beginning of each week we would be skiing with 27 kg loads. We flew in from Bella Coola in perfect weather and while making the air drops Graham and I had a glimpse of what was in store. Mike King flew off leaving us at Ape Lake. We were on our own — a long, long way from Knight Inlet. Would the weather hold? The twin peaks of Jacobsen draped in winter snow stood above us to the south. It was already late in the day. We quickly packed up and headed south to the Ape Glacier. The group of five quickly disintegrated into four separate ski tracks. Not much of an omen (fortunately this never occurred again). Day 1 ended at about 6700 ft.

Day 2 still clear, saw us heading through the 7700 ft pass south-west of Mt Jacobsen. The sun had crusted up the south side. A few kick-turn traverses lost part of the elevation in the cruddy snow then the rest was used to send us howling out onto the Monarch Icecap,

pant legs flapping and poles flailing. High cirrus was moving in but first it was necessary to climb at least one peak in the area. We ascended Satan from the north-west. Magnificent views of huge icefalls catapulting to the Taleomey Glacier far below. A steep run down the wind dunes in the snow. We were desert nomads lost in a land of snow.

We camped high on the icecap near Mt Erehwon. In the morning we skied quickly to its summit in deteriorating weather. Any hopes of climbing beautiful Cerberus Mtn were smothered as we scuttled off down the icefield to be engulfed by a raging blizzard. We continued for a bit but came to a rather sudden stop just after lunch. Steve was coasting down the hill, eyes firmly attached to the only visible thing in front of him — his compass. Then to his surprise he realized he was but 2 m from a large crevasse. A bum drop solved the problem. The wind was a strong 60 kms/hr from the south-west as we quickly built a snow wall and camped for the night.

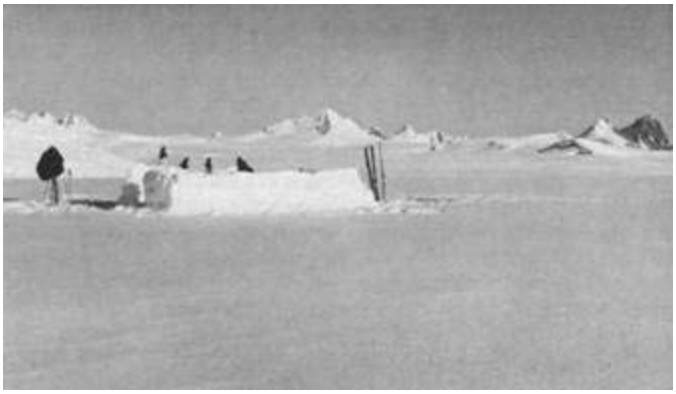
In the morning, clouds eerily unsettled over the snowfield, the sun began to break through. Princess Mtn loomed through the mist under a fresh coating of snow. We darted to the broad col just north of the peak only to be closed in for the rest of the day.

The next morning was magnificently clear and very cold (we estimated the temperature at -20°C), with a deep layer of excellent fresh powder. To the north-west the Monarch Icecap stretched off to the horizon glistening silently in the sparkling sunshine. It didn't take long before we were picking our way up on the right side of the icefall en route to Princess. At the head of this steep glacier skiis were left and with a ski pole each we negotiated the steep snowy west ridge to the south peak. Monarch towered to the north-east. Our attention was drawn by the deep notch to the east. This would be our route — we made a few notes and scrambled down the ridge. Skiis regained we began one of the highlights of the trip; linked turns through the séracs in knee deep powder for 1500 ft back to camp. We packed up and traversed around the head of the Sheemahant Glacier to a camp at 8300 ft just north of the notch. The day not yet over we were drawn to a sharp 9200 ft peak to the north which we nicknamed the Rabbits Ears (referred to as the Camelot Spires in CAJ 1968:198). But despite attempts from all sides we didn't have enough time to deal with its technicalities (ie it was too hard) so we went back to camp after a long day.

On Day 6 we hit the notch early. The slope led into a broad gully that averaged about 35 degrees with a 3500 ft exposure. We fumbled down this (on skiis) in breakable crust for 800 ft before turning due east down the narrow glacier issuing from the notch. Two kms down this and we turned south to the first air drop in a 7300 ft pass. We were one day ahead of schedule. Sitting on the rocks in the sun we ate and ate, and for dessert there was a 100 fl oz tin of fruit cocktail. There was even a beer for the Hornet (alias Brian). Life on the ice was OK! Brian and Graham, revived by the beer, set off for Pk 8200 north-east of camp and the 9100 ft summit directly above the notch.

Day 7. The rest of us bagged Pk 8200 ft before humping the loads and heading south. It was a fresh start with seven more days' food. The packs were heavy again and our shoulders knew it. We skied south-west up a small glacier to the 7700 ft pass at its head. After lunch attention was focused on some peaks. First the

The Monarch Icefield and camp on the Princess Glacier. John Baldwin



Princess Mtn from the north-east. Graham Underhill

8600 ft summit to the immediate southwest with an excellent ski run on the north side, then the smaller 8200 ft rock spires to the west (affectionately called the Hamster Fangs). The first proved straightforward, the second turned out to be a short stiff class 4 with a lot of exposure and no rope. From our lunch site we headed south-west for 4 kms. Negotiating the first corner in crusty snow Brian and I edged carefully into the slope to ease our speed. Graham was not impressed and decided to go for the works. He began stepping around into the fall line and built up quite a bit of speed. Then he caught an edge. A spectacular head plant followed, reinforced by a 27 kg pack leaving a huge divot and sore neck. This was a little encouraging for the rest of us since Graham was by far our best skier. Once down this short glacier we headed south-west to a camp at 7400 ft immediately above a large basin to the south. This was "the toilet bowl". That night it began to snow.

It stormed with a passion; winds gusting to 80 kms/hr from the south-west and snow drifting the tent under every few hours. The snow walls sheltered the tents well — but going outside was something to be put off until necessary. Were we to serve our eleven days? Lying in the tent listening to it storm there was no other measure of time than the number of days of food remaining.

Day 10. A small rise in pressure overnight, not enough for a change but at least a lull. We caught the occasional glimpse of some far off rocks but features in the snow remained unseen. There was two feet of new snow from the last storm and our route ahead meant dropping into the toilet bowl. Would it flush with us in it? We added up the possibilities. If this was a lull it would probably close back in for several more days leaving us in a whiteout miles from our food in the middle of nowhere. As we finished packing it closed in again. We skied for a bit in zero visibility until we could

see the rocks of Pk 7700 ft to the north of the toilet bowl. Visibility on the snow stayed near zero but a few rock outcrops allowed us to sneak over the peak and descend a ridge due west, then drop south down across the toe of a glacier into the toilet bowl. It had rained below 6500 ft so the slopes were stable. We pushed on 3 kms down the creek before climbing 3500 ft to a camp south of Pk 8400 ft on the south rim of the toilet bowl.

Day 11. Obviously we were getting a short lull in the storm but it wasn't over yet. Again in poor visibility we skied south-east for 4 kms enjoying the new snow on the downhill, through a small pass onto the great Klinaklini Glacier. It was impressive both because of and in spite of the visibility. As the clouds closed in and the blizzard began, we pushed 10 kms south to the second air drop with heavy trail breaking. We downed lunch and recovered the drop as the visibility dropped once again to zero.

Renewed again with books we waited. It began snowing heavily and 36 hours later there was three feet of heavy new snow, with drifts six feet deep in places! The snowpack was now six feet thicker than when we began our trip — so much for spring snowmelt. Two days later in the late afternoon the hornet became ecstatic and flew out of the tent in a rage of excitement! What was happening? He began hooting about a patch of blue sky — it was clearing. To the north-east we could make out a whole group of peaks we'd skied right by without seeing.

Day 13. The clearing was a little slow; the barometer had not shown a wild leap but we were off. The first thing evident about this glacier was the crevasses; most of them were big enough to drive a school bus right into. Because of the vast snowfall however, they were plugged 20 or 30 feet down and looked more like wind cirques dotting the surface. To travel it was simply a matter of meandering about them. We made it as far as the 6700 ft pass, near the middle of the Ha-iltzuk Icecap, which leads south into the Silverthrone Glacier before being pinned down in a whiteout. The pass lies exactly on the corner of four maps and by holding these flapping in the blowing snow we were able to make enough guesses to work our way down out of the clouds onto the Silverthrone Glacier. Ahead lay 15 kms of ice down and up the forks of the Silverthrone. Sensing that the weather might continue as it had for the past week we reluctantly decided to push on and forego an attempt at Silverthrone Mtn. We managed a further 7 kms before being whited out completely and camping for the night.

Just before bed the clouds began to roll back and the barometer rose furiously. The next morning was magnificent. We ate breakfast as the sun rose, shining in the tent door. Then we were off to Silverthrone with day packs, skiing quickly across the frozen crust on a fresh dusting of snow. As far as I can tell and as incredible as it may seem Silverthrone has had only one ascent, in 1936 by the Munday party. Their route was by way of the north-east ridge. Our route was to ski directly up the east face to join the ridge just below the summit. It was straightforward except for the knee deep trail breaking higher up the slope. Later in the year however this would be more difficult. As we reached the summit strong winds were bringing in the edges of a new storm system. Stretching to the north was terrain we had covered, the Jacobson peaks on the far horizon jutting above the Monarch Icecap. West was a totally unknown region of rugged 7000 ft peaks. East lay the Waddington and Whitemantle Ranges in a stunning recline. South lay the confusing territory of the Tumult Range with Klinaklini Peak marking the end of the trip on the far southern horizon. The view was interrupted by spindrift blasting under our hoods telling us that it was time to move on. We enjoyed a long strenuous run in the deep snow down the east face and a few hours later were back in camp drinking vast quantities of water.

Day 16. Under an overcast sky we moved south to our third air drop at the head of the Hamatsa Glacier. This placed us on yet another map sheet with only one of the eight yet untrodden.

Day 17. With unsettled weather we head down the Hamatsa staying, as recommended by John Clarke, on the true right side of the main icefall. Lower down we ski in the moat between the rock and ice and just short of the bottom we are forced to rope up and dart out onto the glacier down to the 3900 ft level, our lowest elevation in weeks. Water runs from the cliffs above, large pieces of ice and snow break off above and crash down out of the mist. We unrope and after lunch climb steadily up the south fork of the Hamatsa. At 6400 ft a blizzard sets in once again and we are forced to camp. It snows harder as we dive into the tents to finish off our books. Nerves are on edge. Ahead lies some very rugged terrain — not only do we need some half decent weather but we cannot afford a large dump of new snow on the steep slopes. People fidget quietly looking at their maps.

In the morning we are simply amazed. It has cleared. Underway early we stop and ski up Kolos Peak, kicking steps the last few hundred feet. The Satsalla Glacier snout is 600 ft below to the west; we just catch glimpses through the sea of cloud billowing in the low lying valleys. North lie now familiar summits. We linger just below the summit cornice before dancing off on a leap frog run back to the packs. We ski down the Tumult Glacier and up its south fork, then through a 7400 ft pass. Difficult waxing conditions leave us alternating between no grip and great clumps of snow on our skiis. Once again the unstable weather closes in for the afternoon, pinning us down to the broad 6400 ft col just east of the 7400 ft pass.

Day 19. The highlight of the trip. We are up early with clear skies. We must cross two wild glaciated basins that flow north. We swoop down into the first one through three inches of powder on a hard base, eighting turns until the final 700 ft drop to the bottom of the basin. Here our speed is checked to stop the chatter on the steep

Heading south on the upper Klinaklini Glacier from the second air drop.
John Baldwin

icy slopes. Walking on the frozen snow the 2000 ft climb up to the next basin goes quickly. Ahead lies Klinaklini Peak separated by a 4000 ft icefall plummetting into the second basin. We pause to pick out a feasible route. By traversing into the basin to end up at 5500 ft we can save a thousand feet of climbing. We fly down past séracs and crevasses on the early morning crust. Once down we climb up 500 ft to dodge left under a large sérac and over a thinly covered crevasse. From here it becomes easy to gain the ridge north of Klinaklini Peak. Graham, Brian and I are stopped cold in our tracks on this last part by a loud scream. We ready our rescue gear. Steve skis back down to find Helen. In a forgetful moment she took her skiis off to walk on the frozen snow. As she crossed the weak bridge her feet broke through and she hurt her shoulder. Graham and Steve relay her pack up to 6700 ft on the ridge north of Klinaklini Peak where we camp. Graham, Brian and I thread our way along the ridge south to the peak. We kick steps up the last several hundred feet on a steep snow slope. We are awed by the ruggedness of the surrounding terrain — cross country ski terrain! North of us the icefall plummets 4000 ft from the tips of our boots. To the south the snout of the Wahshilas Glacier terminates 6000 ft below. We return to camp and spend the afternoon sitting in the sun perusing the great icefields to the north which we began to cross three weeks ago.

Day 20. Still clear, it is the last day of the trip. Just south of camp a spur ridge drops 7000 ft due east into the main Klinaklini valley. We ski effortlessly down to tree-line on the frozen spring snow. From here we stay directly on the ridge crest through heavy open timber. It is nearly mid May yet we are able to ski to 1000 ft above sea level where we pick up logging roads. In the main valley it is spring; the buds are out, the trees are green, and the creeks are running. A sharp contrast to the land of ice and snow we had just left. After several miles on the logging road a truck comes by and gives us a ride into the logging camp at the head of Knight Inlet. In camp we cause little commotion for it is assumed we are tree planters (as for the skiis?).

The trip is complete as we fly out of the logging camp. Peering from the windows of the float plane we feel good; tired but not worn down. There is a calm feeling, without thought of future trips. But with sleep come dreams, and with winter comes snow.

John Baldwin

Trip Members were John Baldwin (leader), Graham Underhill, Brian Sheffield, Steve Ludwig, and Helen Sovdat.

We would like to thank Sigge's Sport Villa for providing us with all our ski equipment.

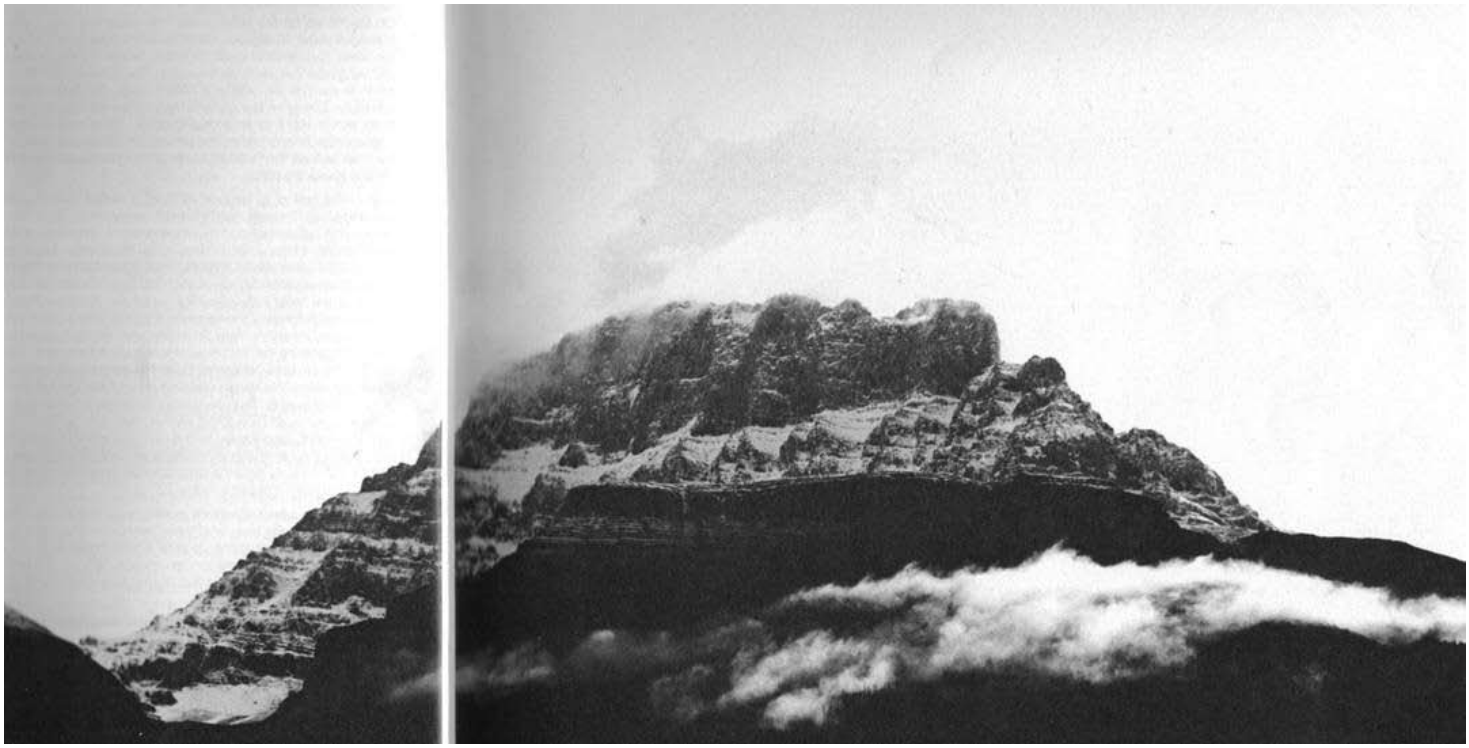
The trip took one week less than planned. The weather was not fantastic but it was as good as could be expected. During this time seven feet of snow fell. Including half days we spent seven days tent bound. "No wonder this glacier is 25 miles long" as John Clarke put it.

The Many Moods Of Mt Alberta

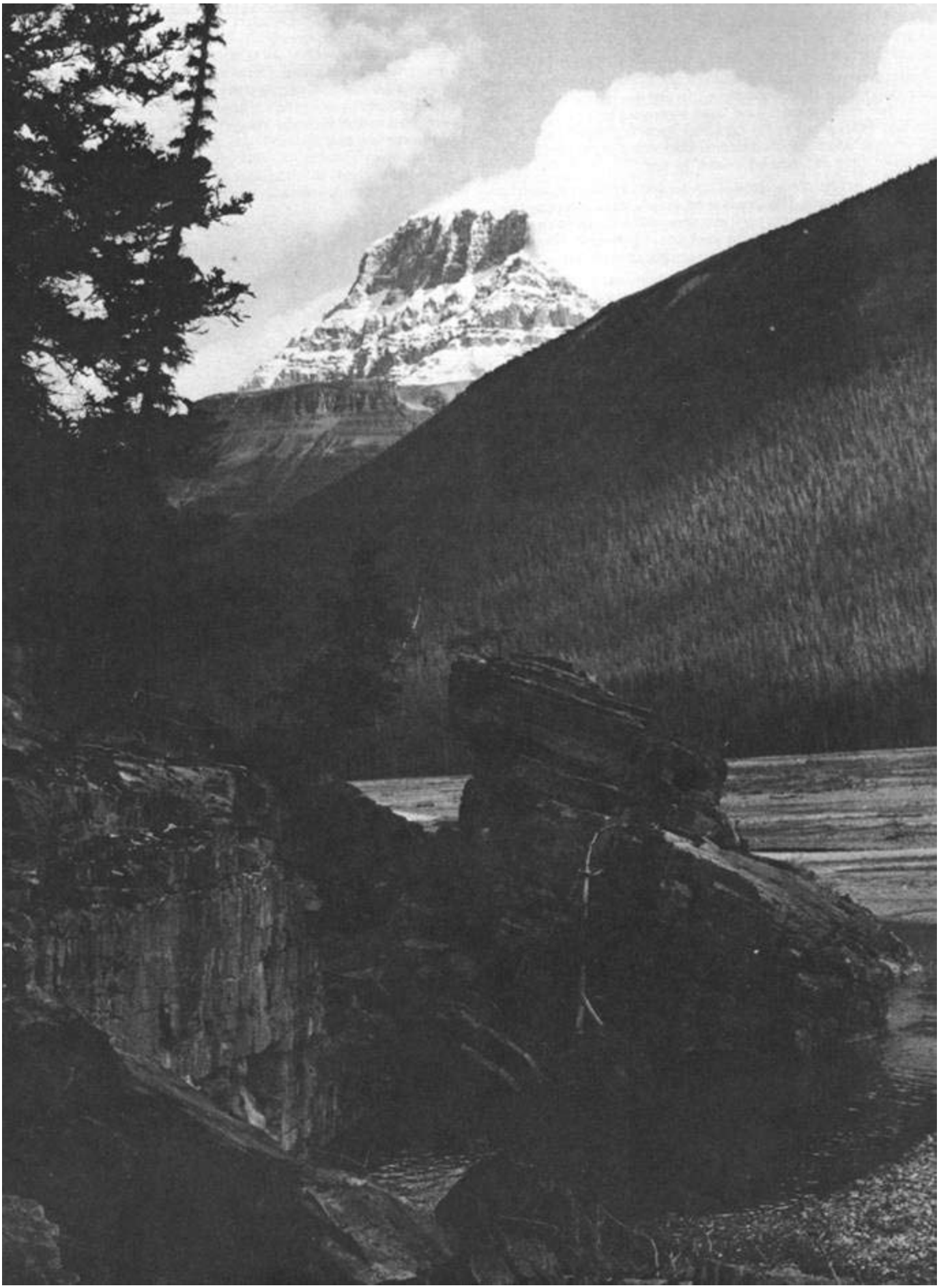
One gets a feeling of wonderment, awe, and respect when viewing this mountain from the heights of neighbouring peaks. She drifts aimlessly, a great dark hulk amid the clouds and waves of less dominant mountains. Mt Alberta was first seen by Collie, Stutfield, and Wooley when they climbed Diadem Peak back in 1898. Collie named her and like many who have seen the mountain since he must have been impressed for in his fine book Climbs and Explorations in the Canadian Rockies (Stutfield and Collie 1903) he wrote "and there was a sublime aloofness, an air of grim inaccessibility, about it that was most impressive" (p 129).

The mountain, molded of horizontal strata, supports a traditional

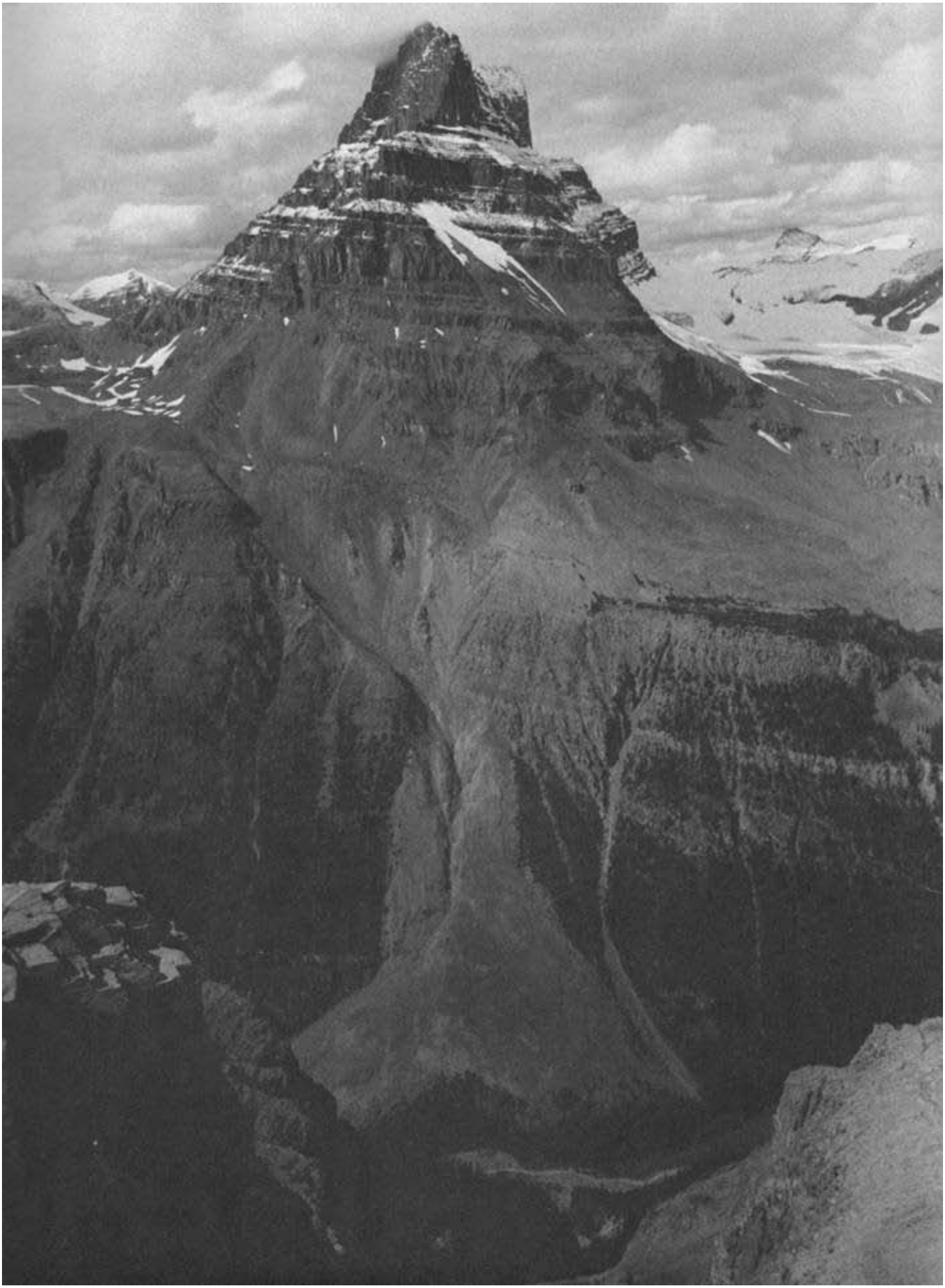
The Many Moods of Mt Alberta: After a fresh snowfall Glen Boles



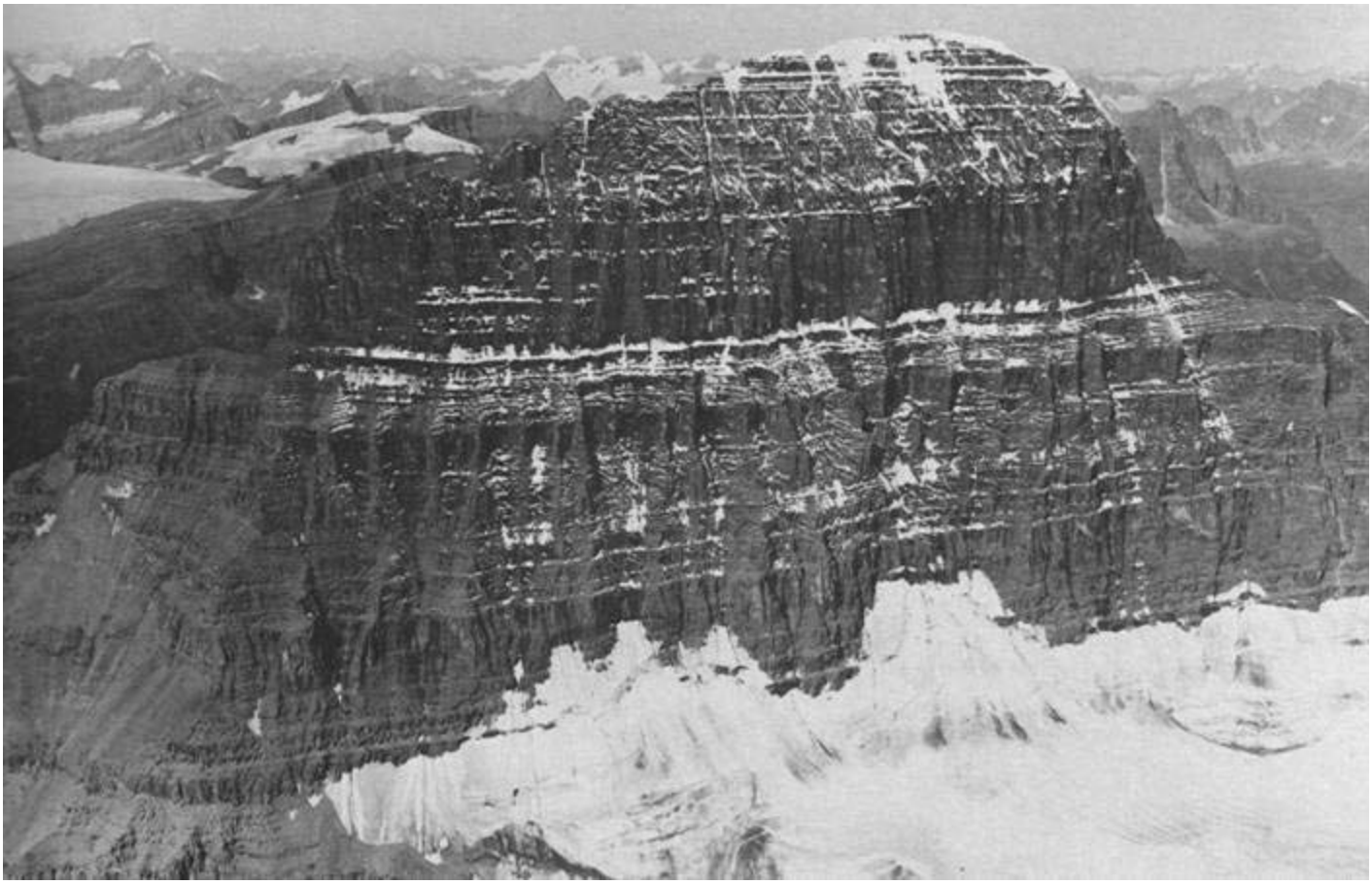
Alberta as seen clad in new snow from a few miles up the Athabasca valley, giving an indication of the steepness of the west face. Glen Boles



The south end of Alberta with Habel Creek far below. Glen Boles

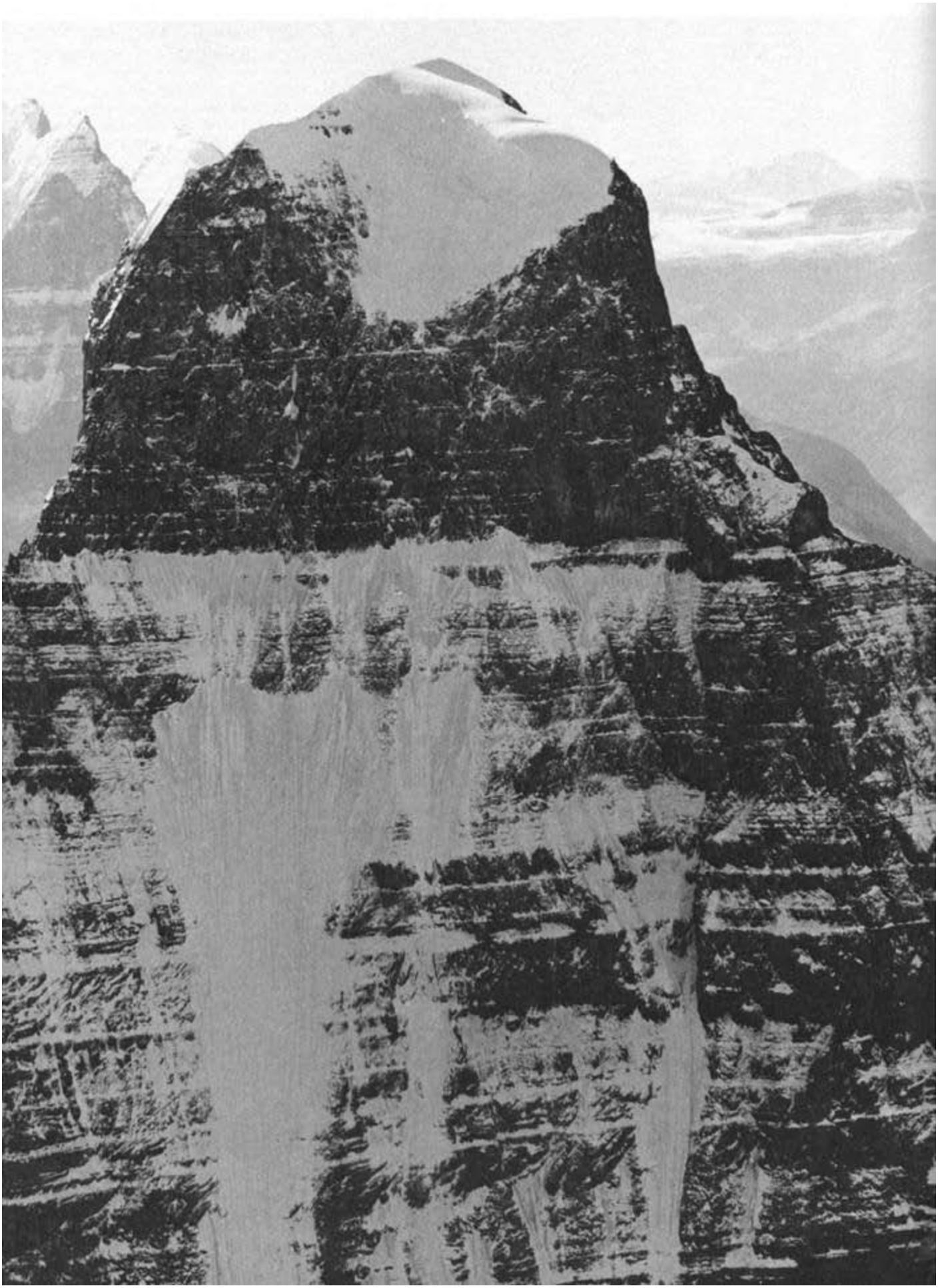


East face of Alberta from the south-east; first ascent route of the 1925 Japanese party is easily picked out. Glen Boles

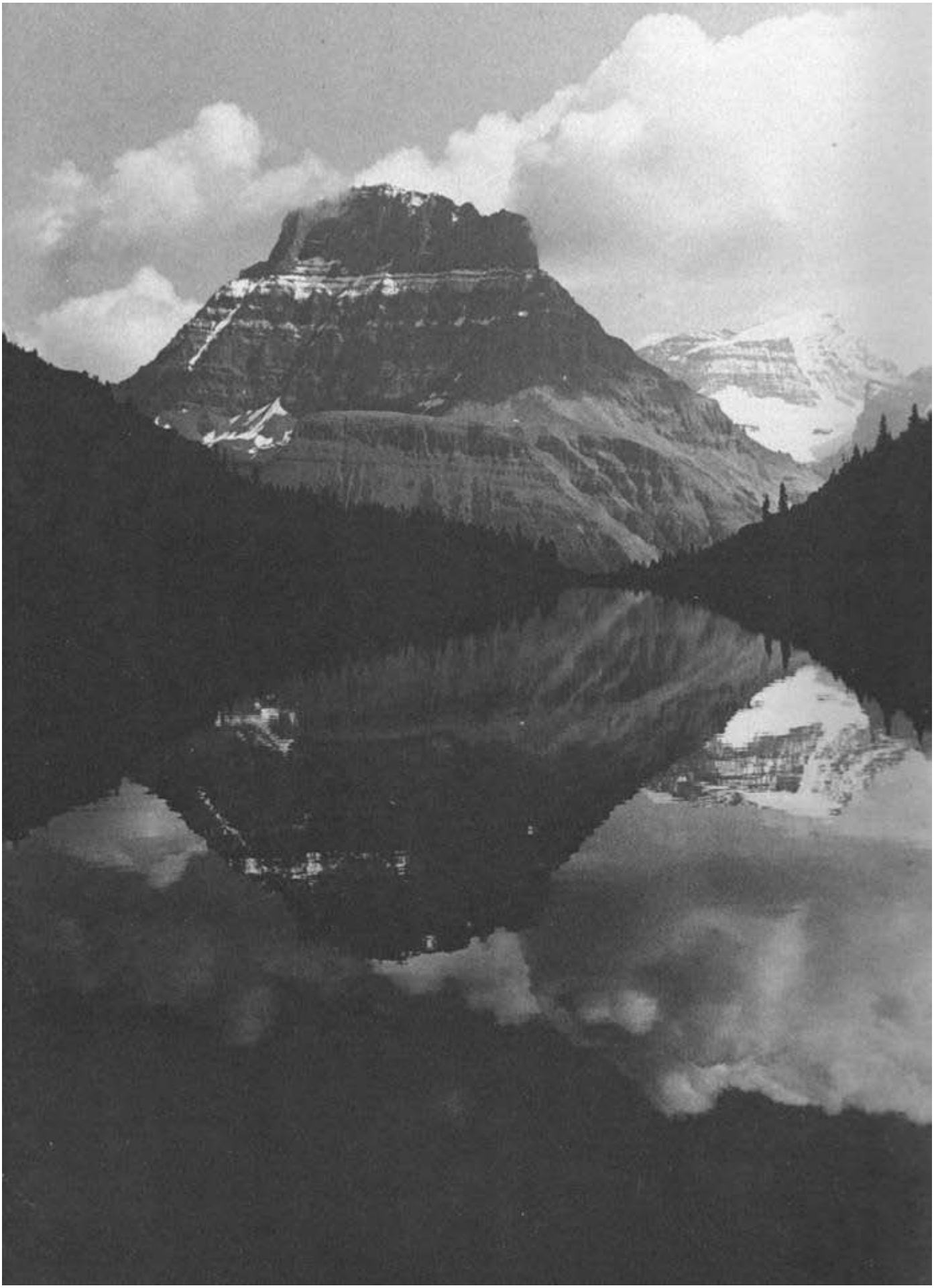


Looking west-south-west from the Woolley/Diadem col at Mt Alberta; north face almost in profile at right. Glen Boles

The spectacularly steep north face. Glen Boles



The west face of Alberta silhouetted in beautiful Warwick Lake. Glen Boles



north face seen by very few people. This face is spectacularly steep and topped by a bulging glacier. From Alberta's north end steep east and west faces stretch southward, almost converging at the south end of the massif. These faces rise in tiers of fluted buttresses which are composed of unstable shattered rock.

North of the Columbia Icefields, Mt Alberta is situated in the Winston Churchill Range, a group of mountains forming a wedge between the Athabasca and Sunwapta Rivers in Jasper National Park. The mountain virtually stands alone, rearing for 2200 m above the Athabasca River between Habel and Lynx Creeks.

Glen W Boles

Manitobans In The Mountains - Fifty Years Of Ski Mountaineering

Manitobans made ski touring trips to the Rockies and Selkirks in 1911, 1914, 1922, and frequently thereafter. By the 1930s ski mountaineering had become the ACC Winnipeg Section's special game. During the "off season" Winnipeg alpinists of that era became specialists in the developing sport of rock climbing and made many first ascents in the Rocky Mtns and the Interior Ranges.

Le ski de randonnée alpine a été pratique par les Manitobains dans les Rocheuses et les monts Selkirk depuis 1911, 1914, 1922, et fréquemment par la suite. Des le début des années trente, le ski de montagne était devenu une spécialité de la Section de Winnipeg du CAC. Pendant leurs "mortes saisons", les alpinistes de Winnipeg de cette époque-la devinrent des spécialistes dans le sport de l'escalade rocheuse, en cours de développement; Us mirent a leur actif de nombreuses premières dans les Montagnes Rocheuses et les Massifs de l'intérieur.

Mt Columbia is a majestic pyramid that stands in regal isolation on the far side of the Columbia Icefields. Its summit is the second highest in the Canadian Rockies (12,294 ft) and it is a classic ski mountaineering objective. Although its normal route of ascent involves no serious technical difficulties, getting to it requires a long ski over glacial terrain which must be carefully wanded in anticipation of the prolonged whiteouts that occur on the Icefields. The success ratio on Mt Columbia is low and Peter Aitchison and I were very happy when we set our cramponed boots onto its summit in early May 1982. However our feelings were not only of personal achievement. We were also happy because our success was evidence that a historical cycle had been completed; Winnipeggers are again participating in ski mountaineering in the Canadian cordillera, a sport that was pioneered by them fifty years ago. I stumbled onto this fact while browsing through the Rockies South guidebook after Doug Leonard and I had climbed Mt Gordon during a three day traverse of the Wapta Icefield in March 1982. The guidebook referred me to a paper (CAJ 1932:122-127) on first ski ascents of several peaks in the Wapta region and the story started to unfold.

The Alpine Club of Canada was formed in Winnipeg in 1906 and even at this date the Winnipeg section was interested in skiing. Manitobans made ski touring trips to the Rockies and Selkirks in 1911, 1914, 1922, and frequently thereafter. By the early 1930s ski mountaineering had become the ACC Winnipeg Section's special game.

Manitoba's long winters provide an environment in which all the rudiments of skiing can be learned and local ACC members trained regularly during the '20s and '30s, usually on the banks of the Assiniboine River. Photos in the Manitoba Archives show them practising telemarks, stem Christies, and spectacular jumps. It is also evident from these pictures that this was a closeknit group of friends. Indeed, if the day was fine they sometimes just built a big fire and toasted the King. AA McCoubrey, FRGS, was the sparkplug of the group. He had a vision of what ski mountaineering could be in Canada. He also had the personality and energy to pursue his vision effectively. In his first year as editor of the Canadian Alpine Journal (1930) he suggested that there be a ski mountaineering committee in the Club and he formed a separate grouping of papers in the Journal under the title "Ski Mountaineering Section". In the next year he was appointed chairman of the new ski mountaineering committee and he started organizing the first ski camp. An obvious site for the camp was Lake O'Hara because of the ACC hut there. But McCoubrey recognized that the rugged terrain around O'Hara offered little for the ski tourer and in 1932 he led the "Winnipeg gang" into the Yoho Valley for the purpose of finding a hut location better suited for ski camps. It was during this reconnaissance that Winnipeggers made first ski ascents of Mts Collie, Yoho, Gordon, Olive and Vice-President. McCoubrey decided that the Little Yoho Valley was the best site for a ski hut and today the ACC Stanley Mitchell hut stands there as testimony to McCoubrey's vision.

Mr McCoubrey was an incredibly energetic leader. Besides being Winnipeg Section chairman for most of the period 1926-40, he was also vice president of the Club (1928), president of the Club (1932-34), editor of the CAJ for twelve years, and chairman of the glacier and ski mountaineering committees for many years. The abundant publications on ski mountaineering from the Winnipeg group (CAJ 1930:160-162; 1931:178; 1932:122-127, 240; 1933:164-166; 1934-1935:81-85; 1939:76-80; 1941:116-119) document his direct contributions to the sport. AO Wheeler, a founder of the Club, wrote in his obituary to McCoubrey, "Ski mountaineering, at which he was an adept, was a favorite pursuit and its enrolment as one of the club's major activities is due to his organization and leadership" (CAJ 1941:126).

During the "off season" Winnipeg alpinists of that era turned to summer mountaineering and became specialists in the then developing sport of rock climbing. They practised on the steep walls of the dolomite quarries at Gunton, 33 miles north of Winnipeg and applied the skills that they learned there to the western mountains where they made many notable first ascents around Mt Hector in the Rockies and in the Leaning Towers massif in the Purcells (CAJ 1929:74-81, 92-95; 1932:33-41; 1933:98-101, 214, 217; 1934-1935:1-16). Their most famous exploit was the Neave brothers' 1934 attempt on Mt Waddington from the interior at the time when this mountain was still an internationally recognized

Everett Fee, present day ski mountaineer, setting out with equipment (including movie camera rigged for rapid deployment) for six days. Peter Aitchison

prize (CAJ 1933:32-45, see also C Jones, 1976, Climbing in North America).

By the end of World War II most members of this enthusiastic group were dead or had moved and the Winnipeg section ceased to be active. It was reformed in the early 1970s by rock climbers interested in nearby Canadian Shield granite. Like our predecessors, we practise frequently at the Gunton quarries and ski mountaineering is our primary winter interest. During the summers we go to the mountains less often than they did since we have seemingly unlimited quantities of unclimbed granite nearby. McCoubrey and Co weren't interested in these challenging short routes and probably never even considered climbing in the Shield because they didn't go canoeing. Moreover, roads and cars then weren't what they are now and it was at least as much effort for them to go to Gunton for the weekend as it is for us to go to Minaki or the Experimental Lakes Area. Besides, for them local activities were just training for grander adventures in the mountains, and especially for ski mountaineering. After all, as Mr McCoubrey pointed out some fifty years ago, in the Canadian mountains the winter season is three times as long as the summer.

Everett J Fee

Left to right, Miss EH Greer, Miss MD Fleming, Prof Kirk, Mr AA McCoubrey, Miss Milda Fleming, Alec McCoubrey.
"The Dolomite Club" album, Manitoba Provincial Archives

AA McCoubrey, 1934.
"The Dolomite Club" album, Manitoba Provincial Archives

ACKNOWLEDGMENTS

Thanks to Margaret Fleming for supplying many historical details and to Roger Neave for commenting on the manuscript.

University Wall-Free

University Wall on The Grand Wall, The Chief, Squamish

I had day-dreamed relentlessly about this climb. Once in a while I'd hike up to it but it would leer at me, overhang and hang over me. And I would flee, casting fearful glances back over my shoulder. A trip to Yosemite in the spring and doing some of the long free climbs there bolstered my confidence but upon returning I found that the huge, steep U Wall corner still had the oppressive power to make a wimp out of me.

The whole idea was close to being shelved when the two guys I had been climbing with that summer became (overly) enthusiastic. Hamish Fraser, a non Scottish Scotsman, was very keen and very fit but being from Victoria and not able to make regular visits to the Squamish Bakery during the long winter months he suffered severely and did not mature properly. Hence his nickname wee Haggis is sadly very apt. Greg Foweraker, an avid food fan, was also from Victoria but didn't suffer from his handicap. When Greg was younger his parents, who were having trouble spelling his last name anyway, changed it to Foodeater. In Yosemite he and I developed carbohydrate loading a step further than marathon runners. One day climb like hell, the next day eat like hell. Greg was more religious about this aspect of training than I and had developed his strength to the point where when cranking on tiny face holds audible whines escaped from the rock and sometimes from his pants.

One intoxicated night the three of us gibbered away in ascending voices like monkeys at the zoo till we'd worked up the courage to commit ourselves to the route. The remainder of that hazy evening was spent making lists, sorting and packing. And so with the food side of the venture taken care of we threw together a rack and passed out. The next day dawned bright and early and we got up later. We hiked up the trail that morning heavily psyched. Greg and Hamish flew at the rock first and made some progress. However after half an hour they reached an impasse and called for reinforcements. The call came while I was rummaging in the pack for another Mars bar and I seriously considered pushing my head right in the pack and pulling the drawstring tight. But courage or a sugar rush or something suddenly made me keen. I tied in, climbed up to their high point, and tried to calm down. Captain Kirk came to me..."Space, the final frontier...." Amidst imaginary Star Trek music and painfully aware of how far out the haul line was hanging I gingerly poked at a finger jam and committed myself. Wild overhanging stuff led to slightly easier but still strenuous climbing and I arrived at the belay, wheezing and deeply concerned about the damp nature of my shorts. I fixed a rope and rapidly descended.

After a couple of days we had the first three pitches fixed and the crew was ready. We set off on a grey morning for Dance Platform, the huge ledge two thirds up the Chief. We had freed the section above so that all that remained were the five pitches above. An exhausting free hanging jumar landed us at the belay puffing but satisfied that our cookies had not been woofed. Expectant eyes were cast at Greg. Luckily he decided to keep to his rash promise of the night before and leapt upwards. However his optimism faltered 70 ft up and several wonderful plummets followed. On the final flight he whacked his ankle and so Hamish finished it, cleverly deeking around Greg's crux. Excellent climbing took us, in four more pitches, to Dance that day. Thoughts of continuing up were quickly cast aside and we traversed off. Our cowardice was rewarded half an hour later when the clouds opened up and the rain started.

We hiked down the backside trail and met friends back at the cars. They congratulated us on our climbing and our timing. We looked up at the rain sweeping down against the cliff and grinned. We'd done it! Amazing! A dream come true. We babbled on....

...and then the rats arrived, only a few at first and advancing slowly. Gnawing and nibbling at the back of my mind they grew in numbers and advanced steadily till my waking hours were filled with the little rodents squirming and lashing their scaly tails and whispering — whispering that the dream was possible but as yet incomplete. The fixed lines and not going to the top gave the feeling of chewing candy but not swallowing. My mind became clear and the rats dispersed. I spoke to Hamish and he agreed. The new plan: one day, no fixing, and to the top.

As the sun hit the Squamish valley we liebacked up into the laid back upper upper dyhedral where the angle eased back to vertical. We had climbed since breakfast and were now over the crux. Only ten pitches to go. And when the sun swung round to the Grand Wall area we laybacked onto a warm, grassy ledge at the top of the U Wall corner. Excellent hand traversing took us past the two hooking pitches and plopped us onto Dance, a perfect picnic site. We began to eat....

Eventually, tightening our pack strings and loosening our swamis, we started climbing (waddling) again. Orange sticky and smelling like two minute maids we ascended the next few pitches at a much slower rate as our distended tummies dragged against the rock. An hour or so later I sat on a narrow ledge below the last pitch looking down and enjoying the air. Hamish arrived, smiled a smile as big as mine and ran up the last forty feet. And then...the top! We threw off our shoes and ripped open the pack and stank and ate oranges. We laughed at each other and then, perched and peering like gargoyles, we laughed down the route. After a while we just sat and grinned, looked out over the sea to the mountains in the west and basked in the evening summer sun. No one will know exactly how high we got.

Peter Croft

North Of Jervis Inlet

An eleven day solo traverse of glaciated ranges between Jervis and Toba Inlets.

Une traversée solo des chaînes glaciaires entre les anses Jervis et Toba d'onzes jours.

On 5 August 1977 I left Campbell River by helicopter, taking some friends along for the ride. Crossing the middle of Cortes Island we saw the snowy mountains west of Bute Inlet beyond Sutil Channel. Soon the great barrier of the mainland mountains came

closer and we flew through the ragged ranges around Powell Lake, skirting Mt Alfred. Once across the Skwawka valley there were icefalls everywhere but the pilot settled us down on a gentle snow pass at 6500 ft three miles north of Mt Alexander. Mt Tinniswood, off to the east, was a perfect dark rock pyramid draped with ice. What a scene — wild and dazzling glaciers everywhere and my passengers running around the pass in street shoes throwing snowballs! When they flew away I put in a camp and gazed at the scenery.

On the 6th I hiked south and around the east and south sides of Hunaechin Peak. There followed an easy traverse on mixed snow and rock to the base of the east face of Peak 7609. A steep snow slope got me to the base of the easy south-east ridge. From the top the big L shaped lake at the head of the Skwawka valley was visible. Mt Albert was a monstrous ice hung wedge rising from the green gloom of the Hunaechin valley. Back at the pass just west of Hunaechin Peak the sun was low enough for the first hint of gold to show on the snow. I hiked around to the east side of Hunaechin Peak and spent an hour watching the rounded ridges to the north-east change from gold to steel grey as the shadows rose from the valleys. A thin crust formed on the sun cupped snow on the tramp back to camp.

The 7th was leisurely. Hunaechin Peak and the 7400 ft rise to the west were climbed by their easy east ridges. North-east from Hunaechin Peak the glacier dropped 4000 ft to the iceberg strewn lake which is the source of the Hunaechin River. The north face of Mt Alexander wore a 2500 ft icefall right across the valley. To the north the little dot of the tent punctuated the snow 1100 ft below. After walking out to the 7423 viewpoint three quarters of a mile east I headed home to get ready to move north in the morning.

On the 8th it felt good to start into new country. I packed north on the crest of the broad snow ridge, left my gear on top of 7135 and raced off to climb the 8107 ft Little Toba Peak three miles north-west. The approach ridges were easy but near the mountain a long cliff forced me north on a gentle glacier to the 7100 ft pass east of the peak. The east ridge was an enjoyable rock climb and the broad summit showed interesting views into the upper reaches of the Little Toba River. Mt Alfred floated beyond the Skwawka valley and the sharp Powell Lake peaks receded into the haze beyond. On the way down I scrambled out onto the 7300 ft bump to the east. Back at 7135 I put in camp 2 and watched horizontal bands of cloud change from yellow to orange to red over the mountains north of Powell Lake.

The morning of the 9th was brilliant. Through gaps in the mountains of the upper Powell and Daniels Rivers, Mt Victoria on Vancouver Island showed itself from 100 miles. The Comox Glacier and Mt Albert Edward were equally clear. As I hiked down the sun shone on the glacial green Hunaechin Lake below, dazzling white icebergs dotting the water. The route steepened so I dropped the frame and a recce disclosed the route down to a 5200 ft heather pass crammed with flowers. A real beauty spot. A spectacular 300 ft waterfall poured over a cliff on the east side of upper Hunaechin valley. I climbed out of the pass and the full 4000 ft sweep of ice from the lake to Hunaechin Peak became visible. At 6800 ft I put the frame down in the rocks and went for a stroll to look at the new views. Toward Mt Tinniswood every high basin fed glaciers down into treeless valleys filled with grey ice — a truly beautiful and desolate scene. A blaze of yellow, red and purple clouds in the west at sunset kept me guessing about the weather for tomorrow.

The morning of the 10th was cloudless however and I tramped off southeast to get photos of Mt Tinniswood from the 7300 ft high point west of the upper Tinniswood Glacier. About half a mile short of the peak I was bounding along nearly level granite slabs when I almost stepped on a goat that was fast asleep. He lay there for one more second, opened his eyes, sprang to his feet and galloped away on snow as fast as he could. I snapped pictures from all directions from the top. The Tinniswood is a fine valley glacier and across it a steep narrow tributary from a high snowfield generated a display of ogives (forbes bands) at its base. Over the west ridge of Mt George Edwards a tiny log boom showed on Jervis Inlet. I lingered a long time then hiked back, broke camp and started over Blumlisalp Mtn down the long Clendenning Glacier. Packing down the big ice stream was a joy as tributaries spill down both sides to join the main trunk. Pivotal Mtn above the main forks is a striking round topped rock dome, its summit snow cap ending in ice walls discharging blocks down the north face. Up this face crept a black shadow to meet the summit cap which had turned gold by the time the tent was up. The tent pegs were laid flat on the granular ice and held down by rocks hauled from the medial moraine. A steady wind pushed down glacier and surface streams scurried everywhere around the tent. The sounds of these were cut off for awhile by the roar of the stove.

In the morning I walked down to Clendenning Lake at the snout. The glacier just slips into the water with no ice wall. The traverse around the west side of the lake was anxious in a few spots as the moraine was sometimes composed of blue ice with a thin veneer of sand. Exposure to fall on this traverse is, of course, into the lake! The outwash and moraines north of the lake were hard moss covered sand with clumps of flowers. Small two foot long bergy-bits were washed up on shore and mingled with the flowers. One monster iceberg in the lake had a long section of medial moraine still intact from which grew a little bush which blew in the wind. A distinct moose print said a lot for the travelling abilities of these animals as it must have come up Clendenning Creek from Elaho River. I started off again and from here the route was bouldery and sometimes bushy but pretty reasonable travelling. After trying to cross Doolittle Creek without success I decided I'd like to visit this valley anyhow. It was worth it. Hummocky meadows crowded with flowers fringed the creek which cascades over a series of steps. The meadows beyond were like golf courses surrounded by glaciers, striated cliffs and a big double waterfall coming from the south. I put in camp 5 and decided to cross the creek at low water in the morning.

On the 12th I went down the north side of Doolittle Creek toward Clendenning Creek. At first there are perfectly level meadows with flat rocks strewn around like park benches. Lower down there is an area of grass, hiding loose boulders underneath. Once around the corner in Wave Creek flowers and open country predominated. Wave Creek was crossed below a falls and I hiked up to "Racoon Pass".[1] I knew there were some lakes there (Racoon Lakes) but I wasn't ready for the incredible beauty of the place. The broad pass is composed of very erosion resistant rock which was heavily scrubbed by ice age glaciers. leaving waves of polished whale

North of Jervis Inlet: Terrific Glacier, from 6200 to 2200 ft. John Clarke

Looking south-west from ridge east of Hunaechin Lake to 1-Mt Alexander, 2-Peak 7609, and 3-Hunaechin Peak. John Clarke

North of Jervis Inlet. John Clarke/M Irvine

back ridges interspersed with royal blue lakes, heather and clumps of stunted trees. I went no farther and put in camp 6 on dry grass.

On the morning of the 13th I climbed Blackfin Peak south-west of camp in weather so hot that horseflies were a real bother on the 8285 ft summit. Looking into Racoon Creek I saw the logging roads and planned the exit into the Toba River. Mt Waddington was visible 95 miles away. On the way back to camp I spotted a couple of goats on the steep moraines north of the Wave Glacier and picked a lot of wool off the ice near the snout. Back at the pass I went swimming from lake to lake, sampling the temperature in each one.

On the 14th I spent the early morning exploring around the intricacies of the pass, having a wake up swim and photographing the waterfalls. Later on I hiked up the Wave Glacier and climbed Breaker and Comber at its head. To the south across the Little Toba there was a stupendous scene. The broad névé of the Terrific Glacier narrowed to less than half a mile wide at about 6200 ft and plunged dagger like in a wildly broken icefall for 4000 ft. The moraines at the steep snout have well established slide alder right up to the ice and there seems to have been either a recent advance or very little overall recession since maximum extent over a hundred years ago (see CAJ 1980:57-65). Also the overgrown lateral moraines below the ice indicate that when the glacier did reach farther down to Lunar Creek it curved up this valley instead of down. This feature is shown clearly on the contouring of the new 1:50,000 map sheet (92 J/5) but the glacier itself is unfortunately shown stopping at 4000 ft, 1800 ft short.[2] All in all it is a phenomenal bit of geography and made the trip to these little peaks more than worthwhile. I continued on and climbed the easy flat topped 8040 ft Beach Mtn to the north-east and returned to camp. I spent the evening tramping around the pass, swimming in the lakes and getting to feel at home in this little Shangri-la.

On the morning of the 15th I left for Toba Inlet, figuring the perfect weather wasn't going to last forever. The route to 5500 ft Belinda Lake was steep but manageable and I continued on through a 7000 ft pass north of Ball Peen Mtn. From here a long traverse on the Jimmie Glacier brought me to the ridge over Racoon Creek and the 5000 ft drop to the old logging road began. The virgin timber was delightful going and the angle was gentle but when I finally got into the old logged area I groped through steep slash to find the old road bed. Blueberry bushes thick with fruit choked the steep slope and I slid down these, the juice soaking my white shirt and long Johns. In the logging camp my knotted hair, sunburnt face and ripped blueberry juice clothes resulted in me being trotted off to the showers by the first logger I met.

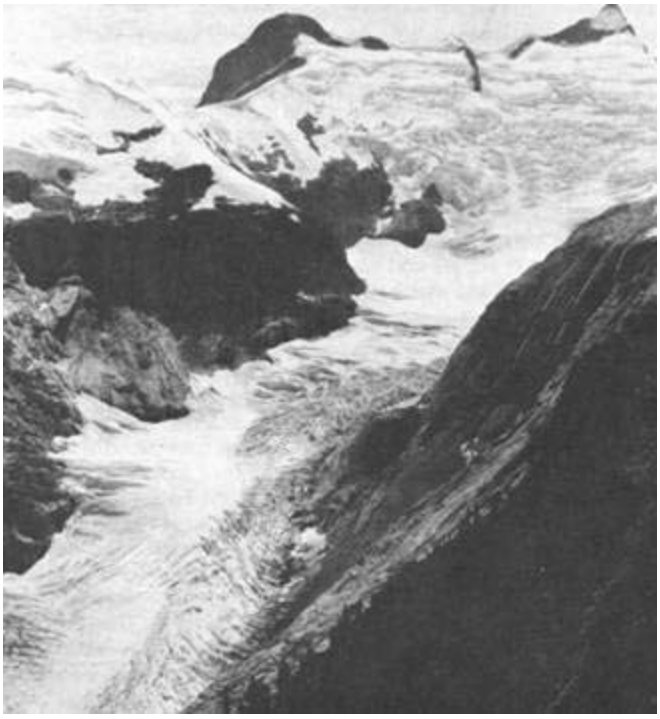
John Clarke

FOOTNOTES

1. For previous ascents in the Elaho and Clendenning Ranges see CAJ 1980:74-79.

2. Ricker (CAJ 1980:57) shows that the Terrific Glacier has advanced 165 m between 1970 and 1977.

Hunaechin Peak (right), Glacier, and Lake. John Clarke



North face of Mt Alexander. John Clarke

A History Of Ski Mountaineering In The Coast Mountains

The introduction of skiis to the craft of mountaineering has been a slow process in the Coast Mtns. This is not too surprising as climbers have never been noted for their skiing ability. In the early 1900s ascents were being made of the local mountains north of Vancouver. These are low scraggy peaks and the ascent of Mt Garibaldi in 1907 marked the first climb of a truly alpine peak adjacent to Vancouver. From these early probes at the unknown ranges it was assumed that the entire Coast Mtns were made up of low, heavily forested, rugged peaks, with little extensive alpine area. Hence it is not altogether surprising that in an early article entitled Winter Mountaineering at the Coast BS Darling (1910), a local Vancouver climber, wrote "Skis were also employed but did not prove so useful."

By 1930 the tide was turning. "Winter Mountaineering has long been familiar to Vancouver climbers, but only recently the use of ski has won recognition" (Munday 1931). The Mundays, in the true pioneering spirit, had drastically altered expectations about the Coast Mtns with their explorations in the Waddington Range. The low scraggy peaks were replaced by vast icefields and towering rock summits. Not only did the Mundays penetrate to the very heart of the Coast Mtns but, equally important, they decided to use skiis. Don Munday explains "Three seasons in the Mt Waddington section of the Coast Range fully convinced us that ski were logical equipment to overcome the obstacles imposed by the immense snowfields" (Munday 1930). This marks the birth in 1930 of ski mountaineering in the Coast Mtns.

These early beginnings of ski mountaineering were accompanying a surge of interest in skiing. At this time the split between alpine and cross country skiing had not yet occurred and skiers enjoyed both pursuits. Much skiing was done locally on Grouse, Seymour, and Hollyburn. Several mountaineering clubs had cabins on these North Shore mountains and ski ascents of their summits were made regularly. Also during the thirties a ski section was added to the CAJ to carry articles related to this growing sport.

On the ski mountaineering side of things the Mundays were breaking the trail. On three separate occasions they used skiis in the Mt Waddington area to make first ascents of many of the peaks in the Franklin Glacier region as well as to carry out a great deal of mapping and natural history observations. In 1936 they made a trip to the Klinaklini Glacier area, the largest mass of ice of the coast, and climbed Mt Silverthrone (Munday 1936), apparently not climbed again until 1982 (J Baldwin 1983). There is also record of a ski trip in April 1934 that ascended the Scimitar Glacier (Waddington Range) crossed Fury Gap and continued down the Franklin Glacier (Munday 1948, Watson and King 1935).

These major forays on skiis were invariably carried out in July, primarily to take advantage of the better summer weather but also to avoid the risks of poor equipment under winter conditions. Closer to Vancouver however ski trips were made throughout the winter to Grouse, Seymour, Hollyburn and Strachan. As confidence and knowledge of winter conditions grew, spring trips to the Garibaldi area were made. Notably the Mundays ascended Wedge Mtn in 1936 and in 1937 they skied up the Cheakamus River to climb Mt Sir Richard (Munday 1936) which even today is seldom climbed despite somewhat improved access.

The 1940s saw a continuation of the trend towards winter ski tours. Trips ranged from weekends in February or March at Mt Roderick, Sky Pilot, Golden Ears, or Mt Baker to a December trip up Kwoiek Creek near Lytton. Garibaldi Park saw a good deal

of exploration on skiis. These were primarily spring ski trips to the Black Tusk/Garibaldi Lake area (Brink and Roots 1944/45, Munday 1944/45). During this period a logging road was built up the flanks of Paul Ridge near Squamish and the old Diamond Head Chalet was built at "Crystal Lakes", now Elfin Lakes. The latter became a popular ski touring area and has remained so ever since. Over New Year's 1944 the ACC and Varsity Outdoor Club (VOC) made a ski trip to "Crystal Lakes" and from it made an early winter ascent of Mt Garibaldi using skiis (Avalanche Echoes 1944). It was with this improved access that the popular Garibaldi névé traverse was first done.

The 1950s were a slow period for ski mountaineering in the Coast Mtns. Weekend trips continued as before, branching out to reach areas with improved access (mostly logging roads). Mt McGuire in the Chilliwack valley, Mt Coquitlam east of Vancouver, and Mt Davidson in Garibaldi Park are typical of these. However with a growth in rock climbing standards, a shift was occurring away from trips involving substantial cross country travel to those concentrating on technical ascents of the more rugged peaks. As a result most of the longer expeditions in the central coast range were carried out in the summer and skiis were not used. There are two notable exceptions however. In July 1953 a party of four climbers used skiis to cross the Monarch Icecap and gain access to the west face of Mt Monarch (Dudra 1954), and in March 1955 two skiers ventured up the Franklin Glacier only to be plagued by snowstorms and violent weather (Segger and Preuss 1956). In the 1960s several factors led to the introduction of a new kind of trip — the high level or alpine ski traverse. This is in contrast to previous trips relying more on the expedition type back up of a base camp. Access improved radically when the Squamish highway was built in 1962 and several years later the road was extended to the downhill ski development at Whistler. Logging operations followed suit, building roads up major streams and rivers in the southern Coast Mtns. Improvements in equipment meant stronger skiis that were reliable enough for extended alpine travel, and better, lighter camping gear that made winter and spring travel easier. These changes in access and equipment opened up a vast potential of unexplored icecaps and alpine ridges.

In May 1964 a group of four from the VOC took the initiative and completed a horseshoe ski traverse of the Spearhead Range (Port 1964). The trip took nine days; maps and access were poor making route finding difficult. However the trip was a success and was the first time a party had undertaken an extended alpine ski traverse in the Coast Mtns. The next spring in June 1965 another group from the VOC made a ski traverse of the Compton névé (Holden and Olson 1965, Poole 1966). Their trip started at Icewall Lake east of Bute Inlet and took them through the Raleigh/Gilbert area, across the Compton névé and out to the Lillooet Glacier. From here three days of the "best" bushwhacking took them to Pemberton meadows. Two years later in May 1967 a British Columbia Mountaineering Club (BCMC) group used a ski plane to gain access to the Manatee area, south of the Lillooet Glacier (Clarke 1968, E Kafer et al 1967, 1968). They made first ascents of most of the major peaks in this area before also walking out via the Lillooet River. This region of the Coast Mtns was receiving a good deal of exploratory attention. In May 1969 a BCMC party flew into the peaks south-east of the Meager/ Lillooet junction and skied south across the "Pemberton" or "Anonymous" Icecap to roads on the Squamish river (Culbert 1969,1970). Also in May 1969 a VOC party completed a horseshoe ski traverse of the McBride Range in Central Garibaldi Park (Macek 1969, 1970). On most of these ski mountaineering forays the peaks climbed were invariably first ascents.

The large scale development of downhill skiing in the Vancouver area in the sixties tended to split local skiers into those who ski for the skiing and those who ski for the mountains. The skiers got on with their skiing and the ski mountaineers with their mountains. Of course the two will never be separate any more than rock climbing is from mountaineering, but coupled with lighter fibreglass skiis and nylon tents this led to a ski exploration of almost all possible weekend trips in the seventies. Trips over New Year's to alpine cabins became popular, especially with the VOC, to Tenquille Lake, Lizzie Lake, Stoyoma Mtn, McGillivray Pass, Spruce Lake, and even Singing Pass.

Longer ski mountaineering trips continued. Locals such as John Clarke and the Kafers were very active on skiis. In June 1971 the BCMC made an exploratory trip into the Whitemantle Range south of Waddington (Clarke 1972, M Kafer et al1971,1972). Setting up a base camp to work from they climbed many peaks in the area with skiis.

Closer to Vancouver, there were several "shorter" traverses done in 1972. In May a VOC party skied down the divide from the Elaho to the Ashlu Rivers (Halliday 1972). Also in May another VOC party skied through the Cadwallader Range to McGillivray Pass (Thiessen 1972, 1973).

In 1972 John Clarke began a series of long solo mountaineering trips to remote areas in the Coast Mtns. Several of these trips were done on skiis. In May he made a ten day ski traverse from the Mt Tinniswood area north to the Toba River (Clarke 1973) and then in June a ski trip down the range of peaks north of the Lillooet River, beginning at Mt Athelstan (Clarke 1973). One of the most incredible trips John Clarke made on skiis was the following year in July 1973 (Clarke 1974) to the vast Klinaklini complex which had been visited only once before by the Mundays in 1936 (Munday 1936). This was a three week ski traverse of the largest icefield in the Coast Mtns which began with an eleven day snowstorm (in July yet!). When the weather cleared he made haste for Knight Inlet through some very rugged, heavily glaciated terrain climbing many of the peaks on the way.

Also in 1973, in May, a BCMC party flew into a base camp on the Lillooet Icecap, climbed many of the unclimbed peaks and crossed the main icecap to exit via the Toba River (M Kafer 1973).

Several of the Garibaldi ski traverses were being repeated; the Garibaldi névé traverse regularly, the Spearhead traverse in 1974 (Boyce 1974). There was also a good deal of activity focused on the area north of the Lillooet River, especially as logging improved weekend access (Ricker et al 1977).

The role played by ski equipment in the development of ski mountaineering in the Coast Mtns is a confusing one. Until the mid thirties equipment was general purpose. Skiis were wood and a

little narrower than modern downhill skiis. Boots were like sturdy light hiking boots and bindings consisted of a toe iron and cable to hold the boot in place. The heel was not fastened so as to allow the skier a wide range of technique and to enable easy uphill travel. Cross country ski wax was common. This set up enabled the average skier to tour in rolling country or ski steep downhill runs. In the 1920s Marius Eriksen developed a set of toe irons which allowed more control over the ski (N Baldwin 1977). This binding and its successor, the Kandahar cable binding, led to an improvement in skiing skills. As a result, as N Baldwin explains (1977), in the 1930s alpine and cross country ski equipment really began to diverge in development. Progress in downhill technique led to alpine boots becoming stiffer and heavier, quite unsuitable for touring. Alpine skiis began to be made with a sharp upturned tip, better for packed slopes. Meanwhile cross country boots became lighter and softer and new construction techniques using high strength glues and laminations enabled skiis to be lightened in weight and narrowed in width. In 1936 the schism between downhill and Nordic skiing was marked when downhill and slalom racing were added to the Winter Olympics as "Alpine" events. Since then the prime thrust of interest in skiing has been in Alpine events, with less and less in cross country competition and recreational touring. For this reason, during the late 1930s and in the post war years into the fifties, cross country touring equipment for recreational purposes was virtually unavailable in North America.

For the most part then ski mountaineering equipment after the thirties consisted of downhill or alpine skiis with a cable binding that could either be left free at the heel for walking or clamped for downhill runs. Boots were quite stiff and climbing skins were often used instead of wax. Accompanying the downhill skiis was the introduction of metal edges on skiis in the fifties which gave better control on steep icy slopes.

Cross country skiis had been a growing concern ever since their return to North America in the early sixties. In the Rockies and Selkirks they had been used to complete several long ski traverses successfully (Scott 1978). On the Coast local Scandinavians such as Sigge Bjorkland and others had been using the lightweight skiis since about 1960 without mishap. On the mountaineering scene however it was felt that these light skiis and boots, although successful in the Rockies, were not sturdy enough for the more rugged conditions in the Coast Mtns. There was good cause for concern — in the previous thirty years cross country skiis had become more specialized to racing and track skiing. These lightweight wood skiis had a poor breakage record and for mountaineering the racing style boots were far from adequate. However beginning in the seventies stronger fibreglass cross country skiis with metal edges for touring were developed and cross country ski boots were being built similar to hiking boots with sturdy leather uppers and vibram soles.

This sturdier breed of cross country ski equipment allayed some fears. The McBride Range traverse was repeated on cross country skiis with a new start from Lillooet Lake (Masterson 1977). The Spearhead traverse was also done on cross country skiis (Grant 1978). Local ski tourers however remained somewhat skeptical about cross country ski equipment through the seventies. Improvements were also made to "alpine" touring equipment. New touring bindings with safety release were developed. Combined with warm double plastic boots this set up enabled the average skier quite a bit of control — but at the cost of being quite cumbersome and heavy. Much more so even than their predecessors — wooden downhill skiis and leather lace up boots. Despite claims as to suitability, only a limited number of serious trips have been done using this heavy alpine touring equipment. On the other side of the coin it is interesting to note that the sturdier breed of cross country skiis developed in the late seventies is very much like the basic set up used in the thirties before the schism between Alpine and cross country ski equipment took hold. It is important to point out that up until the seventies the kind of skiis used on a trip has had little to do with the success of that trip. Once a party is on a large icecap the problems of weather, route finding, trail breaking and winter camping tend to become more relevant than what is on the party's feet.

In the late seventies the variety of ski trips continued to increase. A VOC party skied over the Spruce Lake High Trail (J Baldwin 1978). In June 1979 improved access allowed a party to approach the Manatee Range on foot and climb several of the summits on skiis (J Baldwin 1979) and in February 1980 a VOC party skied down the Squamish/ Cheakamus divide (Dibb 1981), an area offering excellent skiing.

In the past several years the idea of the ski traverse has been extended, partly due to the use of the new sturdier breed of cross country ski equipment. Two long, entirely alpine ski traverses have been done. In May 1980 a VOC party was blessed with excellent weather on a three week ski traverse across the Lillooet Icecap from the Tchaikazan River to the Manatee Range (Ludwig 1980, 1981). On a similar trip in April and May of 1982 half of the same party skied from Ape Lake to Knight Inlet crossing both the Monarch and Ha-iltzuk Icefields (J Baldwin 1983). This is likely the longest high level ski tour available in the Coast Mtns.

In 1980 a group skiing near the south end of the Lillooet Icecap discovered a high gentle ridge which easily connects the Lillooet peak area to the Manatee Range (McCormack 1981). Also in the past several years, some of the Garibaldi traverses have been repeated in much faster times, now that good maps and previous parties have defined the routes. The McBride traverse for example, has been done in only six days during a spell of excellent spring weather. The Pemberton Icecap has been crossed three more times, twice in 1982 and once in as little as three and a half days.

In March 1982 two trips more typical of the Rockies than of the Coast Mtns were done. In the Chilcotin Ranges there are a series of valley bottoms lying at about 5000 ft elevation (not normal for valley bottoms on the coast!) that connect up to form several possible routes. One party (names unknown) skied from Taseko Lakes over Warner Pass and down Gun Creek. Another group (J Baldwin and friends) skied up around the headwaters of Gun Creek and back down Slim Creek. Travel was in mid winter on frozen creeks and in part on horse trails.

Over fifty years of ski mountaineering in the Coast Mtns there has been surprisingly little change in the type and calibre of ski trips. Changes in access, both road and air, have led to a greater variety of trips and an exploration of unvisited areas. Better skiing and camping equipment has tended to spread more of these trips

into winter and spring. Coupled with this is the introduction of high level ski traverses which are ideally suited to the large icefields of the Coast Mtns (even if not suited to the weather that produces these icefields). For the most part it seems that the weather and ruggedness of the Coast Mtns make the decisions and not the ski mountaineers.

John Baldwin

The author would be interested to hear of any corrections and/ or omissions to the above. Please write c/o 6543 Deer Lake Drive, Burnaby, BC V5E 2L9. Or via CAJ editor.

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A Traverse Of The Mt Waddington Area

A three week traverse from the Cataract Glacier, south-west to Mt Waddington, thence a 30 km trek over glaciers and logging roads to the head of Knight Inlet. Mt Waddington and sixteen other peaks were climbed.

Trois semaines de traversée, a partir du glacier des Cataractes; puis sud-ouest, vers le mont Waddington; et, de la, une randonnée de 30 km, par glaciers et chemins forestiers, jusqu'a I' extrémité du fjord Knight. Avec, au passage, l'ascension du mont Waddington et de seize autres sommets.

A friend said this trip had "a certain primitive appeal". It was clear that he approved of John's scheme to start a traverse 10 kms north-east of Mt Waddington, climb the peak itself, and finish 30 kms beyond the mountain at the ocean. It would take three weeks for the six members of our party to complete the adventure. The first week would be spent approaching the mountain, the second week climbing Mt Waddington, and the third week would be necessary for the long retreat back to the lowlands.

On 22 July 1981 we flew by helicopter from Bluff Lake to our starting point near the toe of the Cataract Glacier. On the same day one strategic food cache was placed at Rainy Knob near the base of Waddington. This would allow us to travel with one week's supply of food at a time rather than the full amount for three weeks. As we climbed the Cataract Glacier we were pleasantly surprised by the easy route finding and gained the Shand/ Heartstone col by late afternoon. Dropping our packs, we all scrambled up Mt Heartstone to survey our route. From the less technical secondary summit I vainly searched for "The Wad". Unfortunately, because of our location behind the high Serra Group we weren't able to see it until the fifth day of our trek.

The first week of climbing was successful in many ways. By doing a lot of climbs and covering the necessary distance we all felt confident and strong enough to tackle a route on Mt Waddington. Between the six of us almost every peak we passed was ascended. Mts Shand and McCormick were climbed en route to the upper Tellot Glacier. From a high camp on the Tellot we spent four days climbing many of the surrounding peaks: Mt Dentiform (north-east ridge to west peak), Serra I (north-east ridge), Serra II (west ridge), Serra III (east ridge), Mt Tellot (traverse east to west), Tellot Spires, 1,3,4 5, Mt Eaglehead. John and Jean attempted Stiletto Needle from the Stiletto/Serra I col but a difficult off width crack near the top turned them back.

On day seven we descended to our food cache at Rainy Knob on the Teidemann Glacier. Like a bloodhound Ron led us through a final maze of crevasses to reach the beer and assorted delicacies we had stashed. Upon arrival we found our carefully buried "freezer" buckets rearranged into a circle at another camp nearby. Seven people were ahead of us on the mountain and those turkeys had used our buckets as chairs! We had just seen eight other people at the Plummer Hut! It was obviously high season here; we were in the middle of a veritable traffic jam and we didn't like it.

After a good day of rest we started our ascent of the Waddington massif. From successively high camps we climbed Bravo, Spearman, and Waddington North-West Peak. Our main summit day was cold, with a forebodingly hazy sky but the weather held for the climb on the north-east face. The conditions were good, with very little falling rock or ice. It was a superb day of climbing and the ascent of Mt Waddington became one of the highlights of the trip.

The final week had begun and we were faced with the problem of getting out of the area. Ron had a hasty solution; he left us on day 15 by helicopter. It was disappointing to see one of our strongest members leave. Five of us remained to complete the journey to Knight Inlet. We chose to go up and over Mt Munday via the indistinct north-east ridge. It proved to be an aesthetic snow climb with only a few menacing crevasse problems. We gained 4000 ft that day and reached the summit plateau at sunset. The view of Waddington was spectacular! Mt Munday was our last major climb; from here it was downhill all the way.

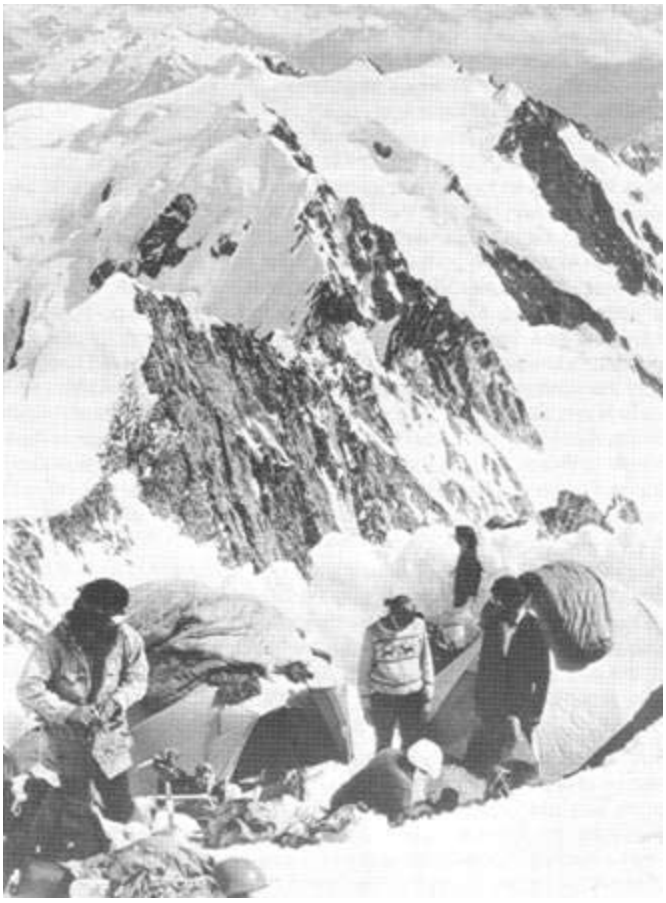
From the Agur/Munday col Jean, John, and Wayne went up Mt Agur while Steve and I set up camp lower on the Ice Valley Glacier. Now it was a matter of slogging down the huge glacial highway that led to the ocean. Descending rapidly, we covered 12 kms to reach a prominent rock outcrop called Icefall Point. The view of Waddington from the west was still impressive. Camping on real ground for the first time in 17 days was a treat. A bath was now in order. John's idea was to slide bare bum down a steep snow slope that led to a little lake. He only managed to get half-way down before he scrambled back up on all fours, exposing his burnt cheeks to the camera. The next day a long slog up the Whitetip Glacier and a final easy scramble brought us to the pyramidal snow cap of Mt Whitetip. It was the seventeenth and the last mountain we climbed.

Negotiating the rest of the Franklin Glacier was very tedious and time consuming. We spent one and a half days winding our way down the ice, continually forced to the sides to contend with mud and loose rock. It was exhausting but there was no other alternative. Staying on the north side we managed to reach the Franklin River and traversed seven more kms to reach an old logging road. Whew, but it wasn't over yet; 16 more kms of slogging brought us to the logging camp at Knight Inlet. Finally our trek had ended.

Our traverse of the Waddington area was a demanding but enjoyable 21 days. The route itself was inspiring, covering magnificently beautiful and rugged terrain in such isolation. We walked more than 50 kms over numerous glaciers and mountains and rediscovered the tough but rewarding "walk your butt off" aspect of mountaineering that almost seems to have been forgotten today.

Helen Sovdat

High camp on Waddington at 3600 m. Steve Ludwig



Jean Heineman near the summit of Mt Munday. Steve Ludwig

Twenty Thousand Three Hundred And Twenty: A Woman's Place

An account of the Canadian Women's ascent of Mt McKinley.

Récit de /'ascension du Mont McKinley par une équipe canadienne entièrement féminine.

The wind woke me. The wildly whipping tent fly billowed and snapped. With a deafening eruption of noise the storm blasted against our helpless tent. As a cross current in the storm fluctuated to a groan I reached out to secure the fly. The cold sank deep into my fingers, piercing my skin like an arrow.

We were alone at 12,400 ft on Mt McKinley's Windy Corner — I could not think of a more appropriate name for the spot. I remembered a description of climbing as "a kind of madness, a dream". Landing on the Kahiltna Glacier at 7000 ft we were greeted by someone who appeared possessed with the same type of madness. Of course! The Kahiltna Welcoming Committee — complete with papayas, grass hat, dark tan, and wildly smiling eyes. Admittedly we must have appeared just as strange. The four of us tumbled out of Doug Geeting's Cessna amid a tangled confusion of ropes, exploding boxes, and skiis. And we were female.

We were only the second all woman expedition to climb McKinley. We had little desire to prove anything to anyone but ourselves, least of all to reassert our autonomy or to eliminate men. We were not motivated by feminist ideologies. Something more personal, like the pleasure of the activity itself, was a better reason than the need to prove female power. Yet the press loves to fantasize. "Women escape men to climb McKinley" ran one headline. After more such tilted outcroppings from the press and a few cogitations from Mother, we set out to meet the coagulated concerted Siberian Arctic unforgivingness of 20,320 ft Mt McKinley.

So there we were amid this "sanctuary of the earth's wilderness". One moment we were in Talkeetna, sipping a last beer at the Fairview, scribbling hurried postcards. Several hours later we stood on a glacier. afraid to wander a hundred feet because of the crevasses. The transition was disturbing, even cruel. For the next few weeks our security would lie in ourselves alone, in our individual abilities to endure, and in our combined capacities of will-power.

Anyway the long Arctic evenings were pure magic. The almost total lack of darkness, even in May, has peculiar effects. It gives one a sort of eerie freedom to obviate the inconvenience of darkness. Perched on a primeval surf of cloud, we looked down over the world, over Mts Foraker and Crossen. To the west the shadow of Mt Hunter edged across the moonlit sea.

We had heard about the classic ten day storms up here. About the dreary monotony, the grey universe, day and night without the slightest break to cast a spell of hope. So far the mountain had been merciful and our vision remained uncensored. For the first few weeks Denali was set against a clear yet bitterly cold sky. The summit reared ever upwards with a sort of regal arrogance, sublimely ignorant of our presence.

Dominating the landscape was always the diabolical wind, the supreme sculptor. Slightly cursing it became a pastime. Occasionally the acres of wind swept hollow rime ice would change in substance and reduce us to a plod. We would swim, flounder, and wallow through the spindrift. At times our giant snow shovel definitely was the most effective technical device.

Aside from the problem of drowning in spindrift there was the imminent danger of the McKinley Corvus corax (raven). The hypothesis put forward was that this infernal bird would spot Doug's red and white plane approaching from Talkeetna, wait for a few days, then dig up the food caches that climbers had considerately marked with red flagged wands all the way up the mountain.

Every day brought a certain excitement for the unknown that we could almost taste. The days were shared between the four of us — that alone simplified our lives for a while. It was simply a struggle between our desire to move upwards and gravity's downward insistence. The summit seemed the only thing that mattered. I had much to learn. I discovered that this same determination could also get you killed.

At 14,500 ft the altitude riddled our minds into fragmented decisions. I found attention to anything hard. My lungs emitted short gasps, the throaty, gurgling cough of pulmonary oedema. I adopted the well known psychological strategy: you know very well you should descend or find yourself in a serious situation but you pretend that you are still going to recover. Several days passed and I definitely lost faith in my illusion. The fiend was not about to be exorcised. Why in the names of the seven mad gods who rule the seas am I brought thus far merely to have my nose dragged away just as I am about to nibble on the sacred cheese of life? I wanted desperately to stand on top. I watched a raven spiral towards the summit, mocking me as he covered in minutes the distance it had taken us days to climb.

Barb Clemes ferrying loads on Kahiltna Glacier. Jane Weller

Eventually I was forced down to recover at base camp while Barb, Elaine, and Jan continued the climb. Although I had failed I found that there were almost enough compensations. The very being there — on North America's highest mountain — was perhaps enough. Was climbing really worth a life or even a limb? To commit a life is a fool's game. Are climbers getting softer? We did not even consider fanaticism such as Herzog's on Annapurna, who sacrificed hands and feet to the mountain. I felt very much alive and wanted to carry on being so. I did not experience the transcendental.

At base camp I arose early each day, fussed over the radio, penetrated the upper atmosphere for news of my friends' success. Yet my existence slipped inexorably towards one hope — their safe return. Then for five days the weather deteriorated. Not a violent storm, though no doubt more volatile at 18,000 ft where my friends were dug into a snow cave. Down at 7000 ft the nights and days consisted of the smooth rumble of avalanches, occasional stars, silent clouds. That was all.

Then one day, the fifth of my waiting, I espied three figures. My friends, cheeks scabbed, lips swelled from the sun. Elaine's thumb was frostbitten. But we had reached the summit. The adventure was nearing an end. Several hours later we again found ourselves sipping beer at the Fairview.

Inevitably they asked the obvious "why climb" question. I often ask it myself. The endless efforts to keep warm, the stress of the bulging cornice overhead and the crevasse abyss beneath, an aerial suffocation at altitude, and the unwieldy drudgery of bitter tempests. For sure climbing is a backwards sport. But for those days life never tasted so good. Twenty-four days of climbing, frustration, hoping; and that desperate business of living. Then all ended abruptly. A brief interlude. Somehow I do not think that deep stirred psyche in us will ever rest. Perhaps the ancient Zen saying explains it best. "Roam about until exhausted and then dropping to the ground, in this dropping be whole." High above a raven winged across a northern sun.

Jane Weller

Mt McKinley, Alaska, 20,320 ft. First Canadian all women's team ascent via west buttress route. Jan St Amand, Elaine Kennedy, Barbara Clemes, Jane Weller. May 1982.

1982 Explorers Club "Polar Mountains" Expedition

An expedition to the peaks of the British Empire Range between Yelverton Inlet and the Milne Glacier, Ellesmere Island.

Une expédition vers les sommets de la chame du British Empire, située entre la crique Yelverton et le glacier Milne, sur l'Ille Ellesmere,

As one's fascination with the Arctic increases so does the urge to go still further north. After expeditions to Baffin Island in 1967, 1972, 1973, 1974, and 1977 (CAJ 1968,1974,1975,1978) we moved up to Makinson Inlet on Ellesmere Island in 1976,1978, and 1980, and Bylot Island in 1981. During the last three expeditions experience in High Arctic ski mountaineering was gained during the cold but relatively clear weeks of late April and May (CAJ 1981:39-41, 67). Then in 1982 we aimed for the "furthest north" mountains. On 30 April 1982 our expedition consisting of Phil Trimble, Sherman Bull, John Stix and myself was landed by a Twin Otter of the Polar Continental Shelf Project on the sea ice of Yelverton Inlet at 82°17'N, 82°33'W, near Mitchell Point. The North Pole was less than 500 miles away. Although the midnight sun was up the temperature was -25°C and it remained thereabouts under windless, clear conditions for the next week. Our first objective was to conduct a reconnaissance for Polar Shelf and to establish a camp on an ice-shelf west of Mitchell Point. From there we had planned to conduct strain gauge studies on the sea ice around the shelf, and if possible, to climb Peaks 5979 and 4696. For transportation we had brought in a snowmobile on loan from Polar Shelf and one of the komatiks we had built for our 1980 Inglefield Mountains Expedition and stored in Resolute. Unfortunately the absence of wind in this area increased our comfort but doomed our plans to failure. While we managed to reach the ice shelf by skidoo the snow in the entire area was deep (40 cms) and unconsolidated, making travel with a loaded komatik virtually impossible. Accordingly we moved eastward across Yelverton Inlet to begin route finding to our major objective, the high 6000 ft peaks of the section of the British Empire Range lying between Yelverton Inlet and the Milne Glacier. In 1972 the Royal Navy Ellesmere Island Expedition had landed inland on the icecap, descended the Milne Glacier and climbed Peak 6750 and several others in the eastern corner of this triangular segment of the range. But the bulk of this remarkably high relief area of the British Empire Range, at least 400 sq miles, remained virtually unexplored. Looking for a route inland, we continued to struggle through deep snow while heading south-east along the eastern shore of Yelverton Inlet to a large glacier where we established base camp at approximately 82°15'N, 81°50'W on 8 May. There we carried out our strain gauge studies although the 14 ft thick second year ice showed little mechanical activity. The first climb was a prominent snow peak of over 2500 ft rising directly from the sea just south of the glacier. Climbed by Trimble and Bull in deep soft snow, it provided fine views of our proposed route inland up the glacier. Soon after we began route finding up the glacier and established a camp about five miles inland. Extreme difficulty was caused by a maze of deep melt water ravines criss-crossing the glacier as well as by the snow conditions. On 12 May Stix and Bull climbed a peak of over 3500 ft on the north side of the glacier in a 20 hour marathon of post holing while Trimble and I continued pushing forward the route up the glacier.

On 15 May another Twin Otter flight brought Dan Emmett, Eric Rosenfeld, and John Bruno to our sea level base camp. During the next 12 days we completed a ski exploration of the large valley glacier from the sea over 16 miles inland to a divide leading to the Milne Glacier. On the way we ascended a tributary glacier to northward several miles to reconnoitre Peak 6258 and several high adjoining summits. Time and conditions precluded successful ascents of the major summits but a snowdome peak of over 4500 ft

was climbed on skiis by the entire party. Our equipment performed well. All members used the new plastic double boots, lightweight downhill skiis with Ramer bindings, and pulled a loaded fibreglass sled while carrying a climbing pack. Nevertheless progress continued to be impeded by the deep unconsolidated snow which

1982 Explorers Club "Polar Mountains" Expedition. CW Cochran/M Irvine

also made it difficult to detect the many crevasses in the upper reaches of the glacier.

On 25 May our efforts culminated in the first ascent of Peak 5915 from our high camp by four members. After leaving skiis at about 4000 ft the remainder of the climb was made with crampons under, at last, relatively good snow conditions. We then returned to sea level in a non stop day to be picked up on 27 May. On its way to us the same aircraft dropped Steve Traftan's party on the high inland plateau in the region of Mt Oxford, south-east of our location.

In addition to our several first ascents our expedition was probably the first to climb in northern Ellesmere at this early season. Beginning from sea level we had been fortunate to enter and explore a totally untrodden high relief area of the British Empire Range on skiis. We carried Explorers Club Flag 200.

GVB Cochran

Participants: GVB Cochran (leader), J Bruno, S Bull, D Emmet, J Stix, P Trimble.

Looking north from camp 1 to Peak 3500
Line shows long ridge route followed by Bull and Stix on their 20 hour climb.

Map References: designated altitudes in text are indicated on NTS 1:500,000 Challenger Mtns, 560NV2 and 340NV2. MTIS co-ordinates given below are from Yelverton Inlet 340F and 560E, 1:250,000.

Note that careful sequential (differential) aneroid measurements during the expedition indicated that altitudes of peaks in the 4500 to 6000 ft range are 300 to 500 ft higher than indicated on the maps.

First ascents: 5 May, Peak 2500+, EG921296, Trimble and Bull. 12 May, Peak 3500+, EG963345, Bull and Stix. 21 May, Peak 4500+, NB088389, entire party. 25 May, Peak 5915, NB128358, Emmet, Trimble, Stix, and Cochran.

We wish to acknowledge with thanks the sponsorship of the Explorers Club and the support of the Albert Fried Foundation as well as the Damart and Kelty companies. We are indebted to the Polar Continental Shelf Project (Dept of Energy, Mines and Resources) for their advice and logistical support.

Satsalla Glacier

A traverse, from ridges west of the Satsalla Glacier, to the Tumult Glacier, Klinaklini valley and Knight Inlet. The area features moderately high Mountains and large glaciers.

Line traversée depuis les arêtes a l'ouest du glacier Satsalla jusqu'au glacier Tumult, aux environs de la vallée Klinaklini et de la crique Knight.

Rain, low cloud and the search for a helicopter kept us confined to the east coast of Vancouver Island the first ten days of September 1977. We consoled ourselves with salmon bakes, a sleep in a native longhouse, a visit to Alert Bay and a few days camped on the magical Nimpkish River. It was at Port McNeill that we finally located the elusive helicopter giving five dollar rides at the fall fair.

With the clouds still low we took off early on the 10th and flew east navigating like a boat through the islands and channels. Over

Kingcome village we broke into sunshine and the pilot dropped us off at 6700 ft, six miles north-east of the Kingcome/Satsalla confluence. Our plan was to hike through to Knight Inlet and do some climbing on the way. We left the packs on a flat grassy spot and climbed the easy 6900 ft peak two and a half miles west south-west where Jamie built his first cairn. All the mainland mountains were clear but to the south the ocean was covered with white fog, the sops of the islands poking through. Vancouver Island floated like a lost continent beyond. Back at the packs we put the tent up on flat dry heather and watched tomorrow's peak turn gold in the sunset. South-west of camp a small glacier caught our interest as it spilled over cliffs and regenerated twice in its short length of less than two miles.

In the early light we hiked east and climbed the 7300 ft peak west of the big bend in the Satsalla River. From the top we watched morning shadows receding from the sombre main trunk of the Satsalla Glacier revealing the blue grey ice and medial moraines. On the summit block were the remains of a small rodent and the droppings of a large bird. The peaks were brilliant but many valleys were filled with cloud joining together, as the rivers did below them. Back at the tent we packed up and headed north over a 6900 ft peak to easy ridges beyond and another dry heather camp.

In the morning sun, with the valleys filled liquid level with thick cloud, we scrambled over a steep step on the ridge picking goat wool off the rocks on the way. The fog in Satsalla burnt off revealing the milky green lakes at the glacier snout. What looked like a big esker dominated the chaos of sand, rocks and water where the ice enters the lake. John noted that the 7400 ft peak at the head of the Lahlah Creek looked like a tiny replica of the upper part of Mt Waddington. After the 6400 and 6300 ft rises on the ridge we came to a sharp gap with rock on our side and snow on the other. John scrambled down, chopped steps up the snow and brought the packs across. Back on easy ground we were amazed to see that the valleys had refilled with cloud while we were fixing the route across the gap. They were much thicker than before and the glaciers all around appeared to be feeding down into a dazzling fluffy sea of white. We built a cairn on the 7000 ft peak, down climbed north-west in a howling wind and plunked camp 3 on the snow at 6000 ft. The night was windy and loud and in the early morning we woke up and repaired a top grommet that had popped out on the windward side of the tent.

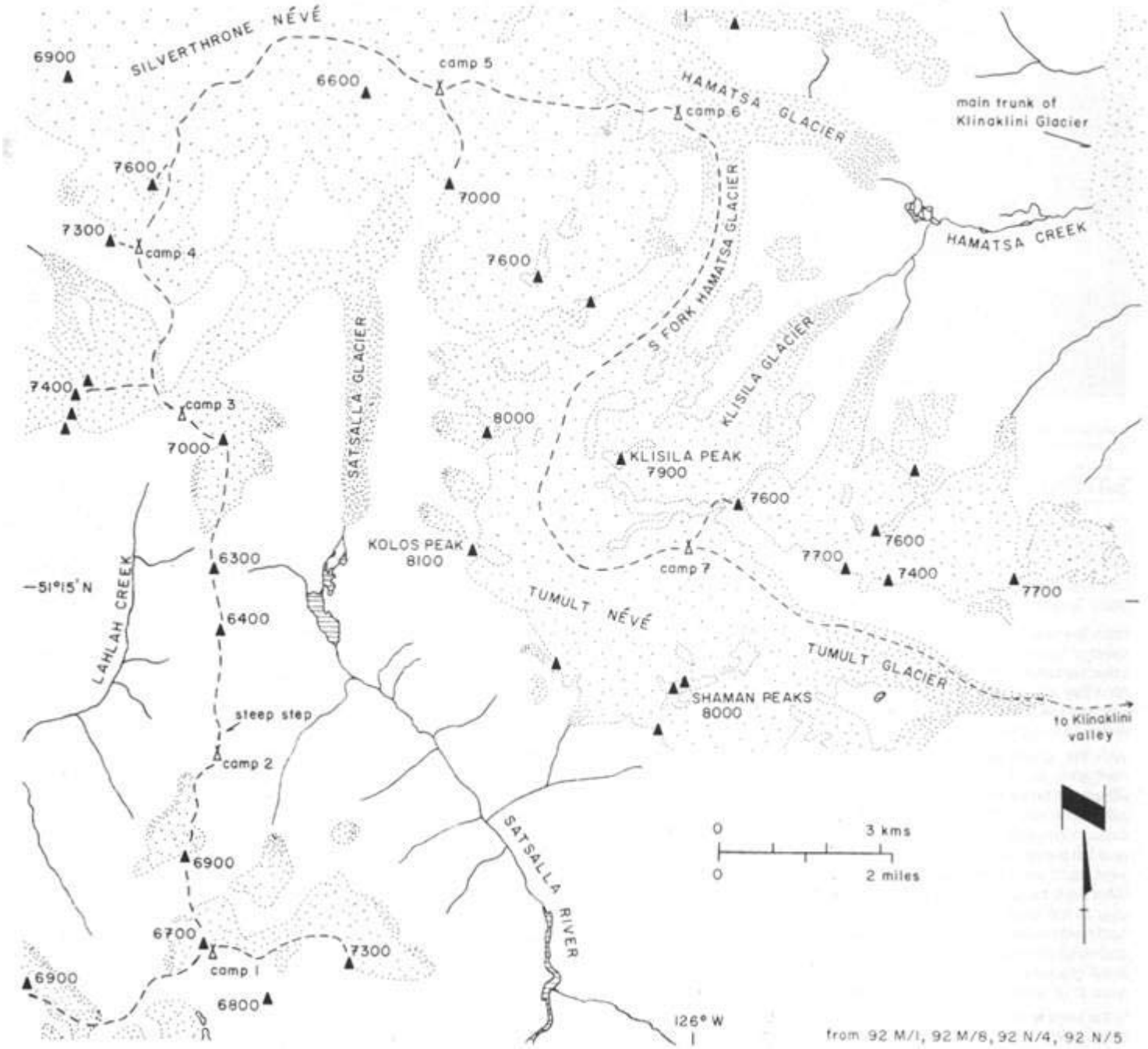
After sleeping in we broke camp, walked about a half mile north-west dropped our frames and set off with day packs for the 7400 footer. We passed under a series of cathedral like spires and scrambled up to the summit from the north-east side. We felt privileged to look into Charnaud Creek, the upper Kingcome River, and McFee Creek and see no trace of logging. The green valleys were restful to our eyes as an hour slipped by. Packing north again we felt drawn into the whiteness of the Silverthrone country. A lone billy goat trundled off the ridge toward Charnaud Creek. Camp 4 was in a wildly beautiful spot as below it the winding S curves of the Satsalla Glacier disappeared around a corner.

Satsalla Glacier
panorama from Peak 7000, two miles north-west of Satsalla Glacier snout, looking from south-east to south; extreme left Wahshilas, centre Peak 7300, right foreground the ridge leading to Peak 6300 and beyond, extreme right Peak 6900. John Clarke

Next morning we couldn't say we were sorry to see clouds swirling around the tent since we savoured the rest. The following morning however was clear enough to ascend the 7300 ft peak just north-west of camp. Later we pushed on and climbed the 7600 ft peak nearby from which could be seen our whole route from the beginning. The extent and the flatness of the snowfields toward Mt Silverthrone were staggering. Packing north-east we left two long lines of drunken tracks across the white desert. It was so flat that camp 5 was simply a matter of stopping at the right time and throwing the packs down in the snow. With the tent up and nothing to do we ended up on the 7000 ft viewpoint a mile south watching cloud shadows chase each other across the smooth névés below. The ridges in this area have the appearance of being buried under the ice, as many of them show no rock even on well defined crests. Hop 'glop' tasted right this evening having covered ten miles and three peaks since morning.

Once again we weren't unhappy to see cloud and swirling snow so we both started reading an enormous paperback called Centennial. John started it first and when I was ready he tore off the chunk he had read. I read faster though and soon the book was in many pieces. We were so anxious to get going four days later that we didn't even finish the last few pages when the sun broke through. It had snowed a lot and it came almost to the knee as we packed east toward a gentle pass. Easy snow got us to camp 6 on

Satsalla Glacier. John Clarke/M Irvine



the glacier island above the main forks of the Hamatsa Glacier. We slept soundly on the first heather since camp 2.

Mt Jubilee and the morning sun together overtopped the silver cloud filled Hamatsa valley. We packed up and scrambled down on loose moraine to the south fork of the Hamatsa Glacier. The long march took us back into fresh snow and to the pass John had crossed in 1973 (CAJ 1974:4-8) while exiting from the Ha-iltzuk ("Silverthrone") Icefield. On the pass the fresh snow sparkled like stars and the wintry Shaman Peaks rose from a ring of cloud at their base. We went a couple of miles down the Tumult, dropped our gear in the snow and filled the day packs. The nearby 7600 ft peak was easy from the west and the evening light made our last look at the Klinaklini Glacier and Mt Waddington very dramatic. Plunge stepping down to camp 7 we were preceded by huge "cinnamon rolls" avalanching from our boots. Later the stove roared away with yet another pot of the sustaining 'glop', (named for the sound it makes when it hits your bowl when served).

The next day winter really arrived with high winds and another ten inches of snow. The following morning we dug out, packed, roped up and followed the north edge of the glacier to the snout. Limping through the tottering gloomy moraines at the snout our thoughts were on the possibility of reaching trees and a campfire. A million boulders and a creek crossing brought us to a pleasant section of valley with flat moss covered gravel followed by the protected woods we so wanted to see. Camp was among Devil's Club in a grove of big timber and the long dreamt of fire glowed into the night.

Next day we hiked through an area of real rain forest — everything smothered in moss and an infinite variety of mushrooms.

Looking south from Peak 7300, west of camp 4. John Clarke

Looking down Satsalla Glacier from Peak 7600, north of camp 4; Peak 8000 on right. John Clarke

Satsalla Glacier from 1 mile east of camp 1. John Clarke

View from south-east of Peak 7400, north-west of head of Lahlah creek. John Clarke

It was an olfactory and visual overload after the snow and progress just ground to a standstill for an hour while we lingered and photographed. Noon found us in Klinaklini valley which is completely unlike any other on the coast. Moose have travelled through from the Chilcotin and are permanently established here. The valley is wide and flat with a big variety of animals. We charged down valley on miles of flat gravel easily avoiding islands of trees here and there. We saw moose, deer, bears, geese, ducks, beaver and eagles. Tall, dark, columnar cliffs rose from the opposite side of the river.

Toward evening something happened that we had never heard of before, let alone experienced. We were about to begin wading through a beaver pond as it was the only likely looking route. A lean black wolf trotted out in front of us, stopped and stared. We stopped and stared, mesmerized, our packs still on. Keeping his eyes on us he let out a few barks, ran toward us only a few steps, stopped, and growled. He then loped back to where he was before, threw his head back, and started howling away as if we didn't exist. The howling stopped in half a minute and he repeated the short charge toward us with more growls. When he walked back and started howling again we realized he was calling more wolves. After five or six minutes of alternating the howling and charging, the yap of a second one in the thicket behind us not only confirmed our suspicions but made us nearly jump out of our skins. I thought maybe this has happened to John before and he'll know what to do but no, he was just as amazed as I. We had seen the remains of a moose kill earlier and felt very vulnerable. Since there wasn't enough loose wood around to keep a fire going all night we decided to try the offensive. We threw our packs to the ground, took the ice axes and charged the wolf in front of us, yelling and waving the ice axes. We were certain this would cause him to disappear but amazingly he only backed off about 40 ft. We returned to the packs not wanting to get too far from them. The wolf now sat farther away but still watched us. We put on our packs and plunged into the beaver ponds to try and reach the logging road. The wolf paralleled our route for about a minute and then we never saw him again. Darkness found us on the road but we marched on to try for the logging camp.

At 2 am we couldn't take another step and put up the tent on the gravel beside the road. In the morning we slept late, crawled out into the warm sun and hobbled into the logging camp. We went to the dump with the cook and saw a bear so fat and full and tame that he was refusing a breaded pork chop that the cook was trying to push into his mouth. Soon the welcome drone of a Beaver aircraft echoed around the Inlet. We flew out to Powell River and were home in Cumberland on Vancouver Island the same night.

John Clarke and Jamie Sproule

Turret's Way

The first ascent of the south face of the Turret, Adamant Group.

Première ascension de la face sud du Mont Turret, dans le groups du Mont Adamant.

The wall soared above, aloof and austere, its blazing copper skin barely blemished by the wrinkles of time. From our immediate vantage point the south face of Turret looked blank. But as the sun traversed the sky changing nuances of light and shadow transformed the wall's outer shell and cracks and corners became discernible. As eyes screwed to adjust to the new reality cardboard cut-outs of great huge flakes asserted themselves from a retreating backdrop of flawless granite and a route connecting them began to take shape.

After hours of contemplating with the glasses a line was linked up. But the network of flakes appeared loose and insubstantial, with blank sections only hinting of nailable cracks. There was the question as to how a fortress of overhangs guarding the upper headwall would be surmounted. And a disturbing lack of bivouac ledges, save a broken sill bisecting the breadth of the 2000 ft high conical shaped wall, pressed on our minds. Nonetheless there was only one way to find out if this magnificent and neglected wall would go.

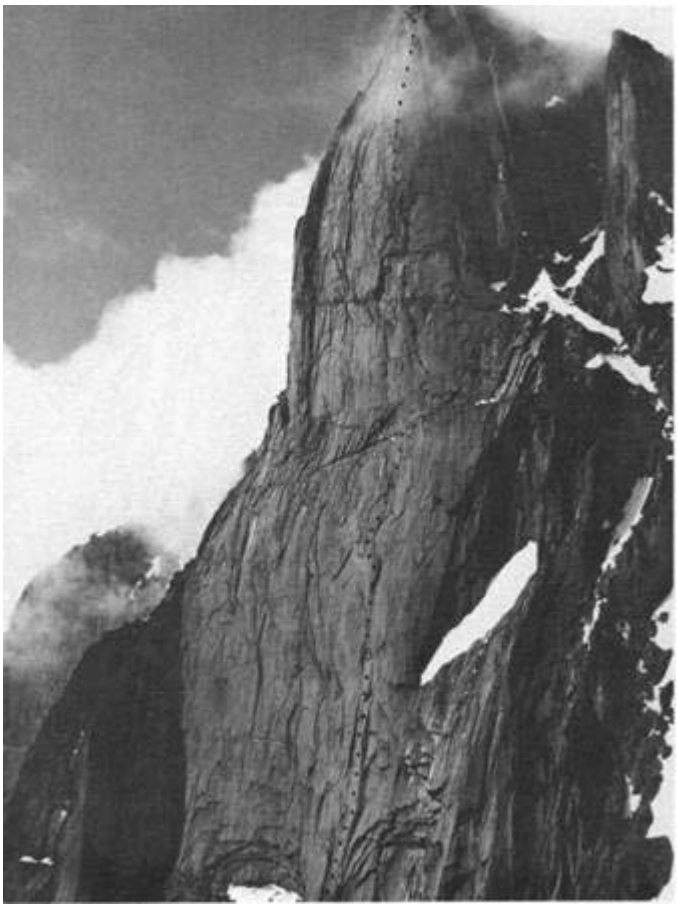
The first pitch surprisingly gives way to deft footwork and goes free on broken, incut diorite. Then the first of a series of expanding arches. Out come the aiders and in go the pitons. Only 40 ft out I pop a nut behind a creaking flake and take a flight, leaving bits of knee and elbow behind. Before reacting to this state of affairs I meet Scott's piercing eyes. They say one thing — we can't afford this sort of ignominious behaviour. I tacitly agree but there is some reluctance on the part of psyche. Still too much anxiety to entirely immerse myself in the wall. After an age of switching from one thin corner to the next, I'm up.

The next pitch turns out to be the crux. After mixing it up in the corner of a pillar and a lanky tension traverse, Scott gingerly moves into a curving arch pinched flush to the wall. He becomes totally absorbed. Every placement, every movement takes on remarkable quality; direct, uncomplicated, effectual. Riveted to the belay in a beating sun, my vision animates as Scott fastidiously taps his way up the pie crust thin corner. He becomes a sorcerer with hammer and piton, the image of a Don Juan Warrior: one who leads an impeccable existence, making every action count. I follow with incredulity, pulling out a string of knife-blade stacks with a few taps and tugs. We pause for a moment at the belay to soak up the power of the wall and tune in to the vertical way of being.

Just before nightfall I watch Scott, silhouetted against the mysteries of the headwall looming above, place our only aid bolt. This transfers us into a shallow corner that opens onto an unexpected gift of a ledge. It's real narrow but long enough for one and a half bodies. We share the goodies, eating slowly while flecks of lightning dart about in the distant Monashees.

We wake engulfed in chilling mist. I drift upwards in the vagueness of early morning, following a discontinuous shallow crack that splits off the ledge in a triplet. Small nuts, tied off blades, lost arrows, and a pendulum lead into a solid corner that negates the remaining blank section. Then we're off again into the expanding flakes. Hard aid never relents until Scott slips on EBs at the base of a corner jammed with loose flakes. Seemingly unemcumbered by the rack of iron, he stems and jams with meticulous precision,

South face Turret; route marked, with bivouacs. Scott Flavelle



his rhythm free, fluid, only perceptibly shifting when the corner narrows to finger tip and must be nailed. This delivers us onto a sloping, boulder strewn ledge that takes some engineering to make habitable. We send a stream of boulders crashing into the swirling void and carve out a niche for the night. Before retiring I ease up another manky seam and fix the rope for the morning on a bolt drilled in a horizontal quartz band underlying the headwall. We spend the night struggling against gravity and each other, stuffed sideways in a bivi sack secured to hold us back from rolling off into space.

The dawn comes up on our eyrie cold and clear. Sir Sanford's frozen rump is in full view and dominates the ice locked landscape stretching south toward far away Sir Donald. Again possessed of unwavering purpose, Scott nails up a thin, elegant dihedral on a series of novel placements, consuming what remains of our dozen or so bent and broken knife-blades, then breaks left through the overhangs and onto the headwall with an ingenious mix of questionable aid pins and tight chimneying. Cleaning is awkward but the struggle fades to insignificance as the exposure reaches an exhilarating climax. The wall falls away in tawny sheets, its swooping lines funnelling to a dramatic focal point within the imagined depths of the Austerity Glacier way down below.

Above another thin crack splits through one last bulging shield of monolithic rock. As I nail and nut ephemeral voices drift past on sporadic updrafts of crystalline morning air. Then we see them — Rob and Tom clambering up the bottom of the south-west buttress in sharp coloured contrast to our muted granite world — as sharp as if seen through an eagle's eye. A wave of nostalgia sweeps over me. Those had been warm hearted days shared in the fragile shelter of our storm lashed camp, savouring Rob's gourmet cooking while ritually preparing haul bags, racks, and energies for the journey ahead. With the summit another three or so pitches to go, chances are we'll revel in that camaraderie again tonight. But the descent is uncharted territory. Probably several rappels down a headwall that rears up from a huge snow gully filling the south facing gap between Turret and Austerity, then a steep plunge down to a cavernous bergschrund. And a front of towering black thunderheads are boiling up fast to the west.

The first wave of storm pinned us in the base of a groove that ran with torrential hail. For hours we stood in etriers as if paralyzed. Only thoughts were wildly active as ribbons of white flame cracked open the obscured sky and licked at the surrounding array of granite towers, sometimes connecting with an explosive thud. After a bitter soaking, the vast conflagration of mountain and storm subsided long enough for us to hang dog our way up the final corners in a driving flurry. The summit offered no refuge; descent was imperative.

We had just begun the headwall rappels when a great mass of ink black cloud, stirred alive by convoluting folds of steely grey, clawed its way up the glacier at a reckless speed. The Blackfriars, overshadowed and clear cut in a great smoothness confounding ice and sky, appeared suspended, purple black in the encroaching blurr of darkness as ghost curled fingers of the evil black cloud scratched out the failing light. In moments a feeling of foreboding, of physical as well as psychological discomfort, came over us. We could feel, indeed almost taste, the palpably oppressive, heavy sensation of a powerful electric field — a curious tickling, almost a crawl up the spine or brush across the cheek. Then we were engulfed in a smothering blackness, like the fearful primitive darkness of a total eclipse blotting out an ancient battlefield. The hail began to fall again; first with an incessant bounce, then with a heavier flow thickening into a smart perpendicular downpour. Soon the wall was a streaming sheet and the expansive couloir cloaked in the murk below became like a canyon roaring with a spring swollen river. Muffled up in toque, helmet and hood, I pulled off the latter for a moment to relieve the constrictions around my head. But the roar of hail and gravity was too intimidating. Just then the electric wind released its tremendous tension. Great claps of lightning crashed into the summit we had just departed, exploding blinding white light in our faces and sending chattering vibrations through our bodies. Scott and I exchanged a hint of desperation; talkative resolution lapsed into grim silence. We were swallowed up in the immense indifference of the world.

With uncompromising resolve Scott led the way down the rappels, applying his technical ingenuity to the maximum in rigging hanging stations behind expanding flakes. Each set of anchors was a horror that had to be ignored in itself. We'd rejoin for a few token words and fumbling with carabiner brakes then off he'd go down again into the impenetrable obscurity preceding another round of reverberating thunder.

Great sheets of white hot flame continued to burst upon our enshrouded world, revealing in a macabre flash the ongoing seriousness of the descent. Shattered rock bands blocked passage down the steep couloir filled with deep potato flake snow, and a labyrinth of ice runnels coursing with hail would have to be

traversed without crampons if we were to negotiate the schrund at its shallowest break. But when confronted with imminent death one becomes keenly aware of and detached from the situation. Decisions are final and therefore all powerful; there is no room for regrets. One chooses, then performs with the utmost of a tempered spirit lusting for life, accepting the ultimate responsibility for every action. Will and patience were with us — we could see the way out.

Mike Down

First ascent, Turret south face, Adamant Group. Mike Down and Scott Flavelle. 25 to 28 July 1981.

Logan Circumski

From 1 to 19 May 1982 a six person team successfully completed the fourth circumski of Mt Logan in the St Elias Mtns. The 19 day expedition covered 250 kms at elevations from about 5500 to 10,000 ft.

Du 1 au 19 mai 1982, une équipe de six personnes a complète avec succès le quatrième tour en ski du Mont Logan, dans les Montagnes St Elias. L'expédition à couvert 250 kms en 19 jours entre des élévations de 5500 et l 0,000 pieds.

The trip began with a two hour flight in a Single Otter from Whitehorse and a drop at the head of the north arm of the Kaskawulsh Glacier at 8300 ft. From there we skied south-west to the Logan Glacier, along the north side of Logan to the Ogilvie Glacier, up the Ogilvie to the Mussell Glacier, and up the Mussell to its head at 10,000 ft. Thence south on the Quintino Sella Glacier to the Columbus Glacier and out onto the huge Seward Glacier, passing eastward along the south side of Logan and north of Mts St Elias and Augusta. At Water Pass we dropped down to the Hubbard Glacier and turned south to round Mts King George and Queen Mary. After swinging up another arm of the Hubbard we returned to the head of the Kaskawulsh where we were again met by the Single Otter.

Weather was close to ideal although we did have a few days of compass skiing in whiteout. Snow conditions were variable from hard packed on the Logan Glacier allowing for sailing to deep powder on telemarking slopes. Towards the end of the trip temperatures rose and wet snow conditions were experienced. Over-boots to maintain drier boots would have been a very welcome addition.

All of us used light touring gear with standard three pin bindings. No unexpected equipment problems occurred although one toe piece split in half and was replaced. We pulled our gear on light pulks manufactured from inexpensive kids' sleds (the $5 variety).

We often encountered crevasse fields, particularly at the confluence of glaciers. Crevassed areas were easily recognized and presented nothing more serious than a time delay in route selection. Snow bridges were not always adequate and care was necessary. One minor incident saw a pulk down a crevasse, the snow bridge

Logan Circumski: kicking up our heels in sun and blue sky.

In whiteout conditions the head dreams of sun and blue sky.

The joys of telemarking with a rolling pulk.

Ski sailing on the Logan Glacier.

having collapsed after the skier had crossed. Skier and pulk were well roped and no gear was lost.

On the Seward Glacier we encountered a Green-winged Teal, blown well off course from the Alaska Coast route towards spring and summer nesting grounds. We came across "Seward" in the snow in whiteout conditions. Remarkably he adjusted to the group and almost immediately took water and a small portion of our high protein vegetable flakes. A minor difficulty associated with our temporary colleague was the adorning of sleeping bags with pungent bird droppings. In spite of this difficulty, the presence of the incredibly magnificent bird introduced a welcome diversion from whiteout slogging.

The trip will be remembered for the extraordinary easy group interaction. Laughter and fun followed by even more laughter. Such a compatible group doesn't always happen — when it does it results in a very special time.

Tony Hodge

Participants: Mike Beedell, Maureen Garrity, Tony Hodge. Steward MacKinnon, Elizabeth Richards, and Martyn Williams (leader). Organized by Ecosummer Canada.

Close, But Only A Cigar

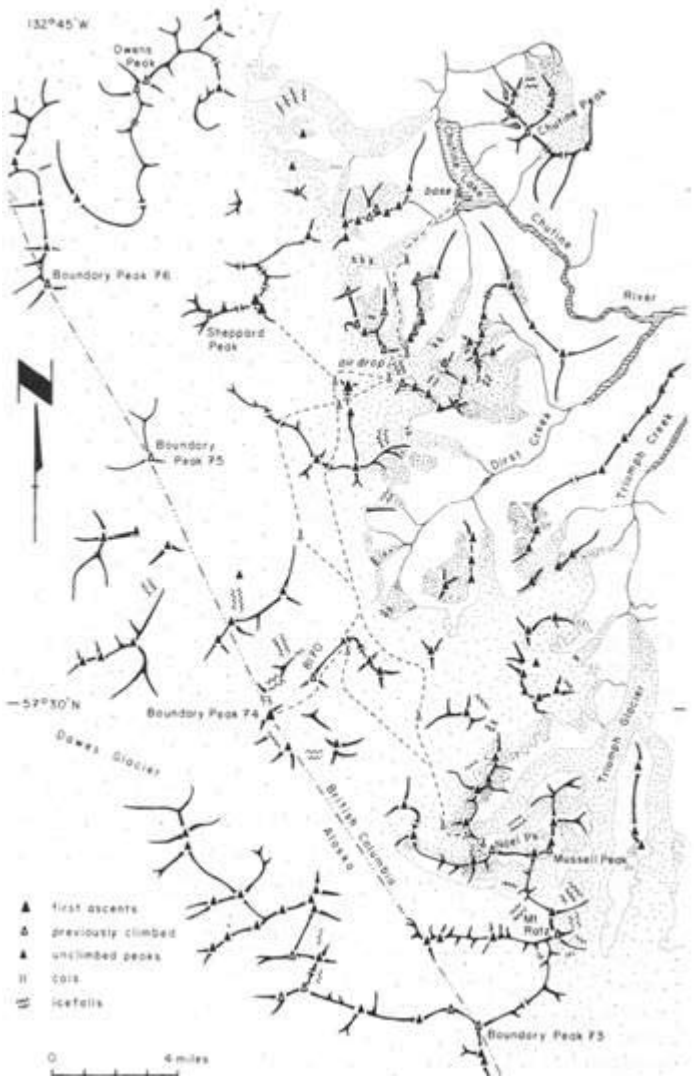
A visit to the Stikine Icecap area with an overland approach to and attempt on Noel Peak and ascents of Boundary Peak 74 and Peak 8170.

Une visite dans la région glacière du Stikine Icecap avec une approche a pieds, une tentative sur le pic Noel et une ascension des sommets Boundary Peak 74 et Peak 8170.

One might suggest a pattern was developing when, in the fall of '81, Les Wilson and I began hatching plans for a return to the Stikine Icecap. For me it would be the third consecutive visit in an even numbered year and for Les the second.[1,2] In a 1970 article[3] Fred Beckey speculated that a practical approach to one of the last unclimbed giants of northern BC, Noel Peak (10,040 ft) might be made from Chutine Lake. Our experience confirmed his idea. We had established access to the icecap from the lake and air photos suggested a relatively straightforward route the additional 20 miles south to Noel. During our 1980 trip we had debated long and hard between committing everything to an attempt on Noel Peak and trying an assortment of the more accessible northerly peaks. We finally chose the latter and had the fortune to be successful in all our endeavours. Now it seemed time to turn to Noel. By showing a few select photos and giving glowing testimonials to the virtues of the region we attracted Les' wife Beverly, his son David, and friends Stacia Cronin, Jay McCubbrey, Peter Vandernailen, and Tony Watkin to our intrepid expedition. Wiser men would have first consulted Moira about recent events but we brashly plunged ahead, assuming Noel was still virgin.

No sooner had we embarked than bad omens for "Chutine '82" began to appear. Unlike the previous visits, we chose to approach Chutine Lake from the Interior. Jay, Peter, and I were to fly to

Stikine Icecap from Chutine Lake to Boundary Peak 73. Paul Tamm/M Irvine



Smithers and rendezvous with the others travelling overland. By late afternoon on day one, 26 June, we expected to be bumping up the Steward-Cassiar Highway to meet the bush pilot at Eddontenajon Lake. Instead a comical series of snafus left the Wilsons attending to a sick transmission in Prince George, Peter and I still cooling our heels in the Vancouver Airport, and Jay stranded in Smithers with a three man mound of luggage. Tony who had been sent ahead to meet us with only the sketchiest of details found no one, and was wandering around the Skeena District trying to figure out what had happened. Luckily by the time we all did get together only one day had been lost.

We reached Eddontenajon Lake the evening of the 27th in time to get one hurried plane load in to Chutine Lake before dark. The following morning we made two more flights. The weather was just good enough on the last flight to do an air drop of food and fuel on the edge of the icecap (6500 ft), ten miles south of base camp.

After spending a day setting up base camp we were off for the icecap. A day and a half later we were within reach of the air drop but Tony was struggling, debilitated by an intestinal ailment he had picked up somewhere on the drive up. While the rest of the group set up a camp David and I went ahead to locate the air drop and bring back one food box.

The bug would continue to plague Tony on and off for most

Mussell Peak and Noel Peak (right background) as seen from the divide between Dirst Creek and the Dawes Glacier.

of the trip. Were it not for his remarkably good disposition and an incredibly patient rope partner in Jay it could have proved a major problem. As Tony's constant companion through thick and thin (so to speak) Jay earned the nickname Tonto. Even in his weakened condition Tony managed to keep the group loose with his "That's what Rosie said to the butcher" rejoinders to even the most innocent remark.

At the air drop site the supplies were transferred to homemade drags constructed by Les from heavy plastic sheeting. Skiing with the drags that afternoon proved a stiff test of both technique and humour. Our first objective was a short cut pass just west of the air drop site. Its far side looked featureless in the air photos but proved quite steep. The snow had had all day to soften and as the dangling drags plowed an uneven path through the frozen mush they seemed to prefer every orientation except right side up. Many a harsh word passed between skier and drag. Nearing the base of the slope I was feeling quite smug about the admirable performance of my drag since it had not misbehaved at all. My come-uppance was swift. Crossing what appeared to be a well bridged bergschrund I was unceremoniously dumped — hanging up on the lower lip in just an awkward enough position to be helpless. Les and Bev who had already crossed at a different point thought I'd just fallen like everyone else. They were about to ski off when I made clear my plight. I was fished out with no more damage than damp clothes and a somewhat dampened ego.

The following morning there was little enthusiasm for the next pass I had proposed to cross. It was avoidable but meant skiing about ten miles out of our way. After much discussion we finally compromised on a second pass about a mile to the north-west. When it was crossed without much difficulty the group's confidence got a real boost.

From here our route paralleled the international border for about eight miles to a divide separating a minor arm of the Dawes Glacier from the Dirst Creek drainage. Directly ahead lay a prominent 7000 ft peak. We turned the peak on its eastern flank although it looked as if we could just as easily pass it to the west (as in fact we did on our return). Six miles further south at elevation 5800 ft we reached the foot of a glacier flowing off the west face of Noel Peak. The 20 mile crossing from the air drop had involved relief varying from 5000 to 7300 ft and had consumed three and a half days at a leisurely pace.

Above the glacier flowed off Noel in two crevassed cascades separated by a small basin. Caching all but three days' food we started up. The lower glacier was negotiable but the upper section appeared much more problematic. Fortunately it was bounded on the north by an easy talus ridge. We followed the ridge to the head of the glacier at 7700 ft. Here we put in a high camp just below an impressive rock buttress on the north-west ridge. One could not ask for a more aesthetic spot. Spectacular views were everywhere. Huge hanging glaciers adorned the north face of Noel. Below a

Mussell Peak and Noel Peak (right) as seen from the north.

debris laden arm of the Triumph Glacier stretched northward like a giant snake. The rugged peaks of the Oasis group loomed to the south-west. Slightly north of west one could look right down the length of the Dawes Glacier to a silvery patch of Endicott Arm glittering in the late afternoon sun. The date was 5 July. The weather had been amazingly good for a week. It couldn't last.

The next morning all of us but Stacia and Peter set off across the head of the glacier for the south-west ridge. Short of a prominent saddle in the ridge we crossed the bergschrund and ascended a steep snow slope, finally gaining the ridge proper at 8300 ft. Above lay a series of parallel arêtes rather than a single ridge line. We ascended an ice filled gully between the two most prominent arêtes. Broken clouds raced overhead. Occasionally one would produce a snow shower but each time the sun would shortly reappear. The weather was the least of our concerns. We were keeping to the rock on the south edge of the gully to minimize the high danger from rockfall. The rock was extremely rotten and pieces were constantly being dislodged. Most were funnelled away from us to the centre of the gully but occasional ricochets off the walls produced some scary moments.

At about 9000 ft the gully steepened for a short section and became ice free. The climbing difficulty here was low class 5. Two pitches above the rock band David sent down disheartening news. He had found a discarded shrimp can on the edge of the gully! I was aware that Ralph Hutchinson's group might have been in this spot in 1974[4] but this can certainly didn't look eight years old! Unknown to me he had been here again in 1977[5] and, more importantly, also in 1981[6]. At 9500 ft the gully ended in a notch. On the north arête stood the large gendarme which had been the most prominent feature of the skyline as seen on our approach to the mountain. Hutchinson's group nicknamed this gendarme the Cigar. Beyond the ridge was composed of a complex series of staggered towers. The climbing became even more tedious and difficult to protect. No sooner had Les finished the first pitch than the weather suddenly turned very bad. Further progress was out of the question.

Fortunately there was an ideal bivouac spot in the gully just below the notch. The combination of a shallow depression in the south wall and a drift of hardened snow had created a shallow cave. By reorganizing loose rock we formed a crude bench and foot rest. A tarp strung overhead and across the entrance provided reasonable protection from the wind and snow. We settled in for the night even though it was only 7 pm.

By 10 the next morning the weather still refused to clear. It was time to retreat. Rappelling down the rotten gully in the snow storm was almost as tedious as the climb up. It was 6 pm before we

reappeared at a spot on the ridge where Peter and Stacia could see us during a brief clearing of the weather. The storm had produced high winds and heavy rain at high camp and they were becoming concerned about our long absence in such nasty conditions. Before descending to the glacier we spent half an hour intentionally avalanching the ascent slope. It was 8 pm when we finally reached camp and the driving rain had returned.

The weather next day was little better and we stayed in camp. Most of the food supplies brought up from the foot of the mountain were now gone. When it still hadn't cleared by the morning of 9 July we made the decision to abandon Noel. It seemed better to save the remainder of our climbing time for other peaks we would pass on the trip back. Of course no sooner had we reached the foot of the mountain than the storm broke. But we had made our decision. In a concerted push we reached a pass just north-east of Peak 8170 that same day.

The plan for 10 July was to climb Peak 8170 and Boundary Peak 74 (7358 ft) about two miles further south-west. The weather was calm but dense fog made it a virtual whiteout. Nonetheless the ski ascent to the base of the north-east ridge and a traverse under the east face went smoothly. At the foot of the south-east ridge the group split. Les, David, Jay, and I skied on by compass bearing in search of Boundary Peak 74 while the others began the climb of 8170.

Boundary Peak 74 is quite precipitous on all sides but the east. By making this approach we were actually able to ski within 200 ft of the top. Once on top the fog graciously dissipated and we were treated to a spectacular view straight down the lower Dawes Glacier to the ice choked end of the Endicott Arm. On returning to Peak 8170 we were greeted with the surprising news that the peak had been previously climbed. But the summit cairn had given

Sheppard Peak massif as seen from the south-east.

no clue as to the identity of the first visitors. Could this be the vaguely described 8000 ft peak climbed by Hutchinson's party in 1977 after their defeat on Noel?

Pushing north again we took the more direct route over the 7300 ft pass we had elected to by-pass on the trip down. After another long day we were only two miles west of the air drop site and within three miles of the east peak of the Sheppard Peak massif. This peak (ca 8200 ft) had not been attempted on either of our previous trips and seemed a worthy objective.

In the morning clouds obscured all but the lowest reaches of our peak. Bev and Stacia elected to stay in camp and Peter chose to solo a small nearby peak. We based our approach on recollections of the previous day's view. The upper part of the south-east ridge had looked very straightforward but we could only guess about the transition from a lower subsidiary peak on this ridge to the main ridge itself. When we tried to spiral around the subsidiary peak on its western flank we were forced to the top by sheer walls. Persistent clouds and intermittent snow kept the main peak well hidden. What little we could see didn't look promising. We were about ready to admit that our approach had been all wrong when the weather cleared just enough to reveal a promising snow capped knife-edge projecting to the north-west. Les scrambled down to the ridge and within a few minutes disappeared out of sight. Ten minutes later he reappeared and signalled for the rest of us to follow. An easy class 4 descent of 300 ft on the rotten ridge brought us to a snowy saddle between the two peaks. The rest of the climb proved no more than a second class scramble over talus. With zero visibility and howling winds on top we quickly built a cairn, had a brief snack, and left.

When we skied back to the air drop site the next morning to collect the box cached there for our return a rude sight awaited us. The box had been ravaged and its contents strewn about the area. An abundance of bear tracks circled the box but closer inspection proved that the real culprit had been a raven. He had gotten to everything but the dried noodles and a few cocoa packets. To make matters worse it began to rain quite hard. We spent the rest of the day making our way back to the toe of the approach glacier in the wretched weather. The salvaged noodles and our remaining soup made for a rather meagre dinner that night and we just wrote off breakfast.

When we awoke it was raining hard — no weather in which to move. We stayed in the tents nibbling on our remaining lunch food and wondering how long we should make it last. By noon it lightened up enough to venture out for a stretch. Obligingly the weather steadily improved and we were off again by early afternoon. Without the drags our packs were heavier than they had been all trip but fortunately base camp wasn't that far away. On reaching the river flats I found that the wading shoes I had stashed under a rock were gone! Whatever took them preferred my drab, battered pair to the much fancier models cached with them. Future visitors should be on the lookout for a sticky fingered animal wearing Adidas. Wading through the icy water was toe numbing but it hardly mattered as the comforts of base camp were by now only a half hour away.

During the last three days the weather was mostly balmy and there wasn't great interest in mounting an assault on anything nearby. Mostly we lazed on the beach or paddled about in the Foldboat we had brought along. A concerted fishing effort by Peter produced one edible sized fish. To him this justified the inclusion of his equipment but it did nothing to elevate our confidence in surviving a loss of our supplies. Les, who felt compelled to keep busy, set about on a tree trimming project under the guise of letting

more wind into camp to "keep the mosquitoes down". It had no discernible effect.

Like clockwork the morning we were scheduled to leave, 18 July, the weather was socked in once again. The pilot reappeared nonetheless but after the first flight out he refused to return until the weather improved. Les, Bev, and Stacia finally got out late the following day.

Shortly after returning home the '82 CAJ arrived with Hutchinson's description of the successful first ascent of Noel Peak by the south face. We were surprised to learn that ours had been the fourth unsuccessful party on the south-west ridge. While our accomplishments were modest, completing the first totally overland assault on this remote peak was itself satisfying and gaining a few more fans for the spectacular Stikine made the trip a success.

Paul Tamm

FOOTNOTES
1. CAJ 1979:36.
2. CAJ 1981:21 -23.
3. The Mountaineer, Vol 63, p 85, 1970.
4. CAJ 1975:68-70.
5. CAJ 1978:42-43.
6. CAJ 1982:4-5.

The Mt Hickman Group

New ascents in the Mt Hickman group, north-east Coast Mtns.

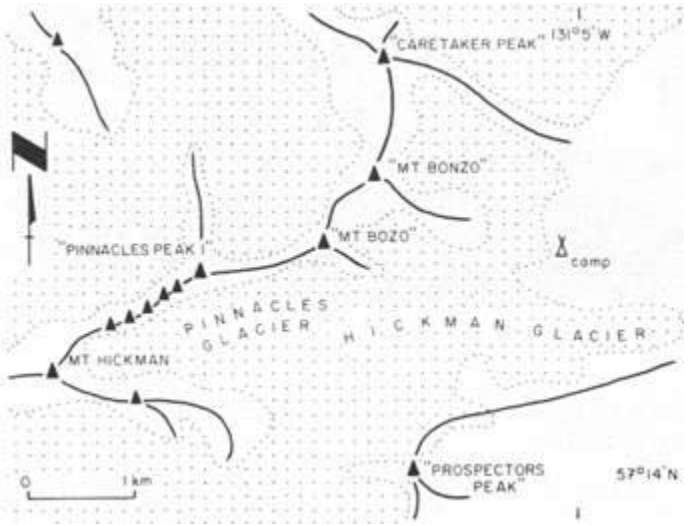
Nouvelles voies dans le groupe du Mont Hickman, secteur nord-est de la Chaîne Côtière.

When I received a letter addressed to "Paul and rope" I knew that my plan for a climbing holiday would be realized. More letters led to phone calls and finally a trip to Vancouver on the July 1st weekend to make final preparations. Finally on the morning of 26 July 1982 John Knight and I met at the Terrace airport. Somehow John had convinced me that a remote group of peaks south of Telegraph Creek would offer a unique combination of good climbing, adventure, and possible first ascents. John had a photo of the peaks taken by a geologist who worked in the area in 1981 but I did not have a chance to see it. So a cursory look at some outdated topo maps provided my entire knowledge of the climbing possibilities. I was not disappointed.

The area we chose was the Mt Hickman group on the north-eastern edge of the BC Coast Mtns, 70 kms south of Telegraph Creek at approximately 131°10'N, 57°05'W. Mt Hickman is the only named peak. In the interest of communication we have provided tentative names for the unnamed peaks which we climbed.

After our trip I discovered (see CAJ 1973,1975,1981) that the area had only three recorded visits prior to our own. In July 1972 Fred Beckey, John Rupley, and Dave Beckstead climbed the east

The Mt Hickman Group. Paul Stoliker/M Irvine



summit of Mt Hickman up snow gullies on the south face. In July 1974 Alan Durfee, Ted Young, Kurt Snover, and Eric Adelberger approached Hickman from the north and made an attempt on the west side but turned back due to poor snow conditions. They did climb four other peaks: the one falsely marked Mt Hickman on map 104 G/6 which we called "Caretaker Peak"; Peak 7900, 21/2 kms west-north-west of "Caretaker Peak"; and two minor peaks north of "Caretaker Peak". In 1980 Roger Griffiths, Bob Disbrow, and Eric Savic climbed a number of peaks west of Mt Hickman. Now the saga continues with our story.

From Terrace we flew with Trans Provincial Airlines directly to the Teck Mines airstrip on the east side of the confluence of Shaft and Hickman Creeks. We were greeted there by Frank Permesser, the only human occupant of the valley for the past two months (Frank insists he shares the area with five grizzlies). Our first problem was to choose an approach route. We had two options. The first, up Shaft Creek to the unnamed glacier north-west of Caretaker was used by the 1974 party and is probably the best approach route. This glacier provides an easy walk to a good base camp site at 6200 ft. However unless you are prepared for 3 kms of bushwhacking this approach requires several crossings of Shaft Creek. We found Shaft Creek extremely high so opted for an approach up Hickman Creek. An old road, sketchy in places, follows the east side of Hickman Creek for about 8 kms. From the end of the road we navigated the bank of Hickman Creek for 4 kms, forced occasionally into short interludes through thick bush. Hickman Creek can be crossed at its source, Hickman Glacier. From the Teck Mines airstrip to the toe of Hickman Glacier required five hours.

The Hickman Glacier was, as feared, almost an icefall so we decided to make base camp at 5200 ft on the grassy slopes 2 kms south-east of "Caretaker Peak". We made all of our ascents, except "Prospectors Peak", from this camp.

The rock in this area varies between disastrous and excellent. For example our ascents of "Caretaker" and "Pinnacles Peak 1" were mostly on shattered rock. In fact we frequently had to dislodge several kilogrammes of the terrain in order to find secure footing. However the summit of "Pinnacles Peak 1" and most of the "Bonzo" climb provided excellent climbing on solid rock.

Due to the long distance from camp we did not investigate the "Pinnacles" closely but it appears that they offer the best climbing in the area. Their south faces rise about 1000 ft directly out of "Pinnacles Glacier". Numerous technical climbs on good rock should be found here.

Paul Stoliker

Summary of Ascents

"MT BONZO" SOUTH-EAST RIDGE

Cross the glacier above camp then follow its west edge north to 6000 ft. Here snow ramps are followed up and left for 1000 ft. Traverse up and right over easy terrain to the ridge proper. The rest of the climb follows the ridge and is mostly class 3 with a few delicate moves to 5.3. Descent by the same route. First ascent, 28 July 1982.

"MT BOZO" NORTH RIDGE

From the summit of "Bonzo" descend the south-east ridge to 8200 ft. Traverse west over a snowfield to a ridge which leads south-west. Follow this ridge over a minor summit to the north ridge of "Mt Bozo". Climb moderate ice to gendarmes which are by-passed on loose rock (class 3), then scramble to the summit. Descent by the same route then down the south-east ridge of "Mt Bonzo". First ascent, 28 July 1982.

MT HICKMAN EAST PEAK, SOUTH-EAST RIDGE

Mt Hickman, the highest peak in the area, was our major objective. Upon reaching the east peak we found, as did the first ascent party, that the highest point of Hickman is a tiny pinnacle about 15 ft higher than the east peak and separated from it by what looks like two leads of very difficult rock climbing. I suspect that no one will ever stand on the true summit, not because it is impossible to reach but because it is simply too small.

Follow the snow ramps of "Mt Bonzo" south-east ridge route for 300 ft then traverse left on a scree ledge above cliffs. This ledge leads to a scree slope which is traversed left to the glacier on the south side of "Mt Bonzo". Drop down and west over this glacier to the north edge of Hickman Glacier. This circuitous route was used to by-pass the extremely crevassed portion of Hickman Glacier just above camp. Ascend Hickman Glacier to "Pinnacles Glacier". "Pinnacles Glacier" is relatively crevasse free and would make a superb camp for climbs on the "Pinnacles" south faces. Follow "Pinnacles Glacier" to a point slightly west of a minor summit on the south-east ridge of Mt Hickman. Climb two pitches of 55 degree ice to gain the ridge which is followed over a rock wall (one pitch of 5.5), an ice wall, (two pitches, 50 degrees), and some very loose rock to the summit. Descent by the same route. Second ascent, new route, 29 July 1982.

"CARETAKER PEAK" SOUTH-EAST RIDGE

From camp follow broken ground north to "Caretaker's" south-east ridge which is followed (class 3) over shattered rock to the summit. Descent by the same route. Second ascent, new route, 30 July 1982.

"PINNACLES PEAK 1" EAST RIDGE

Follow the approach route for Mt Hickman until "Pinnacles Glacier" is reached then head north to the "Pinnacles/Bozo" col. Follow the east ridge over horrible rock (class 4) to a shoulder. At a point just below this shoulder I elected to turn back due to an approaching blizzard. John reached the summit over excellent rock (low class 5). Descent by the same route. First ascent, 1 August 1982.

"PROSPECTORS PEAK" EAST RIDGE

For six days this beautiful snow capped peak beckoned to me from across the valley. On our last day of climbing we broke camp early and descended to the toe of Hickman Glacier. A relaxing aesthetic climb topped off our trip. Ascend grass slopes and broken ground of the ridge on the south side of Hickman Glacier. By-pass two small pinnacles on the south then climb a gully and a short step (class 4) to regain the ridge. Follow the ridge over rock, glacier, and a beautiful snow crest to the summit. Descent by the same route. First ascent, 2 August 1982.

El Cap In Québec

Cap Trinité, a jewel amongst the few climbers who know it and are willing to give it a try, has all the potential to become the El Cap of Quebec. It is located along the Saguenay River about 200 miles north-east of Quebec City.

The sheer cliffs of Cap Trinité are surrounded by Cap Eternité and facing Cap Saguenay, across the river itself. They were well known by the 17th century seamen of the French colony. The river itself attracted them mostly for its abundant marine life of seals, white whales and belugas. The river's depth permitted three masted ships to sail through the majestic panorama — a three-quarter mile wide couloir enclosed by 1000 ft cliffs. The most obvious was and still is the prow of Cap Trinité whose cliff in places falls directly into the sea. The Saguenay River, due to its proximity to the Atlantic, is salt and has 15 ft tides here. The attraction of the cape for navigational purposes gave to these deeply religious seamen an occasion to demonstrate their fervour. In 1881, using only ropes and slings tied to trees along a very steep 600 ft gully, a three section lead statue was lifted from the river and assembled at the top of the first lower cape. The statue, high above their heads, was to protect them as they sailed on trading ventures back and forth on the river from Lake St-Jean. The holy statue still attracts a lot of people — in 1981 nine thousand persons hiked along an easy trail to pay her a little visit on her hundredth birthday.

The area is now a provincial park with an excellent six mile gravel road from the highway to Trinité Bay. A perfect trail leads to the statue. A mile and a half long, almost half is made of wood stepladders on the steepest sections. As well there are two halts, two look-outs, many water spots, and a huge log cabin on top. From the top you can watch small sailboats and huge oil tankers on the green sea water. You also see tall granite cliffs and in the background the wooded hills of the Canadian Shield.

On the climbing scene it was not until the sixties that Cap Trinité received visitors. This can be explained mostly by its remoteness. At that time access to the base of the cliff was by boat from the closest village, 12 miles away. I once had a hard time canoeing only a mile or so in the inside bay, not even on the main river itself. We were three in a small sixteen foot canoe loaded to the gunwales with gear fighting against three foot waves and a strong head wind.

El Cap in Québec: Cap Trinité. Yves Laforest

I loved the security of an overhanging crack after that. The crux move is when you come to land with all your gear on a smooth rock bed, gently inclined and covered with a greenish slime.

So the first braves who came from Quebec and Montreal spent days on the 900 ft wall which is mostly vertical and overhangs near the top. They established some seven routes on Cap Trinité itself and left dozens of wood chocks, aid pins, and other paraphernalia. This has become an era. The area had lost some of its popularity by the end of the seventies. The few Quebec climbers were more occupied freeing the shorter and somewhat easier aid routes closer to the cities. They were establishing new free routes on those crags or simply going to North Conway or the Gunks. Then about two years ago the few who could handle this kind of thrill began to get interested in freeing an aid route on Cap Trinité. It has not been done entirely yet. At the time of writing (we never know, things change so fast today) the easiest line almost freed is still solid 5.11 with a few A1 moves over a dirty crack on the last pitch. Two teams made the first one day (a very long day) ascents of the face by doing the route called "La vire du cure Dallaire" (The ledge of priest Dallaire). They climbed it in a period of three weeks, heavy use according to the record of activity on Cap Trinité over past years. This old aid route is about 850 to 900 ft long. It involves sustained climbing at the 5.9 level with sections of 5.11. The crux pitch is a 120 ft crack overhanging six to seven feet from its base. It begins with an offwidth section, surmounts two bulges and finishes with a perfect finger crack. This pitch involves very strenuous climbing to the 5.10 to 5.11 level and is well protected with large hexes and Friends, if one can hang long enough to place them. However the offwidth section is quite tricky with a squeezed piece of rock moving back and forth while you hold it. This crack is located in a nice setting, surrounded by large roofs and 600 ft directly above the Saguenay River. You can hear a noise coming from the water down below. It is the tourist boat La Marjolaine on one of her two round trips each day from Chicoutimi to Trinité Bay. From the top deck a lot of people are staring and cheering you on, accompanied by an Ave Maria song from the boat's speakers. This situation defies description; the trip is worth it just for this.

To conclude Cap Trinité and the other surrounding cliffs are virtually untouched and have all the features necessary to become the best climbing place in Quebec. They have large walls of solid granite, good infrastructure installed for the tourist community which is very helpful for the climbers, perfect trails, friendly park wardens and, most of all, lots of challenging free climbing.

Yves Laforest

The Logistics Of Mt Robie Reid – Then And Now

The southern fringe of the Coast Mtns terminates abruptly above the Fraser Lowland as a series of 1200 m high forest clad ridges. Where the US Canada border traverses this lowland the view to the north shows a vast green wall pierced here and there by deep steep sided valleys. These were once fjords connected to the iceberg strewn sea overlying the lowland some 10,000 to 13,000 years ago. Amidst this relief stand a few notable rocky peaks which rise above glacially overtopped and rounded ridges. From some angles in the morning mist, or in the layered sequences of afternoon cloud, it is a view that can arouse visions of castles on hilltops in a feudal setting. On bright clear windy days the peaks jut into the sky crisp and dagger like, especially if mantled by new snow.

Travelling eastward along the lowland new peaks come into view, though from near Huntingdon-Sumas they all unfold in one panoramic sweep. The green curtain visible from south of Vancouver is called the "North Shore Mountains". Behind it the rock giants of The Lions and Crown and Cathedral Mtns rise. Only The Lions have become easily accessible in the last quarter century; the others have been harder to reach behind the security of the watershed. This group is cut off from others to the east by Indian Arm, a rugged steep walled fjord. Between Indian Arm and the next major valley to the east, another fjord named Pitt Lake (tidally influenced), the standout is Coquitlam Mtn. It too is locked in a watershed. Much farther behind it can be found the less accessible Meslillooet Mtn; it may receive an ascent every three or four years. To the east of Pitt Lake the Mt Blanshard massif dominates the view from all angles and today it is by far the most accessible group, with several minor peaks on it to climb.

Actually Captain Richards spotted these in 1859 and dubbed the whole Blanshard massif "Golden Ears". This became confusing because the highest of the three summits has two ear-like nipples. In the 1920s or '30s the now defunct Dominion Geographic Names Board decided to name the whole massif Blanshard, after the first

governor of the colony of Vancouver Island, and relegate "Golden Ears" to the northernmost and highest summit on it. Further prodding by the ACC Vancouver Section put an official name on the middle summit — Mt Edge (after Sam Edge and companion who climbed it as early as 1876!), and the name Blanshard Peak on the southernmost or outer summit (formerly known as "Blanshard's Needle").

The Blanshard group is bounded to the east by the Alouette Lake through valley, which intersects the larger Stave Lake valley to the east at an acute angle. Opposite the point of intersection lies Mt Robie Reid, once known as "Mt Blanchard" (note the 'c' spelling) and later in the 1930s and '40s as "Old Baldy". Its buddy nearby at the head of Stave Lake is the domineering and most inaccessible Mt Judge Howay. Both peaks are named after lawyers who went to college together and remained lifelong friends; in fact they were in a partnership until Howay became the New Westminster circuit court judge in 1913. Howay became president of the Royal Society of Canada just prior to his death in 1943. Both studied BC history and were, unknowingly, the only silent bidders against each other when rare archival material was auctioned in London. In 1944 the BC Historical Society pressed for recognition of these gentlemen by seeking prominent peaks on which to place their names. The two selected certainly yield a fine view from many points in the Fraser valley, as well as from Mt Seymour and other nearby ridges. "Mt Blanchard" was relocated in the shuffle while the misnomers "Old Baldy", and in the case of Mt Judge Howay, "Snow Peaks", were cast aside.

Between Stave Lake valley and Harrison Lake to the east (also somewhat tidally influenced) the green ridgetops explored by Doug Kaisan (CAJ 1978:34-36) are backed by the "Chehalis Group" visible from Chilliwack. They have been well explored of recent by the Serl/Wyborn gangs (CAJ 1980:11-14) thanks to recently gate opened logging roads. To the east of Harrison the crown like massif of The Old Settler caps the view but a spike like eminence far behind, Mt Urquhart, also shows. The Fraser River canyon lying to the east of these and associated ridges is the logical boundary to the Coast Mtns and is of fault origin, thus separating them conveniently from the Cascade Mtns to the east. Logging roads have deteriorated to non-useable status around the Settler while locked gates have recently appeared on the Spuzzum Creek access to Urquhart.

The above foray is something special to the Coastal climber. It represents a series of delicious plums, ready to be plucked but hard to touch. To climb them all is a lifelong task fulfilled by only a few. The centrepiece is Mt Judge Howay, flanked by Robie Reid. Neither was climbed often in the pre-1965 era and "the Judge" still has a formidable Stave River crossing at its base despite the well maintained logging road on the other side. Attempts to by-pass this hang up on bushier alternate approaches almost always end in dire frustration. Successful ascents can still be counted on the fingers of two hands. The 1950 CAJ article (pp 76-82) by LH Taylor still gives a fair portrayal of the routes and hardships. The Tom Fyles first ascent route of 1921 is still the way to go if you can beat the river. Oddly enough he knocked off both peaks of the Judge in 1921 but it was not until 1925 that he climbed Robie Reid with its somewhat easier logistics. The Stave Lake reservoir was the common access to both. The latter lacks a mean river to complicate the rigours of ascent.

Mt Judge Howay and Mt Kranrod (beyond tree) from camp site on south-east ridge crest approach to Robie Reid. K Ricker

The Chehalis Range (Mt Clarke centre, Mt "Ratney" right) from ridge camp for Robie Reid climb. K Ricker

Robie Reid has not been reported on in the previous journals, though CAJ 1950:76 contains a fine photograph of its north face from the Judge Howay region. Access to it has undergone a revolution. Fyles' party of ten disembarked from boats on a late Saturday afternoon at Glacier Point and made camp at lake shore level (ca 80 m above msl). According to the anonymous writer of the first ascent account (BC Mountaineer, October 1925) the group left at 3 am climbing steadily under forest on a north-east ridge, only to top off on an unexpected false bump at 1100m. Undaunted they descended to a saddle and ascended to the south-east ridge to reach a series of small sub-alpine situated tarns on its crest at about 1350 m. Going north-west from here the first alpine obstacle was the east facing headwall on the upper massif which is capped by several bold gendarmes. Exploration on the wall led to a groove to the north of a more obvious gully and the party passed up to the col between the two highest pinnacles and then onto the higher of the two, which was perceived in the fog by many to be the summit (the lower east peak as it turned out). Tom was not so sure and in the murk led them north-westward on a ridge to the final (main) summit tower as it turned out (there is a lower isolated west peak which stands out alone but that is another story). At noonish the long 2000 m ascent was complete and the party dashed off to the distant lake shore, trying to beat darkness and be at work on time the following day. Apparently the Stave Falls boat launch, some 24 kms away, was reached late at night and it was not until the wee hours of Monday morning that the last car was pushed through the access mudholes before continuing home. The anonymous recorder concluded that the mountain was not really a weekend venture but then that was the trademark of many a Tom Fyles ascent.

The Logistics of Mt Robie Reid. K Ricker/M Irvine

In our 1982 ascent of Robie Reid we were fortunate to find a cairn container with the records of almost every ascent, including the first four. The number of summit visitors before us overwhelmed our deepest suspicions; the mountain is notorious for aborted attempts. The record spells out the access over the years following the first published account. It appears that the two ascents in the 1930s and one ascent in the mid '40s by a Neal Carter led combined VOC/ACC party were by Fyles' Glacier Point route. Dalgleish and Wheatley dashed up the route in 1932 in seven hours; they could not find the first ascent record but recorded their ascent of "Mt Blanchard" ("Old Baldy"). The third ascent in 1934 was by a large BCMC party led by A Cooper who covered the same route in eight and a half hours but had to settle for fog on arrival.

In the late 1940s a younger jet set of Alpine Clubbers discovered Stave Lake and proceeded to knock off all the peaks which rimmed its north end. According to Howie Rode, lake access was served by the BC Electric Co boat which took passengers at nominal charge. This was used for large trips; otherwise it was more advantageous and flexible to rent inboard boats from "Ma" Simpsons whose business was located at Stave Falls. The port of call for Mt Robie Reid was a newer beachhead, equipped with wharf, opposite Deception Point. A skid road led up the mountain on an eastern approach beside a creek. Crossing its north tributary put the climber back into the bush but it was a not too uncomfortable ascent to the south-east ridge and the above noted tarns where camp was set up. In fact Rode marked the route with jar lids nailed to trees and it became the standard thoroughfare for 15 to 20 years. It joined the old route at about the 1300 m level near today's popular camp site and thereafter the two were identical to the summits. Note that the Culbert guides imply that the east summit terminates the climb and fails to mention that there is a further one to one and a half kilometres of rambling needed to gain the final west summit tower. This final tower has the only loose rock on the climb, though it's only a half pitch of dangerous bombardment. Its loosest and steepest basal section can be by-passed to the right (north) on a hidden ramp and thus a rope is not required here unless it's snowed up.

Exactly when the Stave Lake approach lost favour to the Alouette Lake access is not known but before going into this current access a few other route attempts should be noted. In 1954 Howie Rode and Don Cowie made the first ascent of the lower west peak by thrashing the tangled bush of Tingle Creek valley. Rode says the going was the worst of his long career; the only relief was to fight their way to the valley slope on the south despite its rugged gullied character. It had to be ascended sooner or later anyway in order to reach the western glacier on the north side of the massif. Note the topo map shows only this glacier but not the others to the east (see CAJ 1950:76-82). Their camp was set up on the north edge of the ice from which an assault commenced the following morning. The glacier was ascended and the headwall above it climbed to reach the col between the two massifs with apparently not much difficulty. Easy ledges located high above the col and easily seen from the main summit were not accessible however, though a lower set of ledges was traversed out onto the north face into a prominent but difficult chimney blocked by two sets of chockstones. Once over these the route wound up on sloping ledges which faded out onto a very flat summit. No names were left in their cairn. On the September long weekend of 1957 a BCMC party repeated this ascent but used the traditional route to the top of the main peak as access to the lower west peak. They descended to the intervening col (300 m) in a series of carefully connected scrambles which required only one short rappel despite the awesome look of things. The party managed to reascend the main peak without a hitch in only two hours and fifteen minutes after departure from the west peak, using a rap down its north face chimney. Camp, located at the usual tarns on the south-east ridge, was reached in a downpour at 6 pm. On the following day the party retreated to Stave Lake (BC Mountaineer 1957).

The last known attempt at a new route via Stave Lake was a north face attempt by Bert Parke, Bob Puddicombe and others of the ACC in the late 1950s. From Glacier Bay the party ascended the floor of bushy "Glacier Creek" but lost their bearings respective to the mountain. Only one and a half kilometres up valley they turned too soon up the first major tributary on the south side of the valley which drains the sloping slabs under the east end of the main massif, including the ridge crest on which camps are usually placed. In the oppressive afternoon heat the party threw in the towel at barely 900 m between gullies on bushy slabs and returned to the lake. This was probably one of the last Stave Lake access trips because the west side of Alouette Lake became road accessible at this time and there was already a logging road up tributary Gold Creek valley which led nicely into the basin east of the Golden Ears. Though this road went no farther towards Robie Reid, Bert Parke and Vince Bauer reasoned that the relatively broad flood-plain of Gold Creek would provide easy but wet walking to the col

Robie Reid (centre) and Mt Judge Howay (right)
From south-west, on Golden Ears trail. Nancy Ricker

View from the summit of Mt Edge
Robie Reid (centre), Chehalis Range (behind), Mt Judge Howay (left), and The Old Settler (distant far right). Nancy Ricker

separating the Robie Reid and Mt Martyn massifs. The sloshing was bearable but the overnight camp had to be put up just shy of the saddle at only 600 m elevation and a torrential downpour on the following day made for a very wet retreat. Thus in the early 1960s the obvious access was still relatively untested and Robie Reid began to develop a reputation as hard to beat. Either the access or the weather killed the incentive and it was not until the 1970s that the picture changed to the favourable.

In our 1982 visit we were shocked to find how popular the Alouette Lake route had become. The summit register was stuffed with entries, several ascents every year. Even a party of 20 high school students from one of the Fraser valley schools had signed in. In this period boat launches and lakeshore camp sites were developed in the Alouette Lake Park, no longer part of Garibaldi Park. In fact "Remove the Golden Ear dogleg" from the latter was a popular mountaineering club battle cry in the 1950s. It was hoped this would increase expenditures in the former. But obviously it had the reverse effect. The Provincial Parks poured the money into a new Golden Ears Park. Correctional institutions near the entrance of the park and another eventually placed in the upper lake basin also yielded a hand in tidying up the area, and the clean up of reservoir debris made the basin safely usable for boats. So no longer was there a fear of being trapped in the flotsam above the narrows. Now it's nearly all contained behind a boom at the extreme north-east end of the upper lake basin. During the 1930s the north end of the lake and the upper Alouette River were heavily logged and no doubt there was the odd ascent up onto the mountain from here while the logging tracks were up to about 600 to 700 m on the south slopes of the mountain. However it was inmate work in the early 1970s which built a trail up this side, albeit a steep one, which spliced onto the older trail (the one marked by Rode) at the 900 m level on a bit of flatiron topography located on the south-east shoulder of the mountain. The trail leaves the lake on the west side of the upper lake basin adjacent to the boom and more or less follows above the lakeshore to reach a flat overgrown delta of the Alouette River (once known as "Glacier Creek" on the old Forestry maps). An old donkey engine looms through the bushes where it was used to haul driftwood out of the lake. It adds a bit of a nostalgic twist to the trail which re-enters the woods only to end at a washed out crossing of the upper Alouette River. Yes, the Boxing Day floods of 1980 got that one as well and part of the foundations of the large unused cabin on the other side were also removed. However a new cable tightwalk act has been added upstream to alleviate the lack of a conventional crossing and thereafter the trail gradually departs from river edge on old blurry skid trails and eventually leads to some ridiculously steep grades on treed slopes. This is now the route. However getting there warrants a review because it's not at all straightforward.

In August 1982 a joint ACC/BCMC party led by Ehleen Bohn discovered the latest in launching gimmicks for an Alouette Lake assault on Robie Reid. If the party does not have its own canoes or power boat these can be rented at the Pitt River crossing in Port Coquitlam from 8 am to 8 pm. The logical launching point is at the campground well inside the park but unless you camp there it is "no go" past a rather zealous set of camp custodians. So the options are to retreat to a boat ramp at the south end of the lake for a full 16 km paddle up the lake or drive on to the Gold Creek parking area and portage canoe and gear down to the lake. Either way it adds about one to one and a half hours to the trip unless the canoe carrier can manage his own pack in the same carry. Our mega party of 20 left in three groups. A Friday evening departure squad of three elected for the portage while most of the Saturday morning crew did the longer paddle. A party of two highballers wanted to do the trip in a day and had left Vancouver at 3 am only to find that the park gate does not open until 7 am (somehow they got through it at 6 and bluffed their way to a camp site launch). And it also meant completing the trip to clear the gate at 11 pm or be locked within for the night. So allow for gate politics in planning this worthwhile venture.

Our first rest in the long paddle came at "the narrows", which evidently marked a valley glacier standstill during the retreat of Pleistocene age ice. It could be a "Sumas Stade" equivalent which occurred 11,500 years ago because this moraine is mapped in valleys to the east and also on the Fraser lowland around Abbotsford to the east but not to the west in the Haney/ Coquitlam region. So the bouldery deposits at the narrows may be their correlative.

After lunch and a swim the gang regrouped at the north end and ditched canoes and paddles in the woods near the trail head which is not marked and hard to find. Reaching the donkey engine it fades again but after entering the woods near piles of shake bolts and cement blocks is apparent to the river, easy to step across. A very hot grind up the hill led to the junction of the old trail but

none of us realized this fact at the time. Then another low step was ascended before a final sweat on a longer pull to reach the aroma of coastal heather on a gentler south-east ridge. A distinct groove beaten down through the shrubs attested to past heavy traffic and the main mob caught up to the advance party at the usual camp site beside the tarns on the ridge. They had just bagged the peak in an afternoon gallop. Under the view of Mt Judge Howay and the Chehalis Group to the north-east, camp was set up in a spectacular setting looking down at Clearwater and Glacier Bays on Stave Lake.

The climb went without a hitch from a 6 am start the following day. The east facing headwall had lost all of its interfingering snow ramps in the late summer melt but ample dry routes on very sound and adhesive granitic rock led to its gendarmed crest. Some used a rope. Others kept looking around for safe jug handle holds. One group descended the other side and took the snowfield traverse but fell way behind those who went over the east summit and walked the ridge crest to the final summit tower. A microwave repeater station was found on the middle summit en route. The number of entries in the cairn record in the recent ten years was mind boggling, considering that by 1960 Vince Bauer and partner on his second attempt were either the seventh or the eighth party to reach the summit. The record bottle was stuffed with papers, taking nearly a full half hour to read. The first, second, and third ascent records were recopied and the originals taken down to be preserved in the BCMC archives.

At noon the party of 15 was back to the camp site where they met the two day trippers. As packing began they roared off to the summit and nearly caught up to the stragglers of the main group who reached Alouette Lake at 6 pm. Two of us had forged ahead in a heavy head wind to meet the 8 pm closing of the canoe rental shop. We convinced the proprietor to stay open for another hour to catch the rest of the trip's rental gear, explaining that a heavy head wind and not attractive swimming and lagging stragglers were the cause of the delay. Nonetheless Ehleen is to be congratulated on running a tight ship and for all it was a good weekend to kill off the memories of aborted missions on Robie Reid. If we could only get the "Judge" in the same fashion our coastal "grudge climb" lists would disappear nearly altogether!

Karl Ricker

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Montrose Glacier

A solo traverse of the high ridge east of Montrose Creek, in the mountains of the Toba River.

Une traversée solo de l'arête élevée a l'est de ruisseau Montrose, aux montagnes de la rivière Toba.

I had admired this area from many previous trips as far back as 1967 and now decided to go in for a closer look. The trip to Toba Glacier in 1976 (CAJ 1977:6-10) yielded good photos of the long ridge east of Montrose Creek so I brought some of these along as a guide. The logging camp at the mouth of Racoon Creek in the Toba River has an airstrip so I chartered a wheel equipped Cessna 172 in Qualicum and put an air drop at 5000 ft on the flat part of Montrose Glacier. The glaciers were very dry this late in the season so the flight was a thrill even for the young pilot who could hardly believe having to fly at 8000 ft to clear ridge tops only three miles from an airstrip at 80 ft above sea level. We spiralled down into the hot, dry valley and the little aircraft settled onto the gravel strip.

I packed up the logging road, crossed the bridge on the Toba River and, in terrific heat, marched another couple of miles on the hot, dusty roads. A heron rose up out of a beaver pond near the road. The heavy pack resulted in camp 1 being at 100 ft above sea level. In the morning (11 September 1981) I slowly climbed up through big timber having a shower under a waterfall on the way. The route steepened just under the big shoulder at 3500 ft and it was on this that I camped just before dark.

I could have picked up a little speed the next day but the long series of rock slides were dotted with berry bushes. This gave way to an open easy ridge that continued to camp 3 at 7300 ft. While supper was on I was busy photographing the views when a big full moon rose over in the direction of Elaho Mtn.

The 13th was a beautiful morning. I left camp and visited the 7535 ft point to the south-west, came back past camp and hiked up to the 7685 peak to the north-north-east. I packed up and travelled north visiting Peak 7755 en route. Just before reaching Peak 7670 I put in camp 4, put supper on a slow burner, and went off to climb the peak.

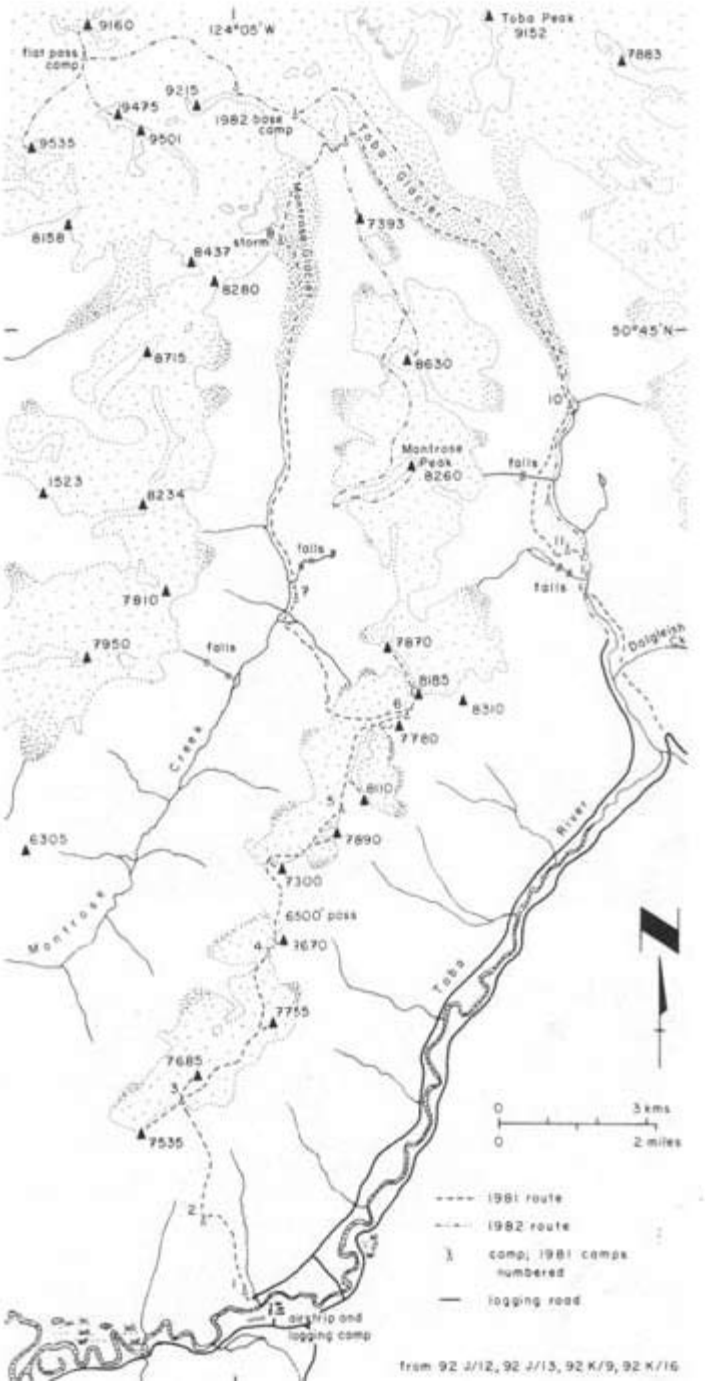
In the morning I cramponned down just west of 7670 to the 6500 ft pass. From here the route was easy skirting a 7300 ft bump to the west. I left the frame pack for awhile and walked up to the high point to get a better look at the beautiful Peak 7890 to the north-east. I packed over to its base and climbed it on steep rock from the south. Back at the pack I slogged northeast and into the 7400 ft pass beyond. I dropped the pack and searched around for a camp site with some protection from the wind. I was trying, as usual, to avoid a snow camp if at all possible. I looked down the east side of the pass, and just above the cliffs that shot thousands of feet to the Toba River was a little sand covered ledge big enough for the tent.

In the morning I welcomed having a peak to climb right away as this is always better than having to start packing immediately. From Peak 8110 the views were great and Peak 7890 looked wild from here. Looking more precarious than it really was, the blue dot of the tent was visible on the ledge. I packed north, keeping high on the glaciers west of the main divide, stopping to photograph a series of waterfalls 2500 ft in height across Montrose Creek. In the 7100 ft snow pass just west of Peak 7780 I had lunch and put on the day pack. Looking north-east from Peak 7780 I realized that further travel along the main divide was going to be more difficult and might have to be abandoned if the weather didn't hold. I returned to the frame and packed it around the north side

Montrose Glacier
View from camp 4 of 1- Peak 9535, 2-Peak 8100 (in front of and right of 9535), 3-Peak 8715, 4-Peak 9475, 5-Peak 9501, 6-Peak 9215. John Clarke

Montrose Glacier and Creek from 2 miles north of camp 4
1-Peak 8715, 2-Peak 9501, 3-Peak 9215, 4- Compton Mtn, 5-Peak 3630. John Clarke

Montrose Glacier and Toba Glacier Area. John Clarke/M Irvine



of 7780 and started up the south-west ridge of Peak 8185. Before long a steep step forced a recce beyond. This disclosed that I had better make up a day pack and go for the two peaks above me rather than chance the weather with further camps along the main divide. This was a disappointment as I wanted to complete this fine traverse and especially to climb Mt. Montrose. The air felt like something was up with the weather and the temperature felt like any storms would produce a lot of blowing snow forming thin bridges on the wide open crevasses. I started up and crossed loose but easy ledges on the west face of Peak 8185, looking back and studying a possible exit down to Montrose valley on the way. I broke out onto the ridge crest and the new views toward Mt. Tisphone were superb. This long ridge was a delight to hike on – the crest itself was quite broad but then dropped off steeply on both sides. I stopped and watched a ptarmigan clucking away near me, Montrose Peak looming behind. From Peak 7870 I looked longingly at it and hoped to climb it soon. On the long ridge walk back in evening light I climbed Peak 8185 and savoured the views from this last and highest peak of the trip. Camp 6 was in the col just below where I had left the frame.

Next morning (16th) I traversed west on glaciers about a mile and started north down a long series of slabs, some moss covered and streaming with water. The route sometimes needed a recce ahead to be sure but finally I arrived on the gravel bench at 4200 ft. My presence seemed to cause great alarm in the local marmot colony as I searched the area for a route on down. I looked over the escarpment, my eyes hungrily searching through the polished slabs for a route but they were all too steep. The air was charged with the pounding of a thousand waterfalls and wind and water howling off the glaciers blew slide alder clumps round and round, drenching them with spray. Huge cliffs plunged downward from the heights and the sound of streaming water varied in intensity with changes in the direction of the wind. I had one hope to get down — through cliffs to the left with enough timber clinging to them to at least have a look. I clambered down a short distance and saw far enough to decide it was worth a try. Then I went back to the frame, took out the rope and started down. This precious little route was narrow and steep, the hardy trees clinging to the rock and I to them. Sometimes the pack was sent down ahead on the rope when it got in the way of down climbing. Finally the steepness relented and the slide alder began. I groped north through the twisted greenery, feeding on berries as I went, and ended up on a gravel bar in the river. The whole floor of this awesome valley is gravel and boulders. There is almost nowhere to put a tent and seemingly none that wouldn't be flooded it if rained. The weather was deteriorating still but mercifully holding off for now. The tent went up on the gravel bar after almost two hours of removing boulders and adding sand and foliage to the site. Darkness caught me still dragging firewood to a spot downwind of the tent where I planned to keep a fire going most of the night. There was evidence of grizzlies so I built it big enough to at least smoulder after I went to sleep. And sleep I did, with a major route problem behind me and the chance of possibly reaching the air drop tomorrow. The thunderous Montrose Creek nearby tried to smother the click, click, click of boulders rolling along its bed.

I broke camp a little late and stepped into the slide alder which alternated with patches of ferns growing from an invisible bed of boulders underneath. The technique here is to walk as if on eggs and blindly probe the ground for good footing. Grizzly trails ran through these ferns and some areas were beaten flat as if for beds. Some spaces under the big blocks of a rockslide provided shelter for the animals. Hair hung on the sharp rocks near these dens. One of these that appeared to stay dry even in the worst of weather had big claw marks in the dry sand that was their bed. I whistled and shouted my head off through here as the roar of the waterfalls would prevent animals from hearing me coming. Slide alder appears to be no hindrance to bears it seems. Peering up through the leaves I could see water streamed ice age striations glistening in the pale sunlight. After many stops to photograph the waterfalls I finally got near the glacier snout to find a flat plain of quicksand behind which house sized blocks of rock held each other up at all angles. Beyond this the grey, gentle glacier disappeared into a solemn sky whose clouds now began brushing the highest peaks. Frantic to reach the air drop before dark and the now certain storm, I skirted the

Looking west-south-west from 1 mile north of camp 4 down Montrose Creek to ranges west of Filer Creek. John Clarke

quicksand to the right and climbed through the immense teetering blocks gaining the ice about a quarter mile above the snout. Easy travelling all right but the tiredness caught up on me and I stopped for awhile and put on crampons. Fireweed seeds, spider webs, fern spores, and green leaf juice still covered my clothes as I crossed surface streams, skirted fields of sandcones, and listened to the crunch of the crampons biting into the granular ice. The first few raindrops pelted the top of the pack so I stopped in the lee of a big boulder on the medial moraine for a bite to eat. I got going again, dropped the frame on a snowpatch at the base of the big tributary icefall coming in from the west and dashed off in search of the four air drop packages.

Everything was much more crevassed and boulder strewn than it had looked from the air but soon I found the package of white gas inches from the edge of a big moulin. One tin was empty and torn to shreds like shrapnel. I thought it looked like a piece of modern art. The other gas can was dented but fine and a short search disclosed a second package. It was a pulverized mixture of books, honey, oatmeal, flour, and the very important 1 inch webbing slings for the walkout. New recipes would have to be invented I thought. I put up camp 8 in the dark and lay inside with the steady pelting of rain on the flysheet punctuated by the odd hollow clunk of an ice block toppling in the closest icefall. The wind carried the streaming sound of creeks spilling down rocks east of the glacier and occasionally the rumbling of a big ice avalanche overwhelmed the other sounds for awhile.

The rain lasted for two days with the snow line dropping all the time. On the morning of the 20th snow began and lasted for three days. On the 23rd I probed with the ice axe for five hours to gain the one mile to the foot of the slope leading up to the pass to Toba Glacier. The new snow was over my knees on the 1300 ft climb to the pass. From it the sight of the Toba Glacier was deplorable with the new snow going down to 4000 ft where the tributary comes in from the north. It was a desolate, wintry scene. The slopes below looked very steep and the glacier itself was more crevassed than it had been in 1976. I went to the low point in the col and jumped off the cornice, having thrown the pack down first. The angle wasn't too bad at first but when it got too steep I left the pack and scouted left and right. No hope to the right. Fortunately the final dead end coincided with a ledge big enough for camp 9.

Looking at mtns. north and south of the Headwall Creek. John Clarke

Waterfall 2500 ft up west side of Montrose Creek
Ice age striations apparent. John Clarke

In the morning a recce revealed the route to the Toba Glacier. The fresh snow made it slow going but at last the glacier was reached. Tortured ice covered with fresh snow lasted another hour and then I found good going at the glacier edge. Once on the dry ice I dashed to the snout and camped a few feet from where I had put the tent in 1976. At that time my camp site had been on open sand but now the rocks that had held down the tent pegs and the circle of rocks for the fire were hiding in shoulder high willow.

Next day I hiked down the Toba River and the decision to keep

Telephoto from near camp 4; left to right, Compton Mtn, Peak 8630, and Montrose Peak, from the south. John Clarke

Looking south-west from camp 4; Peak 7537 beyond end of centre ridge, Peak 7685 next to left. John Clarke

Peak 7890 from Peak 8110. John Clarke

high to avoid a canyon resulted in camp 11 high above the river. Next morning I found a route back to the valley bottom on an incredible series of ledges. When I came to where an avalanche had sent a forest into the river I crossed to the other side on the log jam. Across the river I climbed for 500 ft through broken timber lying up hill. These had been snapped off as the avalanche charged up slope. After crossing Dalgleish Creek on fallen trees I reached the logging road just in time to get a ride with the last load of logs coming out of the woods. As usual I had a big welcome in the logging camp and I swapped tales with the loggers on into the night.

In the morning one of the cooks came up to me and said, "Have you got a plane coming in?" I said yes and he disappeared into a bunkhouse to emerge only five minutes later with all his belongings, announcing that he had had enough of the camp life. We shared the back of the open pickup for the bumpy ride to the Inlet. Moss covered stands of beaver drowned maple and alder covered the valley floor and beyond these the grey water streamed cliffs rose into thick, grey clouds. On the way to Campbell River the old Beaver aircraft was tossed around pretty badly on the roughest flight either the pilot or myself had ever experienced.

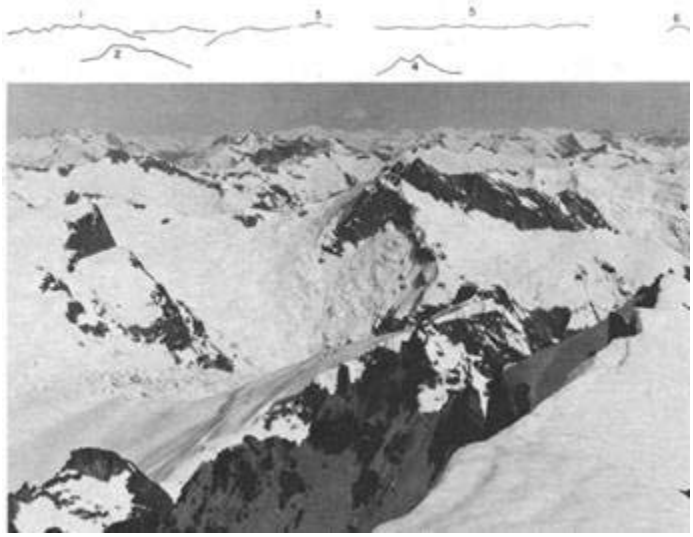
John Clarke

Toba Glacier Area

A spring trip with ski climbs of four peaks in perfect weather.

Un trip au printemps - quatre ascensions à ski le temps parfait.

View to south-east from summit of Peak 9535
1-Manatee Range, 2-Montrose, 3-Elaho, 4-Peak 8715, 5-Clendenning Range, 6-Little Toba. John Clarke



On 7 June 1982 Phil VanGils and I helicoptered from Whistler Mtn to a shoulder on the ridge just north-west of the pass between Montrose and Toba Glaciers. Right away we dragged everything over to the nearest rocks and took off skiing. The work could wait. Later on we looked around and found a nice bench just off the ridge crest on the north-east side and put up the tent. Next day we dug out a cavernous kitchen, sorted food, went skiing, and settled into our new dazzling environment.

On the 9th we skied down to the pass and travelled south-east, traversing under the north-west side of Peak 8630 and around a corner. From here we stayed high and passed under the cliffs on the north-west side of Montrose Peak. The long, corniced south-west ridge of the mountain barred access to the snowfields on the south slopes which are the key to get to the top. We skied down to just under the 7000 ft level of the ridge but the cornices won the day. We were out of time anyway. Back in camp at 10 pm we were tired, with no peak in the bag and Phil's feet badly blistered.

Next day we stayed around camp reading books and convalescing. On the 11th I just put in my log "ate, read books, sorted food, dozed". Phil was propped up on a deck chair carved

Toba Glacier Area
View to north-west from summit of Peak 9535; 1-Mt Grenville, 2-Mt Gilbert, 3-Mt Raleigh. John Clarke

from snow reading a book and keeping his blisters exposed to the healing air. We looked like a couple of tourists. On the 12th I sorted all the high camp food and got ready for a solo attempt on Montrose tomorrow. I lashed the skiis and poles to my frame and got completely ready for an early start.

I left at 5 am and returned at 11 pm with only 13 minutes on the peak. Phil had dug out a perfect cave to store food while we were up at high camp as our kitchen was succumbing to the perfect weather.

On the 14th we cached everything we didn't need and packed north-west up the ridge to the 8300 ft shoulder where we turned north onto the glacier. We were trying to find a high level route across to the 8500 ft snow pass two miles east-north-east but cavernous crevasses forced us north and down. We camped in a depression below a 40 ft ice wall and I started nosing around to see if we could stay high in the morning. Not a chance.

In the morning another recce showed a route down to the valley part of the glacier and the run down was superb. We then skinned up and came out onto the flat pass at last. I remember thinking a DC-3 on skiis would have no trouble landing on it. There was a marvellous feeling of space here with views of Mt Gilbert and our objective, Peak 9535.I put up the tent and Phil started madly digging down for a kitchen. It was a cook's dream; at the bottom of a flight of steps was a place for the stove, shelves for food and a view of Mt Gilbert. After supper we took a walk up to a nearby pass north of camp and admired a sharp rock peak nearby.

Early next morning (16th) I went off on frozen snow and climbed Peak 9475 while Phil cooked breakfast. It was a thrill to return to the same spot as 1976 (CAJ 1977:4-10) and I could see my old snow route down the other side. After breakfast we skied over the 9030 ft bump and buried our skiis at the base of the west slope of 9535. The climb was easy but slow on very soft snow. From the top there wasn't a trace of haze. There was no wind. We built a cairn, made tea and took photos. Three perfect hours. Getting back to the skiis we sank to our chests at times. The ski run back was practically one long schuss that ended right in camp.

Next morning we said goodbye to the big pass, broke camp and skied back to base camp by the same route we had come. Wolverine tracks were all around but the cache, buried deep in the snow, was untouched. We arrived at 1.30 pm, set things up, and by 3.30 I was away for Peak 8630.I left the skiis below the peak, crossed a bergschrund to the left and arrived on top at 8 pm a nice time to be at 8630 ft. When I hobbled into camp at 11 pm Phil had a ham and potato dinner ready. He had worked on camp all day, doing laundry and getting ready for the walk out.

On the 18th we skied down the steep slope to Toba Glacier. The heavy packs tore at our shoulders. For getting down this slope it is better to keep left and occasionally recce ahead. Once on the big glacier we schussed down for miles. Farther down glacier waterfalls come off cliffs on the right. This was where I watched Phil practise his telemarking with 60 Ibs of ballast on his back. Just above the snout we learnt not to try to ski across the patches of dry ice showing through the seasonal snow! We stopped and I made a big rice pudding while Phil took the bindings off the skiis. We continued on foot and headed down the west bank of the river. There was a rock bulge just after the snout and the river curled right up to it. There was a route over the top of it though and then we came to the flats where I had camped in 1976 (CAJ 1977:4-10) and 1981 (see Montrose Glacier, this volume). Next there was an area of slabs and slide alder followed by faster travelling on boulders. We put the tent up on an unlikely looking spot and the mosquitoes moved in for supper. The 1200 ft falls above were carrying more water than on previous trips and we wondered about a creek crossing we had on the route for tomorrow.

In the morning we approached the constriction in the valley that had caused me to go high the previous fall and we decided to try to push through closer to the river. Incredibly one ledge followed another to the big, slabby flats beyond. These flats are worth stopping at as the river boils in a canyon below and the whole length of the valley is visible, including the impressive 1200 ft falls. Back in the bush we came to the big tributary which was in flood. The slide alder that this creek flows through helped greatly in the crossing of its five or six separate braids. After a while in timber we arrived at a very wide swath of slide alder which we crossed close to the river. The last part of it was the thickest and finally we crawled up into the dark woods. Through here the going was ridiculously easy and soon we saw road location tapes and then the road itself. We camped right on the road bed and we were too tired to light a fire.

Any energy left in us was well drained out by the eleven mile walk to the logging camp the next day. A young grizzly on the road just stared and walked slowly into a thicket of salmonberries. Since the logging camp was shut down by the dry weather we spent the night with the people homesteading at Little Toba.

In the morning (21 June) the old Powell Air Beaver spiralled up over the river mouth, through a gap, and into the upper Daniels River. We droned down valley near the impressive Mt Denman and finally left the mountains behind over Powell Lake. A look in a mirror in Powell River reminded us of the amount of grooming it would take to make us fit into society again.

John Clarke

A Winter Trip To The South Nahanni

Eleven fanatical Yukon slogger skiers of varying backgrounds and sexes thrashed, skied, bushwhacked, and snowshoed over 160 miles into the South Nahanni River valley only to end up where they started after 21 fun filled days.

Onze fanatiques skieurs et skieuses du Yukon, avec des degrés d'expériences variables, ont progresses a pieds, en skis, en raquettes, a travers les broussailles, surplus de 160 milles dans le sud de la Vallée Nahanni River. Tout cela pour seulement se retrouver, âpres 21 journées remplies de joie, à leur point de départ.

In order to more easily accommodate the hordes of enthusiastic masochists wanting to participate in this epic adventure we

decided to split into two almost equal groups. Leaving each other and the good life at Tungsten, NWT, the two groups set out in opposite directions with expectations of a hot, soaking rendezvous at Rabbitkettle Hotsprings near the Nahanni River in seven days. The plan was for the groups to cross paths and return on the packed trail of the others.

Weather conditions the first week proved to be unseasonably cold (-20 to -30°C) and progress unreasonably slow. The Flatfooters packed away their sun creams, shorts, klister, and other spring skiing paraphernalia (even their skiis) and snowshoed down the Flat River in snow up to their butts. The Ragged Rangers had better snow conditions but were slowed by the cold and several reconnaissance missions to plan the best approach to the glaciated Ragged Range and subsequent descent off the glacier down Brintnell Creek which would be more appropriately named Brintnell Ravine. The weather, their progress, and their spirits picked up as they kicked and glided across Glacier Lake and down the South Nahanni River with only occasional unexpected dips in the chilling water.

Meanwhile the six sickly Flatfooters coughed, sneezed, and wheezed themselves out of the bottomless snow of the Flat River valley and up onto the overflow ice of Pass Creek. After finding inspiration at Hole-in-the-Wall Lake they made their descent down winding, boulder infested Hole-in-the-Wall Creek to Rabbitkettle Hotsprings on Day 12. The fantasy of lounging and soaking in the Hotsprings and sharing stories with the other half disintegrated as both the weather and the water were too cold and the other group was nowhere to be seen. However the rainbow layering of the tufa deposits descending like stairs down the bottomless, cone shaped hotspring more than compensated for this loss and made the hike up to the springs plateau every bit worthwhile. Each group by this time had concluded that the other, due to slow progress, had turned back or rerouted their trip.

Continuing toward Rabbitkettle Lake the Flatfooters had gone barely a couple of miles when to the amazement of everyone they met their counterparts, each five days late but within one mile of the proposed rendezvous locations! We celebrated and exchanged Easter treats the next day, sharing exhilarating accounts of scenic splendours as well as hardships.

Spirits renewed we set out again, looking forward to the rigours of the return half of the circuit, both groups confident that it could be no worse than the first half. The pace on the 80 mile return route was greatly increased owing to the intermittently packed trails and the fact that we had very little food margin. The decision was for either a fast ski or skiing on a fast. We both completed the return in seven days despite broken snow bridges, and frequently overblown trails.

The Flatfooters encountered an additional difficulty in the Ragged Range country and were forced to take one day off due to whiteout conditions at the foot of the ramp to the Ragged Range Glacier. This enabled the Rangers to win the race back to Tungsten and clean out the cook shack as their reward.

This trip rates as one of the hardest and most spectacular that any of us have ever encountered. It included a wide variety of conditions: deep snow in the valleys to wind pack on the glaciers, scenery on the grand scale from the peaks making up the Cirque of the Unclimbables to the intimacy of Hole-in-the-Wall Lake.

Our success in completing the trip can be mainly attributed to the strategy of exchanging packed trails, pulling an average of 110 Ibs each on pulks rather than carrying packs, and organizing a group of individuals dedicated to realizing the challenge of such a trip. An experience never to be forgotten!

Lorene Benoit and Peter Heebink

Participants: Heather McLeod, Jim Maxwell, Karen McKenna, Ky Goodwin, Mindy McKay, Conrad Baumgartner, Marianne Darraugh, Dave Manzer, Doug Gilday, and the authors. Dates: 29 March to 21 April 1982. Approximate cost per person: $200.

Undeviating Weather

Grizzly Group explorations and climbs in the Resthaven Group, Northern Rockies, 17 to 25 July 1982.

Les explorations du groupe Grizzly et les ascensions dans le groupe Resthaven, aux Rocheuses nord Ie 17à 25 juillet 1982.

We camped near this creek which flowed straight as an arrow, following a fault
Llower end of Resthaven Glacier can be seen below; peak at upper right centre is Unnamed 9650 ft, 3 miles east-south-east of Mt Chown. Glen Boles

Resthaven Mtn from Resthaven Glacier. Glen Boles

Séracs in Resthaven Glacier icefall; Mt Chown visible at tar upper left.
Glen Boles

Séracs in the Resthaven icefall. Glen Boles

We squished along the creek, taking it all in. All we wanted was a dry spot, big enough for our tent. Was that too much to ask? Someone finally said, "Let's try the other side." We crossed and there it was, flat, smooth, solid, and dry as could be expected, even the right size. Quickly the tent was up, we organized, then the pattern continued. It began to rain.

For a number of years the mystique of the Mt Chown/Resthaven Glacier area intrigued me; in other words it was calling. Not too frequently visited and not overly well known, it is the type of country I long to ramble, climb in, and explore. The others were only too happy to see it also. There were four of us. Don Forest, Gordon Scruggs, and myself of the Grizzly Group. The remainder of our group was in the sunny confines of Peru so Gordon's son Bruce came along to round out our party.

Our high camp was situated near tree-line in the valley west of the headwaters of Short Creek. We were straight north of the shimmering white summit of Mt Chown and the spectacular icefall of the Resthaven Glacier which provided us with some exceptional views when the clouds did part. The icefall poured through a gap between a wall north of Mt Chown and the end of a three and a half mile rock wall which ran north-west, retaining the north-east fringe of the glacier. The long wall reared up just west of our camp position. The icefall reminded us very much of the East Lyell icefall.

The wall left us in a quandary as to how we were to attain the Resthaven Glacier. We had not picked the most advantageous camp spot. It rained off and on for the rest of the day and very hard most of the night.

It cleared mid morning. Anxious to be moving we all agreed that a wedge shaped peak at the head of our valley would be a good vantage point from which to study our surroundings and objectives. It was unnamed, 9450 ft, and four miles away. After a 10 o'clock start we followed the creek for a mile then took to talus slopes gaining meadows on the north-east side of the valley. The valley side was traversed for some distance to a small glacier at its head. The glacier then snow slopes were climbed to gain the south-east ridge which we followed to the summit. The summit was clean with no sign of any previous ascents. Quickly the weather was changing so we stayed only long enough to study the area. The wall west of our camp site could pose a problem for it stood between us and many of our objectives. A cairn was built, a record left, and then we departed in a cold wind. On the glacier it began to snow; by the time we reached camp it was raining in earnest. Once settled away for the night we could have cared less.

By midnight Don's feet were in a puddle. It was mopped up and everyone went back to sleep. At 12.30 the water was rising; we were all wet. In a matter of minutes we were standing in three to four inches of water. What to do? Gordon started bailing. Was it a tidal wave? Cooler heads prevailed — we had another two man tent. Dressed in birthday garb, pelted by the rain, we followed a thin shaft of light into the storm. Where to look? Our whole camp site was flooded. Up the slope, off to the left, again we were lucky. Up went the tent; the other three moved in. I hunkered in my wet bag and bivy sack under some stunted spruce trees nearby. Thank God for small blessings. My bivy sack and cameras were dry. I forgot the disaster below and went to sleep. It partly cleared at 7.30; a nice breeze came up. Every item was saturated but by noon they were completely dry. The whole area, covered with red, orange, green, and blue items, looked like a Chinese laundry.

The wall above was the barricade between us and our aspirations, Mt Chown and the peaks fringing the Resthaven Glacier. We studied the wall for breaks but higher they petered out. It was looking more like "a hard nut to crack" the more we studied it. The only way to find out was "to rub noses" with it. We started up the scree early in the afternoon. Fifty feet up the wall we came to a large scree ledge. Gordon and Bruce went to the right, Don and I headed left. The ledge began to lose altitude but we noticed goat

The icefall on the Resthaven Glacier which reminded us of the East Lyell icefall. Glen Boles

The collapsed area of ice near the Resthaven Glacier snout as viewed from close quarters. Glen Boles

tracks, a good sign. We persevered and continued on, dropping steadily, but on rounding a rib at the end of the wall sure enough a large gully broke up through the end of the wall. We floundered up the scree to where the walls pinched in then roped up and Don expertly negotiated the upper gully. Eventually we came out on a sloping ledge that led diagonally up the wall, high above our camp site. At the first opportunity we scrambled to the top. Don and I, already elated, were treated to another delight. The glacier clad structure of Mt Chown glimmered across the glacier in the late afternoon sun. The sight made us light hearted and hopeful of good days ahead. We hollered to the others then hurried back down.

Next day, 20 July, we got away early, a lovely clear morning. We negotiated the gully then headed north-west along the ridge. Little clouds began to form around the summits — it was happening again, the usual sign. We followed the ridge (top of wall) to where it converged with a ridge to the west which overlooked the Resthaven Glacier then took a well earned rest and watched the landscape disappear along with our ambitions. Next we backtracked on the ridge overlooking the glacier. At its highest point (8639 ft on Twintree Lake 83 E/16) we built a cairn. Farther on we built another. In the murk this point seemed as high as the previous one. It began to snow as we descended along the ridge then down to the glacier. Soon we could see again. It rained hard as we plodded back up to the top of the wall then descended the slippery rock and flowing scree to camp. It poured all night.

On 21 July the weather cleared in mid morning but by noon it began to rain hard, which it did for the rest of the day. It rained off and on all day 22 July.

It cleared mid morning 23 July so we descended to the lower end of the Resthaven Glacier to explore a slumped area on its north side about a half a mile across. On the Twintree Lake map a lake is shown on the glacier at this particular spot. Like most non-experts we came up with a theory. We thought the chaotic labyrinth of ice blocks collapsed after the water from the lake sitting on the ice undermined it. It was a very interesting sight. We crossed the Lower Resthaven Glacier then another glacier to the southeast, not noted on the map, and then explored a valley to the north of Peak 9650 ft. This mountain was climbed by several members of the Gmoser-Putnam party in 1981.

July 24 was a perfect morning and we got a good early start following the route of 20 July. Where the two ridges north-east of the Resthaven Glacier converge we descended a talus slope to the glacier and headed straight for Resthaven Mtn. The hot sun on the unconsolidated snow made for hard going, slowing us noticeably. As soon as possible we took to the south-east spur then scrambled the rock to where we could traverse above the glacier to the col between the north-east and south-west summits. We opted for the higher north-east summit and found a large well preserved cairn with a post left by the 1923 Topographical Survey party. We must have been the second party to tread its shale covered top. To the south across the dappled glacier Mt Chown looked massive. The unmistakable profiles of Robson and The Helmut shot skyward to the right of Chown, as always bringing back memories. Farther right was the familiar, distinctive pyramidal snow face of Mt Whitehorn.

After 30 minutes in the chill breeze we headed down, hoping to continue on to the south-west summit but again the weather began to change. Clouds grew rapidly and to the east great thunder-heads surged upward. Disappointed we headed homeward at a brisk pace, knowing what lay in store. The snow on the glacier delayed us but once on the rock we hot footed it along. The pace picked up with each lightning flash, rending the clouds in several directions. As we coiled the rope at the foot of the gully above camp it began to rain.

On 25 July we packed up and left under a perfectly clear sky, hoping some day to return to unlock a few more secrets.

Glen Boles

Miscellaneous

The Canadian Himalayan Foundation

The Canadian Himalayan Foundation was established in 1978 to assist Canadian mountaineering expeditions and scientific study in the mountains. Over the past four years nearly $50,000 has been raised under the auspices of the Foundation. As well it has helped over 20 expeditions and scientific programmes with cash grants, fund raising assistance, loan of equipment, information, and advice. A list of projects which have received assistance follows this report.

The Foundation is a registered charitable organization and has a board of directors who are elected by the members. Lifetime membership is open to all and costs only $5. The Annual General Meeting is held each autumn. If you are interested in becoming a member of the Foundation and in assisting Canadian expeditionary mountaineering please send your name, address, and telephone number, along with $5 to: The Canadian Himalayan Foundation, Box 413, Station G, Calgary, Alberta T3A 2G3.

The Foundation has an inventory of equipment, such as tents and ropes, which it loans out to expeditions. It also has a library of over 500 books and journals, of great assistance when planning expeditions. Bona fide expeditions can be authorized to raise funds through the offices of the Foundation and income tax receipts will be issued to the donors by the Foundation. In addition the board of directors has considerable expertise and can offer advice to expeditions on the best way to achieve their goals.

It is anticipated that the next few years will see a great deal of activity in expedition climbing by Canadians, particularly in the way of small and light weight expeditions. The Foundation would like to help these trips. Anyone who is planning an expedition in Canada or to the further ranges is welcome to apply to the Foundation for assistance. Simply write to the managing director at the above address.

Chic Scott

EXPEDITIONS

1978 Mt Logan South-West Buttress Expedition. Fund raising assistance and loan of equipment.

1978 Mt Logan East Ridge Expedition. Loan of equipment.

1979 St Elias Range Ski Mountaineering Expedition. Loan of equipment.

1979 Ontario Himalayan Expedition. Loan of equipment.

1979 Mt Logan South-West Buttress Expedition. Loan of equipment and fund raising assistance.

1980 Nevado Santa Cruz Expedition. Loan of equipment.

1980 Nanga Parbat Expedition. Loan of equipment and fund raising assistance.

1980 Mt Logan East Ridge Expedition. Loan of equipment.

1981 Ganga Purna Expedition. Loan of equipment and fund raising assistance.

1981 Dhaulagiri Expedition. Loan of equipment and fund raising assistance.

1981 American Medical Research Expedition to Everest. Participation by Dave Jones. Cash grant.

1981 Nuptse Expedition. Loan of equipment.

1981 Annapurna IV Winter Expedition. Loan of equipment.

1982 Mt Everest Expedition. Fund raising assistance.

1982 Mt McKinley Cassin Ridge Expedition. Cash grant and loan of equipment.

SCIENTIFIC RESEARCH

1978 University of Calgary Mexican Volcano Expedition. Physiological Study.

1979 AINA Hypoxia Symposium.

1979 Canadian Exploration Group. Selkirk Mountains Expedition.

1979 University of Calgary Medical School. Red Blood Cell Study.

1979 Rock sampling for Geological Survey of Canada in Mt Logan massif.

1980 Geological survey of the Nanga Parbat massif.

1981 AINA Hypoxia Symposium

1982 AINA Grant and Aid (scholarships) fund.

The International Guild of Knot Tyers

The Guild was formed in 1982 by 27 individuals keen to meet and swap ideas with others engaged in knot tying and rope working. Its objects are to promote the art, craft and science of knotting, its study and practice; and to establish an authoritative body for consultative purposes. The Guild can be of interest and service to the climbing community; input is welcomed from all persons having expertise and curiosity in any area of knot craft.

The members are scattered throughout the UK, with representatives in the USA, Canada, Australia, Asia, and Europe. They keep in touch through a quarterly newsletter. Activities are arranged by local groups. Membership is £5 a year.

Further information can be obtained from the Hon Secretary, Geoffrey Budworth, 45 Stambourne Way, Upper Norwood, London SE19 2PY, England, or from the Canadian representative, Robert Chisnall, 12 Stephen Street, Kingston, Ontario K7K 2C3, Canada.

Coast Mountain Climbing Guides

Work has started on a revision of Culbert's 1974 Alpine Guide to Southwestern B.C. It is hoped to have a new edition ready by autumn 1984. All climbers having information about new routes, corrections, access, etc are encouraged to put pen to paper and send the result along to the editor. Good quality black and white photographs also appreciated. The boundaries will remain roughly the same, with the Chehalis and Manatee/Meager areas being the main addition. Contributions should be sent to Bruce Fairley, Alpine Guide to Southwestern BC, c/o Vancouver Section ACC, Box 2839, Vancouver, B.C. V6B 3X3, Canada.

Work has also started on revision of the guide to the nether reaches of the Coast Mtns, not updated since the 1969 supplement to Culbert's A Climber's Guide to the Coastal Ranges of British Columbia. As this area remains remote and only partly known and as it seems that intervals between guidebook revisions will be pretty long it would be nice if the upcoming tome was relatively accurate and complete. To this end we ask that anyone who knows anything concerning the area (Lillooet Icefields to Mass River) — whether it be access or route information, old or new — mistake, inaccuracy, or indistinctness that needs correcting — whatever — to drop a note to either Don Serl, 2631 Columbia Street, Vancouver, BC V5Y 3G2, Canada, or to Glenn Woodsworth, 3435 Mayfair Avenue, Vancouver, BC V6N 221, Canada. Thank-you, and may you continue to enjoy the wildness of these peaks.

Mountain Naming in British Columbia

The subject of mountain naming has been written about before in this journal (CAJ 1980:84) but it would be useful to reiterate and perhaps add a point or two to the theme. As the BC Representative on the Canadian Permanent Committee on Geographical Names, it is the writer's responsibility to process nomenclature for use on official maps and publication in the gazetteer of geographical names.

This article outlines the basic data required when individuals or groups submit mountain names for official adoption, these being precise location, feature identification, name origin, and evidence that the feature is unnamed. Principles related to personal and non-Canadian names, frivolous nomenclature, feature proximity, and climbing and naming are explained. Proposers are encouraged to seek assistance in resolving problems before submitting names for official approval.

There are four elements of information which must be presented in clear, unambiguous detail when submitting names for approval. These are:

1 - Location

The feature must be accurately and precisely labelled on the largest scale of published map, preferably 1:50,000. A scale as small as 1:250,000 may be used in areas where larger scale sheets have not yet been published but this calls for even stricter adherence to precision.

2 - Feature Identification

A cross, dot, or arrow must be placed exactly on the peak or other feature and labelled neatly. Lettering loosely strewn across

the country makes interpretation difficult. If naming a ridge or a cluster of peaks delineate (show their limits) exactly.

3 - Origin, Meaning, or Significance of the Name

These must be supplied. Place an emphasis on form and spelling. Be consistent in spelling. Ensure that all names indicated on the map are accounted for on the list. In the case of form, remember that the generic Mount is used when mountains are named after people.

4 - Evidence that the Feature is Unnamed

This is especially important where the feature is close to a populated area. The fact that it is unnamed on existing maps does not necessarily mean that it is unnamed, only that the feature has not found its way into the official records. If the feature has an established local name, please submit it (and get its origin if possible). Local names take precedence over new ones.

Some other points to remember include the following:

Personal Names

Names of living persons are almost never accepted for approval. Also it is preferable not to submit the names of deceased people as soon as they have died. Finally the person being commemorated must have some direct connection with the feature or at least the immediate region. The question of non-Canadian nomenclature is currently under active consideration by the CPCGN and is expected to be stringently limited in the future. However this should not be interpreted to mean that non-Canadians cannot submit names.

Frivolous Names

Nomenclature must be thought of as perpetual and therefore should reflect the Province in an appropriate and positive way. Proposals related to the name of your dog, its (or your) physiological condition, or your favourite brew will not fly.

Proximity

In areas relatively distant from regular recreational traffic I am discouraging application of names to very small features as well as to features which are in close proximity (500 m could be used as a guide). These can be named later in time when the area becomes more popular. Emphasis should thus be given to major well separated summits and larger features generally. The same principle applies to lakes and creeks.

Climb and Name

The mountaineering fraternity tends to be serious about this. Only the names of peaks actually ascended should be submitted.

The Premier Range

It has never formally been established but is generally understood that the remaining major summits in the Premier Range are reserved for the name of important deceased Canadians. These citizens (mostly politicians) have been commemorated there since the late 1920s.

Should you require assistance with your submission or have any question please contact Glenn Woodsworth, 3435 Mayfair Avenue, Vancouver, BC V6N 2Z1.

Submit your name proposals to DF Pearson, BC Representative CPCGN Ministry of the Environment, Parliament Buildings, Victoria, BC V8V 1X4 Canada.

DF Pearson

Obituaries

Axel Beffert
Associate member since 1979. Died August 1982.

Elizabeth Brett 1889 to 1982
Senior member since 1942. Died September 1982.

Forrest Oliver "Pat" Brewster 1896 to 1982
Life member since 1972. Died November 1982.

Lawrence G Coveney
Senior member since 1956. Died 1981.

William C Escher
Life member since 1921. Died 1981.

Olive Foster
Life member since 1913. Died 1981.

Edward Goodall 1909 to 1982
Senior member since 1952. Died September 1982.

Glen Gray
Junior member 1982. Died 6 August 1982.

Gerry Groves
Junior member since 1977. Died December 1981.

Miriam Kay-Lassels
Associate member since 1980. Died September 1982.

Wim Lambrechts
Associate member since 1976. Died April 1981.

Ross Lund
Associate member since 1981. Died August 1982.
See Tchaikazan Valley ACC Vancouver Section Camp this volume.

Kate H McQueen 1884 to 1982
Life member since 1914. Died 3 July 1982.

Evelyn Mather
Senior member since 1944. Died April 1981.

Alan Melville
Active in the Vancouver Section. Senior member since 1947. Silver Rope 1948. Died 1982.

Judith K Scott

Associate member since 1980. Died 1982.

Louis Schulman

Senior member since 1949. Died 5 September 1981.

Mrs LK Wedgwood

Life member since 1910. Died 1981.

Ken Winters

Senior member since 1973. Chairman Western USA Section 1976 to 1981. Died June 1981.

John Brett 1893 to 1982

John Brett, ACC member since 1935, died in September at Montreux, Switzerland. He spent his youth in Geneva when he climbed many of the higher Alps. Having arrived in Canada in 1913 he worked for the CPR and then joined the Army, serving in France with the Canadian engineering corps. Later he worked with the Montreal Water Board and became an outstanding consultant in engineering. He was a devoted and benevolent instructor in mountaineering for many friends in the Montreal area and during the Second World War with the Army in the Canadian Rockies. He was an honorary member of the Geneva Section of the Swiss Alpine Club. ACC President 1958 to 1960, Eastern Vice-President 1941 to 1947 and 1950 to 1954. Silver Rope 1948. Service Badge February 1982 for founding and running the Montreal Section, for opening new climbing areas in Quebec, and for encouraging climbing in eastern Canada.

P Blanc

Dave Fanjoy 1950 to 1982

Dave Fanjoy died 6 August as a result of a climbing accident on Mt Temple in Banff National Park. He was Junior member since 1981. Dave's brief experiences in the mountains began in Banff with the park warden service His keen interest in skiing and the out-of-doors led to his enrolment in the winter assistant guides course. At the time of his death Dave was a canoe instructor at the Banff Army Cadet Camp. Dave attended Lakehead University in Thunder Bay for two years before going on to Seneca College in Toronto where he received a certificate in Outdoor Recreation. He had planned to return to Lakehead in September to work towards finishing his degree.

Many fine moments were spent with Dave and I am fortunate to have shared in his wonder and awe of the mountains. I shall never forget his boundless enthusiasm and energy for a new challenge. Dave loved to help people and many including myself have benefited from his quiet encouragement, miss Dave and carry his memory with me in my adventures in the wilderness.

To his mother, father, brothers William and John, and sisters Elizabeth and Marie, my deepest sympathy.

Judy Ledsham

Blair Griffiths

Just before 9 o'clock on the morning of 2 September 1982, a football field sized portion of the Khumbu Glacier lurched forward on its way towards the Indian Ocean. When it paused again after a few seconds it had doubly compounded the tragedy of the Canadian Everest Expedition — Blair Griffiths lay dead amongst a chaos of ice blocks.

Blair, gone. For those of us there the shock was felt as wrenched guts and raging mind. "Blair, gone! How can it be? What have we done? Why?"

Those questions, of course, are unanswerable, and only the facts: Blair gone. We did our best to honour his memory, his spirit, in the days following as perhaps we would have expected him to do for us, and as time slipped away the occasions on which I expected his presence became less poignant, but still his absence at a certain node, a moment, a place, surprises and then dismays me. This too will pass and he will become remembered rather than a memory, and so for myself, while I can still hear his chortle and feel his confident persona and muse upon his creativity, and as much for those of you who never knew him and thereby have missed any opportunity to be touched, richened, through him, I must say what I can in the hope that the words will live on and that Blair will flicker dimly through them.

Many of us knew Blair only through the world of climbing. The mountains provided an arena for outlet of his considerable physical energies and feeding of his aesthetic interests. These spanned music from classical to Japanese koto, poetry, serigraphs, cinematography and still photography single malt whiskeys, and other lands. The banter of the approach and the bivy included observations on almost any aspect of life that we cared to discuss, made always with intelligent humour and personality. Through these exchanges we came to know more of him, and usually of the world, and because of them came to value his presence. He played raconteur and we laughed and learned.

Blair was one of the foci of a group of literati collectively referred to as the "lads", and annually hosted a Christmas day party which often provided the only contact during the year for many involved. Champagne flowed liberally and a demure crêpe breakfast quickly became a moveable feast of considerable proportion. The conviviality embodied in this event was an enlightening window into the nature of the man; as the day progressed and the group dwindled he could be counted upon to provide the initiative and spirit to continue, no matter how trivial the pursuit. The friendship and warmth of the moment mattered and were to be heightened and prolonged. The day mattered.

The mountains also mattered. His adventurous nature led him to Alaska, the Yukon, the Andes, and the Himalaya without tempering his enjoyment of local climbs. While a solid mountaineer of calm strength he was a notoriously poor skier, seemingly trying as hard as he could to forget everything he had learned from trip to trip. After losing a binding on a trip one fall he showed up for a subsequent trip in February with the binding taped to the ski, explaining that he had forgotten to get it fixed. It would work — "Give it a chance, youth" was his offering. In a similar vein, after the west rib on Denali in the spring of 78 he is reputed to have tried to bury his skiis in a garden, suggesting in the process that life was too short to be good at everything. And so it went. And now he's gone. For his friends and acquaintances there'll be no more of his cultured gregariousness. For his mother Emily, his father

George, his brother Mark, and for Debbie — those closest to him — there'll be no more of his love and care and compassion. As for me, there'll be no more chances to get to know his intricacies any better. Such is the tragedy of his loss. Oh, that it were not so!

Don Serl and Stephen Fuller

Roy Howard 1889 to 1981

Roy Howard, a member of the ACC from 1927 to 1964, was a very active member of the Vancouver Section. He donated to the Club the Howard Cup as an award in the photo competition for Mountain Skiing.

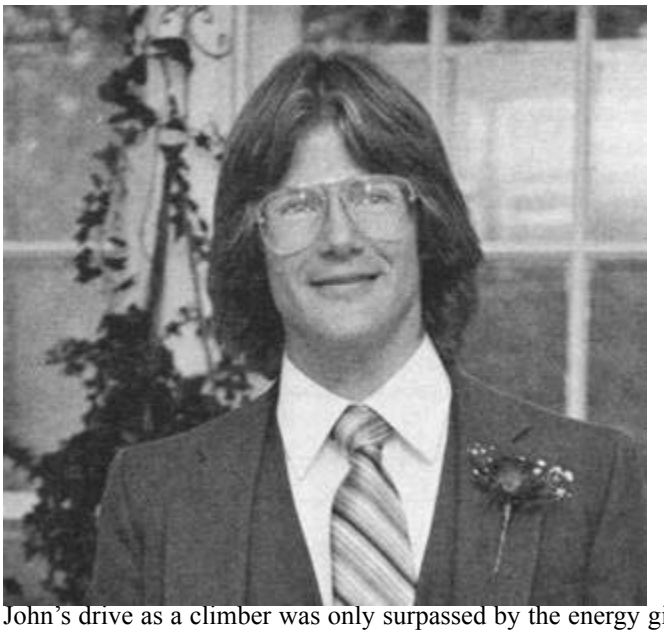
John Lauchlan

Pushy, egocentric, intense — that's how I first remember him. White, too big bell bottoms, thick glasses that would always fog on the ice pitches, a wild barrage of notes streaming from Mug's guitar, or aboriginal dancing to Mothers Finest. When I met John Lauchlan in 79 his outward appearance was not too unlike the rest of us that congregate in the Valley but he was unique in his ability to push and stimulate growth in his friends as well as himself.

John Lauchlan died on 5 February 1982 attempting to solo Polar Circus on Cirrus Mtn. While turning the pencil pitch a slab avalanche broke loose carrying John over a cliff. He died in pursuit of himself.

Mediocrity, complacency, and boredom were John's fears. Constantly reaffirming his need to be a unique and alive person,

John Lauchlan



John's drive as a climber was only surpassed by the energy given to his wife, family, friends, and students. Though his candle is gone, his vision can still burn bright. Lover, learner, teacher, son, friend, artist, and climber. Thank you John. Celebrate the life of John Douglas Lauchlan!

Namaste.

Reviews

Columbia Icefield Map

Produced by Parks Canada, Western Region and Snow and Ice Division, Dept of the Environment, 1981.1:50,000. Contour interval 20 m, 100 m on bedrock.

A very good general information map covering the Columbia Icefield area from the Brazeau River and Mt Saskatchewan on the east to the Bush River and the headwaters of the Athabasca on the west, and from Watchman Pass on the south to Mt Nigel and the Stutfield Peaks on the north.

The map is coloured with the usual dark green for forested areas, lime green for alpine areas, light brown for rocky areas, and white for the icefields, making the various terrains easily distinguishable. All streams and rivers are clearly drawn and all major mountain peaks are named and their elevations shown. The separation of Banff and Jasper Parks is not defined. The reverse side of the map has a reproduction of an aerial photo of the Athabasca Glacier and the surrounding area. The Icefield Chalet and highway have been drawn in. Dotted lines indicate the toe of the Glacier in the years 1870, 1938, and 1950. The toe of the Glacier in 1870 extended across the present highway and covered the present Icefields Information Centre. There are three drawings showing cross-sections of the glacier, one near the present toe and one much higher up. The third section shown is through the glacier from the toe to about the icefall. It indicates the surface of the glacier in 1870 and 1977, and also the toe location in 1938, 1945, 1950,1956,1962, and 1977. A brief text is given on formation and buildup of glaciers, flow and melt, and how moraines are formed by moving glaciers and running water. Some information on ways to reach the Icefields, picnic and camping areas, hostels, and a brief description of a few hiking trails including Nigel Pass, Parker Ridge, Saskatchewan Glacier trail, and Beauty Creek are included. All in all it is a very good map to acquaint the visitor with the Icefield and the surrounding area.

Leon Kubbernus

Recreational Map Of The North Cascades

Fred Beckey, Al Cardwell. The Mountaineers, Seattle, 1982. 73 x 58 cm colour map of the International Border area (Nooksack River to Fraser River, Cultus Lake to Ross Lake, ie Skagit Range). $4.95

Fred Beckey, being the most experienced Cascade climber, knew that climbers would definitely have use for a map of the Skagit Range, especially if it spanned the BC/ Washington border. Now one can get from the Trans-Canada Highway to Mt Redoubt without having to buy four maps with three different scales from two countries and three publishers. On top of this the new map shows a climber precisely what he wants to know. Trails, cross country routes, logging spurs with washouts and gates, camp sites, and shelters. It even shows the nearest cemeteries.

A major problem in mapping climbing approaches is map scale. With a 1:100,000 scale it is often impossible to accurately indicate small details vital to the approach. Regretfully this is the case with the trails up Depot, Radium, and Slesse Creeks, areas where the guidebooks are no help. Another problem is the status of logging road gates and washouts. The first question a climber usually asks

while driving out to the Chilliwack area is "gate or no gate" or "locked or open". Gates appear and disappear quickly here and it is not uncommon to be stuck with an unexpected 15 km walk. Despite these problems of map scale and forever changing logging road status I must conclude that the map is a very handy supplement to Fred's latest Cascade guide. Note that the Avalanche Echoes (Vancouver Section) now carries every May all known changes in access for the area covered by the map.

Maxim de Jong

A Climber's Guide To Washington Rock

Don Brooks and David Whitelaw. The Mountaineers, Seattle, 1982. Route diagrams and illustrations. 173 pp. Paper. $9.95 Overall this guide is bland, rather like cream of wheat without salt. I mean you shell out almost ten dollars and you get a monotonous book. Dull history section, the usual boring ethics, and not a photograph between the covers! To diagram the individual crags they've used ink drawings which are vague and confusing at best. The topos are good but they are lost without accompanying photos. For those of you used to Squamish or Yosemite graded routes you'll be surprised when you try Leavenworth routes of the same grade. Like the last guide they appear to grade the route after climbing it several dozen times.

If you're absolutely dying to go to the climbing areas in this book and you have absolutely no other way of finding out anything about the areas then buy the book. Otherwise buy the old guide and talk to your friends. Or go to Leavenworth and ask for info at Der Sportsmann — the owner is quite helpful. And the Edelweiss is a good place for breakfast. Try the Bavarian Waffles.

Tami Knight

In The Steps Of Alexander Mackenzie

John Woodworth and Halle Flygare. Sponsored by the Nature Conservancy of Canada. Douglas & Mclntyre, Vancouver, 1981. Black & white photographs, fold-out maps, pocket size, peg bound. Paper. $11.95

This very complete trail guide covers the area from Quesnel on the Fraser River to Bella Coola on the Pacific coast along the route travelled by Alexander Mackenzie in 1793. The book includes a brief history of the area, general advice, a hiking timetable, extensive maps, quotes from Mackenzie's journal, black and white photographs, and even a list of suggested hiking equipment. The detailed descriptions of the trails include comments on the flora and fauna. The fold out maps are quite detailed if somewhat annoying to use. The book is printed on good quality, sturdy paper which would seem to be able to stand up to a lot of abuse.

Of the contents of this book I have no complaint; the authors have done an excellent job gathering and organizing all the necessary information. However I do have reservations about its format. There are two kinds of books that I love. One is the large coffee table book with lots of photographs, illustrations and the like. The other is the small, compact field guide kind of book that is easy to carry, light, and only contains the information that I absolutely need. This book falls somewhere between those two ideals. One would need a rather large pocket for this so called pocket edition. You could of course make use of the screw apart binding and remove only those pages that are needed on a hike. However being the sort of person who can't fold a BC road map back together properly I was not tempted to open Pandora's Box by utilizing the screwdriver on my Swiss Army knife. I'm also not sure that such detailed maps are necessary in a trail guide since I believe people should be encouraged to get proper maps of the areas they hike. Before publishing a book or trail guide I think a decision has to be made on the format. If it is meant to be carried on a hike it must be very compact and contain only the information absolutely necessary. If on the other hand it is for general information, entertainment, or pre-trip planning a larger format should be used.

In spite of the drawbacks Alexander would have been proud of this little book and I'm sure he would have found it very useful, as will you if you plan to hike in this area.

Don DeLong

The Magic Of Lake O'hara

Don Beers. Rocky Mountain Books, Calgary, 1981. 37 colour and 4 black & white photographs, 4 maps. 96 pp. About $6.

In all of the Canadian Rockies there is probably no other area which casts a spell over visitors as does Lake O'Hara. At last there is a trail guide to this very special place and the magic which draws visitors back to visit time and time again. Written by well known photographer Don Beers, The Magic of Lake O'Hara is much more than a trail guide. It provides a complete environmental picture of the area which will be of interest not only to those who are already familiar with the Lake O'Hara environs but to newcomers as well.

The guide section covers the various recreational activities available in the area: hiking, skiing, and mountaineering. A description of visitor facilities is included with a note that some items, such as the bus schedule, are subject to change. The major portion of the publication is devoted to descriptions of major and secondary trails as well as a number of alpine routes. Each trail is described in terms of distance, altitude gain, hiking times (down to the minute!) and is accompanied by notes on the highlights and a description of each trail. The trails in the Lake O'Hara area form a large network and options which link a trail with another are included. For those whose skills and equipment enable them to extend their explorations beyond the lower trails two of the major passes in the area, Abbot and Opabin, are included.

The historical section, with its photographs, gives the reader a feeling for the men and women who visited and helped develop the area in its earliest days. The photograph of the 1909 ACC camp provides quite a contrast to today's mountaineering camps. A mini field guide to the mammals and birds of the area will enable visitors to identify the fauna indigenous to the area and frequently encountered along the trails. There is also a short section on vegetation and geology.

Many questioned the need for a trail guide to such a well known area but The Magic of Lake O'Hara is much more than a simple trail guide. The reader cannot help but be attracted by the magic of the area. The photographs alone justify purchasing the book. This slim volume brings together a wealth of thoroughly researched

information.

The only disappointment I experienced was that while an excellent full page photograph of the Lake O'Hara Lodge was included there was no current photo of the ACC's Elizabeth Parker Hut. The Club's historical presence in the area and current efforts at environmental rehabilitation in the meadows would seem to justify at least a photo of the hut. Still this is a very minor, and perhaps personal, comment on a superb publication that can be recommended to all.

Bev Bendell

Columbia Icefield: A Solitude Of Ice

Photographs by Don Harmon, text by Bart Robinson. Altitude Publishing Ltd, Banff, and The Mountaineers, Seattle, 1981. 57 colour and 8 black and white illustrations, 2 maps. 116 pp. Cloth. $29.95

Since we seldom see a glacier receiving a biography in its own right any book of this type represents a novelty. This one about the Columbia Icefield will disappoint no one. Its organization is exemplary: very good photos, both modern and historical, and a pleasant text. There are three major parts, each with a corresponding set of illustrations. Part I, Understanding Glaciers, is a discussion of the origins and movements of glaciers, a good science piece interestingly told. Part II, Beyond the Mountain Wall, is a geography of the icefield and its surrounding region. Part III, A Dance with White Dragons, covers discovery, exploration, and mountaineering that has taken place in the area. There is also a glossary (scientific), a list of suggested readings, an appendix detailing history of major peaks, and a list of plates. Readers who also expected an introductory guide to the approaches, camps and climbs in the icefield district should refer to the well known AAC/ACC guides. I feel however that several additional plates on the wildlife and flowers pertaining to the grand Icefield could have softened the harsh detail that all plates show of rock, ice, snow, water, and sky. But the photography by Don Harmon is most attractive. There is a wide panoramic plate covering the front of the Athabasca Glacier, and the historical illustrations, already 75 years old, are remarkably well reproduced (some in colour). Thus a team formed by a good writer and an equally good photographer has produced one of the rare biographies of a glacier that we have in print. Let us hope that this will not be the last glacier anywhere in the world to receive such treatment.

Evelio Echevarría

Mountains Of North America

Fred Beckey. Sierra Club Books, San Francisco, 1982.140 colour photographs, 256 pp. Cloth. $49.95.

This is a damn fine book but it will disappoint many people. Most of us are familiar with Fred Beckey as a unique mountaineer, someone who has climbed at a high standard and with great enthusiasm for more than 40 years. Mountains of North America is not however solely concerned with mountaineering but has an interest in the full range of the mountain experience, including climbing. Those who see the mountains only as places to climb will find much here that is beyond their interest. Thirty-five peaks have been selected to represent different ranges or areas. The text includes information on the geology of the peak as well as the plant and animal life of the area and the history of man's involvement with the mountain. That history includes the relevance of each peak to native peoples, initial knowledge among early European explorers and settlers, and first ascents. This all becomes more readable because the author has and shares personal knowledge of most of the peaks involved.

While the text is intelligent and well written the superlatives belong to the colour photographs which give the book an element of excitement. The reproduction is very good and the selection does full justice to the varying moods and aspects of the mountains concerned. I liked what I found but was disappointed because of what was missing. Of the 35 peaks chosen to represent the mountains of North America only six are Canadian and these six could not have been more obvious selections. This is a very enjoyable book but it has been produced for an American audience and the title does not accurately reflect the contents.

John Manuel

Mountaineering The Freedom Of The Hills

Ed Peters editor. The Mountaineers, Seattle, and Douglas & Mclntyre, Vancouver, fourth edition, 1982. Black & white photographs, line drawings. 550pp. Cloth. $19.95

The last edition of Mountaineering appeared in 1974 — 140,000 copies of this and the previous editions printed. Now we have a fully revised fourth edition. There are four new chapters on snow and ice climbing and extensive changes and up dating to chapters dealing with equipment and climbing techniques.

Learning To Rock Climb

Michael Loughman. Sierra Club Books, San Francisco, 1981. Black & white photographs, line drawings. 138pp. Paper. $13.50

Learning to Rock Climb is not only a good learning aid for the novice but also a well written, well thought out view of the sport by a very experienced climber. The author explores almost every conceivable aspect of rock climbing for beginners in a logical, easily understood fashion. However big wall aid climbing and piton craft are given very superficial treatment owing to the author's belief that beginners should avoid placing pins and attempting aid climbs until they have reached a competent level of free climbing ability. It is in the black and white photographs and illustrations that this book differs from previous "how to do it" publications on rock climbing. The pictures are an integral part of the book, not just a collection of disjointed snapshots the author happened to have. The photographs use a woman climber to demonstrate the techniques described, a refreshing change, though it does seem that there is an attempt here to suggest that an unusual amount of strength is not a prerequisite for carrying out the techniques demonstrated. But look at page 70, in particular at the lady's bulging forearms. Obviously some of the moves demonstrated aren't quite as easy and effortless as they look in the pictures.

Mr Loughman has somewhat reversed traditional teaching sequence by explaining last the use of ropes, anchors, and belays. The lessons begin with a study of movement on rock. Starting with the most basic techniques such as standing in balance and utilizing

a variety of hand holds, the reader progresses through to more difficult crack climbing methods. Every section is accompanied by photo sequences showing how the various moves should be done. Apart from the inclusion of Friends and the standard bit of token controversy on their use very little in the way of new material is added in the succeeding sections. However much more material is covered much more thoroughly than in most other rock climbing manuals. Rock climbers always will disagree on how the various techniques and methods should be done. Climbers teaching the sport undoubtedly pass on their own personal bias to those they teach. What has worked for them in the past (in Mr Loughman's case over 30 years) is good for their pupils. Bearing this in mind there are still some things that bother me with Learning to Rock Climb. .

Most important is the omission of any discussion on aiming the belay. This involves situating the belayer in relation to the anchors and anticipated direction of pull so that the belayer is not pulled from his stance, possibly causing him to lose the belay. A few paragraphs and diagrams would have sufficed. Also there is no treatment of equalizing the load on a station or, in more simple terms, distributing the forces exerted on a station to all of the anchors. This is especially critical in the case of rappelling from several poor anchors. Although this may be a little advanced for total novices I feel it should at least have been mentioned. Finally I find it hard to believe that a climber with as much experience under his harness as Michael Loughman could advocate the use of a single carabiner brake system. Although the chances of one carabiner breaking are slim, the chances of two breaking are almost nil.

Aside from these disagreements I still find Learning to Rock Climb to be the best book on the subject I've read.

John Howe

Mountains And Man

Larry W Price. University of California Press, Berkeley, 1981. 274 illustrations, line drawings, maps. 506 pp. Cloth. US $35 Mountains have always related us to science. And if mountaineers have wished for a single compendium of everything that is to be learned in relation to mountains, it has materialized in this book. It has the attraction of its illustrations, averaging more than one every other page, an incredible bibliography of almost 1500 entries, and a 13 page index. The book is clearly a college text. It contains twelve chapters which can be loosely grouped into three major themes. Chapters 1 and 2 describe the attitudes that human beings have had through the ages toward mountains; chapters 3 to 7 on hard core sciences, cover origin, climate, glaciation, geomorphic process and soils of mountains and highlands; and chapters 8 to 12 deal with their conservation and their use by human beings. The last five chapters are particularly interesting.. .and sombre. A grim warning is summed up in the sentence, "Mountains are being loved to death!" (p 436). Price sees no solution to this situation but he entreats humanity to spare no effort to preserve the mountain environment, including "stringent limitations and restrictions on the use of selected areas in every major climatic region" (p 441). The bibliography can be said to be purely for English speaking readers since it is much too weak in foreign sources of recognized importance, particularly German. Buy the book? Certainly. Or at least demand that your local public library order a copy. It is an excellent work whose only defect is its price, beyond the reach of many mountaineers and students.

Evelio Echevarría

The Great Glacier And Its House: The Story Of The First Centre Of Alpinism In North America, 1885-1925

William Lowell Putnam. The American Alpine Club, New York, 1982.166 duotone photographs, maps, 9x12. 224 pp. Cloth. $45

William Lowell Putnam, builder of huts, author of guidebooks, and former president of a distinguished mountaineering organization, makes an assault on the coffee table market with this handsomely bound volume, latest tome off the presses of the AAC. The Great Glacier and Its House seeks, in the words of its dust-jacket, "to recreate the spirit of a golden age of exploration and travel". Mr Putnam has brought to his subject an intimate familiarity with the geography of the Rogers Pass/Illecillewaet region and a deep respect for the alpinists and explorers who made Glacier House the first great centre of alpinism on this continent.

The book serves a number of useful purposes. It collects into one volume many fine old photographs, a good number of which have not been previously published. It also makes generally available snippets of accounts taken from the Glacier House scrapbook. Although this document has apparently been lost by the CPR Mr Putnam was clever enough to make a copy when it last surfaced in the 1960s and the book is considerably enlivened by well selected quotations recording the early impressions and climbing achievements of many of the first and most famous visitors to the Selkirks. Here a casual reader will discover everything he would likely want to know about the exploits of such worthy gentlemen as Frederick Morton Beaumont, Richard Manliffe Barrington and, of course, the indefatigable Rev William Spotswood Green. Here too are many of the most celebrated figures in early Alpinism: Whymper, Palmer, Wilcox, Outram, and Fay. The latter emerges, along with the Swiss guides, as one of the most admired heroes of the era. The book avoids scholarly claptrap and there are no footnotes but Putnam's respect for the accomplishments of these pioneers is adequately reflected.

Unfortunately a number of reservations about the format of the book must also be recorded. While many of the photographs are remarkable (my favourites include an 1899 view of the Asulkan Glacier and a shot taken in 1885 of the quarter mile railroad trestle across Mountain Creek), some have been blown up out of all proportion to their quality. Many of the snapshot sized photographs are obscure and later photographs seem to compare badly with earlier ones. There is no index to maps or photographs. Moreover the manner in which the editors have chosen to lay out the book does not enhance the presentation. The guiding theme is that of a scrap-book but even a scrapbook can be organized with a finer sense of balance than this one has been. Even the table of contents seems awash in a sea of white paper. One suspects that there was not enough really good material available and that the book has been consequently fleshed out with an unwarranted amount of empty space.

One must endorse the sentiment of this publication. Too little of current mountaineering literature published on this continent reflects the rich history of early alpinism and its protagonists. One would hope however that the next time the AAC undertakes a similar project they will set their sights a little lower and produce a more modest and tightly organized book — which we hope will then retail at a more affordable price.

Bruce Fairley

The Boundary Hunters: Surveying The 141st Meridian And The Alaska Panhandle

Lewis Green. University of British Columbia Press, Vancouver and London, 1982. 53 black & white photographs, 10 maps, 232 pp. Cloth $18.95

Territorial boundaries are both fought over and taken for granted. When accepted we quickly forget their origin, the arguments about their location, and work involved in surveying, marking, and maintaining them. Such is the case of the Alaska boundary between Canada and the United States.

Fortunately Lewis Green, a consulting geologist in British Columbia, has provided a thoroughly researched, competently written, and well illustrated history of this frontier, thereby recalling the protracted debates over its location, the rugged nature of the country it divides, and the challenging field work involved in its demarcation.

A tentative boundary, including the Panhandle in the south and the 141st meridian in the north, was agreed upon by Russia and Britain in 1825. Even in 1867 when the United States purchased Alaska, the tentative boundary was sufficient given the minimal amount of human activity in this remote wilderness. However establishment of fur trade posts on the Yukon River and a series of gold rushes, notably the Klondike in 1896, made a more precise delimitation necessary. Surveyor William Ogilvie's work on the Yukon River and over Chilkoot Pass in 1887/8 and 1895/6 helped determine where fur trade posts could be built and in which country gold fields lay but the inland boundary of the Panhandle became a much more contentious issue. The 1825 treaty merely specified a line ten marine leagues from the sea or along the summit of any mountain range within that distance. Lack of knowledge of the topography and disagreement over whether the coastline cut across or followed the deep inlets impeded a settlement of the disputed boundary. The Americans and the British, on behalf of Canada, argued for decades for territory, resources, access to tidal port locations, strategic islands, and national pride. Finally in 1903 a tribunal of three jurists from the USA, two from Canada, and one from Britain delivered a compromise verdict, viewed as disadvantageous to Canada but nevertheless eventually acceded to. In general a boundary along the height of land was chosen but this left all the inlets with port potential in US territory.

Green describes not only the negotiations involved and those responsible but gives a vivid account, complete with numerous contemporary quotations, of the work of surveyors who produced the maps, then marked the boundary on the ground. We learn of the privations of winter living in crude cabins in the Yukon, of the mosquito pestilence, of traverses on jagged lava, floods, glacier crossings and mountain ascents. Photographic equipment had to be hauled through devils club, across rivers and up unsealed peaks, while the final boundary was marked with aluminum-bronze obelisks weighing 253 pounds and smaller cones of 60 pounds. There were few opportunities to enjoy mountaineering for its own sake though in 1913 a party reached 16,000 ft on St Elias before being driven back by storms. The final maps of the straight line boundary to the Arctic Ocean were produced in 1918 and the work that had occupied negotiators and surveyors for some forty years came to an end. There is a continuing argument over the most southerly section of the boundary where it cuts between various islands, and definition of the marine extension of the boundary becomes ever more critical as exploration for, and exploitation of, fisheries and oil increases in importance.

Today, as one hikes over the boundary as thousands now do annually at Chilkoot Pass, takes the train across it at White Pass, or drives over en route from Dawson to Fairbanks, one can appreciate the rugged scene and sometimes the rigourous climate. But it is easy to forget the arguments, individuals, and heroics that make up the story of the Alaska boundary. Lewis Green provides a welcome account of that story that will be of interest to mountaineers, northern buffs, history scholars, as well as more curious tourists.

John Marsh

Everest

Walt Unsworth. Penguin Books, 1982. 7 black & white photographs, 9 maps and figures. 578 pp. Paper. $12.95

Walt Unsworth states that he has tried to "fill in some of the background, often explaining why success or failure came about" and not just recount "yet again the annals of the mountain from Somervell and Mallory to Bonnington and Messner". A fine accounting.

Peaks, Passes And Glaciers: Selections From The Alpine Journal

Walt Unsworth, editor. Penguin Books, 1982. 9 black & white photographs. 284 pp. Paper. $9.95

In his introduction Walt Unsworth writes that in the AJ "one can find first-hand accounts of most of the major mountaineering adventures...historical considerations apart, the collection is a repository of some very fine mountaineering stories." Unsworth adds that it seemed "a pity that so many good stories should remain hidden away in old volumes...." Yes, indeed.

The Naked Mountain: An Adventure To The Deadliest Peak In The Himalaya

RG Morse. A Reidmore Book, Fleet Books Toronto, 1982. 27 colour photos, 200 pp. Cloth. $16.95

In 1980 a six man Can-Brit expedition attempted to repeat the Schell Route on the Rupal flank of Nanga Parbat. They came within 300 m of the top before time ran out. RG Morse presents us with the story of this expedition in The Naked Mountain.

The first thing that struck me about this book was its cover. It is atrocious! As a bibliophile I have seen a great number of dust-jackets and this is one of the worst. Dust-jackets were originally

developed to protect the book; as the years progressed the jacket became a marketing device in which to attract the prospective reader. Unfortunately the cover of The Naked Mountain fails in this respect. We are presented with a photograph of the Rupal flank of Nanga Parbat and superimposed below it a water colour of a rather demented looking individual posed in front of the Rupal flank. The drawing is amateurish and would have been better left in the note book from which it came. The dust-jacket appears too cluttered. Oh but you say, you cannot judge a book by its cover. True. So what has the book to offer? After a brief introduction as to how he came to be on the expedition Morse presents us with a chronicle of Nanga Parbat with particular attention to the Naked Mountain's "body count". He starts in 1835 with the first sighting of the mountain by a European and continues until 1976 with the successful Schell expedition. He deals with the fatalities like cordwood. The record does show a grim loss of life over the years, 36 men as of 1978. The problem is that Morse dwells upon this aspect; he tries to establish a type of "curse of King Tut's tomb" scenario for those who attempt the mountain. He does his best to portray the mountain as a king of the "killer" peaks. Surprisingly Morse does not mention Reinhold Messner's solo ascent of the Diamir Face in 1978, perhaps feeling such a climb would distract from the peak's menace and unjustly from their own climb. As a historian Morse definitely leaves a lot to be desired. The history of Nanga Parbat is more fairly dealt with in GO and Norman Dyrhenfurth's "Nanga Parbat" (Mountain 59:18-25) and in Messner's Solo Nanga Parbat (1980).

The Naked Mountain is not a complete loss. Morse has an easy flowing style and his account of the expedition is readable. He does however tend to be somewhat vague in his descriptions of the actual climbing. However his tale is supplemented with diary excerpts from other members of the expedition which add nicely to the story. The inclusion of more accurate maps and route descriptions, in addition to a larger format for the photographs, would have added much more to the story.

Those interested in the climb but not this book can read Jon Jones' article in the CAJ 1981 (pp 37-38). I will keep the book but perhaps throw away the dust-jacket.

Geordie Howe

Welzenbach's Climbs

Eric Roberts. The Mountaineers, Seattle, 1980. 27 black & white photographs, 271 pages. Cloth. $14.95.

It is now high time that more attention be given to the biographies of several key figures of international mountaineering, particularly from central Europe. A number of very prominent climbers of the past are and have been very well known to European alpinists but are almost unknown this side of the Dover strait. Several Germans, Austrians, and Swiss who made remarkable climbs and foreign expeditions between 1875 and 1939 deserve special attention: Paul Gussfeldt, Hans Pfann, Erwin Schneider, Guido Lammer, Lorenz Saladin, among others. And Willo Welzenbach, whom author Roberts calls "the founder of modern ice techniques...and the greatest ice climbing pioneer of all time" (p 36).

Welzenbach was born in 1900 and began to climb in his early teens. He earned a definite recognition in 1923 by achieving with the expert Hans Pfann the traverse of the Zmutt ridge of the Matterhorn and east ridge of the Dent d'Herens. Thereafter he worked mostly up ice walls (Nesthorn, Grosshorn and Dent d'Herens north faces, and the Fiescherwand, among others). A permanently weakened right arm due to paralysis did not impede him from becoming a master of ice craftsmanship in Europe. He was justly selected to participate in the 1934 Austrian/German expedition to Nanga Parbat, on whose flanks he met a mountaineer's death. Marooned by a storm, without food and stricken with pneumonia, he perished in camp 7 (7050 m).

This present biography is unfortunately not as complete as one would have wished since its author perished on Annapurna before being able to arrange all his great Alpine material. The work is divided into 21 chapters, some of which are translations of Welzenbach's rather concise reports, written for German journals of his time. Noteworthy are the pertinent chapter notes in which Roberts displays his great knowledge of European climbing history. The chapter on Nanga Parbat is a good literary piece. Photographs, purely descriptive, are adequate. A fairly complete bibliography is standard in works of this kind but the premature death of the author is the reason for its omission. Still, a short bibliography could have been prepared by the publishers. A chronological list of related events would have been also welcome.

But this is a work that is both useful and interesting. Perhaps some day another great researcher may rearrange the unpublished material left by Roberts and bring this biography to its completion. As it is, weak in some respects, this work has however many strong points that not only commend it but also invite imitation.

Evelio Echevarría

50 Years Of Alpinism

Riccardo Cassin. Translated by Renato Sottile. Diadem Books, London, and The Mountaineers, Seattle, 1981. Black & white photographs, maps. 207 pp. Cloth. $25.95

Riccardo Cassin is one of the most outstanding mountaineers of this century; his routes are classics and his exploits are the stuff legends are made of. Born in the Savorgagno region of Italy in 1909 and shortly thereafter moving to Lecro, Cassin started climbing at age 12 and has been going strong ever since. At 62 he repeated his classic route on the north-east face of the Piz Badile.

In 50 Years of Alpinism Cassin begins with his early years, his brief apprenticeship and his rapid development as a climber in the Grigna. He does not disappoint the reader. Climb after climb, the names of the peaks go streaming by until they almost blur into sameness. If the reader was familiar with the Grigna and related areas it would no doubt help clarify this section of the book a great deal. The book however contains a large number of maps and good photographs of people, routes, and peaks which are an added plus for his memoirs and allow one to make some sense of unfamiliar areas.

For myself the real enjoyment of this book is Riccardo Cassin's account of his "Alpine Triad" with the description of his first ascents of the now classic routes on the north face of the Cima Ovest, the North East face of the Piz Badile, and the Walker Spur

on the Grandes Jorasses. Cassin's career can be roughly broken into the pre-war and post-war periods. The book follows this approach with a brief chapter on Cassin's war activities.

One of the most interesting chapters but alas one of the shortest was Cassin's brief recollections of his war experiences. The publisher adds a note that Cassin was injured in action and subsequently received the Cross of Military Valour. Some men fill books with their war time exploits but Cassin supplies us with only a few modest paragraphs.

50 Years of Alpinism is a very fine collection of mountaineering memoirs but as an autobiography I found it fell far short of my expectations. There are very few comments of personal relationships in this book which is filled with great names such as Carlesso, Comici, Vitali, Piaz, Gervasutti, Ratti, Mauri, Bonatti, and Messner. At one point we are introduced to Mary Varale, a woman climbing hard routes with Cassin and his group in the early thirties, but there is little else about this intriguing woman.

One comes away from this book knowing Riccardo Cassin's climbing exploits but very little of the man himself. He is at his most fascinating when he starts to discuss intimate aspects such as his first encounter with death in the mountains, his bitter disappointment at not being accepted for the 1954 K2 expedition, and his dealing with Reinhold Messner's rebuff that he was "destroyed" after the defeat of the 1975 Lhotse expedition. For the most part it appears Cassin has left more unsaid than said. Perhaps one day a mountaineer in Cassin's league will write an autobiography that combines both the mountaineering exploits and the introspection found within literary autobiographies.

Geordie Howe

Essays On The Literature Of Mountaineering

Armand E Singer, editor. West Virginia University Press, Morgantown, 1982.158pp. Paper.

We probably have here the first mountaineering anthology that is directed to a public more scholarly or academic than sportive. There is in this volume more mountaineering fiction than has appeared in previous anthologies and its editor in his introductory essay advances an analysis of the literature of mountaineering, which has never been the case before. The book then includes the editor's Introduction, eleven essays on this type of literature, five original pieces, and a Selected Bibliography of Mountaineering.

As in most anthologies, selection of pieces reflects the inclinations and tastes of the editor. So do bibliographic lists. All eleven selections analyse the attitudes that certain pioneer travellers, mountaineers, and artists showed in their writing toward mountains. Some such writings were purely fictional. The second part of the book contains five original works which include "an account of a personal High Sierra experience, a description of the fine art of bouldering, three excerpts from an impressionistic reaction to mountain heights, a retelling of the Matterhorn disaster, and a short story" (p xiii).

Two of the four parts of this book stand out. The editor's Introduction is worth reading and rereading. It surveys, succinctly but effectively, the development of the literature of mountaineering from classical times to the Eiger Sanction', painting and motion pictures on the same subject are also covered. The main part of the book is formed by its eleven essays specially prepared by language instructors in American colleges and universities. If these essays are to be studied, readers should be familiar with the works they scrutinize, which belong to French Neoclassics (Rousseau), British Romantics (Thomas Gray, Wordsworth, Coleridge), American travellers of the 1800s, the Mexican indigenist M Gomez Palacio, modern climber Dorothy Pilley, contemporary Canadian writer Margaret Atwood, etc. Two of these essays are weakened by the fact that their quotations in French and Spanish were not translated into English which will alienate many readers, and some of the authors analysed really wrote about the great outdoors only which does not qualify them for a book solely devoted to the literature of mountaineering.

With its wealth of content this book seems to carry an implicit invitation to readers to continue to enrich culturally the sport of mountaineering. "The brief history of mountaineering...has yielded a rich lore. But there are expeditions still to be undertaken, peaks still waiting for first ascent, mythology still to be made. What will the future bring us?" (p 132).

Evelio Echevarria

Books Received

95 HIKES IN THE CANADIAN ROCKIES: BANFF, KOOTENAY AND ASSINIBOINE PARKS

Vicky Spring and Gordon King. Douglas & Mclntyre, Vancouver, 1982. Black & white photographs, sketch maps. 224 pp. Paper. $10.95

NORTHWEST TRAILS: A HIKER'S GUIDE TO NATIONAL PARKS AND WILDERNESS AREAS

Ira Spring and Harvey Manning. The Mountaineers, Seattle, and Douglas & Mclntyre, Vancouver, revised edition, 1982. Black & white photographs, maps. 192 pp. Paper. $12.95

NANGA PARBAT PILGRIMAGE

Herman Buhl. Translated by Hug Merrick. Penguin Books, 1982. Black & white photographs. 427 pp. Paper. $8.95

Corrigendum

See Some Winter Snowfall Records at Timberline, Southern Coastal Mountains, Vancouver to Ullooet, BC, with Special Reference to Lizzie Creek Basin in CAJ 82:52-55. On the accompanying map Whistler Mtn (top left centre) should read Whitecap Mtn.

Wedgemount Lake and Glacier Studies, Northern Garibaldi Park: 1982 Progress Report

During the 1982 glacier year (30 September is approximate year end) the yeoman work was performed by Bill and his students in the photogrammetry lab. We now have a 1:10,000 scale, 20 m contour, orthophoto map of the entire lake and glacier basin including the Armchair Glacier cirque on Mt Weart. The 1980 high level aerial photography was used as the base and, for good measure, Bill also contoured the photos at 1:5000 on a 10 m interval so that the product could be compared to our vast array of maps produced from earlier vintages of photography. A small portion of the orthophoto map is herein reproduced to illustrate our field findings. The field work was undertaken in mid-September at the last possible fine weekend, with five eager teenage and younger helpers in tow. Before commenting on the results of the work we should note that during the year the climate reverted back to a near normal trend — consistent snowfall from the early autumn to mid spring (though there was a Halloween monsoon) led to the usual standing snowpack in early to mid April at the nearby Whistler Blackcomb ski resort area. However summer 1982 reversed itself. June was surprisingly warm and clear with much, though not all, of the snowpack melting. July/ August counteracted with much cloud cover, very wet periods, and even new snow by Labour Day. By our 17/18 September visit the end of the melt season had arrived and the equilibrium line was hovering on the 2140 m contour — about where it should be but had not been in the past few warm seasons. This is our tenth year of trekking to the glacier and we are very unhappy, in fact disgusted, to report that the access road and trail has been allowed to deteriorate continually. We are now nearly back to square one, that is a walk from the highway on a "trail" eroding into a series of blockades. For more details on this crisis see Wedgemount Access Dilemma (in Coast Mountains section this volume).

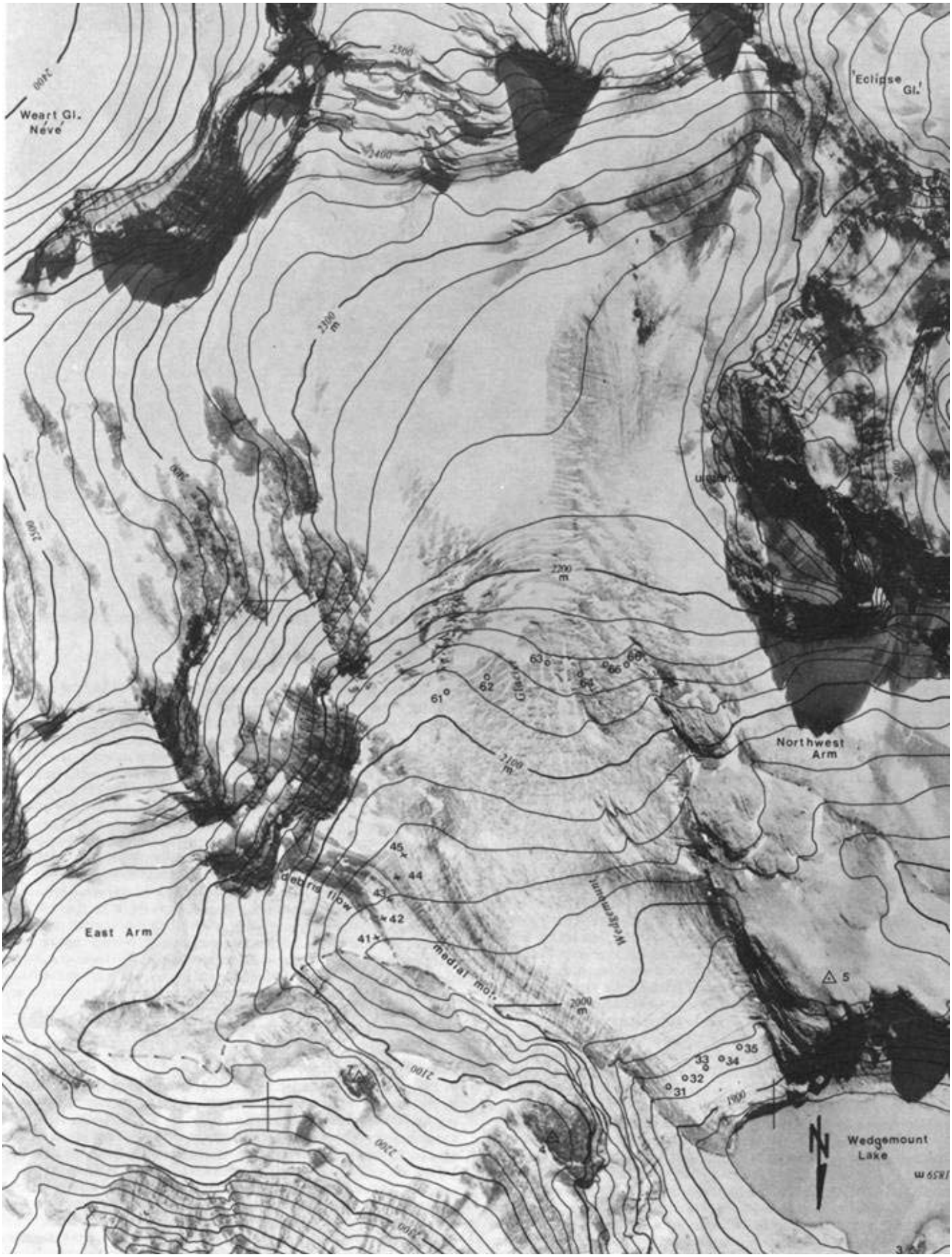
GLACIER SNOUT CONDITION

This year all the objectives were accomplished, starting with a late Saturday afternoon re-survey of the snout and lower velocity profile through the trusty phototheodolite once again. The south side of the ice front overlooking the lake is still calving into it from a 15 to 20m high ice cliff, and it was one to two metres advanced over last year's position. The measurement interval is only 350 days, as opposed to 374 for last year. So another one to two metres would likely be lost if we had waited the extra two weeks to complete the year. On the north or true right side the snout has a tapered down profile and shows some retreat; so we will call the entire snout front at a standstill relative to the 1981 position.

Apparent ablation across the lower velocity profile line of 2.2 m in 1981 was reduced to 1.5 m for 1982. To see if this reduction was applicable for the entire snout position the area downstream of the profile (1979 position) was topographically mapped in detail over the three years. Bill determined the elevation of the ice surface at about 25 points, as well as other points on the ice margin, from 1980, 1981, and 1982 phototheodolite plates. This data was used to prepare 5 m contour interval 1:1000 scale topo maps of the snout for each of the years. The contour lines were form adjusted to follow the trends shown by the contours on the 1:5000 scale map (1980 year) that was produced on the Wild "A8" plotter. Comparing the three maps at 104 selected grid points (20 m apart) the snouts do not really show any relative changes in wastage rates. For the 1981 year the entire ice surface averaged a 1.99 m loss whereas the 1982 year showed 2.01 m on somewhat less area (ice marginal melt), so that we calculate only 292 cubic metres less ice disappearance for 1982 (the area of a Canadian football field about 10 centimetres thick), of no significance if we consider some machine or operator error. The losses are only apparent displacement or lowering and perhaps not the true amount of vertical down melt because there may be basal melt and/or the ice surface may have been lifted by a kinematic wave advance which caused the advance of the snout, as recorded over the last few years. Without permanently set stakes to measure the true melt year by year on the glacier we cannot unravel the component of each phenomenon which contributes to the ice surface elevation of any point on the photos. We suspect it's mainly surface melt.

The above noted glacier standstill, or feeble advance, is probably reflected by lesser glacier motion, as measured across the lower velocity line. Average 365 day rates of surface ice movement were 11.5 m/yr (give or take a tenth) for the 1980 and 1981 years when a real ice advance was documented. For 1982 the average rate is 10.4 m/yr and this probably signifies the beginning of an ice snout retreatal phase because the supply of ice to the snout will no longer keep pace with the lake induced calving of its front. Such a velocity reduction/ snout withdrawal relationship has been observed on many a Swiss glacier. The only thing which could upset this reasoning is that the ice retreat may soon be in the terrestrial rather than the aquatic domain on the glacier sole, and without the influence of "warm" lake water the rate of retreat could greatly reduce. The individual monuments on the lower velocity line are now again behaving normally showing 1 to 1.5 m of glacier marginal drag, more so on the south than on the north side. The monuments are still converging in the ice outflow though some irregularity may exist on the south or left side. "Rogue" monument 32 (CAJ 1982:51-52) of past abnormal behaviour appears to have jumped back on pattern; so possibly the sole of the glacier was temporarily "pinned" before being ultimately released (jerky glacier motion is not unusual). However someone has been playing with the monument because the nail "hub" was removed and found a full 2 m down slope outside of the confining stone circle and witness marker. We ask again, please do not monkey with our targets despite their obtrusive appearance.

Wedgemount Lake and Glacier Studies:
Portion of 1:10,000 scale orthophoto map produced at BCIT Survey Dept by C Beach and R Simpson, aerial photography by BC Government September 1980; UTM grid spacing is 1000 m; illumination originates from top of page. Three sets of velocity profile stations indicated: 30 and 40 series set 1979, 60 series across icefall set September 1982. Survey stations indicated by open triangle.



CONDITION OF GLACIER AT JUNCTION TO EAST ARM

In 1982 we finally managed a realistic re-survey of our "upper" velocity profile, now renamed "mid" profile, because on this mission a still higher profile was set across the equilibrium line on the glacier in order to measure the annual throughput of ice between the accumulation and ablation zones (see photograph). This amount of ice discharge has to be known before the normal ice losses in the case of mass ice balance can be computed, as opposed to the measured and expected extraordinary loss — thereby yielding a sign of the amount of negative glacier regimen. This new line will be monitored by phototheodolite in stereopair coverage from station 7 and near station 4. The feature photo shows the view from 8 (near 4) towards the equilibrium line and the accumulation zone on the main arm of the glacier. The north arête route (arrow) on Wedge Mtn's headwall is of much interest to the mountaineer.

The middle profile shown on the accompanying map runs across the lesser east arm of the glacier (see map, CAJ 1980:56), then over the medial moraine and out onto the main arm for about 70 m. Though distinct the medial moraine lies as a scattered veneer rather than as a ridge of debris because the amount of ice ablation is not enough to concentrate rock particles and because the source of rock supply is limited. Normally medial moraines emerge from elongate rock ridges separating arms of a glacier but here we have only a headwall. However the east arm is ablating more rapidly than the main because, as shown in old photos, it lost one supply source from a cirque basin on Mt Weart just prior to 1928. The other supply source is not in a well developed cirque either and has the appearance of something plastered onto a wall rather than well seated in it. This source is on the ridge connecting Weart to Wedge Mtn (see oblique aerial photo, CAJ 1976:35). Consequently the north side of the east arm is ablating at a faster rate due to greater sun exposure, to the black body radiation effect of the rock slope behind and under it, and to a lesser ice supply zone. Just upstream of our profile in fact the 1982 year saw the opening of a huge window in the ice, exposing the bed moraine. So the separation of the two arms of ice is now well underway and it shows glaringly when comparing the 1980 glacier map to our 1973 model (see CAJ 1978:133-134). In a seven year time span the east arm width has reduced by 60 m and if the new hiatus is added there are only 140 m of ice width remaining at the narrowest point. In the seven year span the mid velocity profile shows 17.5 m of ice down waste (2.5 m/yr) on its north end whereas the south end of the profile (on main glacier) is at 9 to 12 m (and 10 m is the average for much of the surrounding area). At the so called equilibrium line (at 2140 m) there is a 5 m difference between 1973 and 1980. This could be accounted for in part by the passage of a kinematic wave, previously discussed. We have yet to draw longitudinal ice surface profiles from all our maps (1947 to 1980) to see if this is so.

The medial moraine between the two arms of ice verges downstream toward the margin of the glacier just above the lower velocity profile. That is the east arm has been "consumed" by the main and the fact that it is a weak "force" is shown by the vectors on the table of monument velocities. Monument 41 , closest to the ice margin, is moving at about one half the rate of the one (43) adjacent to the medial moraine, and both 42 and 43 are moving toward the glacier margin in a very strong convergence of ice flow. Moreover, the mean velocity (0.56 m/yr) of this arm of the glacier is only a little more than one third of that of the main ice stream (1.43 m/yr) as shown by 45. The latter could also have a rate slightly less than the characteristic mid channel flow because of its proximity to the margin, which in this case is the septum of the medial moraine. Noteworthy however are the identical velocities of the two ice monuments (43 and 44) which lie astride this moraine. Because 43 represents the highest velocity for the east arm, whereas 44 is only moving at half the rate of its main arm neighbour (45), it appears that the main arm is "dragging along" the reluctant east arm at the zone of adhesion (medial moraine) and thus the explanation for the strong convergence of ice flow on the distal reaches of the east arm, before it disappears altogether as described above.

STAGNATING NORTH-WEST ARM

This arm (see map, CAJ 1978:133-134) lies under the shadowy north face of the ridge connecting Parkhurst Mtn to Rethel Mtn. The connection to the main arm is above the equilibrium line at a narrow 165 m wide throat. The comparison of the 1980 map to the 1973 contour year reveals little change. Up to 20 m of ice marginal retreat is shown below the 2090 m contour but in many places it is nil. Ice surface loss varies from nil at this upper elevation to 10 m at its snout where there are now two small ponds (1950 m). This ablation is much less than reported in the main or east arms at comparable elevations yet there is no accumulation zone of significance on its own. The shadowed aspect of this part of the glacier cannot be overstated as the main influence on the inhibition of ice melt.

SUMMARY

It appears that Wedgemount Glacier is again entering a recessive phase after a few years of halfhearted advance, despite the continual overall apparent extraordinary ablation or thinning of its snout(s) and lower reaches. However the change in rate of down wasting from 1981 to 1982 is insignificant. The ice crevasses which developed at the equilibrium line to herald the ice advance of the 1970s may also now diminish in size and number, and in pace with reducing velocities, to allow this portion of the glacier to become passable for travel again. The elimination of an east arm supply is more foreseeable than the lack of connection to a north-west arm. As for the view seeker, the picturesque period of an ice front calving into an iceberg (or bergy bit) strewn lake will likely end as well. So now it is a race as to which will disappear first, the ice frontal cliff or a passable trail? One is best not to delay on either matter, unless there are some changes in cosmic forces which can sway either the weather to a moister-cooler mode, or the clouded thinking of our government agencies. We need good luck with both.

Karl Ricker. WA Tupper, RD Lyon, and J Fairley

Preliminary Observations on a Multiple Morainal Sequence and Associated Periglacial Features on the Mt Tatlow Area, Chilcotin Ranges, Coast Mountains

This introductory article outlines the Quaternary geologic features, hitherto largely unrecorded, of the Mt Tatlow massif and adjacent edge of the Chilcotin Plateau. "Mega" valley features delineating Late Pleistocene ice lobes or tongues give way up slope to periglacial features typical of old dry climates, nicely expressed here (photos 1 to 4). Permafrost is probably present in the region and even the climax moraines of the last century or two are likely ice cored (photos 5, 6), suggesting a continuum of gradational processes in operation between the glacial and periglacial environment. The region's glaciers, small cirque contained features showing much down wasting from their optimal thickness of development, are in many cases still attached to their complex terminal moraines (photos 5, 6). Thus measurement of their regimen by change in snout position is not possible or practical.

Elsewhere in this volume (see Mt Tatlow- An Access Trick) access to the Mt Tatlow massif has been outlined, with the suggestion that only approaches from one or the other end of Konni Lake should be considered. This lake lies in the Nemaia "through" valley, cut on an east west transverse axis into the surface of the Chilcotin plateau (photo 2) which connects the major north south trending Chilko and Taseko valleys. On the passage up and out of this valley onto the plateau surface and thence onto the Tatlow massif to the base camp in the headwaters of Elkin Creek, glacial geomor-phic features dominate the landscape. From the camp to the top of the mountain there are many interesting periglacial features and once on the summit an integral picture of the evolution of the landscape quickly unfolds as the singular observations gathered on the way in (and up) are placed into the panorama. Though there was no attempt to collect materials to age date these morainal and periglacial features, the writer did photograph them before going back to the lab to carry out a rigourous air photo interpretation. This exercise yielded as many puzzles as answers but a search of the known geologic literature of the area has yielded some baseline data on which to hang these new observations and thus this preliminary report. The writer hopes to revisit the area for a longer campaign of sampling in order to better define the age relationships of the array of moraines. After briefly outlining the physiography and bedrock geology, the writer will describe the surficial landforms in a travelogue which proceeds from Konni Lake to base camp to summit. The report winds up by attempting to develop a geomorphic history of evolution of the landscape by pigeonholing the moraines into chronologies at comparable latitutes developed elsewhere along the edges of the Interior Plateau of British Columbia.

BEDROCK GEOLOGY AND PHYSIOGRAPHY

Geology of the Tatlow area was first mapped in reconnaissance fashion by Dolmage (1925) and later in more accurate format by Tipper (1963). Both described the physiographic domains of the region as well. Mt Tatlow, of unusual height (3061 m), lies in the "soft rock" transition zone between the crystalline granitic core of

Mt Tatlow Glacial and Periglacial Features
Photo 1, Sally Tatlow and Ian Wilson on Purjue Trail overlooking the Tsoloss Creek valley meltwater channel with the nivated (N) snow hollows on the alpine uplands and glaciated Mt Tatlow beyond. K Ricker

the Coast Mtns to the south-west and the lava flow capped Interior Plateau to the north-east. This intermediary zone is known as the Chilcotin Ranges, with the characteristic feature of reticulate valley topography outlined by Dolmage as "immense glacial valleys which form a network of deep broad trenches cut to about the level of the plateau or deeper, thus dividing the range into a number of completely separated blocks".

North south oriented valleys are occupied by Chilko and Taseko Lakes (and outlet rivers), which lie to the east and west of Mt Tatlow respectively. The basins appear to be in a locus of several fault zones (Tipper 1963, 1968) that cross them on a north-north-west alignment sub-parallel to their orientation. The valleys are erosion susceptible and served as major conduits for the mass of abrasive ice which spilled out into the plateau surface several times during the Pleistocene Epoch. East west trending valleys of exceptional breadth but shallower depth intersect them, to complete the box like topography which surrounds the Tatlow massif. These connector or "through" valleys are the Nemaia to the north and the splayed Long/Yohetta system to the south. Both trend parallel to the strike of erodible shales, argillites, and lesser coarser clastic sediments of Jura-Cretaceous ages, and both are sliced by west-north-west trending faults. So they too served as outlets of abrading ice in a secondary fashion during the Pleistocene and were thus eroded into their present U shaped form.

Intervening Mt Tatlow massif however, lies between the "soft zones" on steeply dipping Cretaceous age bedded volcanic flows (Tipper 1963). This mountain is not a Late Tertiary age dissected strato-volcano as could be inferred from Dolmage's (1925) map

Photo 2, view from summit of Mt Tatlow northward over the Chilcotin Plateau.
In foreground a 19th to 20th century climax ice cored moraine (C) is bounded by a trimline (B) and terminal moraine crossing the lake of an older Late Neoglacial Advance (18th Century?). Light areas, some with snow, are nivation hollows. Stream line landforms on Tsoloss Ridge (TR) and Konni Lake basin (K) show west to east ice movement which is contrary to general northward flow over the plateau beyond. K Ricker

Photo 3, general view from upper scree slopes on east side of Mt Tatlow showing "Dolly Lake"
And enclosing subdued moraines (1, 2, 3) as well as an older glacially eroded trough (4), and recessional moraine (R). Draping or festooned micro-land forms superposed on moraines are solifluction lobes. The uniform appearance of the terrain suggests that all moraines are a product of the Dunn Peak Advance. K Ricker

and description. Rather the massif is a product of structural uplift, with an associated injected sill of fine grained granitic rock to add some resistance to the forces of renewed erosion that predominate over the last five million years. The Pleistocene landforms were first mapped on a gross basis by Tipper (1971 a, b) but Heginbottom (1972) shortly thereafter released a map of the deposits with textures in more definitive form, accompanied by a short descriptive text. Both concentrated their efforts on the Chilcotin Plateau however, and did little more than outline cirque basins for the adjacent mountain area. This report complements their work by defining the Pleistocene and Recent features of one mountain massif adjacent to their areas of interest. The only detailed work in the area of such a nature is that of Evans (1974) who studied cirque morphometry and orientation.

TRAVELOGUE OF QUATERNARY FEATURES

(note trail on map)

From the floor of Nemaia valley the trails reveal an east west trend of ice flow features embedded on the valley slopes (see map). Harris (1971) noted several "lateral moraines" on the valley walls but the gravelly character and position of the features are more typical of recessional kame terraces or moraines developed as the valley ice lobe began to down waste. Once off the valley slopes and onto the plateau surface however, the terrain shows a subdued knob and kettle, swell and swale, as well as drumlinized relief indicative of ice movements to the east. This is the upper limit of the valley ice lobe which, according to Tipper (1971), is of a Latest Pleistocene re-advance. Soon after the Tsoloss valley wall escarpment is reached and the inlaid underfit creek is obviously incapable of eroding such a broad defile (photo 1). The valley is a melt water channel, operative while the forenoted Late Pleistocene re-advance ice lobe plugged Nemaia valley at Konni Lake. The water ran from the ice margin easterly into a swale in the ridge of plateau, passing parallel to but away from the ice margin before descending to the lobe again at the intersection to lower Elkin valley. The ice lobe surface was not quite high enough to engulf Tsoloss Ridge or the plateau of the north of Konni Lake; its downstream extent is not mapped in full by Tipper (1971). However it was of lower elevation where rounding the corner at the intersection to Elkin Creek to begin to flow northward over the present basins of Elkin and Vedan Lakes (not shown on map).

After crossing Tsoloss Creek there are some large out of place granitic boulders which originated near the main axis of the Coast Mtns to the south, indicating at least initial northward flow of the Cordilleran ice sheet, though at maximum development it may have flowed south (an argument pushed by Clague 1981, and others, but of mixed acceptability to Tipper 1969, 1971). The trail winds its way in forest cover around and over many gravelly hillocks and through some smaller intervening bogs which appear to represent collapse pits in dead stagnating ice left by the waning ice sheet. Farther up slope in sub-alpine and alpine areas the irregular relief gives way to a surface of gentle slope showing (on air photos) subtle swell and swale, and grooves and furrows trending to the north-north-east. This is evidence of the Cordilleran ice sheet which moved at nearly right angles to the later re-advance of ice into the Konni Lake area from the west.

Nearing the highpoint on the trail minor traverse ridges located at the bottom edges of treeless hollows in the slope owe their origin to particle movement over and under snowbanks which fill the depressions in the late spring early summer period when the

ground is at optimum saturation (photo 1). This process is termed nivation and the slopes of Mt Tatlow abound in such features; only the larger more conspicuous ones are indicated on the map. On the ridge crest overlooking the broad alpine valley in the headwaters of Elkin Creek the scene is very different (see map). The valley draining "Dolly Lake" subtly reveals three elongate morainal systems (photo 4) enclosed in a glacially scoured valley of even greater age. The moraines terminate in succession from: up valley at the exit of "Dolly Lake", down valley around a smaller lake, and near tree-line at the exit of the valley onto the plateau surface to the east (see map). Air photos however, show a slightly more complicated arrangement of the threefold morainal sequence because a tributary valley above and south of "Dolly Lake" also contributed ice to the system and two of the moraines are draped over the low glacially scoured main valley to join the morainal termini described. However this valley does not show the older scoured out surface. Thus there are some confusing cross-cutting relationships which need field verification.

As the hiker wanders down slope towards "Dolly Lake" with its shoreline camp site there are tread like stairs on the slope underfoot made up of both turf and exposed stone particles. Raw exposed upturned cobbles and boulders make islands of stone pavements and are scattered with earth hummocks on the valley floor. These are cold and dry, climatically produced features of the periglacial environment. They result from solifluction and frost action sorting processes on the slope, with the help of running water and wind action on the valley floor in the case of the pavements. The latter have not been well studied (Washburn 1979) and this could be one good locale to further general knowledge on such features. From the camp site the view focuses from the foreground of carpet like solifluction lobes which descend to the lake shore (photo 3) and to the retreating glacier and its giant moraine of recent origin (photo 7) lying in the cirque basin common to Mt Tatlow and neighbouring Peak 2900 to the south. The cirque is actually compound, with two sub-basins from which two arms of the glacier meet just before the extensive morainal belt (photo 7) on the floor common to the two sub-basins. A mysterious second moraine looms behind in the more southerly sub-basin (photo 5). This second moraine can also be seen from lake level (photo 7). From this viewpoint its situation suggests a more recent recessional moraine. However on the ascent of Mt Tatlow the following day we discarded that idea.

Climbing up onto the ridge above the lake in order to stage an assault on Mt Tatlow the climber will pass through a succession of periglacial features. First turfy steps of solifluction lobes are surmounted on the sloping morainal benches that abut against the steeper valley wall screes (photo 3). The latter material varies on steep slopes from amorphous sloping fields and interspersed frost shattered outcrop (with nivation basins at their bases) to zones of sorted stone stripes and steps giving way to the rare stone circle (with fines) enclosed by blocks. Nearing the ridge crest the gradient eases and stripes grade into festooning stone nets (photo 4) and eventually the latter give way to sorted stone polygons on the flat top.

Scanning from there to the south the modern moraines show an unusual thickness and have corrugated broad tops (photos 5, 6). They also show steep frontal slopes. According to Ryder (1971) this appearance is typical of the semi-arid cold mountains located leeward to the Coast Mtns and the anomalous morphology is caused by their ice cored content. 0strem and Arnold (1970) have studied the distribution of ice cored moraines in southern British Columbia by scanning air photos; they are readily discerned by their above noted appearance. Those detected by the writer using air photos are shown on the map. Not all are ice cored, being instead the typical thin sinuous end morainal loop. The most unusual ice cored variety is in the next cirque south-east of "Dolly Lake" (photo 6). The lake on the frontal escarpment abutting it is actually at a higher level than the lake behind it on the waning glacier ice surface, suggesting a good ice cored impervious seal between the two.

Below the vantage point on the ridge in a minor re-entrant basin on the south (above the upper end of "Dolly Lake") there are more unusual features. A waning exposed ice mass becomes buried by rubble at its base. Scree slopes above it supply the covering rock and an ice cored rock glacier or moraine is being developed by protalus action. Passage into the basin later in the day yielded an even more complex picture. A steep frontal lobe of rock debris down slope of the ice cored features turns out to be a typical rock glacier with only interstitial ice between blocks (at depth), rather than the forenoted ice cored variety. Still farther down slope there are snow banks off to one side with low ridges at their base. These ridges are developed by both nivation and protalus activity. In the lower axial portion of the valley there are gentle sloped blocky ridges suggestive of inactive rock glaciers. The view from the ridge then illustrates a continuum of processes from the periglacial to the glacial environment, both active and dead.

Looking from the ridge toward the glacier terminus and its basin below Peak 2900 (photo 5), the secondary morainal ridge shows a streamlining effect oriented at right angles to its transverse position across the cirque. Debris carried and dragged by the glacier has been draped over it, leaving minor ridges. In fact one such debris zone is of supra-glacial origin, being an iron stained rock which is dropping from the headwall onto the firn and then being carried as a distinct orange-ochre colour band over the transverse ridge (Moraine D) to the ice cored morainal complex (B-C). The implication then is that the upstream morainal like feature (marked X on the map) is older than the complex moraines down slope from it. This older "moraine" does not appear to lie in the sub-basins of the cirque adjacent to Mt Tatlow nor in the sub-basin located immediately under its summit.

Looking to the north from the ridge crest, the aspect of "continental" Cordilleran ice cap glaciation is shown on the plateau, while underfoot there are rounded granitic stones (erratics) whose origin can only be in the Coast Mtns to the south. We didn't see any Tertiary age rounded volcanic stones on this ridge (source, the plateau to the north), so ice sheet movement is shown by the stones to be to the north. Tipper (1969) however has found both granitic and volcanic clasts on the Potato Hills and the hills between Tsuniah and Chilko Lakes in comparable geographic settings, suggesting both directions of flow. The volcanics he postulated, represent a southward flow of an earlier ice sheet. Clague (1981) would argue on the other hand, a bi-directional flow of the same ice sheet, that is early and late phases of development in two different directions. Nothing was found on the ridge to resolve this controversy. The highest occurrence of erratics was found at the joining of the ridge to the base of the final summit massif screes.

Photo 4. Sorted stone stripes integrate with stone nets
In foreground and nivation hollow (snow on upper left) on east ridge of Mt Tatlow above "Dolly Lake". K Ricker

Photo 5. Ice cored moraine (B-C) of Little Ice Age
In mid-ground and stream lined over-ridden moraine (X) up slope in the compound cirque east of Peak 9600 and south-east of Mt Tatlow, seen from east ridge of latter. Floor of basin in foreground harbours several periglacial features noted in text. L is lake. K Ricker

Photo 6. Ice cored moraine (B-C)
With steep frontal slope abuts into lake (L) in cirque south-east of "Dolly Lake"; glacier behind is still attached to this moraine; note minor (A) ridges alongside lake. K Ricker

Photo 7. View up valley from outlet of "Dolly Lake"
To A, B, C, and over-ridden D (marked X on map) moraines. Note nivated (N) and soliflucted (S) slopes on right side of lake. Peak 2900 is enshrouded in clouds. K Ricker

This is at 2500 m, an unusual elevation for reported erratics. Thus the sole of the "continental" ice mass reached this elevation and its upper surfaces reached — how high? Evidence is lacking in the rubble of the slopes above but ice could have engulfed the 3061 m high summit or at best left it as a very small protruding nunatak.

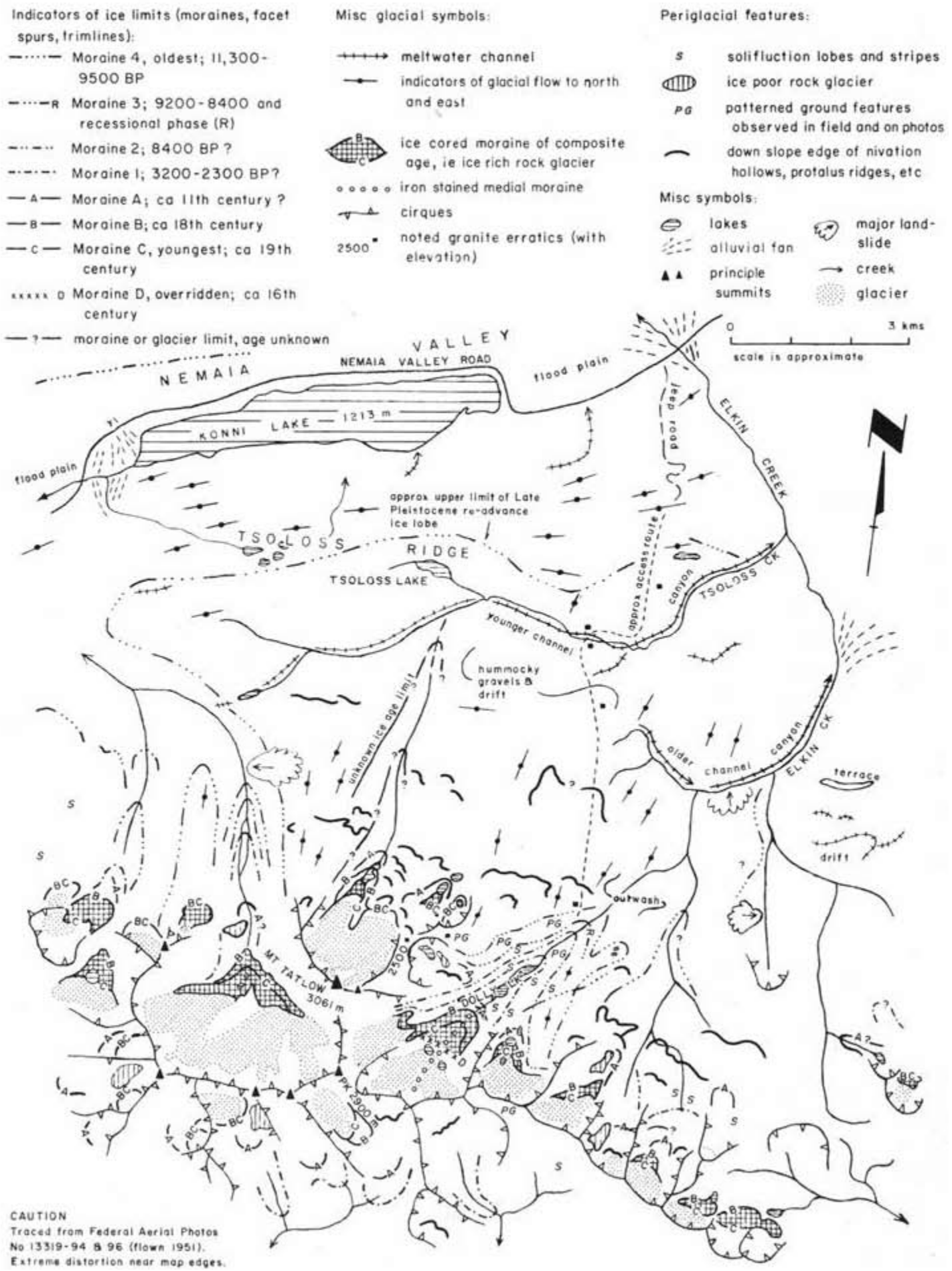
At the summit we could find no erratics or glacial striae; our attention was drawn to the aforementioned cross-cutting relationships of the trend of continental ice flow to the north and the subsequent re-advance of a lesser Chilko Lake lobe into Nemaia valley from the west. Clearly the latter shows as an anomalous "intrusion" into the landscape (photo 2). The foreground view to the north shows two recent events of cirque glacier advance into a small lake (photo 2) and the most recent moraine (C) is ice cored whereas the outer (B) is not so, being mainly a trim line leading to a moraine protruding across the lake. Beyond the cirque whitish nivation hollows are apparent as is the hummocky and drumlinoid character of Tsoloss Ridge rising to the south of the Konni Lake basin. Turning south, west, and east the array of cirques catches the eye. They appear to face (or open out) into all compass directions but this is only a local artifact. Evans (1974) measured the orientation of all cirques in the Tatlow Range and found that the larger number faced north-north-east, with secondary concentrations to the north-east, north-west, and north-north-west. A few opened to the south-east, scarcely any opened to the south or south-west. Taking the resultant directions of orientation together, the average vector of orientation is North 10° East. Thus the north-north-east (22V2°) set is really dominant. The map showing of the orientations is therefore a bit anomalous because there are a handful of southerly opening cirques. The state of recent glacier advances in these however is considerably reduced from the others.

HISTORICAL CHRONOLOGY OF FEATURES OBSERVED

The foregoing walking account of the glacial and periglacial features can be assembled into a historical chronology of processes or events on the basis of geologic super position of features, though collection of datable samples (wood, charcoal, volcanic ash, lichenometry, etc) would help considerably in placing events into a controlled time scale. However for periglacial processes and features this methodology cannot easily be used.

Beginning with periglacial items it should be noted that solifluction lobes drape over all moraines to the east and on the lateral benches above "Dolly Lake" (photo 3). Only the ice cored moraines are spared these because they have their own internal

Geomorphic map of Konni Lake/Mt Tatlow. K Ricker/M Irvine



lobe forming processes. The relationship of the two features, if any, suggests that the development of lobes is an ongoing process. However the solifluction lobes on older moraines may have begun earlier, followed perhaps by an hiatus in activity during the Altithermal Interval (see table) before rejuvenation in Neoglacial times. Furthermore the patterned ground features on both sloped and flat landscapes are in healthy order, suggesting ongoing rather than relict development. Thus permafrost should underlie the area, which could be tested for by drilling or digging. In the absence of such it can be inferred by calculation using the equation of Brown (1967). At this latitude (51°22'30"N) the formula says permafrost should be found at a mean elevation of 1667 m, with aberrations of absence to 136 m higher or presence to 136 m lower (direct exposure effect, etc). "Dolly Lake" valley is situated above 1950 m whereas on the north slopes of Tatlow permafrost islands could be found to as far north as Tsoloss Ridge.

As for the time of development of morainal loops and their associated upper limits of ice advances, there is reference work at comparable latitudes on both sides of the Interior Plateau. On the Shuswap Highland to the east both the initial work by Alley (1976), followed by the excellent detective analysis of Duford and Osborn (1978) on moraines in the sub-alpine environment of the Raft, Trophy, and Dunn Mtns, suggest a useable chronology. To the west Fulton's work on the older Tiedemann Glacier moraines can be used to good advantage as well. Clague (1981) has a most useful summary of all radiometric dating work ever performed in British Columbia on Quaternary aged features and strata. This data, plus the interpretations of Tipper (1971 a, b) on the older glacial events, allows the writer the luxury of guessing at a chronologic timetable of glacier advances in the Tatlow area. On the accompanying map however it should be cautioned that there is no positive correlation of morainal sequences from one valley to the next. The air photos suggest sequences and the only reasonably assured correlation of them is evidence of glacier position 4 in the valley west of Tatlow being part of the Late Pleistocene ice advance into Nemaia valley and its Konni Lake district. However the suggested chronology in this article refers mainly to "Dolly Lake" valley as shown in the accompanying table.

In the "Dolly Lake" area there are about seven moraines plus erosional evidence of two older glacial events to place in a chronosequence. The oldest event is continental glaciation, followed by the Nemaia valley/Konni Lake ice lobe. Tipper (1971) argues forcibly from geomorphic evidence that this lobe is a re-advance feature rather than just a stagnating ice lobe left in the valley by a withdrawing Cordilleran ice sheet. Yet scattered evidence gathered by Fulton (1971) and Clague (1981) points to a Chilcotin Plateau covered by down wasting ice some 11,000 to 12,000 years ago. So it's debatable whether this advance can be as old as the coastal Sumas Stade event. By 10,000 years ago, according to Clague (1981), the entire Interior Plateau was ice free. This suggests, despite the questionable value of a long distance correlation, that the Konni Lake re-advance occurred at a similar time to that at Terrace, BC. The other alternative is to assign the glacial erosion of "Dolly Lake" valley to a forerunner event leading to the development of the Cordilleran ice cap, thereby negating its correlation to the Konni lobe, and implying that this lobe is correlative to Moraine 3 and thus a Dunn Peak Advance event. However Fulton (1971) shows that there is no possibility of low level plateau glaciers after 9500 years BP in the Waddington area. That implies that the Dunn Peak event is either older than 9200 years (younger is inferred by Duford and Osborn by a reference to a climatically killed alpine forest of this age), or that the tabulated correlations herein indicated are correct for this time span. Because the Konni Lake lobe appears to have an arm of ice originating from the cirque basin located north-west of the Tatlow massif, and because (if photo interpretation is correct) lesser moraines in this valley are approximately the same number as those of "Dolly Lake" valley, the argument not to correlate the 3 moraine to the Konni Lake lobe is reinforced.

Moraine 3, well covered with lichen, is subdued in format and thus appears similar to the Dunn Peak moraine. Furthermore it has an inner recessional loop as shown in the "type" locale; but correlation is not guaranteed. It could be correlative to the Harper Creek moraine which Duford and Osborn (1978) could not date. Their moraine is in a sub-alpine setting and thus could have been exposed above the waning ice sheet very early during deglaciation. Moraine 2 may well be a further recessional phase of 3 because there are kettled depressions between the two. However 2 can be traced only into the "Dolly Lake" and up stream cirque basin of Tatlow, Peak 2900, and only half of the adjacent cirque to the east, whereas 3 represents ice from the entire cirque basin to the south-east. Therefore a re-advance from a narrower source area is indicated for 2 and one could therefore assume an Early Neoglacial correlation, though it too looks like it should be older, judging by the above noted criteria. Unfortunately Moraine 1 (enclosing "Dolly Lake" only) shows the same ancient characteristics. An Early Neoglacial age (Battle Mtn) seems to be too young, and the writer would feel more comfortable if Moraines 1, 2, and 3 were all part of the Dunn Peak Advance. For sake of pigeonholing we'll let Moraine 1 stand where placed on the table until there is some way of comparing it to pictures of confirmed Battle Mtn moraines (not illustrated in Alley 1976). Fulton (1971) has definitively dated an Early Neoglacial moraine at Mt Waddington but it lies below timberline and is actually quite near the much younger moraines of the Little Ice Age.

Upstream of "Dolly Lake", before reaching the ice cored moraines, a low series of transverse ridges (A) are breached by the creek leading from the glacier to the lake. They may be the age equivalents of the forementioned Battle Mtn (Early Neoglacial) Advance or of the subsequent Mammoth Creek Advance, a seldom recognized Neoglacial event in Western Canada. Whether or not the Spahats Creek moraine (Duford and Osborn 1971) is a correlative is unknown because its lichen determined age varies from AD 350 to 1860, though more conservative measurements might narrow it down to average from AD 700 to 1740. This does not rule out an early "Little Ice Age" or a Mammoth Creek age assignment and thus the table shows the Spahats Creek moraines inserted into several time slots. Moreover the writer's feeling is that the Spahats Creek moraine (Duford and Osborn 1971) is post AD 1500 in development; it could be even an early 19th century advance pulse of their overall Raft Mtn system since the lichen growth curve used in their analysis is from Jasper National Park. That is the curve is for an area leeward of the moist Pacific air masses which would first inundate the Shuswap Highland before spilling over the Columbia Mtns and then onward to the Rocky Mtns. Lichens may grow at much faster rates on the Shuswap terrain.

For the ice cored moraine areas on the Tatlow complex (photos 5,6,7) there appears to be an inner fresh zone of rock culminated by a peripheral ridge (C) of identical freshness, then several intermediary ridges and steps. All are enclosed in an outer steep edged sloping bench or ridge (B). So the inner system appears to represent 19th century oscillations with an early major pulse, the outer and intermediary moraines of darker tones are of 18th century vintage, maybe even 16th century. However in the cirque at the head of "Dolly Lake" valley we have the ice overtopped Moraine D (marked X on the map, photos 5 and 7). It may not be ice cored and certainly has to be older than the B and C moraine complex. Tentatively we will call this the first developed moraine in the Little Ice Age (Late Neoglacial) series, it having been overridden in the 17th, 18th, and 19th centuries.

Alternately Moraine D could be the seldom recognized Mammoth Creek event, explaining its apparent universal absence elsewhere, that is it has been hidden by later events. If this is the case, Moraine A would be set back to Early Neoglacial and Moraine 1 would be relegated to a Dunn Peak latest standstill (or minor recessional advance) in only the "Dolly Lake" basin. As shown on the map Moraine 1 could not be found in the adjacent cirque to the south-east. Certainly photo 3 would suggest that the terrain for all of the Moraine 1 to 3 series is much the same in appearance and thus likely a product of a pre-Hypsithermal ice advance and recessional period (Dunn Peak/Harper Mtn). Lichenometry and/or dendrochronology may clear up a few of these speculations but it will be fortuitous finds of old bits of wood, paleosols, or volcanic ash horizons in cut banks or artificially dug holes that will likely reduce the errors in overall geoclimatic correlations.

CURRENT REGIMENS OF GLACIERS

Witness posts on 1982 ice snout positions were not established during our visit. With active but receding or ablating glacier ice attached to ice cored moraines it may be hard to define an ice front. Furthermore ice cored moraines could be creeping down valley, as they seem to do in the Yukon, at a rate of a few centimetres to perhaps a metre per year. So while there is the likelihood of slight morainal advance (as indicated by steep frontal slopes) the overall glacier ice regimen is strongly negative. In fact the possibility of complete glacier ice detachment from actively moving frontal moraines cannot be dismissed. Since 1951 (the air photos which form the basis for the map are of this age), lakes have appeared between Moraine D (X on map) and the ice surface (photo 5), showing that recession and/or down wasting of ice has been pronounced in the compound cirque located on the east side of the Tatlow/Peak 2900 massif over the last three decades.

Karl Ricker

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Glacier Retreat in the Tchaikazan Valley

Two glaciers previously monitored in 1951 and 1975 were re-examined during the 1982 ACC Vancouver Section visit to the Tchaikazan valley. This effort was inspired by Karl Ricker's Tchaikazan Valley Earth Science Notes (CAJ 1976:16-19) and by the generally unfavourable climbing weather experienced at the camp. Measuring the terminus of the Tchaikazan and Friendly Glaciers with respect to the 1951 and 1975 reference cairns was an unexpectedly interesting and enjoyable task. Before discussing some of the practical problems of glacier mensuration let me briefly summarize the results.

Ricker (CAJ 1976) reported recession rates of 22.3 and 20.8 m/yr for the Tchaikazan and Friendly Glaciers (1951-1975). My measurements show the Tchaikazan Glacier to be currently retreating at a more modest 13.5 m/yr while the Friendly Glacier is diminishing at a rate of 30.6 m/yr. If data for the 1968 Sierra Club cairn are considered the Tchaikazan Glacier has retreated 29.5 m/yr 1951 -1968; 4.9 m/yr 1968-1975; and 13.5 m/yr 1975-1982.

The Tchaikazan is marked with at least three sets of cairns. The 1951 reference is over 600 m downstream from the snout and sits atop a very prominent boulder. It has a register containing Karl's field notes and those of a 1977 Oakland California party.

Locating the 1968 Sierra Club cairn is a bit more difficult. It is on the opposite side of the river at a bearing of 118 degrees from the 1951 reference. Crossing the Tchaikazan River on a warm August afternoon is no simple task and sighting the cairn from the opposite bank is close to the limit of one's visual acuity. I eventually spotted this tall slender cairn while returning from a trip to the Marmot Towers.

Getting repeatable measurements from the 155/165 degree base lines was a bit of a problem. I succeeded in getting consistent angle measurements only after taping a compass to my ice axe and sighting along the shaft. Distances were paced off three times in both directions and averaged against a calibrated stride.

Surprisingly Ricker's 1975 cairns were the most difficult to find. My first day's measurements were confused by another set of more recent (ca 1980) undocumented cairns placed ca 70 m upstream of Karl's. The 1975a cairn is on a boulder terrace 200 m west of the river bank. Its low position makes it very difficult to distinguish from the background. The 1975b cairn was built atop a slumping sand ridge and all that remains is a partially buried mound of boulders two metres west of the kame's current crest. My two cairns were erected along an 80 degree normal to the glacier's main axis, 95 m upstream of the 1975 cairns. A film can with field notes was placed in the B cairn.

Having spent two and a half days refining my measurement procedures on the Tchaikazan Glacier I expected to take measure of the Friendly Glacier in only a few hours — not so!

The Ricker party placed four cairns normal to the Friendly's major axis and clearly documented their positions in the 1976 CAJ article. The unexpected surprise with the Friendly Glacier is the extent to which it has receded over the past seven years. Ricker reported at 20.8 m/yr recession rate for 1951 -1975 and, given the declining rate of recession for the Tchaikazan, I expected the cairns to be positioned rather close to the present snout location — big mistake! The 1975 reference was finally located 214 m downstream of the glacier. Interestingly the albino white fireweed described as surrounding cairn 1 has been replaced with the normal pink variety and cairns 3 and 4 have apparently been obliterated. A disappointment, since I was rather keen on finding the spectacular 2.5 m 'Jim Craig' needle. My 1982 cairns are on a 120 degree normal to the Friendly snout, ca 270 m and 330 m east of the creek.

Tracking down old cairns, developing field reliable measurement techniques, and recording glacier dynamics firsthand is an exciting exercise — one I would heartily commend to future parties visiting this beautiful region.

John Lixvar

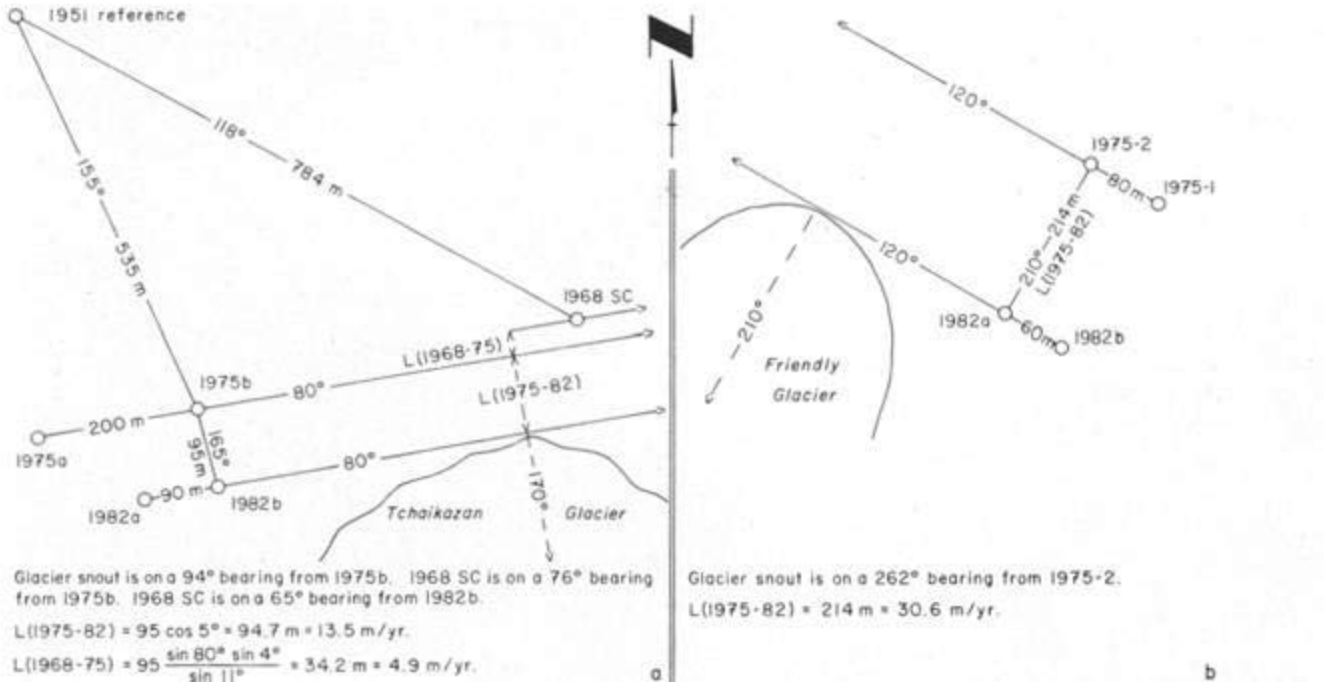
NOTES

The 1951-68 Tchaikazan Glacier retreat is measured along a 155 degree axis while the 1968-82 measurements are taken at 170 degrees.

Working from only the 1975a cairn Ricker suggested a 1968-75 recession rate of from 0-2.3 m/yr. With additional data now available Karl agrees that 4.9 m per year is probably a more accurate figure.

The angles taken from cairns 1975b and 1982b were measured using a magnetic declination of 22 degrees east. The correct value for this location during mid 1982 was actually 22.8 degrees east. Fortunately the recession rate calculations are not very sensitive to this imprecision.

Glacial Retreat in the Tchaikazan Valley
a-Tchaikazan Glacier 1982, b- Friendly Glacier 1982. John Lixvar/M Irvine



Coast Climbing Notes

Summer 1982 was a very productive season, despite the usual complaints of nasty weather. The Centre Creek area in particular saw lots of activity, undoubtedly motivated by excellent rock and relatively straightforward access. New routes in the area include:

PT 5900

A minor peak at north-east end of Illusion cirque. First ascent (?) and traverse from west (Disillusion Notch) to north-east ridge.

II 5.7, granite. Denise Mihalas and Maxim de Jong.

7 to 8 August 1982. See Avalanche Echoes September 1982.

PT 6500 NORTH FACE, "DISILLUSION PEAK"

The climb went up the centre of the face and involved 10 pitches of which five were quite good. One slimy corner at mid height had to be nut aided. The approach was made from a road system climbing out of the Centre Creek valley before the second crossing. Blake Robinson and John Howe.

III 5.8, A1. July 1982.

SOUTH ILLUSION PEAK NORTH FACE

About 12 pitches 5.9 A3 with much aid on knife-blades. A wall. Descent by rappels (now fixed) to east from notch between north and south Illusion Peaks

Peder Ourom and Craig Thompson. July 1982.

PT 7200, "NORTH NESAKWATCH SPIRE"

The south-west ridge of Peak 7200, the most northerly of the two craggy summits north-west of the main peak of Rexford. Six very enjoyable pitches were climbed, up to 5.8, beginning from the open basin commonly used as the camping spot by those climbing the main peak.

Mike Down and John Howe. September 1982

The nomenclature and relationships of routes are becoming a problem as more activity takes place in the area. "Disillusion Peak" seems to have stuck for the 6500 ft summit at the north end of the Illusion Peak chain and it is hoped that north and south "Nesakwatch Spires" will prove acceptable for the 7200 and 7400 ft towers on the ridge just north of Rexford. Also in the Chilliwack River drainage, several other routes were recorded:

AMERICAN BORDER PEAK "ILLEGAL ENTRY" (EAST) BUTTRESS

2600 ft on very steep snow on buttress at right edge of east face. 60 degrees on summit block.

Blair Griffiths, Dave Jones, Ross Nichol, Don Serl. 23 May 1982. See Avalanche Echoes June 1982.

SLESSE "FRASER RIBBER"

The prominent rib next right from the Lowe/ Keisel. Up to and right across the snow patch then about 15 pitches at around 5.8 on the rib.

Peder Ourom and Hamish Fraser. August 1982.

WILLIAMS PEAK NORTH-EAST RIDGE

Very similar to the south-east ridge of Howe/Serl 1981. Short class 5 steps, much scrambling, minimal bush.

John Howe and Mike Down. September 1982.

WELCH PEAK WEST FACE

Last gully on right before Welch/Still col. 900 ft, 45 to 55 degree snow with odd mixed move, including a precarious (if not roped), mixed move of low class 5 immediately below summit ice feather mushroom.

Bruce Fairley, Harold Redekop, Maxim de Jong. 7 February 1982. See Avalanche Echoes May 1982.

MT McGUIRE NORTH BOWL

The north-west ridge was found to be considerably harder than the guidebook description — stiff 4 or easily 5. So a glissade to the north bowl was followed by 55 degree snow directly to the summit.

Maxim de Jong. See Avalanche Echoes May 1982.

The Anderson River Peaks saw a couple of new lines:

IBEX PEAK EAST RIDGE/FACE

Bushy grooves and cracks plus slabs. A shoulder stand was used to overcome a steep little wall. Eventually bear right to gain north ridge below summit.

600 m, IV 5.10, Keith and Scott Flavelle.

13 July 1982. See Avalanche Echoes November 1982.

LES CORNES EAST FACE

Cracks right of Springbok Arête. 19 pitches, about six pitches each with a point or two of aid. Rather bushy low down.

5.9 A2. Robin Barley and John Howe. July 1982.

Just one new route appears to have been done in the Chehalis:

GRAINGER PEAK SOUTH FACE

Climbs main crack system almost directly to summit. Route starts on right (east) end of a slabby platform. After three pitches move right to gain a large right facing dihedral for two more pitches. Excellent clean rock. 230 m, III 5.10. Scott Flavelle and Rob Rohn.

16 June 1982. See Avalanche Echoes November 1982.

Elsewhere, as reported in the Avalanche Echoes, here's the story:

SPHINX EAST FACE

Three short rock bands (class 3 to mid 5) separated by snow slopes, steep and deep.

Bruce Fairley and John Manuel. 23 May 1982. See Avalanche Echoes June 1982.

SERRATUS PEAK NORTH FACE

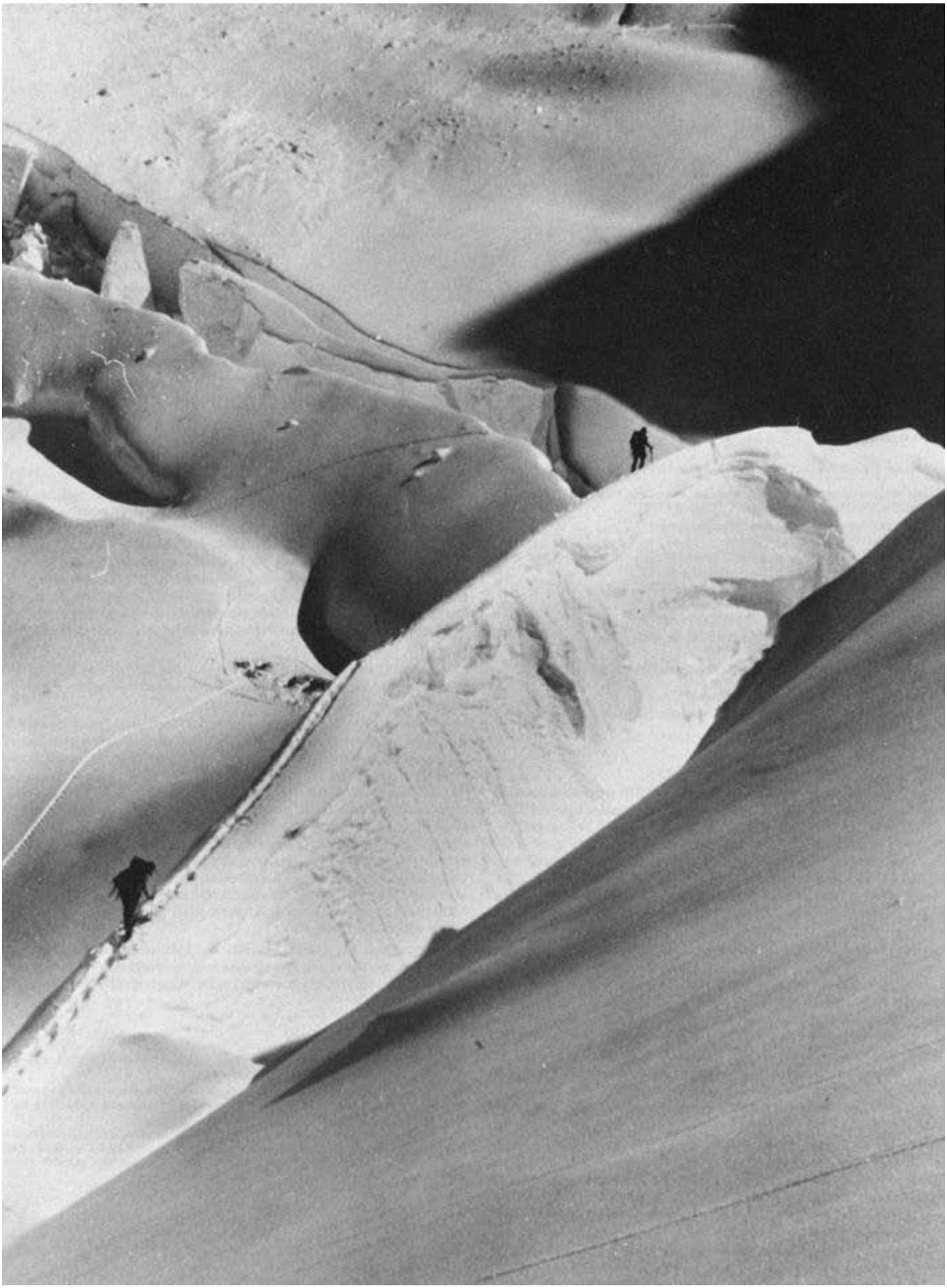
Descend from Alpha/Serratus col into bowl to north and skirt icefall at base of route. Thence easy snow, a belly crawl to force a bergschrund, and 45 degree snow to top. Likely the easiest way up or down.

Rob Driscoll, Bob Stair, Bruce Fairley. June 1982. See Avalanche Echoes September 1982.

THE OLD SETTLER, CENTRE PEAK WEST BUTTRESS

Despite appearances, the first half of this 1500 ft buttress goes

On Mt Logan. Paul O'Sullivan



at class 4 to mid class 5 on the inside (north flank). 5.7 liebacking leads up and right over the cap of an alcove then steep face climbing on the crest ensues. Crux pitch is continuous unprotected 5.8 face, quite reminiscent of its counterpart on the lower half of Slesse's north-east buttress.

4 hours up from lake. Mike Down and Kevin Duck.

20 June 1982. See Avalanche Echoes September 1982.

BEN LOMOND SOUTH-EAST FACE

Start from the highest point of snow on face overlooking Loch Lomond. First pitch low class 5, next two 5.7, last pitch and a half class 4. Rock solid at bottom but deteriorates higher up. Some untrustworthy bush.

3 hours. Rob Driscoll and Bruce Fairley.

10 to 11 June 1982. See Avalanche Echoes October 1982.

NOOKSACK TOWER, "CHESTER MOLESTER"

North face couloir — two moderate mixed pitches plus four of 50 degree ice with hard moves at chockstones to col. 5.4 up east ridge initial pillar, more mixed up a side gully then final airy summit ridge.

9 to 10 hours up, 5 to 6 hours down, via Beckey route — rappels and down climbing. Pat Post and Bruce Kay. 9 October 1982. See Avalanche Echoes November 1982.

Don Serl et al

The Avalanche Echoes is published by the Vancouver Section of the ACC.

Squamish Update 1979 to 1981: A Response

In July 1980 a new route, Mercury Vapour, was put up on the south end of the Papoose. It received some undeserved criticism in the Squamish Update article (see CAJ 1982:60), where the route was deemed "disgraced" by a "pointless bolt ladder" on the second pitch (A3). Such criticism undermines two basic concepts of climbing: how many ways are there to put up a route; who is to determine which way is right or the most ethical? I gather a bolt placed on rappel on an unfinished route is all right (instances of this have been witnessed), but eight holes drilled on lead to connect two cracks is "pointless".

It seems to me we are all guilty of failing to consider the full emotional impact of our words. What seems mildly critical to the speaker can be offensive to the criticized. Climbing ethics are extremely controversial. I will gladly surrender my bolt kit if other Squamish climbers follow suit.

John Verbeeck

Mt Habrich

A new route on the south face between the north-west ridge and the initial route. Ascent is as for the north-west ridge, through trees and mossy slabs. Traverse right at top of gully to base of south face. Route starts west of initial route, up obvious chimney system for two leads (5.8). Continue up and slightly right up gully for two more short leads to final headwall thence blending into initial route. Finish on exciting face holds and flaring crack at top to final wild belay. Thence to summit.

C Cooper

Mt Habrich (5600 ft) new route. First ascent C Cooper and R Shellborn, 15 October 1980. Nine hours return from road at base of Habrich. If hiking allow 2 days. Class 3 to 4.

Golden Ears Park

On 1 March 1981 C Cooper made the first ski descent of the north-east peak of the Golden Ears using cross country gear. Ski off small cornice on north-east face down 200 to 300 ft where slope eases off to a good runout. With sufficient snow it is possible to ski to the West Canyon parking lot. Allow 71/2 hours, depending on snow conditions, for return trip. On 25 March 1982 S Grant, C Cooper and S Cooper skied "Evans Gully" between Alouette Mtn and Blanchard Needle. Beware of snow conditions. At top gully is ca 45 degrees and has vertical drop of 1500 ft. Exit via Evans valley to West Canyon trail. Recommended ski for kamikazes.

Chris Cooper

Mt Robie Reid East Face, First Winter Ascent

Pick up trail on north-west side of Alouette Lake and follow for half mile to North Alouette River, crossing on the Burma Bridge. Stay on east side of river following an obvious trail not marked in winter. Stay on ridge to the first major step. Continue up to break out of forest at the 4400 ft contour where there is a good bivy spot and views of Judge Howay, the Chehalis Range, and the North Cascades. Trail is reasonably steep, requiring three to four hours. From the bivy spot hike up snow to base of east face where the route starts just north of a large granite tower. Steep snow climbing leads to a short steep gully directly under a very huge cornice. Exit to south (left) of cornice to top out beneath east peak. Due to extreme adverse weather conditions the final summit tower on the west end of the ridge was abandoned. A recommended and worthwhile climb under winter conditions.

C Cooper

Mt Robie Reid east face, first winter ascent, 6 and 7 March 1981. Participants: C Espinel, D Timewell, C Acheson, M Blasevich, J Wilfert, A Smith, C Cooper.

Corrigendum: Anderson River Group Climbing Notes

In CAJ 1982:61 the Ibex Peak photo caption should read: ridge facing camera is north-east ridge with east face in shadow on right (see Flavelle brothers 1982 route); south-west ridge is on left skyline.

Anderson River Peaks

LES CORNES: LUMBERJACKS WALL

A route on the south-east face of Les Cornes giving some fine pitches but lacking the overall quality and difficulty of the neighbouring Springbok Arête. Start just right of the toe of the buttress in a snowy recess and climb six to eight rope lengths up the obvious diagonal bushy break, keeping left where possible (5.7 sections). The more difficult climbing begins at an area of decomposed red rock overlooking the ramp of the Springbok Arête.

9. 120 ft. Climb up right over loose blocks then up chimney (5.9) in the left side of a detached pinnacle to belay hole behind,

10. 120 ft. Follow steep layback cracks (5.9) then up left past bush.

11. 120 ft. Continue up crack (5.7) to large level led bivouac ledge (The Landing) with trees below headwall.

12. 120 ft. Climb left up overlap (5.8) then right up ramps and corners.

13. 80 ft. Climb leftwards up face cracks

(5.9) to dead tree then left along heather ramp and step round to below layback crack.

14. 50 ft. Follow crack (5.9 and 4 points).

15. 120 ft. Up easy crack, tension left, and up to steep obvious crack system which is followed (5.9 and 2 points) to a perch in exfoliating chimneys.

16. 120 ft. Up chimney for 50 ft on aid (about 7 points) then move easily (5.8) to belay midst perched blocks.

17. 100 ft. Over blocks then up 50 ft (5.9) to below overhanging crack (off route piton above). Go left along an exposed ramp to good belay ledge or edge of buttress (Springbok Arête).

18. 60 ft. Follow 5.7 groove above.

19. 120 ft. Continue up block filled chimney to summit (5.8).

Robin Barley

First ascent July 1982, John Howe, Pete Shackleton, Robin Barley. About 15 hours climbing time.

Anderson River Group Route Notes

Access to the area via Coldwater Creek is currently no problem. However the Anderson River access is now being decimated by washing out roads — only North Main is passable and it may not be for long. East Main may be the only alternative in the near future. The gate access is now moved to below "Buzzard Pass" quite distant from the Cattermole Camp. However it is open early Friday and on Sunday nights to allow loggers an uninhibited weekend passage from and to work. If not sure contact the current climbing chairperson of BCMC as they have an access agreement with the company.

CHAMOIS PEAK VIA NORTH BUTTRESS

In CAJ 1976 (p 56) there are two reports of the north buttress route. The first ascent was by Ed Zenger and Peter Strange, not by Culbert et al in 1975. The Culbert Party made the ascent of the north-east ridge only.

In 1982 a large party climbed the north buttress route while it was still partially damp. At about pitch 5 or 6 an awkward bulge on a narrow exposed ledge traverse provided great difficulty as it was greasy and has only questionable points to offer any protection. It can be handled with a stooped over, one handed layback (very difficult for some and certainly more difficult than grade 4). Two leads above the traverse across a slab under a large overhang (4) was also greasy with some leaders falling from the belay set up from above, though just under the overhang. The Yosemite experts gave it a 5.7 rating on this day. Scrambling above leads through a chimney with a flue exit (a skylight) and the stream above made the face beside it far too wet — especially its 5.3 slab. To by-pass this final obstacle, traverse left (east) to a ledge and sloping slab which must be crossed on grade 5.7 or 5.8 (wet condition) finger nail moves to reach the northeast corner of the buttress. The corner can be climbed on one very long grade 4 pitch of steps, vertical cracks in corners etc which are generally on its east side. For the descent leave at least 11/2 hours' daylight to reach the nearest and highest logging spur. Proceed to the Chamois/Anderson Mtn col, take it easy on steep snow slopes below (axe required if hard), and traverse to the right (south) back onto the glacieret (rather than proceeding down a long inviting valley) in order to reach the North 611 logging road system below (currently washed out). The Beckey guide underrates the climbing difficulty. Note that rappelling off the north buttress is difficult if stymied by the bulge on the ledge pitch, though some parties have had to go through with this method of retreat.

GEMSE PEAK

From the description in the Beckey guide the descent route is assumed to be the south ridge. If so the July '82 ascent by a large BCMC party discovered that there is one short wall, between an enjoyable slab-ledge combination below and a crumbly krumholz bearing somewhat airy ridge above, that requires either use of a tree from an inside corner or a more exposed climb to surmount. Light snow or rainfall would make these three short pitches low grade 5 situations. On our dry rock descent several people came down on belay. Approach to the south ridge was from the now washed out North 610 road in an ascending north to south traverse through trees to reach to Gemse/Serna col. Stay under the open slabs as nearly all shortcuts through them were found to require a rope. On the other hand a direct descent from the col westerly to the end of N 610 road below was found to be very bushy. Time for return trip from N 610/611 road junction was 4 to 5 hours.

SERNA PEAK

With no known ascent on record Ed Zenger climbed it solo in 1982 (NTD) via a gully on the north side by way of approach from North Main road to the east (N 600 is washed out). 45 minutes to base from road via the Gemse-Serna basin, thence 1/2 hour in gully to peak.

GAMUZA PEAK

The two routes to a first ascent of this peak in 1976 were overlooked in the Beckey Guide. On 15 June 1976 Phil Kubik et al climbed a prominent gully which slashes through the north face to reach the west ridge crest just before traversing east to the summit. The route was not difficult but certainly more sporting than the stroll down its east ridge to Serna/Gamuza col and thence to North Main or N 610 roads below. On the following day Ed Zenger and party astutely avoided a very prominent smooth long and sustained slab to the left (east) of the same gully by ascending a short section of the latter to allow access to the easier right (west) sides of the same slab. However it was 5.5 climbing before latching onto a north-west arête separating slab and gully. This eased the grade to 5.2 and it led directly to the summit. Descent again by the east ridge.

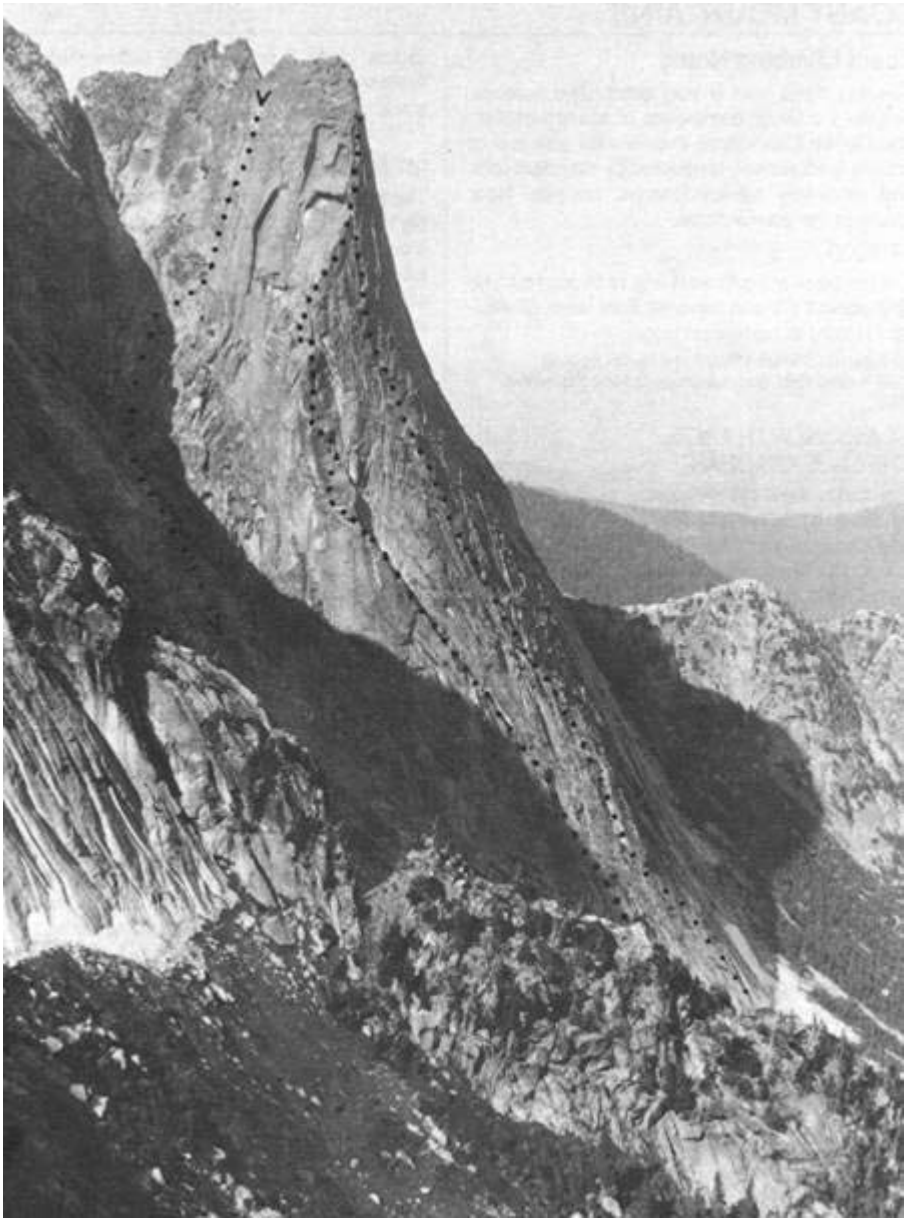
VICUNA PEAK

The second (?) ascent was made by Sev Heiberg and J Gudaitis in September 1981 on the northeast ridge in some new snow. One section could not be climbed head on (the 10m rappel section in the descent) but was out manoeuvred by taking mossy ledges and flakes to the left (southeast) in a traverse before a combination of crack and narrow ledges led back up to the crest. The summit is narrow. Descent via same route. 3 hrs return from Guanaco/Vicuna col.

GUANACO PEAK

Approach via the new Coldwater Creek logging road from Coquihalla Pass. It terminates on the east slopes common to Vicuna and Guanaco, and a bushy ascent (now logged?) leads to expansive gentle slabs in the sub-alpine and alpine zones. Reaching the col between the peaks the route stayed just east of the indistinct south ridge on ledges, benches, short gullies etc to reach a large flat summit. NTD. The snow was knee deep which discouraged more adventuresome routes that abound aplenty.

Anderson River Peaks: Springbok arete left, Lumberjacks wall right. Robin Barley



Large BCMC party led by K Ricker. Time from road to top 3 hours or so. No cairns were found on the summit which was surprising to us but not to local, Norm Hansen, who accompanied the party.

THAR PEAK

Surprisingly, a large BCMC/ACC party did not find a cairn on this easy summit in 1978. However it is an ideal goat hunter's vantage point. Route directly up east slope from pipeline road near Falls Lake or from Thar/ Nak basin (camp site) with ascent on easy south slopes. This peak is not in the Needle Peak Pluton and hence there are no large slabs, though steep loose mossy rock rises spectacularly from Falls Lake to its summit.

ALPACA AND ZUBJOK PEAKS

Finally it should be noted that the map in CAJ 1976 (p 55) has reversed the location of Alpaca. (1st ascent, Kubik and Zenger via north-west ridge, 1965) and Zubjok Peaks. However, the Beckey Guide and Federal Map both have it right.

Karl Ricker

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Slesse Mtn North-West Face

A new route located between the original 1959 (Beckey, Cooper, Claunch) route and the west pillar 1977 (Allen, Tooley, Zecchel) route. Take the normal approach to the foot of the north-west face via gully to ramp at base of face. Traverse right on ramp (south). Climb starts just north of west pillar and is mostly face holds and cracks to 5.7. Second pitch has poor protection where one is forced left and up to a good belay on superb granite. Belays good. Rock mostly good. Exit near summit on west pillar route. 12 nuts should suffice.

C Cooper

Slesse Mtn (7970 ft) new route north-west face. First ascent C Cooper and G Morris, 28 July 1980. 3 to 4 hours. Grade II 5.7

Two New Routes on Lindeman

For a number of years climbers on Rexford have looked across at Lindeman to see what appeared to be a fine unclimbed north ridge. A glance at the map sheet seemed to confirm that such a ridge existed but when Harold Redekop, Max de Jong, and I finally got close to the base of the climb in the spring of 1981 we discovered that appearances can be deceiving and that map sheets sometimes lie. There was a sort of ridge all right but it was more like the terminus of the north face than a pronounced feature in its own right. It was just as well — Harold had forgotten the rack. We left it alone and instead made a complete ascent of the integral west ridge, an enjoyable class 3 jaunt which involved one rappel.

In late August 1982 I again found myself back in Centre Creek valley. This time I was with Rob Driscoll and sniffing around for a line on one of the Illusions. Rob however was committed to attending a party the next evening which did not give us much time. While castigating this warped sense of priorities I remembered the still untouched line on Lindeman and we climbed it the next day in about ten hours return from Centre Creek. It went for seven pitches, only five of which were moderately technical, the other two being class 3. Some nice face climbing was involved.

That left the east ridge, known to most Chilliwack climbers and some others as one of the few remaining prizes of its kind left in the Chilliwack valley — a sharp, blocky ridge which seemed to promise fine

climbing on fractured granite.

I had by now realized that the way to approach this ridge was also via Centre Creek. John Manuel and I were scheduled to go wall climbing at Squamish on 17 September. I arrived early to find our fixed rope from aeons before hanging an unreachable 40 ft off the ground. John was very late arriving and we decided that the weather was too fine for hanging around on the gloomy and bushy North Chief. We made an instant decision and drove to Centre Creek that afternoon.

The bivy was cold. We set off at 7 am for the huge cut that slits the east ridge into two sinewy spines, one atop the other, trusting it would be a gully. It was — dirty, loose and treacherous. Two points of aid were needed before we gained the ridge proper.

"Seems Madam?" said Hamlet. "Nay, I know not seems." A good motto for climbers! What "seemed" a sharp blocky ridge proved to be, for the first half, embarrassingly within the ability of any hiker. As for the blocky upper arête, it yielded a lot of slab climbing, some of it rather thin. John took quite a tumble on a Leeper which I later extracted with my fingers. We left the final blank headwall alone as it "seemed" to require both bolts and time, two commodities we were short of, and arrived on the summit at 5 pm. Although there was some tricky climbing involved the route was not the classic line we had hoped for. Descent (John Howe please take note!) was via the open basin to the west — a little easier than the descent from Rexford South!

Bruce Fairley

East Ridge Mt Lindeman. Climbing to 5.8 A2. Take a medium sized rack, including a knife blade. North Edge Mt Lindeman. Climbing to 5.6. A rack of a dozen pieces should suffice.

Climbs Round Rutledge

Many Vancouver climbers are still surprised to learn that there are some pretty good sized glaciers in the country south of Skihist and west of the Fraser River. Mention Skihist and a picture of dry ridge crests and dusty scree comes to mind. Nonetheless a few climbers have known for some time that to the immediate south the gentle glaciers of the Kwoiek region provide good access to a number of fine peaks once the initial defences of bush have been overcome.

View from North Main Road of north-east buttress of Steinbok
(Middle ridge on lefthand peak), Les Comes/Chamois massif on right, and north buttress on righthand side of Chamois. K Ricker

North basal slabs, north arete, and north gully (snow) of Gamuza Peak
From junction of roads North 610 and 611. K Ricker

A BCMC spring trip to Mt Mehatl coincided with a jaunt I had planned into the Rutledge Glacier area, the most westerly of these ice sheets. Sprained knees and other commitments whittled down our small party, so only Ellen Woodd and I packed the necessary week's food up through mosquito plagued bush and beaver swamp for an extended stay, along with the weekenders from the BCMC. We camped high, just below the north-west saddle of Kwoiek Peak (pronounced Ky-eek) for a high windy but relatively bug free vista.

Sunday the entire corps of twenty-one flung themselves at Mehatl, mostly climbing the peak via the north face; Ellen and I said goodbye to the hurrying weekenders at the base of the climb and then set off for Kwoiek. We were able to complete a south to north traverse of the massif before nightfall, a project which involved a rappel and some tricky traversing on the south spur summit.

Gamuza
Basal slabs of north arete (snow patches on central ridge) and north gully to right of ridge, and west ridge (right side), from near summit of Gemse Peak; note the two tiny glacierets and their encompassing morainal loops. K Ricker

The next day we followed the ridge leading north-west from the saddle in brilliant sunshine and after some five hours found ourselves on a cairnless summit which we had eyed the previous day. The climb was mainly class three, with minor fourth and fifth on the final few hundred feet. We named this blocky summit "The Woodpile" and returned to camp via the broad glacier to the north.

Ellen had pointed out a peak shaped like a Crestline tent some 7 kms down the glacier as a possible objective for the following day. The peak can be located on

the Stein Lake map sheet 2 kms due west of the snout of the Rutledge Glacier. "I suppose you'd want to climb one of those north buttresses," she said rather ruefully but I assured her that the fine looking south-east ridge would be a sufficient challenge.

The route down the Rutledge and across moraine and snowslopes to the south proved straightforward the next morning but some pretty black clouds were rolling in as we raced for the base of the ridge. The climb was steeper than expected and we pulled out the rope in one spot as a gesture to the exposure. No cairn again. We scribbled a note and rattled off back down the ridge, racing rainclouds to no avail. We were pelted for most of the return trip and our tent was all but hammered into submission throughout the night. The storm precluded further climbing in the area and we left amid whirling and unseasonable snow.

This is granite country and well worth a visit. The road up Kwoiek Creek is driveable to the end, thence three hours of bushwhacking. Take plenty of bug juice.

Bruce Fairley

McGillivray Pass ACC Ski Camp, 21 to 28 February 1982

We were eight participants, all with downhill touring equipment except John Gray and Joan Dies, our cook, both of whom used cross country skiis. John's "Atomics" cut such swashbuckling telemarks as to leave us all filled with awe and admiration, wondering why we were using such heavy gear when the same beautiful curves could be carved with as much pleasure and less struggle.

Due to rainy weather we were not helicoptered in on Saturday the 20th and so spent the night in the ACC hut at Whistler and did a late afternoon practice run on the mountain. Sunday morning the helicopter took us in from D'Arcy. After lunch we skied on the fine fresh powder of the south facing slopes under Mt McGillivray. A snow pit, dug that same afternoon revealed a six inch layer of powder resting on three feet of consolidated snow, with about a foot of depth hoar below. There was no evidence of slab avalanche activity.

The weather remained uniform throughout the week — not too cold, overcast for at least part of each day (sometimes the whole day), and rather prone to precipitation in the form of wet snow. One day the humidity was high and although no snow fell the heavy, soggy slopes made skiing hard and hot work. Several times we skied on Telephone Ridge, north and slightly west of the cabin, which provided easy access, rapid ascents, and most satisfactory descents, especially from the top of the ridge down into the glorious little west bowl.

Most days we came back to the cabin for lunch but we did make two all day trips. The first was to Mt McGillivray where two of our party left their skiis on the ridge and climbed to the summit in the teeth of a very chill wind. The rest of us had a few marvellous runs under clearing skies in the north-east facing bowl south of the peak. It was here, on the slopes to the east, that we saw the debris from recent slab avalanches. We enjoyed a fine 1300 ft run down to the valley, a most satisfactory end to a day which began in sunshine, degenerated into obscurity and windy squalls, and ended finally in peace. Three of our number — John, Brian, and Jim, the "hards" — did not call it quits until they had ascended Telephone Ridge for yet another run down to the cabin. The rest of the group trooped along the valley floor.

During our second all day outing we could be seen ascending yet again the famous Telephone Ridge, from where we skied back down into the valley, heading north under a fall of soft, wet snow. We made our way to the UBC cabin then continued on until we came to the tiny lineman's shack where five husky lads were installed in very close quarters. We lunched with them and then headed up a steep trail towards Royal Peak. The upper slopes were crusty and windy; the skiing was much better as we moved down through the trees.

On Friday morning, our last day at the cabin, we skied down the valley to the south-east, through the bush to the east, around the little lakes and meadow, back to the cabin under "Ruthie's Peak", and finally down some nice tree covered slopes — an exploratory circuit! After a leisurely lunch some of the group skied their farewells to the slopes of Telephone Ridge and McGillivray. It was a humid slushy day. No one was feeling too energetic; we were rather satiated with good skiing.

One of the many pleasures of this camp was the food. Delightful, innovative dishes awaited us at each meal. Joan Dies does not do ordinary fare. We were treated to fresh salads each day, both vegetable and fruit, and found ourselves facing a tempting array of five or six dishes each time we sat down at the table. There was Greek moussaka, Mexican retried beans, Lebanese pita bread, English whole wheat muffins and eggs, Indian curry — there was no end to the supply and all on a modest budget!

Small wonder that at 7 am on Saturday we reluctantly bid good-bye to our luxurious cabin, now dark and empty, boards over the windows. We had fine weather for the ski out but had some difficulty on the trail — a bit of bushwhacking when we dropped too low. Joan and Andrea found it tough and slow going — Joan had cross country skiis and I no edges. Our troubles were not over when we reached the logging road for although we could see our destination below, McGillivray Falls on Anderson Lake, we couldn't find the trail down. After several false starts we chose what appeared to be a trail leading down from the power line road, found it marked "Private", followed it anyway for it was now dark, and ran smack into a glorious cedar and glass home where our hosts, Gordon and Pam Coots, insisted we spend the night. And so, in congenial company under a weak spring sun, we whiled away the Sunday morning until we caught the train for D'Arcy. What a finale!

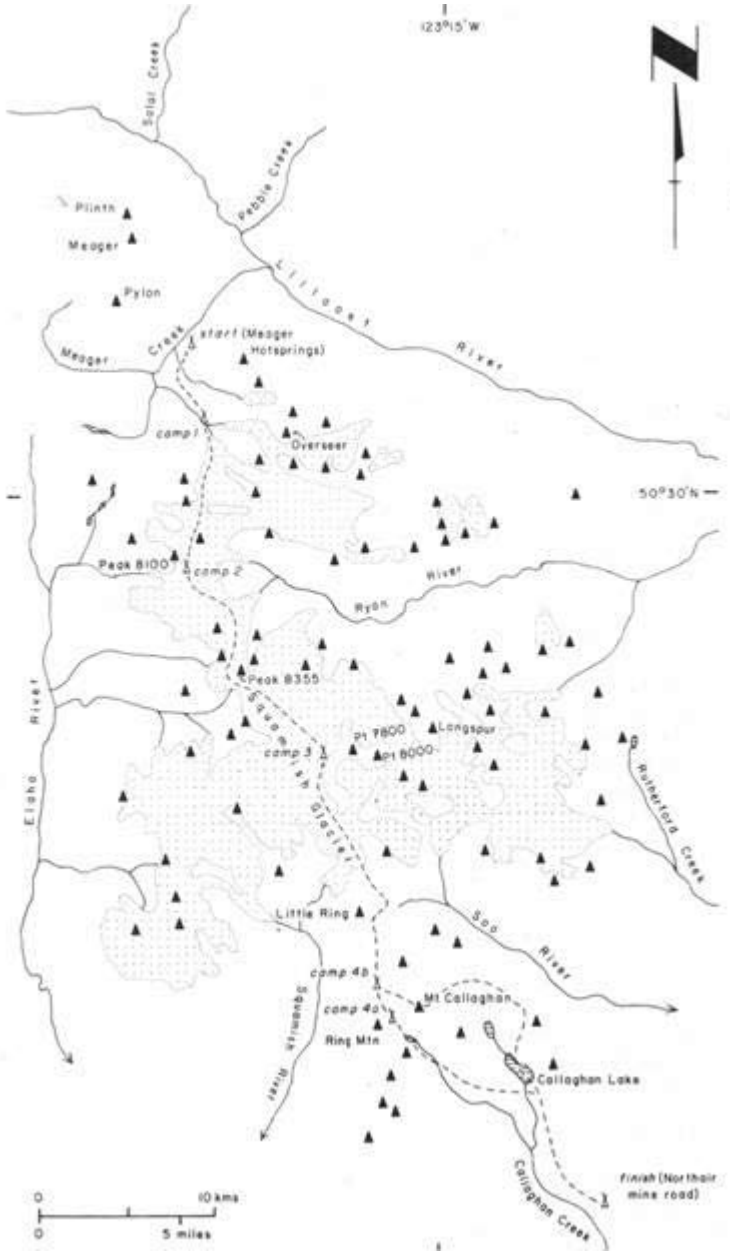
We learnt that maps and instructions can be deceptive and that the trail is to the south of the river and falls that lead down to McGillivray. We were on the north side of the river.

Andrea Rankin

Participants: John Gray (camp manager), Joan Dies (cook), Art Breitsprecher, Ann Hahnel, Jim Kirby, Brian Money, Andrea Rankin, Garth Thompson.

Pemberton Icecap Traverse, 5 to 10 April 1982

This little outing started life as a week in the Manatee, developed into a more ambitious expedition to the Compton névé,



had a stake driven through its heart by the weather, and was resurrected as a tour from Meager Hot Springs to Callaghan Lake. The transmogrification was entirely successful, pleasing, and satisfactory. The touring was magnificent but moderate, the weather crystalline. The company was a rich blend of zanyness and skill, drive and ineptitude, adventurousness and inexperience, calm and competence.

The most remarkable aspect of the trip was, as the cliché goes, that it nearly didn't happen at all. Saturday and Sunday were both miserable days, spent in the Whistler cabin with forays onto the pistes and onto Gin and Tonic Ridge. Choppering in was clearly out of the question. Only a weather forecast for improvement, a quick change of plans, and a commitment in the face of improbability led nine of us to shoulder packs and set off south into the woods at noon Monday under brightening skies. Five hours later the first camp was set in a fine clearing at the junction of a couple of creeks west of Overseer Mtn about an hour short of treeline. We got away at 8 next morning in cold clean air and continued south to break out into the open at 9 and cast off into the vast complex of glacier and icefield ahead. That day we covered about 10 kms, climbed 4000 ft, bagged a summit of 8100 ft (at grid ref 667903), and eight hours later settled into a camp in the glacial bay east of the peak overlooking the upper Ryan River. It was -14°C as we hit the sack with the mauve tinge to the sunset promising continuing fine days.

The frost kept us abed Wednesday morn till the sun's warmth began to be felt. Then we drifted south and south-east until we crested over from the Ryan drainage and onto the upper Squamish Glacier. Lunch was followed by a trip up Pt 8355 (grid ref 714846), the hub of the vast sprawling area, offering memorable panoramas of the familiar and the distant: from Ashlu to Whitecap, from Tinniswood to Joffre, from Garibaldi to Monmouth. A long easy run down the upper Squamish deposited us at a camp against its true left side with slopes above giving access to peaks to the east. The thermometers read -19°C as we settled in that evening.

Next morning the party split. I headed for the road with Sue, hoping to make a meeting in Calgary on Saturday, while the others remained to bag summits. We had crusty snow to contend with down to the exit from the glacier then soft heavy going up behind "Little Ring" and down into the meadows west of Callaghan. A long trudge in the late afternoon brought us to a camp in the col between Ring and Callaghan at sunset. Next morning's descent to the lake below is better left undescribed but the skiing through the meadows below is remarkably aesthetic. A final leftward angling traverse got us to the Callaghan Lake road and a long swoop (once we discovered the right klister) out to the cars as the sun set. Needless to say I missed the meeting.

Meanwhile the others climbed the two 7800 to 8000 ft peaks south-east of camp and then skied down north-east to reach the base of Longspur. Snowslopes and the west ridge brought them to the top in the afternoon and it was well into evening when they regained camp to finish their "rest day".

Friday they followed our tracks down and off the Squamish and up and behind "Little Ring". They had their final warm friendly camp in the meadows west of Callaghan. Next morning they headed up Callaghan, obviously still bursting with energy. A descent north and north-east brought them to a pleasant open wooded valley dropping south to Callaghan Lake and ski tracks on the road beyond. A couple of hours of easy gliding later the tracks ran out into the gravel of the Northern Mine road and the "Pern-Cap" traverse was finished.

Don Serl

The good times were shared by Robin

Tivy, Steve Grant, Helen Sovdat, Ellen Woodd, Jenny Smith, Harold Rydell, Klaus Haring, Sue Slade, and Don Serl.

The only previous recorded crossing of the "Pem-Cap", helicopter supported as the roads were not so developed in the ancient past (1969), traversed from the Overlord area through to the ridges west of the upper Squamish Glacier thus coinciding with our route for about a day and a half. The report in The BC Mountaineer (August/September 1969) makes it appear that both Peaks 8100 and 8355 were bypassed on their trip and thus our climbs are first ascents. They did however reach the two lesser peaks above the Squamish Glacier and also Longspur in a similar long day as our ascents.

Wedgemount Access Dilemma

In 1973 it was no trouble whatsoever to drive to the end of the logging road at the Wedgemount Creek trailhead footbridge crossing. Above there was no windfall because veteran Paul Binkert and his small band of volunteers had just completed another saga of volunteer trailmaking and maintenance. A two hour long burst, even when pack laden, put the hiker at the lake despite the 1000 m climb in only 4.5 kms of trail length (22% grade average). At the hut a note left by two park rangers complains about the steepness of the trail yet there is little to see in the way of upgrading or maintenance on their part. By 1975 we pictorially reported (CAJ 1976:36) the washout of the final kilometre of road to the trailhead. Still no action. Though the remainder of the road had its ups and downs over the next five years, one or another vehicle could always manage a passage. Then followed the climax Christmas storm of 1980 (CAJ 1982:51) which only moderately washed over the road but did take out a too small culvert to add another 1/2 km of unusable road; the always shaky Wedgemount Creek footbridge was now reduced from two to one usable but slippery log and a hand line. Soon after our 1981 visit another climax storm removed more culverts and further roughened the road surface, limiting passage to cobble gobbler four wheelers which in essence knocked out another kilometre. Now, with skillful driving, a high slung or short wheel base car can make it 1.7 kms from the highway — if lucky enough to get through a new gate hung over the Green River bridge adjacent to the highway!

The wisdom and the authorization behind the installation of this obnoxious piece of ironmongery are suspect. It appears that the bridge and access road, originally built by loggers, have been abandoned or turned over to a local sand and gravel firm which has a substantial operation including pits and asphalt plant on Special Use Permit granted land. Equipment shuttles between pits and plant cross the access road at blind corners; so there is a Monday to Friday and occasional Saturday traffic hazard. However the real reason for the gate may be the 1980 storm which washed out the bridge. Apparently the government refused assistance in rebuilding, despite use by citizenry, BC Hydro, and government agencies. Thus one or both issues brought the gate which was not resisted at all by the Parks Service but installed without the knowledge of Doug Herchmer, in charge of recreation for the BC Forest Service in the area. Special Use Permits issued by the BCFS deny the blockage of access, clearly stating Special Condition No 2. However the Forest Service has the right to pass administration of a permit to the Ministry of Lands, Parks and Housing. Apparently this permit may have gone that route, with the twisted incongruity of the public allowed passage through the open gate during dangerous operating hours, but denied safe use after hours! In the morning the hiker takes his vehicle through but at day's end cannot bring it out onto the highway because the pit men have gone home, locking the gate behind them. What expletive would describe such a morbid act as this?

For our 1982 field trip (see Wedgemount Lake and Glacier Studies this volume) we managed a gate key to eliminate the "pitfalls". It was a steaming hot day to hump our heavy loads of survey gear to the lake on the most unpleasant cobblestone road. It was obvious that four or five properly supervised over-sized culverts as well as a bit of post-logging era road maintenance on the Forest Service's part could have eliminated this one hour of extra walking — for those starting from the highway. This was certainly the case for 20 carloads of people already ahead on the trail. The creek bridge crossing was reached, totally wiped out; previous hordes of summer hikers had stamped out an upstream bypass which used a series of snags, courtesy the ever resourceful loggers, to lead over a very frothy and dangerous stream. One slip on these logs and a child could be swept downstream under other logs without time to recover. Any liability case would have to be directed against both the Parks and the Forest Service because this crossing is outside the park. How do the two get together to do something constructive? Well, Doug tried and got the brushoff. The "Parkies" said Wedgemount was only of interest to the mountaineers — a breed of cats who need the ardours of a rough dangerous trail we presume.

Well the thinking is very warped, and is incompatible with the nearby alpine village dependent in the summer upon enticing tourists by inspirational walks to scenic delights such as glaciers. Of 20 carloads of Wedgemounters on the weekend of our survey only four carloads were climbers. The hut log shows this to be a normal ratio for most summer visits, and obviously it's the unique view that will always bring them here. Another twist is the unfortunate advent of the heli-hiker who flies in from Whistler and walks out.

Having spent some time on Oregon's logging roads and trails leading therefrom summer 1982, it is refreshing to see that long after industrial use both are kept in good order, and the same applies elsewhere (for example, Alberta). British Columbians are no longer willing to accept less — it's false economy, an insult to the intelligence, and the export of a horrible display of downright shoddiness — not second class; rock bottom. Need more be said?

Karl Ricker

Two Miles and a Half

Ascent of Mt Davidson (east of Garibaldi Lake) from Rubble Creek carpark via Panorama Ridge, Gentian Peak, and Castle Towers.

L'ascension de Mount Davidson (a l'est du lac Garibaldi) du pare de stationnement du ruisseau Rubble par I'arête Panorama, le sommet Gentian et Castle Towers.

"...there is no quality in this world," wrote Herman Melville, "that is not what it is merely by contrast." That is what I was thinking, or at least feeling, as I stretched out prone on the soft green carpet in Gentian Pass that morning and allowed the

sun's arrows of warmth to pierce my back. Then I ceased thinking, passed through a phase of genuine relaxation, and sank into the restorative sleep that only fatigue can bring. A short time before I had been crouching with Don Berryman and John Pratt under a boulder high to the east, staring into the darkness and listening to the patter of "0% chance of precipitation" as it greased the lichen covered rocks on the slopes around the "Castle Towers Hilton".

Some weeks earlier, in one of our not infrequent attacks of megalomania, the idea arose that it might just be possible to climb Mt Davidson from the highway and return in a day. No one took the trouble to check the distance or the cumulative elevation gain involved with the result that the idea did not go away. Indeed the prospect of bouncing over Panorama Ridge, Gentian Peak, and Castle Towers along the way was actually contemplated with pleasure. The 'Davidson Day Trip' had been born! Challenge — that's what it's all about I suppose — that and having a good time. Set a goal, stretch the limits a bit, go for it! Otherwise what is the point of dreams?

3.30 am on 10 July 1982 found us padding up the Black Tusk trail in sneakers, our boots stuffed on top of our packs and our bobbing head lamps creating weird silhouettes among the trees. Passing through the upper meadows the bright moon faded, the sky turned blue, and the spring snow pack forced boots and running shoes to trade places. It was a morning to be alive! Feel that sun! Breathe that air! Gaze from the summit of Panorama Ridge into the gigantic blue-green mirror of Garibaldi Lake! Legs and eyes all yelling out for more — it sure was good. Thanks God.

As children on a great roller-coaster we trundled into the next col, discovering only too late that Don's camera had stayed behind at the cairn. John and I took our leisure in the sun while the divagatory item was retrieved. Our sneakers were cached on Gentian Peak and we edged our way into Gentian Pass on a steep slope of flowers. Mt Guard appeared as an impressive turret, putting further crazy notions in our heads. This however was not a day to stand on Guard so we marched up the ramp toward the Castle. Unfortunately the drawbridge was missing and, true to form, we did not choose the best way past the moat, a grotty little gap at the 7500 ft false summit. Some snow plodding and boulder scrambling gained for us the westernmost of the three Towers. Once in the notch we roped for a couple of moves to reach the true summit at 1.30 pm. Here we took a good long rest, enjoying the sun, the scenery, the total absence of wind, and all those other tangibles and intangibles that one in such a situation enjoys but can never quite put into words.

As might be expected from well designed mountain topography Mt Davidson is not visible from the topmost turret of Castle Towers, being hidden by the east spire of the latter. However a rappel into the next notch and a quick scramble gave us the desired view of our objective across the Cheakamus Glacier. The soft wet sloughing snow and a few open body snatchers dictated caution for the descent to the flat névé whose seemingly infinite width actually took only about half an hour to cross.

The south-south-west ridge of Davidson is a collection of the nicest granite boulders I have ever had the pleasure of caressing. We left our packs on some rocks and revelled in the scramble up the sun-baked steps high above Isosceles Creek. It had been worth the effort. Instead of traversing some ledges on the south face (an impressive wall) Don led a single pitch nearer the ridge top and finally flung a joyous hand into the air with the wee cairn at his feet. John and I soon joined him. It was 6.

Don Berryman atop Mt Davidson. S Briggs

We did not conquer the mountain. We did not subdue it, subjugate or humiliate it as mountaineers are often it seems, imagined to do. In fact we were feeling rather subdued and I doubt if Mt Davidson even noticed our passage as we reversed the pitch and toddled back to the packs, not looking forward to the return slope up the Castle.

More fuel was poured into the human furnaces and the twice infinite trudge across the Cheakamus Glacier led us into the shade on the freezing eastern slope of CT. A few humble thoughts about our little 'day trip' had already begun to cross our cumulative mind when Mother Nature decided to subtly but effectively rub the message in a little deeper. Silhouetted high on the north-east ridge two mountain goats post holed their leisurely way to the east summit and disappeared. Footprints discovered later showed that these dumb beasts with neither rope nor ice axe between them had traversed high on the north face of the mountain, passing in and out of both notches along the way.

At sunset a tired trio topped the east peak. From the notch three short pitches in the fading twilight put us again on the main tower of the Castle. It was 10 pm. The rope stayed on for the climb into and out of the next gap and on reaching the west summit we found that the day had gone dark. It was a light sort of dark though — that in between situation where you can just about do without the head lamp for a while. Still hoping to reach Gentian Pass that night we grovelled downward until Don discovered, just before the ugly little false summit, a huge overhanging boulder. Here we unanimously agreed to 'take a break'. However once huddled under that rock we could not bestir ourselves. We had been going for more than 20 hours and had completed more than 11,000 ft of ascent. Tired? You could say that.

Each one put on all his clothing. Don crawled into the deepest recess and subsequently revealed his presence only by intermittent snoring. John had actually brought his sleeping bag and managed to catch 60 or 80 winks in a semi-reclining granite lazy-boy chair. I tried sleeping in different places and positions but would scarcely nod off when a chill would wake me or my leg would 'go to sleep'

alone. I stood quite a lot and danced to keep warm. Several times I fell asleep standing up, only to wake instantaneously in time to prevent actually falling over. In fact nobody slept very well. Later in the night Mother Nature pulled a grey shroud over the Castle and the water that strained through it made us thankful for our rocky shelter.

When darkness gave way to light inaction gave way to descent. As the morning clouds yielded to blue sky and glimpses of the sun we boot skied into Gentian Pass and stopped for a real rest. We drank the wonderful water, felt the soft grass and soaked up the solar warmth. For nearly two and a half hours I slept; truly it was "sore labour's bath" and "chief nourisher in life's feast".

The trudge up Gentian Peak was rendered almost pleasant by a hillside of colourful flowers and by ever beautiful Garibaldi Lake. A fast boot ski took us to the next col and the subsequent grind up Panorama Ridge. Crossing the meadows below Black Tusk seemed somehow to take forever and for all I know we might have circled them three times. Direction didn't seem to matter much just as long as we kept moving. At 4 pm we plodded into the parking lot, over 13,000 ft of rise and descent behind us, our 361/2 hr 'day trip' at an end. "One of those heavenly days," as Wordsworth said, "that cannot die."

Sandy Briggs

Spearheads Traverse: Pattison col; rock tower on left is sub peak of Mt Pattison. Rob McClaren

Skiing down McBeth Glacier with Overlord Peak centre right. Rob McClaren

The Mopping Up Crew-Spearheads Traverse

After a late start on 6 March our party of four decided to use the ski lift at Blackcomb for an alternate solution and a quick start to a fantastic ski traverse. Riding the lifts almost turned into an hilarious epic! After riding singles to the top of the second chair Steve had a bright idea. Why not try doubles on the last chair to the top? The strategy was stand on the line, hold packs so they land in middle of chair, chair comes round and whoosh, we're taken off our feet and hanging on for dear life. The plan didn't work — the packs landed behind us. Despite exchanging roaring laughter we knew the situation was serious, hanging onto only six inches of seat. Thoughts running through our minds of the 40 ft plummet to the snow below were not quite so funny. After some very tense moments we were able to move the packs just in time for "lift off" at the top. I found myself in a heap at the bottom of the third ramp. Great start!

Well here we are, ready for the long plod into the mist to the first col north-west of Blackcomb. When we arrived the weather to the west looked very appetizing. We snapped a few pictures then off we went, floating through eight to ten inches of fine powder. We dumped our packs at the col between Spearhead and Blackcomb Peaks. Spearhead looked attractive enough for a ski descent so off to whet our appetites. The afternoon had progressed quickly so we skied down to the Decker Glacier where we made our first camp. After a few hours of construction we had a deluxe quinzhee (snow cave type shelter) for the evening. Chris managed to whip up a great dinner and shortly after we turned in.

Next morning we awoke to glorious sunshine. Steve, not wasting any time with breakfast, was ready for yet another summit. We watched him make formidable jump turns off the north flank of Decker Mtn while we had a good breaky. By 9 we were packed and ready for the highlight of the day, a ski down the gully between Decker and Trorey. Upon arrival at the notorious gully, which didn't appear too bad, we decided that our packs should make the first run to the Trorey Glacier 800 ft below. The new Lowe expedition pack broke all speed records and Steve's shovel got loose and was airborne for hundreds of feet. Now to ski the gully — plant a pole, make a quick turn to left. The skiis start to chatter on the ice, side slipping for fifty feet. Rather gripping but one more turn to the right offered some fine parallel turns in good powder on steep ground. We are into a great trip.

We collect our gear and are off to the col between Pattison and a tower of fine granite which looked to offer some good rock climbing. From the Pattison col there was yet another fine steep run to the Tremor Glacier. Hard to take! The climb from the Tremor Glacier to the Shudder/ Tremor col at 8500 ft was one of the longer plods. The view from the col is breath-taking — the icefall off Mts Fitzsimmons and Iago, the

Platform Glacier, Ripsaw Peaks and Mt MacBeth. A short traverse of the Platform, Ripsaw, and Naden Glaciers brought us to an enjoyable bivy site between MacBeth and Couloir Ridge at 8000 ft. Now we are committed!

Third day of our trip; weather still holding together. We get an early start down the MacBeth Glacier. Looks great. This is the ski run of the trip with the endless turns in four to six inch powder that all mad dog skiers dream of. This run from MacBeth col to the Fitzsimmons Glacier offers about 1700 ft vertical with the last 700 ft being very steep (approx 35 to 40 degrees). The slope would be dicey if not skied early in the morning.

A short traverse over the Fitzsimmons Glacier took us to the foot of the crux, a steep snow climb in places up to 40 degrees which could avalanche at any time. Fortunately we survive this one and breathe a sigh of relief on the Overlord Glacier, 1200 ft above the Fitzsimmons cirque. A short climb to the Fissle/Whirlwind col gives us another great ski to the hut at Russet Lake, where we arrive mid afternoon. The weather has deteriorated enough that the ceiling hovers at the 7000 ft level. What luck! We have plenty of time to make some enjoyable runs downhill from the hut.

On 9 March weather conditions worsen so we decide on a relaxing trip via the Singing Pass/ Fitzsimmons Creek exit rather than over the Musical Bumps to Whistler. The race through the trees is enough to keep anyone on his toes; with excess speed one could fly off the corners and become airborne on occasion.

Fortunately we all manage to survive the trip without any major altercations. This ski traverse is a classic under favourable weather conditions.

C Cooper

C Cooper, S Grant, C Espinel, R McLaren, 6 to 9 March 1982. Skiing time approx 22 hours. Passes to climb 10. Glaciers crossed 12. Peaks climbed by some members of the party were:

The Spearhead (8000 ft), Shudder Mtn (8800 ft),

Ripsaw Peak (8700 ft), Decker Mtn (7900 ft),

Quiver Peak (8800 ft), Mt MacBeth (8600 ft).

We found that the Fischer Expedition and Kazama skiis were trouble free. Bindings used were cables and three pins, boots were Asolo Sport and Kastingers.

Corrigendum: Exploring Strathcona Park, Vancouver Island

Part V — The Second Ascent of Mt Elkhorn, 2 to 6 September 1949 (see CAJ 83:27).

Pinder Peak Area

Pinder Peak (5060 ft) is a prominent double peak south of Atluck Lake on northern Vancouver Island. To the south-west of it are three other major peaks along the same ridge. The southernmost is named Mook Pk (4950 ft). The two middle ones are unnamed.

In August 1981 Rolf, Heather, and Markus Kellerhals visited this group. We approached it from the west, along Cantor's Atluck Lake logging road and then up a new spur road in the valley south of Pinder Peak to about 2000 ft. We walked near the creek for a while before cutting up a gully to reach the col between Pinder Peak and the bump immediately south of it. We camped here at 3500 ft.

The next day we traversed down to a small lake south-east of our camp site and from there climbed the double summit south-west of Pinder without difficulty. The summits were both 4850 ft. From the eastern summit we continued more or less along the ridge to the next peak, Point 4938 on the NTS map. It had about 75 ft of class 3 climbing on the final summit.

Both summits appeared to be unclimbed. We are suggesting the following names: The Stone Trolls for the double summit south of Pinder and Baraddur for Point 4938 — after the Dark Tower in the Lord of the Rings as from the road to Zeballos it appears like a prominent tower.

Markus Kellerhals

Mt Tatlow—An Access Trick

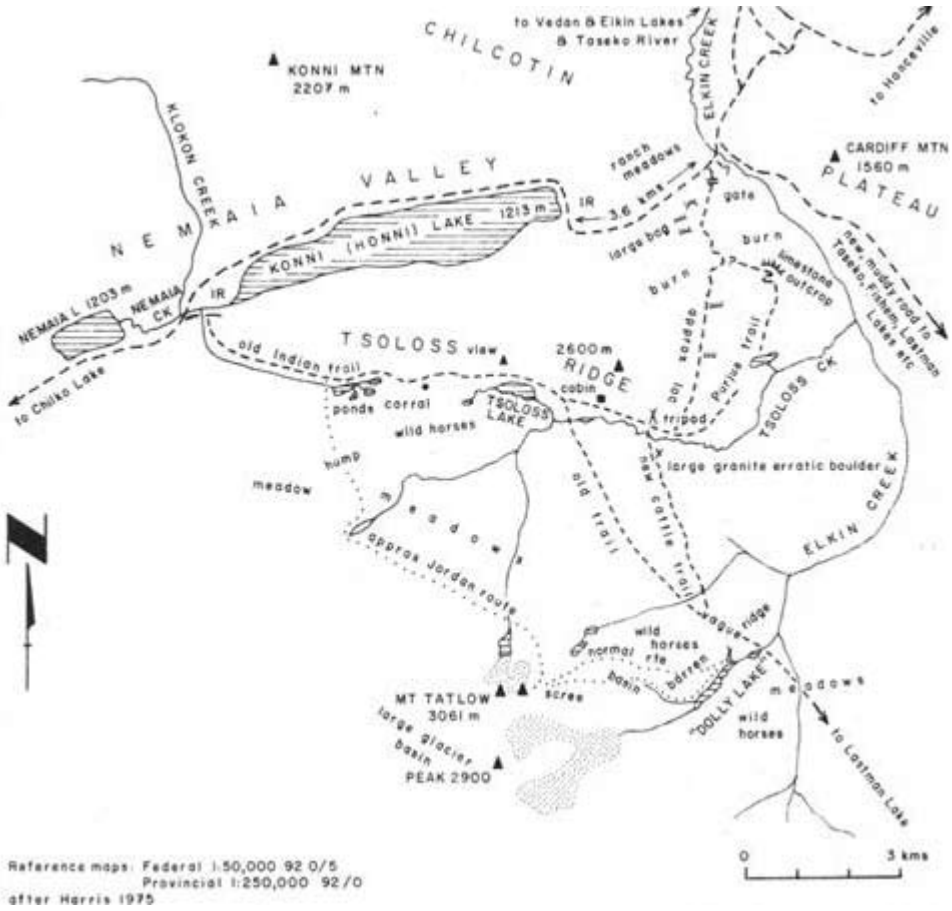
A few Vancouverites had the good fortune to visit this inspiring guardian peak of the Chilcotin during the 1982 Labour Day weekend. Trail knowledgeable Williams Lake regulars who make Tatlow an annual ritual kindly led the way to make it possible. Resembling the half-eroded core of a Pleistocene strato-volcano (but actually not one), it peaks out at 3061 m, rising a majestic 1400 to 1700 m above the Chilcotin Plateau to its north and there are no lesser intervening summits to hide it from view. Thus as a target for climbers it stands out supreme. But only those from Williams Lake ever appear to get on one or another of its several tops. We departed Friday evening to drive up the Cariboo Highway. Saturday morning the gang moved on in heavy rain to "Lees Corner" (Hanceville) and a very long coffee stop to wait out the elements before a final advance to Nemaia Valley. Mud on a spur road in light drizzle halted the motorized advance and the cars were left just off the "highway" and out of sight near a gate.

Access to Mt Tatlow is the crux of a successful weekend ascent and both editions of the Culbert guide (1964,1969) leave it vague as to where the trip should begin. Well we can assert that the Taseko Lake suggestion is impractical, though there is a trail from that direction beginning at nearby Lastman Lake. Jordan (CAJ 1975:40-43) began from the suggested alternative near the west end of Konni (formerly spelled "Honni") Lake on an old Indian trail. This leads up onto the plateau surface whence his crew immediately struck south-eastward to gain the long northwest shoulder on the mountain. The alpine meadows extend almost to the trail on this approach, easily surmised by looking at the 1:50,000 topo map, and the party gradually drifted to the east side of the massif to climb it by the usual final route.

The old Indian trail is shown by R Harris (1975) to lie along a shallow depression on the plateau surface, separated from Konni Lake by a low "Tsoloss Ridge" as he calls it, and eventually reaches Tsoloss Lake and eastward exiting Tsoloss Creek. This drains into Elkin Creek. The trail crosses Tsoloss Creek and continues south-easterly into the high country just east and then south of Tatlow and on to the aforementioned Lastman Lake. This is shown on several old maps, after an hiatus on post war editions, and on the most recent Provincial metric 1:250,000 map. Harris discovered, in his 1971 outings from a Vancouver Natural History Camp lying 10 kms north-east of Konni Lake, that another jeep trail

Summit ridge of Mt Tatlow from summit with climbers on lesser east peak
Traversing upper edge of glacier on north side of massif leads to main peak with only minor difficulty. K Ricker

Mt Tatlow - an access trick. K Ricker/M Irvine



had been constructed (post 1926) by the Purjue brothers from the east. Elkin Creek swings north and into Nemaia Valley a few kilometres east of Konni Lake, and where the main valley road crosses over it the second of three spur roads just west of the crossing leads to the outfitters' trail. The latter more or less keeps within earshot of Elkin Creek, passes by a prominent limestone exposure en route, and eventually leads onto the valley brim of tributary Tsoloss Creek to reach the old Indian trail near Tsoloss Lake. The brothers built a hunting cabin nearby. The convenient juncture of the two trails at this point yields Harris' circuit hike from one end of Konni Lake to the other using this high level route of much natural, historical and scenic significance. The Purjue brothers' trail appears never to have been plotted on any government map and thus when they concluded their operations it fell into disrepair with much windfall and overgrowth.

In the mid-1970s a forest fire ravaged the south slopes of Nemaia Valley and bulldozers were sent up the Purjue access road to build fire guards. Where the hillside begins to really steepen the equipment swung off the Purjue trail to go more or less straight up the slope to the top of the burned area. Cattle drivers have taken advantage of this break and a new trail has been blazed and semi-corduroyed in the soft mucky spots to reach the broad ridge top and eventually again intersect the Purjues' trail at a point where it overlooks Tsoloss Creek. This intersection is about one kilometre east of the cabin and about two to three kilometres east of Tsoloss Lake. The thrust of the cattle drivers is to reach the extensive alpine meadow lands on the north, east, and south-east sides of Mt Tatlow in the headwaters of Elkin Creek. Getting there means crossing Tsoloss Creek where there are no long steep banks to descend and thus the line of least resistance could have been movement west on the Purjue track to pick up the Indian trail crossing near Tsoloss Lake. We did in fact meet one hiker on Mt Tatlow that weekend who tried that approach. However he spent much time looking for the remains of the trail in a maze of covering windfall and eventually found it easier to move toward the north-east flanks of Mt Tatlow on dead reckoning. We did not have to resort to this because the cattlemen had found an easy ford on the creek only a few hundred metres to the west of our re-emergence on the Purjue trail. The ford is not obvious but there are fresh blazes on the south side of the creek, separated from the trail by a healthy field of dwarf birch. Currently there is a tripod (held in place by a stone pendulum) on the trail to signify the point of departure. Once south of the creek a new trail leads around bog meadows and over gravelly

hillocks and eventually higher to krumholz dwarfed conifers in meadows about four to five kilometres north-east of the peak of Tatlow. Trail marking fades at this level and no doubt the old Indian route merges with it here as well.

Above, the windy ridge crest was reached in spitting rain. A few dead wild horses were found. Dropping over the south side one small lake was skirted and after hiking another half kilometre farther upstream in a very open near treeless valley, camp was set up in a traditional spot at the outlet of a much bigger "Dolly Lake" (Dolly Varden char in it being the name source). Skies began to clear at the expense of a substantial blast of wind and the tents were quickly jammed up to the leeward of a few dwarf conifers perched on a bouldery moraine. Morning calm brought forth a glare of new snow down to the 2500 m level and a clear sky. The broad east ridge above camp was quickly reached and this led nicely onto the 400 m high scree slope which runs down from the easternmost summit. New knee deep snow actually made for an easier climb but once on the summit ridge was a hindrance. Ropes were donned for the short drop to the glacier that hangs on the north side of the summit ridge crest. The underlying firn was hard and slippery and thus the party had to crampon to the main west summit along the ice to ridge crest interface. This took only 20 minutes though it certainly looked much farther from the false summit.

Mt Tatlow has always been the key triangulation point for surveys in the Chilcotin and the Coast Mtns. We tore the cairn to pieces rock by rock and even swept the snow away from around it, hoping to find a good summit record but we could not even uncover the bronze plugs or iron pins! This disappointment was overcome by the outstanding view towards Chilko Lake to the west and over the plateau to the north. The Coast Mtns to the south were cloud bedecked but Taseko Mtn to the south-east was the other obvious high one. The view is as inspiring as one would expect when seeing the mountain from the Chilcotin Plateau. From the summit a traverse southward to a less lofty neighbour (ca 2900 m) is possible using loose gullies in the descent and then perhaps a stiff rock climb on the ascent of the peak itself. The more obvious route is to ascend the glacier at the head of "Dolly Lake" to reach its north ridge or north-east face. The suggested guide book route from the south appears to be a long roundabout way from the lake, though possibly there is a weakness in the headwall above another arm of the glacier which descends to the lake from the south-east ridge on the east side of the mountain.

The descent to "Dolly Lake" from the summit crest of Tatlow took a variety of routes. Those of us who short-cutted the east ridge by descending directly below the scree slope into a basin of residual ice ended up with step cutting or cramponning our way to the basin floor but at least it made for a pleasant walk along lakeshore to camp. Discussion that night centred on the history of the area. Formerly the mountain was known as "Tsoloss Peak" after a local Indian legendary figure and this name appeared on maps produced at the turn of the century. However this was the time of the rise of the Honourable Minister RG Tatlow in two BC government departments prior to 1910. On 26 June 1911 the name was changed and it began to appear on maps in 1916, though it had to be re-submitted in 1926 for unknown reasons. Our gang moved out of the area on Monday morning just ahead of the fringe of new rain clouds. By 10 pm it was back to the suburbs of Vancouver with the rare treat of a 3000 m Coast Mtn peak in the bag in only a normal holiday weekend. The success of this trip goes to our indomitable leader Sally Tatlow, after her fourth attempt. Her incentive was a special one, she being a great grandniece of the Honourable Minister, and thus we may speculate that the successful ascent was brought about by political pull! Now that the access wrinkles are unravelled perhaps we can sway other Vancouverites to cash in on the aesthetics of the trip by either the Jordan or Tatlow route.

Karl Ricker

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Tchaikazan Valley ACC Vancouver Section Camp, 1 to 14 August 1982

On 31 July we drove to Fishem Lake airstrip via Williams Lake. We found the last 40 odd miles rough; after a wet spell they may very well be impassable. The next morning in readiness for our helicopter flight we piled together our bundles and were amazed at the volume of gear for 25 people. Needless to say two helicopter sling loads were required. Base camp was located on the west side of the Tchaikazan River. The site is a perfect one Vistas of the Tchaikazan and Hourglass Glaciers with the Monmouth massif at the head of the valley plus Friendly Peak towering above camp. Tents were pitched, nestling amongst old and scraggly pine trees and between areas of heather and open meadow. With engineering know-how the cook tarp was also erected between some pines. As reported in the Vancouver Section news letter (Avalanche Echoes September 1982) "the hub of camp life was the cook tent where sheets of plywood left from a former camp were recycled as tables".

As at the 1975 BCMC camp (CAJ 1976:58-60) Friendly Peak was the most popular climb with five routes successfully completed. On 2 August Mike Bialos and Carol Tilley climbed the south ridge while George Hamilton, Peter Durnford, Brian Terry, and Blair Smith ascended via the Friendly Glacier. On 3 August Stan and Lynn Patterson, Brian, and Pat Duchart scrambled up the grade 3 south-east ridge and descended via the north ridge which involved a grade 3 scramble and a 25 ft rappel. The following day Gouin Barford and Dave Lemon climbed the north ridge and returned via the Friendly Glacier. The east face was climbed 8 August, when the majority of the group flew in to take advantage of the good weather. Ray Parker, David Waldren, Jane Weller, Rob Driscoe, Jay MacArthur, Peter, and Margriet and Ross Wyborn pitched their tents and took off up the mountain. It was described as "a lovely bit of scrambling".

Rim Mtn was climbed by two parties via the north-east side. One team used ice screws on glacier ice whilst the other team led by Irene Goldstone climbed a steep snow chute to the false northerly summit. Peter, Mike, David Owen, George

Hamilton, Carol, Irene, and Uwe Klassen were the participants who climbed Rim on 4 August. On 7 August Rim was climbed via the Friendly Glacier by David L, Blair, Dominique Baudouin, and Gouin. Both Moose and Carefree were also approached via the Friendly Glacier. Dominique, Brian, Blair, and Margriet teamed up on 4 August and gained the grade 2 to 3 southwest ridge of Moose via a snow and ice gully. A bit of chimney work between the rock and ice in the gully plus misty conditions on the ridge made route finding and the climb an interesting one. Carefree was climbed on the second week of camp (11 August) by Ross and Jane in blizzard conditions. The week was described in the camp record book as "super rotten". On that same day under poor climbing conditions Rosemary and Robert, Howie Rode, and Pat Guilbride hiked up the icy Monmouth Glacier to the col west of the Monmouth massif and thence to the summit on the other side. The Coupes named the 8650 ft peak "Thothmus III", after the pharoah responsible for expanding the Egyptian empire to its greater extent.

Inspiration Towers and Deviation Peak east of base camp were climbed on 3 and 7 August. Mike, John L, Peter, and Carol climbed Inspiration Towers via the Pathetic Glacier. Mike and Peter climbed Deviation via the west ridge straight from camp.

The Rock Island Peak between Tchaikazan and Hourglass Glaciers was climbed via Hourglass Glacier and the south-east ridge (grade 3 with some exposure) on 9 August by Jane, Rob, Jay, Peter, Margriet, and Ross. Meanwhile David W and Ray climbed Rock Island Peak via the south face. They encountered a loose gully which led them to some good snow and up into a chimney — tricky moves over a chockstone and onto the summit. The entire group descended via various routes on the south side of Rock Island. Jay, Rob, and Jane took a more difficult route which included some mid 5 scrambling. The same day Rosemary and Robert were attacking the Rock Island complex from a slightly different angle. They climbed Sail Mtn direct from the Tchaikazan Glacier. The climb was described as mixed scree gullies and grade 3 climbing. Sail had also been climbed the previous week on 2 August via the Hourglass Glacier and then the snowfields immediately below the summit of Sail Peak on the northern side (Irene, Gouin, Dave L, Mary Harrison, Margriet).

Besides all the climbing done, Janet and George Hale concentrated on exploring the lower glaciers and nearby meadows and forests. John Lixvar spent a lot of time surveying the Tchaikazan and Friendly Glaciers (see Glacier Retreat in the Tchaikazan Valley this volume). Still others circumnavigated the Friendly/Prayer group, sniffed the flowers, sun baked, et cetera. As a bonus on 5 August we were all treated to the most spectacular display of the northern lights. Five of us were hypnotized to sleep out of doors that night.

Because of the poor weather Jane, Jay, and Rob decided to walk out to Fishem Lake on 12 August. Next day Ross and Margriet did likewise. For the first few hours they walked in the rain and were drenched but the weather improved and the walk was breathtaking with an excellent view of the impressive north face of Carefree.

Lastly several attempts were made towards Monmouth Mtn using high camps. Ross Lund was killed en route to Monmouth on 5 August. The following is an account of the accident written by Gouin Barford for the Avalanche Echoes (September 1982).

Margriet Wyborn

Ross had walked into base camp the day before and joined a party planning to establish a high camp from which to climb Monmouth Mtn. The party left base camp after noon on the 5th in cool weather with occasional rain showers. They ascended the Tchaikazan Glacier, which was free of snow from its snout at about 6000 ft to about the 7500 ft level, without any roping up. At the edge of the continuous snow the party stopped to rope up. Ross had set his pack down on the snow, returned to the ice where the rest of the party had stopped, and picked up the rope to which he was going to tie. He stepped backward onto snow to even the ends and fell into an unseen crevasse. Ross was still conscious when the first rescuer reached him. He had internal injuries and there was a high risk of doing further damage while removing him from the crevasse. He was removed from the crevasse but was dead of internal bleeding shortly after reaching the surface, despite all the efforts of the rescuers.

Ross was a climber and a musician. He will be missed by all who knew him.

Gouin Barford

Mt Ottarasko West Face

During a flight into the Niut Range in 1980 I was impressed by a brief glimpse of the west face of Mt Ottarasko — largely a high and steep ice sheet which becomes a small valley glacier draining into upper Nude Creek, a branch of the Homathko. The mountain — slightly over 10,000 ft — is a bulky mass south of Razorback and occupies a prominent position in the Niut Range.

The view of the unclimbed ice route was sufficiently compelling to lure me back in September 1982. Our adventure began in a characteristically impulsive way. Frantic calls to American and Canadian weather forecasters, a decision to gamble that a high pressure area off the BC coast would remain in a stationary position, a wild all night drive from San Francisco to Seattle with Bill Pilling. Here we met Jim Nelson and Greg Collum, their minds moist with anticipation of a technical climb in the legendary Mt Waddington country, trusting in my promise of a visit to an alpine wonderland and in the assurances of the weathermen. We jumped into a van and headed north. By the time I awoke we were past Cache Creek. I drove on to near Williams Lake where we found a farmer's meadow for sleeping — the mooing cattle kept us awake for hours. Next day we sped on to Tatla Lake where not even the sight of one cumulus cloud dampened our anticipation. Our plan was to fly to the base of Ottarasko with the helicopter at Bluff Lake (White Saddle), then hike out to Tatlayoko Lake or possibly out Razor Creek. To check out our return problems we drove the length of the lake to the BC Hydro camp where we fortunately met Steve Fuller who offered to drive us back to Bluff Lake providing we showed up later.

The next morning Mike King landed us on an outwash flat below the unnamed glacier. We set up a base camp then in the afternoon wandered up the glacier to the second icefall where we dug ledges on a lateral moraine for a bivouac site. Our plan was to make a direct climb up the ice face. The high bivouac would enable us to get an early start, important for the best snow conditions.

The four of us were under way soon after daylight and we cramponned easily up the next icefall to the bergschrund. We debated about which of several lines to

Mt Ottarasko West Face: route follows central ice face. Fred Beckey

take up the ice — all led to the upper south ridge. From then on to the ridge, some 1800 ft higher, the climbing was the usual ritual of careful frontpointing, with belays at the end of each lead. We climbed in two ropes and as the exposure and iciness increased occasional ice screw placements added to the security on the steep route. In early afternoon we reached the summit ridge where we followed a long, spiny rock crest to the highest point of the mountain. After the ice wall the rock, with two exposed class 5 towers, was a delightful change. The views were superb, as is usual in this region when the weather is clear. The fresh snow on the Waddington peaks impressed us the most.

We descended the west ridge then broke into two groups to more efficiently return to our base and still leave a cache for the projected return hike by way of Ottarasko Creek. In the morning we laboured up the 2000 ft slope to its divide, found our way down a narrow glacier cirque, then began the one and a half day hike to Tatlayoko Lake. With sore legs we arrived late in the afternoon and built a brushy fire to attract attention. Luckily Fuller and a friend spotted the smoke and gathered us up with a speedboat. It had been a short but rewarding adventure. In silent satisfaction we mused on our good fortune with the weather as we drove down the Fraser Canyon, rain clouds dropping moisture on the windshield.

Fred Beckey

Notes from the Plummer Hut

Three days of violent storm in the Waddington Range of EC's Coast Mtns provided an opportunity for a fairly thorough review of the notes left by mountaineers in the log book kept at the Plummer Hut on the west ridge of Claw Peak. The hut was built in 1969 by the BCMC, in memory of Paul Plummer and his family, BCMC members who died in a light plane accident over Lake Superior. The log book is interesting for several reasons. The notes provide some rough statistics as to the use of the general area and indicate something about the number of attempts on Waddington itself. One may compare one's own experiences on the Bravo and the summit rocks with those who went before, and some of the accounts have a personal intimacy missing from the more polished official versions. There is also some wisdom and guidance contained here — not all of which has yet found its way into the outside world.

To begin with a few statistics: the lesson seems to be that Waddington remains a serious and problematic challenge. Between 1969 and 1981 forty-two climbers are reported to have reached the main summit. There are also two parties who visited the hut previous to their climb who are known to have been successful, placing ten climbers on the summit. Fifty-two climbers in thirteen years is less than four per year — not many — but interestingly enough most of the parties into the area do seem to have stopped at the hut. Obvious exceptions would be climbs from the Franklin side of the mountain, but as a rough guess it seems unlikely that more than 150 to 160 climbers have yet scaled the main tower. Parties of four seem to be the preferred number and well over half of the attempts on the mountain fail.

Another interesting statistic is the heavy visitation by American parties. There has been at least one American party every year except 1972 (no entries at all), 1973, and 1975. In an average year American guests make up forty to fifty percent of the hut's total occupancy.

Three parties have now traversed over Mt Munday and down the Franklin to Knight Inlet.

Few new routes seem to have found their way into log book accounts. This situation is likely due to the serious dimensions of the Waddington Range; the earliest routes remain in many cases the only moderate lines up the peaks, and the Serl/ Herchmer/ Wittmayer route on the south face of Tiedemann stands out from many pages of more ordinary endeavours as one of the few really dramatic innovations (see CAJ 1977:2-3). Most of the reported new climbs are within the area proximate to the hut, with the Claw Peaks and the Upper Tellot Group showing the heaviest development. An entry of August 1971 records the first new activity, the south face of Claw Peak, while a group consisting of Dirk Brinkman, Rob Early, Ted Davis, and Bruce McMullen, who visited in 1974, remain to this day the most prolific at establishing short new routes. Their achievements included new lines on Tellot Spires 1, 2 and 3; the south-west face of "Argiewicz", the north face of Harvard Claw, and a traverse of Serra III to the west pinnacle of Serra IV. This last summit they took for Serra V, but anyone who has tried to sort out the Serras from just about any direction whatever can sympathize with their confusion! Most other new lines have been caught by CAJ articles.

The log book has both its humourous side and its complement of epic sagas. Following their ascent of Tiedemann's south face, Don Serl noted that anyone finding an Interalp Cerro Torre at the toe of the Tiedemann Glacier in 50 years was most welcome to it. Our own group added a unique note when Jane Weller became the first recorded climber to be grounded by pulmonary oedema at 10,000 ft on the Bravo Glacier. An entry of 2 August 1974 records the most grandiose scheme ever hatched within Plummer's walls: an attempt to climb Waddington in a day return from the hut by two climbers who were due to leave the following day for Ghost Lake! (Most parties take from four days to a week from Rainy Knob, which is itself a half day's trek from the Claw Peak area.) Needless to say their ambitions got bogged down in the snows of the Tiedemann and never achieved fruition. A Colorado party who flew in on 11 July 1978 enjoyed excellent weather but suffered unfortunate luck. Under clear and windless skies they packed loads up the Bravo Glacier, then they packed loads up the Tiedemann; they packed loads up to the Plummer Hut; they packed loads here there and everywhere and finally, after some ten days of load packing, they placed three of

their party on a summit: Claw Peak.

Such frustrating stories of supply build-ups which never mature into climbs are not uncommon in the Waddington Range and the main culprit seems to be the devious Bravo icefall, with uncooperative weather running a close second. Many parties speak of impassable crevasses in the Upper Bravo which run from one side of the glacier to the other. One solution to this problem has been to bail out onto the rock ridge on the west side of the glacier but by all accounts this strategy seems more desperate and dangerous than the original problem.

In 1975 an ACC party of Les Priest, Jim Tearoe, George Waite, and Barry Hodgkins were trapped on this rock spine at 10 pm following a fourteen hour day of tense route finding and exhausting climbing. They were forced to bivouac for four nights before wet gear and lack of food dictated a nasty two day retreat to the Plummer Hut through three feet of newly fallen snow. It was also on this dangerous rock detour that Gray Nourse was killed during a BCMC expedition in 1974.

In a different vein, Penny Hasell, Blaine Powel, and Brian White have filled two pages of the log with an account of the "Alpine Ecology of the Plummer Hut Area". Their list of plant species identified includes a number of the commoner alpine flowers: Pussy Toes, Hairy Cinquefoil, Flowering Penstemon, Cutleaf Fleabane, and Mountain Sorrel. A further aspect of the ecology is documented in the accounts of attacks from resident predators, with packrats, ravens and picas being the three species admonished. A party visiting in August 1980 complained of kamikaze raids from snafflehounds who scaled the door and jumped through the upper berth window. One wonders how such creatures ever found their way to 10,000 ft on rock slopes surrounded on all sides by glacial ice unless, as one of our party suggested, Mike King flew them in by helicopter to add to the authenticity of the hut environment!

This brings us to a couple of closing notes. Firstly, a lot of climbers have trouble with air drops. This is not surprising. Supplies thrown out of planes travelling over the Tellot Glacier are probably doing something like 100 mph when they hit the snow. The tendency with a can of beans is for the can to stop and the beans to keep moving. This can be messy, especially if the beans are white gas. There is a short and helpful little article by Roland Burton in the Varsity Outdoor Club Journal for 1970 called "Airdrop" which contains useful suggestions based on experience, and climbers who have never packed an air drop might want to write the club archivist for a xerox copy (VOC, Student Union Building, University of British Columbia, Vancouver, BC V6T2A5). Basically all food must be padded more completely and carefully than one would think, which may involve soldering tin cans, reinforcing bundles with wire, using styrofoam packing, and so on. Non compatibles (eg food and fuel) should never be combined in the same package.

Secondly, a suggestion about the standard route on Waddington made by Bob Kandiko in the log maintained by White Saddle Air Services at their base has not yet been recorded in the CAJ but is certainly worth a note. The suggestion is to stay out of the chimney on the final summit tower. One may exit to the right before the first chockstone, and have what is likely a far more enjoyable rock climb, and avoid some of the falling ice danger as well. Our party of four found three pitches of 5.7 (one aid move) followed by two pitches of class 3, on a direct line to the summit. This route also likely provides the quickest descent on rappel.

Bruce Fairley

Recommendations on Approaching the Waddington Area

During August 1982 seven of us from Seattle visited the Waddington region. We chose to fly into Dumbell Lake and then walk over Nabob Pass to the traditional base camp on Rainy Knob rather than take a direct helicopter flight to Rainy Knob so we could experience a much more complete view of the area. By approaching on foot through the virgin forests, the deep valley brush, the glacial moraines, and the long crevassed glaciers we felt we gained a much more complete experience. One cheats oneself of many spectacular sights by flying direct. The untouched forests, the ice cold glacial tarns, the roaring torrents of water, the endless piles of glacial moraine, the gorgeous pristine alpine meadows, the miles and miles of rivers of ice, and much, much more all combined to make our approach to Mt Waddington very worthwhile.

After a short flight into Dumbell Lake we began our approach by wandering up the Tellot Creek drainage along animal trails, at times surprisingly clear. Travel was generally easy until we got close to Tellot Lake, nothing more than a wide section in Tellot Creek surrounded by impenetrable patches of thirty foot high vine alder. The lake was named after the Indian, Tellot, who was hanged for killing members of Alfred Waddington's surveying party in 1864. It seemed as though Tellot was taking revenge on all travellers who enter his lake's boundaries. After swimming through a wet jungle of vine alder for two hours we camped on a sand bar on the edge of Tellot Lake and dried out. The scenery at the upper end of the lake was amazing with the 300 ft high ice snout of the Tellot Glacier looming a few hundred feet ahead. Tellot Creek also added to the scene, roaring from a huge 100 ft high ice cave in the middle of the glacial snout.

Early next morning we braved a barefoot crossing of the four channels of ice cold Tellot Creek. We screamed and laughed as solid ice chunks floated past our feet freezing in the 32°F water. On the far side of the creek we sat in ecstasy as the feeling began to come back to our feet. We then boulder hopped up the immense moraine of the Tellot Glacier toward Nabob Pass, a gorgeous collection of pristine tarns and lakes all surrounded by beautiful alpine meadows. The setting was like none we had ever experienced before with the Tellot Peaks towering to the north and ice covered Mts Marcus and Merlon in the south. From Nabob Pass we descended quickly and steeply 1000 ft down through light brush and trees to the lateral moraine of the Tiedemann Glacier. The Tiedemann's lateral moraine rises about 200 ft above the glacier. Luckily we found a stream drainage through its centre which enabled us to scramble right down to the glacial ice. The Tiedemann Glacier below Nabob Pass gives the impression of being a huge unfinished construction site full of dirt, rock, and ice all mixed together. This conglomeration of smooth ice and loose boulders was rather interesting to scramble over. Once on the far side of the glacier we felt we were in the middle of an immense and barren super highway two miles wide and 16 miles long. As we walked up the smooth ice of the

Tiedemann we were gradually introduced to the grandeur of the ice clad mountains surrounding Waddington. For the most part crevasses were virtually no problem, though towards Rainy Knob we were forced to make a few desperate leaps and bounds over rather wide ones.

Contrary to many reports we encountered very few problems in climbing the lower Bravo and its headwall. It took us only one day to go from base camp on Rainy Knob to a high camp at Spearman col, even though the snow was from ankle to knee deep. The morning after reaching our high camp two of us attempted the summit in gorgeous clear and cold weather. After struggling through knee to thigh deep snow for four hours we reached the base of The Tooth. The rock was covered with a deep layer of snow and ice which slowed us greatly. After climbing on ice covered rock for most of the day we turned back about 300 ft below the summit due to falling ice chunks, ice covered rock, and the late hour. We found the climb extremely spectacular and exhilarating. On our descent we had no difficulties because of the fantastic weather.

On the whole our weather was excellent with 12 completely clear days in a row. With the combination of a wilderness approach through valleys and over glaciers, an exciting and varied snow climb up to a summit camp, and a spectacular summit climb over ice and rock, our climb on Waddington was truly a complete mountaineering experience we will not forget.

Peter Travis

Participants: Clark Cambell, Steve Henkel, Steve Lewis, Mark Montgomery, Peter Travis, John Trombold, Rob Vandyk.

Waddington, Again

In July 1980 Chris LaRocca and I attempted to climb Mt Waddington. We made our way through the Bravo icefall and climbed the ridge to the south. We found the snow and rock so rotten on the ridge that we retreated. From the Plummer Hut we enjoyed ascents of Mts Argiewicz and Dragonback and Claw Peak.

In July 1981 Chris and I returned with Gus Benner and Joe Davidson. This time we attacked the final Bravo headwall directly and found this to be a much easier path to Bravo col. We then made the error of trying to reach the summit from this camp. By 4.30 pm we were half-way up the chimney on the south-east face (normal route) when it began to snow and bolts of lightning struck the summit. We spent a miserable bivy in wind and snow and rappelled down with the dawn. The next day was spent resting; Chris and I walked up Bravo Peak.

We then moved our camp to the base of The Tooth. On 21 July we climbed back to our bivy site and soon thereafter reached the summit in perfect sunshine. We spent half an hour on top, crowding two at a time on the tiny decaying snow blob which was the highest point. A day later we were at the Plummer Hut. As a group we climbed Heartstone via the west face from Cataract col. Descent was made via a gully to the east.

We also enjoyed an ascent of Dentiform. Joe and Gus climbed Tellot and Dragonback. Finally Gus and I enjoyed a long day on Serra III, finding the note left by the first ascent party on the steep rock tower which is the peak's eastern and highest summit.

Peter Cummings

St Elias Mountains And The Yukon

Mary Whitley, editorial assistant

Kluane Report 1982

Mountaineering in the St Elias was greatly reduced summer 1981 with only ten groups in the Icefield Ranges of Kluane National Park.

Lloyd Freese, Kluane National Park

Martyn Williams led a successful ski tour around Mt Logan. Other members of the party were Stuart MacKinnon, Elizabeth Richards, Maureen Garrity, Tony Hodge, Mike Beedell.

Roger Mitchell, Bob Zimmerman, Sally Macdonald, Sandy Johnson, and Lis Densmore were all members of a ski trip led by Hector McKenzie in the Divide area. Jim Himmes, Dave Rogers, Stanleigh Cole, and Jim Thompson successfully climbed Mt Logan by its east ridge.

Willi Pfisterer, Ron Chambers, Rick Staley, Doug Buries, Darro Stinson, Claire Israelson, Bruce Sundbo, Hal Morrison, Kevin McLaughlin, and Lloyd Freese were all members of a team that successfully climbed McArthur Peak.

Greg Grange successfully led Peter Dea, Steve Monfredo, and Andy Lapkass on a traverse of Mt Logan. They went up the east ridge and down the King Trench route. Franz Mohling, Turan Barut, and Steve Jensen were killed when their party was struck by an avalanche while in their camp at 15,000 ft on a north ridge of Mt Logan. The survivors, Paul O'Sullivan, Jim Ebersole, Doug Johnson, and Ken Nolan, were evacuated from the mountain at a later date. Franz Mohling made numerous trips to the St Elias Mtns starting in the early fifties.

Allen Dennis, Erik Allen, Craig Britton, and Vince Hanson spent a bit of time on the east ridge of Mt Logan trying to recover some film from a previous expedition.

The Arctic Institute of North America salvaged some of their gear from the 17,500 ft level of Mt Logan. The crew that climbed up to do the work was made up of Robert McArthur, Peter Bryant, Bruce Larson, William Lange, Ronald Johnson, Daniel Nelson, Robert Basset, and Mike Wotton. Will Black, David Charlebois, David Hammer, and Calvin McDonald successfully climbed Mt Steele between Steele and Walsh, possibly a new route.

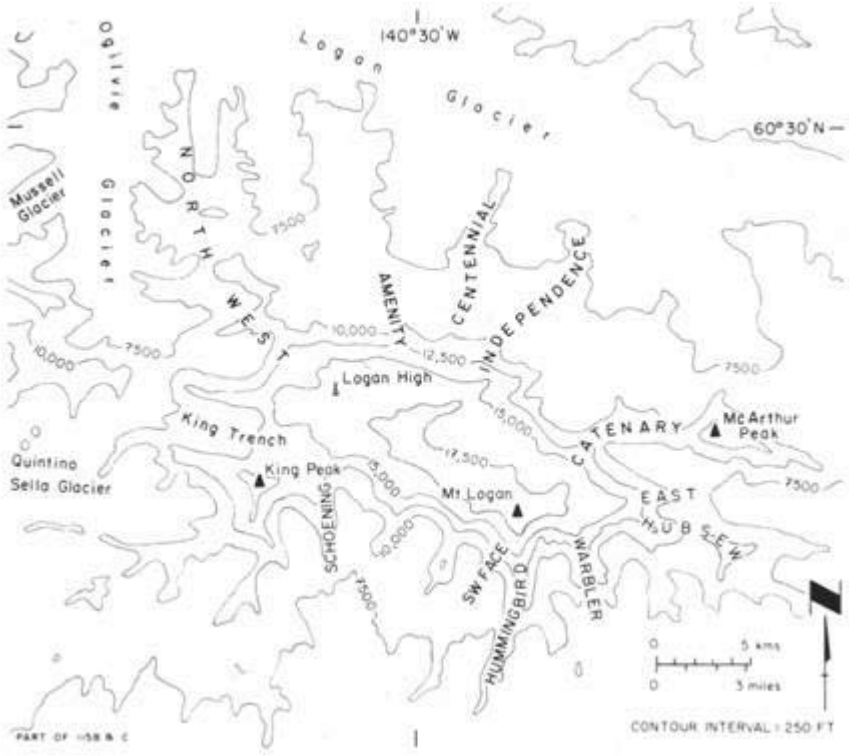
The Main Ridges of Mt Logan

The accompanying map shows the commonly used and well recognized names for the principal ridges on Mt Logan. It appears that there has occasionally been misunderstanding and parties have found themselves on the wrong ridge.

Spanish Expedition to Mt Logan Centennial Ridge

We left Barcelona on 1 July 1981 bound for Whitehorse via New York, Toronto, and Edmonton. The ordeal lasted for 28 hours for the eight of us and our 1000 lbs of

The Main Ridges of Mt Logan



equipment. After receiving permission for the climb from Lloyd Freese we were flown to the Logan Glacier on 9 July by Alcan Air. Base camp was established at 7500 ft. There was great activity the following day. By 1300 Perez, Santamaria, and Salvador had established a camp on the west side of Centennial Ridge. It turned out to be a poor location as the ridge at that point was narrow with poor snow. Back in base camp a large snow house was constructed.

On 11 July four members with a total of 200 Ibs climbed the wrong side of the ridge in poor weather and visibility. During a short break in the clouds a good route was spotted to the ridge, four miles to base camp. With this knowledge Lloria and Salvador establish camp 1 at 9000 ft at the head of the glacier on a 40 degree slope on 13 July. The following day they push up to camp 2 at 11,000 ft. They fix 1200 ft of rope on the way. The rest of us are busy the same day carrying 350 Ibs up to camp 1. We are lucky with the weather. We have moved 500 Ibs to camp 1 and 150 Ibs to camp 2. There are many crevasses opening up. We count ten between base camp and camp 1. Perez falls into one.

On 16 July Chies and Santamaria begin at 0400 to attack an ice pitch 150 ft high. At 0600 they top the cornice. But despite their efforts our climb is halted by a disastrous avalanche about a mile long on the north facing slope which carries away camp 1. Beginning at 0900 Gil and Perez with Lloria, Santamaria and Chies begin to move down from camp 2 to re-establish camp 1 at another lower site safe from avalanches. It takes us 23 hours for this move. On 17 and 18 July we all move down to base camp. On the following two days we are flown out to Kluane Lake.

Emili Gil

Participants: Emili Gil (leader), Vicens Lloria, Lluisa Cuesta, Josep Perez, Ignasi Chies, Jordi Salvador, Marti Santamaria, Jordi Molins.

A Mt Logan Traverse

After interminable hours spent in preparation, training, and logistics in Colorado, we were flown from Kluane Lake on 26 May 1982 in a Single Otter by reliable Joe Muff from Alcan Air. What awe and reverence I felt upon my first view of Logan. Ridges rise vertically out of sight, its extraordinary scale unlike any other mountain I've seen. A powder avalanche raced into the valley as we approached, cascading off the ridge we would ascend, seasoning our minds with skepticism. Soon we were deposited upon the immense Hubbard Glacier.

Triple carries over heavily crevassed terrain to the base of the ridge took nearly two days. On the night of the 28th we gained the ridge, ascending the bergschrund at midnight to cover ourselves against avalanches. The ridge was delightful, its beauty undiminished. The weather was exceptional. During the 13 days it took to climb the ridge and arrive at 15,500 ft we were tent bound for only two days. The going was slow, our skiis necessitating triple loads, but time raced by unnoticed as we negotiated the obstacles of the east ridge. I wrote in my journal "...the view from here is wonderful, with my eyes looking vertically down and gradually accepting that it is as interesting as gazing to either side. Climbing mountains treats the senses to an enormous vista between the toes as well as to each side."

By grace of the outstanding weather and fine camp sites we safely ascended the technical parts of the east ridge to arrive one exhausting afternoon on the fringe of the awesome Logan plateau, an alpine bench 12 miles long, studded with sub-peaks. During the climb the sheer wall of the Hubsew Ridge to our west shook constantly with astounding avalanches. The crack and roar of these slides sometimes disrupted my concentration while climbing!

Our climb to this point had been flawless. We are all quite surprised at how forgiving the weather has been, having anticipated something not so lenient. We had surmised that from here on a few days of high altitude slogging would get us to a summit approach camp and set us up for our ski descent down the west side. But just as our excitement rose the barometer plunged. In rolled a most vicious storm which flattened our ill protected camp 9 with winds in excess of 100 mph and drove snow crystals through the seams of our tents. Perseverance at chipping out an ice cave paid off none too soon as the wind disassembled one of our tents, breaking a support pole and ripping the tarp. Four days later Andy popped his head from our tunnel entrance and a jubilant scream told us the fear had ended. Although sub-zero cold with a moderate breeze, the storm had passed. We gained the east summit ridge the next day and spent a frightfully cold and windy night at 17,500 ft.

The next day dawned clear and we traversed the east peak, making our way to the now visible summit, skirting crevasses and séracs at elevations around 19,000

ft. An exhausting day put us at 18,700 ft where we settled in a wind scarped alcove that we thought would make a suitable summit approach camp. Double carries the next day helped us stock all of our gear at this camp and we felt assured of a summit attempt. Meanwhile Andy soloed the east peak. That afternoon the weather changed radically and forced us to excavate another snow cave. In minutes our "sheltered" alcove became a vicious whirlpool of wind and snow. The winds relentlessly lashed and sheets of snow plastered our bodies as we manoeuvred into our natural shelter. The quiet of the snow cave was pleasing but I sensed an uneasy feeling among the group. The weather had made a lasting impression and we felt that ultimately it was up to the elements as to whether we would be cast free. With four days' food left (having been on the mountain 25 days) and camped at 18,700 ft, we knew that our strength and reserves would hold only for a short time. Thus we waited out yet another classic Mt Logan storm.

In the next 24 hours nearly seven feet of snow was deposited by our cave, making clearing of our tunnel entrance for oxygen a miserable, time consuming task. After three more days we saw a break in the weather and decided to try for the summit. We left the cave about 8 pm and began on skiis with skins towards the peak. Several hours of hard work in plunging temperatures with strong winds put us close to the summit. Its pinnacle stood out momentarily in bold relief perhaps 300 ft away. Then the goal was obscured. We decided against continuing and cautiously descended back to our snow cave and nursed our partially frostbitten toes in silence and dejection through the night.

The next morning, 20 June, brought blue skies and -30°F temperatures. We traversed endless miles of séracs and crevasses and slipped amidst milky clouds. We skied through deep, soft snow for hours on end. Ghostly sub-peaks cast shadows over our heads and disappeared. Long, almost infinite snowfields were the setting for our skiis that seemed to possess a sacred, holy atmosphere. The summit plateau, drowned in a cold, glacial fog, captivated our spirits.

The next day we summoned up our remaining energy and skied nearly 10,000 ft down accommodating King Trench in

A Mt Logan Traverse: Steve Monfredo and Peter Dea skiing down King Trench.

light powder snow. The dazzling sun and warm temperatures treated us to a ski run unequal to any other. We linked hundreds of turns together, passed huge geometrical ice blocks, and descended a hundred times faster than we had climbed up. Mt St Elias revealed its lofty presence, displaying its precipitous walls and ridges in unabashed innocence. Truly that first day of summer was one of the most memorable days of the trip.

Our traverse ended a few days later as we poled our way 15 miles down the Quintino Sella Glacier and headed towards the Alaska border. We rested undisturbed in beautiful weather at the head of the tremendous Bagley Icefield in the shadow of impressive Mt St Elias at 6500 ft. Several days later we were picked up and flown to Chitina, Alaska.

The summit we didn't reach but we felt that our traverse was a fine accomplishment. We scaled the east ridge, came to within 300 ft of the summit, and successfully traversed the Logan massif on skiis. Our 30 days on Mt Logan were a memorable experience, one we will indeed cherish for years to come.

Steve Monfredo

Team members: Greg Grange (leader), Peter Dea, Andy Lapkass, Steve Monfredo.

Tragedy on Mt Logan

As the plane circled to land all eyes turned to stare at the incredible mass filling the windows. Disheartened slightly by a band of cloud over 6000 ft thick which obscured the main portion of our route, we nonetheless had plenty of mountain to look at. The view of the formidable north face of Mt Logan which we had come to climb was all we needed to keep us happy. Our crew, from Boulder, Colorado, came with the intention of climbing a new line on the face. Franz and I had been to Logan before. Franz pioneered the east ridge in the 1950s and we were both part of a crew which made the second ascent of Centennial Ridge in 1980. The Colorado Logan Expedition, as we were called this year (1982), hoped to climb a small spur just to the west of Centennial, previously unnamed and unclimbed. We have called it the Colorado Route in memory of the three companions we left behind. After we had reached 15,500 ft and completed all the difficult sections, the 20 degree slopes above camp 3 avalanched, claiming the lives of Turan, Steve, and Franz.

On 25 May Alcan Air flew us onto the Logan Glacier nine miles from the base of our route. We established our first camp on a moraine one mile closer to the base. The next day was beautiful as we moved up to base camp at 7000 ft with one carry. While skiing we looked up the new route and decided that it could go but not before climbing some pretty impressive pitches. Waking up the next morning was such an ordeal that a couple of members sarcastically recommended staying put and resting. No such luck! We established advance base at 8000 ft, just below the ridge.

From advance base, while the rest of us made carries to stock camp, Franz and Jim put through the route to camp 1 at 9200 ft making it possible to start stocking it the next day. The excitement level was high, everyone volunteering to clean dishes, a rarity. As soon as the sun peaked over the ridge next morning we started transferring loads to camp 1. Since the route had taken only one day those of us who hadn't helped put it in were very over confident in favour of an easy walk. Then we crested the ridge and looked at the 70 degree traverse in front of us. Franz and Jim just smiled and gave us the old "we told you so" routine. The traverse was not at all simple as the chance of stopping a fall was impossible. Eventually coming off the ridge onto the far side we trudged up the snow for some distance

before placing a cache at the site for camp 1 just below what would be the most difficult sections. Going back across the traverse with the second load was no easier than the first; so much for an easy day.

Above camp 1 we climbed the most interesting sections which included a short knife-edge traverse over an ice block and a long traverse under the face to avoid some overhanging ice blocks which broke up the ridge. Ken and I led the first section while Franz, Turan, Jim, and Steve helped put in the rest. The exposure up the final two sections into camp 2, a seven pitch segment of high angle snow and a pitch of vertical ice, was slightly unnerving at times. The ground disappeared a couple of hundred feet below where the slope fell away to become part of the north wall then reappeared 5000 ft later to remind us there would be an end to a fall.

Finally on our ninth day camp 2 was established on a small shelf at 12,000 ft. Five hours later, after finishing dinner and cleaning up, we sat back to watch the sun set at 2 am. Though our bodies tried to tell us otherwise our eyes informed us that this was a vacation indeed.

Above camp 2 the route was less difficult. The next day Steve and I had only a couple of steep exposed parts to surmount before reaching the "Mall", a flat plateau at 12,200 ft. From here we pushed through another 1000 ft before heading back to camp. While Steve and I were having fun the rest were out carrying loads into camp. Just as we all reached camp a cold front came through and kept us in camp for three days with a couple of feet of snow. Then we tried to move up but the weather socked in and we were forced to tent on the "Mall" for a couple more days. It wasn't until our 16th day that we were able to get a long break in the weather and push up to 15,500 ft and camp 3.

We had now completed all difficult climbing and had only to climb gentle 20 degree slopes to reach the Logan plateau at 19,900 ft. We covered over 3200 ft of difficult terrain looking for a camp site and the spot we chose was the first we had seen that looked safe. So, after checking the features both above and below, camp 3 was pitched.

Then the weather deteriorated again and we were camp bound for a few more days. On 11 June the avalanche roared through camp killing Franz, Steve, and Turan. Jim and Ken, outside their tents at the time, were swept 200 ft down the slope. All the tents were crushed and buried under at least 2 to 4 ft of snow. The tent which housed our now dead companions was buried under a minimum of 6.5 ft. Doug and I, buried in separate tents under about 2 ft of snow, got out in about 25 minutes. Then we tried to reach our buried companions. We were unable to find any shovels so we dug with bare hands, light gloves, and even down booties for one and a half hours before we could reach their tent. Our hopes fell when we ripped open a section of the tent and found Steve already dead.

Once we realized our companions were gone our thoughts turned towards our own safety. We proceeded to dig out the entrances to our tents and retrieve sleeping bags and pads, plus what little food and water we could find. We were able to locate a small bivouac spot about a rope length above camp and we dug ourselves in for the duration of the storm. Throughout the night Ken organized word games to keep us awake. We recognized the dangers of sleeping under the circumstances — very wet snow and cold temperatures. With Ken as ringleader we named geographical locations and spelt all the words we knew. If anyone failed to take his turn Ken would quickly step in and wake him up. Thus we survived the first night in soaked bags under totally miserable conditions.

The next morning dawned much the same as the previous day except with gusty winds. We rescued one of the tents minus fly and poles and with the extra warmth the shell provided were each able to take very short naps. There was a bit of food in the tent so each of us received a small ration. Packed like sardines into the tent perched on our little lip, we wondered when we might slip off the edge for a gentle 7000 ft drop. We talked of our options for survival. Every idea was talked through so we could move quickly once the weather broke.

On 13 June, two days after the slide, the weather was perfect. We put in a full day digging to retrieve as much gear as possible — tents, stoves, the radio, packs, and everything else useful. After a couple of days without water or much food at high altitude the 10 1/2 hours of work almost ended us. Looking at the weather and thinking of

Traverse into camp 1; the angle of the slope was at times greater than 70 degrees. Paul O'Sullivan

Turan Barut carrying a load into camp 2. Paul O'Sullivan

Franz Mohling, expedition leader. Paul O'Sullivan

Approaching the Colorado Route from the Logan Glacier
Route follows up crest of spur above skier then when spur runs out at 12,200 ft goes directly up face. Paul O'Sullivan

One of the many avalanches seen coming off the face, from two miles distant. Paul O'Sullivan

another night in a bivouac convinced us to keep going even longer. Finally at 6 pm we started down the route, leaving behind the bodies of our companions. Taking Steve's camera and Franz's diary we headed for home. Seven hours later, after down climbing a completely different route (the face was totally changed from what we crossed going up), we pitched camp on the "Mall" and collapsed. The price for our safety was very high, everyone except me sustaining frostbitten feet in varying degrees. We could look back now and think of what had been left behind; the gear could be replaced but our friends would not be welcomed home. We cried.

On the morning of the 14th the radio finally worked and we were able to call Park Headquarters for help. Two days of bad weather kept down any hopes of rescue but finally on the 16th the sound of a chopper broke the silence. With the help of Rangers Lloyd Freese and Rick Staley and Turbo North pilots George Howell and Ron Eland we were lifted to safety, feeling much like babies in a maternity ward. Thus our ordeal ended. Why some of us survived we'll never know but we learnt a few simple rules to prepare for trouble and would like to share them. 1 - Have slings on all shovels and attach them to the tent when not in use. Had we found a shovel we would have saved time in the search for our friends. 2 - Do the same with some food. A small slide can easily carry away a food cache. 3 - Store some warm clothes at the tent door. In case of trouble the instinctive reaction is to move for the door. 4 - Take time to dress adequately before going outside after an accident. Personally unprepared you may make the situation worse. In our haste to search for our companions we neglected ourselves and paid dearly for that during our two night bivouac.

Looking back we all feel we've learned one helluva lesson. We would not change the way we handled our situation much except for having shovels and extra food within reach. Our survival shows we were successful in coping with the unexpected. If we were to go back up there again we would probably handle everything including camps much the same. But we'll forever have a lot more respect for human life and the natural experiences of living it.

Paul O'Sullivan

Expedition members: Franz Mohling, Turan Barut, Steve Jensen, Jim Ebersole, Doug Johnson, Ken Nolan, Paul O'Sullivan.

For his part in the rescue, pilot Ron Eland was voted helicopter pilot of the year by the Helicopter Association International.

Mt Logan East Ridge Vail Expedition

It was with great excitement and anticipation that we awoke. The morning dawned cold and clear. It was 5 May 1982 and we had flown in the previous evening to a spot on the Hubbard Glacier about three miles from the base of the east ridge of Mt Logan. After five frustrating days waiting for good flying weather it was a real relief to be starting our climb.

It took a day and a half to get all our gear to the base of a south facing snowfield from which we would gain access to the east ridge. By midday conditions were warm and partly sunny. Numerous small avalanches were starting to sweep down the route we planned to take so we reluctantly agreed to wait and get an early start the next morning when things would be frozen.

The next two days were spent moving gear up the snowfield and along the ridge on moderate snow and occasional mixed rock sections. The weather alternated from sunny to snow and was quite warm during the day. We made much better progress by getting early starts and avoiding soft snow and balled-up crampons. Our SSB radio which checked out fine in Whitehorse worked moderately well on the mining frequency but we could not contact the radio operator in Whitehorse. We resigned ourselves to no phone calls from the mountain.

The next section of the climb proved very exciting and the most technically difficult. The soft snow of the lower ridge gave way to harder snow and occasional ice sections. The angle of the slope increased and some beautiful knife-edges were encountered. Though not extreme in difficulty, the exposure and views made this section the most memorable. We had moderately stormy weather and high winds during much of this time. We put in 1500 ft of fixed line, anchored mostly with dead men. The ice was never solid enough for ice screws. Snow pickets worked but were less secure than the dead men.

After a last short knife-edge we reached the base of the snowdome — a large, moderately angled ice mass which is at the junction of several of Logan's many ridges. It is also a prominent sight from the base of the east ridge and lower on the climb. From this point on the more technical aspects of the climb were over though colder temperatures and more exposure to the weather were experienced.

Our first morning here started cold and sunny. The view back down the ridge was spectacular with bright sun on the ridge and blankets of clouds covering the glaciers below. The tops of Alverstone, Kennedy, Hubbard, Vancouver, Queen Mary, and King George stood out of the lower clouds bathed in the early morning sun. We could now see many of the peaks to the

Mt Logan East Ridge Vail Expedition: final camp at ca 16,250 ft. Stan Cole

north and part of the vast Seward Icefield. We looked for a glimpse of the ocean but it was either too hazy or blocked by intervening ranges.

We made a long carry to about the 15,250 ft level, the last of our double carries. Next day we moved camp up to where we had cached our loads the day before. The weather changed from sunny to light snow to near whiteout and high winds by the time we got our camp up. That night brought little sleep as gusts of wind slammed into our tents and snow piled over them. The storm continued the next day so we stayed in our tents and had a rest day. We played lots of cribbage and cooked fresh bread in our light English pressure cooker. This pressure cooker more than made up for the effort of hauling it by providing hot breads well topped with butter to brighten our otherwise bland diet of freeze dried foods. We made an early start next morning and reached the beginning of the summit plateau but the storm soon renewed itself and we were forced to retreat to our previous camp. This turned out to be quite a chore in itself and we crawled back to camp with what dignity we could manage. We were glad we had wanded our route. The following day we began again in somewhat better visibility and sited our last camp at about 16,250 ft. The weather improved during the day and that evening we had our first look at the east peak summit. We eagerly made plans for a summit attempt the next morning. Dawn came early with cold, partly clear weather. Jim H and Jim T set off; Dave and I were about a half hour behind. Snow and high winds started to come in later in the morning just as we were starting up the final slope to the east peak summit. We increased the pace to make the summit before the weather deteriorated. As a result I began to feel the effects of the altitude and became quite sick. Jim H and Jim T reached what they thought was the summit in the worsening weather while I had to turn back about 500 ft short. I was very disappointed especially since my rope mate had to turn back with me. By the time I had descended to our 16,250 ft camp I felt much better, so Dave and I decided to give it another try the next day, weather permitting. Next day was clear and cold with no wind at all. Dave and I reached the summit at noon with no ill effects. We then descended to our high camp, rested a couple of hours then continued down to 12,500 ft where we met the others. In the short time we had been above this elevation it had snowed about three or four feet. We were stormed in here for a day by a short intense snowstorm.

Two days of down climbing and cleaning our fixed line brought us to our pick up point on the Hubbard Glacier and to our buried cache of Canadian beer. What better ending could there be?!

Stanleigh Cole

Participants: Stanleigh Cole, Dave Rogers, Jim Thompson, Jim Himmes (leader)

Sponsors: Christy Sports of Vail, Campin Bacon.

Rock Climbing in the Whitehorse Area

It was a warm sunny summer for climbing and we saw a number of new developments in 1982. Peter Steele's discovery of the rock climbing potential on the south face of Caribou Mtn was the highlight of the season. Renewed interest in bouldering and climbing resulted in a new desperate at the Rock Gardens and some excellent new routes in the Golden Canyons. The upgrading of the road leading to the Canyons by the Yukon Government for the purpose of wood cutting, not climbing, made access easier.

CARIBOU MTN

Only a few miles north-east of Carcross on the Carcross-Tagish Road. A good camp site at the base of the mountain is found just past the Chutla Lake sign.

WINDHOVER, 5.9, 1000 ft. Hike up almost directly above the camp site toward the obvious red and white W at the base of the rock. Some excellent scrambling in the creek bed leads into the left side of the W where Windhover begins. Once into the gully make your way up from the broken red and white rock onto the granite and then angle right up to the sharp ridge which is the centre of the W. Once on this ridge it is virtually impossible to lose the route. Follow the crest of the ridge to the summit. The climb is mostly class 4 and easy 5 alpine style ridge. Many spectacularly exposed positions with a few short and difficult but enjoyable steep sections. Can be done at 5.7 by traversing off the crest of the ridge to the right at the steep sections. A highly recommended route. A delightful place to watch the hawks and kestrels soar. Peter Steele, Craig Britton, Eric Allen.

GWAIHIR, 5.7, is an enjoyable route which starts on the ridge formed by the righthand edge of the W. Go up into the gully on the right side, gain the ridge, and follow it to the top.

Peter Steele, Adam Steele, Eric Allen, Hector McKenzie.

ROCK GARDENS

At the Rock Gardens, located a quarter mile west of the top of the South Access Road out of Whitehorse, the Crucifix saw its first free solo by Craig Britton. On the corner to right of Crucifix a new route (Heretic, 5.11) was top roped.

GOLDEN CANYONS

The road into the Canyons between the Hotsprings and the Old Dawson Trail has been repaired and gravelled by the Yukon Government. This should cut about 15 minutes off the driving time, a big help for summer evening climbs.

JAMMIES, 5.6 to 5.10. The main canyon has at its centre a small cliff of about 25 ft. It has a series of eight beautiful jamcracks collectively called The Jammies and is an excellent place to practise jamming technique since most of the cruxes are within falling off distance from the ground. Locker handjams lead to the top. Bring tape as the rock is rough.

Craig Britton, Eric Allen, Norm Brown.

CRACKING UP, 5.9 80 ft, a very prominent dihedral on the right side of the canyon about a quarter mile from the beginning, is characterized by multiple cracks. The chief difficulty is in deciding which crack to use. The line is very clean and direct.

Eric Allen, Craig Britton.

ONE CRACK MIND, 5.10 80 ft, is a pretty hand crack 40 ft to the right of Cracking Up. It consists of a steep mantle, a tricky traverse to the crack, and a section of locker jams, finishing with a thin face section at the top. All makes for an excellent climb.

Eric Allen, Craig Britton.

Eric Allen

Interior Report from Kamloops

This annual report would appear to be a good opportunity to say a few words about the Kamloops Mountaineering Club, as well as chronicling the climbing activities in this area. The Club has its ups and downs and is currently running at about 20 members, all but four also members of the ACC, so in fact all the club outings are predominantly attended by ACC members. I have put it to the KMC membership as to whether we should try to become an affiliated Section of the ACC but the present overwhelming sentiment is in favour of maintaining our very informal structure. Incidentally there are a considerable number of ACC members in this region who are not members of the KMC.

The activities started early as a small party spent several days at the Wates-Gibson Hut over the New Year but cold unco-operative weather precluded any major ascents. A group of five had a good week at the beginning of March using the Stanley Mitchell Hut as a base; the ascent of The President was made and there was excellent powder skiing in the area. On 13 March Bob Boonstra and Bert Kent completed the second winter ascent of Mt Albreda. The long weekend in May tempted a party of seven to the Columbia Icefields area where Parker Ridge and Dolomite Pass were skied and an exit made to Mosquito Creek. At least three members from Kamloops attended the Vowell Creek GMC in July and accomplished some satisfactory climbs. On 8 August Amund Groner made what is probably the first ascent on the north face of Dunn Peak (solo). A week long summer camp at the south end of Maligne Lake was well attended; the summits of Mts Paul and Henry McLeod were attained and a good deal of surrounding territory was covered. Additional forays were made to Assiniboine Park — poor weather, Sapphire Col — blizzard conditions, Kwoiek Needle, the snowfields between Perry and the Columbia Rivers, with a good deal of local rock climbing and skiing thrown in. On the 9 October weekend Jim Milligan headed a party of nine to Rogers Pass to do some necessary chores at the Wheeler Hut. A new pit was dug and the biffy moved over same, wood was cut and stored in the basement, and repairs were done to the roof.

At least once a year Ralph Hutchinson assembles an interesting assortment of climbers for a bash at the mountains. This year the objective was Mt Howson and my brother Roger and I participated as usual. However for once fate was against us and we sat out our allotted days and nights in a high stony bivouac battered by gale force winds and constant snow, a situation somewhat alleviated by a few paperbacks, over-proof rum, and Grand Old McNish.

Hugh Neave

Ski Traversing in the Northern Cariboos

From personal experience it seems that high level traverses are established on the basis of two main objectives. The first is a desire to explore wild, largely unvisited, and often fairly inaccessible country. The other is concerned with being first to traverse a particular area.

With both objectives more or less equally in mind Scott Duncan, Steve Smith, and I consulted maps and aerial photographs in 1981 to determine the feasibility of a high level traverse through the northern Cariboos. We originally intended to ski from McBride south along the central divide of the Cariboos to the Premier Range and then exit to Tête Jaune Cache. Such a traverse would, at its finishing point, connect with the start of a trip already completed in the southern Cariboos (CAJ 1982:27). Unfortunately for various reasons we ended up short on time and thus could not end our trip with the planned crossing of the Premiers. Instead it was our delight to undertake the rather tedious chore of skiing and hiking some 37 kms of logging roads to Thompson. We did nonetheless manage to intersect the southern route, thus completing a continuous north to south traverse of the Cariboos.

Our lasting impression of the route is its classic potential. As with now popular traverses in the Rocky Mtns and Interior Ranges the northern Cariboos route is incredibly spectacular. The route stays high almost in its entirety, really only passing below treeline in the Niagara valley. Unlike other ski traverses that have been established in the Interior Ranges, this one presents virtually no difficulties of a technical sort. Safety wise the route compares with the least dangerous of the known routes; only a few slopes of any size exist to pose an avalanche threat and these can be negotiated with relative safety early in the day. The northern Cariboos route is very remote —much of the terrain has been seen by only a handful of mountaineers, prospectors, and other backwoods people. This unvisited aspect became apparent to us by the sheer numbers of still unclimbed peaks in the area (according to the guidebook at least), two of which we scrambled up in the course of our traverse.

The weather is something to be reckoned with. In 15 days of travel, only on three did we enjoy blue skies and sunshine. With even minor breaks in the weather — good spells lasting a couple of hours — we found it was imperative to break camp and move on. But for those who occasionally enjoy watching snowflakes swirl across the wide expanses of an icefield while sipping coffee in the comfort of a sleeping bag, how can a little bad weather be other than trivial?

Philip Smith

All Along the Watchtower

In early August 1981 when the weather finally turned good we did a new route in the Bugaboos —a major variation on Warrior, west face of the North Howser Tower. We followed Warrior for eight pitches on the initial slab then diagonaled left at the base of the wall to a prominent left facing dihedral which continues unbroken for 800 ft to a series of overhangs and thence to the summit ridge. In the lower area of the corner a beautiful tangerine tower rises with many folds. It looks like a flower — hence the name of the route. The dihedral was mainly easy aid climbing which could be free climbed at a superb 5.10 to 5.11. About a third of the climb was on aid. A lot of the free climbing was excellent 5.9 to 5.10 hand-cracks, quite clean.

We spent two and a half days on the mountain in beautiful weather, though two lightning storms passed to the south. One was horrendous — a big anvil shaped thing pulsing purple flashes. From our semi

hanging bivi it was a monster. Convinced it was coming our way I hid under my fly, pretending it wasn't there. Jim watched it till morning. Amazingly it never did reach us. Anyhow, apart from the crowds on the Chouinard Becky, a remoteness persists on this face. Jim and I were quite humbled by everything.

Ward Robinson

All Along the Watchtower. West face North Howser Tower. 22 pitches to summit ridge. A variation to Warrior. VI 5.10 A3. First ascent Jim Walseth and Ward Robinson, August 1981.

Vowell Creek ACC General Mountaineering Camp, 24 July to 14 August 1982

Although there was frost on the tents at the pick up site in the early morning the day soon turned hot as the Week One horde advanced on the GMC. An ideal site. Northpost towered above, goats scampered on the slabs, there was a great view of Bugaboo Spire from just about everywhere, and the camp was given great care and attention by Bill Harrison and his crew. We were even blessed with running water — rivulets of clear cold water running past the tea tent to politely disappear in the till.

Vowell Creek GMC
Ron and Bill in conference; Bugaboo Spire in background. Mary Whitley

At supper first night Ron Matthews, camp manager, announced that all waste would be flown out. To conserve space in the 45 gallon drums, would we please deposit TP in the bag provided and it would be burnt. This elicited the question, "How long does it take 60 people to fill four 45 gallon drums?"

Monday dawned clear and warm after a night of showers. This clear weather stayed around for the rest of the week. It seems we may have used it up as the second and third weeks encountered miserable conditions. The first party went off to Bugaboo. They returned late though successful. Other parties were late returning too, after revelling in the sunshine on the summits. Supper announcement is that we'll have to pay for all this revelling by getting up earlier.

For the few bodies not out tanning on the glaciers, Joel gave a Tai Chi demonstration on Wednesday. Graceful show motion bodies against a backdrop of sky and rock. By Thursday the announcement is made. The morning line-up for the men's biffy is slowing progress. The women, all nine of them, give up one of their two facilities.

Many wonderful trips are made and most of the surrounding peaks see crowds: Bugaboo, Pigeon, Crescent, Wallace, Unnamed, Brenta and Northpost. A reconnaissance team checks out the peaks to the north of the Wallace wall, doing a good job in a long day of finding the best line to West, Centre and East Peaks. The following day a small party does a traverse of West Peak. The KKK (Kamloops Kamikaze Kids) led by intrepid Roger Wallis do a spectacular ice climb on the north face of South Wallace (also known as Tamarack) and arrive back in time for the geology talk by the nimble, ubiquitous Roger. Late in the week it is decided that the Howsers are getting into condition. The first assault is on North Howser, followed by a foray to West Howser led by Dick Roe.

Two days see trips on the "three col route" which (it seems to me) was a route going from camp through Bugaboo/Crescent col, past Eastpost, between Brenta and Cobalt Lake Spire, and returning past Northpost. A long, demanding trek in the afternoon heat and soft snow. By Friday Unnamed Peak has acquired a new name "Hoser's Hump". The swamp in the glacial basin is enlarging daily. There are questions as to when it will gush down the right side of the glacier making access to the peaks to the west very long.

The planned staff vs climbers baseball game scheduled for Friday night never materialized due to the late return of that day's "three coler" party. Cocoa time lasts into early evening as socializing goes on full swing. But the night is still young for the Boston Bean team who, with reinforcements, connive the disappearance of the gong. It is finally found the next morning on the ACC flagpole. Perhaps that exercise could have been considered prusiking practise. Due to the disappearance of the gong everything gets underway slowly on Saturday. As it turns out there is no need to hurry. The chopper has broken down and we cool our heels at Gmoser's until 3 pm.

Unfortunately we can't give all the credit for the success of the week to ACC management. I'm sure they can't control the elements. But everything else under their control went very smoothly. We were ably led by guides Don Vockeroth and Bob Sawyer, leaders Al Dunham, Bruce Fraser, Paul Geddes, Orvel Miskiw, and Cyril Shokoples.

Setting up camp on a pile of glacial till was the work demanded of Bill Harrison and his crew. They followed this Herculean effort with the task of keeping us well fed. They did both tasks supremely well. Many thanks to Bill Harrison and Chance, Eva and the kitchen and camp crew.

Mary Whitley

An Amateur Leader's Impressions of the GMC

"What a setup!" I thought as I rounded the corner and saw the tents of the GMC spread out at the foot of the Vowell Glacier. Although the site made for long approaches to Pigeon and Bugaboo it more than compensated for this by the roominess, the scenery, and the closeness of Tamarack Glen. I was continually impressed by the efficient operation of the camp, especially since a casual atmosphere was maintained. Many of the activities in camp were centred around meals, which were a delight in both taste and amount.

A boulder problem at Tamarack Glen. Al Dunham

For the most part the people I met at the GMC were enjoyable. I shared a tent and many laughs with two other amateur leaders, Cyril Shokoples and Orvel Miskiw. The cooking and clean-up staff were always pleasant despite early morning breakfasts, and provided us with a small private party at the end of the week.

The camp guests were a varied and interesting lot, ranging from experienced rock climbers or mountaineers to raw beginners. On a climb of Mt Wallace some people were slow on rock but confident on snow while others were the opposite. The only time that I found inexperience to be frustrating was when perfect glissade slopes were plunge stepped instead, but I could sympathize as I started as a rock climber at Bon Echo and never saw snow slopes until I moved to Calgary. In some cases I was able to teach glissading; in others I could glissade only a few feet, stop, and then repeat.

An Amateur Leader's Impressions of the GMC

Rock spire on Unnamed 9250 as seen from the summit. Al Dunham

On the third day I went up Bugaboo Spire, the rope leaders being myself, a junior guide, and Dan, a moderately experienced rock climber who had seconded the climb before. That should have been the most enjoyable day of the week for me because it is sound rock, an interesting situation, and we had some of the strongest 'clients'. Unfortunately the junior guide was either so inexperienced that he was unable to recognize my ability, or too proud to admit that any amateur leader could possibly be as competent as he. As a result, my harness and knots were unjustifiably criticized, I did the rappels by being lowered (!) agonizingly slowly, and Dan was invited to set up subsequent stations. This resulted in some delay as Dan was slower and less certain at setting up belays, and in one place missed the rappel pin. At this particular stance, when I arrived I connected his good belay system to the rappel piton (which I had seen on the way up) and backed it up with a natural chockstone.

But when the junior guide set up his Munter brake at this pin he first undipped the back up and then lowered Dan off the single lost arrow piton. It was a good placement but the pull on it was mainly outward; I can barely justify rappelling off a single piton when everyone is experienced and there happens to be no choice, but for anyone to disconnect a sound back up that is already in place is simply stupid. This is not a question of his not backing up a piton that probably didn't need it; it was already connected, and the same time and effort would have removed it after the lowering was complete. In this case if the piton had pulled Dan would have died; luckily it held, and it undoubtedly will for a while but who can predict when it will fail?

Since there were nine of us and we had waited two hours in a queue at the gendarme, we arrived back in camp long after supper. At that point it was a boost to my faith in people to discover that a hot and tasty meal was ready for us and after a few drams with Orv and Cyril, I felt much better.

The next day I took a spirited group to Unnamed 9250, where we unroped after leaving the glacier to wander up the boulder field to the top. After the authoritarian atmosphere of the day before I leisurely followed with the ropes as my companions made their way upwards. At the top we saw a rock spire 30 m down the west ridge that begged to be climbed. I set up a self belay using prussiks, a system that I have used before, and made my way up a three inch crack that was difficult but short. After a runner on a natural chockstone (although I had to move it from ledge to crack), a ledge traverse, and a mantel, I was standing on top. I rapped off, joined the climbers cum shutter-bugs, and we descended via the north snow ridge to an early return and a pleasant afternoon in the tea tent. I had left a bucket of water in the sun all day and was able to have a lukewarm 'shower', a pleasant change.

The following morning Orvel and I led an enthusiastic, if not as strong as some, team to Bugaboo Spire. The day was a delight from start to end. My thanks to Wally Joyce, Rolf Johnson, Bruce Bradner, and Orvel Miskiw for pleasant companionship, an important element in any good climb.

On Friday Orvel and I spent a relaxed afternoon sunbathing at Tamarack Glen. This idyllic spot is above the north moraine of the foot of the Vowell Glacier, a half hour's approach from camp. We did some 'truly clean' bouldering and caught up on

some sleep. During the week we had excellent weather and were out climbing every day. With some of the early starts and late returns we were getting tired by the weekend. I was glad of the good weather but it was almost too much of a good thing.

When I signed on I had expected that I would be doing some slogs and not always moving at a good pace. This I accepted as being part of the experience and it was offset by some good climbs. The biggest challenge is to keep the climbing enjoyable for the guests. I also found that they were pleased when I shared my knowledge and experience via explanations and demonstration, preferable to criticism and a follow me attitude.

All in all it was an enjoyable, memorable experience. I am sure that I will again in future attend the ACC's annual tradition.

Al Dunham

West Side Story: the brothers Flavelle and the west face of West Peak with route marked. Mike Down

West Side Story

West face of West Peak — a rather bland title for a fine 1200 ft wall tucked away in the backside of the Vowell Group, out of sight of the covetous eyes of the Bugaboo hordes. Thirteen pitches, about half the climbing on aid. Starting in the lower left lobe of the wall we fixed a series of cracks, chimneys and ledges to the base of a thin, curving dihedral of smooth granodiorite. Next day we jugged the lines and nailed the dihedral for two and a half pitches, trending well right into another broken area marked by a prominent snowpatch. From here a loose chimney opened out into a huge right facing dihedral of rough and rippling rock, climbed with a mix stemming and nailing and a cave roof problem directly to the top.

We spent a cool but ethereal night on the summit sans bivi gear, meditating on a full moon moving into and out of a partial lunar eclipse, then whiling away the rest of the wee hours fending off a snafflehound bent on boot destruction. Keith's first wall, and an alpine one at that!

Mike Down

First ascent, west face of West Peak, 10,150 ft, Vowell Group. V 5.8, A2. Mike Down, Keith Flavelle, and Scott Flavelle. 15 to 16 July 1981.

Banshee Tower, Starbird Ridge

According to a journal report Banshee Tower's summit block had been topped by climbers who prusiked up a rope after casting an end over the top, then securing it. Whether this is a legitimate completion of the climb I will leave for others to decide. When Eric Bjornstad and I reached the top in July 1981, using bolts and bathooks on the south side of the block, we saw no evidence of a prior visitation and would therefore like to make a claim for the rightful first ascent. Banshee Tower is a minor formation considering the range as a whole but is a spectacular bastion of granite east of Mt Sally Serena. The flawless summit block, about 40 ft in height, rests strangely atop the pyramidal bastion.

Fred Beckey

Devil's Range

Access to and climbs in the Devil's Range, a group of granite peaks located immediately north of the Mulvey Group and west of Slocan Lake, in the Valhallas Range of south central British Columbia.

Voies d'accès et ascensions dans le Massif du Diable: groupe de sommets granitiques situe immédiatement au nord des Monts Mulvey et a l'ouest du Lac Slocan, dans le Massif des Valhallas, centre sud de la Colombie Britannique.

To reach the Devil's Range during the summer of 1982 it was necessary to drive in through Passmore instead of Slocan because the northeast end of the Little Slocan road has two locked gates. There is some sort of dispute going on about access rights. This section of road, adjacent to Mulvey, Robertson, and Bannock-Burns Creeks is privately owned by BRD Logging of Slocan (phone 604-355-2319). BRD Logging and Slocan Forest Products are apparently opposed to the Valhallas Park Proposal. BRD Logging permits no one but their own employees to drive up the Little Slocan Road. There are locked gates at both ends. Keys are kept by one of the chief executive officers, Klaus Streicher, off whom bounce daily the frantic telephone calls of irate climbers from all over North America. The situation unfortunately seems to revolve around money. BRD Logging is probably attempting to force the BC Government into purchasing the road or paying for access rights.

Fortunately it is still possible for non-loggers to reach the Devil's Range. In August 1982 we drove in from Passmore, then drove up Hoder Creek to the point where Drinnon Creek enters Hoder Creek park here. After about one hour Drinnon Lake is reached. Some three hours further one comes to Drinnon Pass. There are several lakes on the pass and good camp sites. One hour down the other side you cross Gwillim Creek. Re-ascend the other side to a 7000 ft alp directly south of Devil's Dome. Here you can either camp at an inferior mosquito infested lake or climb higher to a pleasant 7500 ft lake with fewer mosquitoes and water warm enough for swimming. Ours was a small expedition consisting of three — Dan Offin, Jim Jones, and Gabrielle Renate Korell, our translator. The translator was cleverly disguised as camp wench.

The Devil's Range is very infrequently visited. Trails are almost non-existent. Below 7000 ft one becomes an animal in the brush. Everywhere below 7500 ft the mosquitoes are fierce. But the rock is good and there are new lines to be done all over the place. We liked it fine, fed up as we were with media hype. All the long way in up Hoder Creek we had to hear about the "1982 Canadian Mt Behemoth Expedition", "20 tons", "600 porters", "five miles of fixed rope", etc etc.

The radio overflowed with it. The first expedition we had ever heard of who named a route after themselves, before they climbed it. When the radio announcer said seriously that they were taking 5000 chocolate bars we turned him off. But we couldn't stop thinking about 5000 chocolate bars. Minds polluted.

In 1982 we did two new routes in the Devil's Range and repeated the classic route on Devil's Dome, the south-east ridge (9th ascent). This climb will be described first as it is a classic and there seems to be some confusion in the guidebook about where the route goes and the rating.

DEVIL'S DOME, 9150 FT

About this peak it is important to state that there is only one route on it, the south-east ridge. High up variations are possible (onto the south face) but there is no separate line on the south face (at least not yet). And most important, the route does not start in the centre of the south face as claimed on p 206 of the Climber's Guide to the Interior Ranges of British Columbia - South (Kruszyna and Putnam 1977). The route starts high up to the right, at the notch in the south-east ridge, on the south-east ridge, and it would be stupid to begin the climb in the dirty loose chimney below this notch. According to the summit register the first ascent was made in 1973 by H Ridge, P Wood, and G Stein (not in 1971). Also the names B Johnson and N Thyer do not appear in the summit register. The climb is a good one, F6 (not F4, as stated in the guide). It can be done using only nuts. One 150 ft rope is enough for the rappels.

"MT DARK PRINCE", EXORCISTS DIEDRE

"Dark Prince" is the 9000 ft granite outlier on the south-west ridge of Devil's Dome, first climbed in 1975 by H Ridge, Ian Hamilton, and B Port by the south ridge and called by them "False Dome". As a name we much prefer "Dark Prince". This peak should not be confused with the unnamed peak west of Mt Lucifer for which the name "Black Prince" is coming into use. Looking at the south-east face of the "Dark Prince" from the 7500 ft camp or from nearby, two gigantic, slanting, left opening dihedrals are evident. The lefthand dihedral, closer to the south ridge, appears to be not very difficult. Exorcist route goes up the righthand more difficult dihedral — harder, F7, six pitches. The route stays mostly on the lefthand wall. The F7 occurs on the second pitch, scary and difficult to protect. The rock here is dark brittle ripply granite with shallow bottoming grooves for cracks. One has to step off a sloping pedestal and ascend over a small overhang which would be very difficult to reverse. Above the overhang one is committed to a steeper, smoother wall with nothing but a shallow water worn groove to follow. Above this the difficulties ease off. Descent can be made down the south ridge without rappels. "Mt Dark Prince", Exorcists Diedre, III, F.7. First ascent Jim Jones and Dan Offin. 7 August 1982.

TRIDENT PEAK, WITCH DOCTOR WALL, AN ILLEGAL SMILE

The granite south-east face of Trident Peak, 8950 ft, is seen clearly from the 7500 ft camp directly south of Devil's Dome. It is a broad wall, (Witch Doctor Wall), four or five pitches, including some F4 at the bottom. The wall is generally easier on the right and more difficult on the left so that one can choose a line to suit one's abilities. Basically there are three crack systems on the face. Our route takes the leftmost of these crack systems. The central crack system and rightmost crack system remain unclimbed (probably easier). Further to the left one finds the south ridge of Trident, a very difficult looking overhang (unclimbed), and further left from this the south face (not difficult), reportedly climbed in 1973 by H Ridge, G Stein, and P Wood (CAJ 1974:80).

Trident Peak, Witch Doctor Wall, An Illegal Smile, III, F6. First ascent Jim Jones and Dan Offin. 8 August 1982.

Jim Jones

Rocky Mountains

Quinn Range

In late August 1982 Mark Zimmerman and I climbed the obvious spire at the head of Haynes Creek. Two hours of scree and minor rock to the base of the south-east ridge. The climb followed a series of grooves in good to excellent limestone (really) which trended onto the east face before returning to the ridge a couple of hundred feet below the summit (3010+ m). We descended the south face until steep ground forced us back onto the south-east ridge. 7 hours round trip from the end of the road, class 3, up to about F4.

Steve Byford

Quinn Range: spire at head of Haynes Creek, east face in shadow. Steve Byford

Mt Assiniboine East Face

Topping out from the north face in the spring I was struck by the steep fluted ice face that forms the upper section of the east side of Assiniboine. Reminiscent of Peru, it seemed to be a far more exciting

Mt Assiniboine East Face: route line. Dave Cheesmond

proposition than the easy angled north face and I resolved to return to this beautiful mountain in the summer.

Not until September, after a summer of exciting rock climbing, did my mind once more turn to the high peaks. Sorting through Urs Kallen's pictures of the awaiting challenges in the Rockies we were taken with an aerial view of the face that showed a definite line running almost from 'schrund to summit. Immediately we resolved to try and squeeze in an attempt before the first snows of winter....

From my small perch on a block that seems to be not quite a part of this mountain I can see footsteps leading across the slopes to the Assiniboine/Magog col. It seems a long time ago that we plodded across to rest and make tea at that place before sorting gear and dropping down and across to the avalanche cone below the face. Only the reality of Tony appearing through the gap at the top of the rock band, half a rope length below, reminds me that this is only Day Two on this wall. The climb has indeed been almost dreamlike — clear, cold autumn days, and a night enlivened by unearthly displays of Aurora Borealis, enjoyed from a bivouac ledge large enough to stretch out on.

Was it only yesterday that I had watched Tony precariously thrutching his way out of the entrance grooves, mumbling to himself about the difficulty and his rather ancient ice gear? Following the pitch I had been impressed by the steepness of it all and wondered how he had managed to put a runner out in the middle of something so awkward. And could it have been this morning that I had my chance at complaining while clawing my way up the Ice Hose that became more and more slushy as it became steeper and steeper? I suppose it must have been, although it seems such a long time ago.

Like all mountain ascents, this climb can be broken down into pitches. We even named some of them — the Ice Hose, the Black Band, the Giant's Groove. But somehow while sitting there belaying or looking down from a half led pitch to my friend hanging cold and small from two ice screws, the ascent became much more to me and, I believe, to him. Looking up from my block which is becoming increasingly uncomfortable I can see the snow ledge where we will fashion a bivouac tonight and the cornice which Tony will by-pass to the left rather than the right which is composed of bottomless powder snow. By craning my neck I can almost make out the summit and by shifting my position I can observe the small slides that occasionally fall from the descent route. I wonder why this climbing appeals so? Many answers have been proposed but the only satisfactory one seems to be that at the time it is the one right thing to be doing out of the multitude of choices that we have. All this philosophical theorizing is interrupted by Tony's arrival at the stance and soon forgotten in the technicalities of changing over gear and rearranging the belay. Soon it is my turn and I look up to see a familiar face peering down at the lower wall and the col beyond. I can never be certain but I sense the thoughts behind the mask that we all wear.

We arrived back at the cabins below Assiniboine at eight in the evening of the third day. After a six hour walk out in the dark and a four hour drive back to Calgary I had just enough time to change into a suit and be at the office by eight. It was not quite a week later that I awoke one morning to see snow flakes drifting down outside the window, heralding the end of yet another season in the Rockies.

David Cheesmond

Mt Assiniboine east face, first ascent, V 5.9, A2. Tony Dick and David Cheesmond, September 1982. We believe this route to be the first one on the east face proper. The previous route on this side of Assiniboine (see AAJ 17:148) follows a slope and buttress to the left, avoiding the difficulties of the face. It should logically be called the east buttress.

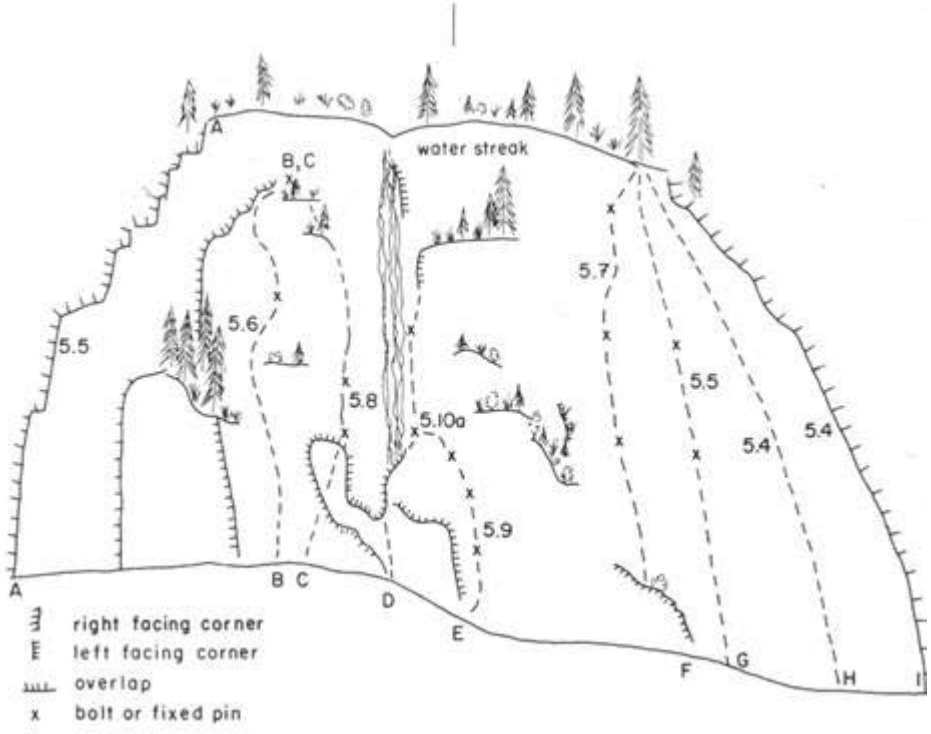
Calgary Area Rock Climbing

Since the last update on climbing in the Calgary area (CAJ 1980) numerous new routes have been established and the aid has been eliminated on several older climbs. Standards have risen significantly so that there is now a reasonable selection of climbs in the 5.9, 5.10, and 5.11 categories. The rise in standards can be attributed to several factors: increased expectations due to a rise in rock climbing standards throughout North America, greater acceptance of the use of bolts as a legitimate means of protecting blank faces, increased interest in short but very hard climbs, exploration of new areas, and most importantly, more good climbers. The recent publication of guidebooks to the Banff and Ghost River areas has also stimulated activity.

Some of the most significant developments have occurred at Yamnuska. Short routes have been added to the east and west ends of the cliff and three longer climbs have been established. High Voltage (5.10a) takes the prominent crack system between Grillmair Chimney and Chockstone Corner. Marriage Rites (5.9, with a few moves of aid at a roof) climbs the steep wall between Yellow Edge and Corkscrew. The Tongue, Left Side (5.9) takes a wide crack leading up from the top of the first pitch of Missionary's Crack. Aid eliminations include Necromancer (5.9), Kahl Wall (5.9+), and Balrog (5.10). The most impressive achievement to date has been the virtually free ascent, after several preliminary efforts, of the intimidating Yellow Edge (5.11). This exceptionally steep climb seems bound to become a classic test piece.

North of Yamnuska at CMC Valley there has been relatively little activity. However The Maker (5.10a) has finally had its long awaited second ascent. Groundfall Wall (5.9+ or 5.10a) has been top roped several times but apparently has not yet had a

Calgary Area Rock Climbing: Grotto Slab
A-North Corner, B-Spring Thing, C-Runnel Route, D-Alien, E-The Stand F-Spacewalk, G-Afternoon Delight, H-Cruisin' for Burgers, I- Patty's Climb. John Martin/M Irvine



repeat lead.

Several new routes have been established in the Ghost River area. Particularly noteworthy are two in the Minnewanka Valley: an unnamed one pitch hand crack which at 5.11c is the most difficult crack climb yet established in the Calgary area, and Ziggurat (5.9+), a long face climb. On Bastion Wall, Thor (5.9+) has had several repeat ascents and is gaining a reputation for sustained, difficult climbing of excellent quality.

At Goat Mtn new routes have been established on all four of the main climbing areas. The most significant addition is a yet to be named face climb (5.10b) that takes a line up the blank central wall of Nanny Goat Crag. At a more moderate standard, Manitou (5.8) is a new 15 pitch route on the main face of Goat Mtn. On Kid Goat Crag several new climbs in the 5.6 to 5.8 range, including a girdle traverse, have been completed. The impressive Goat Buttress (5.8, A3) has now been repeated but there has been no attempt to eliminate the aid.

In Heart Valley attention has centred on Heart Slab where about twelve short new climbs have been established. Of particular interest are White Line Special (5.9), The Hook (5.9), and Skid Row (5.10a). These are friction climbs of the Rough Mix genre with long runouts. Three new climbs have been added to Lower Heart Crag. Fred (5.9), which takes a line to the left of Grovel, is the most significant of these. At Jupiter Rock, an ominous black crag that rises directly out of Heart Creek a short distance north of Lower Heart Crag, an interesting face climb (Callisto, 5.9) has been top roped but not led. Grotto Canyon, east of Grotto Mtn, is a relatively undeveloped area whose climbing potential was not discovered until 1981. Short climbs in the 5.9 to 5.10 range have been completed at various spots along the canyon and several one pitch face and friction routes ranging in difficulty from 5.4 to 5.10a have been established on Grotto Slab, an attractive area near the top end of the canyon.

Exploration has occurred in the Kananaskis Valley where the new route possibilities are virtually untapped. The most interesting recent finds are Friends (5.9), a five pitch route in a dihedral overlooking Barrier Lake, and Kaleidoscope (5.9), a sparkling two pitch crack climb in the Kidd Falls area.

In the Canmore area attention has been concentrated on EEOR. A major new line (Dropout, 5.9) has been established up the steep crack system between Balzac and the MacKay Route. On Balzac the aid has been eliminated but the grade remains at 5.8. The MacKay Route has finally been repeated, using a variation that avoids the main aid pitch of the original route. One point of aid remains on the variation (5.8, A1). Below EEOR, Die Young Stay Pretty (5.9+) is an entertaining short problem near the road. On Chinaman's Peak, Quick Release has been repeated and the aid eliminated except for a tension traverse. The route is now graded 5.9, AO.

At Banff several short face climbs in the 5.9 to 5.10 range have been developed on a steep siltstone slab near the golf course. Protection is minimal except on the pleasant Aleutian Chain (5.10a) which has three bolts. On Mt Cory a short distance west of Banff, the Greenwood-Auger Route has been freed at 5.10b. The rock in this area is unusually good and several other fine three pitch routes have been established. The best known of these is the superb Paper Chase (5.11 a). Take It For Granite (5.8), Raincheck (5.1 Ob), and Short Circuit (5.10a) are the other routes in the area.

A guidebook covering the 400 odd routes in the Bow Valley east of Canmore, including Yamnuska and CMC Valley is currently in preparation.

John Martin

ACC Winter Leadership Training Week, 20 to 27 February 1982

Two nights were spent at the Clubhouse, four at the Mosquito Creek hostel, and one in igloos near the Bow Hut. Classroom instruction and rescue practice were interspersed with informal discussions and daily tours. Guide Bernie Schiesser maintained a high level of interest in the group while cook and manager George Stefanick kept us in calories more than sufficient to maintain a high energy level.

The week began with above freezing temperatures and rain but after that the snow conditions were close to perfect. A tour of Dolomite Peak and trip to the base of Mt Victoria were done plus a short trip up No-See-Um Creek, scoured by recent avalanches from both sides.

Bob Grindley

Particpants: Dorland Brown, Everett Fee, Richard Tilley, Norm Runte, Robert

Burcher, Toivo Taal, Dwayne Vogel, Bob Grindley.

ACC Leadership Training Week, 8 to 17 July 1982

July 8 found 15 strangers sitting together, a little uncomfortably, in the Clubhouse living room. Ten days later the same room was filled with 15 friends consuming copious quantities of alcohol and reminiscing about such adventures as the 16 hour day spent climbing the Guides' Route on Mt Rundle and the high rise igloo Don's group tried to build at the Columbia Icefield. Much had happened during those ten days.

Leadership Training Week (a ten day week) is an annual occurrence which helps its participants to learn the skills which are necessary to lead themselves and others safely in the mountains. The four to one student to instructor ratio provided plenty of opportunity for personalized interaction. Don Vockeroth, Dave Cochrane, and Albi Sole created a relaxed and stimulating learning environment. Under their tutelage a few buzz words surfaced: preparation, experience, knowledge, openness, and sensitivity. An openness to all that is around us is vital in making effective decisions. A sensitivity to one's fellow climbers is essential, especially in crucial situations. A couple of leadership concepts evolved were good leaders are people who are sincerely motivated to help and the key to leadership in the mountains is defensive climbing. On the skills level an eye opening revelation was that usually the most dangerous part of a climb to both the belayer and lead climber are those first ten to fifteen feet before the lead climber places his first runner. The fall factor or the force which is generated by a fall on the belayer and his anchors are phenomenal. One of the skill development tips was to practise down climbing six or seven moves especially in crux situations. This acquired skill obviously provides an option to peeling off.

Our ten days began with a getting to know each other session during which the barriers which are so often set up between strangers started to be whittled away. A review of knots and belay systems was followed by a trip to Rundle Rock in Banff for some short climbs and some rappelling. We were greeted on our return to the Clubhouse by the aroma of the cooking of Sheila Vockeroth and her two young assistants. This was the first of many superb culinary delights prepared by a truly family affair. Then we waddled down to the classroom where everyone participated in a critique of the day's activities. A blackboard session was followed by a preview of what the next day held for us. The pattern for the week was established on the first day: a lot of information to assimilate, not enough sleep, very little free time, but plenty of good food and camaraderie.

The following days saw us practise improvised rescues on the lower cliffs of Yamnuska and snow techniques on the slopes below Wenkchemna Pass. On the Columbia Icefield we practised ice axe and crampon use, glacier travel, crevasse rescue, navigation, snow cave and igloo building. Climbing skills, route finding, placing protection, and setting up belays were practised at Yamnuska on Easy Street, King's Chimney, Unnamed, Grillmair, and Gollom Grooves. Also climbed were Chinaman Peak, the Guides' Route on the east wall of Mt Rundle, and Mother's Day on Mother Buttress of Cascade Mtn. The last three climbs of the training week were the Tower of Babel which afforded a splendid view of the Valley of the Ten Peaks and Moraine Lake, the North Ice Gully of Narao Mtn, and Mt Lefroy via Lake Louise and Abbott Pass in a long day. Our last day was spent teaching the participants of the Training Week. Knots were taught in the morning and in the afternoon short climbs were done beside the waterfall on Cascade Mtn.

This was an opportunity to practise our teaching skills and get a feeling for what it is like to share our knowledge. This was a worthwhile ten days. I feel confident in writing that all the participants would recommend the week to anyone interested in developing their mountaineering abilities and leadership skills.

Michael Gund

Participants: Paul Geddes (camp manager), Tibor Bodi, Lawrence Bruce-Robertson, Gerald Caron, Keith Cover, Mick Guerrico, Michael Gund, Hugh McLeod, John McPhedran, Lesley Reid, Casey Shaw, and Chuck Waring.

The initial fee for the course was $670 plus travel expenses. Fitness Canada, a department of the federal government, subsidized approximately half the cost of the course which gave each of us a rebate of $352. Fitness Canada also paid the travel expenses for those participants who lived outside of Alberta. These subsidies will most likely be provided again in 1983 and should encourage participants from all over Canada to come to Alberta and enjoy a learning holiday.

ACC Training Week, 17 to 23 July 1982

What a fabulous week at the Clubhouse! The range of experience for the participants was quite broad. Occasionally the instruction we received was a review but by the end of the week we all felt that we had accumulated a large amount of mountaineering knowledge. A day of snow and ice instruction with the Leadership Training Week participants would have been very helpful.

On Saturday we had an excellent morning of instruction on knots, belays, harnesses etc. It was very beneficial having the LTW participants giving the instruction. The individual attention made learning quicker and easier. The afternoon was spent at either Rundle Rock or the base of Cascade to practise bouldering and pitch climbing. Setting up belays quickly and safely was stressed.

On Sunday we had a choice of climbs. A large group chose the east ridge of Mt Norquay and the remainder did a climb on the Wasootch Tower. Although the climbs were not difficult the wind and exposure managed to get our blood moving. Monday we chose from a rock school at the Wasootch Slabs, an ice school at the Columbia Icefields and a climb to Mt Lorrette. The rock school reviewed knots, belays, and rappels. The afternoon was spent bouldering, top roping, and climbing. The ice school was very wet and people found their Gore-tex was really Pore-tex. The day was spent learning snow anchors and other belay techniques, self arrests, crampon and prussic loop usage along with safe rope usage on the glacier. The climb to Mt Lorrette had a fingertip traverse that was made quite exciting with the wind.

It rained Tuesday morning so the time was filled with a chalk talk on crevasse rescue methods. The afternoon was spent at Rundle Rock and Goat Rock, practising

the methods learnt earlier. That evening Albi gave a slide show on his climbing trip to Peru. Fantastic!! On Wednesday we all attempted Mt Athabasca. It was raining and a short distance up the toe we were hit with an electrical storm. Two guides decided not to continue and spent the afternoon practising ice techniques with their groups. For the rest it was a long slow slog to the top. Very strong winds made it difficult to stand and visibility was very low. The descent was quite pleasant as the sun came out about 15 minutes from the top.

On Thursday another ice school was held at the icefields, a climb to Mt Lorrette, and a chimney climb at Yamnuska. The climb at Yamnuska required a lot of bridging and was quite exposed. Mt Lefroy was posted for Friday but was later cancelled and replaced with Mt Whyte/ Mt Niblock which was disappointing. The climb was very slow and the group did not return until 8. The other climbs of the day were Mother's Day on Cascade and Easy Street at Yamnuska. Our last evening was tremendous! We had a super dinner party with a lot of toasting: to guides Don Vockeroth, Dave Cochrane, Albi Sole, and Bob Sawyer who were fabulous, to Shiela Vockeroth who put together amazing meals, to Judy the camp manager. The party ended early for those leaving for GMC in the early morning while for others it continued at the local pub. Goodbyes were said and we departed with fine memories. Remember Albi's black eye and his stories about Peter Peru, Kengi's heavy matches, Judy and the key caper, three birthdays, the wine record, the snoring and the alarm clock we all wanted to smash!

Lori Mudrick

The Neil Colgan Hut

A non climbing friend of mine remarked as he put down his beer that huts must be to climbing what gin was to WC Fields. I asked him what he meant. "You know, a refuge from a harsh environment." I just smiled. He had never known the pleasures of a night spent in a sodden sleeping bag or the comfort of reclining for a few hours on sharp scree. I'd have given odds too that he hadn't experienced that wondrous sense of comradeship gained after days of lying in a tent slick and stale with moisture and mildew, the only view that of a few dirt caked cooking pots. But now and then I have to concede that huts are kind of pleasant. True they are mostly crowded and close to the road. They always seem to have a huge Valkyrie scowling from the doorstep at all new arrivals. However even these places offer a tired body a place to rest.

Another time though you might find lodging in a roomy cabin, set on a high sun dabbled saddle in good climbing country. If it is also hard enough to reach that the tourist trade keeps away but not so difficult that you have to be a bushwhacking masochist or wealthy enough to hire a helicopter to get there — then you have found a fine refuge in which to spend an alpine holiday. Peter Fuhrmann and Ron Matthews were clearing away the paper work for just such a place in the spring of 1982.

The money for the new hut was contributed in bulk by the Colgan family and in part by the Banff Section. The Colgans wanted to erect a living memorial to their son Neil, a Banff Park Warden who died on patrol in the north-east corner of the park. The Section went to its membership in order to find the contractors, securing the services of Eric Lomas and Bernie Schiesser. Since both are mountain guides the problems of building at 9700 ft on a slim budget of $20,000 were not overlooked. They immediately asked for volunteers and managed to enlist the aid of a number of creative lay-abouts.

Originally the cabin was to be built in July. Bernie and Eric had done most of the framing, Ernst Salzgeber prefabricated the cupboards and shelves. Everything was ready to be carted up the Moraine Lake road, ready for flying up to the saddle between Mts Bowlen and Little. Eric gathered the volunteer crew together a few times and then had to cancel due to the weather. The standard comment with each new rainfall that changed to snow at the higher elevations was that it was either a late spring or an early winter. A sad stale joke as July drew to a close.

As the completion date became history Eric's face was beginning to harden into that dour expression that only northern Englishmen and Scots can manage. It seems to say that it is always tough so you may as well keep going. But Bernie was still smiling and pointing out that everything was ready to be moved and that Peter Fuhrmann and some other wardens had levelled the site. Bernie was also planning to stretch his legs a bit in preparation for a week's guiding. Thus he and two others would fly up with a few tools, level the floor beams in place, and do some climbing. Michael Gund and I were looking forward to a helicopter ride and some scrambling with Bernie. All this was unfortunately cancelled due to more bad weather.

When old plans fail new ones are made. The hut was now going to be built in the second week of August. After the frame was up it was to be climbing in the morning, finishing the cabin in the afternoon. By 11 August the only climbing Mike and I had done was up a short flight of stairs into the cafe at Moraine Lake Lodge for a beer and sandwich. The weather was now co-operating but the helicopters were not. They were either down for repairs or rescuing fair weather climbers.

Along with Dennis DeMontigny, Mike and I were now guarding all the gear and building material. It was just the sort of stuff an enterprising fellow would need to finish his garage or recreation room. It certainly wasn't hard work and the night was cool enough to chill the beer. The only thieves in the area were the porcupines. We occupied ourselves with tossing rocks at the ugly rodents while wondering if the morrow would see us high in the mountains or still illegally camped on the Moraine Lake road.

Neil Colgan Hut: from the hut looking west to Peak Four. Eric Lomas

The Colgan family at the official hut opening. Eric Lomas

The next day Bernie and the sun arrived at about the same time. I never could stand a smiling face before a cup of coffee. Fortunately Eric drove up followed by Dan Verrall and Maurice Tissandier. A trip to the lodge soon procured that much needed beverage, the smell of which brought Dennis to life. Introductions were repeated and everyone was in good humour, expecting the helicopter to arrive at any moment — except for me. I was now the resident doomsayer and expert on the vagaries of helicopters. I was sure we would never see it. As we waited and listened the conversation wound its usual way from mysticism to dialectical materialism, then back to porcupines. We surveyed the damage they had done. There was a bit of ruined casing and many a gnawed piece of plywood. The defensive measures were obviously inadequate. The only thing we had managed to hit with the rocks was Mike's ancient car.

By 7.30 I was assuming a smug I told you so attitude when the helicopter arrived. Maurice ran down the road to stop traffic on the south end while the newly arrived wardens stopped it on the north. When KO landed his machine on the Moraine Lake road we became a tourist attraction. After all that waiting the helicopter took us by surprise. Eric was looking at me looking at him, both of us wondering what to do next. Finally KO signaled frantically for some action and we all began to dash about. The first of 26 loads consisting of Eric, Mike, Dan, a few tools, and vittles was on its way. But not before I ran to the rear of the machine, dodging the tail rotor while someone else slammed one of its doors. When KO finally took off he scattered untied insulation bundles and loose sheets of plywood down the road embankment. He was not pleased and over the course of the day put an end to these dangerous practices with a few well chosen words. On the second pass Bernie and KO decided that the pre-packed loads were too heavy. The fun was about to begin. Feverishly we ripped one load apart, repacked it, then ran up the road to halt traffic. KO descended and picked it up, the tourists clicked innumerable snaps, and the warden waved the traffic on. Lathered in sweat and tormented by horseflies, we were soon attacking another load.

One image remains strong in my mind from that busy day. The warden, a credit to his sex in snug fitting uniform, was calmly guiding traffic. Then he made the mistake of helping to rearrange a lift of plywood. The fast deep knee bend was too much for the pants. His tanned face turned reddish-brown and then he was directing traffic with one hand, keeping the other discreetly over his rear.

By 7 pm we were all on the saddle, briefly enjoying the beautiful view and the feeling of confidence that the hut would finally get built. Since it was a co-operative group of amateurs without a foreman or mountain leader in sight we didn't stop often or for long in the next two days. Everyone was too busy working to be giving orders.

The next day saw us labouring in high winds and stinging rain. It took four of us to lift one sheet of plywood up to the roof. When they went over the lip of the wall the wind invariably gusted a bit as if it was trying to launch the wood on a flight to Moraine Lake. The weather having its last vicious swipe at us.

Dennis, Mike, and I flew out on Saturday eve. We hadn't done any climbing but most of the heavy work was finished. Though there was still lots to do the hut now had its characteristic long narrow shape which could house 25 bodies. Its large windows offered a spectacular view of the Bugaboo group. With its solid construction and thick insulation we were positive that Parks Canada would accept this cabin from the ACC.

A few weeks later, I bumped into Bernie. He wasn't smiling that day. He and Maurice had come down on Sunday, leaving Eric alone. Bernie, his wife Terri, and Dennis returned on Tuesday, bringing in by helicopter the few odds and ends that had been forgotten. By Wednesday evening Terri was in intensive care in a Calgary hospital. With a history of high blood pressure, the transition from 4500 ft to near 10,000 in a 20 minute flight was too much. She suffered a stroke.

Terri is much better now and both Parks Canada and, more important, the Colgans are delighted with the hut. If you happen to be in the area it would be the perfect setting for a holiday. There is climbing at every level, from the Chouinard route on Mt Fay and the Super Couloir on Deltaform to easy scrambles up Little and Bowlen.

There are four ways to get to it. The Perren route is well marked and has fixed protection installed by the warden service. Three-Three and a Half couloir is reputed to be an exciting snow and ice climb in good conditions and a death trap due to falling rock the rest of the time. Three-Four couloir is a relatively safe walk. Unlike the Perren route there is no need for a rope other than for beginners. Thus it is probably the easiest route for packing a load of food

and gear up to the hut. These three routes all begin at the end of Moraine Lake. The final way in is long and a bit boring — just walk up Tokumm Creek to the Fay Hut and from there on to the Colgan Hut.

Tom Hardie

Stanley Mitchell Hut ACC Camp, 11 to 25 September 1982

WEEK ONE

Eighteen participants enjoyed one of the best weeks of weather this summer — four partly cloudy days with snow flurries at the beginning of the week followed by four brilliantly clear cool days which melted most of the new snow.

The spirit of the group was demonstrated on the first day by almost everyone taking off through snow squalls towards Kiwetinok Lake and Pass after the four hour hike with full packs to the cabin. New snow on top of old ice made the north facing slopes of the highest mountains quite difficult so only a few peaks were bagged. Longer hikes were made to Yoho Glacier, through Yoho Pass to Emerald Lake viewpoints, and over the Cats Ears saddle to Valley of the Waterfalls and Yoho Peak. The flower watchers were satisfied by finding lots of stonecrop, "creeping nanny", and a few moss campion still blooming at the highest levels as well as those lovely Yoho meadows full of paintbrush and tow-head babies at tree-line.

The west biffy was moved with appropriate ceremonies to christen the new location and a tree planted on the old site. The arrangement to helicopter food and fuel into camp and pack one's own gear plus garbage out seemed to be satisfactory (would Parks consider allowing the packs of Senior Citizens to go with the helicopter?). Eighteen is just the right number for September camps here — we could all fit snugly at the long dining table and sleeping was spacious with four in the west annex and 14 in the loft. A first class job by Erica Hobeck as cook and George Stefanick, manager.

John Stewart

WEEK TWO

The first ingredients for an excellent camp are a marvellous hut manager and his wife — we had them in the persons of Bill Hobeck, our guide, instructor, and congenial host, and Erica who fed us superbly with that motherly touch. As a team they were unbeatable.

Then there was the weather — five beautiful, clear sunny days with starry skies at night. It only rained one night and in the parking lot on our way out. The Northern Lights even put on a splendid display for us.

Then there were the participants. This was a congenial group who from utter strangers became friends we hope to meet again. With them we enjoyed the beauty of the Little Yoho. Each day we packed tasty lunch and headed out to explore a part of the valley and its peaks. On most days we hiked together but on several occasions the group divided. We explored the Skyline Trail and climbed Mt Kerr for a breathtaking view. The hike along Whaleback Ridge was done cautiously as the shale sides of the ridge make walking rather precarious at times. We went into the Waterfall valley — delightful tumbling cascades of water — returning several times. A hike to Twin Falls and surrounding area occupied us another time. The numerous and excellent hiking trails made each day varied and extremely interesting.

The glacier climbing group of Bill, Chester, Thea, and Don first climbed Isolated Peak then their enthusiasm carried them across the traverse and up McArthur and Pollinger. To end this day Kiwetinok Lake looked inviting so Thea and Don plunged in with Thea dividing the lake into his and hers. Bill, Thea, and Don established a new trail which took them across Whaleback Ridge and into Waterfall Valley, across the foot of the Glacier des Poilus and back to the hut by the arduous route up to the Cats Ears. Bill's comment was "Never again." On Friday, our last full day, Gary, Thea, Chester, Bill, and Don roped up for the ascent of The President. They achieved their goal with a "minimum of problems". Any problems are now listed in the hut journal by Chester and state that one of the party got a foot stuck in a crevasse, one left his rucksack at the pass, and one had a sore rear end from sliding on it. We gave congratulations all around and celebrated the event that evening.

Activities around the hut were varied. Val was inspecting the porcupine nightly activities when he noticed smoke coming out from under the roof and not through the chimney as is customary. Great haste was made to douse the kitchen fire, an unpopular move as Erica was preparing breakfast. Then an exercise in roof climbing began by Bill, Don, and Chester to repair the chimney. The rest of us headed for the hiking trails, returning by 1800 hours to find our chimney sweeps successful in their mission. The porcupine had to compete for attention with a pine marten who had an eye on Erica's stew and tried valiantly to taste it on one occasion.

Life in the hut brought us together, appreciating everyone's oddities — especially the strange growls and groans that some people make at night, the skill it takes to dress and undress quietly in pitch darkness, and the team work it takes to live together in harmony for seven days. We hope to return and enjoy the unhurried autumn pleasure of the Stanley Mitchell Hut in the Little Yoho.

Pat and Garth Thomson

North Twin North Face

In the first week of July 1982 Urs Kallen, Tim Friesen, and David Cheesmond repeated the first two-thirds of the Jones/Lowe route. Except for two aid points we free climbed both the first two rock bands (5.10) and the intermediate ice slopes. The top rock band was streaming with water from the ice plastered on top and we were forced to by-pass this by traversing to the ridge on the left. Thus a new variation was climbed — Traverse of the Chickens.

David Cheesmond

Mt Shackleton

Mt Shackleton is one of the major peaks in the Clemenceau Icefield region though you would not realize this from what you see of the peak from the new Lawrence Grassi Hut. It was only after we had climbed Tusk Peak that we saw Shackleton in all its imposing beauty — and then resolved to climb it.

Several days of bad weather — rain and snow — frustrated our plans to climb Shackleton and even made us fear that our climbing was over for good. Then we noticed a slight improvement in the weather. On 5 August 1982, with only two

climbing days left, we took our chances. Three of us, Bob Kruszyna, Art Maki, and Jack Taylor, left the hut at 5 am to climb the north-west ridge using an easterly approach — Shackleton diretissima so to speak.

Our route went up the 600 ft cliff that rises one mile east of the hut. A prominent icefall spills down this cliff. In order to reach the beginning of the rock portion of the route we climbed to the top of an avalanche snow cone which lies to the right, south of the icefall, then followed a system of gullies and ledges generally making our way to the south, away from possible icefall. Eventually we reached a distinct brown strata which soon turned into a diagonally tilted bench and followed this to a snow patch, clearly visible from the hut. At the snow patch we changed directions and went straight up for 200 ft to top out on the ridge two and a half hours from the hut. From the ridge crest we found a crack that we easily followed down to the snowfield and glacier that was our route to the Shackleton/Irvine col.

It took us four hours from the hut to reach the col. From there we started to climb the lower portion of the north-west ridge but immediately ran into a steep section which has the appearance of a tower. It took us a long time to solve this problem. We did so by going on to the west face, using snow and scree covered ledges and vertical cracks that we followed to the easier section of the ridge. Once on the easier section we made good time to the first (west) summit. But now, as we traversed the ridge to the central peak, we were in clouds and intermittent snow showers. Occasionally we caught glimpses of the spectacular scenery that lay all around us. We finally reached the summit around 1 pm with an elapsed time from the hut of eight hours.

Because of the deteriorating weather we started back immediately. We reached the snow patch on the lower rock cliff and then the rain became steady. We belayed one another down the remainder of the cliff as we down climbed the slick rock. It was pitch black by the time we reached the base of the cliff.

Despite the psychological trial and physical discomfort of down climbing the cliff in the rain this writer felt the route was a splendid mixed climb. Don't miss it next time your find yourself at the Lawrence Grassi Hut.

Mt Shackleton from Tusk Peak with Tower in foreground and central summit slightly left of distant peak. Jack Taylor

John E Taylor

The First Clemenceau ACC Ski Camp, 21 February to 6 March 1982

WEEK ONE

Light was fading rapidly as CMH pilot Chad Murray landed the Bell 214 helicopter on Cummins Ridge, site of the new Lawrence Grassi hut. The outhouse and hut were quickly dug out and before we could even have our first meal a problem became apparent; the new hut was too small for 20 people loaded with winter gear. This hardly deterred our spirits. All present eagerly anticipated the challenge of skiing a new area of the Rockies.

Partly cloudy skies greeted our party the first morning, a variable weather pattern that would worsen as the week went on. After a quick Pieps refresher drill two snow pits were dug to determine the avalanche stability — conditions were generally stable. After an afternoon of skiing and touring in the immediate vicinity of the hut everyone returned for a delicious dinner courtesy of camp cook Joan Bernard, whose meals ensured that nobody lost weight.

Tuesday dawned sunny and clear, with outstanding views of Clemenceau and Shackleton, the two dominant peaks. Six members could not resist attempting Clemenceau (12,001 ft) and left the hut midmorning to set up a high camp about 3000 ft below the summit, an attempt to be made the following day. By the time we erected our tents and started boiling water for tea and supper the weather had closed in and by 6 pm it was snowing. Another party attempting Mt Sharp was forced to retreat due to poor snow conditions on the summit ridge and an approaching storm. Back in the cabin things were much more comfortable without the six Clemenceau members and it was generally agreed that 14 was a manageable capacity for winter adventurers in the new hut.

"We're going to try and climb the bloody thing if we can," exclaimed Tony Daffern the following morning at the camp below Clemenceau. The sunlight flickered like a lightbulb in a cheap hotel room, but a hole in the clouds and blue sky beyond made a summit attempt feasible. We knew it was relatively unlikely that the weather would improve. At 10,500 ft we encountered a crevassed section and visibility dwindled to near zero. Not wanting to risk descent in the dark and the extreme cold, we turned back to our base camp. Three members returned to the cabin. The remaining trio decided to wait one more day, despite falling snow and gloomy skies. Grey skies continued the following day and the die-hards returned

to the cabin without any further attempt. Back at the cabin a group of three ascended a small, unnamed peak on the east side of a col between Pic Tordu and Mt Shipton.

The final three days were mostly cloudy and cold, with the exception of Friday morning. That day most went behind the hut and skied the fantastic glades of the west bowl. Even when visibility was nil at the cabin the trees on the other side of the ridge provided excellent relief and some spectacular powder skiing. There was over half a foot of premium grade Rocky Mtn "cold smoke", the kind of snow Coast Mtn participants dream about. The rewards of mucking up through the fog were apparent as we returned to the cabin, silly grins on our faces and telling stories of perfect snow, messy wipeouts, and "telemarking with the tunes on".

On Saturday the weather worsened and all radio attempts to reach Mica Creek were stymied until early afternoon. Around 3.15 Chad Murray pulled the 214 right into the middle of our impromptu landing pad in a total whiteout. Tilting his craft off the ridge, our stomachs rose involuntarily as we ducked under the whiteout and flew down the Wood River valley back to Mica Creek. A most enjoyable and memorable trip for your reporter who was attending his first, and certainly not last, ACC ski camp.

Steve Threndyle

WEEK TWO

It was still "whiter than the inside of a mothball" at Mica Creek when we left sunny Revelstoke on Saturday morning for the rendezvous with the helicopter that was to fly us into the Lawrence Grassi Hut. By late afternoon a patch of blue broke through the low cloud long enough for the two trips necessary to fly the 18 camp participants into the hut on Cummins Ridge. Though the Ridge seemed to have its own private cloud the group was finally able to land. The cheerful yellow hut, or as much of it as was visible, complete with an abundance of 'silver pillows' left behind by the previous occupants, welcomed our enthusiastic and optimistic group. For the first few days the visibility and flat light made for less than ideal conditions and the "Bowl" below the western flank of Cummins Ridge became the favoured place to ski. The lower slopes especially provided excellent runs down into the trees. Those with touring equipment preferred the powder on the eastern slopes of the Ridge.

As the weather improved two adventuresome groups set off for Mt Clemenceau. Unfortunately one returned the same day after having left the hut in the early morning dark and cold temperatures. The other returned after spending a cold night part way up the mountain in deteriorating weather conditions.

On the sunny days there were trips to the head of Cummins Ridge with views down to the Wood River area or across to Tusk Glacier. There are a number of excellent trips possible in the area for cross country skiers and an abundance of powder slopes close to the hut for those with touring equipment.

The highlight of the week was the dedication of the Hut by Club Manager Ron Matthews. A plaque was mounted in memory of Lawrence Grassi and a toast drunk, very fittingly with Grassi wine. The new hut with its dormer windows adding extra light is an improvement over the older style high altitude huts. The interior is extremely well planned. The area provides unlimited powder slopes for skiers of all levels. The snow depth, as measured in the snow profile pit dug by Judy Ledsham, revealed over 8 ft of snow on the Ridge. Temperatures in the morning ranged from -5°C to -13°C. It was a fine week of skiing among old and new friends and complemented by Helena Moorhouse's excellent cuisine.

Bev Bendell

Fryatt Creek ACC Family Camp, 14 to 22 August 1982

My hopes and prospects of participating in our first ACC Family Camp were definitely dampened when we were greeted at the Columbia Icefields Hotel by 10 mm of fresh snow. The radio forecast was not promising. "Emily doesn't seem to mind the rain," I explained to Marilyn as we waited at the rendezvous beside the Athabasca River.

Shortly the enthusiastic voices of our soon to be intimate cabin companions were heard. "I think the ceiling will have to lift before he can find a pass from Valemount," Dave stated. "In the meantime why don't we pile all of our gear into the clearings so he can see us." Ian, who brought the canoe, suggested we look for a good spot to ferry ourselves across the river. Boy were we prepared.

After an eight hour wait and lots of tea, coffee, soup, and sandwiches we all knew each other and the seven children better. By 3.30 we were almost ready to pack it in when the crackle of the helicopter made music in our ears. In no time at all the big bird carried away all our valuables to the socked in Vallance Hut.

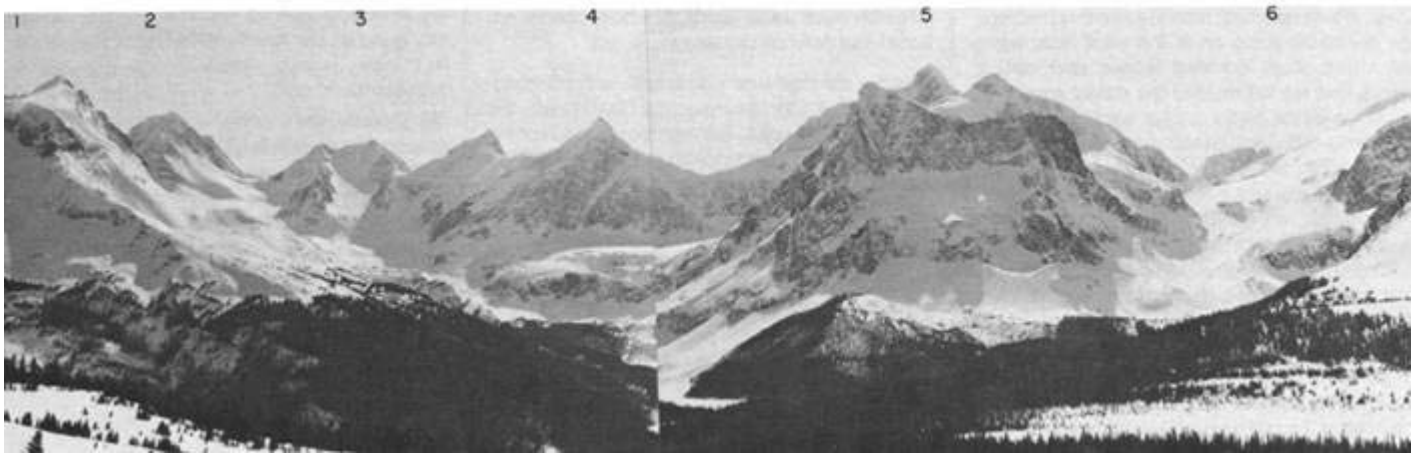
Sunday was spent clearing up the cabin and getting organized for the week ahead. The Vallance Hut (named in memory of Dave's grandfather) is a nice but neglected building. The log shows regular use by hikers and skiers but virtually no climbers in this quartz peak mecca for a ten year period.

As we geared up for Monday morning the veterans directed a few strange looks and comments towards my plastic boots and 60 cm axes tucked in their holsters. "No north faces this week Eb." I must admit that Ian and Phil's alpenstock 100 cm plus axes were a marked contrast. It didn't take long for the boys to limber up their joints and feel out their capabilities as we scooted up Mt Olympus (9980 ft) for an 11 am cloudy summit ascent. "But it doesn't count," mourned Dave, "it's 20 ft too short."

The week progressed with intermittent hikes and climbs and who's going to take the three year olds. Every evening consisted of a voluptuous meal served on a rotation basis. It sure makes a difference when you don't have to carry your load and equipment in. Phil and daughter scaled Three Blind Mice; Ian and Janet climbed two of the Mice; Dave, Janet, Jan, Phil, and I went up Parnassus via the normal ridge (last recorded ascent in 1973).

The climax for the week was the ascent of Mt Fryatt via the south-west face by Phil, Ian and me. The cloudless day presented a breathless panoramic view from the summit (last recorded ascent in 1976). Needless to say the 17 hour day put a damper on our aspirations for Belanger on Friday. It was just as well because everyone thoroughly enjoyed the alpine flower laden meadows of our picnic site high above the cabin.

Eremite Tonquin Ski Camp
1-Three Mice Ridge, 2-Angle Peak, 3-Alcove Mtn, 4-Eremite Mtn, 5-Mt Erebus, 6-Fraser Glacier. Neil MacDonald



That is until it started raining.

Overall the week was quite enjoyable and the weather followed a perfect script. The cabin certainly could have used a rumpus room with padded walls on occasion because with the full house of 14 bodies it was just bearable. The Fryatt valley is certainly a well kept secret from the climbing community with many opportunities for new ice, snow, and rock routes of all dimensions. I know I'll be back to visit the area again.

One final word of thanks to Dave and Janet Vallance for their initiative and hard work to make this Family Camp a well organized success. Marilyn, Emily and I are already looking forward to our next one.

Eberhard Grav

Participants: Dave, Janet, and Meagan Vallance; Jan, Ian, Rory and Emily Heath; Phil, Hilary, and Allyson Kemp; Eberhard, Marilyn, and Emily Grav

Eremite Tonquin ACC Ski Camp, 20 to 27 March 1982

A camp blessed with excellent weather, the most congenial of participants and superb food — what a starter for exploring this magnificent area.

The first 11 kms by snowmobile trailers was soon forgotten in full sunshine and good skiing conditions as our party, with a 57 year age spread, settled down to enjoy the 18 kms down the Astoria valley and up to the Wates Gibson Hut.

On Monday four different parties set off in different directions. Peter and Stuart led the high party to the Fraser Glacier where in bright sunshine and keen winds they climbed up to the col below McDonnell. For many hours they talked of the great run back across the glacier and down to the hut. Cam led another party up the Eremite valley, branching east before Angle Glacier to climb a steep slope to the col south of Thunderbolt. A very cautious descent took some time to get down to the top of the valley above Campus Creek. A long and interesting bushwhack around the base of Thunderbolt got the party back rather late for a well deserved dinner.

Tuesday saw another party up on the Fraser Glacier and most of the rest of the gang exploring by various routes the way to Amethyst Lakes. The route high up on the shoulder of Surprise was slow going but did provide some good downhill runs to the south end of the lake from which we had magnificent views of the Ramparts.

For many the highlight of the week was the trip to the Three Mice on the east side of Angle Glacier. Both the Wednesday and Thursday parties had ideal weather conditions. Excellent skiing and uneventful crossings of the glacier got us to lunch break just below the Mice, with wonderful views back down the glacier and over to Amethyst. We shed our skiis on the col and walked the last 500 ft to the peak with 360 degrees of mountain magnificence — Eremite, Bennington, Paragon, Clitheroe, Throne, Edith Cavell, Chevron. The run back allowed telemark practice for some and spectacular wipe outs for others.

But that was only the skiing. We met, photographed, and fed, not by intent, our marten cohabitors. Alene led the attack on the hut's three foot snow and ice cap. Jewel called us to meals with her inimitable sweet cockerel crow. Bunty plied us with food and wine as varied and excellent as the 5 star hotel she must have trained in. Cam kept us organised, out of avalanches, and created that spirit of companionship so special to the mountains. The writer celebrated his half century in surroundings and with companions truly fit for such an occasion. And by the way we hope that Dudley is going to persuade the Journal to publish his artistic rendering of the usually ignored opportunities in the biffy!

Neil MacDonald

New Routes on C2, Colin Range

During a training session 27 and 28 August 1981 four new routes were climbed on C2 in the Colin Range near Jasper.

EAST RIDGE C2 (opposite Messner Ridge)

From camp below south face of C2 hike south and up an open slide path to base of face. The prominent "Tooth" on the south end of the ridge was by-passed via a gully system to the right that was climbed until it ended in a blank wall. Ribs tending left were climbed, three leads required to reach the summit ridge. After reaching the ridge three leads were belayed. Rest of ridge was easy hiking to the summit. Some loose rock. F5.

SOUTH FACE ROUTE C2

From camp hike south and then up a slide path to the centre of south face. Climb right side of large funnel then traverse left into face and straight up to Messner Ridge three rope lengths below C2 summit. F6.

SOUTH FACE, WEST SIDE C2

From camp in the creek hike south and up an open slide path to the base of the face. From the lower left corner of the huge

smooth grey face climb up and left until a slight rib is reached. Climb the rib, trending right past a large overhang. Continue up rib until it stops then up and left to a belay below the prominent yellow face. Move left and climb the steep chimney to the summit ridge. Excellent solid limestone. F7.

SOUTH FACE, EAST TOWER ROUTE C2

The climb lies on a large tower on the south face and eventually gains the east ridge at a point about 150 m east of the true summit. Follow up gully system as for the east ridge route but angle left under prominent 100 m smooth face. Six pitches lead below face and up its lefthand side to summit of tower. A short rapped, one more pitch of climbing, and a bit of scrambling ends on the east ridge. F7.

Willi Pfisterer

Climbs were made by Park Wardens C Israelson, M Miller, B Wallace, D Volkers, A Dibbs, W Pfisterer.

Mt Robson Emperor Face

Previously unreported in the CAJ is a new route on the Emperor Face of Robson to the left of the Stump/Logan line. The climb took Tony Dick and me three days in August 1981. Rated 5.9, A2, with hard ice pitches, it follows the lefthand rib on the face before joining the Emperor Ridge which is followed to the summit.

David Cheesmond

Ontario

Ontario Climbing Report for 1982

An overview of climbing developments across Ontario for the past few years, outlining as many of the known areas as possible. Not much is known about many isolated areas - we encourage climbers active in these areas to share their accomplishments and finds.

Une vue d'ensemble des développements de l'alpinisme en Ontario au cours des dernières années, tenant compte de presque toutes les zones déjà connues. Mais les informations restent rares pour beaucoup de régions isolées - et les alpinistes familiers de ces régions sont invites à faire part de leurs exploits et de leurs découvertes.

For many years climbing activity throughout Ontario has been somewhat localized, most developments being publicized by members of the Toronto Section of the ACC. Activity by individuals or small groups near many remote population centres has been isolated, often sporadic, and frequently unreported. There is little outside knowledge of the considerable effort that has been directed toward the pioneering of more remote areas. Many ascents remain unrecorded; those of a decade or more ago are nearly forgotten. Climbers in more northerly regions have been active although little is known about the nature of their climbing sites. In the Thunder Bay area courses conducted by Lakehead University and the Canadian Wilderness Outward Bound School have spurred development. Manitoban climbers have been visiting crags on the north shore of Lake Superior and sites in the Kenora area. This is just a sample of the known and rumoured activity taking place. The aim here is to give a brief overview of known climbing developments across Ontario for the past year or so.

The Ontario Rock Climbing Association is preparing a safety manual. In the process of researching climbing areas in Ontario for the ORCA manual many sources have been contacted in the hope of generating communication and discovering new climbing spots, but most have been slow to respond. In addition to reporting new developments in Ontario, it is hoped that this article will spark the interest of active climbers to report their finds and developments. All communication is welcome. Contact: Robert Chisnall, 12 Stephen Street, Kingston, Ontario, K7K 2C3. Phone 613-542-6591.

TORONTO AREA

In 1981 at Punk Rock Dave Smart led the second ascent of "Return of the Degnoid", giving it a more modest 5.11 grading (down from 5.12). In the same year Dave put up the desperate "Wave" which has had no second ascent. This route follows a thin overhanging crack and an arête, and is rated at 5.11+.

At Rattlesnake Point, Dave Lanman completed "Golden Showers" (5.10), a direct finish to "Super Solenoid". "Land", a thin 5.11 + crack put up by Smart has defied repeat. "SOB" (5.11-), linking the cruxes of "Funky Fingers" and "The Mother" via "The Son" is now a fairly popular line.

Also at Rattlesnake Point 1982 saw no ascents of Rob Rohn's "Sacred Cow" which is certainly 5.12 at least. This has not been for lack of attempts. A route was put up straightening out the original "Sophocles" line; the traverse is eliminated by climbing the bulge and overhanging wall above to the belay ledge. This new variation is 5.11 and required one bolt. Rob Large and Dave Smart were the first ascentionists and the route is called "I'd Rather be in Forest Hill".

At Mt Nemo "Sister Morphine" (5.11+) took blood samples from most of the area's hot climbers although only Dave Smart repeated this outrageous roof problem. The crag south of Nemo saw a couple of new routes go up in the spring of this year. Brian Baxter and Rob Chisnall were sandbagged into leading the first ascent of the incredible "Strike One" (5.10), while Dave Smart followed. Guess who did the sand bagging! The trio also climbed "Smart Move" (5.11), which is a fantastically sustained face route on the wall of a dihedral.

One of the most notable free solo climbs of the year was Dave Smart's ascent of "Fearless Warrior" (5.11) at Cow Crag.

Pete Rielly and Dave Smart visited Buffalo Crag, climbing "Just Begun" free at 5.9 (previously A3). The pair also put up an impressive thin crack and face route to the right of "Rainy Day Women", called "Phenothiazines" (5.10). "Sad Eyed Lady of the Lowlands" was led free by Dave Smart. This is the hardest route at the crag so far (5.11). It involves marginally protected, very sustained face climbing, followed by bolt protected, calf screaming stemming to the top. On the second ascent, Rielly broke one of the SMC hangers on the original aid bolts by merely clipping into it!

BON ECHO ROCK, MAZINAW LAKE

Early in the season Dave Smart, Large, and Michelle Lang climbed "Perversion" (5.10). Smart, Large, and Lanman made the third ascent of "Fool's End" (5.11),

witnessing the extreme nature of George Manson's creation; the crux occurs 15 ft out from a protection bolt. This route is good to the last move. Ian McKay and Lanman made the second ascent of "Acme Handhold Company" (5.10). Later on Rick Clark and Dave Smart made the third ascent of this route, noting that despite the interesting and problematical final roof, this line offers little else. Also Lanman, McKay, and Large climbed "High Wind Over Jamaica" (probably the third ascent).

Baxter led "Popeye" (5.11) for probably the fourth or fifth ascent. One exciting development was the free ascent of "Compulsion" (previously A3) by Reg Smart and Lanman. This route is rumoured to be one of the steepest and cleanest on the crag, rated 5.10+. Reg Smart went on to make the fourth ascent of "Should Shrimps Learn to Whistle" (5.11) with Steve Adcock.

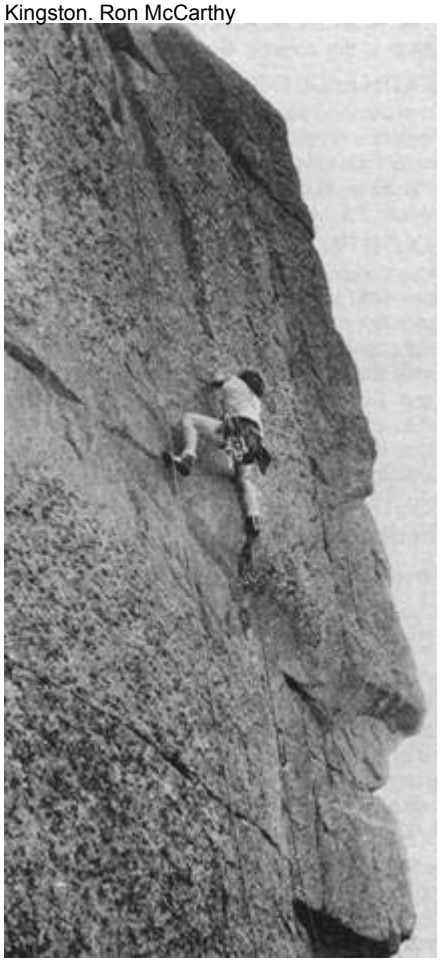
The breathtaking "Knight of Faith" is rumoured to be 5.12 and will likely await another season before it is repeated. The most impressive third class ascent at Mazinaw this year was Large's solo of "The Joke". Finally, after attempts by Lanman, Dave Smart almost free climbed "Voodoo Wall" on top rope. In October 1982 Chisnall managed to free this A3 line on top rope; it is easily 5.12. The crux involves a wild launch to fingertip holds on a near blank, overhanging wall.

GANANOQUE

In spring 1982 Dave Smart, Lang, Rielly, Chisnall, and Baxter spent an active day at Little Blue Mtn. Rielly put in the first ascent of "Rielly's Rib", a great crack climb along a steep arête. Dave Smart, Baxter, Chisnall, and Rielly top roped an old aid route producing "Presto-Digit-Eater", a 5.11 sustained face climb. Rielly led this with a few (?) hairy moves above marginal protection. Rielly also cruised "A-Okay" (5.10), and was the third person to lead "The Force", confirming its 5.11 rating.

Also at Little Blue Mtn Baxter, Chisnall, Lang, and Dave Smart cleaned and climbed the steep crack climb "Scrubola" (5.9). This is a great classic to the right of the expanding pillar route, "Forget It" (5.5). Other new routes include, "Spring Cleaning" (5.6+, Baxter and Chisnall, 1981), "Sleazy But Not Easy" (5.7+, Baxter and Chisnall, 1981), "Two-Tone Ball Bearing Embrasure" (5.7, Chisnall and Baxter, 1981), and "Standin' On the Corner" (5.11, Baxter and Chisnall, 1981).

Ian McKay on "A-Okay" (5.10)
At Little Blue Mtn, just north of Gananoque near Kingston. Ron McCarthy



Landon's Bay has become a popular ice climbing spot in recent years and the area's rock climbing potential is just being realized. Among about a dozen or so ice climbs there are several mixed and rock routes. Baxter led "New Year's Resolution" (5.7), followed by McKay and Chisnall. This extremely aesthetic line was climbed in January 1979. In 1980 Baxter and Chisnall put up "I Scream Sunday" (5.6, ice IV); this line follows an ice covered chimney to an overhanging choke-stone at the top. The pair also put up "Crime and Punishment" (A3) on Deadfall Wall in 1981. In the spring of 1982 Dave Smart, Lang, and Chisnall top roped the upper section of "Inverse Function" (A4), managing to free the overhanging crack at 5.11. Dave Smart, Lang, and Chisnall climbed a short, new crack route called "Rimbaud" (5.10). The neighbouring, futuristic line "Rilke" received an attempt by Smart and Chisnall, an attempt ending in the popping of three RP's and a subsequent fall through a nearby pine tree. Though access to the cliffs in Landon's Bay is a problem, the climbing there is worth it; ample room exists for many new routes.

Rob Chisnall on "Aggravation" (5.9) at George Lake. Jean-Marc Filion

KINGSTON MILLS

With nearly 150 recorded routes at Kingston Mills, the saturation point has nearly been reached. New routes include "Twilight's Last Gleaming" (5.7, Chisnall and Baxter, 1981), "Direct Attack" (5.6, Chisnall, 1979), "Narcolepsy" (5.11, Chisnall on top rope, 1980), "The Farce" (5.11, Chisnall, auto-belayed lead, 1979), "Crossroads" (5.11+, Chisnall, auto-belayed lead, 1981), "Sheer Delight" (5.10, Baxter and Chisnall), "Detour" (5.8, Chisnall and Baxter, 1981), "Fissure" (5.6, Chisnall and Paul Young), "The Hedger" (5.5, Chisnall and McKay), "Dilemma" (5.8, Chisnall and McKay), "Star Dust" (5.10+, McKay, Baxter and Chisnall, top rope), "Not Bloody Likely" (5.11 -, Chisnall and Baxter, 1981), "GM" (5.10-, Chisnall and Baxter, 1981), "Winter Wonderland" (5.7-, Chisnall, auto-belayed lead, 1979), "Skid Reversal" (5.6, Chisnall, auto-belayed lead, 1979), "Brown Shoes Don't Make It" (5.6, Dave McWhirter and Chisnall, 1978), and "Synergy" (5.9, Chisnall,

Baxter, and McKay, 1981). More recently Baxter led "Chantilly Lace" (A3), followed by Chisnall. In the fall of this year Chisnall managed to top rope "Camisole Cusp" at 5.12 after many attempts. In addition an old A3 line, "Spider Route", was top roped at 5.11+ by Chisnall after attempts by Baxter, Smart, McKay, and Chisnall. An A4 line originally put up by Baxter and Chisnall in 1981, "Sorcerer", was finally top roped free by Chisnall at 5.11. Several ridiculous looking problems are still being investigated. In the fall of 1982 Chisnall third classed the very committing "Deliverance" (5.10+). Chisnall is presently revising the guide book to Kingston Mills.

NORTH BAY AND VICINITY

Early pioneering in this area by Uwe Embacher and Jean-Marc Filion produced many fine crags. Further investigation and development is being carried on by Filion, along with members of his climbing club from Ecole Secondaire Algonquin. Sites with established routes are North Bay area (Peninsula Rock, La Couronne), Powassan area (Le Muir, Sentinel), Rutherglen area (Paroi du Lac Talon, Booth Rock), Sturgeon Falls (Mont Ruban, Crow's Nest, Paroi du Lac Clair, La Tombe, Split Rock), and Restoule Rock. This is only a partial list.

Filion has also been concentrating on the development of ice climbs in the area. He and Jean-Guy Charron put up "Elegance" at Idole Vert. Baxter, Chisnall, and Filion put up several fine lines at Moosehead near Mattawa. These include "Corner Stone" (5.6, ice III), "Bergschrund" (ice III), and "Pain of Glass" (ice IV). The most notable development for winter 1982 was the ascent of "The Snake". This grade IV ice climb was made by Baxter, Chisnall, and Filion. Jean-Marc is discovering new ice climbing sites every year.

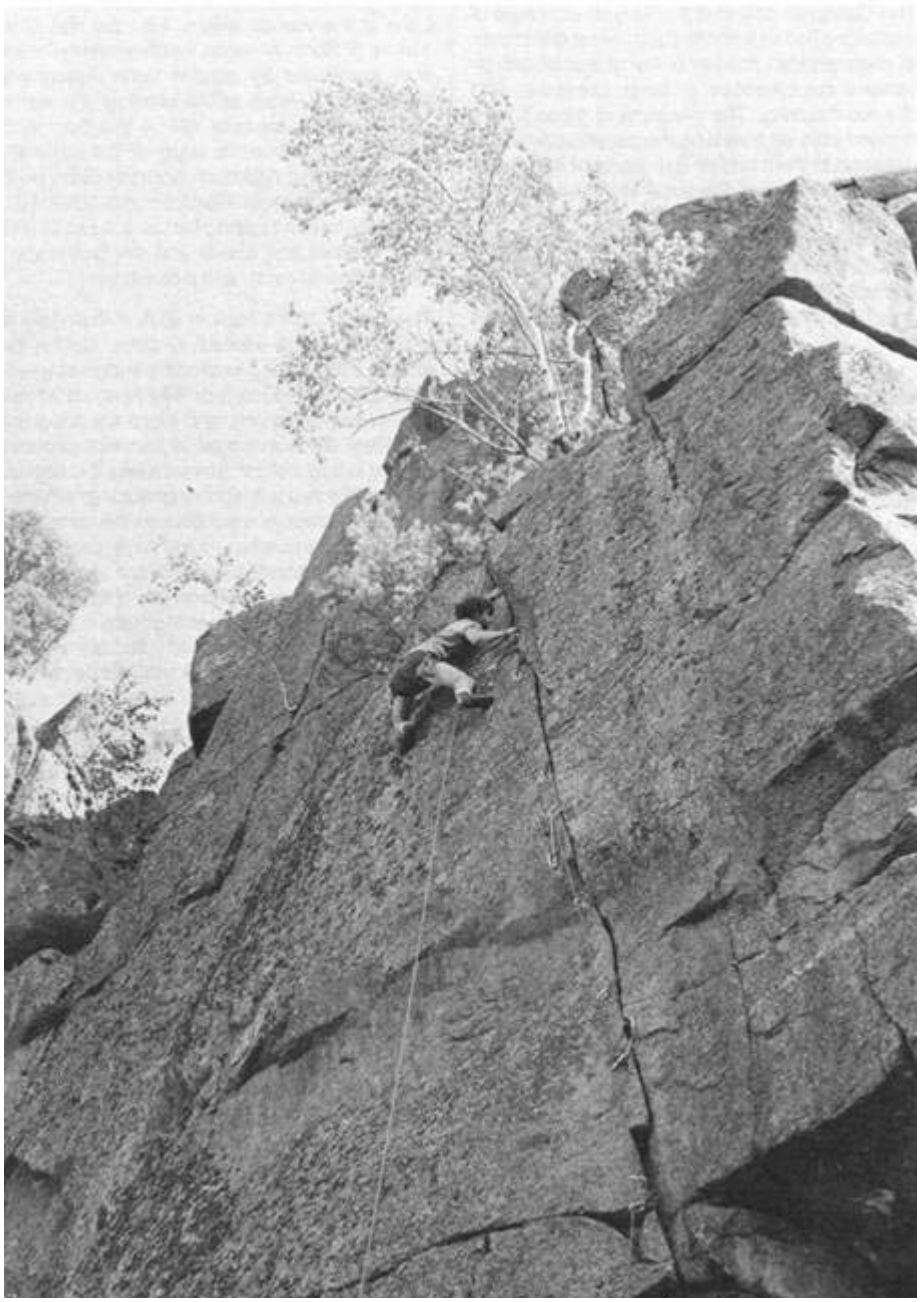
Spring 1982 also saw several developments at Paroi du Lac Clair. Chisnall did the first lead of "A-Bomb" (5.9), a route initially top roped by Filion and Charron. The trio also freed "Surplomb" at 5.7+. Just at the start of the bug season Filion led "Spring Madness" at 5.5, A3, and Chisnall managed to follow free at 5.11. This is just a sample of the activity around North Bay these days.

KILLARNEY PARK, GEORGE LAKE

This area was initially pioneered by Uwe Embacher and others (see CAJ 1977).

Brian Baxter on "Strike One" (5.10)
At undeveloped limestone crag near Milton, west of Toronto. Dave Smart

Ian McKay on "A-Okay" (5.10)
At Little Blue Mtn, just north of Gananoque near Kingston. Ron McCarthy



Shaun Parent leading Fear of Falling at Pass Lake. Paul Dedi

Recent visits by Filion and his climbing club have produced many fine new lines. Chisnall, Filion, and Charron have made several trips to the area and Dave Smart and Lang have contributed significantly to the development of Killarney climbing. Climbs mentioned below are on over a dozen crags around George Lake.

In 1981 Dave Smart put up the excellent line "White Punks On Dope" (5.10) which was repeated by Chisnall in 1982. Smart also completed "Waterline" in 1982, a very thin crack problem (5.11), the crux protected by a somewhat dubious bolt. Chisnall repeated the route a few days later. Among other new routes put up by Dave Smart and Lang are "The Johnny Rotten Memorial Hand Crack" (5.9), "Free Wind" (an unprotected 5.10 slab climb), and "Jet-Boy, Jet-Girl" (5.10). Dave's most significant contribution is the aesthetic and very difficult "Getting to the Point" (5.12), probably one of the finest lines in Ontario.

New routes established by Chisnall and Filion include "Aggravation" (5.9), "Fear of Flying" (5.8), "The Old Man's Hair" (5.7),

Rappelling off climbers cliffs. Shaun Parent

"Inner Soul" (5.6), "Torn Curtain" (5.10+), "Ballistic Boogie Boots" (5.9), "Imagine" (5.8), "Convolution" (5.7), "The Bouncer" (5.9), "The Stripper" (5.10), "Slip Slidin' Away" (5.10), "Of All the Nerve" (5.9+), "The Critic" (5.8), "Looking for Sunshine" (5.6, A5), "Blunder and Lichening" (5.8), "Clean Up Your Act" (5.0), "Road to Heaven" (5.8), and "For Demons Only" (5.3). This is a very small sampling of the new and varied routes put in.

A guide book for the George Lake area by Filion and Chisnall should be available after Christmas 1982. It is hoped that this guide will be first in a series of climbing guides to the Killarney Park area.

CONCLUSION

It is plain that energy and motivation are high in Ontario. Only the development of better known locations have been described and, as mentioned before, not much is known about many isolated areas. We encourage active climbers to communicate with the rest of the climbing community and to share their accomplishments and finds.

Robert Chisnall and David Smart

Climbing in the Land of the Giant

Rock and ice climbs in the Thunder Bay area.

Escalades rocheuses et glaciaires dans la région de la Bale du Tonnerre.

Thunder Bay is situated amongst a range of Mesa shaped features called the Norwesters. Their sheer vertical walls are becoming the centre of attraction for the climbing community. From Centennial Park where the walls are a mere 30 ft to the Sleeping Giant where 450 to 500 ft cliffs are found there is evidence of past climbing explorations. The climb Discovery (Top-O-Tallus Wall) was so named because of the No 3 stopper which was found on the route. During summer 1982 a group of climbers attempted to clean the cliffs and put up new routes seriously. The total number of climbing routes in the Thunder Bay area has passed 100, with many hundreds still to be climbed. Major developments and activities have taken place at "Climbers Cliffs", Centennial Park (City Park), and at the Top-O-Tallus wall at Sibley Provincial Park. The major problem to confront climbers developing the area has been the amount of loose rock found on most ledges and in cracks. Most climbs need to be viewed on rappel and the loose rocks removed before the climb is attempted. So far all routes have been climbed this way, possibly the reason why no accidents have occurred. The short season for climbing (May to October) as well as the intense insect swarms are reasons for slow development. With the onset of winter early in November the evolution of climbing from rock to ice takes place, with still the odd dedicated aid climber to be found on a face.

The mecca of Ontario waterfall ice must certainly be Orient Bay near Lake Nipigon. Reconnaissance by aircraft in winter 1980/81 exposed a total of sixteen ice falls which range in height from 70 ft (Amy-R) to 250 ft (Tears and Fears). The extreme north winds that blow in from Lake Nipigon make the climbing sometimes quite unbearable and difficult. The ice conditions only peak mid March which coincides with better weather. There has been only one serious attempt to scale the waterfalls, in early 1982, when half were climbed.

Below are described some of the

remarkable climbs around Thunder Bay.

DISCOVERY, 5.7, 300 FT

Top-O-Talus Wall, Sibley Park.

Scramble up fist jams and ledges to a wide belay stance.

A layback flake takes one to a sloping ledge leading to a finger crack and face climb. Bolt belay in corner.

An offwidth crack leads to a stemming over hang. Climb crack to belay ledge.

Traverse along a ledge then up an offwidth loaded with cedar trees to a belay tree.

A continuous face climb, bolt protected, brings one to the top of the wall and belay bolts.

COURAGE CRACK, 5.5, 40 ft

Climbers Cliffs area. From ledge above Five Finger Discount, climb finger and fist jamcrack to top. Belay bolts are at top near trees.

FEAR OF FALLING, 5.6 A2

Pass Lake sandstone cliffs.

Aid up a flake to overhang, follow under roof to a hanging belay stance near tree.

Free climb directly up face to a large flake. Good ledge above flake for belay.

Shaun Parent

At present local rock and ice enthusiasts are putting together a guide book to the most popular areas. Information regarding the guide and the various climbing areas around Thunder Bay may be obtained from Shaun Parent, Box 391, Thunder Bay, Ontario P7B 4V9, Canada.

Shield Granite, North-Western Ontario

Geological features of the Canadian Shield of interest to rock climbers are described. The Kenora, Ontario region has exceptional quantities of unmetamorphosed granite and Winnipeg rock climbers have been active here for ten years. Twenty-four new routes climbed in 1982 on four cliffs in the Experimental Lakes Area are reported.

Les caractéristiques géologiques du Bouclier Canadien qui intéressent les grimpers sont décrites. La région Kenora de l'Ontario a des quantités exceptionnelles de granite non métamorphose et les grimpeurs de Winnipeg y sont actifs depuis dix ans. Vingt quatre nouvelles voies, ouvertes en 1982 sur quatre paroles, ont été reportées dans la région des lacs Expérimental.

"...the most demanding situation in climbing is the route which starts hard right off the ground and stays hard for 30, 40, or more feet."

Michael Loughman, Learning to Rock Climb, 1981.

The Canadian Shield is the largest exposure of crystalline bedrock on the Earth. Most of this rock is metamorphic having been recrystallized by various combinations of heat, pressure, and chemical activity. The products of these forces depend both on how long the parent rocks were exposed to them and on the nature of the parent rocks themselves. Because the variables are numerous metamorphic rocks are diverse and potentially confusing but climbers can and should distinguish between the so-called high grade types (quartzite, marble, and gneiss) and their hazardous lowgrade cousins (slate, schist).

The great quantities of metamorphic rock on the Shield were produced by periods of mountain building (orogeny) that occurred during the Pre-cambrian era (4000 million to 700 million years ago). Dozens of mountain ranges were built and then destroyed on the Shield during this time. Each orogeny recrystallized the debris from previous orogenies and by the end of the Precambrian about 80% of the Shield had been transformed into banded gneiss. Repeated and extreme metamorphosis "granitized" this rock and in spite of its laminated appearance it is solid and trustworthy. Unfortunately because gneiss did not crystallize from a liquid state it lacks the jointing patterns found in unmetamorphosed granite and it has weathered into flat and monotonous landscapes over most of the Shield.

Fortunately for climbers there is more to the Shield than banded gneiss. During each orogeny liquid magmas from deep within the Earth welled up into the mass of folded and metamorphosed older rocks and cooled to form new igneous rocks. Deep erosion has exposed these intrusive bodies and they are now scattered over the Shield like islands and archipelagos in a sea of banded gneiss. Because they are prominently jointed these igneous rocks have weathered into chaotic landscapes that have a lot of climbing potential. They are the basis for the uniquely Canadian sport of wilderness crag climbing.

Not all igneous rocks of course are equally good for climbing. In many places on the Shield they have been transformed by low grades of metamorphism and are hazardous — a well known example is the Bon Echo cliff on Mazinaw Lake in southern Ontario. In other places they are loose because the magma cooled quickly or because the chemistry of the magma led to weak bonding between the minerals. For these reasons vast areas on the Canadian Shield will be of little interest to climbers.

When rocks are recrystallized the radiometric time clocks that are locked in the lattices of the minerals are reset. Metamorphic rocks thus have the age of the most recent orogeny that affected them and of the dozens of orogenies that occurred on the Shield only four can be specifically identified. The oldest Shield rocks (2500 million years) occur in a broad band from Great Slave Lake to Labrador. These rocks are all that remain of what must have been one of the greatest mountain ranges that has ever existed on the Earth. These ancient rocks were produced by the Kenoran orogeny. As implied by the name, the Kenora, Ontario district is liberally endowed with the weathered igneous relicts of this orogeny and Winnipeg climbers have been active in this region for about ten years (C-4J 1976:34, 1978:47, 1981:98).

Last year I reported (CAJ 1982:24) on new climbing routes in the Experimental Lakes Area (ELA), a 200 square mile batholith of unmetamorphosed pink granodiorite located 30 miles east-southeast of Kenora. ELA granite is stubborn stuff and consequently this area is the highest part of the Lake of the Woods region. Like the rest of the middle of North America, north-western Ontario was inundated by glacial Lake Agassiz for thousands of years at the close of the last ice age. The clay deposits left by this lake in the Kenora district filled in many of the surface irregularities that had been scraped clean by the continental ice sheet. Because of its altitude ELA was only briefly touched by Lake Agassiz so its soils are thin and sterile and the landscape is extraordinarily rocky and picturesque.

The quality of the rock in ELA is definitely not unusual in north-western Ontario. Similar pink granite can be seen at Minaki's impressive roadside cliffs

(the Gooseneck Rocks) about 30 miles north-west of Kenora, and there are apparently countless other outcrops of unmetamorphosed granite in this district. Nevertheless it is not easy to find cliffs that are worth developing. Wherever possible highways were built on the more easily worked metamorphic rocks so a casual drive through the Kenora district gives a very distorted impression of the general quality of the local rock. Topographic maps and aerial photos are suggestive but the only way to really find out about an area is to go have a look. Winter is the best season for exploration and ski touring in search of new cliffs is an important and increasingly fascinating game for Winnipeg rock climbers. Moreover the extreme cold, short days, deep powder, challenging distances (day trips of up to 25 miles) and route-finding difficulties (slush on the lakes and impenetrable bush on the land) make Shield skiing excellent training for our other primary interest, ski mountaineering.

Descriptions of twenty-five new routes climbed in 1982 at four particularly attractive ELA cliffs are given below. Only two of these routes have had second ascents and the grades are thus preliminary. All but three of the nineteen new routes described in CAJ 1982 have been repeated. The only grade change is The Bitter End at Lake 123 — it is 5.8 and not 5.9 as reported. I am not reporting here eleven more new routes that were climbed in 1982 on three other ELA cliffs: Lake 691 (military grid co-ordinate 563108), off the north-east corner of Teggau Lake (558075), and off the south-east shore of Hillock Lake (368990). The first two sites are off the north-east edge of the ELA batholith and all three are located away from lakeshores so access is disagreeable. General access directions and other details are given in CAJ 1982.

Lake 123 Cliff

Located on the north-east corner of a small lake (376990), this readily accessible cliff is the best climbing site so far discovered in the ELA region. It is only 100 ft high and a few hundred yards wide but every 30 ft or so the steep blank face is broken by sharp edged cracks that run for the whole height of the cliff. Climbs follow these marvelous cracks and many of the 20 routes here are classic granite problems involving sustained jamming, chimneying or laybacking (Jamming 101, Suzy, Under the Sword, Yosemite Prep, My Go Now, Beaver Toe). Because of the unusually fine grained nature of the rock, good face holds are uncommon and slab moves are the cruxes of other equally interesting routes (Solid Geometry, Full Moon Coming, Chan-Bahlum). We camp at a graded spot just off the road at 385996. It is a 20 minute walk from this camp site to the cliff. Detailed access directions and a photo of the cliff were given in CAJ 1982.

LITTLE ONE, 5.5, 85 FT

A somewhat vegetated and contrived line hidden behind a big spruce tree near the left side of the cliff. Start in a dark corner just to the left of a 20 ft high free standing granite finger.

55 ft. Move up the corner to some maple bushes. Traverse left and mantleshelf onto a ledge. Move back right to cracks and flakes which lead to a tree belay.

30 ft. Follow thin cracks in the middle of the slab to a tree belay.

Dirk Erkau, Everett Fee, and Casey Shaw. 7 September 1982.

YOSEMITE PREP, 5.9, 90 FT

A strenuous and poorly protected gem. It starts on the right side of the 20 ft high detached granite finger on the left side of the cliff.

20 ft. Chimney, jam and layback up to a big terrace.

40 ft. Crux. Climb the left side of the huge flake in the corner of the terrace and finger traverse left to a tree belay.

30 ft. Follow the corner to a tree belay.

C Shaw, E Fee, and Bob France, 6 September 1982.

RAINCHECK, 5.6 C2, 80 FT

An intimidating line located in the inside corner to the left of the low overhangs behind the lakeside boulders. It is a good route that stays dry when the rest of the cliff is wet. Peter Aitchison and E Fee, 29 May 1982.

SUSPENDED ANIMATION, 5.6 C2, 100 FT

A fine mixed route that follows the prominent cracks immediately under the huge overhang at the tallest part of the cliff.

50 ft. Free climb the vertical cracks to a ledge. Mixed aid and free moves lead up and right past a thin flake and a most unusual crack in the roof. Step above the overhang to a small stance and belay (hanging).

50 ft. Follow the irregular pegmatite crack and delightful slabs to the top.

B France, E Fee, and C Shaw, 5 September 1982.

MY GO NOW, 5.10, 70 FT

The cleanest line on the cliff. Start behind the prominent 15 ft high flake leaning against the right side of the cliff and either jam up the crack in the corner or climb the flake and traverse across to the right trending crack under the roof. The long crux is ahead and involves offhand jamming, awkward chimneying and minimal footholds.

C Shaw, E Fee, and D Erkau, 7 September 1982. E Fee and C Shaw (with aid, 5.7 C2), 7 October 1981.

COMPLICATON, 5.7, 55 FT

The easy looking crack that goes straight up the face and a few steps to the right of Full Moon Coming. The crux is at the top.

P Aitchison, E Fee, and Richard Tilley, 29 May 1982.

CHAN-BAHLUM, 5.9, 80 FT

An exceptionally exacting and sustained crack and slab climb located to the right of a prominent buttress on the right side of the cliff. The route is easily identified by a curious granite nostril located two-thirds of the way up. Named for a big nosed king who reigned between AD 683 and 701 in Palenque, a Mayan ceremonial centre in the Mexican jungle.

P Aitchison and E Fee, 29 May 1982.

Shield Granite: Lake 262 north cliff with 1—Prelude (described in CAJ 1982), 2—Juniper Jungle, 3—Thunderbird, 4—Super Crack, 5—Aurora Borealis, 6—Camino al Templo, 7—Loon, 8—The Cliff.

Everett Fee

Lake 259 Cliff

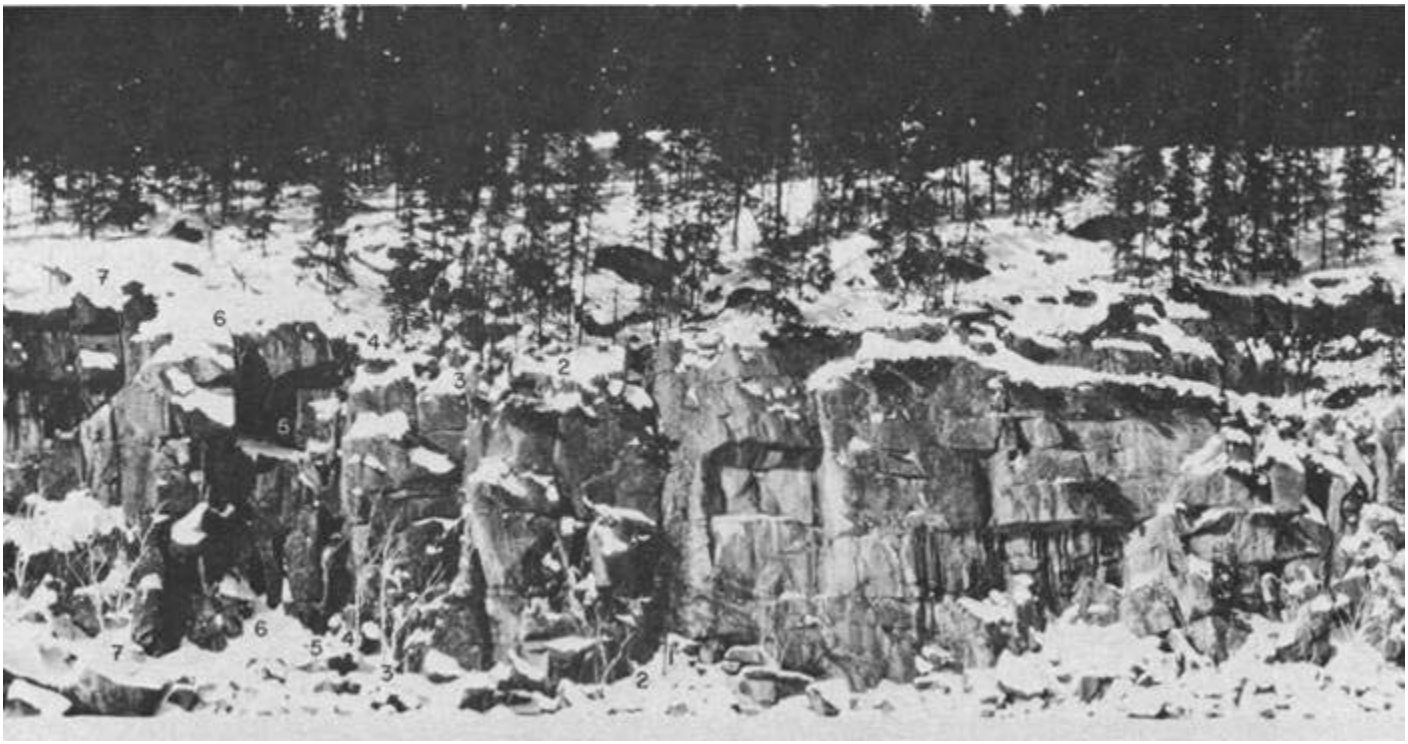
This compact cliff has a bright, open ambience. The six routes that have been climbed here span a wide range of difficulties and all are recommended. There are good exit routes on both sides of the cliff. The camp site on the island at 433038 is one of the nicest at ELA. Access directions for this cliff were given in CAJ 1982.

NEW BEGINNING, 5.2, 50 FT

A fine introduction to rock climbing. It starts near the left end of the cliff at the bottom of a steep staircase leading up to a big flake on the right.

Above the flake continue straight up the

Shield Granite - Lake 262 north cliff
1-Prelude (described in CAJ 1982), 2-Juniper Jungle, 3-Thunderbird, 4-Super Crack, 5-Aurora Borealis, 6-Camino al Templo, 7-Loon, 8-The Cliff.
Everett Fee



thin crack on the face.

E Fee and Douglas Leonard, 13 September 1982.

SECOND COMING, 5.9, 60 FT

This spectacular route follows a vertical crack located about 100 ft from the left end of the cliff. Start directly behind a huge detached flake and use bridging, jamming, and unexpected face holds to overcome the imposing overhang and the awkward section above.

D Leonard, E Fee and C Shaw, 13 September 1982.

MYSTERY TOUR, 5.9, 70 FT

A well-appointed and exacting route that follows an obscure dihedral system located just left of the bald outside corner at the tallest part of the cliff. It starts left of the alcove located under a prominent low roof.

40 ft. Finger traverse off a narrow ledge to a short right trending dihedral. Break out onto the face above the dihedral and follow cracks to a stance below the large block. Move past the block on the left to a broad ledge and a tree belay.

30 ft. Go right past the short bench to a notch and finish up the narrow crack.

D Leonard and Daniel Price, 26 September 1982.

Lake 262 Cliffs

There are two cliffs on the west side of this lake. The one on the south-west shore (495064) is extensively fractured and has many untried lines up to 80 ft long. There are also some Indian rock paintings on a steep lichen free granite face near the right end of this cliff. The other cliff is on the north-west shore of the lake and runs for over a mile. Unlike the south cliff, the north cliff is sparsely fractured and only the 130 ft high wall immediately adjacent to the lake (498068) has extensive climbing possibilities. This wall is remarkable however, having eight excellent routes, among which Prelude, Super Crack, Aurora Borealis, Thunderbird, and The Chief are particularly outstanding. There is a prominent square theatre located two-thirds of the way up on the left side of the north cliff's lakeside wall. This striking niche (The Temple of the Sun) is protected from wind and rain and commands an impressive view over the lake toward the rising sun. It is an important feature for locating several of the routes.

Descent from all routes is by rappel. It is recommended that the leader climb with double ropes since a single rope won't reach the bottom when doubled. If you only have one rope don't head south and descend by the waterfall unless you are prepared to swim back to the base of the climbs. An easier descent route may exist on the north side of the cliff which has not been explored. Access is from the Trans Canada Highway. Put in to the West Arm of Eagle Lake at 613173 and paddle down to a short portage at 528098 into Winnange Lake. Another portage at 503073 leads to Lake 262. There are good camp sites among the red pines on the peninsula at 503071. Access time 4 hours.

JUNIPER JUNGLE, 5.6, 90 FT

A terrific looking inside corner in the centre of the lakeside wall and just to the left of the blank overhanging face. It has a good short crux but it lacks sustained interest and is altogether too vegetated.

E Fee and Lucille Doucette, 11 July 1982.

THUNDERBIRD, 5.8,110 FT

The stuff that dreams are made of. It begins at a left trending ramp a few steps left of Juniper Jungle. 30 ft of moderately difficult but unprotected face moves lead to a welcome ledge. Follow varied cracks up to a prominent horizontal crack and traverse left to the crux — a long jam crack that leans to the right. E Fee and C Shaw, 28 July 1982.

SUPER CRACK, 5.6,110 FT

The route for stoics, with a long, exciting crux. Start on the outside corner of the buttress to the right of the Temple of the Sun. Move up easily to a horn and turn an herbaceous corner to the right. At this point the crack is wide enough for hands; over

Shield Granite: Lake 310 cliff
1-Wildest Dreams, 2-Throwaway, 3-Stormy Sky, 4-Friends and Rocks, 5-Dukes of Hazard, 6-A Farewell to Arms, 7-Double Indemnity. Everett Fee

the next 60 ft it narrows to finger width. E Fee and L Doucette, 11 July 1982.

AURORA BOREALIS, 5.6, 90 FT

Unusually varied and memorable. Follow the inside corner on the right side of the alcove beneath the Temple of the Sun up to a comfortable ledge above the clump of birch trees. The overhang in the corner is the last serious obstacle. E Fee and C Shaw, 28 July 1982.

CAMINO AL TEMPLO, 5.6, 60 FT

Delicate and interesting. Start below an outside corner on the right side of the square alcove beneath the Temple of the Sun. Thin cracks lead to a sloping ledge halfway up. Jam, undercling and stem along the left sides of down sloping flakes to the temple.

E Fee and L Doucette, 2 July 1982.

LOON, 5.6, 90 FT

A worthwhile route that starts on the left side of the alcove beneath the Temple of the Sun. Follow the inside corner to the Temple. Traverse left on the sheer wall and go over an incredible but easy overhang at the top.

C Shaw and E Fee, 28 July 1982.

THE CHIEF, 5.5,120 FT

A big inside corner with excellent positions and sustained difficulties. Scramble up to a short chimney on the left side of the buttress to the left of the Temple of the Sun. The overhang above the chimney is straightforward and cracks lead to a prominent guano covered spike. Alternatively the overhang can be avoided to the left (a grade easier). Traverse right above the spike and then go up into the slot behind a huge flake. Above the slot go left to the crack on the face. Nervy face climbing leads to the top.

E Fee and L Doucette, 10 July 1982.

Lake 310 Cliff

This cliff is located off the south-east corner of Teggau Lake, one of the deepest and clearest lakes in north-western Ontario. The area to the east of Teggau was ravaged by fires in 1974 and this cliff is clearly not as distinguished as those previously described. However, there are three gorgeous routes here (Wildest Dreams, Dukes of Hazard, and A Farewell to Arms) that make the long canoe trip in worthwhile. The cliff is located at 541009 on the south-east shore of a big bay and is only a small part of a huge peninsula. The east face of this formation is an ominous wall even higher and steeper than the one described below but its defenses are formidable.

Two access routes are available. 1-From the Trans-Canada Highway put into the West Arm of Eagle Lake at 613173. Canoe down to 538087 and portage into Teggau Lake. Short portages at 532012 and 534013 lead to Lake 310. This route has easier portaging and route finding but it is much longer and the Teggau Lake crossing can be difficult in high winds. Access time 1 day. 2- From the end of the unmarked logging road at 433056 (see CM 1982 for access directions to the Lake 259 cliff) put in to Lake 259. Portage into Roddy Lake (incorrectly marked Teggau Creek on 52F/12) at 438037. A long (2/3 mile) portage starts on a rock shelf at 504023 and ends at 515022 on Teggau Lake. Short portages at 532012 and 534013 lead to Lake 310. This route is shorter and promises easier travel by avoiding the open waters of Teggau Lake. The price is more than 20 miles of confusing logging roads and the longest portage in the region. Access time 1/2 day. There is an exit route on the south end of the cliff. The best nearby camp site is the island at 531026 on Teggau Lake.

TIPICANOE, 5.5, 90 FT

Located in a prominent gully on the left side of the cliff, this unsatisfying route starts by stepping from the canoe onto steep rock. Go up and right along a ledge. The subsequent move into the gully is the only real problem.

C Shaw and Dorland Brown, 27 September 1982.

WILDEST DREAMS, 5.4, 90 FT

A superb lead on unusual granite. It follows a crack and chimney system located between the place where the cliff leaves the lake shore and a huge overhang to the right.

50 ft. Starting behind the lone spruce tree growing next to the face, move up a steep section and follow irregular cracks that trend to the left. Belay in a big alcove behind the bizarre flake. 40 ft. Move left into the corner then go up over a flake and squeeze through the narrow slot at the top of the overhang.

Tibor Bodi and E Fee, 27 September 1982.

THROWAWAY, 5.5, 80 FT

A scrappy line with one hard move. Start a few steps left of the dark inside corner to the left of the bulgy wall at the centre of the cliff. Climb a short steep face to an alcove. Continue up and left easily to a birch tree. Go back right and up, finishing with a strenuous mantleshelf. T Bodi and E Fee, 27 September 1982.

STORMY SKY, 5.6,100 FT

A good route hidden on the left side of the bulgy wall at the centre of the cliff.

50 ft. Move up a dark inside corner and avoid the small overhang on the left. Straddle an awkward flake (crux) and traverse back to the right to belay.

50 ft. Follow cracks in the right inside corner to a small overhang at the top. Finish up and to the right.

C Shaw and D Brown, 27 September 1982.

FRIENDS AND ROCKS, 5.6, 40 FT

A short but sustained inside corner that ends abruptly under a prominent overhang on the right side of the bulgy wall at the centre of the cliff.

There is a daunting section halfway up.

E Fee, T Bodi and C Shaw, 27 September 1982.

DUKES OF HAZARD, 5.8, 80 FT An obviously hard and fortunately well protected jam crack that cleaves the middle of the steep compact face to the right of the tallest part of the cliff. The crack leans slightly to the left and requires properly sequenced moves. C Shaw and E Fee, 26 September 1982.

A FAREWELL TO ARMS, 5.7, 90 FT Incomparably interesting; varied and unexpectedly challenging. Start on a prominent ledge that cuts across the bottom of the steep compact face to the right of the centre of the cliff. Traverse across the face on the ledge to easy cracks that go up and right to the left leaning roof. Follow cracks and corners to the top.

E Fee, T Bodi, D Brown and C Shaw, 26 September 1982.

DOUBLE INDEMNITY, 5.5, 70 FT A splendid inside corner near the right end of the cliff. The crux overhang at the top is easier than it seems at first.

E Fee and C Shaw, 13 September 1982.

Everett J Fee

ACKNOWLEDGEMENTS

Peter Aitchison and Lucille Doucette made numerous helpful suggestions on the manuscript.

Québec

Québec Report 1982

I cannot think of a better way of starting a new climbing year than by cutting your teeth upon an ice tooth with foot fangs. Especially if the tooth belongs to a vampire! However crazy it sounds, that was what Mario Bilodeau, Régis Richard, and Sylvain Bourdon accomplished by the first ascent of "La dent de Dracula" at the beginning of 1982 (see La dent de Dracula this volume). This icefall of about 250 vertical feet is encased in black forbidding rock walls and is situated in a narrow canyon of the St. Marguerite River in the Saguenay region. It is an impressive climb in a unique setting.

Cap Trinité was the theatre of a couple of interesting performances in rock climbing during the summer. Gaétan Martineau and Jacques Lamontagne finally climbed the route of roofs which they named "Fox, Victor, India". The climb follows the prominent ridge to the left of the "Dièdre du père Lavoie" and includes several roofs in the middle section. The first three rope lengths were climbed free. This latter type of climbing has been rather rare on the Cap in the past but this situation may be changing. Louis Babin and friends climbed an existing route almost completely free. Only the last 100 feet or so, too dirty, were done artificially. Another attempt to free the Cap by two visiting Yosemite climbers was unsuccessful. Yves Laforest and two companions came the closest to achieving this remarkable feat by free climbing "La vire du curé Dallaire" all except two short pitches of about ten feet each. News has reached us that the "Toit" at Mt King, Val David, has been almost completely free climbed. Also at Val David the north face of the Aiguille of Mt Condor has finally been led using a bolt or two for protection. This route had for years been the exclusive property of Claude Lavallée who used to top rope it.

Two accidents occurred at Mt Pinnacle, Lac Lyster in the Eastern Townships. The first cost the life of a hiker who fell 150 to 200 ft. The second involved climbers one of whom sustained severe injuries.

The Fédération Québécoise de la Montagne (FQM) held an impressive variety of summer climbing schools and guided hikes ranging from an initiation to rock climbing to hiking in the Rockies. The winter program was as varied with guided cross-country ski tours (several days), ice climbing, and the "formation de cadres". The FQM presented briefs to the provincial government on their parks' policies and in particular noted the lack of a buffer zone between the limits of the parks and areas of commercial exploitation. The annual jamboree was held in the St-Urbain region and was a success due to fair weather and great rock. Over 100 people attended. Of particular note was Gaétan Martineau's free solo ascent of "Heils und bein bruck" in 40 minutes! The jamboree was also the occasion to officially inaugurate the new hut. It is a solidly built log cabin (sleeps about 20) at the foot of the south face of the Dôme and provides a breathtaking view of the St-Urbain mountains. Its practical location should provide shelter to an increasing number of climbers in the years to come.

François Garneau

La dent de Dracula

Drôle de nom pour une chute de glace, mais si jamais vous allez au pied, c'est l'impression que cela vous donnera, une immense dent. Cette chute fut découverte par F-X Garneau et d'autres membres du Club de Montagne du Saguenay lors d'une excursion à ski. Lorsqu'il me l'a montrée, je me suis dit qu'il fallait que ce soit ouvert par des membres du club et qu'il faudra être prêt physiquement et psychologiquement. Imaginez-vous au pied d'une chute de glace de plus de 200 pieds à la verticale; Ouf! Le lundi matin du 22 février 1982, campés sur la rivière, nous nous levons à 6 h. Petit déjeuner, coup de lime sur les piolets et les crampons, et nous sommes prêts à attaquer ce glaçon. 9 h, nous voilà au pied de la "dent de Dracula", prêts à lui tracer une droite en plein centre. Mario attaque la première longueur. 110 pieds presqu'entièrement verticale. La glace est dure et chaque coup de piolet ou de crampons envoie une pluie de glaçons au pied de la chute où je les ai parés du mieux que je pouvais. Après d'immenses efforts, Mario arrive à ce qui semble être une vire mais qui n'est qu'une section d'environ 3 pieds inclinée à 50°.

J'attaque la deuxième longueur qui est aussi verticale que la première. Les premiers 30 pieds se font assez rapidement, mais à mesure que je progresse, le rythme ralentit et les périodes de repos rallongent. Lorsque je plante mes 2 piolets qui ne sortiront de ce mur de glace, je suis fou de joie. Sylvain grimpe les derniers 20 pieds et c'est la victoire. La dent de Dracula a été vaincue. Nous sommes très fiers de cette première ascension.

Régis Richard

Chute de glace de 250 pieds à la verticale aux alentours du Saguenay. Mario Bilodeau, Régis Richard, Sylvain Bourdon. Le 22 février 1982.

Eastern Arctic Mountains

Baffin Island

Four of us headed out from Montreal on 1 July 1982 for Pangnirtung Pass and a couple of weeks climbing in the land of permanent sunshine. Upon reaching Pangnirtung we hired an Inuit man to take us up the fiord to Overlord. This was the scariest part of the trip and the most expensive but it saved us a three day hike so we felt it worthwhile. The next day we tried a route on Overlord but got beaten back by difficult rock climbing and hazardous weather about 800 ft from the summit. The following day we set out for Windy Lake and found the distances took longer than expected — it truly is a hard land with rough terrain and consistent winds. Windy Lake turned out to be the prettiest spot of the trek. To the north was a 2000 ft waterfall, east the first sight of the famous Mt Thor, west a splendid view of the ocean under a magnificent snowfield, and south a hanging glacier of immense beauty. We felt like staying here for the rest of the trip but morning saw us heading off toward mystical Mt Thor.

Having no guidebook to the area we took a stab at the 5000 ft north face. As have many others we retreated the same day with the rope between our legs and started looking for an easier line to the top. A rest was on schedule next day, despite which three of us hiked into Summit Lake just to see the rest of the pass. As well I wanted to recce the east side of Thor for a possible line to the summit. No go!

We then decided to go high up onto the vast glaciers to try Thor from the south-west side and then to do a tour of the glaciers and get one or two other peaks on the way back to Overlord. Again the vastness of the arctic humbled us as we took a full day just to get our camp up onto the snowfield behind Thor. The following day we climbed it by the easiest route I could see — 5.3-ish with a most spectacular summit view. Highly

Mt Thor. Dale Whiteside

Carolyn May and Dennis Fulleringer on Mt Overlord. Dale Whiteside

recommended.

The following days were very educational but not very productive. We couldn't travel on the glaciers even though we set out at 2 am as the ever present sun meant that the surface never firmed up. We fence posted until we literally collapsed of hysteria and exhaustion. Humbled again we headed back down into the pass and slowly made our way back to our waiting canoe. It was a wonderfully different trip from those to the rest of our Canadian mountains. A super area to visit if you're a serious climber or hiker.

Jim Ongena

Participants: Dale Whiteside, Dennis Fulleringer, Carolyn May, Jim Ongena.

A few tips. Respect the distances and don't over estimate your day's goal. River crossings are reasonable until about 2 pm but get quite difficult in the afternoon when they will definitely get your feet wet unless you can jump 12 ft with your 60 Ib pack. Temperatures range from 2° to 15°C with much clear sky and that ever present wind. Take snowshoes or skiis if you plan on travelling on the glaciers, and a rope; we fell into hidden crevasses many times. Take insect repellant — if the wind ever stops or if you find shelter from it the mosquitoes do come calling. Be totally self-contained; there is nobody else in there!

KMC on Baffin Island

"Move your gear or the plane will run over it." We probably could have figured that out for ourselves, since it had been thrown out of the door onto the gravel runway in Pangnirtung, if we hadn't been a little groggy from the five interconnecting flights from Calgary. It was the first of the useful tips we received from the Parks staff. With their help we were able to get the latest weather information, file a plan for our three weeks in Auyuittuq National Park, arrange for an Inuit guide to take us up the fiord on the sea ice, and find a place to camp on the edge of town. Less than 48 hours after leaving Castlegar, BC we were comfortably established on the outwash plain of the Weasel River beneath soaring Mt Turnweather. Temperature -4°C, no wind, all systems go.

Over the next few days we became a little discouraged as we double packed food and over long stretches of sand and gravel. Our cross country skiis and sleds were useless and an added burden. The soggy overcast concealed any justification for packing the climbing gear. But as with a lot of mountaineering the mindless part paid off. With the Arctic Circle behind us we soon reached the hard ice of the upper Weasel River and strolled to the Thor shelter.

The overpowering face of Thor glimpsed through the tattered mist was both attractive and repulsive. An attempt to ascend to its summit by way of the Forkbeard Glacier and the easy slopes introduced us to another arctic delight, a fragile skin of snow over the rubble of recent glacial processes. As we rose so did the storm, leading us to abandon even this modest attempt. But for the first time we had been able to determine the character of the glaciers which lay above and fed the icefalls in Pangnirtung Pass. Since conditions were unattractive for climbing we carried on to Summit Lake. As the temperature remained below zero and the clouds were low we decided to make use of the skiis by travelling the length of the lakes. Continuing down the Owl River a short distance we noted the much gentler and rounded hills, reinforcing for us how small and unique the Pass area is.

A slight improvement in the weather lured us into trying the south ridge of Mt Sigurd from the Tupermit Glacier. Ascending the glacier we met conditions which were to plague us until we left the Park. The surface had a nasty habit of frequently and unexpectedly collapsing and exposing a great depth of very fragile snow. Since there was always the possibility that the next collapse might reveal a crevasse this added interest. Again we experienced deteriorating weather on the ridge where the concealed rocks and holes were tiring. The prospect of retracing our steps was so unattractive that we opted for a rapid descent down a convenient couloir. The avalanches that had come down it at least created conditions that we recognized and were comfortable with.

Back in the pass we took stock of what we might do. Any rock that was snow free was rather overwhelming while what should have been scrambles turned out to be struggles. We thought that we might be able to head over toward Asgard by reaching the upper end of the Turner Glacier. Accordingly we packed up and in a whiteout made our way up the Caribou Glacier until we unexpectedly broke into a blazing world of blue and white. The glacier swept up gradually to the horizon, flanked by steep walls bearing thick icecaps. The next day, after ascending a minor summit of the Asgard ridge, we roped the sleds down onto the Turner Glacier. Travelling down the glacier, sometimes astride the sleds, we passed between Asgard and Loki, impressive from every angle. Camp was pitched by the line of boulders marking the medial moraine leading to Glacier Lake. The sun passed behind the very tip of Loki each evening, sweeping a sundial finger of shadow over the tents.

The weather remained excellent so we skied up the glacier past Loki until we reached a low col and could see into the Norman Glacier system. Leaving our skiis we trudged to the enormous snow dome from which we could see onto the Penny Icecap. Returning down the valley back to camp we discovered that the sun had softened the usual fragile conditions, eliminating any chance of skiing with style. We continued our circumnavigation of Asgard by proceeding up the Parade Glacier, with the sun low over the spires of Iviangernat. The valley was blocked by a headwall neither high nor steep which we proceeded to ascend until it slabbed off. Having cleared the unstable snow we easily reached the crest and skied back to the Caribou Glacier and Summit Lake.

By this time the snow in the valley had diminished, presenting us with the unpleasant prospect of packing out skiis and other junk down the Weasel. The solution to this problem was to ascend the major glacier north of Umik Peak and follow the broad and gentle gradient until we could descend near the head of the fiord. This was almost as easily said as done. Low overcast forced us to detour outside the park before we gained the icefield at the junction of the Tirokwa and Forkbeard Glaciers. This excellent site provided us with some scrambling, sunbathing on the summits, and a view of the cloud lurking in Pangnirtung Pass. An attempt on Tirokwa was foiled by a substantial notch in the ridge but two of the party made what may have been a first ascent of the highest point overlooking NifIheim Glacier.

Next morning we navigated by compass

Camped at the juncture of the Forkbeard and Tirokwa Glaciers. B Port

Travelling on the glacier ca 6 kms south-east of south end of Summit Lake. B Port

Travelling on the fast ice of Pangnirtung Fiord. B Port

down the Tirokwa Glacier then descended the moraine to the gravel flats of the Weasel. The three day walk to Pangnirtung along the fast ice was uneventful except for the appearance of a polar bear, which chose to move off at our approach, and the unintentional dunking of one member who was swept off his feet while trying to ford the river at the head of Aulatsivikjuak Bay. A rope made his next attempt more successful after which we carried on to the delights of Pangnirtung. We returned to Pang on 22 June having left it on 29 May 1982.

Bert Port

The Kootenay Mountaineering Club members were: Howie Ridge, Ian Hamilton, Peter Wood, and Bert Port.

A Long Cold Way from Home

Shipton would have been proud of us, but somewhere, sometime, I lost the expedition's envelope and disorder decayed into chaos. A far off dreamland of ice, cloud and rock from which the expedition was born via trans-Tasman letters and phone bills.

Slothful under the California sun Warren dozed and climbed whilst the days and the "definitely certain" arrival date of the second half of the team came and went. So hard to earn enough money to lead the life of a climber, but finish work one day and fly six thousand miles the next into the Los Angeles nightmare. Free climbing, a voyage up the Nose, and we part ways again, him to the Gunks, me back to Half Dome. Then 49 hours of driving to Toronto. Forty-nine hours of kaleidoscope journey — Nevada where golden desert blends into purple sunset, harsh early morning sunrise over Salt Lake, through the browns and massed clouds of Wyoming, and into misty mountainless Iowa. Canadian immigration scrutinize suspiciously eyes red and bleary from the hours on the road (but we only left the road once did we not my friends), a month's visa firmly stamped, and then it's Toronto, food and sleep, blissful sleep.

Shopping for a month's food for two comes easily as I fill supermarket trolleys until they look right. Warren, you foolish carnivore, did you realize the consequence of letting my indulgent organic habits do the shopping? Eventually we meet in a cheap Montreal hotel and surround ourselves with piles of equipment. Dressing for the flight out takes time as we clad ourselves in ropes, stuffing pitons deep into pockets. Nonchalantly feign feather lightness of packs crammed with food and stagger on board. And then ramshackle Pangnirtung, arctic nightlessness, and disbelief that we have made it with so little planning but too much confusion. Arrangements made for a boat trip we leave on the tide for Overlord where the first of the Park's fluorescent orange shelters greets us from afar.

So with huge packs we journey up the Weasel valley for three days. Slow travelling across sandy flats where the ground liquefies and collapses knee deep under foot, icy streams and ever moving moraines. Nothing is ever still or quiet in this world of rock and frozen water where an ice age is but a chilly breath away. Each turn in the valley shows us a new peak to climb and our tally of objectives grows daily. Jagged mountains rise high into blue skies above emerald and russet brown tundra. Why go to Baffin all that way from New Zealand they would ask. The answer now surrounds us.

The fine weather lasts until we pitch our tent at Summit Lake and then the next day the rains come. Entrapped we sit, eat and read, soon forsaking the damp confines of the tent for the relative spaciousness of the emergency shelter. Hell, we dislike its orange presence here so we might as well put it to abuse. The clouds briefly part so back down valley we run to our food cache, covering in ten hours the ground that took three footsore days to ascend only twelve days previous.

Two days later the arctic opens all its summer beauty to us. Prepare light packs and off around the lake we go, happy to at last be moving. Saffron yellow poppies thrust through the tundra where a ptarmigan mother frantically gathers her chicks to safety from our heavy clumsiness. Peaks reflect in the silty lake mirror. Steady climbing to the Turner Glacier where we catch our first glimpse of Asgard, blunt topped like some giant smokestack. Excitedly the tent is pitched amongst the

From Asgard countless mountains vanish into the distance as we prepare to make our descent. R Staveley Parker

On the Turner Glacier beneath Asgard's flat top and Loki's spire. R Staveley Parker

splintered boulders of a medial moraine and lying down we try to sleep. But it never comes so we depart for a "look" at the west face on Asgard. And look we do.

"It's kind of big isn't it?"

"We want a Bonatti Pillar like route, not a multi-day megawall."

"This cloud looks a bit like snow." "What do you think?" "Well I...."

Disillusionment lasts in camp for a day until we accept that the weather isn't going to improve and we may as well put our heads into its noose. Mt Loki lies at the head of the Turner, looks beautiful, has only been climbed once (by Pat Baird in 1966) and it has a sweeping south face. So why not!

We leave late into the lightness of the arctic night, me still longingly looking at Asgard; are we too cowardly or was our estimation correct? Loki looks better and better as we approach up what we happily christen the Party Ice Glacier. Our route follows ever steepening slabs and into a crack and corner that soars unbroken for 2000 ft. Superb jamming and laybacking follows long pitches of flakes and underclinging. How many did we climb? Warren tells me that it was seventeen. The weather closes in around us half-way up and snow steadily starts falling. At a tortoise pace the summit grows nearer and we arrive on top in a full blown storm. Descent down the north face seems as good as any, with seven rappels down icing ropes bringing us to the talus. Lethargic feet dragging after 26 hours of continuous movement we head for home. At last we sleep well, the lack of darkness no longer disturbing while the glacier moans and creaks beneath us. The next day is spent lizard like under a miraculously appeared sun.

And so to Asgard. Who could ignore climbing such a mountain by any route and the Swiss route seems a grand excursion. Beneath Asgard we discover a cirque with a stunning echo. Our cries return from a dozen surrounding walls, laughing back at us. Old tape and pegs light the way up the final headwall that gives us some of the best granite climbing in the world. Rough crystals under our feet, deep cracks and sharp edges at our hands. We bubble with sheer joy and happiness as we run about on the snowcap gleefully snapping photographs of row upon row of peaks that vanish into the hazy blue distance. An overhead plane is the only reminder of the world outside. But all too soon the time comes to leave, back to the shadowed valley.

Another twilight at our glacier camp before returning to Summit Lake where once again the weather collects itself for a week of Baffin mist and rain. The first hint of a clearing a week later we repack and wander up the Tupermit Glacier towards a distant peak glimpsed from Asgard. Clouds swirl and dance about us, the glacier surface furrowed like some ploughed field. Clouds lift in a white curtain revealing clear skies and unknown mountains. A patch of gravel is our tent site, we hope removed from the eager boulders that bounce from surrounding walls.

But of course we awaken to cloud, mist, and gloom. The approach takes forever as we circle through the fog, like caterpillars on a glass rim, each following the other. Set a course by the diffuse sun towards the buttress to where the snow steepens and metamorphoses to ice, over the 'schrund and onto the rock at last. Change boots and lead upwards. Two pitches on we encounter a beautifully curving flake above a small roof where we hum our way along a classic alpine arête that swoops away onto the opaque nothingness below. A steep iced groove puts us on the final slope of soft unstable Baffin snow that sloughs off as we wade to the summit. Our first virgin; what shall we name her? Or shall we depart leaving her as found, unsullied by egos?

Morning brings nothing but snow so back to Summit Lake once again. Enough supplies and enthusiasm remain for one

more effort so I watch, anticipating, the north face of Northumbria. But it is not to be. Steady rain for long days as Warren restlessly dreams of the sunny south of Spain, a bicycle, and a woman who waits. So a retreat down valley through snow and frigid winds, sad to be leaving this subtle land.

Also sorrow and dismay at the efforts made to develop the Park. Does it really need four clusters of obtrusive orange buildings within the space of only 25 miles; does it need paths lined with rocks; and Parks administrators to sell and promote it? Whilst Baffin will probably never see vast numbers of people, each footstep leaves an indelible mark on the tundra that needs years to repair. Did Muir foresee the commercial Yosemite of today when he visited the valley in 1868? Rather protect and leave this land as a wilderness. Let those who come accept it totally in its natural state without recourse to "emergency" shelters and wire bridges. Only then will the visitor be permitted to experience what the Inuit people first saw and what Pat Baird called this wonderful Baffin world — peak and face, snow-cap and valley.

Robert Staveley Parker

Australasian Baffin Island Expedition. Warren Lee and Robert Staveley Parker. First ascents: Mt Loki, south face, V 5.10, A1; Unnamed Peak (MR 820065,1:250,000 Pangnirtung), IV 5.9.

Foreign

Attempt on Gasherbrum II

Don Goodman and I of the ACC Vancouver Section participated in an attempt on Gasherbrum II (8035 m) in the spring of 1982. Our expedition (1982 Seattle Karakoram Expedition) had eight members and was led by MD Clarke of Seattle.

We left Seattle by air on 30 April and following an overnight stay in London landed in Rawalpindi, Pakistan on 2 May. The next two weeks were spent purchasing food and supplies in Rawalpindi and dealing with the usual formalities and financial transactions which are necessary before departing for the mountains.

Our two day trip to Skardu was by road north from Rawalpindi and then up the Indus River gorge via the Karakoram Highway. This is now the recommended method of reaching Skardu due to improvements in the road and allows one to avoid the uncertainty of bad weather on the flight from Rawalpindi to Skardu.

Upon reaching Skardu we commenced hiring porters and made more food purchases — staples for ourselves and all the food for the 85 porters we were to hire. After several days in Skardu we advanced 80 kms by jeep and tractors with trailers to Dasso and the end of the passable road. From Dasso a 13 day march to base camp took us up the Braldu River gorge and the Baltoro Glacier and finally to a medial moraine at 4900 m on the Duke of Abruzzi Glacier.

After setting up base camp the next five weeks were spent ferrying loads 10 kms up the South Gasherbrum Glacier to the base of Gasherbrum 11 at 6000 m and setting up camps and fixed ropes to 7200 m on the south-west ridge. The last three weeks of this period were characterized by poor weather and daily snowfall which increased the risk due to potentially unstable snow.

On the morning of 2 July three members left camp 4 to establish a camp at 7500 m in preparation for a summit assault the next day. At about 11 am the lead climber of the unroped trio triggered a small slab avalanche which swept the third climber, Glenn Brindeiro, down the precipitous south face of the mountain. He was never seen again. This incident in concert with the prevalent bad weather conditions forced a decision to abandon the climb and evacuate the mountain.

The walk out was accomplished in eight days with the assistance of porters from the village of Askole. From Askole a runner was sent to arrange jeep and tractor-trailer transport to meet us on our arrival at Dasso.

In general we found transportation and porter assistance to be very well organized in Pakistan. We found it a charming country with the most spectacular mountain scenery anywhere and the people were pleasant to be with and work with.

David M McClung

David McClung received a $350 grant from the ACC expeditions fund.

Nepal ACC Trek, Autumn 1982

The trek began on 25 October, one day earlier than planned because of difficulties in flight scheduling. We fly from Kathmandu to Tumlingtar, arriving on a grass landing strip. Tumlingtar is in East Nepal in an area only recently opened to trekkers. From the camp there we get our first glimpses of Makalu, the base camp at Makalu being our ultimate destination. We start hiking the next day in hot, humid weather. The surroundings and the people seem at this point in the trek almost unreal — as if one is watching a movie set. That night we camp near Khanbari, the last major village on the trekking route. We meet members of a Polish climbing team. They are in high spirits having just completed a successful climb of Makalu. The next morning we hike through endless rice fields with breathtaking views of the valleys below. That afternoon the terrain changes drastically to a tropical rain forest. We camp that night in a meadow and encounter for the first time on the trek Nepali leeches. The next morning we are treated to beautiful views of Makalu and Chamlang. That day's hike is again through a forested area. We camp that evening at Num, where we meet members of two other groups returning from Makalu base camp. They give us reports of deep snow, high winds, and avalanche conditions. The next day we drop down to the Arun River and cross on a rather exciting hanging bridge. The river crossing is followed by a steep ascent to a camp site in a schoolyard near Sedoa. The following day brings us to Tashigaon, the last village on the route. The camp site there features, once again, leeches. We are forced to spend an extra day there before moving on due to a shortage of porters. On Monday 1 November we hike again, but a short distance only, up through a jungle to Dhara Kharka. From there we continue up through more jungle and then through a magnolia and rhododendron

forest. The magnolia and rhododendron trees are enormous — one can only imagine the beauty of the area in the springtime. We finally reach rock and snow — and set up camp on the snow at about 4000 m. We are forced here to abandon our original goal — we are unable to continue because of the unanticipated snow conditions and the inability of the porters, due to inadequate equipment, to proceed. We spend an extra day at the high camp and hike up to Barun Pass (4240 m). There is a sacred lake near the pass where Buddha, according to legend, took a bath. On 4 November we begin our retreat from Makalu, descending that day nearly 2500 m. We reach Tumlingtar on 7 November, that day's hike being one of the most interesting. We stop by a home where wool is being carded, spun and woven and also view along the trail millet grinding, masons at work, and lumber being milled. With great difficulty, we secure a flight out of Tumlingtar on the 9th. We fly to Biratnagar, a village near the Indian border. From the airport we journey in a convoy of rickshaws to a bus which takes us, painfully and very slowly, back to Kathmandu.

We spend a day in Kathmandu then start on a second trek from the town of Pokhara in western Nepal. This area provides a rather startling contrast to the first area we visited. This is an area frequented by trekkers and the children are trek-wise, much less untainted by Western culture than the children we encountered in East Nepal. Part of the trail is on a major trade route so we compete for space with the mule trains. The area however is beautiful and we are blessed with spectacular views of Dhaulagiri I, Tukuche Peak, Nilgiri, Annapurna South, Hiunchuli, and Machapuchare. Machapuchare, aptly nicknamed Fishtail, is perhaps the most breathtaking. The Modi Khola valley is spectacular — magnificent rhododendron forests, beautiful waterfalls and canyons, endless pastures and cultivated fields. The last night on the trek is spent in Ghalel where we are treated to a show of song and dance by the villagers. The final day of the trek along the Mardi Khola River is most rewarding. Near the confluence of the Mardi Khola and Seti Khola Rivers we get fine views of Annapurna South, Machapuchare, Annapurna II and IV, and Lamjung Himal. We end the day, before our return to Pokhara, with a stop in the Tibetan Camp, where a large retinue of Tibetan traders ply us with their wares alongside the trail.

We fly back to Kathmandu on 19 November. A clear day providing those of us on the left side of the plane with a fantastic Himalayan panorama. For most of us our last day in Kathmandu is spent on a city tour, conducted by the trek leader. The tour is fascinating, with stops at all of the major temples, including Pashupatinath on the Bagmati, a holy river. On the river banks, dead bodies are cremated on platforms, and the remains deposited in the river.

Diane Colvin

Volcano Climbing in Ecuador

As part of its continuing programme in mountaineering, Simon Fraser University Department of Recreation sponsored an introductory course in High Altitude Mountaineering on the Ecuador volcanoes during December 1981. The seven member expedition succeeded in climbing Cotopaxi (6000 m), the world's highest active volcano, but continuing bad weather precluded an ascent of Chimborazo (6310m).

Dans le cadre de son actif programme d'alpinisme, le Département des Loisirs de l'Université Simon Fraser a organise un cours d'introduction a l'alpinisme de haute altitude, qui a eu lieu en décembre 1981 dans la région des volcans de l'Equateur. Une expédition de sept membres a réussi l'ascension du mont Cotopaxi (6000 m), le plus haut des volcans en activité; mais la persistance du mauvais temps a interdit l'escalade du Chimborazo (6310 m).

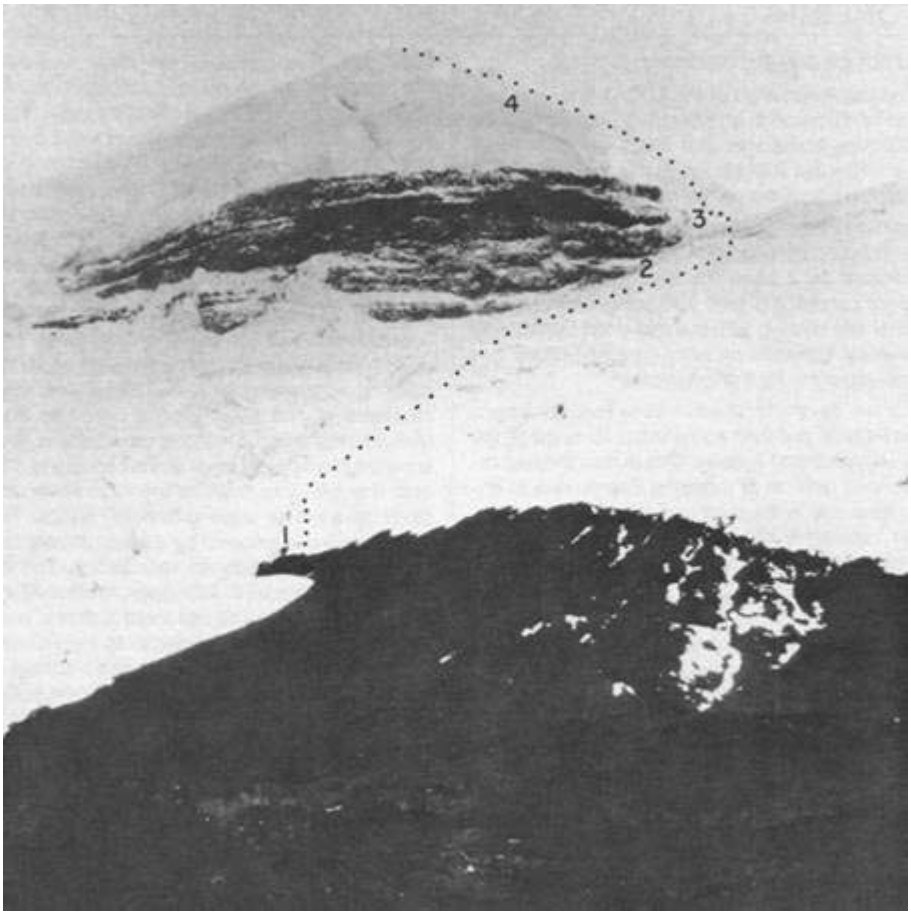
The expedition left Vancouver on Friday 4 December and arrived in Quito the following Sunday. The next three days were spent in Quito (2900 m) and during this time an acclimatization hike was made to Pinchincha (4500 m), a volcano overlooking Quito. This phase of the expedition provided an excellent basis for our future acclimatization to altitude.

On 10 December we left Quito for Cotopaxi National Park. We spent the evening in the first refugio, Armada Nacional at 4400 m. The following morning we left our rented mini-bus at 4600 m and hiked up to the Jose Ribas Hut (4800 m), situated at the base of Cotopaxi's northern aspect. That afternoon a snow school was conducted on a snowfield at 5000 m. Further training in rope work and ice climbing was held the following day and crevasse rescue was also practised.

Given the favourable conditions on the mountains we arose late Sunday evening, had breakfast, prepared our equipment, and left the hut at 11.20 pm for a summit attempt. By 1 am, having walked up some 400 m of ash and shale, we were at the base of the glacier. The first 150 m on the glacier were the most difficult and intimidating of the whole climb. The middle 45 m consisted of ice overlain by snow at an angle of 45 to 50 degrees. After surmounting that obstacle the route meandered through crevasses and below ice walls until we reached the Yanasacha, a large, obvious rock face at 5300 m. At this point a large transverse crevasse necessitated a lengthy westward traverse until a snow bridge gave access to the snowfield above. We followed a feint ridge until it abutted the west ridge of Yanasacha and the final headwall that loomed above. At this point dawn was breaking and, although strenuous, the headwall (40 degrees) was not as difficult as we had been led to believe. The 300 m headwall was in prime slab avalanche condition but the slope remained in shadow during our ascent and descent. The headwall led directly to the crater and from here it was barely 10 minutes to Cotopaxi's summit (6000 m) which we reached at 7 am. Concerned about the avalanche condition of the headwall and deteriorating snow conditions further down, we spent little time on the summit. The descent was carried out in short order, much to the chagrin of some tired group members. The snow on the bottom 400 m of the climb was appallingly soft even at 10 am. On the descent one section of 30 m with a bad runout and the initial steep 100 m were rappelled. The group reached the Jose Ribas Hut at 10.30 am, some 11 hours after setting out.

We left the Jose Ribas Hut that afternoon (14th) and drove to Baños for some well deserved rest and relaxation. Baños is an idyllic village (well known to the international travel set) set in a deep valley overlooked by the volcano called Tungurahaua. It is Tungurahaua that provides Baños with the hot natural baths, which give it its name and reputation. We ate good food (at Mercedes) and participated in the local festival before leaving Baños for Chimborazo on the 16th.

Cotopaxi climbing route
1-ice pitch, 2-transverse crevasse, 3-Yanasacha, 4-headwall. David Hopkins



Chimborazo's (6310 m) southern aspect is an impressive tangle of crevasses and icefalls and from a distance appears very intimidating. Our chosen route was the original (1880) Whymper route on the south-west flank of Chimborazo, serviced by a new hut built for the centenary of the first ascent. We reached the hut (5100 m) late that day in a snow storm, having parked our mini-bus some 300 m lower at the end of an excellent network of roads which lead in from either Riobamba or Guaranda. The hut, although only a year old and soundly built, was in surprisingly poor condition. It was cold (there was no wood for the fire), dark (the generator did not work), and lacked amenities (no water for the stainless steel sinks and no gas for the stoves). It was also dirty and the guardian was not very concerned. The snow and heavy cloud cover that accompanied our walk to the hut also characterized our stay. Apart from a brilliant two hour sunburst early on the 17th and a briefer less dazzling occasion the following morning, the weather remained cold and cloudy, with persistent precipitation and occasional high winds. According to the guardian this had been the pattern for the previous eight days and there seemed little prospect of it abating. We monitored conditions on the mountain during the nights of the 17th/18th and 18th/19th but on neither occasion did we feel that the weather conditions justified an attempt. This was a great pity as the south-west flank is a very impressive face and the Whymper route follows an elegant line up it. There were also opportunities for more technical (though not extreme) routes on the face. Conditions on the face were very icy during our stay and the sun hit the face relatively early in the morning.

We left the Whymper hut on the morning of the 19th and drove to Otavalo. We enjoyed an evening and the following morning there, wandering the markets, bartering for Christmas presents, and soaking up the rich Otavalian culture. We left Otavalo the following day, drove back to Quito, and packed ready for an early departure for Miami. We stopped over in Miami on the 21st, swam in the sea, and finally arrived in Vancouver just in time for Christmas.

David Hopkins

THE PARTY

Participants: David Hopkins, Richard Backus, Dennis Fedoruk, Richard Kennedy, Brian Kupser, Denise Moennich, Larry Smith.

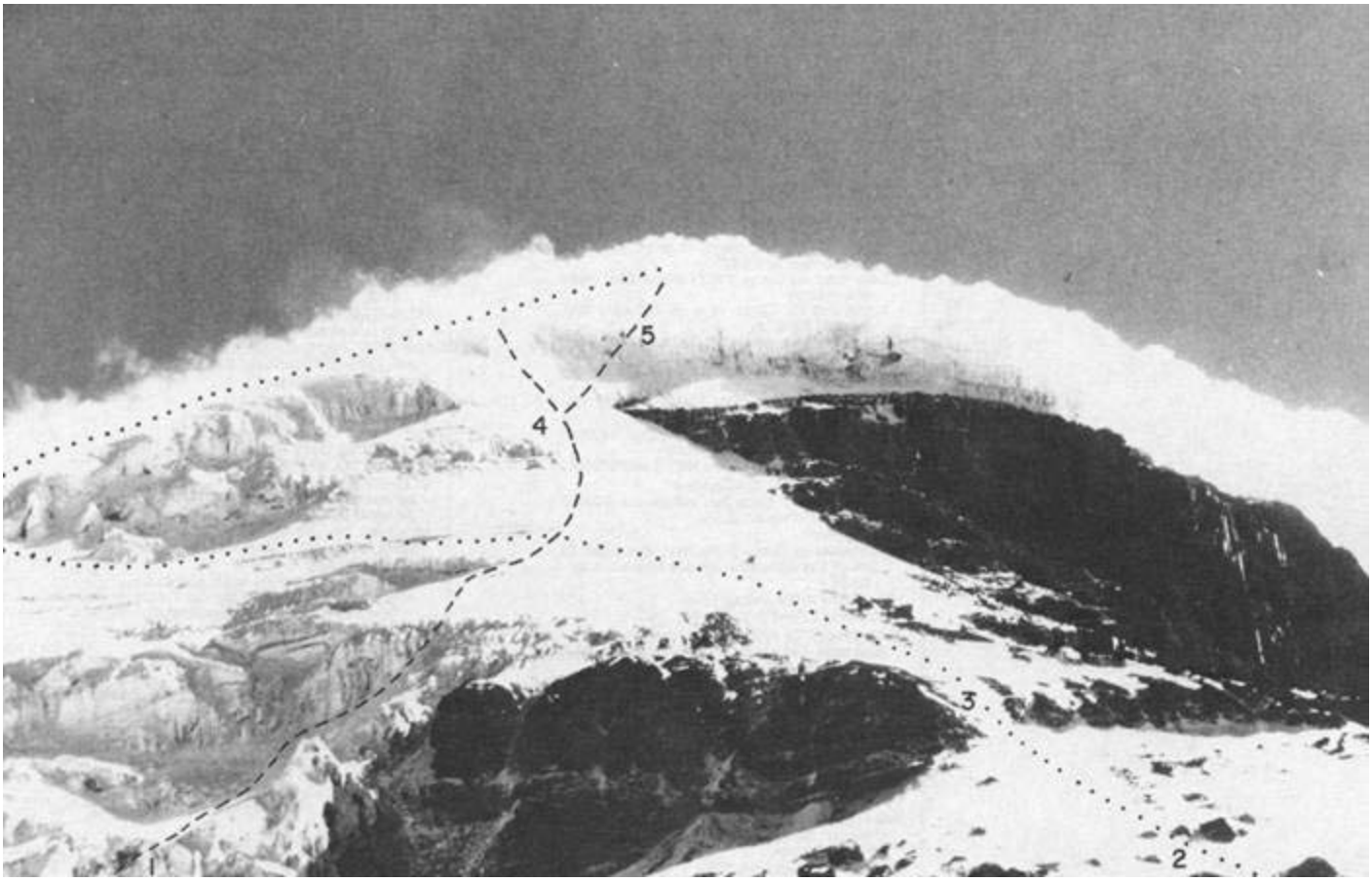
Leadership was provided by Drs Hopkins and Backus. Hopkins is an international mountain guide (UJAGM) who has previously led expeditions to the Himalayas, Alaska, and Mexico. Backus is a sports medicine doctor with specific expertise in high altitude mountaineering. Of the five other participants one had significant mountaineering and high altitude experience, two had a non-technical mountaineering background, and two were novices. In terms of fitness only two of the five exhibited the necessary stamina and conditioning required for high altitude mountaineering of this type. Given the level of experience and fitness it is to the credit of the group that an ascent of Cotopaxi was made safely within guidebook time (7 hrs). But the general level of experience and fitness did mean that ascents could only be attempted in near perfect conditions and it was the absence of these conditions on Chimborazo that precluded an ascent.

COTOPAXI, 6000 m

Travel south from Quito on the Pan American highway for about 80 kms. Near Chasqui a small blue sign on the left of the road points across the railway tracks to a dirt road; this is it. After 1 km turn right at a T junction. Bear left after a further kilometre. The road now continues without further interruption for 30 kms to just below the Jose Ribas Hut. The car park is at 4600 m, half an hour's walk from the hut. The Jose Ribas Hut (4800 m), built in the early seventies, is clean, well-appointed, with space for 30 to 40. Cost is 65 sucre per night or 50 sucre if you have an alpine club card (30 sucre = $1 US).

The climb, apart from the initial icefall, is a non-technical glacier climb with obvious route finding and a few long runouts. A party of moderate ability should easily complete the route in eight hours and a competent, well-conditioned pair could easily halve that time. For descent estimate half the ascent time. It is imperative to leave early; 11 pm is not unreasonable, particularly for an inexperienced group. Aim to reach summit by about 7 am; snow conditions and avalanche hazard increase appreciably after mid-morning. From the hut follow the scree fan between two glaciers directly to its apex for 400 m. At this point there is a flat area and a steepish icefall above guards access to the glacier. Take a slightly right trending line for 150 m over a steepening (45 m, 45 to 50 degree ice) until established on the glacier. Continue up a vague ridge

Chimborazo climbing route
1-direct route 2-normal route 3-snow/ice gully 4-Whymper headwall 5-direct finish. David Hopkins



encountering periodic crevasses until a levelling is reached underneath the rock cliff called Yanasacha. At this point a large transverse crevasse necessitates a long westward traverse until a snow bridge gives access to a snowfield that leads to the junction of Yanasacha and the headwall immediately to its right (west). The headwall (300 m, 40 degree snow) is climbed to the crater and then move left (north) for 10 minutes to the summit. Note that the final headwall does present a moderately serious slab avalanche danger. Descent by same route. Equipment: ice axe, crampons, 1 deadman, 2 ice screws.

CHIMBORAZO, 6310m

From Quito travel south down the Pan American to Ambato whence two approaches are possible. 1 - From Ambato take the road to Riobamba, where go right at the first major roundabout onto the San Juan road. Follow it past the Chimborazo Technical College to the Chimborazo Cement Works where a small sign indicates the Whymper Hut. Do not deviate from the main track; it eventually turns into a new road on an easy grade through the Carrel Brothers Valley to a car park at 4800 m, a half hour walk from the hut. 2- From Ambato again take the Riobamba road, for 5 kms to a right turn signpost to Guaranda. Follow this road for 63 kms where a large sign advertises the newly constructed Ambato-Guaranda road; a large cement pillar and concrete building mark the left turn onto a well graded dirt road. Follow this to a T junction with a sign marked Espoch. Go left and a few more kilometres to the car park at 4800 m. The Whymper Hut (5100 m), situated beneath the south-west flank of Chimborazo, has spaces for about 50 people, is well built, but badly managed. The cost is 70 sucre per night or 35 sucre if affiliated to an alpine club. The route is a relatively serious, fairly long, low angled (45 degrees steepest) ice route with long runouts. The major variation follows a direct line up the central glacier and Whymper headwall with half a dozen or so technical ice pitches. As the sun strikes the face relatively early, an early start (midnight or before) is imperative. Count on eight hours for the normal route with a moderate party and a similar time on the direct for a competent pair. The original route is an excellent solo objective and done in this style can be climbed fairly quickly.

Start the original route by moving directly east from the hut up a scree slope to the narrow easy angled ridge that leads northwards towards the centre of the face. The ridge steepens and broadens as it leads to a rock band which is split by a series of ice gullies. The extreme left gully (45 degrees) has an exposed runout. The most easterly (right) gully offers a 40 to 45 degree snow/ice finger, 1 to 2 m wide, with a less serious runout (in autumn this gully apparently becomes a rock climb). The top of the gully leads onto a snow/ice slope which culminates in the Whymper headwall. The original route traverses west under the headwall on an easy angled ice slope to the south-west ridge. Apparently there are crevasses on the south-west ridge which are bypassed on the left and the way is then clear to climb easily to the summit. Descend the route of ascent. For the direct route, walk north from the hut and find the easiest way onto the glacier that descends directly from the summit. Take the easiest line up the relatively dry glacier over a series of bulges until the route crosses the westward traverse of the original route. Continue directly up the Whymper headwall to a ramp that leads west onto the south-west flank just below the summit. Six pitches of 55 degree ice, the rest easier; descend by the original route. Equipment: ice axe, crampons, rope, two ice screws for original route; ice axe, crampons, rope, six ice screws for direct route.