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The Legend of Joe Brown

Ivan Rowan - on a mountaineering genius who has just reached 50
The Sunday Telegraph September 28, 1980

A climbing god was 50 on Friday, Joe Brown: you may never have heard the name, but at the sound of it thousands of climbers from John O'Groats to Lands End mentally go on their knees facing towards the Llanberis Pass, scene of epic feats on Welsh cliffs which nearly 30 years ago inspired the modern renaissance of British mountaineering.

He is quite a small god, five feet four inches tall, iron grey hair, strange, narrow hazel eyes, slabby cheek-bones, cut-out mouth framing uncompromising teeth, like one of those masks primitive tribes hang on poles to ward off evil spirits. Today, British climbers rank among the world's best - a 43 year old Welshman named Eric Jones has just soloed the north face of the Eiger - but it was not always thus; experts say that even the 1953 conquest of Everest, at the highest level a test of endurance rather than skill, still left Britain outside the mainstream of the fiercest, technically most demanding mountaineering long dominated by Continental aces.

His 15-line entry in "Who's Who" merely outlines how Brown and his contemporaries changed all that, with the help of improved safety methods, easier travel and the surge in working class climbing encouraged by the prosperity of the '50s. Brown, then a Manchester plumber, the youngest of seven children, was just starting to revolutionize standards on British rock-faces as (Lord) Hunt's expedition started out for Everest. There's a (ribald) climbing song which takes it from there:

He crossed the sea to Chamonix,
and to show what he could do,
He knocked three days off the
record time for the West Face
of the Dru...

On mighty Kangchenjunga his
country's banners blow
And the lad who raised the
standard was known by the
name of Joe.

Like a fly between walls.

If you go up the Pass from Llamberis, where Brown now has his home, you see on your left the cliffs of Dinas Cromlech, usually forbiddingly grey and wet and at one point abutting on each other like a book left standing open in the rain. This is where it all started. The climb known as Cenotaph Corner rises in a sheer vertical line where the pages

meet: it was "the last great problem" until Brown soared up it like a fly between walls.

He was 22 then. He is still climbing. But with the premium on fitness, strength and agility in an inherently dangerous trade, at 50 even a god must look to the future, and what do top climbers do when bones start to creak, reflexes slow, fingers lose their prehensile grip and cunning?

He hasn't lost his grip. Given the advent of a new wave of "tigers" setting even higher standards, it isn't surprising that Cenotaph Corner is no longer in the Top Ten. What is surprising is that it is no longer in Brown's Top Ten: he is doing harder things, he is still able to answer middle-age by surpassing his early youth.

Only just surpassing it, he admits: "I couldn't hope to do the hardest new climbs." Yet in Glencoe earlier this year he did Freak-Out, a route only a fraction below the current absolute. He says, wryly, that at a vital stage on the climb he couldn't get a handhold: "I cheated a little bit and used a sling" (a loop of rope or tape fixed to the rock).

What makes his achievements more remarkable is that four years ago he had a ruptured disc removed from his back, and, like Hutton facing up to Lindwall after the injury which shortened his arm, had radically to readjust his technique: "I have to be very careful with my back. The thing about me was not that I was stronger than other people, but that I was incredibly supple. I could get into all sorts of amazing positions and maintain them. Almost overnight I became very much stiffer; that was a big handicap."

He is also learning to adjust his sights: "I have reached a stage now where I also do easy climbs, provided they are good ones, and get a lot of pleasure out of it. I don't like growing old, I would much prefer to be able to do everything I wanted and not be limited by stiffness and aching joints. But it doesn't annoy me."

By Brown's age many, perhaps most, climbers have dropped out. Some quit when they find they cannot make the top grade, for others it's a matter of priorities: their jobs or families beckon then down from the mountain. There has been a tragically heavy toll of British climbers in the past two or three decades - Arthur Dolphin, Wilfred Noyce, Robin Smith, Dougal Haston, Tom Patey, Ian Clough among their leaders. Hamish MacInnes, the distinguished Scottish moutaineer, says: "I am slightly surprised I am still alive. Virtually everyone we started with is dead."

Of the survivors, only a handful can hope to make a living directly out of their climbing: Chris Bonnington with books and lectures on his big mountain expeditions is one, MacInnes, also a writer and broadcaster, another. But Don Whillans, Brown's former climbing partner and the only mountaineer of his time to be regarded as his

equal, lives on the takings of a small Welsh guest-house, and Brown's income comes from a couple of climbing equipment shops: the plumber on rock has become the shop-keeper on rock.

For all of them, in or approaching their fifties, there is a problem of companionship: Brown increasingly climbs with people 10 or 15 years younger, Whillans is two stone overweight and, save for an annual overseas expedition, seems content to climb less and less. The new climbing generation might detect just a tinge of middle-aged censoriousness in their attitude.

Brown respects the solo climbing achievements of men like Eric Jones, but doesn't want the example widely copied: "There's been an astronomical rise in climbing deaths." He can't quite forgive today's young "hard" men for dipping their fingers in chalk to get a purchase on sloping or slippery holds - thereby "signposting" the next ascent - and says that given the great advances in protecting climbers against lethal falls "this doesn't make climbing safer, it makes it <u>easier</u>".

Whillans can't stand the <u>intenseness</u> of the new school: "There was this bloke, he spent half an hour telling me there was no rock climbing in Lincolnshire." Ian MacNaught Davis, 51 year old computer executive and friend of Brown's who feels deprived if "I can't get my weekend shot of climbing," makes the same point: "Most of them turn out to be rather boring people, there aren't so many characters about."

Middle-age has a way of seeping through, but the fact is that climbing is a way of resisting age, it's a Lost Horizon rejuvenation cocktail of wind, rain, tension, terror and the exhilaration of overcoming everything sent against you, not least your own weakness and fear. And like any addictive drug, it makes its own junkies; as MacNaughton Davis points out, the real problem for the long distance climber is holding on to a balanced life.

Plenty of life insurance.

Brown has managed that. He and his wife have a big house and two daughters. He is in a pension scheme and carries plenty of life insurance. When he gets behind the wheel of a car the seatbelt goes straight on and he drives as he climbs, the seeming effortlessness disguising the total control.

The climbing world has more than once written him off as a spent force. For a time he turned to (arguable) less hazardous pursuits:

> They sung it once, let that suffice
> For the faded flower of the Rock and Ice,
> What's he doing? He's canoeing!
> Old long-gone, hand-jam Joe.

But he wasn't quitting, only adjusting. For those climbers who have given up, out of frustrated competitiveness because they couldn't

reach or maintain the highest standards, he seems to feel a fleeting, laconic pity: "It's a shame, really."

He sees his future in terms of less formidable climbing and more overseas adventure trips (he goes back to the Ecuadorian jungle in the New Year), he is ascending middle-age with the same cool self-certainty with which he has confronted some of the world's most daunting mountains, and he has cracked the last great problem facing the ageing mountaineer forced to acknowledge his impending limitations: "When you realise you are really only competing against yourself, you can climb forever."

Mt. Aylwin

This trip is one that I won't repeat; a combination of unpromising weather, car problems, and steep bushwhacking made for an interesting long day for Janic Isaac, Robin Lidstone, Bob Dean, and myself. After a 6:30 a.m. start from Nelson, a flat tire on Robin's Volvo, and a return to Crescent Valley to get one of Bob's numerous vehicles, we started up a rather ratty mining road on Alywin Creek (next one north of Enterprise).

Two kilometres along the creek, we parked the V.W. van near the junction with Wild Creek at 3,800 ', and started up through steep timber at 9:00. Of course, the skies immediately began to drizzle rain. However, the rain eventually ceased; so that, when we reached a 7,100 ' bump some three hours later, our spirits began to lift along with the cloudbanks. Two more hours of tramping, including a stop at an 8,010 ' high survey point with an elaborate looking radio transmitter, led us to the summit of Mt. Alywin, our final ascent being made by an easy scramble.

Through billows of mist, we had brief views of Silverton and New Denver, but none of Blue Grouse Basin to the east. Ten minutes on the summit, a quick lunge up a nearby gendarme, and we were off for the far away van. Howie Ridge had told me of a trail that he followed to the alpine lake below Aylwin nine or ten years ago; unfortunately we were able to find only snatches of this path, and had to content ourselves with descending steep terrain featuring deadfalls and the odd rockslide. By 6:00 we had reached the van, spurred on by thoughts of a burger at Mad Villey's and a sauna at Dean's home. A summary: technical difficulty - nil; energy expenditure - high; character building - definitely!

On Skis in the Gold Range

The dark mass of rain laden cloud rolled down the long slope to the highway, inundating us in a downpour remarkable for its intensity. Before we could have serious second thoughts, our driver gave one last backward glance, then disappeared in a spray to the south. It was midafternoon, April, 1979, and this was the inauspicious beginning of a multi-day ski tour into the Gold Range of the Monashees. We were just north of the junction of highway 23, and Blanket Creek, where the latter flows through a canyon.* The immediate plan was to ascend straight up several hundred feet, then contour southwest and drop into the north fork of the aforementioned stream. That was the plan. Scrambling to organize our gear before it was washed away, and glancing at the dank barrier of woods, the idea seemed strangely half-baked; the attempt forlorn. However, these thoughts were happily dispelled that same evening around the campfire, drying out and watching the stars poke through cloud and timbertop. We were under way; the highway was a sodden eight hundred feet below, and our minds were skiing up the Blanket Glacier.

The next day, we found that the map did not lie; the wider contours at the 2800 foot level provided reasonable access to the north fork. Snow cover was sparse on the south facing slopes, but the creek bottom was plugged enough to allow good progress. The kilometers slipped away under a partially blue sky as we skied west, the four of us taking turns picking the route. At the headwall, a 2000 foot climb through big timber led us to a lake at 5400 feet. In a light snowfall, we set up our second camp. It was a nice place, but the weather and fatigue drove us into the coziness of the tent as quickly as we had it up.

The following morning, we slowly stirred and broke camp in unsettled weather. After crossing the lake, we climbed and veered south, through lovely alpine parkland, towards Blanket Mountain. The peak itself was swathed in cloud, and once out of the trees, we were greeted by the wind. Following a prominent ridge southwestward, we reached the divide, and in a strong wintry blast, pitched camp at 7500 feet. A short day, but we wanted to roll with the weather and not fight it too much. This paid off the next day, as it was tolerable, if not clear. We caught glimpses of the summit overhead, before skiing in a whiteout to the col between Blanket and Armstrong Peaks. Here the white curtain parted, revealing misty views of Cranberry Mountain to the south. It looked extraordinarily beautiful. Our thoughts then turned to the problems at hand; a cornice blocking easy exit from the col.

*I have avoided metric in referring to elevations for the simple reason that the reference map contours are in feet. On the other hand, the presence of the UTM grid on the same maps allows convenient use of kilometers when measuring distance.

Eventually we roped the first man over, and then followed suit, walking straight down to where the angle eased. From here, the snow provided tricky skiing for the two thousand foot descent to the pass between Lindmark and North Cranberry Creeks. The pass was a pretty place, but we continued on, climbing up into another whiteout. Eventually we stopped near treeline at 6300 feet. Above us was the top of a long ridge which forms a retaining wall on the west for the long tongue of ice flowing north from Cranberry. Across from us to the north, Blanket and Armstrong reappeared in evening splendor, as the weather finally cleared.

The following day dawned clear and cold and we were away early. We soon gained the crest of the ridge above, breaking into sunshine. What a remarkable place! The great bulwark of the ridge tapered off into rounded undulations that led us ever upward towards the summit pyramid of Cranberry. On our left, the north glacier flowed and tumbled into its long canyon in wild contrast to our ethereal road. Those few hours ascending the ridge were among the finest I have ever enjoyed ski touring. Upon reaching the glacier, we roped up and skied to the base of the north summit ridge. There we unroped, removed the skis, and picked our way over rock, ice, hard snow and powder to the top. The view was superb. Evil-looking clouds boiling in from the west added the proper dimension of drama to the scene as we surveyed our route to the south. It looked chaotic. Reversing our steps, we descended to our skis and strolled around to the west, where nature had conveniently provided a doorway through the crenellated ridge. This allowed easy access to the south glacier of Cranberry, whose summit was soon behind us. We were, in fact, in a race with cloud cover roaring in from the west, and losing. Our object had been to find and descend a prominent spur leading east from the Cranberry massif, about one and a quarter kilometers south of the summit. The point where this spur intersects the south ridge is obscure, and was made more so by yet another whiteout, this one accompanied by static charge. We poked, prodded, hesitated, and finally found our way down the thing, covering somewhat torturous terrain, prone to avalanche. Camp number five was on a broad spot on the spur at 7400 feet. We had had a very interesting and good day. I celebrated by ruining the stew.

The next morning we awoke to more of the same marginal weather. Packing up, we descended a broad gully to the south onto a flat, unnamed glacier. Turning east, we skied down the glacier and onto the large lake at its tongue. Feelings of trepidation built up as we meandered through impressive slide deposits. We dubbed the place "Avalanche Lake", as it was evident that it gets pummeled regularly from both sides. In the deteriorating weather and poor visibility, an eeriness pervaded the scene, and, I must confess, my thoughts as well. Our route would climb from the east end of the lake, southwest across a broad shoulder leading to a col at 7200 feet. From there we hoped to work our way south to the Gates Glacier. What happened instead was that we took a long, hard look at the slope from the lake, as the weather intensified to swirling cloud and snow. The way up was underlaid by a cliffband, and the shoulder itself, when we could

see it, displayed numerous start zones. The entire slope had an unhealthy air about it, but the cliffband was the clencher. With that, we peeked over the headwall to the east. It looked feasible. An hour later we were at Pingston Lake.

Those familiar with the area are aware of the extensive logging taking place in the Pingston Creek drainage. Shortly after leaving the lake, we picked up the network of logging roads and trudged homeward. Several hours later, out trip ended as it had begun; in a downpour. Soaking wet, we worked our way towards Shelter Bay and the car.

We finally called a halt to our "push" at the Leland Hotel in Nakusp. The accommodation was cheap, clean, and interesting. Lying in the old fashioned tub with the hot water tap roaring, anticipating a hot meal and a beer, I felt thoroughly satisfied with our venture. Whether I would recommend it to others is another matter. Getting off the Cranberry masif to the south on skis is not easy, and could involve high hazard in the wrong conditions. Of course, therein lies the adventure.

PARTICIPANTS: Tim Auger, Bob Sawyer, Dave Smith, Don Vockeroth

1980 Hiking Camp

by Jane Steed

The camp was held at Bonnie Gem Lake in the Purcells, the second KMC camp there in a decade. There were three groups of hikers - according to the length of their stay. Some went for nine days, some for four or five days at either end of the period, July 27th to August 4th. At the beginning, John Stewart, Harry Neubauer, Karen Szasz and Fritz Swinkels flew to Eagle Nest Lake to the satellite camp, five to six miles east of Bonnie Gem. They had three fine nights there and climbed Mt. Katherine, Griswold Peak, Eagles Eyrie - unofficially named, and they traversed the Toby Glacier. They hiked for ten hours including a restful break and reached main camp midweek. Later, unfortunately in the poor weather, Earl Jorgenson, Jim Kienholz and Mike Brewster hiked to the satellite camp. They climbed Mt. Griswold also, and came out from there.

We had a rather unfortunate start because the Shroeder Creek campsite manager had not been advised of our plan to pass through his property to reach the helicopter point of departure. The KMC did not endear itself to him because of this oversight.

We enjoyed seven flawless, cloudless days and two rainy, cold ones, - an enviable weather pattern. Many took advantage on the first day of the firm snow covering on the glacier on Mt. Lake. We climbed to the summit under Jim Kienholz's direction. That was the most interesting climb for most of us. There were numerous shorter trips to surrounding peaks and ridges. There was time and scope for sketching and painting and studying flora. Skinny dipping was enjoyed by many in the little cold lakes below Mt. Mammery. In the vicinity of the camp, there were warmer pools for refreshing dips also.

The sheer beauty of the site was always breathtaking and was captured in some of the hundreds of pictures taken. I had the feeling it wasn't just another camp but a real experience of the grandeur of the mountains - even when it rained. I had a curious unfamiliar feeling also of being emotionally fragile or exposed somehow. Being removed from one's usual environment and daily trivia to that altitude and in such splendor provoked a quick emotional response. One or two others I mentioned this to had felt similarly. Probably others did too. Words fail me.

Altogether it was a super memorable camp mountain experience. Thanks to all those who contributed to its success, not least of all the cook, Ruth Widdicomb, who continued to amaze us with the quality and variety of her preparations.

Some of us believe we should come up with someone from among the hikers who can be a camp leader from initial planning right through to the end of the camp, - including attending it. That way, things wouldn't tend to fall between... Perhaps we should have a get-together on the subject. Thanks to all the participants. See you in '81.

GROWING
A memory of the 1979 hiking camp

by Graham Kenyon

To be last out of camp is, on occasion, a lonely and saddening experience. Or is it simply the way I feel this day?

The sun's bright warmth soaks into the earth, reflecting off the grey rocks and brightening the shadows still cool from the chill of the early morning. The careless chatter, the clatter of plates, pots and spoons; the noise of people together, then going their separate ways: all that is still now. The hum of insects, the distant sound of water, the ebb and flow of a soft breeze whispering in the trees: languid sounds more suited to my mood.

I have no goals today - no peak, no plotted route, no reason to aim my steps or pace my steps, to be somewhere, sometime or somebody. My son has gone down to the lake with the others. Fishing will be a change of pace for him. He was excited about it when he left, dashing off down the hill to catch up with the rest. He's growing up now. Have I ever really known him?

A hundred yards from camp, drifting with my thoughts, I come to the stream. A bustling lively place of tumbling water; white frothing foam racing from sun to shade over the black clear depths, cascading downwards from rock to rock, ledge to ledge: the life-stream to the glowing green plants and mosses crowding along its banks, reaching out over the spray splashed rocks to catch the scattering mist.

Why such melancholy in this place of life? For sad I am, suddenly and unaccountably. I sit and watch the changing patterns of foam lacing the surface, my mind merging synergistically with the stream somehow creating this strange mood.

My son did well yesterday. This trip I would teach him to be a mountaineer. I would show him. I would lead him, initiate him in the ways of the mountains. Dreams are made of this. Instead, while father probed cautiously from rock to rock; carefully stepping, testing, nervous of the chances taken, of the slipping foot or the turning stone; Andrew, confident, fearless, swings out and down, strides casually from boulder to boulder, slithers down the slab when all else fails; and when climbing, creates his own holds in the manner of the mountaineer. You did well, my son.

Admonished by the oft-repeated, pointless caution: be careful, he still strides out with that invulnerable confidence of youth. The contrast: the practical surety and unhesitating fearlessness of youth; and the cautious anxiety of middle age. The predominance of the "here and now" versus the "what if". The hold as a temporary bridge from here to there, rather than a safe, sure, resting place to plan the next life-sustaining move.

Moments to remember. The little tunes he sings to himself as he walks along. His delighted laughter; and the pleasure it gives to me when I was the cause. His spontaneity; his anger at the tripping rock, which I so unreasonably criticize as pointless lack of reason (then curse myself when a rock rolls under me). He dashes on ahead to find the route, chooses one, swings out and down a way I cannot follow. His delight when his breath blown through cupped hands produces the hoot of an owl. Memories of long ago when my own breath produced that first faltering sound.

He did well. Together we have learned, I probably more than he. We have touched little, yet I feel closer to him now, perhaps more than ever before. I am aware of the stream again. Its bubbling life and sound intrude into my consciousness. The stream runs its course as it has for a thousand years. My life flows on in the same fashion; from small dancing rivulets, gaining weight and power, but flowing always inexorably to the still depths at the end. My son gains strength and independance, moving towards his different life. If I have given him some of the much that is good in him, I am glad. If during these days we have shared together I have given him good memories to recall in his future, then I am glad. I may not have taught him to be a mountaineer; but I taught him to hoot like an owl. He will remember that - and so shall I.

Keeping Warm and Dry on a Mountain

New Scientist August 14, 1980

Protective clothing and sporting equipment has changed radically with the advent of synthetic polymers. And as scientists discover new materials, outdoor sportsmen and women can do their thing in increasing comfort.

Dr. Mike Geisow is a climbing chemist with an interest in fresh air.

When the Reverends Peter Williams and W. Bingley performed Britian's first record rock climb by ascending a remote and forbidding glacial cliff on Snowdon they were dressed in a manner that would not have seemed out of place in a drawing room of the time--1798. In fact they were not even really rock climbing--merely after mountain plants--but nonetheless they started something.

Early mountaineers wore clothing made from natural fibres; wool for warmth and linen for keeping out the wind. They sported ropes of twisted manila fibres. They selected their outdoor wear from a limited choice of hard-wearing everyday clothing. No one attempted to adapt this, let alone produce purpose-designed mountain equipment, as can be clearly seen in early mountaineering pictures, like those taken of George Mallory's attempt on Everest in the 1920s.

The the advent of synthetic polymers in the 1950s rapidly swept away the era of hemp and flannels. However, although man-made fibres have been with us for some decades, another explosive development in mountain clothing is gathering pace. Selling gear to venturers in the "great outdoors" is currently a highly profitable and expanding industry. Companies are making considerable investments in research and development as well as marketing. Tents and insulated jackets that were accessible only to serious mountaineers are now appearing in chain stores. "We sell everything but the mountain" one slogan says. In the 1990s we may have to pay for that too.

In the UK, our modest highlands are predominantly wet and cold. This is an insidious combination because it requires clothes designed to compromise between water-proofing and high insulation. British walkers are unlikely to face the extreme dry cold of Alpine or Himalayan altitudes, but our wind and rain can produce surprisingly low temperatures. On the cliff to which Williams and Bingley climbed --Clogwyn du'r Arddu--a 15 mph breeze of air at 10 degrees Celsius

will cool a climber as effectively as still air at -13 degrees Celsius. If the walker's clothing is rainsoaked so that its insulating properties are lost, he may be in serious trouble. Even when the sensible walker has a lightweight anorak, strong headwinds will mould its fabric round his body, whipping away heat conducted to the surface of the fabric. Each year people die from this wet-cold-wind combination because they have underestimated the severity of conditions on our lowly hills.

Serious walkers carry waterproof outer "shell" clothing--usually poor insulators--all year. Plastics guarantee waterproofing, at least while the garment is reasonably new. Three fabrics commonly used in mountaineering clothing include nylon or polyester coated with several films of polyurethane; neoprene (nitrile rubber) bonded to woven nylon; and cotton coated with polyvinyl chloride. But these fabrices have a serious drawback for energetic walkers. Their impermeability to moisture vapour--and not just rain--means that a person making his way up Snowdon on a typiclly wet day will still arrive at the summit drenched--with sweat. Aesthetics apart, the climber is again in danger from exhaustion and the impaired insulation of his wet underclothes.

All woven fabrics are "macroporous"--their pores are 100 micrometres or larger. Climbers can waterproof such materials by treating them with polymers. This decreases the pore diameters making the pore "nonwettable". This increases the angle which the surface of the water droplets make with the fibre around the pores. Surface tension then prevents the liquid penetrating the fabric. These treatments are commonly produced by waxes or silicone aerosol sprays. Unfortunately, the proofing has a limited life and even when new, does not keep out driving rain indefinitely. If, however, the walker could make his outer shell clothing microporous, with pore sizes of the order of 1μm, it would keep out even the smallest droplets of water in its condensed phase. However, this "ideal" material would still look like a garden sieve to water vapour, which has a molecular diameter of approximately $3X10^{-10}$m.

Although not new in concept, there is a practical microporous fabric, made by the British company, W. L. Gore and Associates. Called Goretex, this material is a laminated fabric with protective outer layers of macroporous nylon sandwiching a thin membrane of expanded polytetrafluro ethylene (PTFE). This inner layer has $9X10^{12}$ pores per sq.cm. with a reported maximum pore diameter of 0.2μm. The PTFE layer, unlike many other commonly used polymers, is highly hydrophobic, which also assists in maintaining a high "water entry pressure" (WEP)--jargon for the pressure needed to make a waterproof material fail. Materials with WEPs higher than 25 lb/sq.in. (172 kN/metre) are reckoned to be effectively waterproof. Goretex has a WEP of 65, whereas a well-known tightly woven cotton fabric called Ventile rates a value of only 2. PVC covered cotton has a WEP of about 150.

Microporous clothing might seem to have all the answers, but the wearer will be comfortable only if the fabric can maintain a vapour pressure below saturation, however much he exerts himself. Moreover, to be useful in Britain, microporous clothing has to work under normal conditions on the hills--freezing temperatures and driving rain. Goretex fabric when wet has a vapour transmission rate of 11000 g/sq. m/day compared with the 74 g/sq. m/day of water vapour that nylon treated with polyurethane passes. Although the precise amount of moisture vapour you want your protective clothing to remove depends upon your exertion, you need to lose 400-600 g/sq.m/day even when sitting still. Watching television in microporous waterproofs would be uncomfortable as well as embarassing.

To test outdoor clothing fabrics, scientists have established how to measure factors related to comfort, warmth and waterproofing. This work was done initially for the armed services, and many countries now adopt the standards of the US Army for assessing the suitability of fabrics for outdoor use. Although manufacturers test outdoor fabrics by vigorous procedures, they also apply subjective (and often bizarre) laboratory and field tests. These range from "rain rooms" and repetitive flexing machines, to environmental chambers in which human volunteers exercise to get up a good sweat inside their anoraks and "live" tests by famous mountaineers.

Goretex fabric--when it is made up into waterproof shell clothing--appears to work as well on the hills as it does in the lab. It has gained many disciples since being introduced to the British market a few years ago. The affluent walker can now purchase comfortable clothing in which he will not sweat. However, waterproofing still hinge upon how well the garment manufacturer had made the seams. In continuous immersion on bad days on the hills, water can get in by capillary action--"wicking" along stitching or under capes. Manufacturers need to combine ultrasonic welding with reinforcing and Neoprene tape inside the garment to keep the wearer dry.

Throughout history two natural materials have dominated the insulation league table. Down (feather) and wool are both made up of molecules of the fibrous protein keratin. Keratin molecules have a coiled architecture which makes these materials macroscopically elastic. On sheep and birds keratin turns into microfibres, which are subsequently organised into fibres in different ways in down and wool, producing the highly desirable properties of these natural insulators, many of which are hard to duplicate let alone surpass with synthetic polymers. For example, down has a high tensile strength allowing it to resist repeated compression, while its high volume to weight ratio enables light down-filled clothing or sleeping bags to trap thick layers of air. This property is known as "loft" in the jargon of outdoor clothing. Wool too has impressive insulating features. The fibres are highly resilient and are microscopically toothed, slowing the speed that air can move in or out of the material.

Biodegradable Insulators

But Mountaineers face problems even when using insulators as good as woo Both down and wool are biodegradable and rapidly deteriorate if they are not cared for. Dampness quickly destroys the insulating properties of down and the progressive loss of the oils which cover both wool and feather in their natural setting means that water is increasngly absorbed by the hydrophillic proteins. Down "clumps" in wet sleeping bags and wool acts like a sponge which can literally weigh the "all-wool" walker down. And in the past few years the prices of down and wool have rocketed. Overcoming the traditional conservatism of outdoor people and making synthetic surrogates for wool and down is now big business.

Early contenders as synthetic insulators were polyester fillings for jackets and sleeping bags. Trade names evoked the mystic "loft". Hollofil for example has hollow filaments, trapping air within the fibres. Long filaments are resilient and don't separate within a garment; avoiding heat leaks. Polyester is more efficient than down when wet, but needs much more weight for the same insulation.

Convection currents are the cause of most heat loss in fibre-filled garments. Next to an evacuated suit, the best insulator would be a closed-cell foam material of the type used in insulating sleeping mats for campers. This material is obviously impractical in wrap-around garments because it is stiff and uncomfortable--it transmits no water vapour. But the way to stop convection currents is to baffle them. A solution that leads again towards micropores. In insulators this can be done best by drastically reducing the diameter of the conventional fibre fillings. Finer fibres will pack to form smaller air spaces and minimise the convection within a filled garment. The 3M company of the US recently announced just such a filling; its new "Thinsulate" is composed of polyolefin microfibres in a matrix that provides a high frictional drag on interstitial air and leads to impressive insulating properties.

The unit of thermal resistance used by the clothing industry is the clo. Wool fibre, several centimetres thick, down and the new 3M material have clo values of 0.9, 1 and 1.8 respectively. Therefore a thinner barrier of microfibre than down gives equal warmth. This means that the final weights of filled garments or sleeping bags could very easily be comparable for the natural and synthetic insulators.

The concept of entrapped air is also the basis of the effective insulation of fibre-pile--not an uncomfortable affliction but the fabric woven on the face and thrown out into long fibres on the other. The thicker the furry side (skin side), the warmer is the wearer. Fabrics in this style and with added elasticity are finding acceptance for one-piece suits by mountaineers. The special requirements of mountaineers is for warmth, while they wait for sufficient courage to accumulate for their next move, then enough "give" to permit them to make it. On the less steep terrain the same fabric is proving

very successful as the insulation of sleeping bags. Down, even when present in quite thick filling, compresses badly under load and constitutes a heat leak to earth under the sleeper. Fabric pile, acting in a similar way to carpet, resists compression.

In clothes, the body heat generated by walking or climbing produces a pressure differential which drives water-saturated air out through the Goretex shell. Things are a bit different, however, in tents made of the same fabric. In principle, Goretex claims to be about to revolutionize the tent industry by making single-skin tents which are waterproof yet condensation-free. Therefore, in theory tents may be much larger for the same weight. However, with the tent door open, internal and outside pressures equalise and condensation will form on the inside if the outer skin is cooler than the air inside. When the tent door is closed, heat from an active occupant seems to provide enough pressure difference to drive out moisture-laden air, but as soon as the camper wriggles his heat-radiating body into a good sleeping bag, the pressure differential drops and condensation commences. The battle of the drip has been joined, but not won.

Will these new materials usher in yet another era of high technology upon the world's high places? Possibly--but for the mass market, upon which the current impetus depends, the finer points relate more to sales than end use. The bulk of these products are in fact used well below their full potential and like most technology in its early stages the ultimate argument will be about economics. The petroleum upon which this emergent industry is based is also a natural resource whose price is rising on the world market at least as fast as down and wool. Although we are unlikely to surrender too easily, we may yet be looking at the sheep and the ducks again one day.

Ski Touring In the Rockies

by Steve Horvath

I will remember the 1980 summer as being one of the worst and yet, it started and ended with a perfect trip.

The last weekend in April I met Pat Taddy at his house in Nakusp and from thereon we drove to Field, a miniature convoy of two Volkswagen Beetles. It was after midnight when we pulled to the side of the road and made our respective sleeping arrangements in our cars. Next morning we woke up early, drove one of the cars to the Wapta Lake and then took the other car back to Field and to the road at Takakkaw Falls. The road was barred right next to the highway so we left the car there, walked a little way and then put our cross country skis on.

As we were planning to spend the nights in huts we were travelling fairly light. By the time we got started, at about 8:00, it was a beautiful sunny day and we made good time up the road. After one hour we were met by a party of Canadian Mountain Holiday ski mountaineers who were skiing down the road on downhill skis with skins on. After we assured them that the road was indeed going nowhere but downhill they took off their skins with an obvious expression of delight.

In about three hours we had reached the end of the road below Takakkaw Falls. We had a nice brew on the porch of the ranger hut and watched the ice on the Takakkaw Falls melt and fall off in box car sized blocks. We discovered that Pat's stove was not functioning, fed, or rather were forced to feed, the seemingly ubiquitous whiskey jacks, rewaxed and took off in the direction of Laughing Falls.

Up until then snow conditions were quite ideal, but as soon as we hit the trail they quickly deteriorated and the next hour was not very pleasant (especially later on,when we had to go up a steep and bushwacky hill. Once on top thought, I felt like I was in a cross-country skiers paradise); huge firs, widely spread, good snow, occasional glimpses of the valley below and perfect silence. From next to Laughing Falls we had a fantastic view of the Yoho Glacier flowing down from the Wapta Ice Field.

Part of the trail around and above Laughing Falls was rather steep but snow conditions were good and once above it the trail was straight forward and flat with beautiful views of the Presidents Range on our left side.

We arrived at the Stanley Mitchell hut shortly before 3:00, and had a leisurely brew on the front porch admiring the beautiful basin. Shortly after we saw two people skiing toward the hut, Calgary based German

and his girl friend, both on cross country skis. The German fellow informed us that the hut is usually locked and reserved solely for the use of A.C.C. members and wanted to collect the hut fee from us on the spot. We promised to be good boys and send the fee to the A.C.C. as soon as we returned home and to our cheque books.

Wanting to enjoy the scenery without any interruptions, we put our skis on and toured for some time around the basin with frequent stops for documentary and hero shots. After a good nights sleep, we woke up early only to find out that it had been a warm night and the snow did not set. Thus we had to start our day by a rather horrendous bushwack up the steep hill behind the cabin on breakable snow with no help from the wax. However, after a half hour we got to the basin below the Whaleback Mountain and Isolated Peak where the snow improved. We stopped to rewax and by then the sun was already on the peaks of the President's Range behind us.

From there it was about an hour on gradually steepening snow to a saddle between Isolated Peak and Whaleback Mountain. On the side of the basin we could see signs of avalanche activity, tracks of the C.M.H. party leading into big patches of bare ground, recently avalanched, and continuing on the other side of the avalanche tracks. The last few hundred feet below the saddle were steep and on rather horrible snow, breakable with hoar frost under. Fortunately this was to be the last instance of bad snow condition on the entire trip.

From the saddle we had a beautiful view of the Des Poilus Glacier and down the Waterfall Valley. After a very steep and very quick descent from the saddle (side sliding special) we were free to enjoy the first long gentle downhill ride. We covered a very respectable deal of ground in a most pleasant way, but as all good things this too lasted only too short, only about a half hour, but there were better things ahead. The view down the Glacier (to southeast) to Waterfall Valley and Yoho Valley with mountains on the other side of the trans-Canada highway visible in the clear air was so absorbing that before we realized we had arrived in the saddle between Mount Des Poilus and Mount Collie. There we found remnants of snow caves left by the C.M.H. party who must have really taken their time travelling across the ice field. A quick look down the other side of the saddle showed us a most impressive panorama down Collie Creek Valley and made it obvious that we could not avoid going up a short but very steep snow slope to the east of us.

After side stepping for about a half an hour we were up on the upper level of the Wapta Ice Field. By then we had run out of superlatives so we just spent a few minutes silently admiring the panorama. It was still early in the day, about 10:30 and even though we were at an altitude of over 9,000 feet the air was warm and the snow still firm from the night before.

The long downhill ride next to the Mount Collie Icefall with a few breaks for the hero shots took us down to the immense flat expanse of the main part of the Wapta Ice Field. Out of the wind the temperature was quite stifling so when we crossed the flat part and got to just below Mount Rhonda we decided to stop for lunch. Knowing that we had the better part of the days' trip behind us we really took our time, just laid around in the sun planning all sorts of climbing routes on the surrounding mountains.

A fairly gentle ascent of about one hour took us to the saddle between St. Nicholas Peak and Mount Olive from which we could see Bow Lake and the Banff Jasper Highway. It was a beautiful feeling; we knew that we made good time and that the rest of the trip was just another long downhill run on the Vulture Glacier, the weather was perfect, the company even better, small wonder that we lingered on and on.

By the time we started our descent the Vulture Glacier was already in the shade and a crust had formed on top of the snow which made for a fairly interesting downhill ride. It slowed us down a little, but the views around were so beautiful that we did not mind in the least and so after about one hour we finally arrived at the Balfour Pass Hut.

It was only 3:30 in the afternoon. Inside the hut we found the packs of two people and soon enough we could see them skiing down the Balfour Glacier. Again, they were a German man and his Canadian girl friend, however, these were much more friendly than the people we met in the Stanley Mitchell Hut.

As we still had quite a bit of time left we took our ensolite pads and made ourselves comfortable on a small rocky outcropping close to the hut and just laid there drinking tea and talking until the sun had set. The area around the hut, especially the Diablerets Glacier appears to be ideal for ski touring, especially for a person who enjoys skiing down moderately steep terrain.

Next morning another early start, we were up and going at about 4:00 as we knew that the exit from the Waputik Ice Field via Niles Glacier is fairly steep and prone to avalanching and we wanted to get there while the snow was still in good condition. Balfour Glacier itself proved to be much more than what we expected, it was rather badly foreshortened from the hut and it took us a little bit over three hours to get up. One of those trips when one expects a summit behind every rise and it never comes.

Snow was very hard and icy and we had to keep putting new klister on about every half hour and even then we had to side step a great deal. Pat was going at his usual prodigious pace and when I stopped to put more klister on my skis I realized that he had all the wax with him and was out of earshot. So for the last hour or so I was limited to mostly side stepping. When we finally reached the shoulder of Mount Balfour, the highest point of the trip around 10,000 feet it was around 7:30.

Behind us we could see our descent route from yesterday, and before us what was to be the best glacier skiing the both of us had ever had; about five miles of gently descending two mile wide glacier, the south end of the Waputik Ice Field. Snow was absolutely perfect and within a few minutes we were both high as kites, at first making effortless figure eights and then just long leisurely G.S. turns until we finally reached the Niles Glacier.

The descent from it was a little over 2,000 feet down a steep headwall with parts of it bared by avalanches. The snow was quite changeable, good on top, completely rotten in the middle (the steepest part) where we had a few tense moments traversing between steep gullies in seemingly bottomless porridge, and fairly good corn lower down in the valley. Even though it was only about 10:00 in the morning it was stifling hot as there was no wind at all. The valley was steep and very narrow, basically a series of terraces with steep pitches in between. Most of the snow on the east side of the valley has avalanched and was lying on the bottom in a jumble of big blocks of wet snow. This made for rough going as by then we had almost run out of klister. Here, after falling a couple of times right on my back in between the big VW size blocks of wet snow in the avalanche tracks I finally gave up and put on my skins so that Pat might use whatever remained from our klister. (It was with some dismay that when I was unpacking after returning home I found a box of all-purpose klister that I had on me all the time and had forgotten about).

We still had to negotiate fairly steep side hills to get down to the creek flowing into Sherbrooke Lake. The snow by now was quite soft and the heat almost unbearable. After tea break, we pushed on, traversed on an east shore of the Sherbrooke Lake as the ice on it was almost completely melted, somehow found the beginning of a trail down to the Wapta Lake and at about 11:30 we were down by the highway at our car. After a long lunch of pizza and beers in Golden, we finally had to part our ways. Thus ended one perfect trip.

Few Notes:

Map References: Edition 1 ASE, Series A 741, Hector Lake, Sheets 82N/9W and 82N/10E. If possible get the second edition as the first edition has several mistakes in it. As mentioned before, the Stanley Mitchell Hut belongs to A.C.C. and one has to have a key, which can be obtained from the A.C.C. Clubhouse or one can just rely on good luck to find the hut open by someone else.

We have used cross country skis with pin binding and found them to be quite adequate for the trip. We feel that there is no need for other equipment such as ice axes, crampons, however, for safety sake I was carrying a seven mill rope with me. On the entire trip we used nothing but klister wax and if I was to go again at the same time of the year I would probably bring at least two tubes of red klister per person

(and some silver). We both found the wax to be quite adequate, did not use the skins until the last hour or so of the trip when we ran out of wax. In poor weather conditions the trip can be quite a challenge as far as navigation by compass and altimeter is concerned, just in case, we were both prepared to spend some time in a snow cave if necessary. We both feel that out of all the places where we have been before, this is probably the best place for ski touring and we could easily have spent at least a week touring in the general area. There are two more huts on the Wapta Ice Field, one by Peyto Glacier and one at the Bow Glacier. This opens up possibilities for several traverses of the whole area rather than to make a loop as we did. We feel that the best time for touring would be at the end of the season, both considering the weather and the snow conditions.

"It ain't the 'untin' that 'urts the 'orses"

by Graham Kenyon

Surprise? You could say that. 7:30 in the evening after a long day's drive to Riske Creek, thirty miles or so west of Williams Lake: tired but nearly there... or so we thought. Chilco Choate meets us at the post office, glances skeptically at the rear wheels of my VW van and expresses the hope that "you've got chains I suppose?" No, I hadn't. Why would I? Its August and we are in the Chilcotin country: sagebrush, dust and cowboys. "We've got a ways to go and it's kinda muddy in spots". How far? Fifty-one miles. He doesn't seem to be joking but its hard to tell.

Three and a half hours later my glazed eye-balls are relieved by the light of Chilco's cabin. We are covered with mud. The van had done things it has never done before. The last ten miles were designed for horses not wheels. The bits where we drove across the bald prairie with barely a sign of a track, tilted at an angle that felt like forty-five degrees, that was the good part. The bad part was when we were back on the "road" again wallowing up the axles in Chilcotin gumbo. But we had arrived, thank Christ!

Four of us were doing this: Mike Walker and his son Chris, my son Andrew and I. A week on horseback with guide-outfitter Chilco Choate in the Gang Ranch country southwest of Williams Lake. Something different; a change from hiking around in the mountains. Different alright because none of us had done much (any?) riding before, so we didn't know quite what to expect. By the end of the week we were saddling our own horses, had some idea of how to steer them, and some respect for the social hierarchy of the equine establishment ie. when the beast really wants to be first in line, don't fight it because he's bigger than you. We had become accustomed to the morning symphony: the snorts out the front, the creaks in the middle, and wind out the back like you wouldn't believe. We knew a lot more about the incompatibilities of cattle and wildlife, or rather the difficulties of compromising an economic enterprise on the scale of the Gang Ranch with the wildlife and wilderness values in which Chilco Choate has invested a good part of his life. It surely was different; a fascinating and very basic experience, close to the feel of the land.

Chilco's place is on Gaspard Lake. Other than an occasionally occupied outpost of the Gang Ranch at the other end of the lake, he and Margaret live there year round "away from it all" (which begs the question what "it all" is, because they have a lot going for them where they are). Anyway they are definitely a fair bit off the beaten track, and that's where we started from.

Twelve miles the first day through meadows and open jack pine to the Hungry Valley cabin. A getting-aquainted day, with each other, with the horses, and with a few muscles we hadn't recognized before but would get to know much better during the week. Twelve miles again next day. More rolling open country and pine forest interspersed with moose meadows populated more by cows it seemed than by moose. It was odd to be so far back in the boonies and still be in cow pasture: an odd combination of wilderness and domesticity. Odd is my word; Chilco had several others that were rather more profane. He and the Gang have their differences. Cattle and wildlife can co-exit, but the economic priorities of maximizing cattle on limited range on the vast scale practiced by one of the largest ranches in the world are simply not compatible with the wilderness-based livelihood and lifestyle of Chilco Choate. Our little party exemplified one of the problems. We were heading for the Relay Valley but there was no way of know if we would be able to stay there. Horses have to eat and 3,000 head of cattle can clean out a valley leaving very slim pickings for horses.

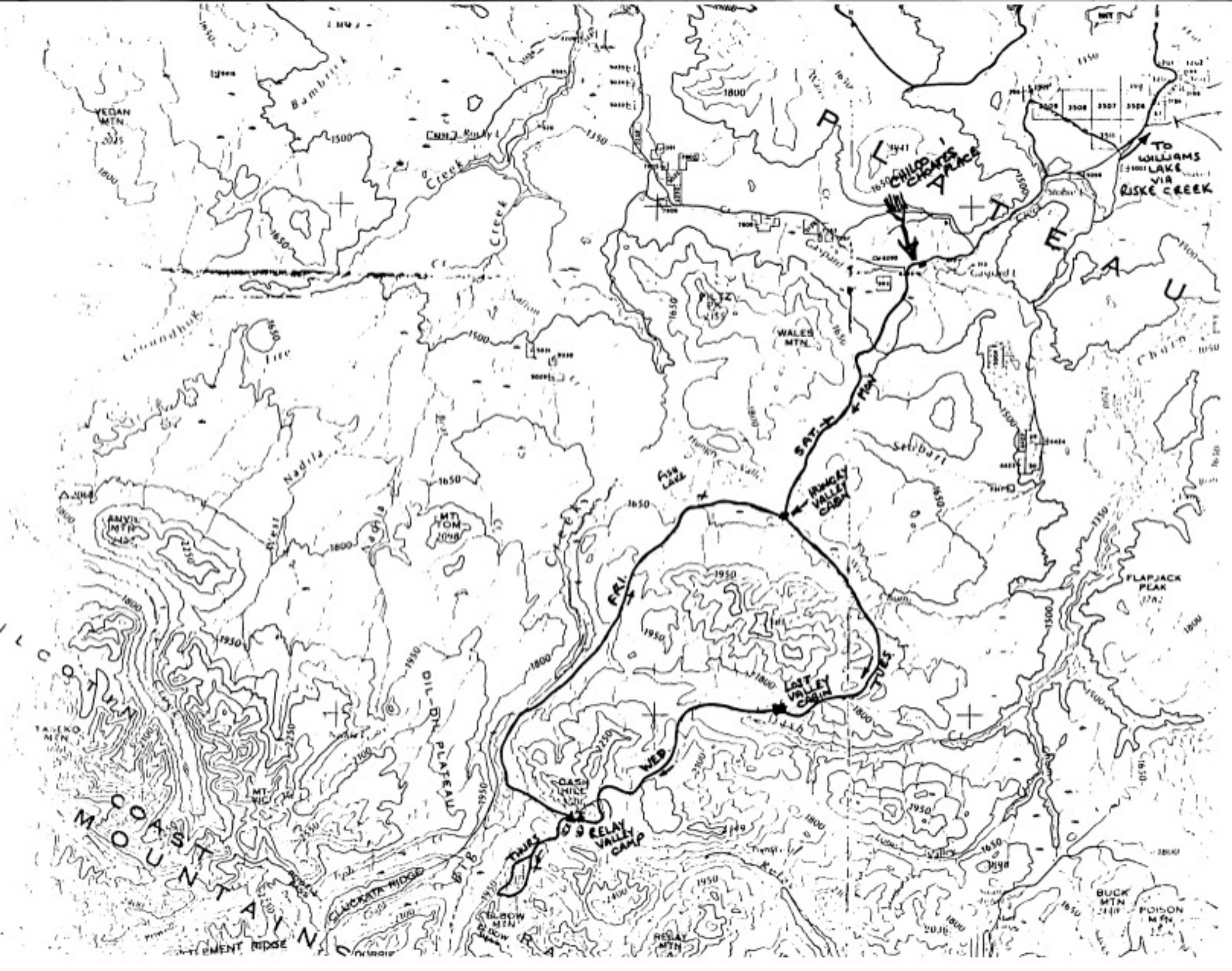
We rode across the high open plateau from Dash Creek, miles and miles of rolling grassland flanked by rounded peaks: beautiful country. The descent to Relay was accomplished with some difficulty. A scree slope can be fun but with a horse skidding along behind one keeps a wary eye. We beat the cows to it, so for two days we had the wide headwater valley of the Relay to ourselves. Moose watering at the nearby lake gave the ultimate wilderness touch to our stay there.

The day ride over the high ridge to Graveyard Valley was a spectacular high point of the week. I didn't realize horses could climb up and down that kind of stuff. By any standards the Taseko country at the head waters of Big Creek is beautiful mountain scenery. We spent a couple of hours just sitting there, perched high on a ridge of Elbow Mountain, enjoying the sun and soaking in the spectacular scene. Back down again; more scree; past the old Indian graves (small pox victims) and into camp again in time for a dramatic sunset. Isaac Walton described fishing as "the contemplative man's recreation", and maybe he was right; but sitting idly around a fire with a hot toddy in hand and horse bells clanking in the darkening shadows against the ridge, that too is as pleasant an occupation.

Twenty-five miles next day. As someone once said, that is stretching thing a bit far. But it really wasn't too bad, with a bit of walking every hour to loosen up. One thing though, horses don't like being left behind so it doesn't pay to linger, then take too long swinging your leg over. Its embarrassing to say the least to have one foot in the stirrup, hopping along frantically on the other while uttering expletives against the horses ancestors, hoping the damn thing stops before you hit the creek.

It rained for the last hour: cold, drenching stuff that made us thankful for a cabin at the end of the day. We were back at Hungry Valley again, the circle complete. We talked about the experience, comparing it with a hiking treck. In some ways hiking is more flexible.

Terrain is no problem and with the lightweight gear it is easy to be self-sufficient. But there is an element of artificiality to that too. The horse's dependance upon the environment is a link with that environment, and that is interesting. And there is a certain romance of course: a link with the past when life was simple and unhurried. The basic, straightforward simplicity of it all is perhaps the key to understanding and to enjoying the experience. Go into it with that frame of mind and I guarantee you'll enjoy it, and you'll probably go back for more.


CHILCO CHARTER LODGE
To WILLIAMS LAKE VIA RISKE CREEK
WALES MTN.
SAT
MON
RUNGLY VALLEY CABIN
FRI
TUES
LAST VALLEY CABIN
WED
THURS
RELAY VALLEY CAMP
FLAPJACK PEAK
BUCK MTN
POISON MTN
ANVIL MTN
MT TOM
OIL-DRUM PLATEAU
MT VIC
COAST MOUNTAINS
BLACKWATER RIDGE
BLOW MTN
RELAY MTN
Bambrick Creek
Nadina
Selibard
Chilco
Caylard
Yegan Mtn

Climbing Camp 1980

Climbing camp 1980 was held in the Purcell Range, in an area that has "the highest concentration of lofty peaks in the B.C. interior" (according to our guide book). We were not the first to climb these peaks. That crafty Conrad Kain beat us to the first ascents by 60 years or so, and a modest Alpine Club camp ("168 were placed under canvas") covered the area fairly thoroughly in 1928. But the 1980 KMC Climbing Camp did have its own firsts: 'high altitude jogging', a recent California fad that Peter Tchir introduced to B.C., and the latest in 'highest altitude punk' provided by Peggy LePage's maroon-shorts-over-scarlet-long-johns combo.

It was a car camp this year; we followed logging roads west from Radium up the Horsethief Creek valley and into the Farnham Creek valley. On the south side of camp was the Commander glacier, "sending its icy claws down from lofty peaks" as it did for J.M. Thorington in 1928. The "lofty peaks" were Cleaver (10,680'), Jumbo (11,150'), Karnak (11,150'), Maye (10,650'), Mt Commander itself (11,030'), and a couple of Guardsmen also over 10,000 feet.

Leaving out Mt. Maye, which was inconveniently placed, it was theoretically possible to bag six 10,000 foot plus peaks in one day. Had it not been for mutiny on his rope, one of the young and eager members of our camp would have done it.

Although one party climbed the Cleaver from base camp in a day, most of the peaks on the Commander glacier were climbed from a high camp set up just below the east flank of the glacier. Some of us discovered high altitude sickness for the first time ("Just like being pregnant again!"). The weather was sunny and hot for most of the week and the views were incredible. The peaks required some minor scrambling but, except for the glacier crossings, no technique or finesse.

Mt. Maye was a scramble avoided by most of the camp because of the 4000 foot scree slope which was unspeakably horrible to come down.

But the view from Maye (and to a lesser extent from Commander) down onto the Lake of the Hanging Glacier may, arguably, have made the climb worthwhile.

On the north side of camp was an utterly different landscape: crumbly brown mountains that looked rotten (and mostly were). Highest and most rotten of all was Mount Farnham, the highest peak in the Purcells (11,478'), which was climbed by Peter Wood and Gordon Frank on an

overnighter.

The three handier peaks, accessible from camp via a steep trail up to the Peter Pass moonscape, were Peter (10,950'), Delphine (11,150') and McCoubrey (10,550'). Peter required a rope for one move; Delphine and McCoubrey combined scrambling with a snow walk (crampons sometimes useful on McCoubrey).

Most of us spent at least one lazier day driving up the road and hiking into the Lake of the Hanging Glaciers. It's a beautiful well-maintained trail, the lake is spectacular with a wall of glacier at the far end, and if you brought in some hardware you could have fun on the cliffs nearby.

There are also two little lakes just off the road at the bottom of Mt. Maye, nirvana after a day of high altitude jogging.

Participants:

Bert Port

Sue Port

Eric White

Pam Olson

Gordon Frank

Vivien Bowers

Peggy LePage

Janice Isaac

Kim Kratky

Carl Johnson

Knut Langbolle

Peter Tchir

Peter Wood

Shaun

Brian

(and various other odd bodies that came in for shorter periods of time)

Book Review
by H. Butling

Exploring the Southern Selkirks by John Carter and Doug Leighton.
Publishers, Douglas & McIntyre Ltd., Vancouver, B.C. $6.95

Exploring the Southern Selkirks, including the Valhallas and Kokanee Glacier Provincial Park is more than just a guide book.

It is a book designed to give the hiker in the southern Selkirks a deeper understanding of the land where-in he hikes - of the geographical upheavals that made it in the first place - of the flora and fauna that inhabit it - of the mining activities that generated the trails and of how the land should be enjoyed without being desecrated.

Numerous black and white photos of animals, birds and flowers as well as scenic pictures are featured throughout the book.

The trail descriptions and sketch maps are excellent, giving the hiker the map number, season, distance, elevation gain, hiking time and whether moderate difficult or easy. Hiking times given are for the well below average hiker.

Winter locations for ski touring are also listed but not in as much detail.

This is a book that every hiker exploring the southern Selkirks should have in their pack, it will add to the enjoyment of the trip.

Valhalla's in Winter

We visited the southern end of the Valhalla Range from January 3rd to January 10th, 1981, successfully climbing Midgard Peak and generally having an excellent ski amid quite variable weather - downright bad at times.

Our route on Midgard followed the prominent southeast gully which was mixed hard snow and ice. This was soloed in crampons. The gully was exited to the summit ridge at the first possible cleft beside the prominent overhand above the south face. Three roped, belayed pitches were required in high winds up to 50 kilometers per hour. The skies cleared while on the summit - literally - giving a stupendous view of Mulvey Creek Basin to three neophytes. What a place! Descent was after dark in a moderate snowfall making for a late dinner at treeline.

Participants: Blair Griffiths, Mark Griffiths, Stephen Fuller
A.C.C. affiliation