

The
Canadian
Alpine
Journal

PUBLISHED BY
THE ALPINE CLUB OF CANADA

1957

HEADQUARTERS
BANFF, ALBERTA

VOLUME XL



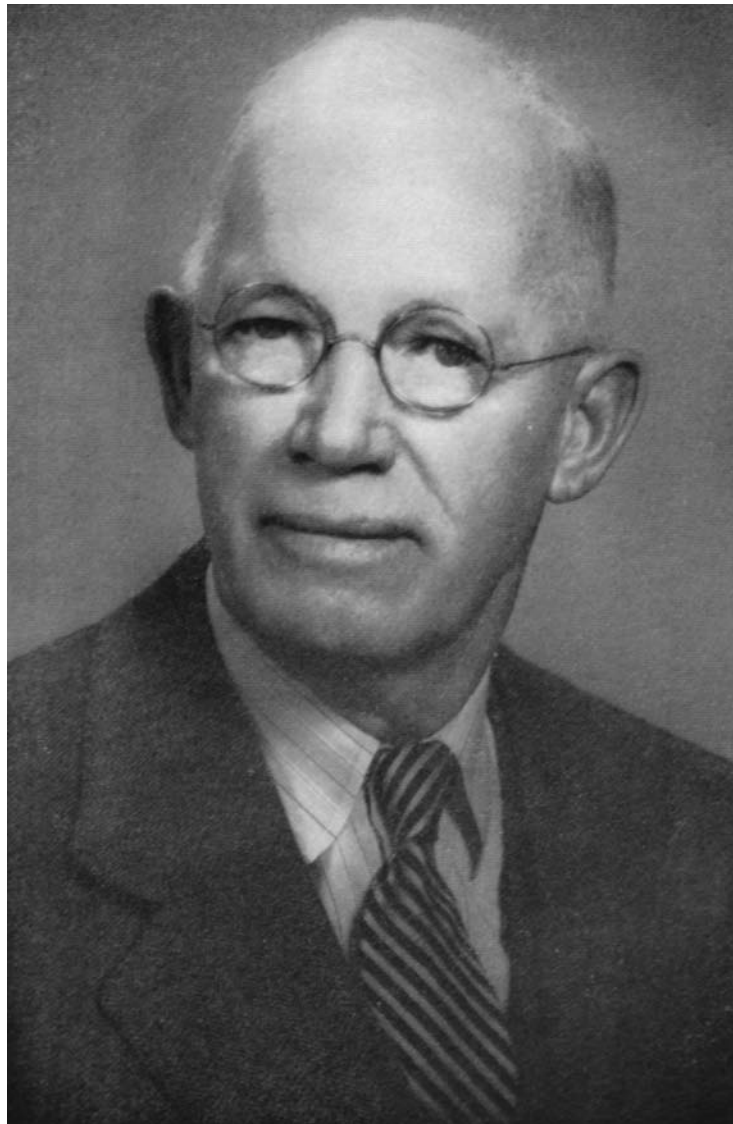
**Myself And Mingma At Foot
Of “White Sails” Glacier. *Photo Hilda Reid***

THE
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ALPINE JOURNAL



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THE ALPINE CLUB OF CANADA
MAY, 1957



Albert H. MacCarthy

This Issue of
The Canadian Alpine Journal
is dedicated to the
memory of
ALBERT H. MacCARTHY

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Photographs should be finished with glossy surface and on each photo there should be pasted a strip of paper bearing the caption and photographer's name.

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ABINGER HIMALAYAN EXPEDITION, 1956

BY HILDA REID

AT the Assiniboine Camp, 1952, I shared a tent with Joyce Dunsheath, who was visiting Canada en route for New Zealand. Since then we have been good friends and have climbed together in the Alps. Often our conversation had centred around the Himalayas, but we, like most people, thought of them in terms of strong expeditions with tough men battling the elements. After the success of the three Scottish women in the Jugal Himal in 1955, we began to have ambitious dreams. It was therefore, no surprise to receive a phone call from Joyce one morning, casually saying, "If I do the organizing, will you definitely come to the Himalayas?" Unhesitatingly I replied, "Yes."

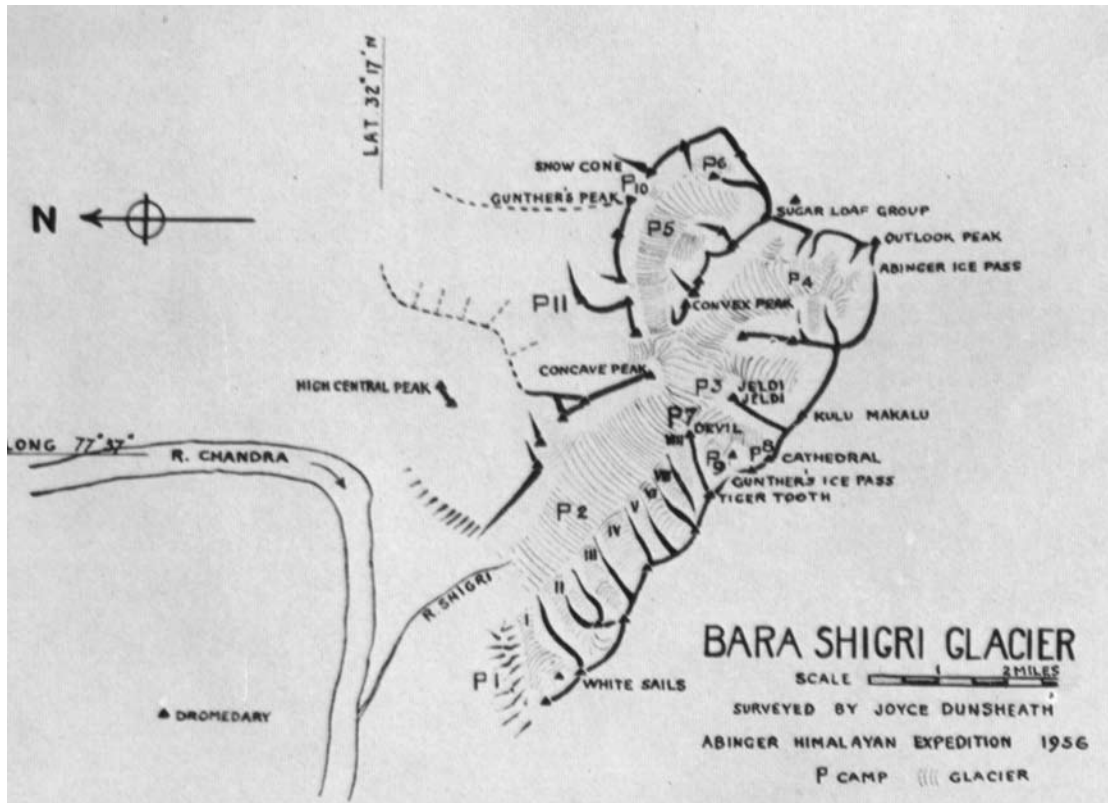
We had nine months in which to make our plans. It was difficult to find two others to join our party. One must have the time, money, climbing experience and an adventurous spirit. Finally Eileen Gregory, a biochemist, and a magnificent mountaineer agreed to join us as equipment and climbing leader, and Frances Delany, a geologist, and enthusiastic climber who was working in French Equatorial Africa, made up our team. We were all members of the Ladies Alpine Club.

The area chosen was the Kulu-Spitti-Lahual watershed of East Punjab. It was virtually an unexplored area and was of easy accessibility, mules being able to carry our equipment and stores to the foot of the Bara Shigri Glacier. Mr. A. E. Gunther, who had been on the Glacier for eight days in 1953, loaned us his sketch map, and gave us good advice.

With our party now complete and our area chosen, we were able to get down to details. I undertook to do food and medicine, and when not actively employed in my duties at the hospital, I spent most of my time calculating calories, amounts of food, daily diets and medical supplies. Gradually out of confusion all was satisfactorily worked out. The Himalayan Club gave us considerable help and advice. They also arranged for four Sherpas to meet us in Manali. The Royal Geographical Society lent us surveying instruments and The Mount Everest Foundation gave us the greatest encouragement, by giving us a substantial grant. Major H. H. Barron, an Englishman, of Sunshine Orchards, Manali, arranged for the hire of local porters and mules.

By the end of February 1956, all was ready. Eileen travelled to India by sea, taking the equipment with her. Frances flew from Nairobi, whilst Joyce and I added further adventure by driving overland in her Ford Anglia. We met at Manali, a village, altitude 6,000 feet, at the head of the Kulu Valley early in May. For ten days we sorted and repacked our stores and on May 12th our four Sherpas arrived from Darjeeling: our Sirdar, Ang Tshering Phensing (commonly known as Pansy), a tiger and veteran of several Everest expeditions; Pasang Dorje, the cook; Mingma Tsheri, an excellent climber who had been to 25,000 feet on Makalu; and Nema Dorje, who had been postman at Base Camp on Makulu. We were relieved to find them so friendly and anxious to help us in any way. They obviously accepted "the Memsahibs."

We were anxious to get started, but news of late snows made us hastily change our plans.



The Rhotang Pass (13,050 feet) was impassable for mules, so we divided our stores, leaving half to be brought by the mules as soon as the pass was open. We hired twenty-four local porters to carry the rest over the Hantah Pass (14,050 feet). News had been received that a few nomads had already crossed on their annual trek to Spitti, so on May 18th the expedition was finally launched. Two camps brought us to the foot of the Hantah. Here we were joined by our four Ladaki porters who were to carry for us on the glacier. There was a great deal of snow on the approach to the pass but the local porters did well, in spite of the fact that most of them wore only straw sandals. They made the summit in good time. The descent was not without difficulty, a long snow traverse, a nasty corner of rock and then a long steep descent of snow, rapidly becoming soft in the hot sun, but by fixing ropes we were able to get all of our laden porters down without mishap. Another two hours brought us to the Chandra Valley. We found the river almost completely blocked by ice and snow. Here and there, the Chandra River could be seen rushing under snow bridges and churning its way through enormous ice caves. It was hard going along the valley, and frequently the laden porters sank into the soft snow up to their waists. At times we were on the valley floor crossing the snow bridges, at other traversing the slope well above the river. Three more camps brought us to the foot of the Bara Shigri Glacier. Here we paid off the local porters, keeping our four Sherpas and four Ladakhi porters.

Base Camp (altitude 13,400 feet) was a pleasant site and after two days spent in surveying and repacking, we set off up the glacier. We found the glacier badly broken up into a series of hills and dales. The snow was soft and we frequently sank in, often needing help to be pulled out. We slowly made our tortuous way upwards. On the true right of the glacier was a solid rock wall from which stones and debris hurled down day and night. On the left, tributary glaciers cascaded down in majestic splendour to join the main glacier. The view of these side glaciers and peaks was magnificent. Opposite the fourth we set up Camp I. We faced a beautiful peak, its glacier glistening with a million lights in the brilliant sunshine, whilst at our backs, separated by a deep ravine, the stones thundered down in ever increasing numbers.

After a day of surveying, we made our way to the centre of the glacier. It was easier going now and we made good time. Gunther had well named this area Concordia (altitude 16,300 feet). A mile and a half in diameter, it is surrounded with giant peaks, a magnificent scene. Here the glacier makes a wide sweep to the south-east, leaving a short arm straight ahead. Camp 2 looked insignificant in the centre of this vast expanse of snow and ice. An ascent of a 17,500 foot peak, Jeldi Jeldi (quickly), gave a good view of the surrounding area. One peak, The Cathedral, over 20,600 feet, interested us. It rose from a large plateau, its long nave and raised chancel showing to advantage. At its northern end was a col and rising from it a pointed rock which we named the Chapter House. Further round was an ice pass of over 18,000 feet leading to a rugged rock peak, Tiger Tooth. The weather was perfect, scorching hot sun by day, but intensely cold at night. Two strange figures appeared in camp in the form of Eileen and Frances. The sun proved too much for them and they both had badly burned faces. They were forced to wear a kind of yashmak.

We made both a photographic and plain table survey from Camp 2. Joyce and I moved up to the head of the short arm. Our solitary tent was completely lost in this vast area of sparkling snow and peaks. This will always be for me my favorite camp. Eileen and Frances joined us next day with Namgel and we set out for the col we had discovered leading up to a high snow dome. It was a very steep climb over a series of ice ridges up which we had to cut steps. The view from the col, 18,000 feet was superb. We looked out over the unexplored Gyurdi Valley and in the distance the bare rock peaks of Tibet showed clearly. Joyce and I stayed on the col to survey whilst Eileen and Frances climbed to the north buttress of the snow dome (Outlook Peak).



Party On A High Col Upper Bara Shigni.

Photo Hilda Reid

(Joyce Dunsheath and Hilda Reid with porters)



“Sugar Loaf” Group From High Col Upper Bara Shigni.

Photo Hilda Reid



The Lone Camp Upper Bara Shigni.

Photo Hilda Reid



The Cathedral And Chapter House.

Photo Hilda Reid

We returned to Concordia to make ready for an exploration of the upper north eastern reaches of the main glacier. Early next morning saw the whole party plodding round the bend of the glacier. It proved much further than we expected and we set up Camp 4 near the 20,000 feet peak that Gunther had climbed in 1953. Whilst Eileen and Frances made a second ascent with two of the Sherpas and Ladakhi porters, Joyce and I took the others on a surveying trip. As the mules were expected to reach the foot of the glacier in two days, we sent Pansy and all four porters down to the Base Camp to wait for them. The three remaining Sherpas and the four memsahibs moved camp to the head of the glacier, where we had picked our snow summit to climb next day. During the afternoon heavy clouds started to form and by 5 p.m. the weather had deteriorated, added to which our fuel was running short. It blew and snowed all night; obviously we had to retreat to Concordia with all speed.

Back at Concordia we chopped up the instrument box for fuel, and decided that we should have to retreat to Base Camp next day. About 10 p.m. Namgel and Zoe-Zoe arrived with fuel and a little food, having made a forced march of twenty-four hours. They also brought an urgent message from Pansy, asking for a memsahib to go down to Base Camp. Joyce and I, taking only Cheese and biscuits with us, set off on the long trek down to Base Camp, accompanied by Umgel and Zoe-Zoe. We were horrified to find that two thirds of the glacier was now a heap of boulders and debris uncovered by the melting snow. The going was hard as we climbed enormous mounds and then plunged down the other side. Large glacier pools and ice caves were everywhere. When we reached the site of Base Camp we were met by Pasang, who told us camp had been moved seven miles farther up the valley. Unable to face another seven miles at this late hour, we pitched our tent and crept into our sleeping bags with only a cup of hot lemonade for our supper. Next morning we made the journey to Karsha, to find that the mules could not cross the Chandra river and all our stores had to be transported across on a "ghula," a wooden cage suspended on a double rope. Whilst the porters ferried the loads across, we took the opportunity of climbing to the Kunzam La Pass, about 15,000 feet, which leads directly into Spitti and Tibet.

Eight precious days had been taken up by this unfortunate mishap. We returned with all speed to Concordia to find Frances resting, suffering with heartstrain, brought on by carrying heavy loads at high altitude. Joyce and I set off to climb the Ice Pass and met Eileen, Mingma, Nema and Namgel returning from a successful five day excursion, during which they had climbed The Cathedral and the Chapter House. Joyce and I set up camp at about 18,000 feet and then proceeded to the top of the Steep Ice Pass. The ranges of the Pir Punjal were mostly in cloud so our surveying was negligible.

Back at Base Camp to pack for our return, Eileen and Frances chose a col at the bend of the glacier whilst Joyce and I chose the col next to Gunther's 20,000 feet peak. We planned to return to the Chandra Valley by new routes. Both parties failed in their objective. The monsoon was rapidly approaching, so with all speed we made our way once more over the boulders and mounds to Base Camp, where the mules were awaiting our return. In all, the expedition had made five new ascents, one second ascent and ascended five cols and one ice pass.

We descended to the Valley on our trek back to civilization, with its hot baths, food and real beds, but our thoughts were filled with a sense of achievement and a dream fulfilled.

SOUTH OF BELLA COOLA—THREE YEARS

BY GEORGE W. WHITMORE

In recent years the Bella Coola Valley has proved a rewarding base of operations for Coast Range mountaineering. Sierra Club members from the San Francisco Bay area have become particularly attracted to Bella Coola and its surrounding mountains. The area was first visited by them in 1952, then again in 1954, 1955, and 1956.

The first trip was described in the 1953 issue of the Canadian Alpine Journal (p. 121). Noosatsum and Defiance Mountains were climbed, and a considerable amount of time and effort were expended in an attempt to reach the promising peaks at the head of Noomst Creek.

1954

IN 1954 Dick Long, Bob Skinner, Jim Wilson, and Bob Swift motor-mountaineered their way into the Bella Coola Valley from Anahim Lake, abandoning their car enroute. Once again the objective was to reach the peaks at the head of Noomst Creek. This time, however, with vivid memories plaguing veterans Long and Skinner, it was decided to forego the pleasures of the valley of the Noomst for the unknown possibilities of Cacohtin Creek to the west.

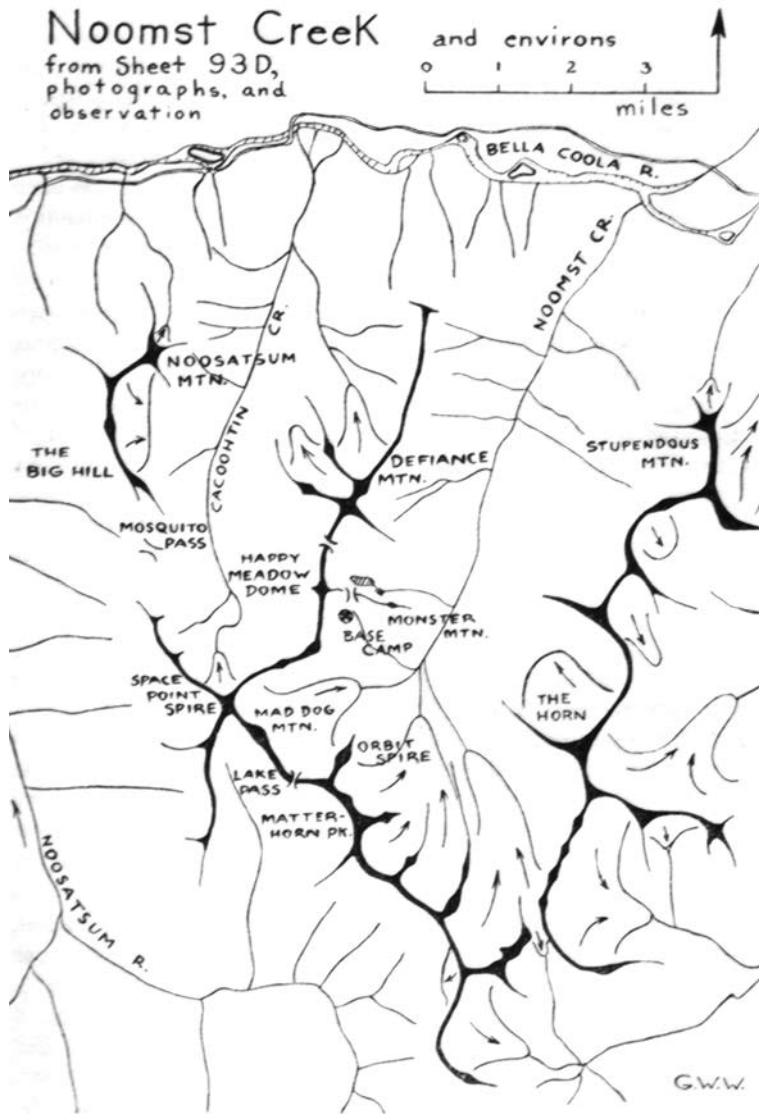
Three days and five miles after leaving the road at Canoe Crossing, a pass south of Defiance Mountain was found. Surmising that this would lead them to the “promised land” at the head of Noomst Creek, the delights of the Cacohtin were left behind and the pass was attained. A short traverse to the southeast across a steep snow slope took the party to nearby Monster Pass, and within a matter of minutes Monster Mountain was theirs. Glimpses of glacier-hung peaks jutting through the murk indicated that their toil was to be amply rewarded. A base camp was established at six thousand feet immediately south of Monster Pass.

The onset of a steady rain dictated that the party should spend the next few days industriously acclimatizing under a sodden tarp. The more ethereal joys of peak bagging were indulged in on one occasion as Happy Meadow Dome, immediately south of Defiance Mountain, fell under a mass assault. Patience and perseverance pay off, even in the Coast Range, and after five days the weather took a turn for the better.

One of the finest peaks in the area was Matterhorn Peak, three miles south of base camp. Unaware that the peak had already been officially named, the party christened it Mount Kopas in honour of their friend in Bella Coola. Clifford R. Kopas is president of the Bella Coola Board of Trade, and has displayed a generous and friendly interest in mountaineers who have visited the valley. The peak which the party named for him was climbed by Dick, Jim and Bob Skinner on the first clear day. They approached the peak by way of the Mad Dog Glacier, which lay less than a mile southwest of camp. The steep neve at the head of the glacier landed them on a broad rocky saddle which, bedecked with lakelets as it was, became known as Lake Pass. From the saddle, mixed rock and snow provided good roped climbing along the crest.

This route ultimately led to the northwest ridge of Matterhorn Peak, and the summit was attained directly. Unfortunately, Bob Swift was unable to participate in the climb. He had turned a knee while ambling about on the Mad Dog Glacier during the poor weather, and was forced to rest it in preparation for the trip out.

The same three made a fine ascent of Mad Dog Mountain the following day. This peak, two



miles southwest of camp, provided a good rock and snow climb from the northeast. It is capped by two characteristic rock towers, the lower of which was named Phantom Spire.

The next day Phantom Spire was ascended via a fifth class route. The summit of Space Point Spire, a fine looking peak at the head of Cacohtin Creek, was reached after an easy scramble along the ridge between it and Mad Dog Mountain.

One peak foremost in the minds of all had been The Horn. A determined attempt had been made on it two years before, but time lost fighting the brush on the lower reaches of Noomst Creek had spelled ultimate defeat. From camp it was now in full view, three and one-half miles to the east across the head of Noomst Creek. Dick and Bob Skinner set out one day for an attempt on the peak. They made the ascent by way of the south ridge, encountering good scrambling. Nightfall overtook them on the return, and they were not seen in camp until the following day.

In their absence, Jim and Bob Swift made an ascent of the south peak of Orbit Spire, two miles south of camp. The higher north peak remained the most impressive unclimbed summit within easy range of their base camp. Time was running out, however. Orbit and other fine peaks farther south had to be left for the future.

From the summit of Happy Meadow Dome, a pass south of Noosatsum Mountain had been spotted. This seemed to offer a direct route from the head of Cacohtin Creek over to the adjacent Noosatsum River to the west. Apparently feeling that it wouldn't take much to improve upon the route in up the Cacohtin, the party decided to give the Noosatsum a try on the way out. A very long day was put in going back over Monster Pass, across to the Defiance-Happy Meadow Dome pass, down across the upper Cacohtin meadows, and out over the newly found Mosquito Pass. Some rugged going was encountered dropping down a steep watercourse to the Noosatsum. While making the descent of this steeply timbered five thousand foot slope, which was later to become known as The Big Hill, a logging road was spotted on the far side of the valley. A fallen tree allowed the otherwise impassable Noosatsum to be crossed, and the road was soon providing a welcome campsite.

The following day found the party enjoying the hospitality of friends in Bella Coola, and little trouble was encountered in obtaining a truck ride back to their stranded car.

1955

The summer of the following year, 1955, found Jim Wilson calling in vain for volunteers to return with him and his wife, Demetra, to the Bella Coola bush. The uninitiated displayed reluctance, while the initiated took care to have pressing obligations elsewhere. Tales of the nature of these outings had suffered little in the telling. The very fact that Jim was the instigator this year was suspect, for his indifference to some of the niceties of life (food, shelter and clothing, for example) is widely known. I finally made the plunge and volunteered. Earlier, Dick Houston had planned to go; on further thought, though, digging gooseberries seemed more attractive to him, and thus our party was three—Jim, Dee, and myself.

A number of fine peaks at the head of Noomst Creek had yet to be attempted, and it was decided to establish a base camp in the same location as the previous year.

The road into the Bella Coola Valley was in considerably better condition than it had been the year before. We thus had the privilege of being among the first tourists to motor into this previously isolated settlement. We were soon at the Noosatsum River bridge, and Jim was pointing out the route to us. The notch of Mosquito Pass could just be picked out through the mist, five thousand feet above us on the crest of a densely timbered slope.

This slope had figured prominently in our plans, and had long been known to us as The Big

Hill. Rising from the Noosatsum in a steady gradient at the rate of one mile in every two, it offered no shelves, ledges, or relief of any sort which might permit a comfortable camp. As we were soon to find, The Big Hill is not only long and steep, but also dry. Not exactly the sort of thing to be tackled lightly; in fact our eighty-pound packs dictated that we were to tackle it rather heavily. The redeeming features of this route are that it is direct and relatively bush-free.

It being well into the afternoon, we planned only to travel to the end of the mile or so of old logging road on the east side of the Noosatsum. Having plunged into the first likely looking bushes we had come to, it was soon all too obvious that we were not on the old road which we had been seeking. After bashing along through the usual assortment of vegetation for some time, we cut uphill in the hope of coming across the road. This move took us into an incredible confusion of cut trees and slash from old logging operations, the whole thoroughly grown over by berry vines and Devil's Club. We were making a good hundred feet per hour, with nightfall fast approaching, when we finally spotted the elusive road above us. Needless to say, it provided a welcome campsite.

The following morning we reached the end of the road in a matter of minutes. After a brief battle with more logging debris, we were in the woods, very dense overhead, and correspondingly free of undergrowth. A steep sided ravine contained a stream, the last water we were to see for more than twenty-four hours. Unaware of this at the time, we tackled The Big Hill with all due cheerfulness. The following four paragraphs are quoted directly from my diary, and were written within a few days of the happening.

"The remainder of the day was spent in working up and to the right, with the slope growing always more steep and always more densely undergrown among the trees. A check by my watch showed that we would trudge, beat, crawl, and claw our way upward for nine to ten minutes, then rest for three to four minutes. We repeated this process for hour after hour, with every step seeming to be in the same dark stretch of woods as the previous one. The only way we could measure progress was by the passage of time. We could only assume that, since the day was passing by, we must be gaining ground; there were no landmarks by which to judge this . . .

"Late in the afternoon we began to encounter rock bands, climbing up through which made rather strenuous going. The exertion and the lack of water were beginning to tell . . .

"About six in the evening we finally got a glimpse of the far side of the notch we were aiming for. It was quite obvious that we would not make it by dark, but we pushed on anyway. About 7:30 we finally called it quits, still in the same old dark woods. We hacked out a platform in the slope, ate a can of cold meat and some lunch food, and turned in, still without water.

"Picking up where we had left off, we resumed progress in the morning. The timber was beginning to thin a little, which meant even worse going, for the willow, alder, and other undergrowth were thus more luxuriant. Also, since we were working around the shoulder into the notch, the slope was considerably steeper. We sighted the stream below us after about forty-five minutes, but it was impractical to get down to it. When we had worked well into the notch the slide alder made further progress impractical, so we dropped straight down for several hundred feet to the stream bed. Dry! A low ridge was forming an island between the main watercourse and our stream bed. Working through a mass of deadfall, we finally topped the ridge and dropped down to water. Water! And a spot of flat ground!! After more than twenty-four hours with neither, we flopped out for a well earned rest." Perhaps the reader can pardon the histrionics if he recalls that this was written while the scars of the ordeal were still fresh on mind and body.

An early camp was made on Mosquito Pass, a very appropriate name, incidentally. The following day we descended to Cacohtin Creek, and the two passes leading to the base camp site

were crossed. At this point, two full pages in my diary are occupied with a bear story. In order to spare the reader, suffice it to say that my faulty vision almost allowed me to blunder into a rather large grizzly. Since this was possibly only the second time in his life that he had seen humans, he was fortunately the shy type.

Our first day in base camp dawned so fine and clear that duty finally drove us out of the sack at 0800. At 0900 Jim and I ambled off toward the Mad Dog Glacier, intent on getting a view from Lake Pass of the country to the south. As it turned out, we ambled a bit further than we had planned on, and ended up on the summit of Mad Dog Mountain late in the afternoon. The ascent was made by way of a new route on the southeast ridge and west face. The route involved one very fine snow pitch, one rock piton, and a number of roped rock pitches on the west face. The view in all directions was most worthwhile, but that to the south was especially fascinating. Monarch Mountain was clearly visible in the distance, while a host of lesser peaks jutted out of extensive ice fields north of Monarch. Snowside Mountain and the twin peaks of Mount Jacobsen were particularly impressive, even at nineteen miles. So impressive were they, in fact, that we knew we would some day be visiting them.

The descent was a most joyous one, for all was well with the world. The day had been a very rewarding one, for the climb was excellent, the weather superb, and the views fascinating. To top it off, Dee had a hot supper waiting for us upon our return.

The following day was also clear, although strong winds from the west indicated a change in the weather was brewing. All three of us were out early for a try at unclimbed Orbit Spire, a most impressive rock tower as seen from camp. Belaying up the steep névé to Lake Pass again, we angled up across the west face of Orbit. The rock was typical of this area—quite fractured and broken, yet tough and stabilized. The result is good rock climbing. Holds are plentiful and sound, faces are frequently at high angles, and there is relatively little rockfall problem in most places.

After about a thousand feet of high grade scrambling on this face, we came out on the crest of the south peak. Separating us from our objective north peak was a rather unfriendly looking notch. Vertical rock walls were separated by a fragile crest of snow about one hundred feet below. We dropped down to the west along the edge of this gulf until we located a possible route down the face into the snow couloir.

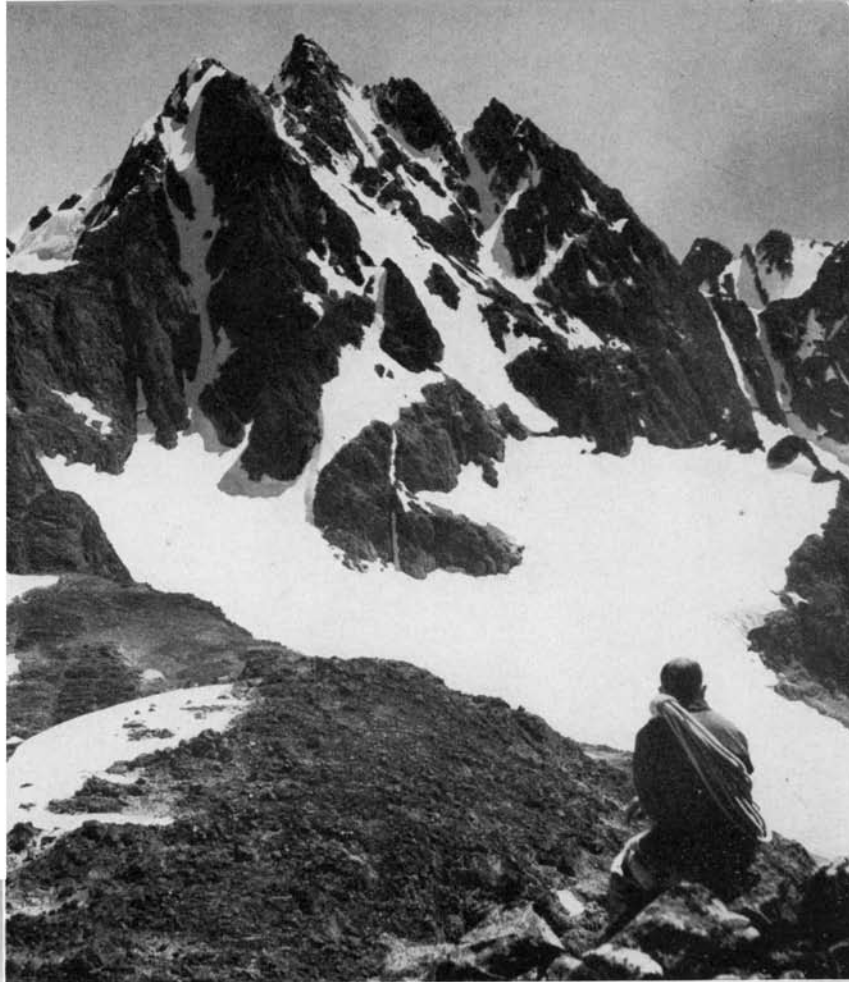
Climbing down on belay, I placed a piton to protect the last man. One more rope length took us to the last rocks. Jim led off in an attempt to traverse across the steep snow of the couloir to the far rock wall. The snow was in rather poor shape, so he placed a piton in a rock island a few feet out. Apparently, Jim had placed this simply to bolster his morale, for the hardware popped out as soon as I took up the slack in the rope. The odds had been going steadily against us for the last few minutes, and the failure to get adequate protection caused us to take further stock of the situation. A few hours later we were enjoying supper back in camp.

As expected, the rains came during the night, accompanied by high winds which kept the tarp cracking and rattling all night—not too conducive to sound sleep.

The next two days saw intermittent rain, drizzle, wind, and cold. Activity being thus discouraged, we set industriously to work to consume the vast quantities of food we had packed in. For various reasons, we felt compelled to leave much earlier than we had originally planned. Consequently, there was a great surfeit of food. Rather than lug this mass of stuff back out, we combined forces for a mass assault on the commissary. Weight reduction (of supplies) was obviously a community responsibility, and whenever someone's intake was lagging, he would be chided by the others for not doing his share of the work.

Matterhorn Peak

First ascent made
Vici Peak on left and ridge
facing camera



**Twin Peaks of
Mt. Jacobsen**

From pass west of Atavist





Route Taken On East Ridge Of Mt. Snowside.

Photo G. W. Whitmore

S marks summit.



Upper Gorge of Noeick River.

Photo G. W. Whitmore

River has tunneled under the two glaciers entered the gorge from the side.



Snowside Base Camp.

Photo G. W. Whitmore

At foot of S-E. ridge of Mt. Snowside.



Looking S. From “Mad Dog” Mountain.

Photo G. W. Whitmore

Snowside on Right. Twin peaks of Jacobsen left.

Fully prepared for Coast Range mountaineering, we had brought along some common long cooking dried beans. These had been intended to keep us amused during inclement weather, the thought being that when we tired of eating and reading we could watch the pot of beans cook. The idea worked out very well, and we highly recommend long cooking dried beans for all future Coast Range expeditions.

After two days of industrious fattening, the weather cleared. Jim and I took off early for another try on Orbit Spire. We took the same route as before, except that we continued down the couloir another 150 feet before attempting to cross it. The snow was heavily crusted this time, and I was able to cut a series of hand and foot holds across to the rock on the far side. Jim led across another steep bit of snow, and then warm, dry rocks led to the summit. The views of the extensively glaciated peaks surrounding us were a temptation to linger, but, afraid that the sun would soften the crust in the couloir and leave us stranded, we had to leave our summit and hurry on down.

The following day we started back to Bella Coola. Camping on Mosquito Pass, we planned to try an ascent of one of the southern outliers of Noosatsum Mountain. The mosquitoes were making the most of their opportunity, however, and worked a night shift. We awoke bleary eyed and somewhat the worse for wear. Feeling not at all like peak bagging, we headed down The Big Hill and arrived in Bella Coola early in the afternoon.

1956

Even as we had looked upon the glittering glaciers fifteen miles away to the south, Jim and I had talked of visiting them. Our attention was drawn in particular to one beautiful ice sheathed pyramid which stood out above the host of lesser peaks. We later learned that this was Snowside Mountain, and many hours were spent that winter studying photographs and maps of the surrounding area.

The summer of 1956 found us Bella Coola bound once again. This year the party consisted of Jim Wilson, Dick Houston, Dave Rynin, John Dorsey, Will Siri, and me. Fortified with advance information provided by Clifford Kopas, we obtained a ride up South Bentinck Arm on the Bentinck Chief. Skipper Stan McNeil made us more than welcome; a supper of fruit pie and coffee on the afterdeck is well remembered, as is his assistance in finding shelter for us late at night in the logging settlement of South Bentinck.

The following morning Superintendent Norm Parkins took us up the logging roads in both the Noeick and Taleomey River valleys. Although a Taleomey tributary offered a much more direct approach to Snowside, its valley appeared less friendly than that of the Noeick, and we chose what we hoped was the lesser of the two evils. Once again we were transported to the end of the road in the Noeick valley. Thanking the employees of Northern Pulpwood Ltd. for their assistance, we stepped into the woods with a two and one-half week supply of food on our backs.

The Noeick proved not to be an easy river to follow, as evidenced by the fact that it took us seven days to cover about eighteen miles. It has been my experience that the retrospective pleasures of a trip are in direct proportion to the energy expended and the physical discomforts endured. Needless to say, our adventure turned out to be a very rewarding one.

The first four days consisted of straightforward bushwhacking and steep sidehill traversing, interspersed with a reasonable amount of open woods and gravel bars. Occasional bits of old trapping trail were found, although this had a tendency to give out just when most needed. The gravel bars were welcomed, not alone for the rapid progress they permitted. The net result was frequently a loss of time, for packs were invariably dropped on every bar, and all hands would commence pitching rocks into the Noeick. A number of us became quite expert at bombarding log

“battleships” as they came racing past. Tiring of these simple joys, we would roll into our packs and crash off into the brush for another hundred yards or so to the next gravel bar.

What was undoubtedly the high point of the trip up the Noeick came on the fifth day. A cold drizzle had been falling since the day before, with no end in sight. We were ploughing along through the wet brush on the south bank of the Noeick, approaching the snout of a glacier which drops steeply to the river from the south. The plan was to ford the glacial stream, crossing between the snout and the main river. While in the midst of a particularly vile stretch of brush we suddenly got a disconcerting glimpse of a rather huge lake which the map makers had overlooked. Formed by recession of the glacier, it lay directly across what we had supposed would be our line of travel. The Noeick was eminently unfordable at this point, and the going was such that we were not inclined to back track in search of a problematical crossing.

Progress, painfully slow to start with, rapidly ground to a halt at these prospects. Surveying the dismal scene before us, we found it difficult to adjust to the facts of life. An old log was spotted near the water, and it was decided to attempt construction of a raft. The log was engineered into the water in short order, but it had a distinct tendency to wander. After many fumbling attempts it was finally moored with a climbing rope. The raft building project died a slow death. One by one the engineers retired from the fray and huddled on the wet rocks in an attempt to get warm. Even at the time we realized the humor of the situation. Dick thought that perhaps we were all dead and didn't know it, for we were in an ideal Climber's Hell. Finally reality just became too much to bear, and we retreated under a tarp in an attempt to shut out the rain and the cruel world.

Not having to face the problem for a while allowed us to regain our composure, and after some time we drew aside the tarp and charged off into the brush. Actually the vegetation thinned out after a bit, and we made fair progress around the lake shore toward the glacier snout. The rock between us and the glacier came close to barring further progress, but after a bit of exploring a rappel was made. A second rappel dropped us directly into the glacial stream, but this was fortunately fanned out and easily crossed.

Some heavy going on a large moraine landed us back on the Noeick, and we were soon engaged in construction of a sleeping platform for the night. The sun was out the following morning, and extensive drying operations were conducted until noon.

This day saw timber left behind. The transition was very strange, but only in keeping with this colorful land. One moment we were crawling through a mass of slide alder, just as we had been doing for days past. The next moment we stepped out onto a bar and found that we were above timber. At our backs was a veritable jungle; in front of us lay the barren, rocky upper gorge of the Noeick.

The gorge was blocked from side to side in two places by glaciers, which were fed by the ice fall of a large sheet overriding the south wall of the gorge. Rather than be dammed by these glaciers, the Noeick has tunneled under them. Neither glacier is indicated on Sheet 93D, which made me wonder whether perhaps they had not existed when the aerial photographs were made seven to ten years ago. It was suggested that they may have been so dirty as not to be recognizable in aerial photos, but at least in 1956 they were relatively clean. Cramponing up the first glacier, we made camp on its level crest.

The next morning we dropped down to the river. The second glacier was surmounted without the aid of crampons. Beyond this glacier the gorge was bridged by a number of snowbanks and was totally impassable. Fortunately we were able to traverse out onto some pleasant grassy slopes on the north side of the river. Within a few hours we were dropping down to a pleasant

glacier-bound valley at the source of the Noeick River. At its head the Noeick issued from the snout of the Fyles Glacier. On the south side of the valley the Noeick Glacier rose to the Snowside icefield. Downstream, the gorge of the Noeick, our route of entry, lay blocked by the two tributary glaciers. Only to the north, over a six thousand foot pass west of Mount Atavist, could this flower-strewn valley have been entered without setting foot on ice. Having attained it, we made leisurely preparations to establish a high camp. Food for the trip out was cached, a ford to the south bank of the Noeick located, and the morrow awaited.

The seven-mile carry to what we hoped was the base of Snowside Mountain was made in the worst weather of the trip. Snowside should have been in view most of the way, but a dense fog obliterated all except an occasional rock spur rising into the mists from the glacier. A cold rain and snow kept us moving at a brisk pace, and, after much controversy as to where we were, we finally stopped near the foot of what we later learned was the southeast ridge of the mountain. A platform was soon hacked out and the tarps spread, and we retired to our sacks in an attempt to get warm.

With perfect timing, the following morning dawned bright and clear—the start of a full week of perfect weather. Studying the glaciers and rocks above us, we picked out what appeared to be an absurdly simple route to the summit of Snowside. Trudging off up the glacier, we gained a full two thousand feet. Suddenly doubts began to assail us, for as we neared our peak it shrank at an amazing rate, while a “lesser” summit half a mile away began to assume alarming proportions. Realizing the error of our ways, we dropped back down and put on full speed toward the new objective.

Certain now where our summit lay, it became increasingly obvious that it was not to be “absurdly simple”. Having made our false start toward the south-southwest ridge of Snowside, we were now traversing across the head of the south glacier toward the southeast ridge. We soon found that it was impossible to gain this ridge, and in desperation we turned toward the head of the south glacier.

Climbing through the schrund, we picked our way up a loose two-hundred-foot rock head wall. Once again we were on the crest of the south-southwest ridge, but this time we were at its head, where it abutted the vertical west face of Snowside. Above us loomed a thousand feet of steep couloirs, ribs, and faces. Worth a try, but a try only, for there was no assurance that the right combination could be found. At any rate, it was too late for our party of six to make an attempt this day, and we were soon heeling down the glacier toward camp.

Although the west face of Snowside had possibilities, most of us felt that the east ridge, seen in profile from our camp, was a more natural route. Consequently, the following morning found us working our way up the rocks, snow, and ice of this ridge. It proved to be an excellent climb. A little too good, in fact, for the continuous belaying and careful climbing consumed much time. Very late in the afternoon we gained the final snow ridge. Sweeping up to the summit, it dropped away steeply on both sides. Spectacular climbing, yes, but a bit too thin for our taste. Perched there on this knife edge of snow, with darkness only a few hours away and the summit even closer—only one or two hundred feet, we held a council of war.

The decision was to try our luck yet another day, and we started backing down our carefully made steps. The evening was warm and calm as we descended, and even in defeat we were able to appreciate our splendid surroundings. The peaks we had visited the previous year lay spread out to the north, and we were able to pick out portions of our proposed route out by the Noosatsum. Total darkness overtook us as we were finishing the last of the roped climbing. What should have been an easy scramble down to the east col proved to be very time-consuming and not without inherent

dangers. Around midnight we finally decided to call it a day, and four of us wedged ourselves into a mass between the rocks to await the dawn. John and Dave had managed to get off the rocks in the fading light, and, as might be expected, they had the food. Having become accustomed to a Wilsonian diet, the rest of us were easily able to adjust to our low calorie supper.

The sacks were finally reached at sunrise. By unspoken agreement this was proclaimed a rest day, and all hands turned in. The day was spent in utter inactivity, and toward evening plans were laid for a final attempt on Snowside.

The following morning, Jim, John, Dave and I tromped out of camp at the unheard-of hour of 0530. Fast work was made of the frozen south glacier, and we were on top of the head-wall, our previous high point, at 0900. The west face provided a very fine climb. An interesting route to the south end of the summit ridge was pieced out up chutes, faces and ledges in four hours. Four pitons were used for protection. Another hour of climbing along the mixed rock and snow of the crest landed us on the summit, or at least as near as we cared to go, for the actual high point lay a few feet beyond us, consisting of the same knife edge of snow we had attained from the east.

I, for one, was a little sad that the peak was finally won, for I had enjoyed the game and hated to see the end of it. Apparently I was not alone in my subdued spirits, for Dave was not feeling on top of the world—something he didn't eat, he said. On the other hand, Jim's stomach was giving him a rough time, apparently because he had insulted it by eating a bit of food. Which just goes to show the value of conditioning one's stomach for this type of trip.

Spotting Will and Dick on the east glacier three thousand feet below, we exchanged a few screeches back and forth and then started down. Two rappels were made at the bottom of the west face. Having picked our way down the loose head-wall, we let a rockfall subside and then climbed out of the schrund with all due haste. The warmth of the day had altered the appearance of the south glacier considerably, and parts of our route were unrecognizable. In better spirits now, we heeled down at a good clip, avoiding the crevasses largely by remarkable good luck.

Will and Dick talked of climbing a peak on the Iroquois Ridge, but it seemed that they had spent a good part of the day exploring crevasses and practising rescue techniques. John and I had found from personal experience that it was no longer safe to wander about camp untethered. In view of the circumstances and the continuing fine weather, we decided it would be only prudent to be off the glacier at an early hour the following day. Accordingly, we were back in the valley of flowers in time for lunch the next day.

The animals had been kind enough to leave our cache undisturbed, which gave us considerable peace of mind. We packed out over the pass west of Mount Atavist, and camped that night at a lake near the Noeick-Gyllenspetz divide. This lake provided a fine swim and a bath—our first in more than two weeks.

The following day we encountered some rather exhausting going while traversing a steep slope to the Noosatsum headwaters. The next three days down the Noosatsum were much easier than the route up the Noeick had been. The upper portion of the river lent itself to wading, and we were able to make use of a number of miles of excellent trail farther down. On the last day we crossed a log to the west side of the river in order to pick up the old logging road used by the party in 1954. After a frustrating search of a thousand vertical feet of hillside, we finally located the road practically at river level. Consoling ourselves with the thought that there had been only two things we couldn't find—the road and the mountain—we tramped down to the Bella Coola Valley.

LOGAN MOUNTAINS, N.W.T., 1955

BY DONALD HUBBARD

WE arrived in the region by air with a vocal outburst of enthusiasm:
“Nor swifter does the swallow skim
Across the smoothe lake’s level brim !”

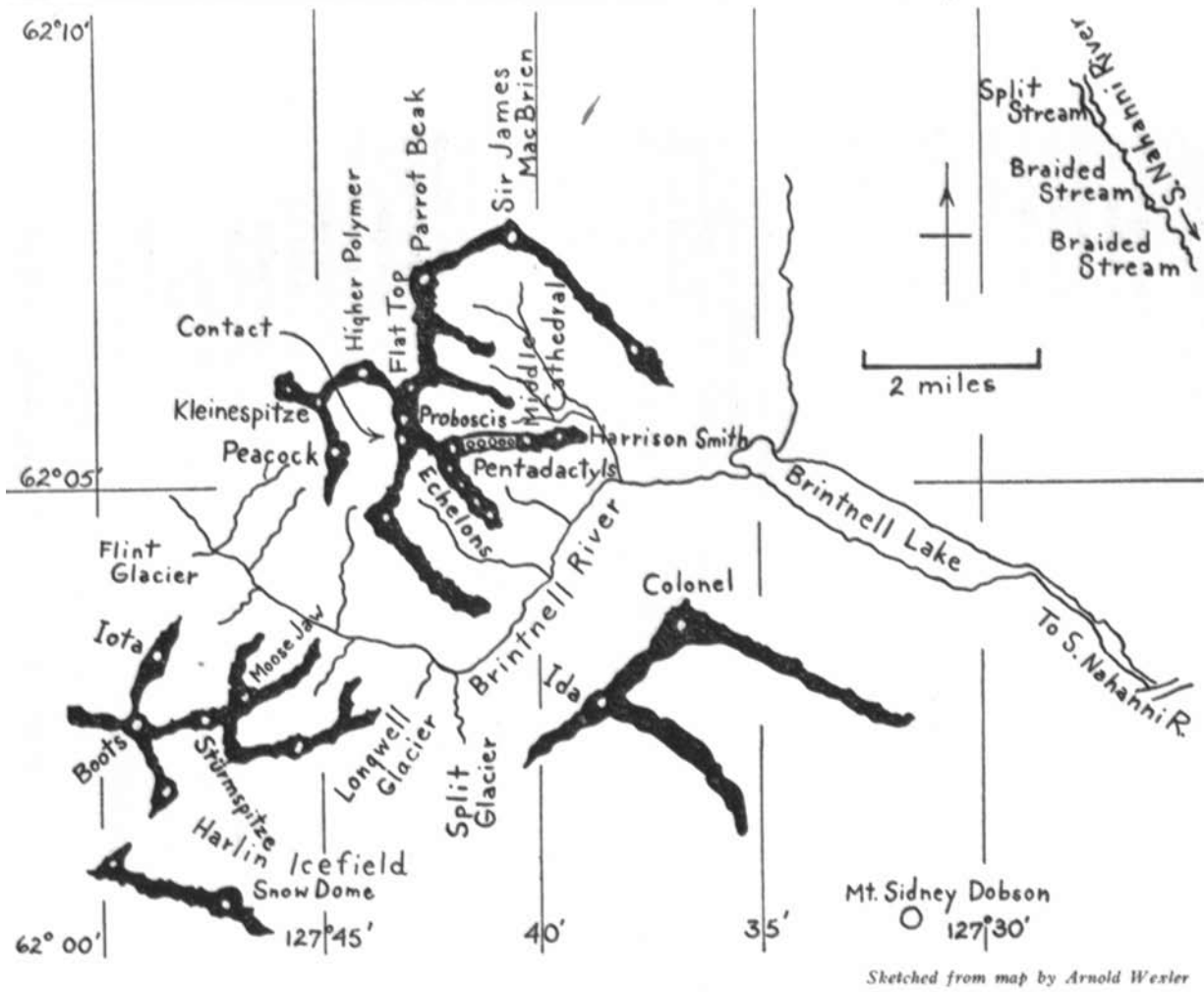
We had just completed a run, barely above the mirror surface, for almost the full five-mile length of Brintnell Lake. In a merry chase with its own reflection the speedy little Cessna had raced toward the mile-high polished granite walls, cliffs, and peaks of the Echelons, Cathedrals, Pentadactyls, and Harrison Smith which dominate the western end of the lake. Ray D’Arcy and I were scarcely ashore before the second plane arrived with Sterling Hendricks, Dave Bernays, and Arnold Wexler. Within minutes the drone of the departing planes gave way to that of the mosquitoes acting as an enthusiastic welcoming committee to the Logan Mountains of Canada’s North-West Territories.

On the flight in from Watson Lake, Yukon Territory, our tentative itinerary had been hastily revised. The plan to cache some of the supplies at Brintnell, but to land most of them with all the personnel at Hole-In-The-Wall Lake had been hastily abandoned. The air view of the intervening terrain between these lakes indicated that inter-lake communication afoot undoubtedly would be very interesting, but certainly time consuming and possibly even embarrassing.

With only four weeks’ vacation time left, Sterling with his ubiquitous “time-is-running-out!” attitude, hastily sorted out four days’ supply of food, cached the rest on the elevated platform built by previous visitors¹ to the region; and off we dashed in the sweltering sun for the high basin east of Mt. Harrison Smith. Ray immediately went astray in the labyrinth of beaver dams and ponds, so far astray, in fact, that it was three days before we re-established contact. Having mistaken the trip for a Polar Expedition I was bundled up in heavy wool underwear and similar accessories, so that by evening my tongue was hanging out so far there was danger of stepping on it— except for the fact that muscle cramps had my legs locked so they couldn’t step. However, by 9 p.m. we were cheerfully ensconced at the basin, sheltered by a mighty boulder in an alpine meadow near the base of a series of glowering walls, sans Ray, most of the rye-crisp and all of the peanuts. The next morning, Monday, July 4, we optimistically set out to climb a peak, but after a hard day inspecting two amphitheatres we arrived back in camp muttering about the “Cirque of the Un-climbable Peaks”, Mt. Proboscis, Flat Top, and the rock avalanche that fell almost a quarter of a mile without even striking the wall. We had acquired a collective crick-in-the-neck looking upward at the polished granite walls vainly looking for a route—a day from which acute inferiority complexes are born.

The next day, taking advantage of a snow gully at the far end of the McBrien Cirque we were able by mid-afternoon to get high up on the rocky wall of Peak Sir James McBrien, but far below the summit ridge. Here an argument started with as many opinions concerning what to do next as there were individuals. After vehemently eliminating every leader’s choice by a vote of three to one there was nothing left but for Arnold, without consent or consultation, to lead us silently up a chimney onto the summit ridge, along which he made a series of spectacular leads

¹ H. F. Lambert, The Harry Snyder Canadian Expedition. C.A.J. 25, 1-18 (1937). Dudley W. Bolyard, Yale Logan Expedition. C.A.J. 36 40-53 (1953).



(one pitch in particular being a near classic) to the top of McBrien, the highest peak in the region. We had gained the top of tops, which elevated our morale proportionally.

On the way back to Glacier Lake the next morning we located two notes from Ray which revealed that he was in good health, but "... tired of living on rye-crisp and salted peanuts." Also, a few minutes later Dave demonstrated a feat of marksmanship. At the unbelievably long range of ten feet he severed the head of a "fool hen" with one shot from his elephant gun, while everyone else was trying to scare the bird away. Apparently a fool hen is one bird for which it is difficult to do a favor.

Upon returning to the lake, after picking up Ray and two weeks' supplies, we immediately headed back up stream. Camp that evening was made in the rain on the flats below Harrison Smith. On Thursday after drying out clothes and equipment, and having breakfast which included broiled fool hen, we continued upstream. At the big bend we climbed the steep bank and strolled on through open bush to a level camp site and a good night's rest. The next morning we cached half of our supplies at the mouth of the stream draining the high Polymer Cirque, then established a high camp at the base of the upper waterfall. From this camp four glacier snouts gleamed forth across the Brintnell. And above all, over there were many peaks that looked climbable projecting up from the neves. Such a sight was refreshing, to say the least, because by now we had developed a growing respect for the Harrison Smith massif. We had seen the back of it from the Cirque of the Unclimbable Peaks and had now walked for hours along its mighty boiler-plate face overlooking the river. The Lower Echelon had looked as if it might topple forward at any moment and span the valley.

The next morning, Saturday, July 9, we set forth to inspect the area. First we strolled over high alpine flower gardens, followed by barren rock as we approached the receding glacier tongue. Progress was relatively easy over the ice until we reached the snow. In this region the critical altitude, plus the July sun and temperatures produce a snow condition with a breakthrough characteristic that is physically exhausting and nerve wracking. We passed Mt. Contact, which obviously was climbable, the back side of Mt. Proboscis, which appeared repulsive but not necessarily impossible; and then up a narrow snow gully at the top of which we turned left on to the rock of Higher Polymer, so named because with its many peaks and long ridge it resembled a long chain molecule. A satisfactory route after several sharp pitches intercepted a long gully leading toward the summit ridge. However, as the whereabouts of the highest peak was not obvious to us, we made several interesting climbs and traverses before attaining the ridge or locating the summit peak. On the long ridge we encountered one vertical discontinuity which appeared to be impassable. Here, forward progress came to a stop, momentarily. Being reluctant to forfeit the top which was only a few hundred feet beyond, I volunteered for scouting and with Sterling handling the rope went on tension along the less precipitous left face, and over the nose where a simple, skillfully-hidden climb and lay-back rewarded the inspection. By having the second team delay its trip to the summit each member descended en rappel and returned with a belay from above. By pure chance our prize for the day turned out to be the highest of this new group of peaks. The route of descent, except for a few easy short cuts, was essentially that of the ascent with three long rappels (120 feet each), some climbing and one short rappel to the snow gully ascended in the morning. Down this we alternately glissaded and floundered, and so back to camp after 17½ hours.

By mutual consent, Sunday, July 10 was devoted to recuperating. Sterling's badly bruised leg (a product of that treacherous snow in the Cirque of the Unclimbable Peaks) needed attention and relaxation.

Monday was another day's rest for Sterling's leg. Dave and Ray applied their efforts to Mt. Contact which they climbed, and to Mt. Proboscis on which they made some progress. The latter apparently will require special handling. Arnold and I turned left up the Peacock branch of High Polymer Glacier. That wicked break-through condition mentioned earlier coupled with hidden crevasses, were nerve wracking in the extreme. At one place while we were moving along the lower lip and trying to turn the end of a schrund-like crevasse blocking our upward progress, the slope of the hard ice became much steeper.

As the footing became most precarious and while I was wondering what could be done in the way of arresting a fall, Arnold flashed down the slope in a shower of ice splinters, trying vainly to arrest his flight with the pick and handle of his ice axe. Faced with the humiliating prospect of having failed to protect the leader of the rope, I rotated one foot over the sharp lip, thrust the ice axe handle with its running loop of the safety rope into the void, and shifted the balance up slope. The impact of Arnold's weight from below, forcing the handle of the axe against the lower wall of the crevasse, provided a most sturdy and satisfactory belay. In fact, it was so good and I was so elated at the catch, I thought it deserved some special attention in the art of belaying the leader. But Arnold pooh-poohed my enthusiasm with the attitude that he expected action from his second man on the rope without so much chatter.

From the high col at the base of Mt. Peacock, Arnold cut steps in the hard ice, which I enlarged for our expected return later in the day for a try at other peaks at the far end of the névé. Upon attaining the rock he led sharply upward toward the summit ridge making several pitches that required skilful climbing. Twice we lined his pack up on the rope. Progress along the ridge was an easy scramble.

After lunch we decided to take the long snow-free slope and gentle gully down to the end of the glacier, partly because it was a little late to try for another peak, partly in order to dispense with the rock work we had encountered, and partly to avoid the tedious wallow through the snow and crevasses of the névé, but largely to check on the mineralization of the region as we were on a pronounced contact line. I arrived back in camp screaming "Gold, GOLD!! I'm rich. I found it. It's mine. The rights to the pie are all mine!" Sterling took one glance at my nuggets and agreed that I possessed the Pyrites.

Tuesday, July 12, we descended from Waterfall camp to the cache, picked up food for six days and moved across the Brintnell river. The icy current was very strong and Ray was swept off his feet, but was rescued by Sterling and Dave, while Arnold with the instinct of a true newsman, took a sequence of 1 photo shots of the excitement. After this, we ascended to a fine high camp.

On Wednesday, Arnold, Sterling and I climbed Mt. Iota and Mt. Sturmspitze. The former is a pleasant little rock climb, and the latter gave good views in all directions, especially back toward the Echelon-Cathedral-Pentadactyl-Harrison Smith bastions. Dave and Ray made successful ascents of Mt. Moose Jaw and Mt. Boots. Everyone arrived back in camp elated at the day's successes. Later in the evening a storm built up which started in earnest during the night and continued with rain and fog through Thursday. Friday the high peaks were still covered but the weather was moderately agreeable at camp. The next day we set out at 4:30 a.m. for the Sturmspitze col in an effort to gain some of the higher peaks beyond, from which to study the approaches to the Rabbit Kettle region. From the col we descended on hard snow to the snow field between Sturmspitze and Snow Dome. In crossing this neve we encountered the usual poor snow, but readily gained the shaley ridge that leads to the top of Snow Dome. The top of this mountain at this season was a broad dome of hard glare ice.

Shortly after gaining the top a storm moved in, ominous and freezing. With the probability of it setting in for several days we deemed it prudent to try for camp. Thus, passing up unclimbed peaks on all sides of us, we broke for safety over Ray's mild protest. During the flight across the neve in falling snow and limited visibility and harassed by the sorry condition of the snow underfoot the crew was moderately unhappy until attaining the Sturmspitze col and lower glacier toward camp. Greeted into camp by a rainbow over the valley followed by a downpour after our arrival, one fully appreciated the luxury of a warm sleeping bag on an air mattress in a mountain tent.

Sunday, July 17, we broke camp and by taking advantage of luxury walking conditions on our side crossed the Brintnell a mile below the place of our previous mishap. After a pause for lunch at the gravel flats opposite Split Glacier we continued on to a fine camp site near the river under the beetling brow of the Lower Echelon.

Monday, the weather kept us inactive. Tuesday it was still foul, however Sterling, Dave and Arnold started at 10:30 a.m. for Brintnell Lake for supplies and extra shoes. Ray and I chopped down an eighteen-inch tree with a light axe for a bridge across the river for a proposed climb of Mt. Ida. The tree spanned the cascading stream perfectly but unfortunately broke near the middle on the fall, buckled and was swept away.

With the route toward Mt. Ida cut off at this point the group devoted its full attention to the problems presented by the four Echelon peaks, the Pentadactyls, The Middle Cathedrals and the twin summits of Harrison Smith. The steep rock slabs leading upward toward the glacier cirque presented a rugged carry for several hours. After that the route eased off to a grassy, flowered hillside to end in a high alp camp site which was probably the most scenic of all our unusually scenic high camps of the summer.

The next day Dave, Ray and I started out to try our skill on the Lower Echelon. Despite its fierce front which had intimidated us for the past weeks, it folded under pressure, and we followed a goat trail to the very top. The other Echelon peaks are readily climbable from this point, but thinking that Arnold and Sterling were already up there we returned the way we came.

We arrived back in camp very early, giving the boys ample time to recall that the night before the stream in burbling through our camp grounds had made too much noise for easy conversation in the tent. Instead of moving the tent a little distance, they applied their higher education and concluded that moving the stream would reduce the noise according to the inverse square law. The validity of this conclusion they proceeded to demonstrate with the maximum expenditure of energy and enthusiasm. I was tolerantly amused at their success until it became evident they had diverted everything into the side channel where I had my clothes anchored. Digging my laundry out of the mud was my contribution to their acoustical researches.

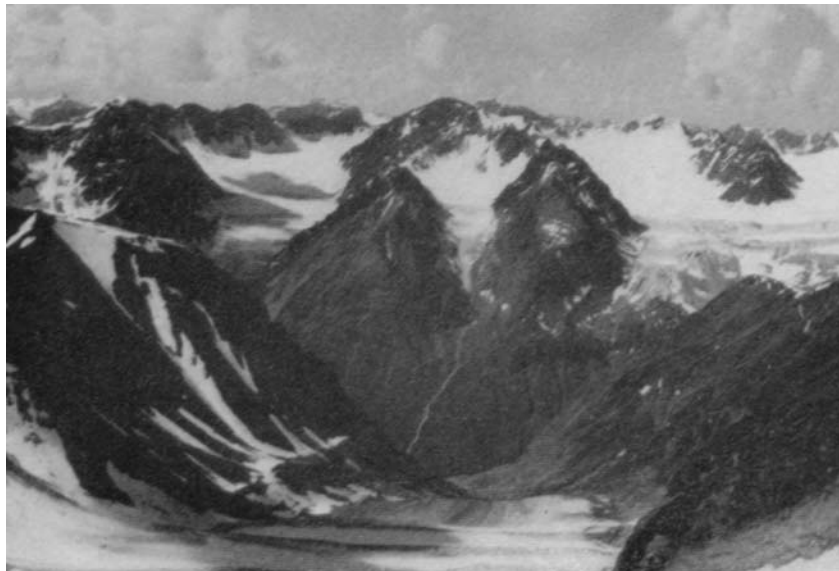
Sterling and Arnold arrived back in camp much later, with elated tales of cat-walks, exposed chimneys, airy traverses, of attaining the twin tops of Harrison Smith, of a sky-way trip back along the ridge over the Middle Cathedrals, with views down into the Cirque of the Unclimbable Peaks, and "Oh" this! and "Ah" that!! The next day the three of us duplicated their route and sure enough one has no difficulty in getting enthusiastic. From the number of cairns we encountered it appears that Sterling and Arnold must have spent much of their day gathering stones. As we were spared the delay of building cairns we were able to add another peak to the list, viz, the easternmost peak of the Pentadactyls, which my note book describes as a difficult peak. I now recall it as more of a goat-getter than particularly difficult. However, Dave lead the climbs in a masterly fashion and apparently thoroughly enjoyed himself. At the same time Sterling and Arnold were climbing the three higher Echelon peaks and scouting out the possibilities for a frontal attack on



Higher Polymer Peak (Distant Left Center) And Glacier

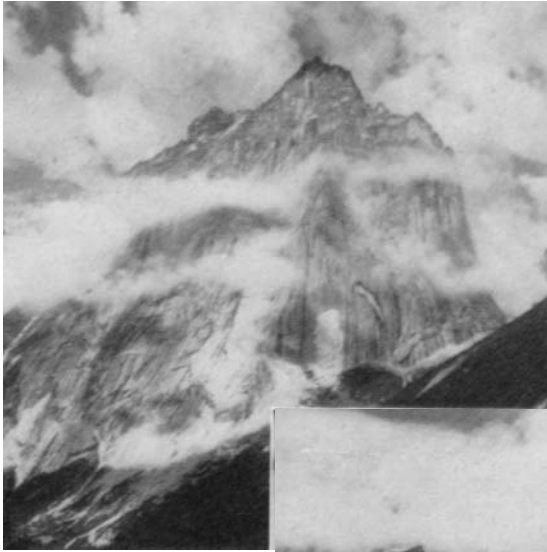
Photo Arnold Wexler

From across Brintnell River.



Looking Across Brintnell River From High Polymir.

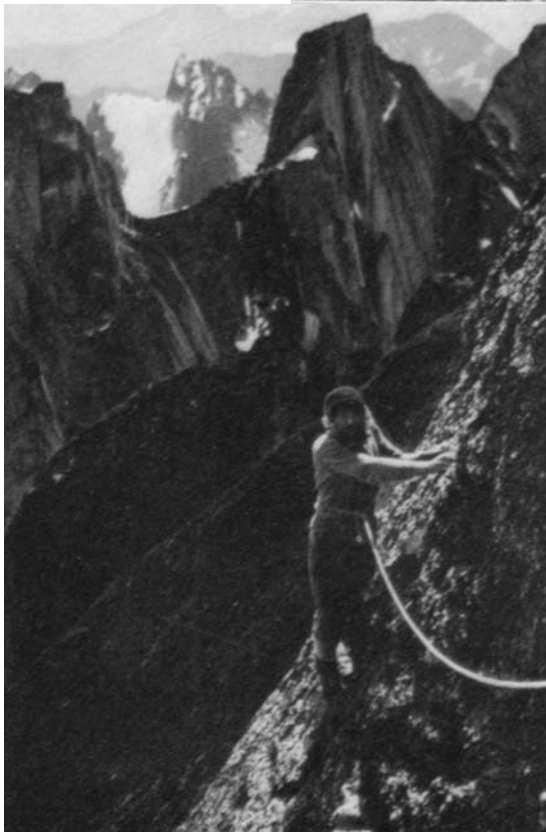
Photo Arnold Wexler



**Mt. Harrison From
Brintnell Lake.**
Photo Arnold Wexler



**Entering The Cirque Of
Unclimbed Peaks.**
Photo Arnold Wexler



**Traverse On Higher Polymer
With Flat Top In Background.**
Photo Arnold Wexler

the Pentadactyls. The third peak of the Higher Echelons was accomplished with the guide service of an old goat that showed up well as a master climber in a sequence of photographic shots taken by Arnold.

Sterling and Arnold started off early on Saturday, July 23, for a thorough inspection of the approaches, and a direct assault to the tops of the Pentadactyls. They had a full day carrying out the first aspect of this assignment, but postponed the latter indefinitely. As for us, after considerable difficulty in getting the boys awake, Dave, Ray and I started off very slowly and then after this initial spurt slowed down considerably until by the middle of the forenoon all upward motion had ceased. The party's scarcely perceptible upward progress had given way to a stationary, disjointed, listless conversation, followed by physical collapse to a sitting position. Then the party had actually rolled over and was emitting little burbling noises. Life still existed, but at a very low ebb. This was a new experience for me and while I wondered what to make of it, Dave started mumbling, at first incoherently and then coherently as he became more enthusiastic over the happy mood being revealed by his subconscious.

Suddenly Dave bounded to his feet, flexed his muscles, pounded his chest, roused Ray, and then started hammering in pitons, fixing slings and carabiners in a burst of effort that gained the Pentadactyl ridge between No. 1 and No. 2, carried us over several major and minor pinnacles, including one interesting gap in the ridge. After placing four cairns we established visual and verbal contact with Sterling and Arnold far below. However, we did not join them because our packs had been left far back on the ridge and furthermore the flat-iron slope between our parties was scenic but uninviting.

Sunday, July 24, the area was cloudy at starting time, followed by a general storm build-up and showers. Later in the day Arnold was able to take advantage of a little sun and photograph some of the flora of our alpine meadow. Monday we were enveloped in clouds with alternate fog and rain, but were rewarded by cloud effects over the South Nahanni Valley, rainbows over the lake, and colorful boil-ups from the valley below. Tuesday, with the peaks still in clouds and with supplies running low we broke camp and returned to Brintnell Lake. From the lake we intended to make sorties into the country north of the lake, the Mt. Ida region across the lake, and scale the granite peak to the east of Harrison Smith. While we waited for the peaks to clear each member of the group amused himself as best suited his fancy. The fishing crew surprised the commissary with two Amnucush Lake Trout "about fifteen pounds each" according to my note book, twenty-two and one-half pounds according to the book on fish consulted later. (Just the customary 50% increase mark-up which a fisherman is allowed for narrative purposes).

Anyway, the crew ate this 20-40 pounds supplementary diet in just two meals—with the exception of one set of roe which a Canada Jay stole from the pan while the fish was still being cleaned. Don't ask how he managed. It was all done in one gulp. The roe was approximately twice the size of the bird. If I had been able to get my knife on that "camp robber" I would have obtained some authentic data while reclaiming the roe. With moose, goat, deer, bear, and big cat tracks everywhere the fresh meat department—Dave—went hunting. Bang!

Bang!! BANG!!! He returned hours later dragging his feet. The shooting had been for the benefit of Sterling, who classified hunting wild animals and murder as the same thing.

With the uncertain weather still persisting through Thursday, July 28, and with time running out, I strolled to the ridge overlooking the lake for a view into the North Country where pleasant rolling alplands stretched away into the cloud banks obscuring the peaks beyond. At the appropriate

altitudes and environments the area abounds in wild roses, beds of white lady slippers, scented vetches, anemone, closed gentians, small yellow poppies, and brilliant orange rock lichens.

Back in camp there was no unanimity as to what we had accomplished for the summer. We might be likened to Columbus who set sail without knowing where he was going, and who returned home without any idea as to where he had been. As for us we were unable even to decide how many peaks we had climbed. Apparently, we built twenty-three cairns, implying twenty-three primary ascents. However, if one climbs the five fingers of something that looks like a hand is it five peaks or one? At any rate we 'by no means exhausted the climbing available in this one very limited area, and there are other groups of peaks in the vicinity that present even more attractive possibilities.

NOTE.—The success of this trip was greatly augmented by a preliminary map, data, and aerial photographs furnished to Mr. Arnold Wexler by the Topographical Survey.

ICELAND ADVENTURE

BY FRANK E. GAEBELEIN

IT began one August night in 1953. The captain of the KLM chartered DC4 on which we were returning from the World Evangelical Fellowship Convention in Switzerland invited me to come to the nose of the plane. We had left northernmost Scotland and were approaching Iceland. As we looked out into the shining northern night and later as we had coffee at the Reykjavik airport, the appeal of this Ultima Thule began to lay hold of my imagination. During the flight to Newfoundland, I resolved some day to go to Iceland and see for myself this remotest of European nations and its mountains.

Three years later with Kenneth Henderson, Editor for many years of *Appalachia*, I was on the way to Iceland. Our little expedition had the simple objective of climbing some of the major peaks and travelling throughout the country. In addition, I was committed to a few preaching appointments in Reykjavik. The third member of our party, Caspar Cronk of the Harvard Mountaineering Club, was to join us in Reykjavik. To the crowds at the New York International Airport that hot July day, we must have been a strange sight. To save weight, we were wearing our mountain boots and carrying ice-axes and crampons, but even then rucksacks and duffle bags, which included tents, sleeping bags, and rope, exceeded the allotted poundage.

An island of about 40,000 square miles, measuring approximately 300 miles at the point of its greatest width and 190 miles in breadth, Iceland lies just below the Arctic Circle. It is separated from Greenland by the Denmark Strait, being about 600 miles northwest of Scotland and 2,600 miles from New York. But statistics fail to convey the haunting beauty of this strangest of lands. Treeless and barren, the repository of a vast portion of the world's lava, it is aptly called "the land of fire and ice." Here are over a hundred volcanoes, among them some of the most active and destructive on the globe. Here are geysers and hot springs second only to those of Yellowstone. Here too are the largest glaciers and ice-fields in the world outside the Arctic and Antarctic; compared with the Vatnajökull of 3,300 square miles or the smaller, yet enormous Langjökull, Hofsjökull, and Myrdalsjökull, the Columbia Icefields and glaciers of the Alps are dwarfed.

According to *The Encyclopedia Britannica*, "the interior of Iceland is uninhabitable," a statement which we quoted with a certain ironical relish more than once during our journeys. Only along parts of the coast and in some of the valleys is there meadow and farm land. It is in these places, amounting to about one-seventh of the area of the island, that the 160,000 Icelanders live. The country is made up chiefly of mountains, lava deserts, and the immensely broad icefields. Rivers are unnavigable torrents, rushing at times over tremendous falls like the magnificent Gullfoss and the awe-inspiring Dettifoss. Thermal regions with hot springs, cauldrons of boiling mud and natural steam vents, are widely distributed, some of the hot-springs actually occurring in the midst of glaciers and ice-cold rivers.

Volcanic activity in Iceland can reach almost unbelievable dimensions. In one of the eruptions of a volcano on the south coast, the surrounding ice was melted, pouring out hourly an amount of water twice as great as that issuing from the mouth of the Amazon. The lava thrown out by the craters of Laki in the late eighteenth century has been estimated as equal to a cube each of whose sides measures seven and one-half miles.

Life in this unique country has been a thousand year struggle against the elements, volcanic eruptions, plagues (including leprosy, now practically non-existent in the island), and famine. Yet

since its settlement in 870 A.D. Iceland has produced one of the major literatures of Europe. It was Lord Bryce who said that its literature is comparable only to that of ancient Greece. Today the love of books is still a leading national characteristic. Literacy is one hundred percent. Nowhere in the world are there more or finer bookstores in proportion to the number of people, while the amount of newly published books is, in comparison with the population, the highest in the world.

Along with the Icelander's love of reading is his intense attachment to his language. This is the original tongue of the Vikings, preserved practically unchanged for a millennium. Originally settled by some of the noblest blood of Norway, Iceland became a Danish possession in 1380, remaining under Denmark until 1944, when it achieved independence as a republic.

It was to this land that our Lofdleider (Icelandic Airways) plane was headed as we left Gander, Newfoundland, Friday evening, last July 13th. Early Saturday morning we landed at Reykjavik. Here we were welcomed by Olafur Olafsson, to whom my friend Krist Gudnason, an Icelandic-American of Berkeley, California, had given us an introduction. On the drive to the Hotel Borg in the center of the city we were impressed by the vividly colored houses with their green, white, yellow, and red coloring. Reykjavik, like all of Iceland, looks newly washed when the sun shines. Atmospherically it is the cleanest of cities, because it is heated throughout by natural hot water piped into the houses, there being no chimneys and no smoke. At breakfast we were joined by Lt. Nick Clinch of the Army Air Force, a member of the American and Canadian Alpine Clubs, who was on duty at Keflavik, and also Caspar Cronk, who had arrived from Scotland the previous evening.

Ken had been in correspondence with some of the Icelandic scientists with the result that Jón Eythorsson, the distinguished meteorologist, who with his blue eyes and blond beard looked like one of the Vikings, called on us. Maps were spread out, and with Jón Eythorsson's advice we planned our travels. Our mountaineering objectives were seven-fold: the two peaks, Lodmundur and Snaekollar in the Kerlingarfjöll, or Carline Mountains, rising in the eastern interior between the great icefields, Langjökull and Hofsjökull; the volcano Hekla in the south, Iceland's most famous mountain; Hraundrangj, a splinter-like pinnacle near Akureyri on the north coast; Herubreid, one of the country's more difficult peaks, rising out of the great lava desert in the northwest; Hvannadalshnukur at the southern end of Iceland's greatest glacier, the Vatnajökull, and the highest point in the country; and Snaefellsjökull, the spectacular snowpeak rising at the very tip of one of the easternmost peninsulas, only about two miles from the ocean.

For transportation, we had the use of Olafur Olafsson's 1954 Chevrolet, given him by Krist Gudnason for his home missionary work and generously put at our disposal. For years a foreign missionary in China, Olafur Olafsson returned to his native land after the communist domination of China. Every where he went, in remote farms and parsonages as well as in the towns, we found his name known and respected. Recently he has completed the task of placing a copy of the New Testament in the hands of every school child in Iceland. The fact that we were travelling in Olafsson's car was in itself something of an open sesame.

At the Icelandic version of a super-market with shelves full of canned goods from Israel and iron-curtain countries, we purchased a day's supply of food for our first excursion to nearby Thingvellir. But as we came out of the hotel that afternoon we saw a sturdy, high-wheeled bus surrounded by a group of travellers with rucksacks. This was a Ferðafelags (Icelandic Tourist Bureau) party about to leave to visit some of the huts in the interior just where we were going. Immediately we decided that we would follow them the next morning, despite the fact that we could purchase no more food, stores being closed over the week-end. It would be reassuring to

know that there was at least one party in the uninhabited region to which we were going.

Outside Reykjavík the highway dwindled to a one-track gravel road, with many holes, abundant dust, and serpentine curves. At intervals small gravel patches jutted into the ditches, these being used for pulling aside for an oncoming car, a maneuver requiring a nice eye as one judges whether he or the approaching driver should yield the road. But it is the bridges that give Icelandic driving its peculiar zest. Often set at unexpected places, such as curves over the brows of hills, closely railed and just wide enough for a single car, they frequently span brawling streams, frothing through rocky gorges. In the remoter regions bridges give way to fords, where vehicles take their chances in the water.

Suddenly the road, which had skirted Esja, the long low mountain near Reykjavík, and traversed green farm lands, dropped into a spectacular canyon of black rock. This was Thingvellir, the site where the Althing, the oldest parliament in the world, met for nearly a thousand years. Here a great fault in the columnar lava makes a natural amphitheatre. The Oxará (Oxhead River) rushes over the rock in a beautiful falls and then meanders through green meadows to a large lake, Thingvallavatn. On the shores of the river there is an historic church and parsonage. A letter from Olafur Olafsson introduced us to the pastor, who explained that at this place there has been a Christian church for a thousand years.

The next stop was the thermal region of Haukadalur with its pools of boiling water, fully as beautiful as the Morning Glory pool of Yellowstone, and its basins of boiling mud. But the chief distinction of Haukadalur is "Geysir." This is the original geyser, a native word meaning "roarer" or "gusher." We examined its terraced mouth and basin hopefully, but Geysir, now unpredictable after a thousand years of spouting, remained quiescent, although when moved to gush, it throws up an enormous column of water to a height of about 180 feet.

A few miles past Haukadalur we came to Gullfoss (Golden Falls), the mist of which could be seen far across the fields. Here the Hvítá (White River) rushes over two great falls. The sun, glinting through constant mists, makes a vivid, evanescent rainbow. Grass on the brink of the chasm is lush and dotted with little flowers. It is a strange kind of beauty with the savage river suddenly dropping down into the deep narrow gorge.

North of Gullfoss the road quickly changed into a winding track. We were entering upon the lava fields, vast blackish plains covered everywhere with sharp rocks. Soon we slowed down to five or ten miles an hour. On the right the blue-grey bulk of Blafell loomed, while ahead we could see the jagged outliers of the Langjökull, 500 square miles of ice that fill the horizon like a broad white dome. On we jolted through the desolation. Every now and then sheep, busily cropping the few wisps of grass, raised their heads, gave one frightened look at the car, and precipitately fled. Well in the evening, though still in the light, we forded the Sandá (Sand River). Then, turning off on a side track, we rode through another stream, on the farther bank of which the car was mired in wet clay. It was now about 11 o'clock, but far from dark, as we put down flat stones for the car wheels. Finally at midnight we drove up a steep hillside to the hut at Askavosfjall. There beside the hut crowded with sleepers was the high-wheeled bus. In a few moments we set up our tents and slipped into our sleeping bags.

The next morning shone bright and cloudless. Grassy banks led down to a swift river, the Innri-Asgardská, beyond which was a backdrop of snowy peaks. The landscape, with green foreground, grey gravel river bank, foaming blue water, and mountain forms with stark blacks and whites, was reminiscent, as is much Icelandic scenery, of the bold strokes and spare detail of certain modern paintings.

Most of the Icelandic party were already in the hills, but we talked over routes with Helgisson, their helpful leader, and were soon on the moraines below our peaks. Snaekollur (4,846 feet) rose in front of us, its snowy mass coming to a shapely white point on which we could just discern a few tiny figures of the party who had preceded us. Its snow ridges led down over several intermediary summits to a col from which the black bulk of Lodmundur (4,698 feet) towered like a gigantic, white-streaked tree stump, defended by bold cliffs and precipitous scree. The weather was shutting down, as we kicked steps up the snow-covered glacier to the rocks below the col and had a bite to eat. The cliffs above the col, rising in a series of ledges, looked like a short route to the summit. They were interesting, not difficult but abominably loose, as were all the rocks we climbed in Iceland, and required much care. Our arrival on the summit was in chilly clouds, through which we had fleeting views of nearby peaks and the white bulk of Hofsjökull. The descent was something of a plunge down a very steep and sliding scree chute.

Back at the col we rested briefly. By this time a sleet storm was raging. But we knew that our route lay up the snow and along the ridge. With visibility at about fifty feet, we climbed upward, faces stinging from the icy particles. Soon we arrived on a summit, but absence of tracks showed us that it was not Snaekollur. Ken took a compass bearing and we went on. By this time the storm was diminishing. The true summit, with tracks of the other party, was reached in better weather, with extensive views over the tumble of nearby peaks. It was a simple matter to stride down the soft snow to the moraines. On the way back to the hut, now deserted, for the others had moved on, we had a view of the gorge of the Innri-Asgardá a good many hundreds of feet deep and much like Yellowstone Canyon in the vivid coloring of its almost vertical walls.

So ended our first Icelandic climbs—a ten hour day, two summits attained, and a variety of weather. It was good to stretch out and eat, even though a bouillon cube or two, with a sandwich and tea, was a frugal dinner. But food must be conserved, for we had Hekla to climb before returning to Reykjavík.

The next day was one of travel, during which we caught up with Helgi Jónsson and his party at the Hveravellir hut. Hveravellir being notable for a profusion of hot springs and terraces of travertine. It was interesting to meet one of Olafur Olafsson's sons, a young teacher who with his collie-like dog "Lapi" was spending the summer on the sheep ranges. Late in the afternoon we pushed on to the hut at Hvitarnes, near the shores of a lake full of floating ice, coming from one of the glaciers of the LangjSkull. The Ferðafelags party arrived shortly after us and took possession of the hut, while we set up our tents. It was pleasant to visit with some of them, particularly a philologist from one of the Swedish universities.

A journey across country the following day took us through one of the most fertile regions of Iceland to the village of Hella, near the south coast. Here we met a German, Bruno Weber, who was of great help in arranging for young Rudolf Stolzenwald to take us in his jeep the next day to Hekla, about thirty miles northeast of Hella, all these negotiations being facilitated by Ken's fluent German.

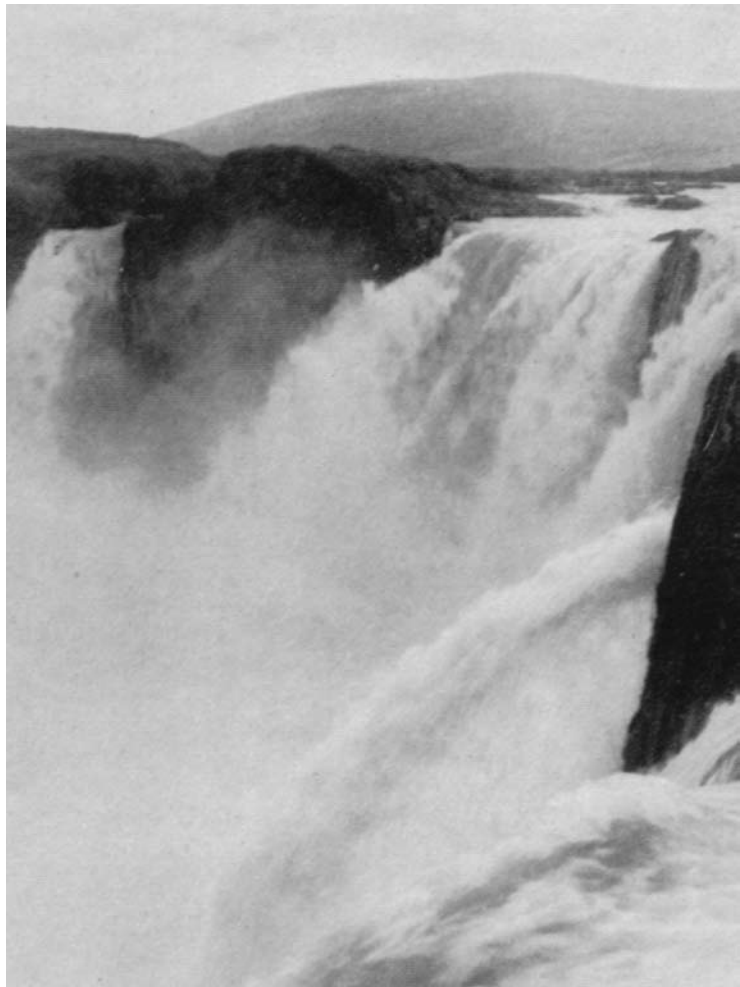
After a night on the floor of Bruno Weber's living room, at six o'clock on a wet and misty morning we were off in Rudolf's jeep, which he drove with uncanny skill through the lava fields at the base of the mountain and even part way up the slopes of Little Hekla. In keeping with its name—Hekla means "The Hooded One"—the mountain was shrouded in mist. But we pushed on through the loose cinders with Rudolf in the lead, hoping that the sun would burn through. A steep pull to the top of Little Hekla rewarded us. We were above the mists. In front of us in bright sunlight there rose the final 2,000 feet of Hekla, made-up of snow-covered glacier, dark lava ridges



**Hvannadalshnukur—
On The Ordefijokull From
Skaftafell.**

Photo Kenneth A. Henderson

The highest peak in Iceland.



**Godafoss—One Of The Great
Waterfalls Of Iceland.**

Photo Kenneth A. Henderson

and the summit pile of blue-black cinders, past which clouds of steam kept drifting. Rudolf went back to the jeep, while we climbed, keeping pretty much to the rock-ridges.

After several hours we stood by the summit cairn overlooking the gulf of the main crater. It was sunny but cold and the clouds of warm steam momentarily enveloping us were a comfort. As we ate our sandwiches, we could look over the other craters and summits, from the warm rocks of which steam was also rising, a reminder of the fact that Hekla, which in the middle ages was known as the “gate of hell,” sleeps uneasily.

The Icelanders have records of twenty eruptions, the last having been in 1947 when the mountain suddenly shot a volcanic cloud 100,000 feet into the sky. It was during this eruption that the summit on which we were standing was raised 180 feet to the present height of 4,931 feet. Distant views, colorful but cloudy, included the Myrdalsjökull and Hofsjökull, near which we had been two days before. We spent an hour examining the southern craters and then made a quick descent, running and glissading down the less steep parts of the glacier and trudging through the cinders over the top of Little Hekla to Rudolf and the jeep. Looking back as we drove off through the lava, we had a brief glimpse of the peak. Then the mists closed in and Hekla was once more “The Hooded One.”

That evening through the kindness of Nick Clinch we were guests of honor, along with some of the Icelandic mountaineers, at the monthly meeting of the Society of Military Engineers at the airbase at Keflavik. The buffet supper of roast of beef, shrimp, fish, ham, cheeses, pastry—all in abundance—was a happy conclusion to our days of short rations, and the program of pictures of the first extensive exploration of Vatnajökull by an Icelandic-American expedition using snowmobiles was fascinating.

Our next trip was to the north coast with Herdubreid the chief objective. A long day's drive of some 350 miles brought us at midnight to the KEA Hotel in Akureyri, the second largest city in Iceland. Here we found Nick Clinch, who had come by plane from Reykjavík to join the attempt on Hraund-rangi. In the morning the Rev. Pétur Pétursson, pastor of the Cathedral at Akureyri, looked us up at Olafur Olafsson's request. He kindly made arrangements for me to fish for a day in the section of the river that flows past the ancient parsonage at Modruvellir. Accordingly I drove Ken, Nick and Caspar up the valley to Hraun, and went back to the stream.

Hraundrangi is a pinnacle perhaps four hundred feet high that juts like a needle from the serrated ridge of which it is a part. Legend has it that the outlaw Grettir the Strong left his knife and belt on its airy summit. Toward evening I was back at Hraun and saw in the distance my three friends coming down the slopes below Hraundrangi. The pinnacle proved to be made up of treacherous moss-covered ledges, which crumbled under the pressure of a boot and which sometimes overlay ice. Seventy-five feet below the top, rain threatened to make the ledges even more slippery. Thus it was wisely decided to turn back. It was a sporting attempt, even though Grettir's belt and knife still adorn Hraundrangi.

After service at the Cathedral Sunday morning, we drove through the attractive north country to Lake Myvatn, famous not only for the beauty of its lava islands and clear water but also for its abundance of trout and wild duck. Here we stayed at the inn owned by Peter Jónsson, with whose son-in-law, Sverre Tryggvason, we arranged to travel by jeep to Herdubreid. Up at dawn next morning we loaded our gear into the jeep and set out. It was raining hard and, after an hour, we realized that Herdubreid was impossible that day. So Sverre took us through the lava fields to Krafla (2,872 feet) a diminutive volcano with a big record of destruction. We climbed it in the rain and spent some hours examining the steam vents, hot springs, and boiling mud cauldrons of this region.

The morning dawned clear, and once more we were off for Herdubreid, about fifty miles away. This mountain, the name of which means "Broad Shoulder," rises to 5,518 feet from an elevation of about 1,000 feet in the Odadhraun ("Lava of the Evil Deed"). The Odadaraun, over 1,700 square miles in extent, is the largest lava desert in Iceland and a region of desolation. We took the jeep to an oasis where there were some meadows by a little stream and then began the ten mile trek to the mountain. The undulating folds of lava, at times sharp as a knife, were rough going. But it was a bright, clear day. Ahead of us stood Herdubreid like a gigantic fortress, its slopes of loose rocks streaked with snow and rising steeply to the great band of cliffs that surrounded it like battlements. As we gradually drew nearer, we could see that its broad summit was topped on the far side by a conical peak. Sverre went with us to point out the break in the cliffs where he understood the best route lay. After several hours we drew abreast of the mountain and then skirted its right shoulder, coming finally to the foot of a steep, rock-filled gully. Here we had lunch and Sverre left us to walk back and await us at the jeep.

The climb was continuously steep but not technically difficult. At the top of the gully we slanted up the scree beneath the cliffs, finally taking to a crumbling ridge, where we climbed cautiously up rotten rocks to the summit plateau, a waste of boulders amid snow and ice and sloping gradually upward to the snowy summit cone. At about seven o'clock we were on top. The view across the "Lava of the Evil Deed" reminded me of nothing so much as telescopic photographs of the moon; we looked out on a tortured brown and black landscape, pitted and scarred by the vulcanism of ages. Before us the south face of the mountain fell away with dramatic abruptness, and in the far distance we could see the great white outline of the northern end of the Vatnajökull. It was cold, and clouds began to sweep across the summit, sharply reducing visibility. We hurried down; this was no place to be fog-bound. Several hours of toilsome going brought us to the base. Beside an icy stream that crossed the lava we heated soup on the primus stove and had supper. It was now about nine o'clock, and ten miles lay between us and the jeep.

After we had been walking an hour, a storm struck. We thought we had lined up with some distant hills the location of the jeep. But in the pouring rain and dim light we missed it. We were lost. To find a jeep on the lava desert in a storm was a case of looking for a needle in a haystack. All we could do was trudge hopefully through the night. In the small hours of the morning, we found some tents, an encampment of Icelanders near Grafárlond. They gave us hot coffee and made us comfortable in the high-wheeled bus in which the men were sleeping. One of them quickly dressed and went in search of the jeep. In an hour or so he was back with Sverre and we set out for Myvatn in the dawn. It had been a long day, over twenty miles on the lava plus a major climb.

A rest day followed. On the way back to Akureyri we stopped at Dettifoss, the greatest waterfall not only in Iceland but in all of Europe. As we stood on its brink and watched the huge volume of the coffee-colored Jokulsá á Fjallum converge and plunge into the deep gorge to turn almost at right angles and rush down the canyon of grey rock, the ground seemed to tremble under the thunder of the waters.

After a night in Akureyri, we reach Reykjavík the following day. This being the weekend on which I was obligated to preach, I took Ken and Casper to the airport for their trip to the highest point in Iceland, Hvannadalshnukur (6,950 feet) at the southern tip of the Vatnajökull. So dangerous are the swift streams flowing from the great ice-field to the sea that this part of the coast is almost inaccessible except by air. While they were gone, I preached, with Olafur Olafsson interpreting, on two evenings, Saturday in a mission hall and Sunday at the Y.M.C.A. Despite the language barrier, I sensed a great warmth of Christian fellowship. It was moving to hear the

familiar hymns sung in this ancient Norse tongue.

Ken and Caspar returned the next morning, happy at their success. It was a long ascent, much of it over snow and ice and requiring considerable caution by reason of crevasses. The vertical differential from sea level was almost 7,000 feet and the distance a good twenty-five miles.¹

It was a bright morning when we left for our last climb. So clear was the air that from the high ground outside Reykjavík we could see the white peaks of our objective, Snaefellsjökull, towering in the distance, seventy-five miles across the blue waters of the great bay of Faxaflói. The mountain rises at the tip end of a long narrow peninsula. A detour to Reykholt, the ancient home of Snorri Sturluson, author of the *Heimskringla*, and Iceland's great historian who lived in the 12th and 13th centuries, took several hours, so that it was about nine at night when we made camp

Again we were favoured with a beautiful day. A walk of a mile and a half across fields of broken-down lava covered with grey-green Icelandic moss, brought us to the slopes of the mountain. We worked up bare ridges, slipping and sliding in the pumice and loose rock until at about 2,000 feet we came to the snow. From there it was steady plodding up the glacier. Some crevasses made the use of the rope advisable. As we gained altitude, the views over the blue waters of the ocean and the narrow peninsula grew more spacious and lovely. The mountain has two summits, one of snow and the other a rock pinnacle. Knowing the pinnacle to be a few feet higher than the other, we aimed for it. The yellow cliff of its face being too steep to climb, we circled it on a snow ridge. The other side was completely iced with a heavy accretion of frost-feathers. Caspar chopped steps up the little ice cliff, and soon we were sitting in a niche in the summit rocks eating lunch. It was a glorious view point, looking out over the down-plunging slopes of glittering white to the shining expanse of deep blue water, stretching to Greenland beyond the horizon.

Going down presented no problem, and in the late afternoon we were back at camp. Thus ended our Icelandic climbing with a day of glorious beauty.

What finely, is to be said of mountaineering in Iceland? One of the chief problems is that of getting to the mountains. By Rocky Mountain or Alpine standards they are not high. Yet their altitude is in a sense deceptive. Climbing an Icelandic peak is very much like starting from camp 6,000 feet in the Canadian Rockies to climb a 10,000 feet peak, the difference being that in this case the start is from sea level or fairly close to it. Because in the summer there are only one or two hours without sun, the danger of being benighted is almost nil. Yet weather may be a very real hazard. Technical difficulties, so far as we met them, are not great, although any rock climbing must be done with extreme caution, because of the excessive looseness of the rock. On the other hand, the glaciers flowing from the great ice-fields may well afford some formidable problems.

But the charm of Icelandic climbing is more than a matter of technique; rather is it inherent in the peculiar qualities of this wonderful land. As Professor Willard Fiske has said, "If it be not all beautiful, it is all fascinating—although sometimes with the fascination of awe. For there is no country travelled of man which combines as Iceland does the antagonistic marvels of frost and steam, of ice and fire, of gloom and color, of darkness and light."

¹ See "Some Icelandic Mountains," K. A. Henderson, *American Alpine Journal*, 1357, for a description of the climb.

EXPLORATIONS IN THE HOWSON RANGE

BY A. C. FABERGE

THE expression "Howson weather" has come to have a perfectly clear meaning to nine members of the Alpine Club of Canada. It means hopeless, gross bad weather likely to continue indefinitely: low clouds driven over the peaks by violent wind, fresh snow piling up on the rocks and endless rain in the valley forests. The Howson Range, which some maps more vaguely call Bulkley Mountains, though barely exceeding 9000', is a perfect instance of a rain screen. It is about twenty miles long, running north and south, and lies roughly a hundred miles west of the Pacific between Prince Rupert and Kitimat; it is the first range that moisture laden westerly winds encounter.

The composition of the forest shows that east of the Howsons, rainfall rapidly diminishes as one goes inland. Extensive glaciations results from this heavy precipitation, the longer glaciers draining mostly to the east. To make a comparison with a better known region, it can be said that the glaciers of the Howsons are a little larger and more extensive than those of the Sir Sandford-Adamant group, the most heavily glaciated part of the Selkirks.

There are a number of minor ranges of that character in west central British Columbia, rising as compact, isolated groups of peaks above the densely forested hills. The best known are perhaps the Seven Sisters, well seen from the vicinity of Hazelton. The Howsons are not so readily visible, though part of them can be seen from the highway near Telkwa, and a good view obtainable from the west slopes of Hudson Bay Mountain near Smithers. As far as we are aware, no mountaineers have previously been in the Howson Range, though prospectors and trappers have of course visited the valleys at the base. Dr Neal Carter has for long been interested in the area, and prepared an excellent sketch map from air photos; we found it most useful, since the official map is on a scale of four miles to the inch, and lacks accurate detail.

Rex Gibson invited me to join the first expedition in early July 1954, the other members being Mrs. Gibson, Polly Prescott and Dave Wessel. We travelled up the Telkwa valley by pack train, and reached Telkwa Pass near Top Lake in two and a half days. At least, an outsider meeting us in the bush would have taken us for a pack train, though he might have wondered at the unorthodox diamond hitches. The economic structure of our caravan was not that of the usual pack train, however, for we were chiefly our own packers, and had joined forces with a prospector and his assistant who were proceeding to their scheelite claim. The division of responsibilities, ownership of the horses and other financial arrangements were a complicated improvisation. In the tall dark timber at Telkwa Pass stood a moss covered prospector's cabin called Goodwill House; reputedly built in 1911, it contained an ancient blast furnace and an enormous pair of bellows. We used Goodwill House for storing some of our gear, but always stepped into it with trepidation, for there was a large store of old dynamite whose nitroglycerine had seeped into the floor.

From Telkwa Pass we packed a camp to timberline, being much helped by an old but excellent prospectors trail. Deep winter snow still covered much of the ground above the forest, and the higher rock peaks were also in winter condition, bordered with foot long ice feathers. On July 7 we made the first ascent of a minor peak on the divide, whose rocks we reached by going through a large icefall and plodding up long slopes of deep fresh snow. From this summit, during a momentary lull in the blizzard, we got a glimpse of Howson Peak itself, about eight miles to the south. Not only were we at the wrong end of the range, but even for local climbs our camp forced



Unnamed Pinnacles Near Howson Peak.
Photo A.C. Faberge



Unnamed Peaks At South End Of Howson Range.
Photo A.C. Faberge

us to go over a pass and descend perhaps 1500' in order to reach the glacier which gave access to most of the peaks. As a change from rain, six inches of snow fell at our camp during our last night there.

On August 9, 1955, a party consisting of Rex Gibson, Iain Smart, Derrick Boddy and myself flew in from Burns Lake, landing on Upper Burnie Lake (about 3200') on the edge of an extensive alluvial fan. We stayed ten days, during which the weather was almost continuously horrible. However, we explored a major glacier with a large icefall going to a high pass near its head. From this pass we got a close view of the east face of Howson Peak, on which there seemed to be no prospect of a simple route. To reach the glacier, whose tongue came down to about 3400', we bushwhacked along the shore of Upper Burnie Lake, then crossed an extensive swamp at its north end. Our camp was near the mouth of an east flowing creek, unofficially named Sandpiper Creek, whose valley goes up to the foot of Howson Peak. Several of the parallel valleys contain large glaciers, but Sandpiper valley is free of ice except for a tumbling icefall coming in from one side, and some corrie glaciers at its head. At the tongue of the ice-fall, a milky white lake almost completely obstructs the bottom of the valley; many sandpipers live on its shores, catching aquatic larvae and running constantly in and out of great banks of mountain willow herb. On our first attempt to reach this upper valley, we got involved in atrocious bush, but later a better way was found and a trail blazed. Through Sandpiper valley and the headwall at its end we got to the South Col of Howson (about 6800'). Occasional gaps in the driving clouds showed parts of the great south face of Howson Peak: very high up among the swirling mists were vertical reddish cliffs festooned with enormous icicles. On the day on which our plane was due, perfect weather finally arrived; the plane, however, was two days late, and for these two days we had no choice but to sit on the shingle beach of Burnie Lake by a pile of our baggage.

On July 31, 1956, the third expedition landed at the same spot near the mouth of Sandpiper creek, its members being Rex Gibson, John Strong, Bob Schluter and myself. This time we flew from Lake Lakelse near Terrace, following in part the valleys of Williams Creek and of the Clore River, and going round the south end of the range. We did not remain on the shore of Upper Burnie Lake, but moved our camp to the glacial lake in Sandpiper valley. This campsite, at about 4000', between some moraine ridges, was bleak and windy, but much nearer to the peaks. Our first climb consisted of crossing the South Col to examine the south face of Howson Peak. It was immediately clear that while this face is not necessarily unclimbable, it offers no practical route to the peak. We then descended along, and crossed, a small glacier of the Kitneyakwa River drainage, and went up to an obvious gap in the west ridge of Howson Peak. It was already late, and after some hesitation it was decided to return rather than attempt an ascent by this route, the possibility of which is by no means obvious, and which is certain to be quite long.

Several days of bad weather forced us to remain in camp. On August 8, we climbed some small granite pinnacles north west of camp, and found a convenient route of access to a broad glacier immediately north of Sandpiper valley. This broad glacier feeds the icefall that comes down towards our lake. On August 9, an attempt was made to reach Howson Peak by the north ridge. A corniced snow pass (about 8060') was reached by crossing the broad glacier and ascending steep and soft snow slopes. On reaching the pass, it became clear that there was no simple way of bypassing two towers which separated us from a more even part of the ridge. Rex Gibson and Bob Schluter went as far as possible on the first tower, but were stopped by unclimbable cliffs. It was obvious that this side also had no practical route to the summit. Next day was our last chance to climb, and, while I remained at camp, the rest of the party made the first ascent of Delta Peak

(about 7850'), a summit on the divide two or three miles south of Howson Peak. On August 11, the plane from Lakelse came to pick us up on the beach of Upper Burnie Lake. Sandpiper Lake itself is too small and much too enclosed for safe use by a float plane.

When we got our first views of the Howsons from Telkwa valley, we speculated about the kind of rock we might find; some ranges in that part of British Columbia are granitic and offer excellent climbing. Most of the higher peaks of the Howsons are eroded out of a dark reddish rock with strongly marked horizontal strata. Samples of this rock have been examined petrologically by Sterling Hendricks, and proved to be a typical volcanic tuff. From a climber's point of view, this rock is not remarkable. While it forms smooth vertical cliffs, it is often loose. It also tends to form deep and narrow gullies which have to be avoided as routes on account of falling stones. Some close grained granite also exists in spots.

In spite of the weather, we all hope to return to the Howsons and perhaps finally climb Howson Peak.

The altitudes given are estimates made by Bob Schluter by means of an aneroid altimeter. They are subject to the usual uncertainties of barometric altitudes.

WADDINGTON ADVENTURE, 1956

BY ULF BITTERLICH

A fresh breeze met our little boat, as we came into the waters of Knight Inlet. It was a happy dance, up and down, the brave little 'kicker' sang its song hour after hour, as we went along the steep and broken coast line, into another adventure. We had again big plans and were about to see Mt. Waddington, as we could not forget this wild and beautiful country, we had seen and experienced the summer before (see Trip to Mt. Waddington, CAJ, 1956).

We were a happy party of six. With me in the boat was Phillippe Delasalle of Montreal and we were to meet the rest, consisting of Sarka Spinkova, Sylvia Lash, Earl Wippel and my brother Adolf, at the head of Knight Inlet. They were to fly in from Comox with all the supplies. We had chartered a Norseman, to meet a Beaver at the head of the Inlet to take over the six hundred pounds of equipment for Adolf to drop beside Glacier Island, which we had chosen for our base camp site.

It was a happy meeting as we landed our boat at the Franklin river logging camp. The rest of the party had just arrived a few hours before and Adolf had made the air-drop, so we were all in the best of spirits, as there was no back-packing. We also met our old friends of last year and heard that Mr. and Mrs. Russ Yard of Vancouver had departed the day before for the mountains.

We left the camp in the afternoon by truck, which brought us two miles up to the crossing of the river. This was performed by cable car, as the spring flood had washed away the log we had used the year before as a bridge. Since we knew the trail well we made good progress up the valley and set camp at "Last Valley Camp", by nightfall.

The trip from the snout of Franklin Glacier up to Icefall Point is the hardest day on the way to the base camp. It is approximately 12 miles long, and the best route we found was to follow the centre moraine. Then we forgot the hard work under the spell of the surrounding mountain world. For Adolf and me it was like meeting old friends and to the rest of the party who saw it for the first time, it was a sight they will never forget. But however it was quite a relief as we were able to put our loads down at Icefall Point and we ended the second day of our trip happily around a campfire, it would be the last one for some time. Icefall Point is the last outpost of the forests. From now on we had to depend solely on our gas and Primus stoves.

It is only about three hours over to Glacier Island which we reached by the afternoon. After finding a good sheltered place for our camp, we started immediately to gather our airdropped supplies. The drop was very good, all fourteen parcels in a line of about half a mile. Most units were in good condition, but for two wooden boxes which smashed spilling their contents on the ice. The rest was done up in cardboard boxes, some inside sacks. They were fine, also a big jerry can of gasoline. The only loss we had was a new Coleman, two-burner stove, which was smashed beyond repair. So we had to do all our cooking on two Primus stoves. By nightfall, camp was set and the next day was to be a rest day as there was repair work to do. During the day Adolf and I explained to our companions on the spot, our plans for the climb of Mt. Waddington, which was as follows: over Corridor Glacier and up Buckler Glacier into the col between Spearmen peak and Waddington, following the route we had taken the previous year. (See CAJ, 1956) A first camp should be set up there. Then following up the east ridge and set up camp number two below the main peak of Waddington. We would then enter the east ridge on the north face for the final ascent, as it was done in 1950 by Oscar A. Cook and his companions from the Sierra Section of the American Alpine Club (See CAJ, 1951, "In Munday's Land" by O. A. Cooke).

Plans were now that Adolf and Phillippe would start out the next morning to reconnoitre the route through Buckler Glacier and up on to the col. They were to carry supplies and mark the way up through the ice falls so we could follow later with more equipment. In the meantime, we who were left behind, were to climb Mt. Agur 10,200', which rises to the east of Glacier Island.

We started early in the morning. It was a beautiful day, as we worked our way to the icefall of Agur glacier, from where we climbed up on to the ridge, which follows in a big semi-circle east of Mt. Sockeye, going first north then curving around to the south east leading up to Agur. The climb itself has no difficulties and consists mostly of ice and snow work with some rock climbing. We reached the summit of Agur by about 4 p.m. and had no idea, then, that we had made a first ascent. The view was splendid and we saw for the first time the gigantic Waddington glacier. The descent was rather tiresome as the hot August sun had softened the surface snow considerably and we reached camp after fourteen hours. We were greeted by Phil and Adolf, who had made supper ready for us. We certainly were surprised by their presence as we thought they must be somewhere up in the col by now.

They had found that Buckler glacier had changed tremendously because of the very hot summer of '56, and an enormous crevasse finally made any progress impossible, anyway in the sense of bringing a whole party with all their gear and equipment through. So we had only the south face open for an ascent, but it was also clear to us that this meant only a party of two as it is an extreme rock climb of approximately 6000 feet.

We decided that we would try to climb first all together, the north west peak of Waddington which is only 60 feet lower than the main peak. This would give every member an equal chance and we would also be able to get a good look into the upper parts of the main peak as we were not quite sure of the route which should be chosen if we made an attempt later.

The next morning Adolf, Earl and I took our packboards, loaded to capacity with food and equipment to make a cache somewhere near Fury Gap, which is located at the end of Franklin glacier and is also the start of the mighty ridge leading up to the north west peak. On our way up Franklin we again met the Yards, who had just come down Franklin glacier because of the very treacherous crevasses they had found up there. When they heard of our plans, they joined us and went up again. Adolf did a fine job through a labyrinth of dangerous crevasses. At the point where Dais, Fury and Regal glaciers meet we put down our cache, and the Yards were to stay there to await our return the next morning. We went back via Dais glacier, over Jester pass and Corridor glacier, home to Glacier Island. This we found is the best way as the dangerous crevasses on Franklin were avoided.

It was the best of weather and we got off to an early start in the morning. We reached our cache and with double loads we went on up Fury glacier, joined by the Yards. Around noon we were on Fury gap. Here we experienced for the first time the sight of the interior side of the Coast range. You miss right away the dark green forests which follow the valley-glaciers up from the coast. The mountains are bare and rocky, and glaciers small and free from snow. Directly below us was Scimitar glacier.

After a rest, we went on and up as now the actual climb of the ridge began. The ridge is approximately three miles long and has four major peaks about 11,500 feet high, the first one being Fireworks Peak. The climb up Fireworks Peak was very trying as it is built up of a big pile of loose granite boulders. We reached the top in the late afternoon. As the ridge ahead was composed only of snow and ice, we set up high camp here on Fireworks Peak. Adolf and Phil went on to reconnoitre some of the next day's route. A platform was built and a shelter wall, but no tents set

up. After Adolf's return we had supper. As the sun was setting we all went over to the top and built a cairn and our spirits were high. Then as the wind arose we crawled into our sleeping bags.

We left all the heavy gear and went on with only light bivouac outfit next morning early. It was cold and fresh. We went in ropes of two, and the going was very good as the snow was frozen. Later the ridge got very narrow with sheer rock walls down to Dais glacier 4000 feet below and to the north mighty ice falls shooting 3000 feet down to Scimitar glacier, opposite which Mt. Combatant was greeting us.

Around noon the narrow ridge broke down into several step-like gendarmes and slowed our progress, the last one a 200 foot sheer drop composed of loose rock, with an icy chute at the end to traverse. Here the Yards turned back and we felt sorry because this was the last main difficulty we were to meet on the climb. From this point the ridge widened out, but the soft surface snow slowed us down as the sun was high now. In the late afternoon, we reached the Angel glacier, where a very narrow rock ridge goes up to the west peak, better known as Epaulet glacier. Here also we were stopped on our way by the big drop from Angel glacier on the north of the west peak. As it was too late to tackle this obstruction now, we decided to start building our bivouac. A rocky ledge was chosen which dropped off directly to the south face, but it was the only snow free place we could find.

It was a darned cold night and there was not much sleep. At the first sign of day-break, we were again on our way. The shrund forced us far out to the left till we finally found a place to get over and down. Then the climb began again and we were sure moving fast as it was still bitterly cold. We gained altitude fast and made good progress. It was extremely steep, with nearly no crevasses, only mighty shrunds slowing us down. However we always found 'that certain bridge' when it was needed. As we met the sun coming up from the east we had breakfast.

Off again and up, snow conditions changed, it was now dry wind-packed snow and when kicking steps, fine powder was carried away by the wind. Finally we reached the point where the north west peak rises up and the ridge drops off towards the main peak. Here the main peak was standing so near and yet so 'far. Having a rest we found time to study its rocky and icy north face, also part of the steep knife-edged ridge linking main and northwest peak. The northwest peak above us was a mighty pinnacle of ice and snow which drops off vertically on three sides. Adolf led his rope up and it took him quite a time as he seemed to be having difficulties which we were not able to detect from below. After a long time we heard his shout "Nachkommen" "Come on up!"

Later Adolf told me what had happened, when coming near the top after pulling his ice axe he saw blue sky through the hole. When I reached the top I gasped—there was only room for two to sit, with three sides dropping off vertically—only a few thousand feet!! . . . But the view soon made me forget my fears. Here was the gigantic main tower—a sight I never will forget and all the land below me we had travelled to greet our goal. Now there was no time for dreaming. I had to belay Sylvia down, the rest of the party had descended already as we never were more than two on the top at the same time. Down below to the south of north west peak is a little col, where we had our traditional "Toprest." Here we had time to enjoy our victory and the view of the country below our feet.

But also we started to make plans again like all mountaineers seem to do. The return way was a quick one and at evening we were all in high camp at Fireworks Peak and reached Glacier Island next afternoon.

After two rainy days of rest, Adolf and Earl tackled the south face and the rest of us climbed Jester and made a trip up Ice Valley. About Adolf's and Earl's climb I can say very little. They

seemed to make good progress choosing a route nearly direct to the fall line of the peak, and reaching a point about two thirds up. They had to return because of lack of pitons, which would have been essential for the purpose of rapelling down.

Time goes fast and soon we had to leave our mountains . . . But we will be back and still have more and better equipment and a better knowledge of the mountain and may succeed then. Who knows?

TRENDS IN MOUNTAINEERING

BY R. L. G. IRVING

IN a fairly recent number of *La Montagne*, the official organ of the French Alpine Club, its readers were asked for their views on why they climbed. As might be expected, a great variety of answers was given. After reading them, I came to the conclusion that nearly all could be summarized in the simple reason given for climbing Mount Everest by George Mallory, the most brilliant climber of those whom I have had the privilege of introducing to the Alps: "Because it is there".

He meant that a high mountain presents an invitation to climb it. I use the word invitation, not challenge, for challenge has a strong suggestion of war about it, a desire for conquest, and anyone who has read what Mallory wrote about Everest must know that any feeling of war was repugnant to him. After the great ascent with Norton and Somervell to close on 27,000 feet, thus refuting the scientists who foretold that such a height would be unattainable without oxygen, he wrote to his friend Pye: "David, it's an infernal mountain, cold and treacherous. Frankly, the game is not good enough. The risks of getting caught are too great; the margin of strength when men are at great heights is too small. Perhaps it's mere folly to go up again. But how can I be out of the hunt?"

And in another letter: "It sounds more like war than sport, and perhaps it is."

The reconnaissance in 1921 was a great adventure, and without any doubt this was the one of the three expeditions in which he took part that he enjoyed most. Yet even towards the end of that 1921 expedition he wrote: "The great mountains give their flashes of beauty; Makalu is indescribably impressive ; but on the whole they are disappointing and infinitely less beautiful than the Alps."

What I want to emphasize is that Mallory regarded mountaineering as a recreation. Pie became a persistent and enthusiastic striver for advancement, not in any material sense of the word, but to fuller understanding and enjoyment of beauty, to further progress in the search for truth. And mountains began to give him help in that advancement after his introduction to the Alps. They were for him a constant renewal of his zest for life, a constant call to high endeavour. From them he would have drawn refreshment and inspiration in the work that was just opening- for him as assistant secretary and lecturer to the Board of Extra-Mural Studies at Cambridge. He made no application to join the 1924 Everest expedition, but he was ready to go, if asked.

I have quoted Mallory at some length because no one could accuse him of failing to enjoy the adventurous and purely sporting side of mountaineering, while at the same time there was an attraction that had no suggestion of conquest about it; an attraction that has been felt by most of the men whose names are honoured in Alpine history, that was felt long before mountaineering became recognized as a sport just over a hundred years ago. The early ascents of Mont Blanc, the rare explorations of the high Alps by the Meyers in the Oberland, even the activities of J. D. Forbes were undertaken or had to be justified as a way of extending scientific knowledge.

But Saussure shows us unmistakably that mountains called to him from somewhere quite outside the realms of science: "I have had from childhood the most positive passion for the pleasures of the mountains. I still remember the sensation I felt when, for the first time, my hands touched the rocks of the Saleve and my eyes enjoyed its points of view". And of Mont Blanc he writes: "It became for me a sort of illness. My eyes could not encounter this mountain, which one sees from so many spots in our neighborhood, without my being seized with a pang". I think F. W. Bourdillon

has best expressed what he calls “the inmost moving impulse in all true mountain lovers, a feeling so deep and pure and so personal as to be almost sacred—too intimate for ordinary mention. That is, the ideal joy that only mountains give—the unreasoned, uncovetous, unwordly love of them we know not why, we care not why, only because they are what they are.”

It is not surprising that a man with such a feeling for a mountain should dislike the very idea of conquest or of taking what he might consider an unfair advantage in the game he was enjoying with it. One of the great rewards of mountaineering has been that it took us right away from sophisticated life, from machines and men’s inventions into places where Nature, unchanged by human hands, invited us to forget the habits and convention, the whole attitude to life of an industrial age and become for a few hours, as far as we could, children of Nature. That is why most British climbers in the past have so disliked the introduction of artificial aids. I remember how my old schoolmaster and friend, Fred Morshead, a grand goer on a mountain, hated even the fixed ropes on the Matterhorn, though these can be justified as offering a safe descent when the onset of a storm might make a tragedy all but inevitable without them. Mallory would, I am quite sure, have been loath to use artificial aids in getting up or across a difficult stretch of rock, and we know how he disliked the idea of using oxygen. It was not only that he felt it a tiresome encumbrance to free breathing and climbing, he felt it an unfair advantage to take in what he regarded as a form of play, however strenuous.

I venture to correct here two allusions to Mallory in a book I much enjoyed, *On Men and Mountains* by William O. Douglas. In the first he says: “he was seen climbing without oxygen within 800 feet of Everest’s top”. Actually this last climb of Mallory’s was the one serious attempt to reach the summit on which he did take oxygen; it may well have been the cause of his death. I have no doubt in my own mind that Odell saw him and Irvine near the First Step. By all accounts the only way of passing the very formidable Second Step, at any rate without artificial aids, is by the very steep icy south-east slope. We know from his last message that Mallory regarded the oxygen apparatus as ‘a bloody load for climbing’. A heavy load on the back is a menace to one’s balance in cutting steps on steep ice. I can so well visualize that what happened was what happened to Mallory when leading this sort of place on the Nesthorn with G. W. Young, when he was saved by something near a miracle as Young held him.

The second allusion in Douglas’ book is where he reports that Mallory, “commenting on an unsuccessful assault on its (Everest’s) peak” wrote: “Have we vanquished an enemy? None but ourselves”. In fact, that was written of a quite successful ascent of Mont Blanc by a very fine route made with Tyndale and myself in 1911.

The two wars of 1914-18 and 1939-45 affected men’s attitude to life in various ways; it was easy to say of any change: “That was due to the war”. In some cases war certainly hastened, if it did not actually cause a change, or it may be that the effects of a slow progressive change became more noticeable after attention had been diverted elsewhere for several years.

The sudden cessation of war in 1918 saw a great outburst of mountaineering enterprise in France, with the birth of the G.H.M. (Groupe de Haute Montagne). Pierre Dalloz has well described the fascination the prospect of fighting as a great adventure had for him and his contemporaries: “La guerre ne fut jamais pour nous ce qu’elle est en fait—nous n’aurions pas pu en supporter l’idée—mais un jeu dangereux et passionnant, celui de s’exposer à un péril mortel». And this thirst for perilous adventure was diverted by the armistice to mountaineering. Yet Dalloz himself tells us how this intense effort for self-realisation could lead to disillusionment: “goût de l’altitude, du danger et de la mort . . . qui nous valut de perdre le bonheur et la certitude”.

The war of 1939-45 was also followed in France by the same sort of ardour for nerve-testing climbs, though perhaps here one may suspect a great desire to re-establish prestige. In Britain too, what I may call the "commando spirit", a fearless disregard of consequences, admirable in a deadly struggle for victory in war, must have had its influence on the attitude of the present generation to climbing. The aim, the ascent of a great mountain, was accepted as justifying deliberate risks which an older generation of climbers would have hesitated to take. Such risks, for example, as were unavoidable in the ascent of the Khumbu Icefall below Everest would probably not have been taken in the Alps, even by some of the men who took part in that great expedition led so admirably by Hunt in 1953. The climbing of Everest was certainly more like war than recreation, but to me it was absolutely right of Hunt to prefer to call his story the ascent and not the conquest of the great mountain.

Victory in modern war has come to depend more and more on superiority in material resources, in technical skill in the manufacture and use of weapons. And if climbing a mountain or cliff is regarded, as very many regard it, as a battle with an adversary, it is obvious that the more use we make of aids to overcome the obstacles put in our way by Nature, the higher will be the standard of achievement. Nature not having provided man with the beautiful adhesive powers of the lizard in negotiating what to us appear holdless slabs of rock, he must depend on pitons, stirrups or even explosives if he is to force a laborious but interesting way up places that were previously considered beyond the human limit of what was climbable.

It has never been possible to keep out of mountaineering the competitive element that is such a powerful stimulus in other sports; and with it inevitably comes some sort of numerical standard of performance. For various reasons, one of which is the increasing uncertainty as to what the ultimate aims and destiny of human life may be, attention is being concentrated, particularly in the Press, on progress that can be measured numerically. At a big athletic meeting, for example, who wins the race seems to matter less than whether a second or two has been knocked off the record; at a cricket match, whether the record stand for the nth wicket has been passed. In the case of cars and motor-boats, no doubt the standard of performance is of interest commercially, and that interest is, I think fortunately, still comparatively unimportant in mountaineering.

Grading by numbers from 0 to VI was introduced to measure climbing performances by Teutonic clubs many years ago and only fairly recently adopted in Britain. Every generation likes to outdo the performance of its predecessors, at any rate to do what is new and different, though history may judge the results to be less pleasing. The limits of what could be climbed without artificial aids were reached half a century ago, as by Franz Lochmatter on the south face of the Taeschhorn; an expert Swiss party climbing the route more than thirty years later had to use pitons and marvelled that the place had been climbed without them. So that for the vast majority of young climbers, the possibility of making new routes on the mountains they have time and opportunity to climb is by treating rock faces like pin-cushions to make them climbable.

The perfect combination of exploration and mountaineering in the highest mountains of the world can still be found in the Himalaya. Facilities for rapid transport, the recognition by some newspapers that mountain exploration can be news and the subsidizing from various sources of expeditions to these distant and little known regions has led to great activity there.

Such a type of mountaineering for enjoyment more than for performance and not at all for the provision of news for the public, was described to me recently by a young man who had been with me on more than one winter party in the Snowdon district of North Wales. He picked up a soldier companion out in India and with an occasional porter or two to help in transport of camp

they spent their time in an almost unknown part of the Himalaya, revelling in just being there and climbing peaks, four of them virgin and neither too high (about 18,000-19,000 feet) for natural breathing nor too difficult to need anything more elaborate than nailed boots.

That was a lucky young man who could go where he wanted and do more or less what he wanted. Fortunately, it is not necessary to go to the Himalaya to find the opportunities that mountains offer for adventure and enjoyment, provided one has the capacity to see and to take what is offered. The zest for climbing can be indulged on any face of rock high enough to make a fall highly dangerous, and it is only natural for the young generation to apply the latest modern inventions in the way of artificial aids to what they are doing. On the very modest hill of less than 200 feet above Winchester on which I live, small boys get constant pleasure scrambling up the steep banks, picking out chalk and provoking the caretaker by strewing it on the paths below. And there are not a few older persons who get the same sort of pleasure on the more perilous castellated cliffs that rise a little above a road that runs below Snowdon, from which admiring friends beside the cars or buses can watch their prowess as they climb and hammer a way up apparently holdless slabs, and some have never visited one of the summits above the cliffs.

Please do not think I underestimate the enjoyment given by the exercise of skill in the use of the instruments employed. Most games would be dull indeed without it. Cricket, for example, is a fine game for those who have some natural gift for it and the patience to cultivate it, though I know it is rated very low in America. I am glad I can recall a lovely warm summer afternoon in pre-war days when, in an important club match, I happened to make what was for many years a record score for the ground. Not the remotest idea of making a record or even of defeating the other side marred my enjoyment of the innings. All that mattered was the excitement of seeing what sort of ball was coming from the bowler's hand, the thrill of meeting it with the bat at the right instant and with the right use of eye and wrist to send it safely on its way to the boundary. So in climbing there is the anticipation of what lies beyond the corner or the impending rock, the choosing of the chink in Nature's armour, the thrill of raising the body, sometimes almost breathless, to the haven a foot or two above.

The reason I have spent nearly all my summer holidays among snow peaks and not on cricket fields is that the peaks have something more to give than climbing, though climbing wins it from them. As Sir Edwin Herbert said in one of the best of all the valedictory addresses to the Alpine Club from out-going presidents: a day on a mountain can be a great experience. That experience is not less real for being intensely personal, incommunicable. I have been privileged to see it happen to young people of either sex, and it was something quite outside the interest or difficulty of the climbing, though these may be no bad preparation for receiving it. Silence is more eloquent than speech in moments of intense enjoyment, but as far as it might find expression later, it was curiously reminiscent of Professor Godley's experience crossing what many would regard as a dull snow pass between Zermatt and Saas: "I seemed to myself to have discovered an entirely new and unmixed pleasure and to have merely wasted all the years which I had spent outside Switzerland".

That is a satisfaction impossible to measure; to many indeed, so odd as to be incomprehensible. The reward of a mountaineering holiday is normally judged by the number and position in the scale of difficulty of the peaks climbed, just as success in the business of life is measured by the dollars amassed. No invention has yet enabled us to see into a man's mind, to give us a true measure of his happiness, his scale of values or his gratitude for what life has given him.

I am sure that some of those who use artificial aids to pass very severe passages on a

difficult route up a mountain are quite alive to the more contemplative pleasures, the spiritual satisfactions vouchsafed them on the heights. And I fully understand that for many the one real interest and enjoyment on a mountain is in the technique and mastery of obstacles; for such climbers it makes no difference whether a rock face is part of a mountain or not. *A chacun son goût*: We all know some gardeners whose great desire is to grow some flower, say a daffodil, bigger or smaller than any of their neighbours and seem to have little use for the common or garden variety; and we know others who, without any pretensions to being poets, just in the way they look at a daffodil, pay a minute tribute to the miracle of its creation and growth. So it is with many mountaineers. Any sort of variation on a rock pinnacle will draw their concentrated interest; for the ordinary less difficult ways up a great peak they have no use at all.

The analogy between a mountain and a daffodil must not be pressed! Up to now, we have not been able to change the size or shape or effect changes in the growth of mountains, and some of the human efforts to increase their market value can hardly be counted as improvements from an aesthetic point of view! But I do urge that especially in introducing novices to mountaineering, we give them every chance to discover what a mountain has to tell them and to give them, besides providing an opportunity for displaying human ingenuity and prowess.

In some ways the very popularity of mountaineering has made it harder to reap its full rewards for those who have not the means nor leisure to go far afield, for it is in solitude that the voices of the mountains are heard at their best. Moreover, on many routes other parties on steep slopes can be a danger. This is regrettably the case on the Hoernli Ridge of the Matterhorn, that followed by Whymper on the first ascent in 1865. That it is free from serious difficulty is no drawback to a man who has an abiding love for a great peak; but he must choose his time for a visit. For on a fine summer day, when the accumulations of rocks upon the face are not held in place by snow or ice, the many unskilled tourists who have themselves hauled up and let down its steep places by two guides can be a serious menace. Of my own first descent coming over from Breuil with a friend and two guides in 1902 I retain no memories at all. My ascent with two young friends in 1906 established the ridge among the places associated with the best hours of life. We dined at the Schwarzsee two hours walk above Zermatt, and left after the moon had risen. At one moment, as we mounted the slopes below the Hoernli Hut a great avalanche of rocks fell from near the top of the great wall of the peak that towered above us. It left a cloud of dust upon the face that was an impressive warning that any direct ascent of such a face can never be free from unavoidable risks, even in fine weather and at night. I like to picture again our long halt on the roof of the old hut at over 12,000 feet, with the moon casting black shadows on the wonderful architecture of the mountains above us, below us, and beside us.

We left as twinkling lights far beneath us showed that the first parties were starting from the Hoernli Hut, and we climbed by or beside the ropes that hang upon the final rocks as the first blush of sunrise came upon them. I mistook the way down from the top and had no ladder or good ropes to help us on the Italian side till we traversed into the right way where the Ridge leading from the Pic Tyndall merges in the great head of the Matterhorn. And coming over the Furggjoch or Breuiljoch we found an unexpectedly difficult bergschrund; so we felt we had had a full day when we rejoined other members of the party just in time for dinner in Zermatt! I cannot think the Hoernli Ridge taken in this way will disappoint any man prepared to enjoy it. Another memory of this Hoernli Ridge is of early August, 1914. Then with two young men getting their first experience of the Alps while our compatriots were suffering a trying wait in Geneva for transport back to England, we had the Matterhorn entirely to ourselves on a fine summer day. It is good to

think what the Hoernli Ridge meant to those two in the months when they were preparing for the fighting in the Dardanelles and in the desert in which they were killed. It is unlikely and not to be desired that that particular cause for such unusual solitude on the Matterhorn will occur again.

Not even Mont Blanc can boast of having so many persons ready to pay the cost of human transport to its summit as the Matterhorn. Yet Mont Blanc has even more to give. It remains essentially what it was when Saussure climbed it in 1787 though thousands must have climbed it since. If we look at it with singleness of eye, the superb glacier scenery of the ordinary route up from Chamonix by the Grands Mulets has lost no more than a great picture has for having roused the wonder and admiration of whole generations before us. The outstanding position of Mont Blanc and its dominance over everything in sight can give a feeling, not of conquest, but that it is good to be there, perhaps "a little nearer heaven" ; though there have been occasions when an icy wind and the approach of night have made even a momentary stay on the summit what could not be fairly described as enjoyment. Not one of the ten occasions when I have led younger companions by various routes to that summit has left a trace of disappointment, of diminution in value.

But, once again, I would suggest a considered choice of the time to take the usual route up from Chamonix. However deep the tracks along parts of the Bosses Ridge, if you are up there when all other visitors have gone, when the last crimsoning glow of sunset is lingering on the highest snows, while the shades of night are deepening on the Grand Plateau beneath you and have shrouded Chamonix with its crowds and traffic far, far below, you will not forget the hour and what it gave.

Fifty years hence, there may be nothing left in the Alps, the Rockies, the Andes or Himalaya in the climbing of which there remains any publicity value. There will still be men who retain a child's love of scrambling on steep places. All sorts of gadgets may have been invented and discarded for defeating Nature's perpendicular or overhanging obstacles, as we may even have miniature mountains of concrete or plastic material for teaching the latest techniques and holding climbing competitions in our parks and pleasure grounds. What will certainly be still with us are mountains that can offer an ideal form of recreation for those who know the full meaning of that word.

High mountaineering will always have in it an element of danger and of adventure—the two are not synonymous; the changing moods of weather and mountain and the fallibility of human skill and judgment will still be there. A moment of over-confidence or carelessness on steep rocks or ice may, as I know too well, have tragic consequences; but diminution of the publicity and competitive value of the most irresponsible and reckless forms of climbing will lead to the old sensible avoidance of those deliberately-taken risks, which are no more commendable on a mountain than on the roads. The idea of conquest may become quite old-fashioned, with no loss of benefit to the sport.

In a fairly recent issue of the English Alpine Journal, I read an article on Alpine Uplift — uplift other than by mechanical transport such as *telepherique* or ski-lift would seem to be anathema. It contained the strange remark: "What would have happened to British rock-climbing if the idea got about that it was better to feel than to conquer?" I call it strange, for what do we mean by talking of a fine climb if not to express the *feeling* of exhilaration as each pitch is successfully tackled, the *feel* of the muscles tensely brought into play, the alternate *feelings* of anticipation and relief as we raised ourselves from hold to hold ? Surely feeling is what differentiates us from machines or robots, and let us hope it will continue to do so, however much mechanical inventions do our reasoning and calculating for us.

Steadily increasing speed and means of transport will bring mountains more and more easily within reach of the urban dwellers whose need of them is greatest. Will men have the wisdom to reserve some areas of real mountain country, with high places where the world of machines is neither heard nor seen above or below; where, surrounded by architecture whose date we can hardly guess within a million years and the loveliness of newly fallen snow, it is possible for an hour or two to realise that being up-to-date is really quite unimportant and to be sophisticated is merely to have ceased to learn?

IN MEMORIAM

ALBERT H. MACCARTHY

1876—1956

The death of Captain A. H. MacCarthy deprives mountaineering of an outstanding devotee and the Alpine Club of Canada of a greatly esteemed friend and benefactor of 45 years standing. “Mack” joined in 1911, became an honorary member in 1925 and when he died on October 11th last, had just completed two terms as American Vice-president. He was also a long-time member of the American Alpine Club (1915) and The Alpine Club (1916); he was an honorary member of the former, and had been a councillor from 1920 to 1922.

Albert MacCarthy was born in Ames, Iowa and received his early education there and in Des Moines. He attended the United States Naval Academy at Annapolis, graduating in the class of '97 to join the U.S. Navy for a period of ten years, during which he saw service in the Spanish-American war, and visited many ports. It was during this period that he was taught by his commanding admiral to ride a bicycle properly—that is, to push the pedals rather than stamp on them—and this undoubtedly was responsible for the tremendous power he had in his legs, contributing to making him the great climber he became. In 1905 he married Elizabeth Larned, sister of the then American tennis champion and a fine tennis player and athlete herself; it was she who taught him to step over rather than on a log, to save leg energy; and she who first joined the A.C.C. in 1909 to be followed by him in 1911.

The MacCarthys were interested in a number of enterprises which caused them to live in various parts of the States, including Denver, Summit, N.J. and Annapolis. They also lived for much of the year, over a long period, near Wilmer, B.C., on their Karmax and K2 Ranches, a charming setting in the Windermere Valley. Conrad Kain, the imported Austrian guide, worked for them a long time and eventually with their help became independent in Wilmer. It was during this ranching period that they made so many explorations in the Purcells and adjoining mountains to the east, and so many fine climbs, mostly first ascents in the Bugaboos and the Toby and Horsethief Creek regions; many of these were made with Conrad, though by no means always with Conrad in the lead. Mack was a very fine leader himself; they both became fine mountaineers through study, through following the professional Kain and through their own athletic prowess.

Among many other first ascents was that of Mt. Louis; and Mt. Robson (12,972 ft.) then thought to be the highest outside the Yukon. This was made in 1913 in company with his great friends the late General W. W. Foster and Conrad Kain. In 1925 he led the expedition, and the final thrust, that conquered Canada's highest, Mt. Logan (19,850 ft.)—after making a reconnaissance in 1924 with no other Club help, and freighting in by dog-sled and back-pack some 4 tons of supplies during the winter of 1924-25. Foster was also a member of the successful party. I think he spent one season in the Alps, but during that season ascended no fewer than 101 major peaks and tired out his guides. He believed in professional assistance in strange ground and to teach. His organization and leadership on Mt. Logan was a very remarkable feat and the ascent ranks with that of Mt. Everest; Mack was not however a peak-bagger though he made many first ascents—he was equally keen, perhaps more keen, on discovering new routes that provided interesting climbing. An example of this will be found in two articles in C.A.J. for 1921-22, the Golden Stairs route which he did twice in the 1920 camp at Assiniboine; the full route included much more than the Golden Stairs pitch, in itself quite a short though steep rock climb. The full route is, I think, the finest climb I have ever

undertaken. The 1925 Journal describes, all too modestly, the Logan epic. Mack wrote often for the Journal in earlier years, about new climbs etc., but has never been prolific. I don't think he ever wrote about his "Three Pines" practice route immediately behind the Clubhouse, at Banff—a stiff rock climb, though short; there was a steep chimney and an awkward step over and around a bulge where delicate balance was required.

His wife and companion Bess died in 1944, soon after an ascent of Mt. Victoria—another ascent; they had done it times before. He has not climbed since, though he has frequently visited the west and in the last ten years has attended some camps, and Skyline Trail Hikes. When the horses absconded at Assiniboine in 1952, he walked to Bryant Creek staging camp, rode from there to Spray Dam, and trucked to Banff—a big day for a man of 76.

During the war he came back to the Navy and was in reserve service, ending with the rank of Lt. Commander. In these later years, he has been closely connected with the S.P.C.A. in the State of Maryland and elsewhere; particularly in respect of dogs for which he has established ambulances in touch by radio with his own station in Annapolis and he has established dog hospitals. Members who have attended recent camps will remember his talks about the Logan expedition, and his rehabilitation of a preyed-upon sled dog; and his facetious references to himself as "Official Dog-Catcher".

With the death of Albert MacCarthy, a great mountaineer has passed on.

E.O.W.

DR. J. W. A. HICKSON

On April 22nd, 1956, passed away quietly in his sleep, Dr. J. W. A. Hickson, a past president of our Club and Honorary Chairman of the Montreal Section, at the time of his death.

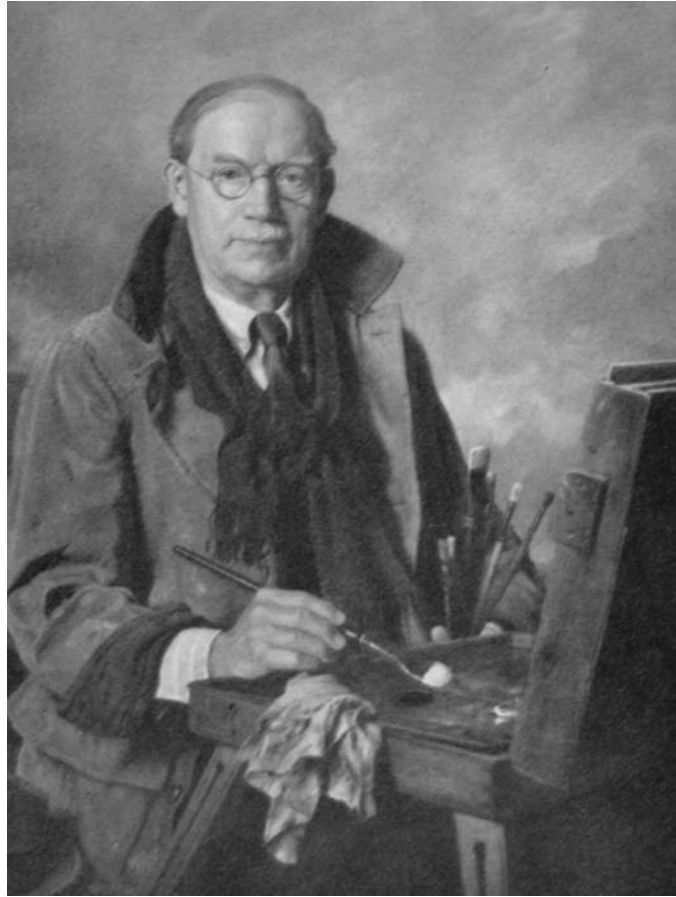
Born in Montreal in 1873, the son of the late Sir Joseph Hickson and Catherine Dow, he entered McGill University after private studies and obtained his Arts degree in 1893 winning the gold medal in mental and moral philosophy. He obtained his Master of Arts degree in 1897 and his Ph.D. in Germany in 1900 after studying at the Universities of Berlin, Halle and Freiburg. Dr. Hickson was on the McGill Faculty for a number of years, as lecturer and tutor in the Philosophy Department from 1901 to 1905, then assistant professor of Sociology from 1905 to 1909 when he was named assistant professor of Metaphysic and Logic until 1911 and finally professor in these subjects until his retirement in 1924.

Dr. Hickson was a prolific writer and contributed many articles on mountaineering and philosophy. He also took an active part in community life, being President of the Protestant House of Industry and Refuge and Governor of the Fraser Institute for forty years and President for five years. He was a member of the Mont Royal Club, University Club, Forest and Streams and Royal Mont Royal Montreal Curling Club. He was Honorary President of the Montreal Museum of Fine Arts and President of the Alpine Club of Canada from 1924 to 1926.

As a mountaineer, Dr. Hickson made over thirty first ascents of peaks over 10,000 feet besides many difficult peaks in the Alps. He made many long expeditions into the Canadian Rockies, where most of his Canadian climbs were made. Dr. Hickson joined the club as early as 1908 and from 1911 on he made many fine contributions to the Journal of his climbs and expeditions both in Canada and abroad. He left a most generous bequest of \$2000 for the club library.

Dr. Hickson kept a lively interest in the local (Montreal) Section, for many years, the annual meeting of the Section had been held at his house. Little did we know that the Spring meet of 1956 would be the last we would enjoy in his company. He will be missed by many.

—J.F.B.



Fred H. Brigden

FRED H. BRIGDEN

Fred Brigden, a club member for over twenty years, died suddenly on March 24, 1956, within three weeks of his 85th birthday.

He was born in 1871 at London, England and came to Canada within a few months after his birth, with his father, Fred Brigden, who took up his residence in Toronto where he started the outstanding engraving company of Brigden's Limited.

Fred, as he preferred to be called by that name, joined the company after his public school and collegiate days were over and continued with the company until his death, rising, after the death of his father and elder brother, George, to the position of manager and president, which latter position he held at the time of his death, although, for about ten years prior thereto, while connected with the company, he confined himself to his art work.

He was one of Canada's most outstanding water colour artists, and entered his pictures at many art exhibits and won a considerable number of awards. He was a member of

The Royal Canadian Academy
Ontario Society of Artists
Canadian Society of Painters in Water Colour
Manitoba Society of Artists
and other such organizations.

He was not a mountain climber, but had a great love for mountains and sketched mountain and other Canadian scenery from Newfoundland to British Columbia. He was not only an artist, himself, but assisted very materially young Canadian artists in their work and for them to become much better artists.

His pictures are hung in the National Gallery at Ottawa, the Art Gallery of Toronto and elsewhere.

He lived a full life, being particularly interested in boy's work, being for 35 years on the directorate at Toronto of the Y.M.C.A., being national chairman of boys' work and connected with the Big Brothers Movement, and the Boy Scouts.

He was somewhat handicapped by arthritis in his later years, but still continued his outdoor sketching. He died while on a sketching trip near Toronto with an artist friend.

He donated a picture in oil of the Bugaboos to the club house and furnished to all members of the club a reproduction in colour of his painting of Outpost Lake.

He died a bachelor.

—H. S.

WILLIAM A. DEGENHARDT

Those of us who have attended the club's ski camps in recent years were saddened to learn of the death in Seattle on November 15, 1956, of Bill Degenhardt at the untimely age of 54 years.

Bill Degenhardt, who was a native of Estonia, came to Seattle in 1921 and joined the Seattle Mountaineers in 1926. He took a very active part in this club's programmes and served as president for two one year terms in 1953 and 1954. He also joined the American Alpine Club in 1950.

He was especially drawn to ski mountaineering and it was this phase of the mountain art, for which our club has catered by holding its annual ski camp, that led him to join the A.C.C. in 1954.

He attended the first ski camp at Mount Robson in 1950 and made the first winter ascent of Mt. Mumm and also the ski climb of Mt. Resplendent in company with the writer. He and Mrs. Stella Degenhardt were also present at the Columbia's Icefields ski camp in 1956 and they were

both on the party that skied up Snowdome, 11340 feet. He also had done a considerable amount of summer climbing in the Rockies and in the Selkirks.

The Mountain Rescue Council of Seattle owed much to his enthusiasm and interest and at the time of his death he was vice president of this group and chairman of their training committee.

He appreciated very deeply the opportunity to enjoy the mountains and life in the Western Hemisphere generally. His message as president addressed to the members of the Seattle Mountaineers and published in the 1954 Mountaineer's Annual concludes with these words: —

“Let us be grateful that we live in a time and a place that enables us to know the high places; to learn the lessons the wilderness teaches ; and to enrich our lives with the inspiration of mountaineering.”

—E. R. G.

EDWARD CUSHING

1903–1956

Edward Thomas Francis Cushing was born September 19, 1903, in New York City, his mother being German. He went through a public grade-school in New York and attended Horace Mann School for a short time, but this completed his formal education. His informal schooling, however, continued throughout his life, and in his maturity it would have been difficult indeed to find a better-educated man.

His first job was that of office boy in the old magazine *Town Topics*, where, because of his interest in music, he was sometimes delegated by the critic to cover musical events. Later he became assistant in the music department of the *Brooklyn Eagle*. During the illness and after the death of the chief critic he took over the first chair temporarily, and did so remarkably well that in spite of his youth (twenty-three years) he inherited the job permanently. He remained with this paper until its sale in 1938; but during the last three years he was first, editor of the Sunday Magazine, then foreign correspondent with headquarters in Zurich, Switzerland. It was during this period that he did most of his climbing in the Alps, although he had made a beginning in 1926-27. In 1926 he married Mary Watkins, a writer and a member of the music staff of the *New York Herald Tribune*.

On his return to America in 1939 he took a position with the Columbia Gramophone Company as artistic advisor and public relations assistant, and at the same time established a retail bookshop in New Canaan, Conn. At first the latter was a mail-order business devoted exclusively to works on mountaineering, exploration, and related activities. At the outbreak of World War II he enlisted in the Office of Strategic Services and occupied executive positions both in Washington and in London, later being transferred, to his intense delight, to Berne, Switzerland. Part of his duties, in this service, was the supervision of broadcasts to Germany, in the German language, by the singer Marlene Dietrich and others.

At the end of the war he returned to New Canaan and proceeded to develop his book business into that of a general retail bookstore. This thrived so well under his excellent management that, with the great increase in volume, he found it necessary to give up the mountaineering end of the business and in 1954 disposed of his stock in this category to the Old Settler Bookshop, owned by Mr. R. Kolvoord, in Walpole, N.H. The demands of this business limited greatly his opportunities for mountain climbing, but he managed quite regularly to join a group engaged in making ascents of the White Mountain peaks, including Mount Washington, in midwinter. He was elected to the

A.A.C. in 1941 and served on its Council in 1947-49.

Two years before his death he became consultant and translator-editor of the newly-founded Angel Records, in addition to carrying on his steadily expanding book business. He had a very considerable literary talent, which he exercised all too infrequently, but it found charming expression in some of the translations of German operettas which he made for Angel. Mention should also be made of a volume of symphony notes by the music critic Lawrence Gilman, which Edward Cushing edited, with the addition of much excellent material of his own.

He died on May 10, 1956, in consequence of an operation. By his special request the text, "I will lift up mine eyes unto the hills, from whence cometh my help," is cut on his headstone, under a medallion reproducing his bookplate, namely, wild mountain peak with a lyre superimposed.

Edward Cushing was a delightful companion, both outdoors upon a climb, and indoors for a talk. I think, the most delightful man Miriam and I have ever known.

—R.L.M.U., By kind permission of *American Alpine Journal*.

EDYTHE C. MYRDAL

Mrs Edythe C. Myrdal joined the club in 1956 and attended the camp at Glacier. Mrs Myrdal was born in Jamestown, N.D., where she attended school. She attended Valley City Normal College, the University of Washington and graduated from Montana State University.

She was a teacher in local elementary schools, and a member of Episcopal Church, Immanuel Chapter 54, Order of Eastern Star, Lady Lions, State University Alumni Association and Montana Mountaineers.

She is survived by her husband Swain K. who is also a member of the club.

P.

TAYLOR B. GRANT

Taylor Grant was born in Austin, Texas, sixty-seven years ago. He led an active life as an electrical engineer with Western Electric Company and Bell Laboratories. He retired in 1954.

For many years Mr. Grant was an active member of the club, and a member of Appalachian Mountain Club. He climbed for some years in the Rockies and was in the Tonquin Valley and Little Yoho camps. He also did climbing in Glacier Park, Montana and in Colorado.

He is survived by his widow Mrs. Marjorie Saxton Grant.

JESSICA L. SHERMAN

In the death of Miss Sherman in May, 1956, the Club lost another of the rapidly diminishing number of original members.

Born at Sioux Falls, S.D., Miss Sherman taught school there for many years. At the time of her death she was living in Minneapolis, where she was survived by a brother.

Miss Sherman attended the first camp, held at Summit Lake, Yoho Park, in 1906 and graduated on Mt. Vice-President.

ROBERT COLES RILEY

Doctor Riley was born in Bradford, Ontario, and educated in Welland. He enlisted in the Army Medical Corps in the First Great War. He graduated in medicine from the University of

Toronto, and interned in the Hamilton General Hospital. Later he established a practice and after working as a pathologist for eighteen months he moved to take a position of pathologist in Regina General Hospital Cancer Clinic.

In 1938 Dr. Riley went to Calgary as pathologist at Holy Cross Hospital and in 1951 was appointed director of the Provincial Cancer Clinic in Calgary.

Doctor Riley was a member of Christ Church, the Glencoe Club, the Skyline Hikers and official doctor and an active member of the Alpine Club. In this capacity he was a familiar figure at many of the camps tending to the members needs.

Doctor Riley was also well known as a painter having won the Banting Award in an oil painting competition among members of the Medical Association. Many of his paintings hang in the homes of doctors across Canada. He was an ardent stamp collector and a director of the Calgary Zoological Society.

Doc Riley—as he was known at Camp will be missed by many.

He is survived by his wife, daughter and two sons.

—K.McG.

EDITOR'S NOTE:

We regret that all obituary notices did not reach the editor on time for this Journal.

ALPINE NOTES

* * *

MOUNTAINEER AND MOUNTAINS

BY LYNDA R. WOODS

JUNE, 1956 At the request of the Club Secretary

He, who
Has seen
The rosy blush of dawn
Hit snowy mountain top,
Has watched
That blush creep down
Along the sides,
Push back the clouds,
The fleecy, roseate clouds
Beneath whose blankets He
The lesser peaks
In jumbled disarray
Assembled
'round the base of
Monarchs.
He, who
Has witnessed this
Has seen the hand of God
Create a day.
He, who
has seen
The Alpine Glow
Strike snow-white lofty crests
And hold them
Silhouetted high
Against the
Dimming evening sky
He, who
Has watched
That soft ethereal glow
Dissolve
Into the soul of night
Has seen the unseen
Master Hand
Turn out the light of day.
Between these mists
And shadowy veils

For crafty, skilled maneuvers
Surmounting obstacles
Well nigh impossible.
A day
To end sometimes
With exultation
"We have made it!"
Sometimes
With mingled satisfaction
"Next time may GO."
But always with assurance
That the challenge was worth-
while
The physical exertion
Like the purging of the soul.
For this they come
These mountain folk.
They come in throngs
To Camp.
To tent
Among the spicate trees
Beside the rippling brook
Or raging torrent
To bask beneath the sun,
Beneficent and kindly,
Which lifts
Quite imperceptibly
The snowy covers of retreating
Spring
From off the blazing handiwork
of Gardener Supreme.
The meadow
Now in beauteous perfection
And color riotous
Where yesterday was trackless
white.
They come

There lies	To view once more
The day itself,	This floral paradise
The day	Untouched by human hands
Beloved of mountain folk	A glorious display
A day in which	Of lavish
To strive	Color nonchalance.
For lofty, high flung goals	For this they come
Year after year	Fall from the lips of mortals
For fifty years they come	Mortals
From many climes they come	Whose stay is transient
And many walks of life.	But words
And	Constant, true, uplifting
On the Sabbath morn	Inspiring like the lofty peaks
Assemble in a circling dell	That point
To sing, and pray and worship	Eternally toward heaven
Each in his way.	To higher things
To hear the word—	And peace
Eternal like the mountains—	And God.

DISCOVERING A NEW LAKE

BY DONALD J. SIMPSON

Mountain climbing provides many and varied pleasures for its devotees. Seldom, however, does it include the thrill of discovering a large, unmapped and apparently completely unknown lake. During a three week climbing trip this past summer Gwen and Don Simpson of the Chicago Mountaineering Club, with Felix Julen of Zermatt, Switzerland, discovered a beautiful lake the size of Lake Louise on the southwest side of unclimbed Dragon Peak near the junction of the Chaba and Athabaska Rivers. This lake which lies in the great cirque east of Mt. Catacombs and southwest of Dragon Peak should not be confused with a small lake (which appears on certain maps) on the east southeast side of the main east ridge of Mt. Catacombs. The new lake which we have temporarily called Lake Genevieve, lies at an elevation of about 6,000 feet and is generally crescent shaped. It is bounded in part by virgin timber and can only be reached by hours of very difficult bushwhacking. The area was infested with grizzly bears and moose.

We happened upon this lake in an attempt to climb Dragon Peak by climbing a lowered unclimbed peak immediately to its west and by the main west ridge of Dragon. The route appeared to be perfectly feasible although there is one overhang in the ridge, that would probably require leaving a fixed rope for the return. We had to abandon our attempt, however, due to the fact that we would have needed another day to complete the climb and still get back to the Athabaska River at a certain date. For anyone in this area, we highly recommend this peak as being a beautiful rock to climb.

During our trip up the Athabaska, an excursion was made to Gong Lake and the ridge to the north, where we had an opportunity to examine the north side of the peaks lying at the head of Lynx Creek. Gong Lake, like everywhere else in this region can only be reached by arduous bushwhacking. Later we went up

Lynx Creek and finally set up a bivouac camp at the lowest of nine lakes in the upper Lynx Valley. The unnamed peak with the broad double summit to the west of the Great Rock Tower was climbed by Genevieve and Felix (second ascent), and a slightly lower peak in the same region was climbed by all three of us.

It had been our intent to make an attempt on the Great Rock Tower which is one of the finest unclimbed prizes awaiting a climber in the Canadian Rockies. We made a reconnaissance and found this peak to be essentially a three sided pyramid (which includes two successive cliff bands which are either completely vertical or slightly overhanging. Each band is probably 750-1,000 feet in vertical height. The only possible route appears to be a chimney or partial chimney near the east end of the south face. One possible way to reach this partial chimney is by way of the west col, the southwest ridge, and then by a traverse across the south face of the mountain. The entire route below the wall is over extremely rotten rock. According to Felix anyone attempting this peak should have 30 or 40 rock pitons, a couple of climbing ropes, and a 200 foot rappel rope. It will probably require a double rope technique to get the leader up through the first cliff band. Two unsuccessful attempts have been made.

Felix and Don then went up the left fork of the Athabaska and camped on the debris-covered ice of the Columbia Glacier with the idea of climbing Mount Columbia the next day. Rain early the next day prevented the climb, but a close examination was made of the Columbia Ice Fall. There has been a radical change in this during the past three years until the ice fall has become steeper than any ice fall any of us, including Felix, had ever seen. Certainly within a very few years the ice fall will have disappeared, and there will remain only a wall of rock.

During a week at Lake O'Hara, climbs were made of Mt. Lefroy (apparently first ascent since 1935), Mt. Huber (the summit pyramid being climbed on the Lake Oesa side due to avalanche conditions on the usual north face route) and Mt. Yukness (by apparently a new route directly up the south face of the big red tower).

Canada is certainly a delightful area for climbers, and this year we were fortunate enough to run into a period of relatively good weather. We heartily urge those who do not object to bushwacking to go up the Athabaska for the peaks that rise on either side are magnificent.

WINTER CLIMB OF MT. GARIBALDI

BY JOHN FAIRLEY

Four members of the Varsity Outdoors Club—Dave Kennedy, Peter Reid, Colin McDiarmid and I, decided to make a two-day trip of the climb of Garibaldi from the Q.C.A. cabin on Garibaldi Lake. This decision was made for two reasons; first, the days were short, and second, we were out of condition having just finished Christmas examinations and backpacking a week's supplies in over the Barrier.

The weather was quite exceptional for the time of year, very clear, not too cold and not too much wind until we were higher on the ridges. We started after noon on Friday, December 28, skied the length of the lake, then made our way up the Sentinel Glacier for a short distance, bearing right to make a rocky ridge that runs from the Glacier Pikes towards Table Mountain. Here we bivouacked for the night.

Saturday morning dawned clear but the clouds soon started to gather and it was evident that our good weather would not hold much longer. Snow conditions were perfect in every respect. The wind had packed the snow so well that one could either walk on top, or, with a couple of kicks

make a solid step; consequently we left our skis at the bivouac and walked. Having climbed the peak in the fall, I was pleasantly surprised to find that no zigzagging was necessary on the face. All the crevasses (except the biggest), and the bergschrund had been safely bridged by the snow. Our footprints went straight up to the final ridge and thence to the summit, 8787 ft. We were on top at noon but did not stay long as the wind was really vicious. Skiing from our bivouac spot down the Sentinel Glacier was great fun and after a brief stop at the lake for refreshments, we hurried back to the cabin. Sunday morning the clouds had rolled in and it was snowing heavily.

The ice on the lake was sufficiently thick for safety, but there were two good sized open areas to be avoided. These were where the streams from Sentinel and Sphinx Glaciers emptied into the lake.

**ODE TO NO ROAD OR
A PUSH THROUGH THE BUSH**

BY WILLIAM L. PUTNAM

That old climbing urge had begun to resurge
As it did to three others as well,
So Selkirks Range peaks and the bugs in the creeks
Took turns at us all for a spell.
But here is a change, for the part of the range,
Which our presence did finally adorn
Had scarcely been seen, and no one had been
There since years before we were born.
As a matter of fact; and I say this with tact,
The guide books and maps were all wrong.
One map showed a trail where you go like a snail
Under logs and through snags all day long;
Another shows peaks, where we found only creeks.
That were muddy and deep and ice cold.
But we were not amiss, for I'd figured on this
And we knew there were errors untold.

* * *

The Selkirkian bush, through which one must push
To get up to an alp or snow field,
Is where devil's club hides the alder in slides
And great cedars serve only to shield
The light of the day from people at bay
and they thrash and flounder about;
And the bugs, I report, drink your blood by the quart
As they thrash and they flounder about;
Now, this devil's club grows, as a bushwhacker knows,
In any old moist shady places;
It is sparsely adorned, but heavily thorned,
And it loves to be slapped in your faces.



**West Fang Glacier
Approach To Fang Peak.**
Photo W. L. Putnam

**Descending Icefall On
Crossover Glacier.**
Photo W. L. Putnam



**Carnes' Group From S.E.
Tower On The Right.**
Photo W. L. Putnam

* * *

Just for a song, Dave Isles came along,
To enjoy some summertime hiking.
His packboard fell apart, just after the start,
Which was not very much to his liking.
To do the bugs battle, came, straight from Seattle,
Jim Burrows, who sure likes to climb;
All pleasure was lacking, to him while bushwhacking
And he thought it a great waste of time.
George Townsend was here as our chief engineer
In charge of designing a raft;
Which should have been fine, for the idea was mine;
As it sank, not everyone laughed.
It was really quite sad, for all that we had
Was soggy and some of it lost.
But troubles like these, while of course they don't please
Are part of the game and the cost.

* * *

Now these people, they said, often wished they were dead,
Though I'd told them they came on their own.
But such words did not please and I guess did not ease
The miseries making them moan.
After days of morass we reached Bridgland Pass
And some time for exploring was due.
The 27th of July, therefore, said I,
Would be set aside by our crew
To correction of maps, so that other poor saps
Would not suffer the same fate as we,
And get lost in the wood while trying to make good
On a trail that no one could see,
Or climb up a creek bed, that somebody said
Went straight to a fine open route.
To peaks galore, and even more
Information not worth a hoot.

* * *

By the light of a lamp, Dave and Jim left our camp
And at dawn they were climbing through flowers
On the side of a slope that gave them great hope
Of climbing both of Games' Towers
The which they did, with hardly a skid
Though the looseness of rocks was severe
And came back to camp, after quite a long tramp
With a cry for dehydrated beer.

* * *

Meanwhile George and I had set out to try
An ascent of Tumbledown Peak,
And the route that we took gave us quite a good look
At the southernmost fork of Games Creek.
The peak was a cinch; we did not need a winch,
Though crevasses were huge all that day,
But we got back to camp most excessively damp,
For a thunderstorm met us halfway.

* * *

We decided that night everything was alright
To cross over a way and take stock
Of a peak that's well noted and on which I doted,
The one and the only Fang Rock.
Howard Palmer once said, as it rose o'er his head,
"It is like a huge hand in the sky",
A long time ago, when climbing Uto
It had caught and it still held my eye.
Three more days were required to get where we desired
Two in packing and one on a climb
We were mapping our way, to see how the land lay
(It's rewarding, but it takes lots of time.)
While on the route, our dog, less than astute,
Fell into a gaping crevasse;
So down in the hole, Jim went like a mole
To rescue our errant young lass.
Which having been done, we sat in the sun,
And enjoyed the sight of some goats
That bounded around, with scarcely a wound
On their castles with glaciers for moats.
The next day we planned to get every hand,
Somehow, to the summit of Fang;
So despite feelings surly, we got up quite early,
In fact, we arose with a bang;
For it turned out that Jim, having plenty of vim,
Had discharged an enormous explosion
Which stopped all our clocks and removed many rocks,
While aiding the cause of erosion.

* * *

Two glaciers we crossed and some creeks that got lost
In the horrible bush down below,
And upward we went, as though Heaven bent,
Though the climbing at times was quite slow.

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At last we could see where the route had to be
So we rested and took a long look;
Then we tightened our ropes, raised up our hopes
And then proved that we had what it took.
The last pitch I'm afraid, was quite an upgrade
But it really was not very hard,
Yet I do not dare mock a peak like Fang Rock
For perhaps we had caught it off guard.

* * *

Then we moved camp again, to a site on moraine,
At the side of the glacier named Dismal
Since the clouds were quite dense we set up our tents
Overlooking crevasses abysmal.
We built up stone walls against great snow falls
For by now it was getting quite cold;
Ere this was done, we lost sight of the sun
And the wind and the snow took good hold.
This may sound absurd, but on August the third
The new snow was up over our knees
As we looked far and near for some of our gear
That had drifted about in the breeze.
Since we weren't keeping warm after some of this storm
And our grub supply was now quite low,
Each with his ice axe we shouldered our packs
And went down to the timber below.

* * *

As long as our path lay high on the strath
The route and the footing were fine.
But we'd seen Downie Creek from Tumbledown Peak
And its pleasures I'll shortly define.
Now as we descended the snow slowly ended,
But its place was then taken by rain;
And the fine open going was gradually slowing
As we entered the bushwhacks again.

* * *

You really must visit in order to know it;
These lines cannot tell the whole story
Of the cliffs and the deadfalls and countless small galls
And horrible details so gory.
Like the day that we had (it was awfully sad)
When we moved only one half a mile,
And the river below looked impossibly slow

The Canadian Alpine Journal 1957

In its rock-filled and knife-like defile.
As we scrambled along, just one footstep wrong
Would result in a nasty old tumble.
Many men would repent if some time was just spent
In a place where you have to be humble,
And crawl on your knees through bushes and trees
Over cliffs and through snags and down streams,
While the bugs and the flies make numerous tries
(For at least this is just how it seems)
To seek out and drain all the blood from each vein;
Then they whine and they snarl 'round your head,
When you lie down to die, for it's then that they try
To carry you off instead.
Twenty-five miles like these through the wet, soggy trees
When the best route you find and you seek
Is the once-in-while small part of each mile
Of gravel alongside the creek.
Seven days of this stuff was nasty and rough
While hoping for some sort of end
To the horrible bush through which one must push
To get out to the Columbia's Big Bend.

* * *

At last we got out and with one fearsome shout
I announced to my friends we were through;
And if you wonder why we seek this way to die
I don't know the answer—do you?

FIRST ASCENT OF MT. FORTITUDE

BY ROBERT WEST

At the conclusion of three weeks of mountaineering near Glacier, B.C., my wife and I decided to try to climb Mt. Fortitude. This 9100'-peak, located due west of Flat Creek Pass on the western border of Glacier Park, was reported by Thorington's guidebook to be unclimbed. On August 20 we travelled by truck to Flat Creek Station and then packed six miles south along the trail to Flat Creek Pass, where we camped at 4900' elevation. (Water is not available at the pass but may be found along the trail about 300 yards north.)

The next morning we struck westward from the pass through a dense alder thicket. We reached the other side of the thicket after nearly an hour of struggling. Thankful to be past this obstacle, we continued upward following the nearly dry course of a small stream that runs down the east face of the mountain. When this became too steep for easy going we turned left onto the grassy slopes of the east ridge, which eventually gave way to shattered rock. The alplands above timberline in this area provide ideal goat pasture, and we saw several mountain goats from the ridge.

We had lunch at a snow col between an 8200' fore-summit and the main peak. The last thousand feet of climbing was mostly up steep snow, and this was the only place on the climb where a rope was required. We reached the rocky summit five hours after leaving camp. Although the climb was not an interesting one, the summit provided fine views of the southern Selkirks and of the Alberta Snowfield area.

Mt. Fortitude has a companion peak of the same height about two miles to the south. We had hoped to traverse Mt. Fortitude and continue along the ridge to this sister summit, which we thought might well be named "Mt. Patience". However, after a close look at the rotten rock on the narrow ridge joining the two summits, we gave this plan up as unsafe. We returned to camp in three hours, following the east ridge throughout, and hastened in our descent by a hailstorm which caught us at timberline. The next morning we packed out to the railroad and flagged a train which took us to Golden and the luxury of hot baths at the Fridhem.

THE NORTHERNMOST SELKIRKS

BY STERLING HENDRICKS

Last summer we tried the ambitious plan of covering the Selkirk divide from Mica Creek to the railroad at Flat Creek—tried and failed. "We" were Don Hubbard, Alvin Peterson and Sterling Hendricks. The plan was to cover the 125 miles of travel in about three weeks. Provisions were dropped from a plane on Silvertip Pass in the Sir Sandford area, about a day's travel south of Mt. Neptune in the Windy Range, and on the southern slopes of Mt. Northeast. The plane deposited us on Kinbasket Lake on about July 8 and we caught the midnight bus for the two hour trip to Mica Creek.

The first day was wet and although the start was from 2,100 feet the way up Fred Laing Ridge with 35 lb packs was easy travelling through quite open timber. We planned to follow a route outlined for us by Alec Faberge who had approached Mt. Chapman from this direction. We camped in the rain at timber line and had to wait until noon of the next day for fog to lift. This was the last of the bad weather and for the next ten days the skies were almost cloudless. Our travel was along open ridges and through alplands. The third evening found us on the Yellow Creek side of Anemone Pass in parkland of unsurpassed beauty. The following day the crest of the snowfield east of Mt. Northeast was crossed and a way found down the steep south glacier to our first airdrop.

A day was spent reducing the food pile before loading up to start skirting around the head of Bigmouth Creek along the alps at timber line to a camp at the northern base of the big snow field west of Mt. Neptune. We continued south across this snow field to fetch up at 9,000 feet on the escarpment of the Windy range. There was no way down so we worked back along the crest toward Mt. Neptune, arriving at last without much effort for an unintended first ascent on the second peak from Neptune (Mt. Escarpment, 9,900 feet). To continue looked both difficult and pointless so we admitted defeat and turned back to our previous camp site. From here we crossed the Windy range by way of Rhea Col to the east of Mt. Neptune and went down the Misty Glacier to timber line. By evening we had skirted the southern slopes of the Windy range to a point below our second provisioning point.

The next day brought us disaster with the discovery that our two parcels were covered by the only avalanche from a mile long crest. Plans did not include this blow, so with two days' provisions we thought it best to retreat out of the country by way of Dolphin Pass and Trident Creek to Kinbasket Lake, rather than to continue through obvious bush up Windy Creek to the Sir Sandford drop. I have heard maledictions heaped on Trident Creek—they are all true!

ODE TO A MOUNTAIN STOVE

BY PAUL CALCATERRA

O hail the little mountain stove
To thee we give our deepest love
Because 'tis you that melts our snow
And cooks our food at ten below
'Tis you that makes our Jello hot
And burns the bottom from the pot
'Tis you that makes the icicles tender
And cooks the groats in all their splendour

That you have faults there is no doubt
Your little flame oft splutters out
Your safety valve you sometimes blow
And flaming gas spurts to and fro
Your gasoline requires screening
Your orifice needs constant cleaning
You tip so well there's always spilling
Your gas tank always needs a filling

But yet, to a hungry mountaineer
Your purr can bring unmeasured cheer
Your flame can fill his tent with light
And warm him on a wintry night

And so this tribute we pay to you
To little Primus and Svea too
And wish for you, on this occasion
Long life and clog free operation

CLIMBING OVER THE OTTAWA

BY PAT DUFFY

In exploring the mountains near Chalk River, Ontario, in the summer of 1956, I found no Rockies or Coast Range. But it was a pleasant surprise to find "rock gardens" that would test the mettle of any rock climber. After some investigation it became apparent that the western escarpments of the Laurentians on the Ottawa River are to climbers of Chalk River what the Shawangunks are to the Manhattan Island cragsmen or the cliffs of Val David are to the Montreal mountaineer.

Across the Ottawa River from the towns of Chalk River and Deep River (townsite of Atomic Energy of Canada) is a system of forbidding cliffs rising out of the water to heights of 400-500'. Oiseau Rock stands about 4500' above the water and is the southernmost of the cliffs. Mount Marten (1,032') directly across from Deep River, delimits the northern end, about ten miles upstream. Between these two mountains, rock faces of great variety sweep up from the water's edge.

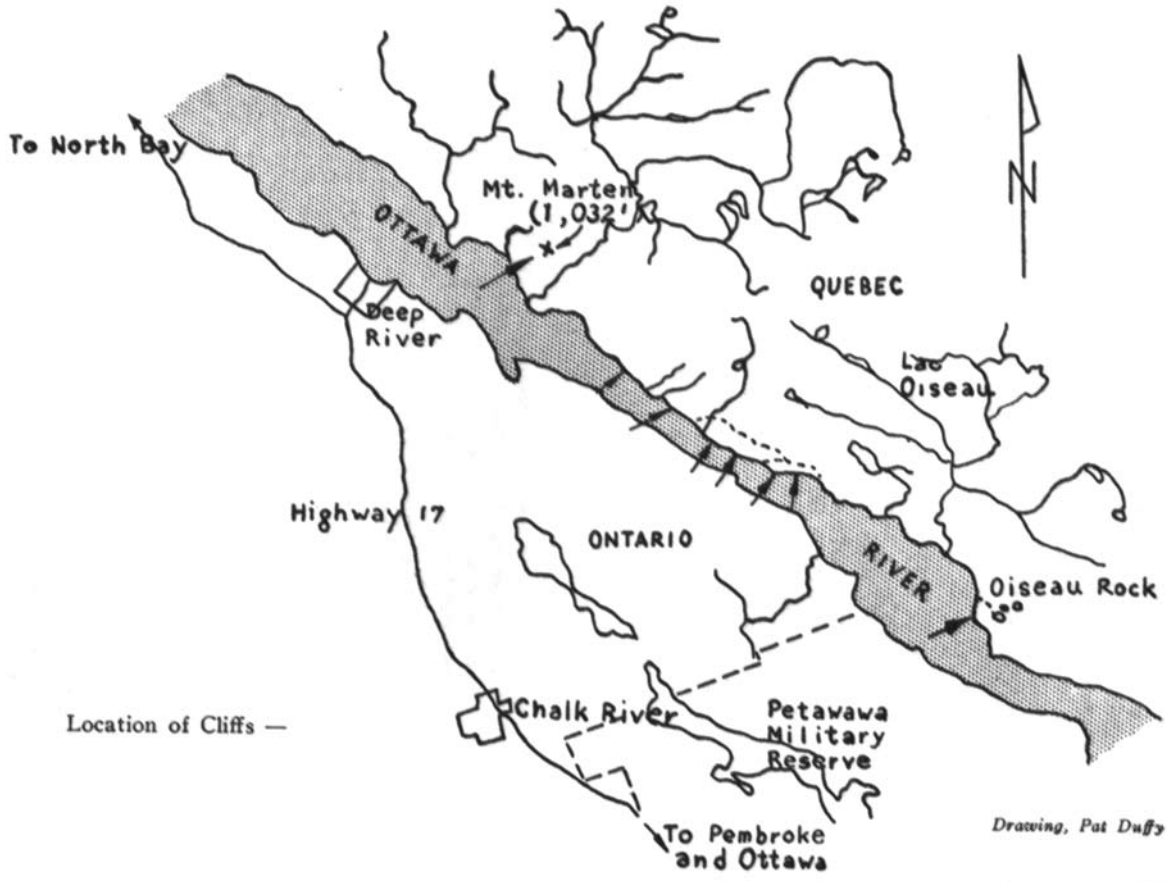
The precambrian rock, being very resistant to weathering processes, affords the most satisfactory climbing. The smooth featureless faces of rock make route-finding rather difficult sometimes. A complete ascent of some cliffs would be a severe task because of the rather immense overhangs that cap many of the walls. Such is the case on parts of Oiseau Rock.

Early one July morning, Ted Mosquin, a graduate student from U.C.L.A., Michael Tomlinson of Harwell, England and I embarked from Deep River by canoe, bound for the "rock gardens". An eight-mile paddle brought us to the "Narrows" in the Ottawa where a fine collection of cliff bands are located. After a refreshing swim and a second breakfast we scanned the walls on the Quebec side from the opposite shore. With the aid of binoculars three routes were chosen. We paddled the quarter mile across to Quebec and cached the canoe.

We roped up and set off what appeared to be a reasonable route. It became apparent after the first rope length that anything below Class IV climbing required endless "gardening" and exposure to heaps of poison ivy. We made a quick trip to the canoe to scrub and soap tingling arms and legs.

We set off up a new route. It lay over a long sloping slab and into a vertical crack, 15' high. An easy scramble led to an open chimney. One rope length (100') up the chimney, wet rock drove us out onto a large grassy shelf high over the river. The shelf ran smack into smooth rock that had just enough slope that the soles of our light "kletterschuhe" could find purchase. Friction climbing took us up another rope length. Beyond this the walls swept gracefully to a vertical attitude. Wet overhangs frowned down upon us. It was impossible to proceed without "hardware". The rappel slings were donned and the party descended midst whoops and yodels. The mountain calls rang strange on the ears of local yachtsmen as they guided their sailboats by in swanlike silence.

The second route was located 100 yards upstream. In this case the first rope length was a difficult one. A slip meant a sound dunking. Clean rock, delicate balances and the occasional "wooden handhold" on a misplaced pine tree highlighted this ascent. After four rope lengths of moderate climbing, the route was blocked by a respectable overhang. The party retired to the Ontario shore for a vast dinner. The crisp echoes from our yodels reminded us of Moraine Lake as we paddled home in a magnificent sunset. This was rockclimbing with a different slant.





Cliffs On The Ottawa. *Photo Pat Duffy*

MT. FINGER

BY HANS G MOSER

From a point approximately 11 miles west of Banff, on the Lake Louise Highway, Ken Baker and I started up towards the Finger. After about two hours of scrambling, through a gully with a few interesting pitches, we arrived at a beautiful little saddle, right at the base of our objective. Thousands of flowers were blooming on the nice green meadow, which seemed to stretch right to where the rocks rose suddenly into the sky. A few goats which had been grazing there were jumping hurriedly along some narrow ledges at the base of the mountain, to disappear behind one of the protruding rock ribs. The morning was still cool and clear. The surrounding peaks seemed extremely close and one could almost see the snow sparkling on Mt. Assiniboine.

After a little bite we turned our attention to the mountain, which was now practically in front of our noses. From here it appeared like a broad face, cut in two by a very prominent gully, which ended in a little notch, slightly to the left of the summit. A route through this gully, as well as over the face, didn't seem particularly inviting. We thought the left-hand ridge was the likeliest route, so we set off to gain it. From the highest point of the saddle we cut across the lower portion of the face to the left. Here we entered another big gully, which narrowed down to a steep and interesting chimney. At the base of this chimney we put the rope on and tackled this monster. A little bit of ice and one large chockstone near the top, provided excellent fun. This brought us onto the ridge, right at the bottom of the first buttress. Up the face of it seemed out of the question. After exploring the possibilities we decided on the left side, which is practically overhanging and exposed. However with Ken on the other end of the rope I felt pretty confident and began the tricky manoeuvre. And tricky it was. The rock was well broken up, perhaps too well broken up. One had to balance practically on every hold, in order not to disturb "its" balance. I climbed the whole 200 ft. out and landed with great relief on top of the first buttress. From here on it was quite a bit easier, however it was by no means dull. We kept to the right of the ridge and traversed across the face to the top of the second buttress. The rock was quite a bit more solid on this side. But the holds were slanting and it was a long and open road to the bottom. Once on top of this second step we had to cross a little notch on the ridge, where the rock was quite rotten too. But from then on the way to the summit was open. We both thought that it would be a first ascent; but we found a pile of rocks, which might have easily been a cairn at one time. We couldn't find any record, so we rebuilt the cairn to a fair and unmistakable size, but didn't leave any record either.

It was by then 11 a.m. and we had taken 5 hours from the highway to the top. Stretching out we chewed on our lunch and were really quite pleased with ourselves. The weather was just marvelous and we had a tremendous panorama all around us.

Soon it was time to take off again. We chose the same route for the descent and got down without any trouble. On top of the first buttress we climbed part way down the front face. Then I drove a piton and we rappelled over the smooth part. Soon we were running across the meadow again, this time lightheartedly and full of happiness, for we had a most enjoyable day and ours were the memories of a nice and sporty climb.

ASCENT OF OUTPOST VIA WEST BASTION

BY HANS WEBER

Flanked by the Fraser Glacier to the west and the Eremite Glacier to the east, Outpost Mt. is an impressive massif which dominates the view towards Chrome Lake and the Astoria River.

At its foot, just underneath the hanging glacier of its north face and hard on the north shore of Outpost Lake, lies the Tonquin Hut. Above the glacier is the dark, steep north wall, broken only by a snow couloir connecting the glacier and the ridge between Outpost Peak and the peak of the west bastion.

Outpost Mountain has been climbed by four different routes: from the north through the snow couloir (C. G. Wates, 1930); from the west via the hanging glacier which merges with Fraser Glacier; from the south over the south ridge of Memorial Peak; and from the Eremite Glacier to the east. The first route is no longer feasible today. The retreat of the ice has left a thirty ft. gap between the glacier and the snow in the couloir. The rocks to the right and to the left are too smooth to be climbed without artificial means. For the same reason the west route has become much more difficult. There is now a large gap of steep, ice-worn rock between the Fraser Glacier and the hanging glacier. The east route is just a steep scree slope of little attraction for the ascent. This leaves just one interesting, moderately difficult route, that from the south, reason enough to try to find a route from the north which would also have the advantage of being very close to the hut.

The north ridge to the west bastion, a steep, aggressive and interesting looking arete caught our attention. An afternoon reconnaissance trip got us only half way up to the first gendarme, but established the feasibility of the route. On the last day of their vacation, Monday, September 12, Hans Weber, Ruth and Ernest Reinhold had a go at it.

The day dawned clear when Ernest got up to cook the porridge. But by 4.30 the sky was clouded, the tops of Bennington, Parapet, and Paragon had disappeared in the fog, and at 5.30 a light rain was falling. Back to bed until, at 7.30, the sky had cleared again. At 8 o'clock, much elated, we left the cabin. Forty minutes later we were at the foot of the glacier at the north side of Outpost and with crampons walked up the glacier on a tongue of frozen snow to the left of the icefall. A steep rock band of 30 ft. was the only obstacle, and it was overcome without difficulty. At 10 o'clock we stood on the flat part of the glacier. Traversing the plateau from east to west we headed towards a scree band that led directly to the foot of the steep section of the objective ridge. The arete consists of three parts, the first rises to a gendarme about 400 ft. above the scree band; the second, about 450 ft. high, leads to a second gendarme, and the last one of about 100 ft. merges into the top of the west bastion.

By the time we had reached the ridge the weather had changed for the worse, a chilly wind was blowing, and it began to snow lightly. A pleasant climb on good rock, however, was our compensation for the weatherman's worst, and spirits remained high. We kept fairly well to the ridge, sometimes going slightly to the left, sometimes catching a glimpse of the west face, a perpendicular drop of several hundred feet. A short overhang with almost nothing to hold on was the only serious obstacle, and it was overcome by using a piton. At 1 p.m. we reached the first gendarme, eager to have a close-up look at the second and steepest part of our ridge. Alas, one hundred feet above us was a vast overhang which could not be bypassed and which seemed to require pitons as well as more time than was left after our late start. We decided that this was a task for a summer day with gentle breezes, rather than for a short September day with half a gale and snow flurries.

By the time we had had an extended lunch and had built a cairn it was 2.30. We started down over a grass band which led east from the gendarme to the foot of the snow couloir. We had hardly gone 100 feet when we noticed an open chimney leading straight up from the grass band to the top of the bastion. It did not look too difficult. Pleased at not yet having to admit defeat we started to climb up the chimney. The rock was rotten, full of wet grass, moss, lichen, and dirt, and

we had to be extremely careful. The left hand side of the chimney was found to consist of better rock, and at a branch we kept to the left. As we gained altitude the rock became cleaner and more solid, and at 4 p.m. we stood on top of the bastion, happy to have conquered the peak in spite of difficulties, cold weather, and wet rock. From now on we could dispose of the rope, and over an easy, broad scree ridge we reached the summit of Outpost Mt. in 40 minutes. The contents of the can in the cairn showed that nine parties had climbed the top since its first ascent in 1930.

At 5.30 we descended towards the Eremite Glacier, glissading down snowfields most of the way. After having reached the glacier we climbed down the rocks on the left of the icefall. A rappel over the last steep rock wall brought us right down into the bottom of the Eremite Valley, just when it started to get dark.

AUGUST CLIMBS IN GLACIER PARK

BY ROBERT WEST

Following the ACC camp, unusually good weather continued in the Selkirks throughout most of August. Glacier was visited by organized climbing parties from the Stanford University Mountaineering Club, the University of Wisconsin Mountaineers, and the Seattle Mountaineers (campcrafters section). A number of ascents were made, of which at least two are notable. Early in August, John Harlin and Rick Tidrick of the Stanford Club, together with W. Stark Jr. and L. F. Maranville of the Seattle group, starting from Glacier, traversed Mts. Avalanche and Eagle and ascended Mt. Uto, returning to Glacier the same day. The entire trip required seventeen hours. As far as is known these climbers are the first to ascend all three of these peaks in a single day. On September 7, Oscar Strickholm and Arkel Erb of the Wisconsin Mountaineers traversed Mt. Rogers, all of the Swiss and Truda Peaks, and Mt. Hermit, in twelve hours round trip from the Hermit hut. This traverse has apparently been completed only once or twice previously.

RECORD OF JEAN HABEL

In 1901, Jean Habel, of Berlin, made an expedition from Lake Louise to Fortress Lake, visiting the sources of Chaba and Athabaska rivers and carrying out several minor ascents (App.x,34; CAJ. xxx,58). He left a record on a peak, August I, 1901, which he called CHABA (one mi. N. of the present Chaba Peak), which was found in 1936 by the party of Thorington, North and Cromwell (AAJ. iii 50, 219). Habel also ascended the creek now bearing his name and reached a col between Mt. Woolley and PITON, from which he could look into the Sunwapta valley. This is the col now used enroute to Mt. Alberta from the Sunwapta. Habel built a cairn at this point and left a record, which was found in August, 1955, by R. M. Boehme, of the A.M.C. The barely-perceptible cairn was located above the col, at a viewpoint about ten minutes walk toward Mt. Woolley, and contained a rubber capsule with a pencilled note: Jean Habel, August 10, 1901.

J. M. T.

FORMATION OF THE MOUNTAIN RESCUE GROUP

BY PADDY SHERMAN

In October, 1956, members of Vancouver Section and the B.C. Mountaineering Club combined to bring about the discovery and rescue of Alex Patterson, one of three hikers lost on Mt. Seymour for almost a week.

Appalling search weather had frustrated the small groups who were out every day, and Patterson was extremely lucky to be found alive and in comparatively good shape after more than six days without food. Just as darkness came in, climbers managed to haul him from under an overhang into a spot where the RCAF helicopter could winch him up and land him right in the grounds of a hospital.

One of his companions was not so lucky. Though a third did make it out to safety under his own steam, one man was found dead where he was overcome by exposure and exhaustion trying to follow a creek down.

This was the first major mountain rescue members had taken part in for some years, and it was found that the organization of the old Mountain Emergency Squad had developed some serious weaknesses. As a result, a completely new set-up was drafted out between the two clubs, and is now working out well.

A six-man executive, consisting of three members from each club, has been set up under the chairmanship of Jim Addie, past-president of the B.C.M.C. A.C.C. members are Ian Kay, Fred Parkes, and Paddy Sherman. Other B.C.M.C. representatives are Roy Mason and Clare Willis.

Rescue responsibilities have been divided, with the First Aid Ski Patrol looking after accidents on the North Shore mountains across Vancouver's harbor, favorite haunt for most hikers and skiers. The re-named Mountain Rescue Group is on call for any other rescue work throughout the province for which the skills of trained alpinists or rock-climbers are needed. It does not make low-level or timber searches. The MRG works on call-out from the RCAF Rescue Co-ordination Centre or the RCMP.

The call-out system is so arranged that a first party can be on the way to the airport within an hour. RCAF almost invariably coordinates rescue work, and provides air transportation for the climbers. They are prepared to provide instant follow-up by parachuting supplies, or bringing them in by helicopter.

No sooner was the new organization set up in skeleton form than a Trans-Canada Airlines plane crashed less than 100 miles from Vancouver with 62 persons aboard. Weather again was foul, but a number of parties worked out of the Skagit Valley, slogging through waist-deep snow in a vain effort to find a trace.

Elaborate plans were being made for summer searches in conjunction with the RCAF and TCA when fate settled the problem her own way. Three members of Vancouver section set out to climb Mt. Slesse, 8,200 feet, just north of the border. They set out in thick cloud on May 12, and took the wrong gully. Near the 7,500-foot level they found a piece of metal bearing a TCA serial number. The party consisted of Miss Elfrida Pigou, Geoff Walker, and Dave Cathcart, recently arrived from Ireland.

Elfrida passed the wreckage to me next morning, and within an hour it was identified, and I went to the spot in a helicopter chartered by TCA. Early that afternoon pilot Evan Bullock spotted the main part of the wreck, lodged precariously at the 7,600 foot level on the east face. It was on a sharp peak immediately south of the South Peak of Slesse.

Next day, Tuesday, May 14, four members of MRG, Elfrida, Fips Broda, Jack Bussell and I, were landed by helicopter at the 5,700 foot level on the west side. We retraced Elfrida's route, crossing the crest and traversing into the east face. The face was badly shattered and loose, and it had been made worse by the tremendous impact of the plane. Everything was loose and dangerous, and there was a vertical drop of almost 2,500 feet to the snow below. One section of wreckage was held to the mountain by control cables which had looped round a rock belay spike.

We sent down a number of rocks inadvertently, and there were two narrow escapes. After we climbed back to more reliable going, we discussed the situation very fully. All agreed that if an injured person lay there, we would unhesitatingly attempt to get him out. But the objective dangers were so great that we did not think it justifiable to risk lives to retrieve fragmentary remains. We later reported this to the coroner.

Meanwhile, another party of MRG was working at the foot of the cliffs, after landing at the 5,300-foot level. It consisted of Roy Mason, Ian Kay, Russell Yard and Joseph Hutton, all of whom took part in the Mt. Seymour rescue.

They probed crevasses carefully, and reported that from 15 to 30 feet down in the walls fragments of wreckage of all kinds could be seen. But the whole slope was unstable, and entry into the crevasses for digging operations was unthinkable. In fact when two officials were inspecting the area next day, a 30-foot snow wall collapsed near them, causing considerable panic.

As a result of our joint recommendations and those of TCA and Department of Transport officials we took to the crevasse region later, it was decided to suspend operations until July or so, when melting snow would have exposed most of the debris at the foot of the cliffs. The entire area was sealed off, and RCMP guards were posted at the approaches.

About 40 volunteers have been signed up by MRG, and they are carefully listed so that persons who lose pay when they are on searches will be called only when there is immediate and urgent danger of loss of life.

The RCAF has said it is a little perturbed about possible injury to volunteers when they are working with the RCAF, and negotiations have begun with the object of taking MRG members into some branch of non-active RCAF reserve. This would put them on duty when participating in a search, and would make the RCAF responsible for hospitalization and insurance costs.

NEW ASCENTS AND VARIOUS EXPEDITIONS

ROCKY MOUNTAINS, MAIN RANGE

Kananaskis Group

GROTTO MOUNTAIN, (8880 feet). New route via N. ridge, May 26, 1956. Jean Hewitt, Margo Falk, Bill Lemmon, Dick Lofthouse.

MT. BROCK, (9445 feet). New route via S. ridge, June 3rd, 1956. Jean Hewitt, Bill Lemon, Dick Lofthouse.

MT. BURNEY, (9625 feet). First ascent, August 26th, 1956. Dick Lofthouse.

MT. INFLEXIBLE, (9800 feet). First ascent, Sept. 15th, 1956. Brian Greenwood, Dick Lofthouse.

COAST RANGE

Bella Coola area—In 1954:

“MONSTER MOUNTAIN”. First ascent. Dick Long, Bob Skinner, Jim Wilson, Bob Swift.

“HAPPY MEADOW DOME”. First ascent. (Same party).

(Note: These peaks are south of Defiance Mt, 8012 feet.)

MATTERHORN PEAK, (9019 feet). First ascent. Dick Long, Bob Skinner, Jim Wilson.

“MAD DOG MT.” First ascent. (Same party).

“THE HORN”. First ascent. (Whole party as above).

“ORBIT SPIRE”. S. Peak, first ascent. (Same party).

In 1955:

“MAD DOG MT.” New route. Jim Wilson, George Whitmore.

“ORBIT SPIRE”. Main summit, first ascent. Same party.

In 1956:

SNOWSIDE MOUNTAIN. First ascent. Jim Wilson, John Dorsey, Dave Rynin, George Whitmore.

N.B.: No dates or estimated heights are given in the article under review. Map sheet 93 D Bella Coola, scale 1/250,000 gives the approximate contour lines.

HAZELTON AREA

The Howson Range

“DELTA PEAK”, (ca 8000 feet). First ascent, August 10th, 1956. Robert Schluter, Dr. John Strong, Rex Gibson.

—E.R.G.

SCIENTIFIC SECTION

FIELD OBSERVATION OF PATTERNED GROUND

By J. ROSS MACKAY

Nearly geometric patterns may often be observed on the surface of the ground in alpine areas above treeline and in the arctic tundra and desert. Some of the patterns resemble the familiar mud cracks on the bottom of a dried-out pond; others are like a miniature Stonehenge with stones grouped into circles. Still others impart a checkerboard pattern to the terrain even when seen from a high flying airplane. These features are collectively known as patterned ground, "... a group term for the more or less symmetrical forms, such as circles, polygons, nets, steps, and stripes that are characteristic of, but not necessarily confined to, mantle (i.e. soil) subject to intensive frost action". (Washburn, 1956, p 824). It should be emphasized, however, that patterned ground is not restricted to cold climates, because it has been recognized even in tropical areas, such as semi-arid parts of Australia and Christmas Island in the Pacific Ocean. In addition, "fossil" patterned ground occurs as a relic of former more severe climatic conditions in many temperate regions.

Classification



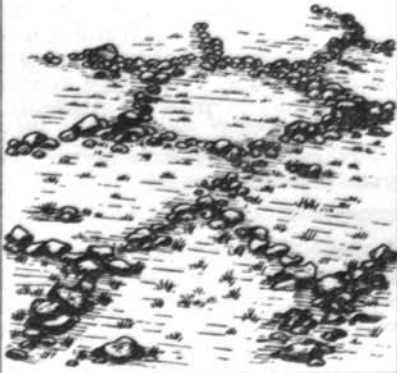
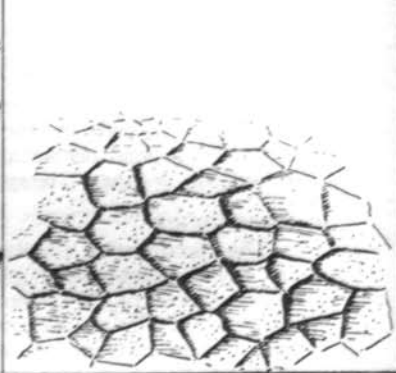
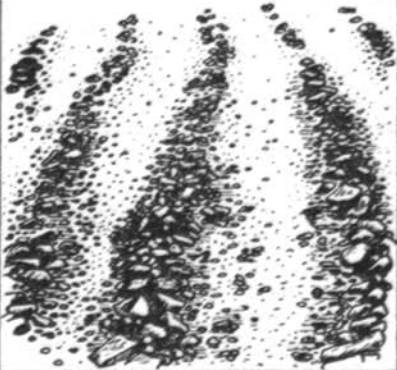
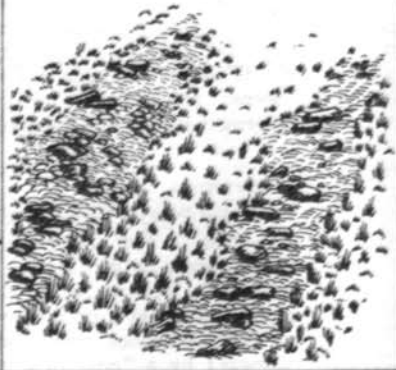
The classification adopted here is a modification of that proposed by A. L. Washburn in 1950 and revised in 1956. The complete classification of Washburn is based upon two elements: (1) pattern, i.e. circles, nets, polygons, steps and stripes; and (2) the presence or absence of sorting, i.e. sorted or nonsorted. In the sorted forms, there is a segregation of the soil into fine and coarse material; for example, stones may form a border around a centre of mud. Each of the five patterns may occur in either sorted or unsorted forms so there are ten basic types in Washburn's classification. In the following discussion, however, "nets" and "steps" are omitted for the sake of brevity, because "nets" are intermediate forms between circles and polygons, and steps are:

Description

Sorted circles form both singly and in groups. They range in size from a few inches in diameter to over ten feet. Most sorted circles have a girdle of stones that surrounds a central core of fine soil. The stone border may "rest" on the surface, like a circular necklace, or it may occupy a depression. A special variety of sorted circles may form in stony areas (eg. talus or beach shingle) by a "punching up" of fine material from below. Isolated sorted circles may be nearly circular, but when they occur in groups so as to impinge against one another, their outlines tend to become polygonal. In areas of flat lying sedimentary rocks, frost heaving along the joints may also produce a type of sorted circle.

Sorted polygons occur in groups rather than singly. They develop either by the meshing of sorted circles or by concentration of stones along polygonal contraction cracks. The packing of stones may be so tight around the borders that any slab-shaped rocks that are present tend to be forced up edgewise. Often the largest boulders concentrate at the junctions of polygon cracks. The surfaces of the sorted circles and polygons are usually flat.

On slopes ranging from about 3° to 5°, sorted circles and sorted polygons gradually lose their symmetry and with increasing slope they become "downslope stripes" trending down the steepest gradient at right angles to the contour. The stone stripes are usually much narrower than

BORDER SHAPE	SORTED WITH A BORDER OF STONES	NON SORTED WITHOUT A BORDER OF STONES BUT OFTEN A BORDER OF VEGETATION
CIRCLES		
POLYGONS		
STRIPES		

Drawn by J. K. Fraser

the intervening stripes of finer material. The stones may be arranged haphazardly in the stripes or, like stones in sorted polygons, may stand edgewise, especially if they are slab-shaped. If sorted stripes occur on relatively steep slopes, such as 25° or more, erosion by running water may give the slope a ribbed effect. In areas of marked soil creep, especially where the ground is kept moist by seepage or the melting of a snowbank upslope, sorted stripes are common.

Nonsorted circles are of the same size as sorted circles. They develop both singly and in groups with vegetation commonly forming their margins. The centers of nonsorted circles may be flat or domed. Many nonsorted circles appear to have ruptured the surface, whether vegetated or bare, by injection from below. The patches of bare ground may look like mud that has boiled up from below, and for this reason, some sorted circles have been called frost boils.

Nonsorted polygons develop in groups. The fissures or cracks that outline the polygons have usually been formed by contraction at low temperatures or by drying. A particular type of nonsorted polygon that is very widely distributed in arctic—and to a lesser extent, subarctic—areas is the ice-wedge polygon. These large polygons, which are 50 to 100 feet in diameter, cover tens of thousands of square miles in Canada and are without doubt the most conspicuous type of patterned ground that is to be seen. During the cold winter months, shrinkage of the ground opens up vertical cracks in a polygonal pattern, like mud cracks. Ice crystals grow in the openings by sublimation; in addition, water may trickle into the cracks and later freeze. Repeated opening and filling of cracks forms vertical ice-wedges which tend to be flat topped and taper downwards, like the blade of an axe. Ice-wedges grow to a width exceeding 10 feet and penetrate to a depth exceeding 20 feet. The tops of the wedges coincide closely with the permafrost level, which is usually within several feet of the surface. The growth of an ice-wedge may displace material sideways and upwards to form a pair of raised rims. Ice-wedge polygons occur on a great variety of terrain; on hill summits, slopes, and flats. The most symmetrical polygons are on flats of homogeneous material (Mackay, 1953).

Nonsorted stripes have bands of bare soil alternating with vegetation covered ground. The width of one pair ranges from about 2 to 10 feet. The bare stripes may form ribs and the vegetated stripes depressions, or vice versa. On close examination, some vegetated stripes may be found to be sorted stone stripes overgrown with vegetation. Nonsorted stripes are found on slopes ranging from about 3° to at least 20° .

Although much progress has been made in the study of patterned ground—the technical literature alone exceeds several hundred articles—a great deal remains unknown. Washburn (1956) discusses no fewer than nineteen different hypotheses that have been advanced to explain the processes involved in the formation of patterned ground. Most writers are agreed that patterned ground is formed in many different ways. To generalise, however, sorted circles seem to result from localised heaving accompanied by sorting of coarse and fine material. Most nonsorted circles are probably formed by a rupturing of the surface—whether of bare soil or vegetation—by injection from below. Polygonal patterns usually result from either the close grouping of circles or from cracks induced by drying or contraction at low temperatures. Any pronounced downslope movement tends to form striped ground.

In some alpine and arctic areas, the growth of ice segregations in the ground has produced some topographic forms that have not been classified as patterned ground, but yet are remarkably regular in shape. There are, for example, elliptical ice-cored mounds, from 5 to 10 feet high and 10 to 30 feet long that are distributed in the arctic (Sharp, 1942). Of more restricted distribution, but of greater interest, are the ice-cored volcano-like hills or pingos (Porsild, 1938) that may grow in

the centres of lakes or partially drained lakes in areas of fine grained materials in the arctic. Ice-wedge polygons may form on top of pingos. It is quite possible that remnants of fossil pingos may be present in more southern latitudes, but none have been reported.

Field Observations

In the field observation of patterned ground, both modern and fossil forms may be encountered. Fossil forms of patterned ground have been widely observed in Canada and the northern portion of the United States within or peripheral to areas covered by Pleistocene glaciers. The fossil forms most easily recognised on the ground are the sorted circles and polygons, especially those with boulders to make them conspicuous. Other fossil forms have been exposed in excavations, such as roadcuts and gravel pits, where the casts of ice-wedges and contorted ground may be recognised. Both fossil and modern patterned ground may exist side by side; for example, Antevs (1932) points out how fossil and active form[^] co-exist at Mt. Washington, New Hampshire. The field observation of patterned ground is not limited, therefore, to alpine, arctic, and subarctic areas. In addition, material resting on top of alpine glaciers may also form patterned ground.

The field investigation of patterned ground can be conducted by the interested observer in three main ways: (1) the surface form of the patterned ground can be thoroughly described; (2) excavations can be made into the patterned ground; (3) by revisiting a site, studies can be made on the origin and rate of growth of patterned ground. Observers with special competence in such fields as geology, plant ecology, and soil mechanics have, of course, their own approaches to the problem.

A thorough description of the surface form of patterned ground should be accompanied, where feasible, by precise measurements, photographs, and field sketches. Data may be gathered on the shape, dimension, and grouping of the patterned ground; on whether the surface is flat, concave, or convex; on the nature of the material and the type of vegetation; on the degree of weathering of the pebbles in the centre as compared to those on the side; on the orientation of stones on borders; on the exposure, e.g. north slope; on the extent of snow cover; on whether the ground is under water for part of the year; and so forth.

If excavations are made, much additional information can be obtained. Vertical and horizontal variations in material, moisture content, and orientation of pebbles might be noted. If ground ice segregations are encountered, visual observation can be made on the occurrence of the ice: whether it is in layers, lenses, veinlets or coatings; on whether the ice is clear, granular, or candled; on whether the ice is colorless or colored; whether it has bubbles or inclusions of silt; and so forth. Particular attention might be given to permafrost (Mathews, 1955) and its relation to the patterned ground.

If the area can be revisited at a later date, experiments could be started in order to determine the rate and type of growth of some kinds of patterned ground. For example, Cailleux (1950) conducted a series of tests in the French Basses-Alpes at an altitude of about 9,000 feet in the years 1947 and 1949. He destroyed the pattern of some small polygons 8 inches across in 1947 and by 1949 the pattern had become completely re-established; he placed marked stones in polygons and noted a radical outward movement of about one half of an inch in two years; and he studied the movement of rock glaciers. On Cornwallis Island, in the Canadian Arctic, some sorted circles, after being destroyed at the surface, have re-established themselves within several years. Thus some types of patterned ground form rapidly enough so that changes can be observed within a period of several years. Under some conditions it is possible to determine the age of patterned ground

by indirect means; for example, patterned ground may become established in an area uncovered by a dated retreat of glacier ice. Dyes (e.g. fluoresceine) can be used to trace the ground water circulation. Interesting observations can be made on phenomena associated with freezing and thawing; for example, needle ice may develop at the surface of moist, clayey soils, when the air temperature is below freezing but the moist ground just below the surface is above freezing (Taber, 1929, p. 443). Needle ice has been observed to lift stones the size of a man's fist (Rozanski 1943). To what extent might such repeated liftings help to form sorted ground? Many other questions concerning patterned ground remain to be answered.

REFERENCES

- Antevs, E., 1932, Alpine Zone of Mt. Washington Range, Auburn, Maine, 118 pp. Cailleux, A., 1950. "Rate of Migration of Surface Debris in Solifluction Processes," *Journ. Glaciology*, Vol. 1, p. 394.
- Mackay, J. R., 1953, "Fissures and Mud Circles on Cornwallis Is., N.W.T.," *Canadian Geographer*, No. 3, pp. 31-37.
- Mathews, W. H., 1955, "Permafrost and Its Occurrence in the Southern Coast Mountains of British Columbia," *Canadian Alpine Journal*, Vol. 38, pp. 94-98.
- Porsild, A. E., 1938, "Earth Mounds in Unglaciated Arctic Northwestern America," *Geog. Rev.*, Vol. 28, pp. 46-58.
- Rozanski, G., 1943, "Stone-Centered Polygons," *Journ. Geology*, Vol. 51, pp. 330-341.
- Sharp, R. P., 1942, "Ground-Ice Mounds in Tundra," *Geog. Rev.*, Vol. 32, pp. 417-423.
- Taber, S., 1929, "Frost Heaving," *Journ. Ceol*, Vol. 37, pp. 428-461. Washburn, A. L., 1950, "Patterned Ground," *Revue Canadienne Geographic*, Vol. 4, pp. 5-59.
- Washburn, A. L., 1956, "Classification of Patterned Ground and Review of Suggested Origins," *Bull. Geol. Soc. Am.*, Vol. 67, pp. 823-866.

GLACIOLOGICAL RESEARCH IN WESTERN CANADA IN 1956

Glaciological studies in western Canada were revived in 1956, with activity concentrated on Salmon, Chickamin, and Leduc Glaciers in the northern Coast Mountains of British Columbia immediately east of the Alaska boundary. The initial work was conducted by Granduc Mines Ltd., interested in providing access to its large ice-bound copper deposit by means of a low-level tunnel passing- beneath the glaciers. To determine the depth of ice along two alternative tunnel lines the company undertook to drill a series of holes by means of an electrically heated element lowered by cable from the ice surface. After some preliminary studies involving design of equipment, the gear, together with an insulated plywood cabin and fuel for generators was dragged by tractor to a site on Salmon Glacier.

Here work was begun in February and continued till June, by which time 5 holes had been drilled until all penetration by the heated element ceased and the rock floor of the glacier was presumed to be reached. Completed holes ranged in depth from 1625 to 2365 feet, each one of them far deeper than any hole previously drilled in a glacier (Table 1).

Table 1. Deep Drill Holes In Glaciers

Location	Type of drill	Date	Depth reached in drilling in feet	Probable total depth of ice in feet
Jungfrau, Switzerland	Thermal	1948	450	450
Maudheim, Antarctica	Rotary	1949-51	330	620
Taku Gl., Alaska	Rotary	1950	300	900
Malaspina GL, Alaska	Thermal	1951	1000	1950
Saskatchewan Gl., Alta.	Thermal	1952	150	1200
" " "		1953	395	1500
Greenland ice cap	Thermal		200—	
" " "	Rotary	1953	500	10000 ±
" " "	Scoop, 3' diam.		100	
Leduc Gl., B.C.	Rotary	1954	450	450
Salmon Gl., B.C.	Thermal	1956	1050	1700 ±
" " "	"	"	2006	2006
" " "	"	"	1810	1810
" " "	"	"	1625	1625
" " "	"	"	236	2365
" " "	"	"	1725	1725
Leduc Gl., B.C.	Thermal	1956	1200	1200

Following the completion of this work the crew and gear were moved to Leduc Glacier where by the end of summer four additional deep holes were completed.

A second project on Salmon Glacier was undertaken jointly by the University of British Columbia, the National Research Council, and Granduc Mines. This consisted of casing one of the drill holes with pipe to keep it open, then of surveying it in May and again in August to determine the amount of movement not only at the surface of the glacier but at the various depths within it. The position of the top of the pipe was determined on the two occasions by a transit survey from fixed points on the ice-free valley walls overlooking the glacier. The pipe itself was surveyed by means of an inclinometer, an instrument lowered into the pipe which measures the direction and angle of its slope and predetermined depths. From these data the position of the pipe at various levels, relative to the top of the pipe, can be computed. The shift in position of the pipe in the interval between the two surveys is a measure of the velocity at each level within the ice surrounding the pipe (Table 2).

Table II. Change In Velocity With Depth On A Vertical Line, Salmon Glacier

Depth	Movement in 95 days	Velocity, feet per year
0'	69.5'	268
875'	65'	250
1000'	60'	230
1300'	40"	192
1560'	31'	119
Bottom, 1605'	25'?	92?

The results of the two surveys indicate that here, as in a small glacier on Jungfrau, Switzerland, velocity diminished from a maximum at the surface to a smaller, but perhaps not negligible amount, on the bottom.

A third project in this same area was undertaken by a group of geophysicists from the University of Toronto, working with financial support from the National Research Council and the Defence Research Board, and with assistance in transport from Granduc Mines. The activity of the 12 man party was concentrated on seismic studies to measure the speed of shock waves in glacial ice and to determine the depth of the glacier at several hundred points on the Salmon, Chickamin and Leduc Glaciers. Their observations indicate that Salmon Glacier is generally from 2000 to 2400 feet thick, which is about half its width. Gravity studies, as an alternative means of establishing the depth of ice, were also undertaken, as was topographic surveying, in part to locate seismic and gravity stations, and in part to relate the form of the glacier surface to the shape of its floor. Additional observations were made on rate of movement on the glacier surface and samples of ice were collected at various depths down to 80 feet for analyses of tritium (a hydrogen isotope) content.

One project was initiated by members of the Alpine Club of Canada at the Columbia Icefields ski camp in April, in investigating the amount of water and of sediment leaving the lake at the terminus of Athabaska Glacier under winter conditions. Stream flow proved to be too small to measure (N. Carter, Water Resources Branch, Calgary), and sediment transport was negligible. These observations proved very useful in showing that a survey of this stream during the summer months alone will now suffice to establish the amount of water and of sediment leaving the glacier annually.

BOOK REVIEWS

ABODE OF SNOW

(A HISTORY OF HIMALAYAN EXPLORATION AND MOUNTAINEERING)

by Kenneth Mason; pp xi, 372 including numerous diagrammatic maps, four appendices, and index; 20 pp photos. Rupert Hart-Davis, London, 25 shillings; E. P. Button, New York, \$6.50

ABODE OF SNOW fills an important gap in Himalayan literature and a long felt want of students of that region; geographically, historically and mountaineering-wise. It is a work of major importance. In relatively small compass Mason discusses authoritatively and in detail and correlates ground, background and contemporary mountaineering over the 1500 mile chain—and even epitomizes its climate; this latter is well worth serious study by would-be climbers. The index covers 14 pages and contains over 1100 items among which are the names of fifty well known Sherpas, with their references to mentions in the text. Heights of mountains are quoted in the index as well as the text—a great time-saver and convenience. The book is a thoroughly well organized and authoritative work of reference, as well as being an absorbing and sometimes exciting story of a mountain adventure. For 21 years Professor Mason held the distinguished Chair of Geography at Oxford University. For 25 years before that Lt. Colonel Mason had been a member of the Royal Engineers and the Survey of India. During that period he undertook many surveys and explorations in the high Himalayas besides compiling official route books, and carrying out geographical and historical research. He made many climbs, including the first ascent of the Matterhorn-like KOLAHOI (17,799') and became a member of the Alpine Club in 1914, later serving on its committee and for six years on the joint Mt. Everest Committee of the Alpine Club and Royal Geographical Society. He is a one-time Vice-President of the R.G.S. and holds its coveted medal for pre-eminence in exploration. An original organizer of the Himalayan Club, he was editor of The Himalayan Journal for the first 14 years of publication; and he has met personally many of the most important explorers and mountaineers of four generations. None could write with greater authority; he does not hesitate to criticize or to commend where such is due and his accurate and concise writing is coupled with the knack of making a fine mountain adventure story, covering 300 or more years.

The four appendices are very valuable and well handled. First is a list of the fifty peaks of 25,000 feet and over. Position is also shown geographically and by the system and map sheet in which they fall; ascents or attempted ascents are indicated and height anomalies are discussed in notes. Appendix B however is a scientific article on how heights are derived, and the anomalies that may occur; much of what he says there is also applicable to our own heights here in Canada. C and D respectively list explorations and climbs chronologically (well cross-referenced to the text) starting from Andrade and Marques crossing of the Mana Pass (1624); and the major books in existence arranged roughly to correspond with the chronological arrangement of the text. Journal references are not made here but the major ones are foot-noted in the text itself, which is well documented.

Clarity and convenience of reference are maintained by the arrangement of the book—Parts and Sections instead of conventional chapters. At the same time there is no loss of continuity, for except for the first part, topography, the book is arranged chronologically. Part I describes “The

Mountains and Their Approaches”, Section I being the general description and the explanation of how he logically divides the system into six: Punjab, Karakoram, Kumaun, Nepal, Sikkim and Assam, Nepal being further sub-divided into three. I would have liked a built-in coloured map for this portion but it would have made the book much more costly and no doubt also have held up publication; the diagrammatic maps are in general sufficient. Each of the divisions named above receives more detailed attention in the six following sections, with larger scale maps, and finally the dissertation on weather, a valuable one.

Part II is the early background of history and exploration and includes some of the adventures of the great “pundit explorers” of the Survey of India, and the search for the sources of the three great rivers that rise so close together in Tibet—the Indus flowing to the Arabian Sea, the Brahmaputra (Tsangpo) flowing to the Bay of Bengal and the Sutlej which flows through the Punjab to join the Indus far south of the mountains. Part III brings the reader up to 1918, during which period the transition was beginning to occur from pure exploration and surveys, to mountaineering for its own sake.

The remainder of the book covers, by periods, the major mountaineering from 1918 to 1954 when it was completed. Parts are arranged by periods, sections within the parts by locality; for instance, there are a number of individual sections dealing with Everest, K2 and Kangchenjunga; there are some dealing with groups, like Annapurna and Dhaulagiri; Kamet and Nanda Devi; and some dealing more generally with localities like Karakoram and so on. The excellent Table of Contents and Index makes reference very easy.

Mason’s work is in no sense a guide book nor does it list costs, methods of transport and such. But it is a “must” for any would-be mountaineer in the Himalayas to gain an authoritative general picture, and indeed for any student of the great range. And from its appendices and notes, books to read on details of equipment etc can be gleaned. Costs and so on are ephemeral; the material in this book is not.

E. O. W.

ON CLIMBING

by Dr. Charles Evans (The Countryman Press, Woodstock, Vermont). Price \$5.00.

In this short book of less than 200 pages is condensed a vast amount of the lore and artistry that goes to make the complete mountaineer. Charles Evans is the very embodiment of all the qualities that constitute a born leader and his name will go down in history for his splendid climb to the South summit of Everest in 1953 as well as for his outstanding leadership of the successful expedition to Kangchenjunga two years later.

The author ranges over a wide field of mountain experience from the classic climbs in North Wales and Scotland to the Alps and finally to the Himalaya. Even the chapters devoted to “text book” instruction are replete with incidents from the author’s own experience which are directly related to the points being discussed. The technique of climbing is in a constant state of evolution and Dr. Evans’ book brings things right up to date. His drawings are well placed in the text for ready reference and are supplemented by a short index—an item all too often omitted from a book of this type.

The full-page black and white illustrations are very good indeed and it is a pity that the beautiful colour picture (on Scafell perhaps?) which adorns the dust cover could not have found a permanent place in the book itself.

In view of the fact that the chapters on snow and ice technique are very detailed and are

written for the beginner, one or two significant omissions should be noted. No direct mention is made of the need for cutting handholds in ice when cutting one-handed up or down steep ice slopes (ref. figs. 55-60)—a useful wrinkle that does not always occur to the novice unless it has been demonstrated. There is, however, a passing reference to this practice on page 169 where the author describes how they tackled a difficult bergschrund.

Then again in the description of crevasse rescue procedure, illustrated in figs. 82 and 84, no iceaxe is shown laid under the rope at the edge of the crevasse to prevent the rope cutting back into the snow. This is an essential part of the rescue manoeuvre, for without it, it is well-nigh impossible to get the rope to run smoothly while the victim in the crevasse is being hauled out.

Regarding the use of hickory for ice axe shafts (see page 76), the real reason for not using it in Europe is that it is a North American wood. No one in Canada or the U.S.A. would think of using any other wood for ordinary axe helms and the ice axes supplied to the 10th Mountain Division U.S. were all fitted with hickory shafts, and very durable they are.

Dr. Evans is to be commended for his forthright remarks on page 78 condemning the use of slings on the ice axe. The writer heartily concurs and so do most if not all Swiss Guides.

The excellent chapter on Mountain Rescue, written as it is by a doctor for laymen, should be read and re-read. One can never tell when adequate first aid may be instrumental in saving a life or aiding recovery from serious injury. Another very valuable chapter, crammed with good hints and “know-how”, is that on Mountain Camps.

Altogether a very fine book and one that should be in every mountaineer's library, be he expert or tyro. —E.R.G.

GIVE ME THE HILLS

by Miriam Underhill (Methuen & Co. Ltd., London). Price 25 shillings.

This is a truly delightful book published in 1956 and will make good reading even for non-climbers. In these days when big expeditions to the Andes and the Himalaya are becoming so numerous and are written up in book form afterwards as well as being covered in the standard mountaineering journals, it is a relief to turn to an intimate story such as this one with its wealth of amusing anecdotes and its clever characterizations of guides, porters, hotel keepers and others.

Miriam O'Brien, as she then was, began her climbing in the Alps and the Dolomites with first class professional guides and learned sound technique from them. She then turned her energies (and what energies they were!) to guideless and “manless climbing” and in the latter character she, with several other of the leading lady climbers of the day, made some notable “firsts” including the Matterhorn and the once redoubtable Grepon, thus fulfilling Mummery's prophecy anent all difficult peaks eventually becoming “an easy day for a lady”.

The book also contains an excellent chapter on ski-ing with special reference to ski mountaineering and it is refreshing to read that the author is a firm believer in the joys of skiing on unpacked and untracked slopes.

The Underhills are to be congratulated on passing on their love for the high hills to their two sons—a happy consummation which is by no means always the case where the young are introduced to climbing too early or too suddenly.

The black and white photos illustrate the text extremely well, but the colour plates show too many purple and blue tones. Even the very fine colour plate of the Matterhorn opposite page 164 is somewhat spoilt by this defect.

—E.R.G.

CLUB PROCEEDINGS

SKI CAMP, EASTER, 1957

BY AUBIN FAIRLEY

The area chosen for the annual ski camp was the Columbia Icefields. Thirty members were in attendance with Rex Gibson as commandant, and representation from Victoria, Vancouver, Kamloops, Edmonton, Calgary, Seattle and as far east as Toronto. School teachers, students, housewives, medics, nurses, engineers, newspapermen, all combined to form a happy group with two common interests, skiing and food.

Rex Gibson, Ted Lee (cook), and Adolf Bitterlich formed the advance party and established headquarters in the garage building just north of the Icefields Chalet on the Banff-Jasper highway. Two large cookstoves set up in the "office" of the garage gave Ted full scope for his talents and the large view windows gave him a panorama of Athabasca, the glacier, and who was likely to be late for dinner. The large room to the east was our lounge and dining room, the numerous staff rooms upstairs and on the main floor, and the two adjacent cabins housed everyone in the party without crowding.

The road south from Jasper to the icefields had been ploughed, so transportation was relatively simple. One carload from Calgary arrived Saturday, March 31 in the forenoon, the bulk of the party, arriving by bus just after lunch. The road was in good condition; ice on some of the switchbacks below Tangle Ridge was the only difficulty encountered. With branches over the ice, the men walking and the women riding in the lightened bus, the top of the grade was made. The sky, overcast on the drive south, had cleared, and there confronting us were Athabasca and Andromeda with the glacier sweeping down at their feet. Drifting snow on the exposed area just north of the garage prevented the bus from, going farther, so packs were shouldered and the last half mile done on skis, in proper ski camp style.

Phyl (Munday) and Rex allotted us our rooms, and our jobs, and we settled quickly into the routine of camp. During the afternoon, while most of the party tried out their ski legs on the snout of the Athabasca Glacier, a number of interested members set to with snow shovels and ice chisels to help Mr. Nick Carter of the Federal Government Water Resources Branch, dig down through ten feet of wind-compacted snow to the Sunwapta River. The Water Resources Branch wishes to obtain winter stream flow readings on the Sunwapta at its source. The club, on request, had gladly agreed to take morning and evening readings for the duration of camp, and Mr Carter had come in to set up gauging apparatus. The digging turned out to be almost a daily job as each night the well would fill in with another ten feet of snow.

Easter Sunday, a beautiful day, saw one party off skiing on the slopes of Athabasca, and another to Wilcox Ridge. A fresh fall of powder on a solid base made for ideal conditions and some glorious runs were enjoyed. Camera shutters clicked busily all day.

Monday, April 2, was spent in a recce of the three steps of the glacier, with an eye to the future climbing of Columbia or the Twins, should the weather permit. Some of the party could get no farther than the tongue of the glacier—the skiing was so perfect and the snow flattering to their turns.

Tuesday was a cold overcast day, with strong winds. Three parties went out; one small group made an ascent of Wilcox Peak, 9436 ft., doing the final ridge on foot; one party went north



Tom, iced up.



It was cold on Snow Dome.



Fiona awarding Tom the medal.



The Red Chorus.

Drawings by John Fairley



Mountain rescue technique with Fiona as victim,
Russ rescuing.

to the Stuttfield basin; and the third party six miles south to Parker Ridge. It is interesting to note that Stuttfield basin area, comparatively isolated in summer because of the difficulty of crossing the Sunwapta River, is easily accessible in winter or spring when there is a good covering of snow and ice. Although Parker Ridge was gained, little could be seen of Mt. Saskatchewan or the Saskatchewan Glacier. Driving snow of blizzard proportions had cut the visibility to a very short distance.

Wednesday was still stormy, so after an interesting talk on avalanches by our president, Rex Gibson, the day was spent in washing, mending, sleeping, and card playing. A few skiers went over to the tongue to master the art of roped skiing. They reported that it was not as simple as the pictures would lead you to believe.

Thursday, the weather having improved slightly, one party made a trip up the Athabasca Glacier, over the col to the Dome Glacier and back down to the Sunwapta. Excellent skiing was had on the Dome Glacier. Others spent the day, with the help of the ranger from Poboktan, practising mountain rescue technique with toboggans. Two types of toboggan were used—one of lightweight aluminum requiring only one strong skier to control it on the hills, the other the standard Canadian type, needing two “stern anchors.”

Weather did not permit an attempt on either Columbia or the Twins, there being a constant bank of snow and cloud pouring off the ice cap for the duration of camp. A few of the party not to be robbed of their overnight camp on the glacier, dug an ice cave large enough to sleep four persons. The compact, light aluminum, Swiss shovels proved ideal for the work. Then fortified with supplies of Ted’s mince pies and hot cocoa, the diggers spent the night in the cave. A comparison of thermometer readings showed that the temperature in the cave was twenty degrees higher than that in the unheated part of the building.

Friday, a beautiful day, saw two main trips out. A party of four ropes succeeded in making the summit of Snow Dome, 11,340 ft., on skis; while another party reached the 9500 ft. level on Athabasca. What appeared to be possible avalanche conditions prevented the Athabasca party from traversing the corridor to the col. The Snow Dome party encountered extremely strong winds with continuous snow blowing off the ice cap. Photographic conditions and visibility were both poor, so not long was spent on the summit. By contrast, those on Athabasca, in the lee of the mountain, had no wind and although the temperature was only 20 degrees F., sat in brilliant sunshine at the 9500 ft. level enjoying a leisurely lunch. The Snow Dome party, when they appeared through the snow cloud on the glacier, with the wind pushing at their backs, looked like so many beetles scurrying for shelter.

Saturday night after a day spent in numerous short jaunts to favourite places, we had the traditional birthday cake, highjinx and singing that completes every ski camp. Early Sunday morning the place was a hive of activity, stoves were dismantled and moved, supplies packed and the camp emptied by 6.30 a.m. This was necessary as all vehicular traffic had to be off the highway before the heat of the day brought the frost from the road.

So ended another and most successful ski camp—good skiing, good weather (to the West Coasters anyway), good companionship and no serious accidents or injuries. It will be a holiday long and happily remembered.

GLACIER CAMP—1956

BY NORA NIELSON

The fiftieth anniversary camp of the Alpine Club of Canada held at Glacier, B.C. was fittingly a meeting place of the past with the present. What a thrill it was to have the climbers of yesterday in our midst. Who will forget agile Mrs. MacIntyre's vivid description of the 1907 camp where the men's and the woman's quarters were separated by a roaring creek and the ladies climbed in skirts; story-filled Mr. Edouard Feuz, the noted Swiss guide who taught the principles and practices of climbing at a number of the camps of by-gone years; or roving Mr. Herb Sampson who entertained all but especially the young ladies with tales of fact and fancy. That we were camped on the site of the famous old Canadian Pacific Railway mountain hotel was apparent all around us. The tents were pitched among the stone blocks that were the walls of the hotel. Pieces of the green-bordered crockery were unearthed as we smoothed the ground in and around our temporary abodes. The long-discarded red bricks were again built into fireplaces. With the announcement that the trans-Canada Highway will probably follow the old railway route from Glacier through Rogers Pass, we expect that the cinder-covered road that marks the railway bed of years ago will be replaced by a modern highway. Tenting facilities will undoubtedly increase and the hills around Sir Donald will echo with the voices of the climbers of tomorrow.

The weather was very kind to us this year, and went out of its way to make up for the moisture-laden days of the Robson Camp, providing two weeks of beautiful sunshine. It is true that the Vancouver contingent which arrived on the first Sunday was welcomed in west coast style—drenched with a passing thunderstorm as they descended from the train! But needless to say they just shook themselves and erected their trusty umbrellas! At Glacier, in contrast to most other recent camps, the drying tents were deserted and the washing was hung on strings draped from tree to tree and waved gaily in the breeze. The tea tent was occupied only at tea time! The knitters basked in the sunshine, the readers reclined under the graceful cedars, and the story-tellers gathered in groups in sun or shade as they chose. Those present at camp will remember the afternoon that Bea de Lacy and Martha von Zuben gave an open air recital on their accordions while Emmie Brooks focused the binoculars on Eric and his party as they came down Sir Donald.

The anniversary lunch served on the middle Sunday of the camp had as its focal point a special table for the Club members of many years' standing. Thanks to our wonderful, resourceful cooks, this table was adorned with a large beautifully decorated cake. The letters "A.C.C." stood vertical on the cake and candles blazed with light, all this provided the photographers with an excellent record shot of the occasion.

The Glacier Camp, situated as it was at about 4000' was noted for its long climbs, most of which necessitated a 4 a.m. or earlier rising. The real peaks were divided into three main groups. The first consisted of Castor, Leda, and Pollux and provided mostly ice and snow climbing. The second group was made up of Sir Donald and his attendant little ones including Terminal, Uto, Eagle, and Avalanche. These were mainly rock climbs with some snow. The last cluster—Rogers, Hermit, Tupper and the Swiss Peaks— was situated at the far end of the valley and these were ascended from the high camp established at the Hermit Hut. In spite of the distance from camp, all the peaks were climbed a number of times and some of them almost daily.

On the rest days and the lazy days, one could have regular breakfast and then wander up to Avalanche Crest, Glacier Crest, or Mt. Abbott and obtain a beautiful view of the neighbouring peaks and valleys. On the hot days, it was wonderful to wander up the Illecillewaet Valley, or along

the Sir Donald trail in the shade of the trees and amid the beautiful Indian paint-brush, yellow and red mimulus, rhythmic green hellibore and tiny white dogwood. These trails and hills were truly a paradise for the painters with their oils and water-colours, the photographers with their black and white and their colour, and the flower searchers with their notebooks and identification manuals.

At the end of a pleasant day, there was always the tea-tent with its gallons of delicious brew ready to welcome the weary climber, the leisurely stroller and the lazy camp loungee alike. How pleasant it was to take one's cup and cookie out into the late afternoon sun and stretch out on the grass.

As we look back on those wonderful days amid the hills under the watchful eye of Sir Donald, we remember with thanks those who looked after our general well-being. Eric and Emmie Brooks, the retiring' camp supervisors; Dave and Margaret Fish, the incoming organisers; Mr. Wilson and Elizabeth Brooke and their office tent; Phyl Munday and her blister parades; Mr. and Mrs. Harrison and their wonderful crew in the cook and dining tents; the amateur guides who led so many of the climbs; the ladies who voluntarily prepared tea and the lunches; and the list could go on! We are happy to have Major Rex Gibson continue in the arduous task of directing the activities of the Club as its president and we welcome new and returning members of the executive who do so much to make the camp and other Club activities such a success.

UPS AND DOWNS (ONE PARTY'S DAY ON SIR DONALD)

BY ELFRIDA PIGOU

Sir Donald was climbed a number of times during camp and any resemblance between the following account and subsequent climbs is most unlikely. It was not a typical climb, but neither is the lovely Selkirk rock, which makes the climb a classic in our country, typical of that found at most camps. Selkirk ice is, no doubt, as delightful as any, but its rock is a joy to the eye, foot and hand of the holder.

We rose at 2.30 a.m., ate an enormous breakfast cooked, I fear, by our leader (a dangerous precedent, but not the first set by him), and left camp about 3.15 a.m. The excellent trail led us past two creeks, where we left it about to leap up a steep hillside on the way to Lookout and Terminal. A rather more overgrown trail led us through a little draw parallel with the second creek, until we emerged into open country, crossing a snowfield from which the creek descended. We thus diverged from the usual route to the northwest arête, which I believe follows the first creek, and found it a pleasant route.

Following the top of a sharp-ridged prominent moraine we then traversed heathery slopes buttressing the west face of the mountain. Crossing some snow slopes, after a short scramble we were on the foot of the ridge just above the col between it and Uto, about 7 o'clock of a lovely morning. Some time was spent here eating, admiring the scenery, changing boots (if we had nails) and roping up.

The party consisted of Eric Brooks, leader, with Woodward Kingman and myself; Dave Bidwell, leader of the second rope, with Alan Bruce-Robertson.

The ridge went up in a series of bounds. This route is so well-known it is unnecessary to describe the ever-varying, almost ever-firm-rock. Of course, the only time the mountain parted with one of my handholds I was trying to grip a narrow rib "a cheval," and like many another

horse this animal was rearing on its hind legs at the time. Fortunately its right ear held.

Occasional bands of snow clung to the left side, but the rock was dry. Eric led the whole way except for a short section. The summit was reached shortly before one o'clock.

Here we basked in glorious sunshine, melted snow and enjoyed the luxury of the fourth consecutive fine day. Two days before I had been appalled at my rashness in gambling on good weather two days ahead, in order to climb by the northwest arête instead of the south face. At last, however, we reluctantly turned our backs on the lovely ridge, even, after a short way, on the opposite ridge, and zig-zagged down the scree-covered slabs of the south face. Eric wanted to establish the "usual route" for the benefit of parties wishing to climb by that. The day before a party led by Hans Gmoser had climbed it by the face, but they had been unable to find the particular chimney which is the key to this route, and after building various cairns, had forced a route down by another way ending in a snow slope at the foot of which they had been obliged to jump an uncomfortably wide bergschrund. In Hans' opinion their route up was not suitable as an easy way up Sir Donald.

How many miles did we cover, descending the wide face, searching for cairns, old and new, and for the chimney that should lead us out of the wilderness? Scattered patches of snow trickled quietly in the hot sun. Here a cairn, there a cairn, everywhere a cairn . . . ? cairn ? . . . Mirages, brazen imitators, illusions most of them. But just enough genuine ones led us downwards eventually to the band of cliffs where the elusive chimney must be. Here a chimney, there a chimney, but not everywhere a chimney, and Certainly not the short chute we sought. The day declined imperceptibly as, some chimneys later, we withdrew from probing yet another wild-looking place, with a casual glance at a notch to our left which could hardly be worth trying. Discussion, however, resulted in our trying "one more." The reward of Robert the Bruce was ours. We descended joyfully, rappelling to save time, though the chimney descended in steps. Somewhat dashed to find the bottom choked with ice, we emerged, collected ourselves, and continued happily down wet slabs, avoiding the unstable-looking snow. We had found what we sought.

Woe is us! Or rather WHOA! The glacier had receded, and often in such places it was difficult to see from above, a way down the rocks, and a way across the bergschrund, which met. We scattered, searching. A short rappel would not do. We were looking also for a way up. A rosy glow suffused the glacier as a call arose from the depths. Dave had found a way down to a small icy block by which we could cross. Flashlights flickered as the last members of the party descended to the ice.

No problems were here in daylight, but in the dark, crevasses loomed large. Dave had lost his hat, it blew off and somehow we could not find it. When we finally stumbled down the tangled hillsides of moraine we missed the trail, and it was decided to wait for daylight. Returning at dawn we met the next party on its way up, and warmly recommended a ridge route, both ways.

A jug of lemonade provided by Emmie Brooks at a conspicuous spot down the trail sustained us to breakfast in camp.

SIR DONALD BY THE WEST FACE

BY JO KATO

From the campsite of the A.C.C. at Glacier, B.C. the most imposing sight is the west face of Sir Donald. It towers up, and shows in profile the two usual routes on the skyline, the left one being the popular N.W. ridge route, and the right hand ridge being the old route utilizing the low chimney.

The west face was first done by Paul McIntyre with the Swiss guide Ernest Feuz on

September 4, 1923, when McIntyre was only eighteen years of age. It was repeated by Mr. Val A. Fynn with Christian Hasler on August 10, 1924.

The summer of 1956 was a most fortunate one for the climber in the Canadian Rockies for the weather held beautifully. Thus conditions were ideal for a climb of the west face, for this requires a dry mountain, free of snow, and these conditions were obtained this year as early as July.

On July 24, in spite of a strained knee, I was led up this route by Dolores La Chapelle. We left the camp without breakfast, in the semi-darkness of the huge Selkirk conifers and trudged slowly along the trail by the usual route which leads toward the Uto-Sir Donald col. After walking the crest of an old moraine, we left the usual track, and branched off to the right, aiming at the base of the west face, at a point directly below the summit. Here, a scanty breakfast was consumed while the light improved.

We wore vibram boots, feeling sneakers were unnecessary, and roped at this point with Dolores leading. The time was 7.50 a.m. The lower half of this face is composed of smooth slabs at a steep angle with no handholds. The climb is one of balanced friction. Dolores led off on a climbing traverse somewhat to the right, at a very fast pace. About half way to the summit a horizontal band of vertical cliffs bars the way. Through binoculars on the previous day, a small chimney could be seen to the right, so Dolores led up to the base of this offset chimney. A longer lead of the rope was here arranged, and with her pack removed, Dolores led confidently up through the cliff-band to the top and belayed me as I came up. A small snack was enjoyed here, while we sat in the sun, and enjoyed the view.

Once this barrier is surmounted the route is easier, for the slabby nature of the rock face decreases. We made a climbing traverse slightly to the left, aiming to stay as close to the centre of the face as possible, until we reached an icy chute at about 70 degrees. Here I took the lead for a mere 150 feet of very steep step-cutting in black ice. Above this patch Dolores again led off, this time straight up, and suddenly we were at the summit cairn straight above us. It was reached at 10.40 a.m. on a brilliant day, with a very blue cloudless sky vaulting over a horizon of peaks. Even Mt. Alberta could be clearly identified with its black sheer cliffs.

A very leisurely and ample lunch was now consumed, and while we waited for four of our friends on two ropes coming up the N.W. ridge, we removed our boots and socks and basked in the bright warm sunshine.

It was very tempting to descend by the same route, but the hot sun on the face had melted some snow, and the face was now wet with running water. So at 12.50 we leisurely descended by the N.W. ridge, deep in shadow, while the other two ropes traversed the mountain and descended to the south. We could see Rex Gibson's party enjoying the climb of the south ridge of Uto, below us.

After a pleasant scramble down the ridge, we were at the Uto-Sir Donald col at 3.40 p.m. It was a strange coincidence that we took exactly two hours and fifty minutes up the west face, and also down the N.W. ridge. Dolores led down picking the route, and seemed to be always looking for difficult places to climb down. Since it was still early and my knee was bothering me, we rested, and ate a snack, then slowly went down the trail.

The west face of Sir Donald is an excellent climb, and is obviously the quickest and shortest way to the summit, but can only be done under dry conditions. It is not difficult and I am sure will be done more often.

A STRAYED MOUNTAINEER RETURNS

BY ROGER NEAVE

The announcement that the 1956 anniversary summer camp was to be held at Glacier, B.C. stirred pent up longing which had been more or less kept under control during the many years since taking up residence on the prairies of Southwestern Ontario. Our eldest son, Dennis, was nearly 16, and it was high time for him to be properly introduced to mountaineering, although he was no stranger to rock climbing, such as can be found in Algonquin Park and other areas of Northern Ontario. What would be a better introduction than to take him to the Glacier camp? The logic of this argument proved convincing, even to the rest of the family! So, on the Saturday before Camp, the writer met in the station at Toronto, a very dishevelled boy scout, who had just spent a week in the bush of Northern Ontario. It seems that it had rained most of the week, but even so, the weight and sogginess of Dennis' pack was rather a surprise, until it transpired that he had passed his fully clothed swimming test the day before! Fortunately, the Trans-Canada Airlines checker at Malton was so interested in the B.C. packboard that he omitted to notice that the scales registered well over 40 pounds.

After an overnight stop in Calgary, we finished the journey to camp by train and truck. The fact that the camp was only 10 minutes by truck from Glacier Station probably created a false impression in the mind of the younger generation as to the ease of getting into A.C.C. camps. Relating to him stories of 20 mile hikes in the rain, over newly made trails, was somewhat unconvincing under the circumstances!

I had heard much about the sound rock, bad weather and beauty of the Glacier area, but had never climbed there before. It lived up to its reputation in everything but the weather. We were blessed with two weeks of such clear skies that the photographers were complaining about the lack of cloud effects! It was a great pleasure to renew old acquaintances and to meet again many of my mountaineering friends, some of whom I had not seen since the Ice River Valley Camp in 1939. To take part again in the fellowship and good company of the climbs and camp fires made me realize all that had been missed over the years when it had not been possible to attend camp.

With the peaks in good condition and the weather perfect, climbing started immediately. A traverse of Uto was followed by a night at the Hermit Hut and the very delightful climb of Mt. Tupper. Dennis had been attending rock and snow schools the first two days, so Tupper was his first climb. My main impressions of this day can be summed up briefly in the following words: mosquitoes at Hermit Hut, pleasant company, sound rock, varied and interesting climbing, a boy enjoying his first climb, warm sunshine, mosquitoes at Hermit Hut.

Mt. Sir Donald was, of course, one of the main centres of attraction. The day the writer went up the northwest ridge, three ropes, led by Hans Gmoser made the climb. It lived up to all expectations. The descent by the usual route was made difficult this year by glacier recession which made it hard to get out of the bottom of the couloir and onto the glacier. The alternative was a long and damp rappel down an overhang. I can still picture Hans patiently maneuvering his charges into position, one at a time, and then urging them down over the edge into space. With nine people this was time-consuming, and darkness overtook us on the way back to camp. Fortunately, there was just sufficient moonlight to enable us to keep going on the trail down the valley.

The traverse of Castor, Pollux and Leda is mainly on snow, and provided a change from the preceding rock climbs. By taking a route to the tongue of the glacier below Castor, we were able to find some bare ice and do a little step-cutting. Then it was snow to Sapphire Col and a

short scramble up the broken rock ridge to the summit of Castor. The view was magnificent. The closeness of the Dawson Range to the South made it very impressive. On the other side the Sir Donald Range was equally fine. After traversing Pollux and Leda, we decided to continue across the snowfields, over the fourth summit, and down to Asulkan Pass. This made a good day's expedition and gave some of the new members a more extensive introduction to snow climbing.

A couple of days instructing at rock school and a good day on the fine rock ridge of Lookout Mountain, and all too soon the two weeks was drawing to a close.

The last day of climbing was made memorable by a traverse of Mt. Rogers and Swiss Peaks in company with Allan Bruce-Robertson. Tentative plans for the climb were made somewhat hurriedly as Allan was taking off for a three-day trip to the Dawson Range. When he returned to camp, we decided that there was still time to make the Hermit Hut before dark if we hurried. So we threw the necessities of life into our packs, and the truck took us to the beginning of the Hermit Hut trail.

After his strenuous backpacking trip to the Dawsons, the writer felt that it was only decent to let the weary Allan set the pace on the long climb to the hut. This was a grave tactical error, as he set a pace which left "yours truly" puffing and panting well to the rear. However, it did get us to the camp just before total darkness descended. As this part of the trail was relatively unfamiliar, we were glad to make it before the blackout was complete. This left us with only the familiar but tricky bit of trail between the camp site and the hut, which was negotiated three or four times in the dark before we turned in.

It is hard to recall now whether it was the cold or the alarm clock that woke us up, but in the usual early morning stupor we got something to eat, and left the Hermit Hut at 5.15 a.m. for Mt. Rogers. The snow was frozen hard, and it was easy going over the lower slopes. However when the slopes became steeper, we had to take to the rock ridge to the left, as the snow was too hard for step-kicking. The ridge provided interesting and varied rock climbing and we gained altitude quickly. Recalling the trip up the trail to the hut the night before, it was noted with secret satisfaction that Allan was perspiring freely at this point, which made the writer feel several years younger. The summit was reached at 9.20 a.m.

The weather was still perfect and 40 minutes were spent on top for photography and second breakfast, despite a cold and penetrating wind. Leaving the summit, we descended to the col between Mt. Rogers and Swiss Peaks, and then started a long series of ups and downs that constitute the impressive looking ridge of Swiss Peaks. The skyline was followed most of the way, as this appeared to provide more fun than traversing the peaks to left or right. Only in one or two instances did we deviate from the crest of the ridge. A ridge provides good opportunities for movie shots, and the tremendous snow slopes and icefalls on the northeast face of Mt. Rogers provided a beautiful backdrop against which to silhouette Allan's red jacket. There were many more ups and downs on that ridge than I can remember counting from Mt. Tupper the week before. Even the engineer on the party couldn't guess what altitude we would have reached if all the ups we climbed that day had been added together. However, with good climbing and a pleasant companion, the time passed quickly, and at 1:00 p.m. we were on the top of the highest summit of the Swiss Peaks ridge.

After time out for lunch and more photography, we continued along the ridge and down to the col between Swiss Peaks and Truda. Sound rock is generally the order of the day in the Selkirks, but much of this descent was over rocks so fractured and loose that much care was needed. Even so, we were responsible for an unusually large contribution to the moraine of the glacier below. Some caution was required getting off the rocks and onto the snow, as the upper

part of the couloir consisted of ice overlaid with a wet layer of snow. Then a short glissade took us onto the snowfield below.

Arriving back at the Hermit Hut at 5.40 p.m. we found that the camp there had been dismantled during the day. After refreshments, we picked up sleeping bags and descended the trail to the road. As the truck was not due to pick us up for another hour, we decided to hike back to camp, rather than sit around and provide nourishment for the mosquitoes.

So ended a delightful climb and a memorable anniversary camp.