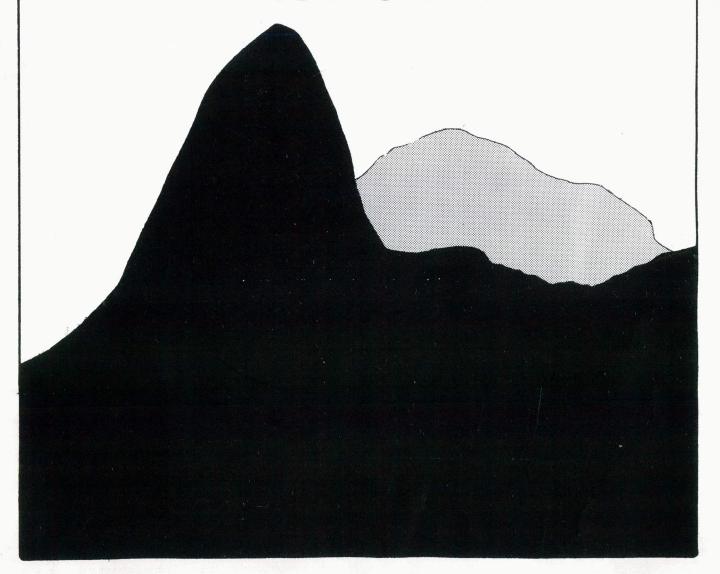
1976 Changabang South Face Expedition REPORT



Patrons:-

C. J. Bonington, C.B.E.

J. Wilkinson, (past Preident FRCC).

Expedition Members:-

(Contribution to the report)

Leader Colin Read, 29.8 Alpine seasons

General report and compilation

Deputy

Leader Syd Clark, 34.11 Alpine seasons.

Transportation Equipment

Edwin (Ted) Rogers, 29.5 Alpine seasons. Previous expeditions to New Zealand - Mount Cook area 1972, North America - North Cascades 1972, Norway -Austabottatind 1973, South America - Santa Marta 1974, Greenland - Sondresermilik 1975.

Photography

Sgt. Robin G (Spoons) Blyth, 34 3 Alpine seasons. Previous expeditions to:- Iran - Kuh-I-Demevand 1969, Africa - Mount Kenya 1971, South America - Santa Marta 1974, Greenland - Sondresermilik 1975.

Doctor. James McGregor Duff, 29.4 Alpine seasons. Previous expeditions to: Norway - Romsdal, Everest S.W. Face 1975.

John Adams, 29.8 Alpine seasons. U.S.A. Yosemite 1 season.

Food

Alan Roberts, 32.7 Alpine seasons. Previous expeditions to:- Norway, Greece, Turkey, Malawi, Kenya, Uganda & Tanzania. The original concept of this expedition was that of a small group of climbers and wives, visiting some area or other in the Himalayas, and was the brain child of Ted Rogers and Colin Read. Gradually though as the plans developed, it became obvious that we were going to end up with a project of a much more adventuruous nature than originally anticipated.

After fishing around for a suitable area, we focused on the Garwhal, a group of very beautiful mountains, in northern India (see location map). Syd Clark had joined us by this time and so early in 1975 we began the ball rolling. First we applied to the Indian Mountaineering Foundation, C/O Ministery of Defence, 18-Q Block, New Delhi; for permission, we proposed a number of peaks in the Nanda-Davi sector of the Garwhal, our first choice being Changabang a striking obelisk of 22,520 feet. The Indians granted us one peak only, but fortunately it was our first choice. No doubt having Chris Bonington and John Wilkinson as our patrons, had helped them to make their decision. Chris Bonington of course had led the expedition, which made the first ascent of Changabang. All the help and information our patrons gave us was invaluable.

The first ascent of the mountain was made from the Rhamani glacier, over the difficult Shiptons Col, to gain the upper slopes of the Changabang glacier, then to Kalanka Col below the East Ridge which was followed to the summit. That was in 1974. 1975 was the turn of the Japanese, they made a successful assault on the difficult South West Ridge, again from the Rhamani glacier.

Our choice of route was the South Face, because apart from facing the sun and being one of the shortest faces (4,500 feet approx), it appeared to be objectively safe. The best line seemed to be to follow a spur running up into the centre of the face, terminating at mid height, then after a section of steep boiler plate slabs, a long diedre line leads to a snowfield, which has a number of possible exits to the summit.

We proposed to approach the face from the south, after entering the Nanda-Devi sanctuary, via the dramatic Rishi Gorge. This approach is much longer than that via the Rhamani glacier, but for the south side is unquestionably the best route.

Selecting the remaining team members proved difficult, some of those approached accepted, only to have to withdraw at a later date, being unable to leave jobs, or raise the cash. But eventually we found the full compliment, with what we hoped was the right balance of abilities and personalities. They were John Adams, Robin Blyth, Jim Duff and Alan Roberts.

Pursuing the now familiar blue print of most expeditions, we sent out begging letters to various food and equipment firms etc., with what we consider to be a fair amount of success, especially when one considers our previous experience, on the greater mountain ranges, (or rather, lack of it). A large portion of the credit for this, must be due to the fact that Chris Bonington had given us credibility, via the use of his name. Though I think perhaps at times he must have questioned his judgement as he no doubt heard from time to time on the Lakeland grape vine, of our amateurish blunderings.

Efforts at fund raising were almost none existent, letters to various companies and individuals asking for sponsorship brought very little response, (barely covering postage etc), and we were frowned upon for pulling such a stunt. Our only other fund raising successes, outside of the grants we received (see list of sponsors), were a sponsored run by two gallant West Cumbrian boys and revenue from news items given to the Sunday Times. On reflection we did not do sufficient to raise funds, someone should have been allocated that task specifically. We could of course have raised a lot more from the media, but we understood what we were up against on Changabang, let alone even in getting to the foot of the mountain, we therefore steered clear of all forms of publicity, as best we could. We still maintain that it was the best policy.

Transportation was a great problem, we were seven climbers and four wives, with around two tons of equipment. Air freight is far too expensive, and although by sea the tariff is less, the likelyhood of ever getting ones goods out of the docks in time make sailing unattractive. We considered sending everything with one of the many Trans-Asian bus services, but that too is expensive and their time tables were not compatible to ours. The only logical method was to drive out ourselves in a truck. Searching for a van was a long and mostly fruitless task, only Mercedes-Benz made us any kind of offer, unfortunately we could not afford the brand new van they offered us, even at the special rate. Eventually Bob Stoodley of Manchester Garages took us under his wing, giving us valuable help and advice, (having made the trip himself). At the eleventh hour we purchased a three ton Ford Box van, direct from Godfrey Davis van hire, (which we sold on our return for the purchasing price).

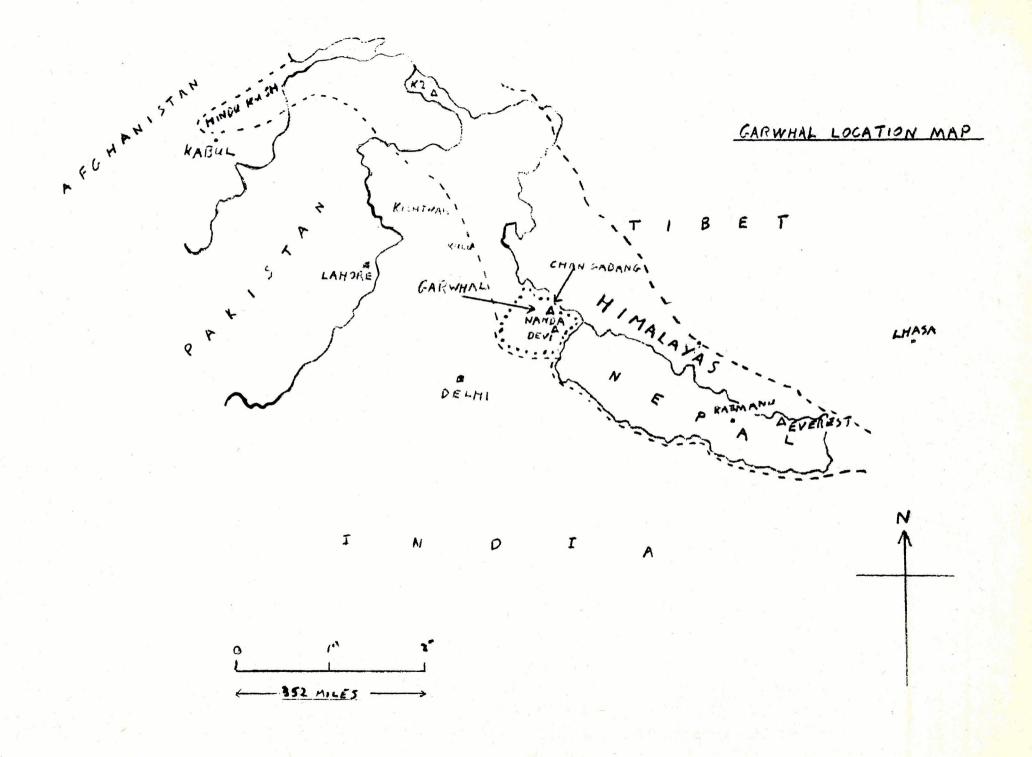
Four men and three women travelled in the van, whilst the remainder flew out at a later date. The cost of putting the van on the road, i.e, insurance, double indemnity, carnet, tax etc, was staggering. Despite paying only £864 for it, another £1,239 of none returnable expenditure was incurred before we could set off down the road. Add to this air fares, diesel, oil, visas etc., (see transportation report) meant that transportation, consumed by far the largest single slice of our slender budget. Beginning our journey on July 30th allowed us only 24 days to reach Delhi where we were to collect the airborne detachment. That meant that there was little time for sight seeing, we reserved that for the longer (5 weeks), if somewhat colder homeward journey. Half a day off in Istanbul, most of a day lost in Eastern Turkey due to a break down and another lost in Afghanistan when one of the women had to spend a night in hospital due to a stomach infection, this did not affect our schedule and we arrived breathless at the Indian customs post of Attari road (the only crossing point from Pakistan) on August 22nd. Up until that point of the journey we had experienced no real problems with customs posts, apart from a bottle of whiskey, paid to clear the Afghanistan customs. We had used in the countries where it applied an A.T.A. carnet which gives security against loss etc, of the goods being carried and is obtainable from main branches of the Chamber of Commerce. That meant however, travelling as a commercial vehicle and incurred for us long delays, (though as already stated no problems), due to the long queues of trucks. We found however that we could pass off as tourists quite easily and did not use the goods carnet on the homeward journey. Nonetheless for the meagre cost of around £20 it would seem wise to at least take one.

The Indian customs held for us anumber of surprises, the first was when all our equipment and food were impounded, as in spite of over a years correspondence with the relevant authorities, the necessary documents, ie; import/export license, duty exemption certificate and a letter from the Indian Mountaineering Foundation (underwriting any claims against us for loss of equipment in the mountains etc;) though issued, these documents had not been forwarded to the customs post. Despite having a bankers guaranty, arranged as an emergency reserve by the National Westminster, they would only free our equipment. Our consumables, ie; food, gas etc, would have to remain until the documents were produced. After five days, a train journey to Delhi and numerous visits to government departments, we repossessed our goods.

In Delhi united with our other team members we made final preparations, buying some foodstuffs, exchanging money and meeting our Liasion officer, one Flight Lieutenant Talukdar, who at first aquaintance seemed an amiable fellow. Delhi was not without its excitement, two of the team were ripped off whilst trying to exchange dollars on the black market, to the tune of £30. Another member had a large quantity of his personal kit stolen from beside him, as he slept inside our van. We were all therefore glad to be underway again.

A few days later we were all gathered together in Joshimath, right in the heart of the Garwhal. The final days driving was at times spectacular, negotiating sections where the road had slid away and through rivers which surged across our path, with some hours of delay after a major avalanche closed one section of the road completely, the clearing was done by hand. All of which was caused by the monsoon.

Most of the porters food was purchased at Rishikesh as we were informed that there is often a shortage of certain items at



Joshimath and that did prove to be the case. The porters were paid the government rate of 15 rupees each, per stage, £1 in 1976 and half pay when unladen, plus food and beadies (cigarettes), note; English type of cigarettes are not suitable. For this they will carry their food. The alternative is to pay 20 rupees per day, they will carry their own food in addition to the 25kg load. The main disadvantage with this system is that they may not bring sufficient food (as is often the case) even with the first method strict rationing is required to ensure that supplies last, in our case the porters ran out one day short of base camp, costing us a further bonus payment, only agreed upon after lengthy negotiations. We employed a number of Nepalese porters from Joshimath, but the bulk of them were Garwhalies from Lata village, all were good men especially out head porter Dan Singh. The agents for Cox and Kings are attempting to get on the bandwagon for the supplying of porters etc, but their expertise is not impressive and we felt they were best avoided.

It was rather late when we left the roadside below Lata village which cost us half a stage that day. We had been struggling to reduce the number of loads, which finally at 43, was well in excess of the 35 we had budgeted for. Fortunately however the number decreases rapidly with the consumption of porter and team food.

Our van was left in the care of a roadworkers compound. Two of the women remained behind whilst the other pair were one day ahead of us trekking into the sanctuary. Joe Tasker and Pete Boardman were also ahead of us, heading for the Rhamani glacier to make their fine successful ascent of the West Wall of Changabang, We had been very disappointed when we learned that they had also been given permission, having understood that the booking fee reserved for us the whole mountain. Double booking seems inevitable though in this overcrowded mountaineering world.

Our journey to base camp took seven days, the walking was vigorous, sometimes even hairy. Most of the fixed ropes were found in place but that should not be relied upon and several lengths must be left in place, for the porters return journey. The two river crossings were a little tricky especially late in the day when they are in spate. But despite the crisis over the porters food we encountered no real problems.

During the first few days as we rose from 7,000' to over 13,000' feet, our liasion officer Talukdar seemed to struggle a little, suffering each evening from bad headaches, we put his slowness down to unfitness (as we all were), his headaches were attributed to strain due to the incredible hassle which occurred each evening when he issued the porters with their food. It appeared to be a harrowing ordeal with voices raised in a frantic squabble, or so it seemed. Later however when we issued the food ourselves it was not so difficult and the noise was only good natured banter. By the third day Talukdar was seen to be going very slowly, he with Dan Singh and another porter did not arrive at Dibrugheta, the end of that days double stage. They had been forced to spend the night at the half way stage of Dharansi. Dr Jim and two other members remained behind on day four to collect the stragglers and shepherd them along to lower Deodi. During that episode, Spoons who was with the rescue party slipped on the steep slippery fellside and broke one of his fingers, thus imparing greatly his climbing for at least ten days. Jim Duff diagnosed Talukdars trouble as being a form of pulmonory odema only slight at that stage but cause for great concern. During day five whilst en-route for Rhamani, Talukdar deteriorated a little further and the decision was made to send him back, he readily agreed. So on day six, as we pressed on with a double stage to Tilchunane, which was the steepest and most exposed section of the trek in. Talukdar and three porters started back, with food, fuel, a four man tent and a complete outfit of equipment, (we were not to see him or most of the equipment again despite his firm promise to return everything), they took four days to reach Lata. Surprisingly when he submitted his report to the Indian Mountaineering Foundation, he did not even mention his own illness, giving his reasons for leaving as bad food and our refusal to allow him personal porters at base camp. On the first count he had played the major role in purchasing the food, ensuring that he had his own cache of Indian food, (to which we held no objection), in addition to that we issued him each day with exactly the same rations as ourselves, so in fact he had more choice

of diet than anyone. The second accusation is true, at first he asked for ten porters to be retained at base camp, later reducing the number to five, personally I think he would have settled for two. But the fact of the matter was that we could not afford to retain any as our budget was completely stretched, (at and above base camp porters must be paid double and be properly equipped).

So it was on day seven bypassing the stage at Gupa, that we reached our base camp. An idilic situation beside a charming little lake. There the porters had to leave us, if only we could have afforded to retain a few, to help with the carry to advanced base camp it could have made all the difference to our south face attempt, thus freeing the climbers from the gruelling chore of flogging up and down the glacier and morraines with heavy loads, we would then have had more time to make a more prolonged and concentrated effort on the face. As it was we never quite got all of our gear up to advanced base, which was 2,500 feet above and six miles from base camp, nor did we ever have all the climbers concentrated on making the route and supporting on it.

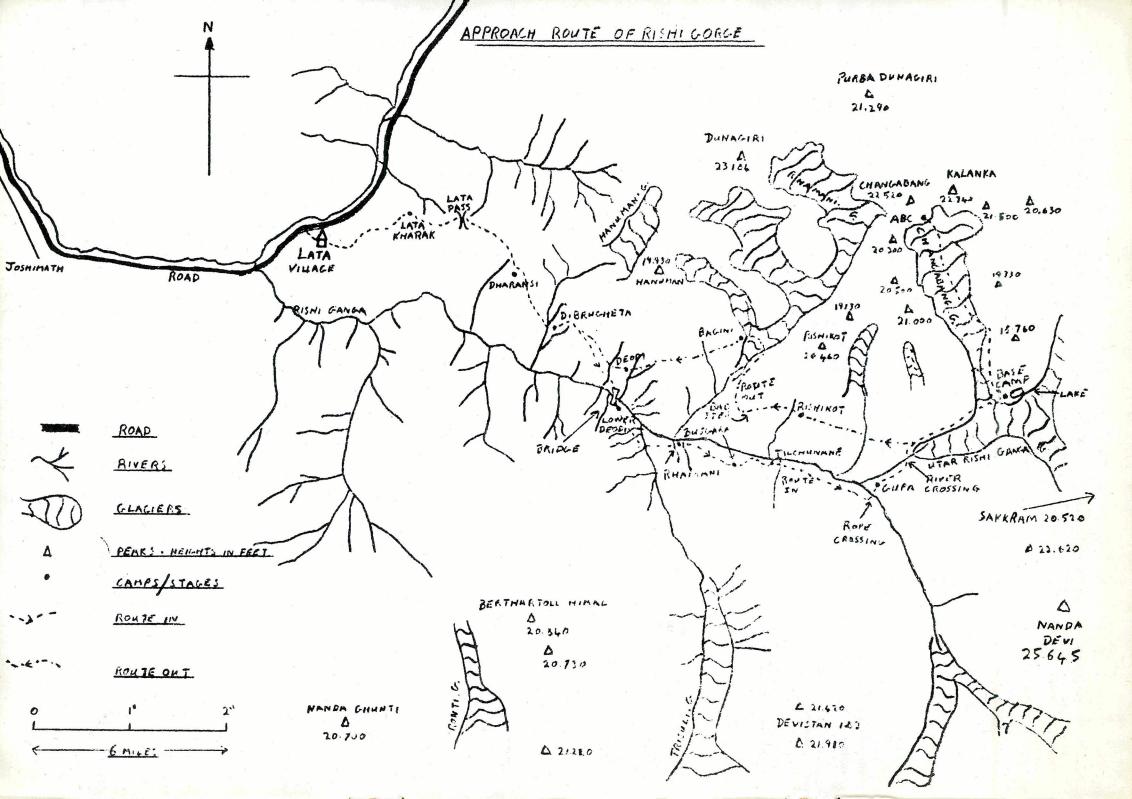
Nonetheless progress was made. After an initial false start, where a fairly direct route was followed towards an obvious gully line, which follows parallel to the lower spur. But after two days of difficult climbing (grade 6 and aid), an impasse was reached. The strata of the rock and in particular on the lower part of the spur, is inverted, being in places just a jumble of overlaps, other sections are vast areas of boiler plate slabs, sometimes with snow plaques cemented to them, few of the lines on the face are interconnecting.

A new line was begun well to the right of the spur where a grade 5 rock pitch led to the tail of a long serpent like snow field, which rises across the face joining the afforementioned gully, which was then followed easily, the difficulty being in repositioning the fixed ropes down in a direct line after each section of ascent, the gully lead in turn to a long rock diedre which gave 250 feet of grade 6 with occasional aid moves(P/A's were used on some of this section) the next 250 feet were also grade 6 with aid and weaved a route through overhanging flakes and blocks to gain the crest of the spur.

By this time camp one had been sited at the foot of the face, 2,000 feet of climbing had been accomplished, yet we had still not found what we considered to be a suitable site for camp two and did not feel that we were far enough up the face to begin bivouacing, eventually though we were forced to place a half erected tent on the crest of the spur, which proved to be little more than a bivouac. A box tent with a framed support could be placed near the top of the spur giving a secure well placed launch pad for working on the upper face.

From our camp two we progressed up the spur crest, which surprisingly gave a further 900 feet of interesting climbing on snow and ice (one section of Scottish grade 3) before abutting the headwall. It had taken 3,000 feet of actual climbing over a period of 16 days from base camp, to reach an altitude of around 19,200 feet, leaving us with well over 2,000 feet of very steep and difficult looking rock. On closer inspection the diedre lines on the head wall were ice chocked and a few rock/ice falls peppered the proposed line every day. Only 8 days remained before we would have to start carrying out. The majority of the team voiced the opinion that a change of plan was called for, though the remainder were still keen to press on hoping for a break through however unlikely. It was the cause of by far the most serious rift between us, strong feelings were voiced and in a tense atmosphere, the majority decision was adopted. However it says something for the compatibility of the team that once that decision was made everyone immediately knuckled down to the task of stripping the south face and planning a new route. Within only three days we were under way for the summit.

During the discussions following the abandonment of the south face a number of alternative routes were suggested, the feeling most expressed seemed to be that whatever we tried to do it should still be on Changabang, despite other very attractive and easier alternatives. We reviewed the line of the original route through the seracs to Kalanka col, then up the East ridge, but the seracs avalanched regularly, sometimes during the night. A route by-passing the seracs on the right (East) then either



going over Kalanka, or diagonally towards the col, seemed feasible but long and not very attractive (we used the last mentioned camp one, our absence had given it the opportunity to sample possibility as our descent). Tucked between the seracs of the original route and the buttress of the south face is an enormous ice field which abuts a steep rock band at about mid height on the south east face, the upper face consisting of steep ice runnels between ribs of snow, finally the east ridge could be gained, not far below the summit. Less impressive than the south face but attractive nonetheless and objectively it seemed safer than the original Kalanka col route. The main dangers seemed to be the possibility of avalanches during bad weather (the weather had been very settled up to that time) and the difficulty of retreat down the steep exposed ice.

Only five of us were going to attempt the route, so we decided to travel as light as possible, time was running out so it would have to be a single sustained effort. John and Spoons had decided to attempt Sakkram a 20,520 foot peak about 12 miles away on the sanctuary perimeter. The Changabang party took two very small wedge tents and rations for four days, nonetheless our rucsacs seemed heavy.

Having planned for a 2.30 a.m. start, it was a little later than that, before we began to follow the now familiar trail up the upper glacier, under the south face we veered off on a new line, (reconoitered the previous day), crossing the bergschrund below the intersection of the two faces, passing through a narrowing by a sort of ice couloir, then out onto the edge of the enormous sweep of ice which is perhaps 2,500 feet high. The sun crept down to meet us as we solved up towards the rock band, heading for an obvious ice filled gully towards its right hand end, as we progressed the ice became very hard and brittle, so too the angle increased alarmingly in excess of 60% we thought, with perhaps over 3,000 feet of exposure. It was a relief to get roped up and belayed to the rock band which was around 20,500 feet. The gully was about 400 feet long, vertical in places, unrelenting in its steepness and serious from its lack of protection, we considered that overall it probably warranted grade 5 Scottish. A rather fierce afternoon storm had overtaken us in the gully, unpleasant powder snow avalanches poured regularly down our line of ascent, one member was hit by 14 separate slides. A natural ice cave inside a serac appeared, so we wasted no time in entering what was a veritable cavern, to spend a fine night in our tiny tents.

Day two began as we had left off on very difficult ice, climbing out of the cave through a 100 foot chimney in its roof involved surmounting hard ice bulges, one of which required aid. The upper face was less difficult but quite precarious, the ice runnels were rock hard barely allowing our axes to bite and the ribs of snow were extremely unconsolidated, we had to almost swim upwards at one point. The summit ridge was reached by late afternoon just as the weather began to threaten again, so at about 22,000 feet we perched our tiny tents on the corniced arete and with one man in a snow hole, we spent a cold night. Near disaster struck during the night, when gas which had leaked undetected from a stove exploded like a fireball inside one of the tents, disintigrating the nylon condensation net and striking terror into the occupants who fortunately were none the worse.

The summit was soon reached on the third day, October 2nd, via the latter part of the east ridge to give magnificent clear views in all directions, from what was a bitterly cold and windswept top.

Our retreat down the full length of the east ridge to reach Kalanka Col was orderly but slow, due mainly to the very unsuitable condition of the snow. The Col was finally gained through the murk of swirling cloud and falling snow. Some hours were well spent, in digging out a five man snow hole, in which we spent a five star night.

The final day saw us winding our way across and down the southern flank of Kalanka, avoiding the seracs and with only two crevasses to negotiate, to arrive with one abseil over a rock buttress onto easy but avalanche exposed snow fields. The descent had been technically easy, but our previous study of the face had aided our route finding, it would not be a place to be caught in bad weather as the slopes appeared prone to avalanches.

Stumbling into advanced base we were amazed to find our tents and footstock had been ravaged by some type of wildcat, it had our wares, everything had been tasted, but only our sweets (mars bars, dextrosol etc), had been consumed and little material damage had occured.

During the climb one member had contracted very slight snow blindness and another a touch of frostbite, but in both cases nothing serious. Most were very tired some having been in action for thirteen consecutive days. Even so Ted and Syd set out and repeated Sakkram by the same route as the other pair.

In both cases the Sakkram climb had taken two days from base camp. First crossing the unpleasant Uttar Rishi Ganga glacier, then after a long climb up morains and rocky hillsides, reaching the beginnings of the West ridge. The first pair placed a tent just below the snow line, whilst the second team dug a snow hole just above it. The ridge itself gave over 2,000 feet of delightful and sometimes steep climbing up a classical snow/ice arete, of its three well defined summits the last (most easterly), was the highest, giving clear views from unusual angles, of in particular Changabang and Nanda Devi.

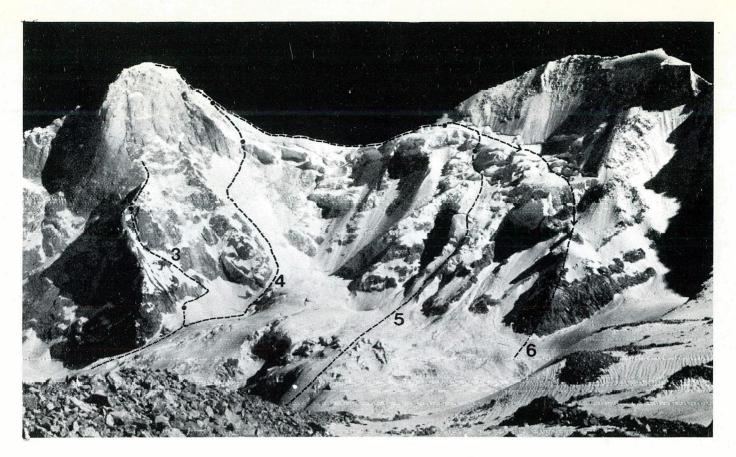
John and Spoons having rested from their climb set off on the walk out, a few days before the porters were due to arrive which would help our depleted food supply to last out and would also be an insurance as they could check that the porters were coming, They enjoyed their trek immensely.

Whilst the remainder of the team waited a sudden severe storm hit the sanctuary, we worried that it might be the start of the winter snows, but it quickly passed over, nonetheless snow remained on all the north facing slopes. When the porters arrived they told us how difficult it had been ascending the very steep scrambling, below Tilchunane, one man had fallen skinning himself. They were not prepared to carry our gear out, over that same snow bound route, but Dan Singh our head porter suggested attempting to traverse the true right bank of the gorge, in order to reach Bagini camp site, on the Rhamani glacier trail, this had never been done, but as there appeared no other alternative we accepted.

Two arduous days were needed to reach Bagini with long and tedious ascents across juniper clad fellsides, the odd awkward steps were negotiated and the climbing at times seemed endless. A camp and water source were found midway and named Rishikot, after which the going got a little tougher, passing above vast crags and slithering down loose scree filled gulleys in others, only to reach what appeared to be an impasse at about 15,100 feet a large steep crag barred our path, some of the porters wanted to go back and find another route but the climbers found a way down, which though not technically difficult seemed to take the porters hours to negotiate, as each load was lowered separately, (this step would probably require a fixed rope in ascent), after crossing the Rhamani gorge we regained the well beaten trail, where two more days of straight forward plodding back to Lata, remained.

That final episode of genuine pioneering rounded off for all of us, the most complete and absorbing moutaineering experience, we have so far had. We are grateful to each and every individual who helped us in any way towards our successful adventure.

The South face remains as perhaps one of the greatest Himalayan rock climbing challenges. It would not be difficult with careful planning to regain our high point in a much shorter period of time, but the vast headwall is still an unknown quantity, which may well require some aided climbing, but it would be a terrible shame if it succumbed to a ladder of bolts, it is too beautiful a mountain for that.



CHANGABANG (left) and KALANKA, from the CHANGABANG GLACIER

3. Attempted line on the South Face.

4. South East Face route.

5. Original Eastridge route.

6. Approximate line of our descent.

Camp/bivouac sites.

EQUIPMENT

Our policy was to use as much of our own personal gear as we could, getting the remainder either free or at a very good discount.

Karrimor provided us with a wide variety of items, inc; trial rucsacs most of which were very good, also some haul bags which doubled effectively as carrying sacs, their gaiters, karrimats and gold tape, (for slings), were all suitable for the job, the wedge tents were rather cramped and iced up badly making them not particularly suitable to the conditions, their lightness and compactness made them attractive however and they were used on the S.E. face climb The survival units were only used for storage.

Makulu double boots proved the most popular with no complaints of cold feet.

Socks were Star Hosiery, North wall loop stitch, comfortable if a little short.

From Damart we obtained seconds and thirds, most people had a complete out fit of hoods, gloves, mitts, vests, long johns and socks all of which were excellent.

On top we wore the Helly-Hansen fibre pile jackets and trousers which were robust and very warm.

Mountain equipment made us some special weight sleeping bags, we also used the standard bootees and Dacron duvets which were adequate most of the time.

Cagiacs provided waterproof suits with the shorter jackets, these proved excellent from the road-head to the summit.

From Troll we had hammocks, harnesses and easy-riders (etriers,) only the harnesses, which were of the full body type were well used, being ideal for prussicking with heavy loads, allowing rests to be taken at will. Climbing in them was also good, except when carrying large amounts of gear which made the seat arrangement sag.

A full range of chocks, pegs and krabs were obtained from Clog, also some descendeurs, ascendeurs, expedition type - crampons and one new type of axe all proved to be of a good standard, especially the ascendeurs, (Cloggers.)

The B.M.C. equipment pool loaned us two Vango mk 5 tents, we also used our own Blacks mountain tents and a Whimper (as base tent). They all proved adequate for their respective roles.

Epi-Gas supplied gas along with their new Backpacker stove which we used for the duration of the expedition from England to the summit and back without complaint.

We also had some pre-heating stoves from Vango which were very effective when working, but due to their lightweight construction developed many faults, which eventually rendered them all useless.

The ropes used were mainly our own of multivarious manufacture. Climbing ropes were 9 and 10 mm. Fixed line was 10 mm braidline which though a bit heavy was very reasuring to use, (note; fixed line was either removed or loosened).

Photography

Most members used the very lightweight and compact, Rollei B35's purchased at trade discount direct from the manufacturer. As a convenient pocket camera they were ideal.

Rollei (UK) also loaned us an SL66 with an additional 500mm lens, we only had to insure and pay for delivery of the equipment. Results were generally poor due to the inferior quality film purchased, (mainly out of date due to a mix up).

Jim Duff used an Olympus camera, (booty from the 1975 Everest expedition). As it was in capable hands it gave an excellent result. Though it seemed a little bulky, it was sturdy and reliable.

A mixed bag of film was used from Ilford (B&W) to Kodachrome and Agfacolour 35mm slide negative. Results varied with the expertise of the operator, much of which was very fair but it was not a good idea to mix the brands of slides as it gives contrasting tones, which can detract from a slide lecture.

Some people used U/V filters which tended to subdue the more vivid colours, (sky etc) and the comparative results are a question of personal preference.

Food

Our intention was to acquire as much of any type of food as possible, free. Then build our menus around whatever we had amassed. This method is not particularly desirable as ones diet, being directly linked with health and stamina, can be critical, but as sophisticated foodstuffs such as freeze-dried meal packs are very expensive and difficult to obtain, we settled for whatever donations food firms were prepared to send, as it was our diet proved very nutritious, if a little monotonous. Before a high calorific and more varied diet could be compiled we had to buy some necessary items.

Enough British food was obtained for the outward overland journey in order to minimise the risk of stomach upsets.

We had planned to eat porter food on the walk in, however, that was abandoned due to the extra porterage and cost it would incur.

On the return journey we had planned to eat local food. That was in order to reduce the van payload on the outward journey. There was in the event, however, sufficient food remaining to get us most of the way home.

Many food companies were approached for donations but response was generally poor, they cited the economic situation as their main reason for declining. However, a large donation of dehydrated soya protein from Itona provided, together with dehydrated potato and vegetables bought at discount from Springlow, formed the basic ingredients of our diet.

Large donations of biscuits were sent from many confectionary firms. Although these were bulky items they provided the high calorie carbohydrate part of the mountain diet. They proved to be appetising and very welcome.

A quantity of tinned fish and meats were also donated. These along with tinned processed cheese, margarine in tubes, biscuits, sweets and chocolate constituted our packed lunch items.

We had a number of Arctic Marine rations which were split up and spread amongst the food packs to give a little variety.

Soups were donated by "Drinkmaster" and their beverage sachets were purchased at trade. Six brews each were allocated for mountain rations, plus soup to allow for a high liquid intake, approximately one gallon a day is required to alleviate dehydration at altitude.

Other items were bought to achieve the necessary quality and quantity of the diet. These consisted mainly of Chocolate, sugar, milk powder and extra tea bags.

Everything was distributed into three catergories, depending on weight and quality. All the heavy items and those requiring a long cooking time, inc; rice, porridge, unflavoured soya, ships biscuits and tinned milk from Libbys, etc, etc, constituted overland food. The basic diet for walk in and mountain packs were similar. But the mountain packs contained items of higher calorific value and were lighter weighing 2 lbs, the walk in packs weighed 3 lbs. The individual food items were sealed into polythene bags, which in turn were sealed into a larger poly bag, each containing rations for one day for two men, or two days for one man either way the system worked well. Finally all the ration packs were put into 2 foot by 1 foot waxed cardboard boxes two of which made a porter load which was convenient to carry.

A sample mountain pack contained:- for breakfast, Alpen and oatmeal blocks (or rolled oats) with brews. Lunch was varied as much as possible and contained most of the following, tins of meats, fish or cheese, chocolate bars, mars bars etc, sweets and biscuits, tubes of margarine, condensed milk and fruit cake. Evening meal, soup, dehydrated soya, meat bars (sometimes), potato and veg, brews and apple rings. There were also communal supplies of tinned meats, cheese, jams, peanut butter and oatmeal blocks. Though these were limited.

Despite being warned that packaging in the above manner would cause pilfering of favourite items. We found that it never occured and the food packs were convenient and practical, nutritious and palatable. Everyone seemed satisfied with the diet, though the soya needed experimenting with before the best results

were obtained. The "Drinkmaster" brews needed extra sugar adding, though they were still very useful to have. But because of this sugar had to be rationed. The chocolate drink proved most popular. More easy to make puddings et. Instant whips etc., would have been a great asset. The single portion sachets of Alpen were not sufficient for starving climbers double portions would have been just enough.

Transportation

The problems surrounding the choice etc. of our mode of transport have already been discussed earlier. After the van was purchased from Godfrey Davies, Manchester garages serviced it, also fitting windows into the sides of the box, all at special rates and provided spares on a use or return basis. We in turn fitted two double coach seats that gave us seven seats in all, (the other personnel were flying out, via the cheapest airline we could find). We also built a large lockable compartment leaving only a small passenger cabin with a narrow passage for access inside the box. Not only did this make for tighter security but also satisfied those countries who are not happy about personnel and goods being transported in the same area.

All food and equipment was packed into waxed boxes clearly labelled and numbered, with a plan drawn of their location, enabling rapid access to any item at any stage of the journey, i.e; Customs posts etc.

After the channel crossing which was at half fare, courtesy of Sea-Link. The route went directly through Europe, down through Greece instead of Bulgaria, (to avoid visa delays), to reach Istanbul in nine days. Then via the trans-Asian highway, (the direct route across Turkey misses the best scenery but definately gives the best roads), route maps are obtainable from the A.A. or R.A.C.

Since the documentation and travel requirements are constantly being revised it is advisable that up to date information is obtained from the respective Embassies, allowing plenty of time for many possible exchanges.

The following data appertaining to our expedition may be found useful by other would be travellers, although an inflation factor would have to be added to prices. The list excludes some perifferal expenditure such as train fares in U.K. and India for the airbourne members, taxi fares in Delhi and Hotel (Doss house) accomodation during the total of 11 days spent there whilst sorting out documentation etc.

Vehicle: Ford D0710, 3 Ton 6 cylinder, Rigid box van, (with roller shutter), Registered 1973, 74,000 miles, (unplated). Keswick - Garwhal - Keswick: 15,778 miles.

	Diesel fuel (which can jellify in extremely cold conditions, such as we found on the return journey, deterent; keep engine running):-	812 gal	£ 357,41	
	Engine oil (very cheap in Iran, but equally poor quality)	99 litre	31.98	
	Anti-freeze (required for return journey)		1.50	
	UK road tax (private)		40.00	
	Vehicle insurance (UK only)		30.00	
	Vehicle insurance (all other countries except India)		330.00	
	Vehicle insurance (India, not compulsory but desirable, obtainable at A.A. India, Amritsar):-		3.18	
	Double indemnity (single if preferred, at half this rate)		434.00	
	R.A.C. carnet (appertaining to vehicle only)		8.00	
	A.T.A. carnet (appertaining to goods only)		20.00	
	Visas (Afghanistan only. 7 x 2 (return) x £3 each)		42.00	

Channel ferry (van x 7 persons return at ½ price)	77.70
Road, bridge & border tolls, en-route.	28.49
Break down repairs (it would seem prudent to budget for this)	56.84
Camp site fees (it is illegal or unadvisable to camp on other than authorised sites, in several countries):-	37.29
Cooking gas refills (very cheap in Iran, factory at Mashad)	1.06
Air fares (three returns to Delhi)	545.00

Total:-£2,044.45

Some useful tips.

- Consideration should be given to loading the vehicle,, in order that load slip will not occur.
- Ensure easy access of day to day items.
- Ventilation is important, temperatures vary from subzero to heat-wave.
- In addition to the usual vehicle checks, look out for loose nuts and bolts on wheels, chassis and engine, due to many rough roads.
- Night driving is hazardous due to many unlit obstacles and
- Care should be taken at borders to ensure that drugs are not planted on the vehicle. Penalties are severe.
- Avoid accepting damaged bank.notes, particularly in India, as locals will not take them. They have to be changed at banks. Also we had some Scottish bank notes, almost every country refused to accept them.
- 8) Never leave the vehicle unattended night or day they may steal bulbs, wipers etc.
- At borders do not join the commercial queue as they can be very long, incurring sometimes (expecially in Turkey) two days delay. Go as tourists but declare all goods. Carry many copies of an inventory of all items.
- All water from Turkey, on, needs purifying. Large quantities needed in Afghanistan, for desert crossings. Try to avoid eating local food on the way out in particular, in order to avoid arriving in the mountains in a debilitated condition, (Delhi belly is very nasty).

List of Sponsors:-		Benefactors
Grants:-	£	In addition to the above assets, many firms allowed us considerable
Mount Everest Foundation	350.00	discounts. Giving us a probable saving of £2,000. Without that
British Mountaineering Council	350.00	help we could never have functioned and are eternally greatful to them all. (The equipment suppliers are listed within the
Fell & Rock Climbing Club	250.00 100.00	equipment report.)
R.A.F. R.A.F. Mountaineering Association	50.00	They are:- Bowater containers, porter boxes.
	1100.00	Bowmans chemist film.
Total	1100.00	Dennis English, sports shop.
Others who gave varying amounts:-		Frank Davies, sports shop. Godfrey Davies Ltd. van.
Sunday Times, retainer & news item.	135.00 78.67	Hodder & Stoughton, paperback books.
Brian White & Peter Brooks, sponsored run. Mr M. Chadwick	10.00	Lakeland Stonecraft Builders Ltd., spare wheel and timber.
Wolsey-Hughes, Merchants Ltd.	5.00	Macmillan Bloedel Containers Ltd., transport boxes
J. Adams, lecture fee.	25.00 10.00	Manchester Garages Ltd., overhaul of van & spares.
A. Roberts, lecture fee. Bill Robinson	5.00	National Westminster Bank Ltd., guarantees etc. Northumbrian Baffin expedition, loan of hammocks.
COOP Kendal.	5.00	Penguin Ltd., paperback books.
Total	273.67	Rollei (UK), cameras & loan of SLR66 with
	273.07	telephoto lens. Stubbs outdoor sports shop.
Personal contributions from trekkers:-	2(0.50	ottavos outtavos sports snop.
Mrs. L. Read Mrs. E. Clark	360.50 360.50	Food donations:-
Mrs. C. Rogers	360.50	Associated Biscuits, biscuits & cherry cake. Brooke-Bond Oxo Ltd., corned beef & coffee.
-	1001 50	Burtons Biscuits, biscuits.
Total	1081.50	Carrs of Carlisle, biscuits.
Personal contributions from climbers:-	500 50	Co-op Bowness, tinned meat. Drinkmaster, soups.
C. Read	530.50 527.20	Itona, soya protein.
S. Clark E. Rogers	527.20	K. P. Foods, peanuts.
J. Adams	534.66	Libby, McNeil & Libby, evaporated milk. R. H. M. Foods Ltd., porridge.
R. G. Blyth J. Duff	516.70 432.00	Rowntree Mackintosh, peanut butter & biscuits.
A. Roberts	527.20	United Biscuits, biscuits.
(The inbalance is caused by the uneven purchase		Walter Wilson - Millom, tinned fish. Weetabix Ltd., Alpen.
of equipment.)	2505.46	Whitworths Holdings Ltd., easy cook rice.
Total	3595.46	Medical equipment simulians
Grand total of funds available	£6050.63	Medical equipment suppliers:- Abbott Laboratories Ltd., Queensborough, Kent ME11 5EL.
Grand total of funds available		Allen Hanburys Ltd., Bethnal Green, London, E2 6LA.
Furnanditura		Ames Co. Ltd., P.O. Box 37, Stoke Court, Stoke Poges, Slough SL2 4LY.
Expenditure	1175.00	Astra Chemicals Ltd., King Georges Avenue, Watford, Herts.
Climbing equipment & clothing Food & other consumables, gas etc.	1175.00 200.12	Bayer U. K. Ltd., Pharmaceutical Divison, Haywards Heath,
Vehicle, inc. repairs, spares etc.	1268.11	West Sussex RH16 1TP. Beecham Research Labs, Beecham House, Great West Road,
Diesel & Engine oil & Anti freeze	390.89 545.00	Brentford, TW8 9BD.
Air fares Insurance, indemnities & carnets	1105.18	Bengue & Co. Ltd., Alperton, Wembley, Middlesex.
Van repairs, en-route	58.34	Berk Pharm Ltd., Station Road, Shalford, Surrey. Boots Co. Ltd., Thane Road, Nottingham, NG2 3AA.
Bridge, ferry, road & border tolls	106.19	Calmic Ltd., The Wellcome Foundation Ltd., Ravens Lane,
Accomodation & transport, (camp sites, trains etc)	103.42	Berkhansted, Herts. Dista Products Ltd., Fleming Road, Speke, Liverpool, L24 9LN.
Bankers guarantee	30.00	Glaxo Labs Ltd., Greenford, Middlesex.
Peak booking fee Visa fees (Afghanistan only)	63.09 45.00	Hoechst Pharms. Ltd., Salisbury Road, Hounslow, Middlesex.
Liaison officer insurance & other expenses	14.00	ICI Ltd., Pharms. Div., Alderley Park, Macclesfield, Cheshire Lastsnet Products Ltd., Carn Brea, Redruth, Cornwall.
Porters fees & Food, 43 men in, 16 out	1031.00	Lederle Labs, Fareham Road, Gosport, Harts PO13 OAS.
Administerive & other incidental expenses	263.00	Leo Labs Ltd., Hayes Gate House, Uxbridge Road, Hayes,
Expenditure total:- Total	£6398.34	Middlesex. 3M UK Ltd., 3M House, Wigmore Street, London, WIA 1ET.
·		May & Baker Ltd., Dagenham, Essex, RM10 7XS.
Returns:-		Merck Sharp & Dohme Ltd., Hoddesdon, Herts. Nicholas Labs. Ltd., 225 Bath Road, Slough, Bucks.
B.M.C. tent deposit, refunded	30.00	Parke Davis & Co., Usk Road, Pontypool, Mon. NP4 8YH.
Sale of surplus film	45.00	Pfizer Ltd., Sandwich, Kent.
Return of unused spares	76.87	Roche Prods. Ltd., P.O. Box 2LE, 15 Manchester Square Searle GD & Co., Ltd., Lane End Road, High Wycombe, Bucks.
Sale of van	800.00	Seton Prods Ltd., Medlock Street, Oldham, Lancs.
Total	£ 951.87	Smith & Nephew.
		Warner William R. & Co. Ltd., Chestnut Avenue, Eastleigh, Harts.
Final balance to be redistributed amongst the team: -	£ 604.16	W. B. Pharms Ltd., PO Box 23, Bracknell, Berks, RG12 4YS.