

THE 1989 SCOTTISH KISHTWAR HIMALAYA EKPEDITION

INTRODUCTION [RGR]

This report documents the 1989 Scottish Kishtwar Expedition. The intention of the report is primarily to assist further expeditions to travel to this area, either trekking or climbing. In doing this we build on a growing set of expedition reports to this area the existence of which helped us immensly [these can be viewed for the most part in the Alpine Club Library].

We began planning this trip in 1988 and were some way down the line before the personnel had even been agreed. This is an area that lends itself to lightweight style so it was thought from the outset that a maximum of four climbers would go. These were: Graham Little, Bob Reid, Dave Saddler, and Roger Webb; all members of the Scottish Mountaineering Club, and all experienced climbers, two of whom had previous expedition experience.

This report is divided into several parts; each climber has contributed to the report and read as a whole it will give useful information, not only to climbers planning a trip to Kishtwar, but to most parts of the northern Indian Himalaya.

A BRIEF HISTORY OF EAST KISHTWAR [RGR]

The best source book for anyone considering climbing or trekking in Kishtwar is Steven Venables book, The Painted Mountains. Since his trip in the early eighties there have been trips most summers by mainly British teams. They seem to have adopted the area. Since Venables deals very well with the history before his own trip this section will be confined to what has occured since.

Perhaps the most important legacy of Venables' trip was some photos of Hagshu Peak(6330m). There have been attempts to scale this peak most summers since 1986 when John Barry is reported to have first attempted this peak. The picture of it in the Alpine Journal (by Venables) was certainly enticing. Barry did not succed at first or second attempt. At

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least two other attempts by British teams failed and possibly more. It is also speculated that the ill fated trip by four Plas Y Brenin instructors to climb in Kishtwar was destined for Hagshu- though no trace was ever found of them, when they failed to return. Success finally came to Max Holliday, Phil Booth, and Ken Hopper in 1989, after heavy snow had defeated a strong Polish team in 1988. Their route followed the very impressive East Face approached from the north where previous teams had tried from the south.

However most of the recent expeditions have headed further east exploring the marvellous Agyasol cirque, north of the village of Kaban, or peaks along either side of the Dharlang Nullah, further north still.

Bob Reid and Ed Farmer climbed the beautiful Dandagopurum in 1986 by its SW Face. Keeping the area in the 'Glasgow stable' Carl Schaschke led a trip in 1988 to Kalidaha and its satellite spire, a Dru shaped monolith with sheer granite walls. Kalidaha main peak was climbed by Schaschke and Jeff Knight, while American big wall specialists Tom Nonis and Conrad Anker climbed the Spire by a formidable route, described in the new routes book in the "Blue Seat Cafe" in Atholi as "5.10, A2, and VI, twenty pitches of Gervassutti Pillar".

At the same time Roger Everett and Simon Richardson were making their 2nd and 3rd trips respectively to Kishtwar. Also working from photos of Venables they succeeded in an alpine style ascent of the huge SE face of Chomochior(6300m) which entailed some very difficult approach work across appalling glaciers. The climbing after that was excellent but "very straightforward" according to Everett [though the photos paint a far more adventurous picture). This was the first time that the Haptal cirque had been explored and it revealed several likely looking prospects. One of these is known as Cerro Kishtwar and was attempted by Mick Fowler and Mike Morrison in 1989. They were thwarted by illness, possibly the endemic 'Kishtwar Virus' to which so many foreigners succumb. Another of these possibilities was the attractive looking north face of Dandagopurum, and Carl Schaschke led another trip to this in 1989 the first to go during the monsoon. He, lan Mills and Neil Brown reached the summit via the NE Face, making the second ascent of Dandagopurum in the process, the first Kishtwar Peak to receive second route.

However the most attractive prospect was the massive SW Face of the unclimbed Point 6400 above the Muni Nullah to Chomochior's east. This side nullah of the much longer Dharlang Nullah was possibly the nullah into which Fritz Kolb crossed, on his well documented journey shortly after the war, in mistake for the Umasi La. This would explain how he and his companion were able to make a round trip from Machail in 4 days presuming they had crossed both Umasi La and Poat La…a feat of endurance often thought unlikely.

The photo of Point 6400 taken from the summit of Chomichior provided the real spur for this expedition.

TRAVEL [RGR]

1.To India: This was by Air India. Each main airline seems as good as another until you try them. Air India managed to lose two full kit bags of gear. To some degree this jeopardised the whole trip. I recommend to any future trips that the extra £50.00 for British Airways is worth it. Their flexibility over weight of baggage and over return flights justifies paying the extra. One deal recently spotted is via Air France. It means changing in Paris, after a free feeder flight, but they will give you 45 kilos per man of free baggage allowance.

2. In India: We had the good fortune to travel in to Kishtwar at the same time as Mick Fowlers expedition. We had planned to join forces en route. Roger Webb had flown out early and pre-booked a charter bus from Delhi to the roadhead for both expeditions.. Although this worked out at about £30.00 per person (14 altogether), it meant relatively hassle free travel. The operator still tried to rip us off half way by sub-contracting the job to a local; so beware! Oh, and remember that old advice for anyone of nervous disposition—don't sit on the right side of the bus.

3.In Kishtwar: The Chowkidar of the Dak Bungalow in Kishtwar really is a Mr. Fixit. He can organise anything. He will do all your food shopping, but more importantly can organise your muless so that they are ready and waiting in Galhar for you when you arrive the next day. The muies cost approximately R100/- per day. They do however carry a good sized load, but unfortunately only carry in fixed stages. From Galhar they are as follows:

Day 1- Galhar to Sashoo

Day 2- Sashoo to Atholi

Day 3- Atholi to Chasoti

Day 4- Chasoti to Machail/Losani

Day 5- Into the Dharlang Nullah (or up towards the Umasi La)

4. In the Dharlang Nullah: The mules can only go so far. A 'mauvais pas' prevents them reaching high up the valley. Porters are needed to press on any further than about 20K into the Nullah. Some expeditions have chosen to stick their base camp at the furthest point that the mules can reach. We prefered to go a full days walk further on to an idyllic site for a base camp underneath Kalidaha Spire at the junction with the Muni Nullah.

REDIRECTED EFFORTS [RGR]

(Or climb if you must, but make sure Air India havn't lost all your hill food.)

The Scottish Kishtwar Expedition 1989 had the misfortune to lose all its hill food, half of its Bivvi-kit, and as a consequence much of its drive

and ambition. The inability of the members to perform well fueled only by cold chapattis, led to a reselection of objectives more modest in stature.

This enabled the 4 man team to break up and become two 2 man teams with a necessary adoption of tactics more Alpine in nature. Give the mountain a chance in other words.

Bob Reid and Roger Webb elected to climb a snow peak of about 5900m. Graham Little and Dave Saddler elected to climb a slightly higher peak across the Muni Nullah.

A word of warning however. Anyone contemplating a similar alteration to their plans should carefully re-read the Rules and Regulations of the Indian Mountaineering Foundation before doing so. Our \$600 peak fee for the technically difficult and much bigger Kishtwar Kailash (6400m) was not transferable and could not be redeemed even though we never set foot on the peak. The IMF subsequently demanded the full fee of \$400 for each of the other peaks we attempted. However they seem to have accepted a compromise of \$200 for each peak, treating them as subsequent permitted peaks (see IMF rules for expeditions). Bob Reid and Roger Webb did closley inspect the approaches to Kishtwar Kailash and confirmed the seriousness and complexity of its SW Face... a major objective, remote and very long, possibly involving over 2000m of technical climbing.

THE ASCENT OF SENTINEL PEAK (5900m) BY BOB REID AND ROGER WEBB. [RW]

Topography

Sentinel Peak (5900m) is the peak on the western side of the Muni Nullah at its junction with the Dharlang Nullah. It lies east of Dandagopurum (6230m), punctuating the long chain that runs from Shivling above Machail to the Muni Nullah. Immediately to the north of Sentinel Peak lies Cerro Kishtwar, and then Chomochior (ie. the western watershed of the Muni Nullah.) Sentinel Peak is a snowy peak with a domed summit that is bitten into by deep glaciated cirques with rocky spurs. One of these forms a shapely Dru-like spire to the NW of the summit, whilst one forms the southern flank of the mountain descending in a long sweep to the floor of the Dharlang Nullah. Several couloirs split the east face and looked as if they could be climbed to give access to the upper summit snowfields.

Access

This was straightforward, proceding along the west side of the Muni Nullah on grassy moraine, occasionally having to cross glacial streams. Once into the nullah, the complex rocky faces that overlook the Dharlang Nullah give way to a succession of gullies. Choosing the right one that

would give access to the more straightforward upper snowfields presented our first major difficulty. [The second was whether Bob's ailing, flu-ridden body would hold up....doubtless of primary importance to him.]

The Climb (First Attempt-2nd Sept)

On our first atempt to climb the mountain we passed several nasty looking gullies, walking 3km into the nullah, under the east face of the peak. We eventually came to a more solid rock wall split low down by a gully. On the morning of the 3rd of September we climbed easily up the gully (Scottish Grade 1- some stonefall) until blocked by a large rock step. This was climbed in three pitches of V. Diff to broken ground leading to a series of large ledges below the NE Face. The following day we climbed easily to a point at about 5200m, below a steep rock band. Unfortunately the following morning the effects of the flu and altitude left Bob feeling extremely ill, but he felt happy enough where he was if I wished to continue. I attempted to do so but was stopped after only 200m by blank steep slabs. On descending to Bob, his condition hadn't improved, so we made a rapid descent to the site of our first bivvi. The following day we abseiled the rock, and returned to base-camp for some rest and recuperation.

The Climb (2nd Attempt-8th Sept)

After several days rest, and replenishment of lost calories, we set off again. Acting on imformation from the other team we gingerly approached an evil looking gully not more than 0.5km into the Muni Nullah. We had happily avoided this one on our first attempt. Now, late in the day, with stonefall frozen off and the gully bed hard neve, we progressed rapidly upwards. Apart from two horrendous "turf-pitches" and a few awkward rock steps, the gully led to a band of cliffs without too much trouble. We bivouaced about 200m below these cliffs and after a lazy start the following morning, approached the cliffs early afternoon. The gully we had hoped would lead through this rock band and give access to the upper snowfields was a death trap of stonefall. We took shelter and dozed until late in the afternoon when the sun had moved off the east face. While waiting we noticed another hidden gully which led through this band of cliffs. The objective danger seemed less, waterfalls refroze and the air grew uncomfortably cold.

We pressed on, easy at first, grade I/II snow gully with the odd awkward step of mixed climbing. We climbed solo for speed and like last night made rapid progress through the gathering gloom. Following our hunch as much as the pools of head torch light in front of our faces we emerged onto steep open snow slopes. Tired and hungry we began to look for somewhere to bivvi. A collapsed bergschrund under a rock spire eventually provided an uncomfortable and very cold bivvi ledge. I can't remember if we cooked. I do remember the intense cold......possibly

minus 25 degrees centigrade or more. Even the Everest and brand new Redline sleeping bags seemed inadequate, stressing the advantages of a small bivvi tent as opposed to bivvi bags.

A fine dawn, inadequate breakfast and easy snow plodding was on the menu for our summit day. An occasional steepening or crevasse kept up the interest; together with the increasingly panoramic views. The summit was a whaleback (not dissimilar to Ben Nevis) whose highest point was the corniced edge which overhung the precipitous scallop of the north face. Neither of us dared stand on the actual summit, only approaching within 10m, but no more.

We could see clear to all horizons, with impressive unclimbed peaks in all directions. The curve of the whaleback obscured Sentinel Peak's jagged satellite spire, which leans against its north west face; although we did have fine views of Dandagopurum, immediately to the west. Bob was pleased to see his 1986 route in impressively steep profile.

We started our descent about 2pm, glissading much of the way. By the time we reached the "stonefall gullies' they had once again frozen, providing us with an easy descent, but for a couple of exciting diversions onto near vertical turf while turning rock steps.

We reached base camp at 8pm on Sept. 10th.

Technical Details

The full height of the climb from the Muni Nullah was c. 2000m. Much of the climbing was similar in standard to that one would encounter on the Voie Normale on Mont Blanc (Gouter route). The maximum steepness we climbed was 50 degrees but only for short distances. There was serious stonefall danger in the lower parts of the route.

THE ASCENT OF ROHINI SIKAR 5990 METRES BY GRAHAM E LITTLE AND DAVID SADDLER. [GEL]

Topography

Rohini Sikhar (peak of the sum) 5990 m, is the second main peak on the east side of the Muni Nullah above its junction with the Dharlang Nullah. Majut (5600m) the first peak is predominantly rock and between it and Rohini Sikar lie a series of fine rock pinnacles (these could be accessed by a wide snow gully from the Muni Nullah). Beyond the pinnacles a long, easy angled snow/rock ridge sweeps round to the final upthrust comprising the summit of Rohini Sikhar. Below this ridge lies the distinctive south west face the upper part characterised by two curving couloirs. The right hand couloir running the full height of the face, is subdivided by several rock islands and in its upper third becomes a steep icefield, tapering leftwards below the final rock barrier. The middle and lower reaches of this couloir are threatened by a huge ice cap above its southern flank. The lefthand couloir, very narrow where it

joins the right hand one a third of the way up the face, curves left to terminate below a steep rock buttress, comprising the upper section of Rohini Sikhar's west ridge.

Access

Half a kilometre above the junction of the Dharlang and Muni Nullah rivers, a 'stick bridge' crosses the Muni Nullah River (just below a cluster of boulders, including one massive pinnacle-like specimen). A vague goat track follows the east flank of the valley initially over rocky ground then wide flats to below an ice cone of avalanche debris issuing from a narrow break in the long belt of steep slabs extending to the south. A waterfall will often fill this break.

THE CLIMB (FIRST ATTEMPT)

On 2 September we climbed the dusty slabs to the right of the water course in three long pitches (severe, V diff, V diff) to gain broken ground. This was ascended to cross the avalanche run out of the main couloir, just above its toe, then up the left side to a muddy but secure rock shelf cave at C 400 metres. Fresh water was available nearby. At nightfall we commenced the ascent of the wide neve fan heading for the narrow left hand break in the first rock barrier. Roping up we made good progress up the narrow, twisting ice chute (grade II) by the light of our headtorches. A deep 'flume' led to the second rock barrier where a mixed pitch (grade III) gave access to a similar 'flume' above.

A stunning sunrise coincided with a creeping lassitude, dictating the need for rest and a brew.

Feeling marginally better, we carried on up the polished ice but as the rising suns rays hit the upper face and crept rapidly down towards us, an urgent need to quit the natural avalanche chute became a high priority. Traversing left along a soggy snow ledge we found relative safety under a dripping overhang (1300 metres up the face).

We brewed and dozed the day away, the frequent whoosh of avalanches doing little for our confidence.

Huge dark clouds boiled above the peaks to to the south of the Dharlang Nullah then rolled towards us. By sunset the sky was an angry blur of fire, it became warmer rather than colder and large snowflakes began to fall. A hasty retreat seemed in order!

A nightmare descent on slushy ice ensued.

THE CLIMB (SUCCESSFUL ATTEMPT).

On 6th September, from a bivi below the face, we regained the rock cave and enjoyed a mellow afternoon.

By moonlight we climbed the great flumes solo (roping up for the grade III pitch), passing our high point of the previous attempt and gaining the base of the upper rock band (too far to the right) by 0400 hours.

An hour and a half's inactivity/sleep on hacked out ledges, then we headed across the great plate of grey ice to cross a fracture line of old, and up to the true base of the upper rock band. A long dawn traverse, below this dwindling wall gave access to the ridge, a biting wind and spectactular views.

Dumping our sacks we solved up the ridge on soft snow, skirting around shattered slabs and towers of rusting rock to stand on a tiny summit platform at 1040 hrs on the 7th of September. The sky was clear and a magnificent 360 degrees mountain panorama saturating our senses. The vast bulk of Kailash (6400 metres) to the north stood head and shoulders above us, dominating the scene. To least we looked down into a wide peak fringed glacier basin, perhaps the first homo sapiens to do so. To the north east, approximately 12 kilometres away, the highest visible peak, presenting a massive rock wall to the south, was just one of the many attractive unclimbed peaks in the area. [It later turned out that Bob, Roger and Pranay had been able to see us, using binoculars, silhouetted on the summit and that at that juncture much rejoicing had taken place. Pranay in particular danced and sung..." now the expedition is a success".] We returned to the sacks with the intention of waiting till darkness However, we set off on the initial before commencing the descent. traverse in the late afternoon, the upper face appearing reasonably safe in the cool, cloudy conditions. Ice tube belays were taken to the curving of the face. Then we solved down, reaching the rock cave bivvi in a fairly weary state at midnight, after a 29 hour round trip.

On 8 September we descented to the valley to be met by Pranay and from there to base camp, for much needed rest and a very large whisky to celebrate.

TECHNICAL DETAILS.

The full height of the south west face, from the Muni Nullah, was 2200 metres and the climb justified an alpine grade of D superior.

FURTHER POTENTIAL FOR EXPEDITIONS [RGR]

Access to this area is through the Punjab State. It is therefore likely that safe access may be awkward at the moment. Reports of fighting in both Jammu and Srinigar have appeared in the press. Indeed while we were there, problems were reported in Ladakh of buses which carried foreigners being pelted with stones by rioters. However, assuming that normality eventually returns some of the possible objectives are listed here.

1. The first ascent of Kishtwar Kailash [Point 6400]. A beautiful looking peak which stands out above its neighbours, with an impressive 8000ft south west face.

- 2. The first ascent of Gupta Peak [5800m] an impressive granite monolith east of Kalidha Spire. Easy access after long walk in; high technical difficulty.
- 3. The traverse of the three main summits of Agyasol [6200m].
- 4. The North face of Agyasol; an intimidating ice face that could be approached from Machail.
- 5. The first ascents of Mardi Phabrang [6000m] and Garhol [6000m]; both are difficult peaks and have repulsed earlier expeditions. These attempts have been from the south and east, but there may be the possibility of an approach from the north above Chasoti [c.10k north of Atholi]. The villagers there refer to the big north face above their village as Chasotibaba and this may be the same peak as Mardi Phabrang.
- 6. The first ascent of Eiger Peak [5900m] between Agyasol and Kalidaha. Like its namesake a big face bounded by two very prominent buttresses.
- 7. Finally along the Dharlang Nullah, the Haptal Nullah and the Muni Nullah there some fine looking peaks of up to 6000m that would succomb to the lightweight approach—'Himalayan Munro-bagging'. Graham Little and Dave Saddler are also keeping very quiet about what they saw at the eastern end of the Dharlang Nullah en route for the Poat La. You'd best buy them a pint if you want to find out!

MAPPING [RGR]

There are very few maps of this area available. The line sketch maps done by previous expeditions are by far the most useful, one done by Lindsey Griffin being particularly good. Using these and a map published by the Swiss company Arthou (in effect an aerial photo at approximately 1:500,000), Bob Reid improved on the originals. The result is a reasonably accurate trekking map by which Graham Little and Dave Saddler navigated their way through the Poat La to Padum. [The Poat La is a remote pass at about 5700m, which, to this writer's knowledge, has rarely been crossed by outsiders and is little used by locals].

The position of known peaks is reasonably accurate, but the rest are to some degree conjectural, based upon evidence in panoramic photos and the Arthou aerial photo.

LIAISON OFFICER. [RGR]

The Liaison Officer supplied by the Indian Mountaineering Federation, Pranay Bordoloi was superb. A journalist by profession and hence a mountaineer by choice, we immediately took to him, and unlike some of the military liaison officers who get allocated to expeditions he 'mucked-in' like everyone else. Not only was he extremely useful and helpful in normal circumstances, but he was indespensable when one of

our party, who was trekking with us, became extremely ill and was injured in a fall. Without help this incident might well have had a very bad outcome.

Our one dissapointment was that we were unable to take Pranay climbing with us. He would probably have managed the route that we did on Sentinel but, being accustomed to military liaison officers we brought only trekking equipment from the UK. Pranay was a member of the Explorers Club and was from Assam. My most lasting memory of him [apart from a rendition of 'We shall not be moved' in Hindi, Assamese, and Urdu one night by the camp fire] will be his comment en route home while we were sat drinking chai in the 'Blue Seat Cafe' in Atholi...."I have been to many regions of the Himalaya; to Annapurna, to Kumoan, to Gangotri, and in Sikkim, but none possess the beauty of the Dharlang Nullah." We are indebted for the help Pranay gave us and one day hope that we can repay his hospitality.

EQUIPMENT [comments from all the team.....subjective and selective but useful]

[RW]

Having used Asolo AF101 for over a year with alpine gaiters and Grivel 2F crampons I was surprised to discover that with a yeti gaiter the extra protrusion at the heel prevented the clip setting property, the only solution was mutilation of the gaiters. I suspect that this is, in large part, due to the size of the boot (eleven and a half). One of the shanks of the AF101s broke whilst approaching Sentinel on our first attempt; this is the third time I have seen this happen. The retailer replaced them free but maybe they should be better labelled as a walking boot.

I used a complete suit of Buffalo kit; ie. pertex covered fibre pile. It was excellent in the prevailing conditions- dry and cold. Half the price, half the weight, twice as good.

[GEL]

Climbing- Although climbing equipment is very much a personal choice, an 'Alpine style' approach to Himalayan climbing makes greater demands upon body and gear and therefore requires a more critical attitude when considering such matters as design, versatility and weight.

Outer shell clothing is perhaps the most important item of all and ideally should be lightweight but hardwearing, provide full weather protection without internal condensation, allow unrestricted movement and be user friendly in the location of pockets, zips and drawcords etc. [and hopefully be inexpensive into the bargain.] Three members of the expedition chose Patagonia Storm Suits which admirably fulfilled the above criteria. The fourth used Buffalo clothing and raved about it for the duration of the trip.

Patagonia mid and underwear was used by all and as well as being very colourful and trendy, proved warm and wearable, with excellent wickability. The Gujar shepherds of the upper Dharlang Nullah eyed and handled fuschia coloured synchilla fleece jackets most avariciously!

There were two corporate gear choices. One was the purchase of Mountain Technology ice tools— Vertige hammers and axes. These beautifully designed tools were very well liked, particularly for their lightness. The second was the decision to use Chouinard 30-Below Headtorches. Whilst sceptical at first, these really come into their own on the mountain. If anything they seem to get brighter, the higher up you go. Add to that the fact that only two small batteries sufficed for each climber for the entire trip [expensive though they are] and you have a really useful piece of gear.

The rest of our gear was the standard sort of alpine/Scottish winter mix, which most climbers will be used to, trimmed to the minimum for weight saving.

DS and I invested in a pair of Brasher Fellmaster boots for the walk in. We then put them through an even more rigorous test trekking across the Poat La to Zanskar. They are very comfortable and proved to be very hardwearing.

Cooking- Primus stoves [paraffin] were used at base camp. Those purchased in India required continual attention, and whilst very frustrating did serve their purpose. Our porters were keen to accept them at the end of the trip. Plastic fuel containers were taken over from UK [this is essential as Indian ones are useless and leak all over the mules]. Epigas was used on the mountain and proved to be the ideal fuel being safe to use, unaffected by low temperatures and very efficient. A good supply of Epigas cannisters was found under a large boulder in the Dharlang Nullah! Thankyou Carl.

Photography— All members used Kodachrome 64 slide film which gave good results in both SLR and compact cameras under an extremely wide range of light conditions. [RGR— From my own experience it is well worth taking some black and white film along aswell; eg. Ilford FP4. Used with orange filter, some spectacular results can be achieved, particularly landscape shots of the 'surrounding mountaineering potential'. The light is usually good and the clarity of the air at altitude is special.]

[RGR]

I used a Karrimor Alpiniste 60-80 rucsac and found it one of the best sacs I have ever used. It really is very versatile and worked well for both climbing and load humping. I also used for the first time a pair of step in crampons- Stubai Tyrol. On climbing where I was constantly swapping between rock and ice they are a revelation.

[DS]

"Cool Weather Tights......the Patagonia ones ? Well, yeah......black, sleek, body-hugging......."

MEDICAL [GEL]

Very comprehensive medical supplies were prepared for the expedition by a friendly doctor- Dr Krystyna Gruszecka. These were packed into four small personal kits for use on the mountain and one larger kit for the walk-in and base camp.

The antibiotics and the Lomotil/Imodium drugs were in great demand to combat the inevitable gut infections and loose bowels. Of particular use was the Metronidazol for an acute case of chronic dysentry which our trekking colleague picked up by drinking unsterilised water. We all took Diamox and felt that it did help us to acclimatise.

'Dr Bob' attended to a variety of local ailments and we were even able to offer medical aid to another expedition.

It is worth noting that there seems to be an endemic flu type virus in these valleys. Both this and Mick Fowler's team suffered at some stage. So beware and go well tanked up Vit-C and carry broad screen antibiotics. It may be worthwhile building in a 4 day recovery period into any plans. [See also Steve Venables account in his book: The Painted Mountains.]

There are several good guides to mountain medicine on the market. The one produced by the Expedition Advisory Service is particularly good.

FOOD (DS)

"Okay Dave, get enough food for four men for two weeks on the hill."

On 19 August 1989, 28 two-man-day-packs in two large holdalls were checked in at Heathrow on an Air India flight to New Delhi. Twelve hours later they were.......who knows? England? India? Australia? We arrived in New Delhi to greet a humid morning with a bag of jungle mix, two apples and an orange between us. This proved to be the sum total of our food when we left Delhi for Jammu that night. Air India thoughtfully returned the wayward baggage for our return, five weeks later. So we got to eat our food after all.

The rest of this section is arranged in the light of these circumstances. Firstly, I describe the content of a typical two man day pack. Secondly, I include comments about the packs, as expedition members had a chance to sample them after the expedition. I then go on to outline what we did eat, and highlight some of the hazards to avoid when eating and drinking in India. Finally I describe some of the vitamin supplements that I took, which might aid like-minded pill poppers.

Planned Meals

Meals were organised into two-man-day-packs. The following factors were recognised as being important in their preparation.

- 1.Nutritional Value: Mountaineering at altitude is hard graft, and the energy used needs to be replaced. 5000 calories might be used up in a hard day. Expert advice was sought to provide a high calorie balanced diet.
- **2.Palatable**: It is essential to have meals that are palatable. It is not much use having a balanced meal if you cannot eat it; appetites invariably become dulled with altitude.
- **3.Lightweight**: This becomes an imperative when you have to carry your food for several days before you eat it.
- **4.Convenient**: The food needs to be intact when you eat it. Packing and handling of the food is therefore worth attention. It is also crucial to consider the way in which the food needs cooking; as a general rule solids that don't need cooking with plenty and varied brews.
- Fig. 1. details the contents and weight of each pack. Loose items (eg. milk powder) were individually packed in resealable bags so that they may be used over the course of the day. The whole pack was similarly packaged.

As for the contents, the jungle-mix was a home brew of dried apricots, banana, walnuts, pumpkin seeds, sultanas, and peanuts. The main meal mix was dried minced beef, oatmeal, dried vegetables with salt, pepper, and brewers yeast added.

It was accepted that the main meals provioded a good nutritional balance at reasonable cost. Oatmeal provides a good source of carbohydrates and dietary fibre; minced beef provides some protein, and the vegetables provide vitamins and more fibre. The mix was criticised for being unpalatable, that it took too long to cook, and that there were no main main meal choices. It is difficult to be wholly objective about judging this in the comfort of your own living room. However, the mix did take about 10 mins to cook thouroughly, although it could be eaten sooner if conditions dictated (it is worth remembering that water boils at a much lower temperature at 6,000m, possibly as low as 70 degrees centigrade). More variety would also be a good idea for jaded palates.

I should also have included some powdered fruit juices in the packs; those of a 're-hydrat' variety being particularly good. Their 'isotnic' properties ensure that the glucose and salts are easily and quickly taken on board.

Figure 1; Two-man-day-pack: Contents.

Item.	Weight	Calories
Oatcakes (6)	3	270

Jam sachets (2)	0.5	100
Muesli	6	586
Dried milk	4	800
Peanuts (2 x 1.5 oz)	3	280
Marathon bar (2 x 2 oz)	4	600
Jungle mix (2 x 6 oz)	12	1200
Cluster bars (2 x 1 oz)	2	144
Boiled sweets (2 x 1.5 oz)	3	260
Main meal mix	4	368
Dried potato	2	180
Tea bags (4)	0.5	0
Sachets sugar (4)	1.5	160
Sachets coffee (4)	0.5	40
Chocolate drinks (2)	3	400
Totals	49 oz	5388

Food in the Region

After the expedition, I described just how poor our diet was to a vegan friend. He thought carefully for a moment, and commented that it seemed a pretty balanced diet. One man's dahl..........

On reflection, the diet was quite good [RGR- there goes our excuse], with the emphasis on carbohydrate and fibre, with only a little protein. On the travel into the mountains, we ate at wayside cafes. These usually had fresh vegetable pakora, vegetable curries and the like for very reasonable prices; well stuffed for less than a pound. Generally, we avoided meat dishes, although other Europeans ate these quite happily with no ill effects. Drinking water was more of a problem until we reached base camp. All water had to be sterilized to kill off microorganisms that could cause amoebic dysentry and other disorders. This could be achieved by boiling well or by adding chlorine or iodine. A supply of either is essential. Fresh salads and drinks with ice were avoided for the same reasons. Fruit was plentiful until Kishtwar itself. We ate plenty, being safe when washed or peeled.

On the walk in from Galhar to Losani, the quality and quantity of fruit and vegetables dwindled, so there was a gradual transition from vegetables to parathas and chapatis, daubed with local honey. It is recommended to take a pressure cooker and some ideas for cooking pulses as these were in good supply.

On the mountain we were less fortunate. We had been given a little food by Mick Fowler [their expedition had little to spare] and we supplemented this with what we had been able to pick up en route. This included poor quality Indian fare such as 'Gits' dried soups, 'Royal Lovely Snack' Bombay Mix, biscuits and sweets. This diet was just tolerable for short forays

 $(2-\overline{3})$ days) from base camp, but would be unacceptable on longer journeys.

We retained a cook at base camp, 'Takker Lal', who was quite a dab hand at local cusine and he played a major part in maintaining health and morale.

Vitamin Supplements

I decided to take a substantial supply of vitamins, so it was a bit embarrassing that I was the first to succumb to a heavy cold. The other three climbers did not take any, and we all returned quite healthy, if a little thinner. No conclusive results can therefore be drawn. The pills were both expensive and fairly bulky, and included; Vitamin A, B Complex, C, D, E, and Pantathonic Acid [check with a Doctor or the manufacturer for dosage].

EXPEDITION ACCOUNTS [RGR]

Expenditure	Income		
Travel/Freight	£2,200	MEF	£700
Insurance	£300	SSE	£700
Peak Fees	£550	Sang Award	£450
Mules (8)	£215	Glasgow DC	£300
Porters (12)	£195	Bob Reid	£905
Cookboy	£105	Graham Little	£900
Liason Officer	£345	David Saddler	£900
Hotel/IMF/DAK	£220	Roger Webb	£900
Equipment	£600	J	
Food/Provisions	£650		
Medical Kit	£125		
MEF Interview	£50		
Miscellaneous	£140		
Totals	£5,755	£5,755	

Notes: The expenditure items are best estimates based upon records kept while in India. With hindsight a 'kitty' system for pooled expenses would have perhaps worked better than people recording what they had spent. The problem with this is that people tend to forget.

It is worth remembering that there is a chronic small change problem in India; get your money changed into small denominations. You get much better exchange rates for cash, especially dollars, and it pays to 'shop around' for the best exchange rates.

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