

Karakoram 1986

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Last summer 62 expeditions with a total of 422 mountaineers visited Pakistan from abroad, and 37 trekking groups comprising 247 participants were granted permission to visit the restricted areas of the mountains. 25 climbers or Pakistani nationals assisting expeditions died, a dozen of them on K2 in a variety of accidents. The Skardu district was most popular with 42 peaks booked, while smaller numbers visited Diamir, Gilgit and Chitral districts. There were 20 rescue-related helicopter flights. In the Hunza river area above Gilgit a Spanish expedition led by Alejandro Arranz climbed Yukshin Garden Sar. Elsewhere there were many failures, on Ultar 2 (Japanese-Pakistani), Diran (Japanese and Belgian), Batura 1 and Haramosh (Polish). On Diran, Japanese climber Iida Ryuhei fell into a crevasse and was not recovered, between Camps 2 and 3 on 20 July. A Dutch Alpine Club group led by Dries Nijssen climbed Rakaposhi, making a new variant on the NW ridge. Van de Boogard and de Koning reached the top on 17 August. A Japanese expedition also made an attempt which failed, and had no more luck with Nanga Parbat. Attempts on Lupugar Sar East (7200m) and Sanomar Sar (7050m) were similarly fruitless, and a Japanese expedition to Chiring East (7090m) failed, one member Hisao Kandu falling into a crevasse on 25 June. On Nanga Parbat in Diamir three parties combined to climb the Kinshofer route on the Diamir face. After much bad weather Valencians Miguel Gomez, Rafael Vidaure, Moises Garcia and Italians Fausto de Stefani and Sergio Martini reached the top in bad snow conditions on 15 August. A Belgian-Dutch expedition led by Jan Vanhees also participated. On 16 August Belgians Jan Vanhees and Lut Vijis, and Dutch climber Hans Lauter reached the top. Kazimierz Malczyk's Polish party failed on the W Face.

In Chitral a British party was unsuccessful on Tirich Mir because of heavy snow, but climbed on Dir Gol Zom (6788m). On 27 August Steve Callen and Mike Aughey climbed the NE face and then descended the E ridge. Two days later Dave Harries, Steve Hart and Dave Wilson climbed the E ridge. Lt Nasir Ahmed and Italian Dr Alessandro Nacamuli were killed in an accident at Zondrangrane on the way to Tirich Mir Base Camp. Little was achieved by expeditions in the Biafo, where a Norwegian party failed on Latok 2 (7021m). In the Trango group Woiceich Kurtyka and two Japanese tried a new 'big wall' line of strength on the Trango Tower. Uncharacteristically they failed, and the same route was tried again later in the season by Australian Greg Child and companions Randy Leavitt and Tom Hall Hargis, using portaledge and all the refinements. After doing some very hard climbing they too gave up, after being struck by falling ice debris. An Italian party was also in the Trango group, but was unsuccessful.

In 1986 Gasherbrum 4 received rather more attention than is usual, with three expeditions booked to try it. The Australian-American party succeeded on the NW ridge, last tried by American Mug Stumps in 1984, making the

second ascent to the true summit since that of Bonatti and Mauri in 1958 via the NE ridge, and the South Gasherbrum Glacier. (Woiceich Kurtyka and Robert Schauer went to the N summit only, after their ascent of the W face in 1985.) From Base Camp on the West Gasherbrum Glacier at 4815m camps were set up at 5610, 6510 and 6950m, with fixed ropes to Camp 3. Above there old American rope was excavated to 7255m. Tim Macartney-Snape, Greg Child, Tom Hargis, Geoff Radford and Andy Tuthill made a summit bid from Camp 3, making a fourth camp at 7315m and next day going to 7620m before dropping bivouac gear and aiming for the top. Radford turned back just above and Tuthill above the N summit rockband at a point where lateness ensured a gearless bivouac for those continuing. The other three continued, surviving a bivvy in a small snow-cave just under the N summit and reaching the higher S summit next morning at 9.30am (22 June). Macartney-Snape, one of the summit climbers on the Australian ascent of Everest by a new route on the N face in 1984, survived a fall while trying to extract a piton on the descent. Child stopped him on the rope with a foot-locked ice-axe belay. They returned to Camp 4 at 10pm on 22 June and Camp 1 at 5pm the next day. Subsequently Child and Tom Hargis went to Trango (see above). Meanwhile Dai Lampard's British group found the approaches to the W ridge too hazardous at 6600m and made the long trek up the Duke of Abruzzi Glacier and South Gasherbrum Glacier to the S ridge. Lampard and Phizacklea climbed to about 7320m on this new route, but retreated in worsening weather when one of the members below had an accident. A Spanish expedition approaching from the South Gasherbrum Glacier changed its objective to Gasherbrum 2. Carlos del Olmo and Robert Vasques reached the top, but the leader Carlos Aracil died at about 7200m, the cause being variously reported as intense cold and pulmonary oedema.

On each of Gasherbrums 1 and 2 six expeditions were scheduled. On G2 there was also a further Pakistani expedition led by Sher Khan, who reached the top with three companions for the third time. Three other groups succeeded. Early in the season Bernard Muller's French commercial expedition reached the top, and Viktor Groselj's four-man Yugoslav group also succeeded, reaching the top in 32 hours. West Germans Dieter Siegers, Jurgen Altgelt, Karl Zoll, Volker Stallbohm and Martin Fischer reached the top by the standard 1956 Austrian route on 16 August. On Gasherbrum 1 (Hidden Peak) three expeditions succeeded. Japanese Osamu Shimizu and Kiyoshi Wakatsu reached the summit via the N face from the Gasherbrum La. A French party led by Alain Cokkinos repeated the Messner route and Manfred Lorenz's Swiss group also reached the top. Dr Andreas Buhner died in a fall from about 7800m in descent (18 August). Paul Trichanz's Swiss group lost a porter with 'pneumonia' on 31 May (Ali, son of Ghulam Mohammad) and gave up a short distance below the top because of high wind. Other West German, Italian and Spanish expeditions failed.

Nearby on Chogolisa more innovatory activities were afoot. An eight-man Spanish party made the second ascent of the main summit (Sebastien Alvora Lamba). Then five British climbers traversed the mountain from the Vigne Glacier. In five days Andy Fanshawe, Hamish Irvine, Liam Elliott, Ulric

Jessop and Simon Lamb climbed the NW face and the SW ridge, reaching the high summit on 14 July and continuing in excellent conditions to the lower summit of Bride Peak, and down by the original route. After this ample justification for their Nick Estcourt Memorial Award the Scottish members, Elliot, Irvine and Jessop, went on to Broad Peak.

10 expeditions had permission to climb there, often combining this with other permissions for K2 or the Gasherbrums, or Chogolisa. Seven reached the top. Agostina da Polenza's Italian 'Quota 8000m' group put Soro Dorotai, Marino Giacometti, Martino Moretti, Joseph Raconcaj and Benoit Chamoux on top via the normal route on 20 June. Chamoux made a solo in under 24 hours. By the same route Dr Herrligkoffer's International Expedition put nine climbers on top. On 21 June Peter Worgotter, Markus Prechl, Beda Furster, Rolf Zemp and Diego Wellig reached the top. On the 24th, Joachim Labisch and Heinrich Koch and, on 6 July, Tony Freudig and Manfred Heinrich followed in their footsteps. On the last occasion also Spaniards Juanjo San Sebastien and Roman Portilla with Abdul Karim succeeded prior to their success on Chogolisa. Frank Tschirky's Swiss group made a marriage of convenience with Franz Piffi's West Germans for permission purposes, but operated independently on the mountain. On the peak they made two separate ascents. On 7 July Peter Brill, Fritz Schreimoser, Sebastien Oelzel, Henriette Eberwein and Bruno Sprecher reached the 'top' and on the 8th Max Wallner, Daniel Shaer and Alain Fenart. Of these, only Schreimoser and Oelzel went to the true summit, which is 400m along the ridge and 17m higher than that reached by many parties, but present convention seems to turn a blind eye to this anomaly. Ms Eberwein thus became the first Austrian woman to climb an 8000m mountain. A West German group also succeeded, reaching the top on 16 August. Michel Dacher, Gabi and Sigi Hupfauer and Karl Fassnacht comprised the party, this being Dacher's ninth 8000m peak and Hupfauer's fifth. Major P Cullinan, President of the Australian Army AC, led an army expedition as preparation for their attempt on Everest in 1988. Eight climbers reached the top on 16 August but two were severely frostbitten and evacuated by helicopter. Viktor Groselj's 12 Yugoslavs reached the top in three roped groups and two solo climbers between 28 July and 4 August. They included the first Yugoslav woman to climb an 8000m summit, Maria Stremfelj, who reached the top on 29 July, and Tomo Cesen who, after a very fast solo of Broad Peak, went on to solo the SSE spur of K2 to the Shoulder at 7800m on the Abruzzi on 3-4 August. This was regarded as a 'reconnaissance', taking the line first explored by Al Rouse and Roger Baxter-Jones in 1983. Late in the season the Scottish trio from Chogolisa made their attempt. They reached the summit ridge in unsettled weather, and Elliot lost his life when he fell through a section of collapsing cornice in a tragic reenactment of the fate and last routes of Hermann Buhl.

The tragic drama of K2 in 1986 will be familiar to most. On K2 (8611m), at the beginning of the season, an unprecedented total of 11 separate expeditions were booked to climb on the mountain. Circumstances would dictate that the fate of many of the climbers involved would be tragically bound together. Listing the expeditions in a clockwise order of routes:

An Austrian team of seven mountain guides led by Alfred Imitzer were to

attempt the SE (Abruzzi) ridge. A large South Korean expedition on the Abruzzi ridge used over 450 porters during the approach march and started up the mountain, fixing their own ropes and ignoring old ones. Later, on 4 August, one of their porters, Muhammad Ali, was killed by stonefall near Camp 1.

A French group of four climbers led by Maurice Barrard completed an ascent of the Abruzzi ridge, having their last bivouac at 8300m, above the 'bottle-neck' (a weakness in the line of cliffs which guards the upper part of the ridge, and is overhung by séracs). The following day, 23 June, they all reached the summit: Wanda Rutkiewicz (Polish), Michel Parmentier, Maurice and Liliane Barrard. On the way down, they decided to repeat their bivouac at 8300m, but next day, 24 June, the weather deteriorated and made the descent hazardous. The Barrards were gradually falling behind and eventually disappeared out of sight at about 7900m. Later, Parmentier stayed to wait for them at one of the camps, while Wanda completed the descent with two Basques. Having lost all hope of finding the missing couple, Parmentier and a group of Italians, who tried to help, came down as well.

The Barrards were among the finest of French climbers. Maurice made his first appearance on the Himalayan scene with his alpine style ascent of Hidden Peak, together with Georges Narbaud, in 1980. Since then, he and Liliane climbed together Gasherbrum 2 (1982) and Nanga Parbat (1984) and almost reached the summit of Makalu in 1985. With the present ascent, Liliane Barrard and Wanda Rutkiewicz had become the first women to climb K2, as well as three 8000ers. Wanda, who had previously climbed Everest (1978) and Nanga Parbat (1985), is the first Polish climber to reach the summit of K2. For Michel Parmentier, this is his second 8000er; he climbed Kangchenjunga in 1981, also in tragic circumstances.

Two Basques, Mari Abrego and Josema Casimiro, officially members (for mutual convenience) of Renato Casarotto's expedition but in practice acting independently, made a swift ascent of the Abruzzi ridge in a five-day alpine push. On 23 June they left their bivouac tent (8100m) at the foot of the bottle-neck, and reached the summit a couple of hours after the previous group, in excellent weather. They returned to their last bivouac point and the following day, 24 June, started a painful descent in deteriorating weather conditions, joined for part of the way by Wanda Rutkiewicz, and arriving three days later at Base Camp, with slight frostbite in hands and feet. This was the tenth 8000er by climbers from Spain, and Abrego's second.

An American expedition from Portland, Oregon, comprising nine members led by John Smolich, were trying the SSW ridge but soon met with disaster. On 21 June a massive avalanche was triggered by a falling boulder on the snow high above them, at 6000m. John Smolich and Alan Pennington died as a result, Pennington's body being retrieved by his friends and brought down for burial at Arthur Gilkey's memorial, near Base Camp. The expedition was abandoned.

The Italian expedition, part of the programme called 'Quota 8000', was led by Agostino da Polenza, with a total of 20 members, among them several non-Italians. They tried first the long SSW ridge (also referred to as South Pillar), with the intention of following the 'Magic Line' suggested by Messner in 1979.

After the avalanche to the Americans, they changed their plans to the Abruzzi ridge, in order to secure the summit. On 5 July six members reached the top: Gianni Calcagno, Tullio Vidoni, Soro Dorotei and Martino Moretti (Italians), Josef Rakoncaj (Czechoslovak) and Benoit Chamoux (French). The following day, Kurt Diemberger (Austrian) and Julie Tullis (British), who formed the film crew of the expedition, reached the bottle-neck (8200m) and withdrew, in view of the worsening weather. For Calcagno and Vidoni this was their fourth 8000er, whereas Josef Rakoncaj is now the only person to have climbed K2 twice, since he had already reached the top from the north side of the mountain in 1983, while attached to another Italian expedition. Benoit Chamoux made a lightning ascent, in under 24 hours from Base Camp, this being his fourth 8000er in less than 13 months.

The International expedition led by Karl Herrligkoffer (69) had as members eight Germans, four Swiss, two Poles, two Austrians and two Pakistanis. During the first stages, the leader suffered from mountain sickness and had to be evacuated by helicopter. Then the members split into several groups, the majority moving to Broad Peak, the other objective of the expedition. Two Poles, helped by a young German, were left to concentrate on the expedition's original plan for K2, that is, a new route following 'the central rib of the S face'.

After having climbed Broad Peak with various other people, Swiss members Beda Furstner and Rolf Zemp moved to the Abruzzi ridge of K2 and managed to reach the summit on 5 July, only half an hour after the previous Italian team.

In the meantime, the Poles Jerzy Kukuczka (38) and Tadeusz Piotrowski (46), after a first attempt in which they reached 7400m in June, started the ascent of the central rib on 4 July, reaching the summit in alpine style on 8 July, after four consecutive bivouacs. The most difficult section of the climb was encountered on the third day, in which they only progressed from 8100m to 8200m, having to overcome a difficult 25-metre wall with climbing estimated by Kukuczka as 5+ (UIAA Grading). Finally the summit was reached in bad weather, which forced them to bivouac on the way down, first at 8300m (the same spot used by the French group) and then at 7900m.

On 10 July, with appalling conditions of visibility and a coat of fresh snow over hard frozen ice, they tried to find their way down the Abruzzi ridge. Piotrowski, who was behind Kukuczka, lost both crampons and fell to his death from about 7800m, down the 55° ice-field. In extremely tough conditions, Kukuczka managed to reach the upper camp of the South Korean expedition, from where he radioed for help to the Polish team active on the SSW ridge. Eventually he completed the descent, but nothing could be done about his companion.

Piotrowski was renowned for his winter ascents. With Andrzej Zawada, he climbed Noshag (7392m) in February 1973, the first winter ascent of a mountain higher than 7000 metres. He also gained a reputation for his winter climbs of Trollryggen in the Romsdal of Norway, as well as in the Alps. In December 1983 he made a harrowing ascent of Api (7132m), in Western Nepal. For Kukuczka, this was his eleventh 8000er.

Renato Casarotto (38), from Italy, was trying to solo the long, unclimbed SSW ridge, with a slight deviation to the right in the upper part. A first attempt

ended at 8200m, about 23 June. A second attempt reached a similar height, about 5 July. In his third attempt, by mid-July, he reached a little higher, about 8300m, and decided to withdraw in view of the weather, playing safe as usual.

He descended the whole length of the ridge to the foot of the mountain, where (16 July) he fell in a crevasse near the moraine, only about one hour's walk from Base Camp. The crevasse was about 40 metres deep and, despite suffering severe injuries, he managed to get his radio out of his rucksack and call his wife who was at Base Camp ready to receive any news. A search party was organized by members of the Italian and International expeditions, including both their doctors. They found him in the bottom of the crevasse, still alive. After lifting him to the surface, all efforts by the doctors were useless and he died soon afterwards.

This is a great loss for Italian mountaineering. Casarotto's solo climbs include, among others, a new line on the N face of Huascaran in 1977, the first ascent of the N pillar of Fitzroy in Patagonia, which he named Goretta Pillar (after his wife) in 1979, and many winter climbs of extreme difficulty in the Dolomites and elsewhere in the Alps. In Asian mountains, he will be remembered for his first ascent of Broad Peak North (7600m) in 1983. Last year, with his wife, he reached the summit of Gasherbrum 2 (8035m).

A Polish mixed expedition, including Wojciech Wroz, Przemyslaw Piasecki, Krystyna Palmowska and Anna Czerwinska, was attempting the same route as Casarotto (the SSW ridge).

A British expedition of eight members, led by Alan Rouse, was attempting the unclimbed NW ridge, on the border with Sinkiang (China). They did not manage to reach the summit on their target date (23 July) because of difficult conditions on the ridge and bad weather. Having reached an altitude of c 7300m, they gave up this route in the last week of July and the whole team, except for Alan Rouse and Jim Curran, started the return trek.

The Polish expedition led by Janusz Majer succeeded in placing three climbers, Przemyslaw Piasecki, Wojciech Wroz and Peter Bozik (Czechoslovak) on the summit, via the previously unclimbed SSW ridge—the 'Magic Line'. The climb ended in tragedy when Wroz was killed on the descent.

Towards the end of July, the weather had improved considerably and a complex group of people started out for the summit via the Abruzzi ridge. They included members of five different expeditions: Alan Rouse, leader of the mentioned British group, Kurt Diemberger (Austrian), Julie Tullis (British) and Dobrosława Wolf (Polish), Alfred Imitzer, Willi Bauer and Hannes Wiesser, all members of the Austrian expedition active on this route; and also several members of the South Korean expedition who had so thoroughly prepared the route up to and beyond the SE shoulder (7800m).

By 2 August, the group had reached the site of a large Camp 4 (c 8000m) from their Camp 3, in fine weather. On 3 August, whilst the remaining climbers presumably recuperated at Camp 4, the summit was reached by three Koreans, Bong-Wan Chang (34), Chang-Son Kim (26) and Byong-Ho Chang (25) who had used oxygen (the only expedition to have it). Shortly after leaving the summit, the Koreans were caught up by the Polish team, who had just reached the summit via the SSW ridge, and both parties continued the descent.

Darkness fell before the climbers reached Camp 4. One Korean was forced to bivouac, and Wojciech Wroz failed to reach Camp 4, presumably having abseiled off the end of a fixed rope.

Eventually his companions managed to complete the descent without further mishap. Wojciech Wroz (44) was a very well-known mountaineer in Poland and had previously climbed Kangchenjunga South (1978) and Yalung Kang (1984), as well as having been above 8000m on K2 in 1976 and 1982.

On 4 August, while the previous group was descending, further ascents to the summit were made in rapidly deteriorating weather conditions. The first, by Austrians Imitzer and Bauer, was at about 4pm, shortly followed by Alan Rouse. Rouse then descended quickly to help Wolf, who had reached *c* 8450m and was very tired, back to Camp 4. Later in the day, at about 7pm, Diemberger and Tullis also reached the top, but during the descent Tullis suffered a fall that dragged them both down for about 100 metres, fortunately without injury. Being too late to reach Camp 4, they were forced to bivouac in the open.

On 5 August the weather deteriorated further and a long, fierce storm began. Diemberger and Mrs Tullis, who was suffering from eye problems, managed to reach Camp 4, joining the rest of the climbers who had been involved in the attempts of the previous day.

No more news was received after that at Base Camp and a week later (11 August) no trace of the missing climbers had been found. Messages were then sent to Europe, stating that all seven climbers were missing, presumed dead. However, by late on 11 August, Willi Bauer had arrived at Base Camp and the entire chain of events was finally revealed:

The storm that had started on 4 August developed full force during the following days, with heavy snowfall, winds in the region of 150km/hour and temperatures of minus 30°C. Their tents wrecked, Tullis moved in with the Austrians Bauer, Wiesser and Imitzer, while Diemberger joined Rouse.

On 7 August Julie Tullis (47) died in her sleep.

The storm continued unabated, and by 8 August the trapped climbers had run out of food and fuel. On 10 August the sky began to clear and the snowfall stopped, but the fierce wind continued. Bauer, Diemberger, Imitzer, Wolf and Wiesser started to descend. Alan Rouse (34) was unable to move, had drifted into delirium and was left in his tent, as there was absolutely no hope of evacuating him from the mountain.

Almost immediately, Imitzer and Wiesser collapsed. The remaining three, Wolf, Diemberger and Bauer, continued the descent but failed to find shelter in the remains of Camp 3 (7350m), which had been avalanched prior to the ascent. Now descending fixed ropes from the Shoulder, Bauer and Diemberger managed to reach Camp 2 (6900m), which was stocked with sufficient food and fuel, late in the evening, and spent the night there. They had last seen Dobrosława Wolf two hours before their arrival, lagging behind on the fixed ropes. She failed to arrive at the camp, presumably having been killed above 7000m.

The following day, 11 August, the two survivors continued the descent. Bauer (44), who was the stronger, went ahead by evening to reach Base Camp,

which was still occupied by the Polish and South Korean expeditions, as well as two or three climbers of other nationalities. Immediately, a search party, including Jim Curran, the film cameraman for the British expedition, was formed, and found Diemberger at the foot of the mountain shortly before midnight, painfully moving towards Advance Base Camp. Both Austrians had suffered severe frostbite to fingers and toes.

After several days of waiting, on 16 August, a helicopter arrived at Base Camp and evacuated the two Austrians to Skardu.

(The information which chronicles these events has come from several sources, but has been carefully studied and confirmed by Jim Curran, who was present throughout the whole episode. He is anxious to point out that the above is correct, to the best of his knowledge, and should hopefully put an end to the speculation that has been rife in the 'popular' press and amongst the climbing fraternity.)

This is by far the greatest climbing tragedy that has occurred in the Karakoram range. Although sudden avalanches elsewhere in various 8000ers have taken a greater toll of victims on several occasions, a long, gradual ordeal of this magnitude has only been surpassed by the catastrophe to the German 1934 expedition on Nanga Parbat.

Alan Rouse was one of the best British climbers of our time, having made the first ascent of Kongur (7719m) in 1981 as a member of Bonington's team. Other ascents include that of Broad Peak, Jannu and Nuptse. He was the first British climber to gain the summit of K2.

Julie Tullis, whose third attempt on the mountain this was, had previously tried mountains such as Nanga Parbat and Everest, always accompanied by her filming colleague, Kurt Diemberger, who had formerly climbed five 8000ers. Together they climbed Broad Peak in 1984, a second ascent for Diemberger. Julie Tullis still remains the only British woman ever to have climbed an 8000er.

Alfred Imitzer and Hannes Wiesser were both prominent figures in Austrian mountaineering, the former having climbed (along with Willi Bauer) Nanga Parbat in 1978. With the present ascent of K2, Austrian mountaineers have now climbed all 14 8000ers, the fourth country to do so (after West Germany, Japan and Switzerland).

Dobrosława Wolf was a very courageous climber and only last year she came within 50 metres of the summit of Nanga Parbat. Her death has caused a great impact in Poland, as she was the daughter of Mr Miodowicz, a newly elected member of the Politburo and the official organ of the Polish trade unions.

The role played by the South Koreans led by Byong-Jun Kim appears to have been very tolerant and helpful when light-weight expeditions had so many problems and needed their assistance. Earlier, in June and July, they had engaged themselves in helping other climbers caught by previous storms, and their presence had been much appreciated by other expeditions. The UIAA Expeditions Commission has written specially to thank them for their generosity in most trying circumstances and to commend them for their actions.

The American expedition led by Lance Owens from China seems to have run into difficulties regarding the transport of supplies to Base Camp. Reports

suggest that the lack of food and equipment motivated the withdrawal of most members of the group, including the leader, after mid-August. However, Steven Swenson, Catherine Freer and David Cheesmond stayed on, hoping for a late ascent, but did not succeed.

1986 registered 27 individual ascents of K2, bringing the total to 66.

The death toll has been by far the heaviest in the history of the mountain, with 12 foreign climbers. This figure does not include six porters killed on the Baltoro Glacier, and Muhammad Ali. The previous grand total, from the turn of the century to the end of 1985, was 12 (seven foreign members of expeditions, three Sherpas and two Hunza porters). Approach and return marches have not been taken into account.

If there are any lessons to be learned from this complex series of events, spattered with achievement and mortality, it is that very high mountains require more than strength, technical skill and determination if climbers are to enjoy success and survival. Essential are intelligent calculation and a degree of luck. Thus, though the fast ascents of 'sport-climbing' at altitude should probably be 'controlled' by the rule of not staying too high too long, as many of the deceased climbers did, big mountain ascent cannot be reduced to any simple rules of thumb. There will be some who disagree, prompted by the unacceptability of the unprecedented carnage of 1986. The K2 experience will remain a matter for debate and disagreement, not only in the delineation of its complicated events, but also in the interpretations and lessons which climbers and others will persist in trying to place upon them.

Postscript The Editor has received the following comments on the K2 events from Charles Warren and Kurt Diemberger.

Charles Warren writes: During August 1986 the newspapers were full of reports on the tragic losses of life in the mountaineering accidents on the mountain K2.

In the *Sunday Times* (17 August) it was reported that Julie Tullis had died on that mountain of exhaustion following an ascent to the summit. But people do not just die from exhaustion on very high mountains; they die either from exposure to cold or from high-altitude sickness. From the descriptions of her end, I do not think that she died of cold. And I do not think that her difficulty with vision was due to snow-blindness which causes painful but not disturbed vision. No, I think that it was probably due to clotting of the blood either in the blood vessels in her eye or brain; possibly a warning sign of a 'stroke' which was to follow and which killed her.

I write this to point out the very real hazards of *really* high altitude mountaineering. These are threefold: cerebral oedema, causing acute mountain sickness with headache and vomiting; pulmonary oedema, causing respiratory difficulties and sometimes death; and vascular blood clots causing brain strokes or lung trouble or heart attacks.

But what can be done to prevent these high-altitude medical accidents? Well, first of all we must instil into mountaineers an appreciation of the risks they run on going really high *without* oxygen. Secondly, an appreciation of the hazards of

dehydration through an inadequate fluid intake. And thirdly, the risks of staying up high for too long.

A pioneering attitude to very high altitude mountaineering is all very well up to a point, but, after all, merely getting to the top without oxygen does not really matter; it is the way you get there which counts. To be praiseworthy in your success you must bring back your party alive, as we tried to do in the thirties, when fatal accidents were considered to be a disgrace.

Kurt Diemberger writes: I understand Charles Warren's concern. However, to well acclimatized climbers on the highest summits of the world, the lack of supplementary oxygen for the ascent appears to me to be the least important factor. I regard as a much greater danger dehydration caused by insufficient drinking, as well as inappropriate tactics of attack. Both Julie Tullis and I were very well acclimatized in the ascent to the summit of K2, and we had no altitude problems of any kind, not even a slight headache—we were in top-form! We had recently carried up a Camp IV to c 8000m, for the eventuality that the Camp IV which we had established one month previously, and which had remained behind as a firmly anchored depot, might have disappeared—which indeed proved to be the case. However, we lost one day (3 August) at 8000m as an indirect consequence of the strategy of another group of climbers who, instead of descending to Camp III after the failure of their summit attempt, perched themselves (for the purpose of another attempt after a day's rest) in the Koreans' tent and in Alan Rouse's small tent. (Alan, like us, wanted to go to the summit on 3 August—if possible as a joint effort, something that Julie and I much desired!) At that point in time no one could have had any idea of the dangerous implications: the weather was still good, the wind was still coming from China! Subsequent events are well-known and I will not repeat it all here. I only want to say that I agree with Dr Warren in believing that the cause of Julie's death must have been, not exhaustion, but clotting of the blood—there were no oedema symptoms, and the temperature inside the tents was tolerable. A contributory factor was undoubtedly also the bivouac, caused by the accident, at a height of c 8400m, on the bulge of the hanging glacier of the summit pyramid. Or perhaps an invisible injury caused by the fall.

I want to add the following to Dr Warren's remarks. No one in the whole group up there wanted to stay for so long at such a height. Everyone knew the risks, but we were prisoners of the storm, with no escape! In that hurricane a few oxygen bottles for so many people would have made no difference: what we needed was more gas cartridges, in order to gain fluid. But who can plan to include, in his equipment for a summit push, sufficient gas for a stay of *nine* days at a height of 8000m and above? It was just a fatal combination of circumstances, such as happens only very rarely.

In normal conditions a climber who goes to these heights should be sufficiently well acclimatized to be able to stand three days at 8000m without supplementary oxygen, and to be then still sufficiently fit to return well to the foot of the mountain. For this he needs, above all, sufficient fuel—far more important than artificial oxygen. If one has high-altitude porters who go to such heights (or a couple of strong climbing helpers), then they should carry a few

bottles of oxygen—for cases of illness, or to help better sleeping in the highest camp, or if the summit party returns exhausted. I do not see it as a question of ethics—to make the ascent at all costs without oxygen and without high-altitude porters—but as a practical problem: who carries the heavy bottles up to the highest camp, for a summit push with oxygen? Are there Sherpas? On Makalu (1978) we, the climbers, carried up a good part of the oxygen ourselves, and then half of the equipment failed to function—the cost in energy bore no relation to the result achieved. For all the lower 8000ers (up to the height of Dhaulagiri), a climb to the summit without oxygen should be regarded as normal. For the five ‘big ones’ there are both possibilities—but this means that climbers on these expeditions must know better than ever the limits of their capacity, must be really in command of the appropriate tactics, and must use them with circumspection and prudence! Unfortunately the danger exists that on the 8000ers we shall in future be dealing increasingly with amateurs, for whom minimum ‘input’ will be the main criterion in rushing to the summit.

What would be really important would be to have an expert’s evaluation of the danger (or otherwise) of various drugs at great height. Some mountaineers, for example, are continuously taking aspirin on the hill. Others believe dangerously that diamox is the cure for every ill on a mountain—whilst I was told that it deprives the body of fluid. What is the position on this? What are the latest findings on Vitamin E? Is it true that the vitamin supplements to an expedition diet are without effect, for example in the case of B12, if we do not also take folic acid? The answers to these and many other questions would be of great interest for all.

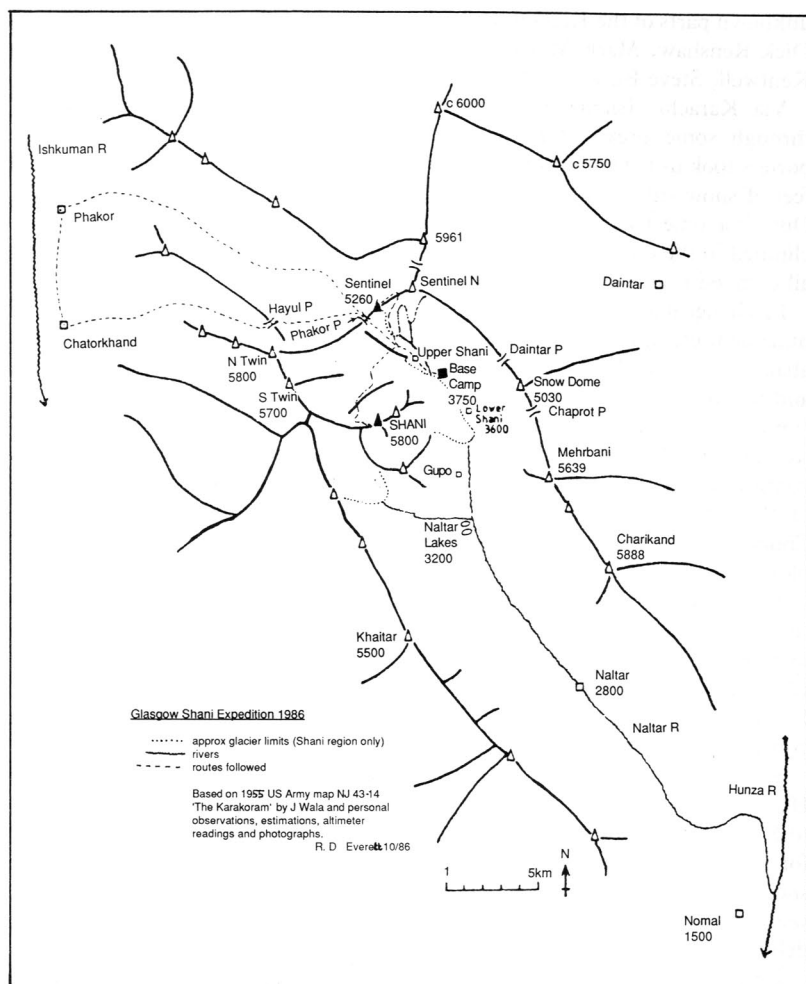
(Translation: Ernst Sondheimer)

Addendum Two expedition reports have been received, which are summarized below.

The aim of the Glasgow Shani expedition (members: Roger Everett, Dairena Gaffney, Guy Muhlemann and Sally Macintyre) was to attempt the previously unclimbed peak of Shani (5800m) in the Naltar valley, and also to explore some nearby lesser peaks, passes and valleys. Base Camp was established below the E side of Shani at 3750m on 1 August 1986. Because of fresh snow, the original intention of attempting a rock and mixed line on the S buttress was discarded in favour of a glacier approach, skirting the N face, to the W ridge on the far side of the mountain. On 13 August, RE and GM reached 5100m in a glacier bowl below the W ridge and then unexpectedly discovered easy snow-slopes close to the W ridge on its N side. The summit was reached on 14 August, and Base Camp remained the next day.

Meanwhile, DG and SM crossed the Phakor Pass and descended to Phakor in the Ishkuman valley. After reaching Chatorakand by jeep, they ascended to the Hayul Pass and then crossed a glacier to return to Base Camp via the Phakor Pass again.

On 18 August all members of the expedition climbed to a bivouac below Sentinel Peak, and on the following day they reached the main summit, via the NE ridge from the col between the two summits, in rapidly worsening weather. Descent to Base Camp was completed the same day.



Altimeter readings taken during the expedition indicated several discrepancies with the Wala (but not the 1955 US Army) map. The most important of these are: Naltar Officers Mess—2800m; Naltar Lakes—3200m; Lower Shani village—3600m; Sentinel (main summit)—5260m; Shani (main summit)—5800m.

Regarding the British Karakoram Expedition 1986, Jon Tinker points out that, of all the Himalayan countries, Pakistan has nowadays the most enlightened policy towards mountaineers, and the smallest bureaucratic formalities. Outside the most sensitive border zones one is now allowed to climb up to 6000m without a Liaison Officer or the payment of peak fees. The trip was designed to climb within these regulations and explore some relatively

unknown parts of the Karakoram range. The core of climbers were Jon Tinker, Dick Renshaw, Mark Miller and Simon Yates, aided and abetted by Craig Kentwell, Steve Razzetti, Mike Searle, Andy Barnicott and others.

Via Karachi, Islamabad, Gilgit and Skardu we reached Hushe village, through some breathtaking scenery. A leisurely two-day walk-in with 23 porters took us to Gondoro Base Camp, a god-forsaken spot with more than two feet of snow still lying on what we were assured was a high summer pasture. Our first objective was Gondoro Peak, the only mountain that is regularly climbed in the area. By 11 May Jon, Dick, Mark, Simon, Craig and Mike had all climbed it and were back down in Base Camp.

In changeable weather Jon and Dick, and Craig and Mike tried different unnamed, unclimbed mountains near Gondoro Peak. Both these attempts were abandoned about half-way up, in the face of dangerous avalanche conditions and much loose snow lying over the rock. Mark and Simon reached the fore-summit of an unnamed peak near the Masherbrum Glacier. Back at Base Camp we decided that in view of the very dangerous climbing conditions and continued bad weather our time would be most profitably spent exploring some of the other glacier systems nearby. We investigated the very impressive Chogolisa and Charakusa Glaciers and moved Base Camp to a lower, more pleasant spot.

Jon, Dick, Mark and Simon now decided to climb as a group to help spread the burden of trail-breaking in the still deep snow. After waiting out some terrible storms we attempted a beautiful buttress line near the head of the Charakusa Glacier, but were forced to turn back after about 500m of climbing. It was now obvious that with the continued bad weather the conditions were going to be lethal for the foreseeable future.

We returned to Skardu, and Jon, Mark and Simon decided to go to the Hunza region in the hope that conditions would be better over there. We went to Karimabad to try a spectacular rock-spire called Bubalimiting. We climbed for a day, doing four intricate pitches of about EI standard. Unfortunately it snowed that night and we were obliged to retreat off this stunning mountain. It was now 12 July, and, after nearly three months in the hills, we were all debilitated by gut problems. We came home.

Despite the disappointing number of summits reached, the quality of the climbing convinced us that we had found a gem of an alpine playground in the Hushe valley. It is accessible, yet few climbers visit it. The number of unclimbed mountains is huge, and the local villagers are welcoming.

Finally, regarding Gasherbrum III a degree of confusion still exists as to the topography of the mountain. Geoff Cohen writes: 'In Fosco Maraini's book and in Cassin's autobiography, Cassin talks about attempting the SE ridge of the mountain. The mountain does not have a SE ridge! It is clear from the photos and maps in Maraini's book that it was the N ridge that Cassin attempted.'