Michael Ward's 80th birthday tribute to Griffith Pugh (AJ95, 188) mentioned the physiological and other work done by Pugh when he was stationed at the Cedars of Lebanon in the years 1942-44. As a follow-up to that article, it may be worth recording something more general about what went on in the way of mountain training, both at the Cedars themselves and at the two subsidiary centres of Laqlouq and Sannine, which were part of the same organisation.

Ever since the days of Solomon the cedars of the Lebanon have been in great demand as timber. The one small clump of these wonderful trees which now remains covers only a few acres: it stands at a height of 2200m, in the centre of an arid, semicircular basin, the rim of which is some 700m higher.

In 1941 W J (Jimmy) Riddell, a former Olympic skier, found himself marooned in Syria as some sort of political officer. It was almost entirely due to his imagination and energy that a snow and mountain warfare training centre was started at the Cedars. The main theatre of war in the Middle East was, of course, the desert, and it must have been a considerable feat to convince the military authorities in Cairo that there was much purpose in training troops to live in conditions of deep snow and, in particular, how to move and fight on skis. And the more practical problems which had to be solved were formidable. The Cedars Hotel and another building nearby had to be requisitioned and a great deal of temporary accommodation built. Instructors had to be procured, mainly from personnel serving in North Africa. All this was done within a very few months and the Centre opened for its first course in December 1941.

All equipment - skis, sticks, bindings, wind-proof clothing, ski wax and much else - had to be manufactured locally, from scratch. In 1941 the main sports shop in Beirut still had about two dozen pairs of Swiss or Scandinavian skis in stock, as well as a few other articles of skiing equipment. All these were immediately bought up and used as models for Lebanese craftsmen to copy. The best wood available for skis, which was passable but far from ideal, came from the southern Turkish border north of Aleppo. Ski wax had to be made from a brew of Stockholm tar, beeswax, resin, paraffin and - for the essential element of graphite - melted down gramophone records!

I only came on the scene at a much later stage, in mid-September 1943, with the high-sounding title of 'Chief Instructor, Rock'. By that time a great many ski courses of one sort or another had taken place at the Cedars. The units involved
were of many different nationalities, and it can be imagined how much they enjoyed such a delightful change from normal soldiering in the Middle East. The Centre had proved a great success, and the reason for my own involvement in it was that the authorities had decided to expand its activities to include rock climbing and some elementary mountaineering.

The shade temperature down in Beirut when I arrived was about 90°F — and very humid at that. It was hard to imagine that the long, arid, almost featureless ridge of the Lebanon range could offer any skiing at all, let alone that its snowfall in the winter months would turn out to be considerably heavier than it is in the Alps. Equally, it was difficult to see where one might find any suitable rock faces for instructional purposes: the choice appeared to be between useless scree-slopes or the huge vertical sides of semi-inaccessible gorges which cut back deeply towards the main ridge. However, a fortnight’s reconnaissance revealed a friendly little cliff in an area called Jebel Lqloq, and we eventually established a large training camp there.

It was already clear that the Lebanon was a country of great beauty and astonishing natural contrasts. Beirut at that time was a pleasant and highly civilised city. From the main road which ran northward from Beirut along the coast to Tripoli, dusty minor roads, full of hairpin bends, occasionally wound their way up to remote villages in the hills. Near the coast there were many archaeological sites, giving almost casual evidence of several thousand years of history and many different civilisations. Half an hour in a jeep would take one from the sticky heat of sea-level to a climate of delectable, cool sunshine where the shade temperature was never more than 70°F. In the earlier summer months it was, in fact, possible to spend the morning skiing at the Cedars and, two hours later, to be bathing in the Mediterranean.

The Rock Wing (as we were called) had the same sort of teething troubles as had been experienced when the Ski Centre was being established. Instructors — some 30 or 40 of them — had to be collected, mainly from the forces in Africa; but this turned out to be not too difficult. Standardised methods of instruction had to be worked out and instructional manuals written. We needed a lot of rope — enough for a whole battalion at any one time — and this presented some problems. The first consignment we were sent weighed about 14 lbs per 100 ft and might well have been used for mooring a ship. When this was rejected, they delivered us a lot of light cotton rope suitable for tent guy-ropes; but in the end something more normal was produced. And fortunately our climbing footwear was very reasonable — Vibram-soled boots and army plimsolls.

The first troops to be sent to us for training were a battalion of Gurkhas who, of course, were born mountaineers and remarkable little men for any job they were asked to do. We soon had particular reason to be grateful to them. On 3 November, a few days after they arrived, our camp (mostly 180 lb tents or larger) was completely flattened, as well as flooded, by a freak thunderstorm during which 3 1/2 inches of rain fell in about two hours. It was a scene of total devastation but the Gurkhas came immediately to our assistance, wallowing about happily in the knee-deep mud, so that within a few hours we were almost back to normal.

This storm was my first experience of anything other than the glorious,
40. *Right* Ala Dag: Gurtepe Col.  
(J G R Harding) (p109)

41. *Below* Parade of ski troops at the Mountain Warfare Training Centre at the Cedars of Lebanon during World War II. (A D M Cox) (p191)
uninterrupted sunshine which prevails in the Lebanon for some seven months of the year. It was three weeks later that the weather began to deteriorate in earnest. The first snow fell shortly before Christmas. We had been able to continue rock-climbing courses almost until then; but at that point we packed up the camp at Laqlouq and moved into hutted quarters which had been constructed at a place called Sannine. The Gurkhas had left us by now and had been replaced by a battalion of the Highland Light Infantry.

Strictly, Sannine was not a place, nor even a village, until our arrival: previously there had been only a few huts there. The Sannine camp, at a height of about 1750m, was so called because it was in an area marked on the map as Jebel Sannine. We were some way north of the road from Beirut to Damascus, although a good deal further south (and therefore more remote from the Cedars) than we had been at Laqlouq.

The courses we gave at Sannine were mainly about movement and survival in winter conditions – we were about to discover how different the Lebanon was
during the winter months from the sort of Lebanon we had been operating in until now. As I recollect, the main ridge was a kind of rolling plateau of high, limestone desert, full of wide, deep craters – perhaps 200m across – which somehow drained away underground. In winter, the very heavy snowfall and a strong prevailing wind meant that enormous banks of snow, usually corniced, built up on one rim of these craters, the other often being swept quite bare. How heavy the snowfall could be we discovered in mid-January, when a metre of snow fell in under 48 hours. I happened to have driven round to the Cedars by jeep before it started, and was enjoyably marooned there for nearly a week, the roads being completely blocked. Some of the Nissen huts began to cave in under the weight of snow, and every available man had to be employed in digging them clear.

As soon as the storm stopped, the sun came through. I vividly remember that I went out with Jimmy on skis and we played about in the Cedars. It was almost indescribable: there was no wind and it was very cold. The trees were weighed down with new snow and completely white all up their trunks on the windward side. Their top branches made an astonishingly beautiful white-grey tracery vaulting when you looked up. And, of course, there was the new snow itself: very deep and the most perfect powder. It was a wonderful half-hour. Possibly it was after this storm that the snow had drifted so deeply that we were able to ski out of the top-storey window of the Cedars Hotel.

Two other blizzards of that winter caused serious worries because of people going missing. One of these episodes occurred towards the end of February at Sannine, where I was in charge. It had snowed all day and was still snowing hard when, at about 7pm, one of the sergeant instructors left his hut in order to go to another hut half-a-minute’s walk away. The usually well-trodden path to it had, of course, disappeared, and it was not until the next morning that he was reported missing. Numerous search parties were out looking for him for the whole of that day without result, and it was not until the following breakfast time that he reappeared, having been lost in the storm for two nights and a day. Fortunately he was a very tough chap and had managed to keep moving the whole time he was out. He had probably never gone more than half a mile from the camp.

The other occasion was at the Cedars and was on a larger scale. Two sections of a platoon of the Highland Light Infantry, about a dozen men, disappeared altogether for the better part of two days. This was towards the end of March. I happened to be over at the Cedars, having arrived on the 25th, to find that a three-day battalion exercise was starting on, I think, the following day. Certainly it was in full swing by the evening of the 27th, when a violent snowstorm blew up and continued for the next 24 hours. The exercise had to be called off, but two sections failed to report back at the Cedars and a massive search was organised. It was known roughly where they were supposed to be; and the strong probability was that they would have dug themselves warm snow-holes (as they had been trained to do) in the bank of drifted snow on the lee side of one of the saucer-like craters. This indeed eventually proved to be the case, but they had neglected one or two basic precautions such as detailing one man per snow-hole to stay awake and ensure that the entrance did not become
42. The Lebanon: ski troops among the cedars.

(WJ Riddell) (p191)
drifted up. Also—almost unbelievably—they left their snow-shovels outside the holes. The forward ‘creep’ of the snowdrift during the storm must have been several metres. Fortunately, the opposite side of the crater was, as usual, pretty well bare of snow, and the chance discovery of an empty bully-beef tin gave the clue as to which was the right crater for the searchers to start digging operations. The digging itself was quite a business, but after a good many hours of it everyone was rescued, none the worse for nearly two days’ incarceration. No doubt they would have survived for a week or more, but it is a moot point whether they could ever have dug themselves out without the abandoned shovels.

Normally, though, I was over at Sannine, where there was blissfully little for the rock instructors to do at this time of year except spend as much time as possible on skis. Immediately above the hutted camp at Sannine there were a few vine terraces, but these were hardly noticeable under the winter snow. Above them was a magnificent wide couloir called the Grande Coulée—so named by the French. This was the classic Sannine run. There were no obstacles at all; it was simply a single slope, about 850m in vertical height and of almost maximum skiing steepness at the top, very gradually easing out from about half-way down. The few moments of glorious downhill running which it provided, often on perfect spring snow, were well worth the fearsome labour of carrying up one’s skis to the top.

But the classic expedition from Sannine, as opposed to this exhilarating downhill swoop, was to carry on northward from the top of the Grande Coulée along the main ridges, and descend eventually on the Cedars. This was a trip of some 60km in distance actually covered, and it involved a total of perhaps 1800m of ascent. At the Sannine end of the ridge there was only one area above 2500m, the highest point being a top called Harf Sannine (2628m) which could be bypassed; then the ground fell away gradually, so that at the lowest point the height was probably no more than 1850m; but thereafter the ridge rose more or less steadily, to hit the rim of the Cedars basin at 2700m. A little further on was the Col d’Ainata (2550m) where the road from the coast crossed the main ridge and descended 1600m into the Bekaa valley (the valley which divides the Lebanon from the Anti-Lebanon). This was the point from which one descended to the Cedars.

I was more fortunate than the actual skiing staff, who were kept busy training troops over at the Cedars, in having several opportunities to do the trip from Sannine to the Cedars on skis; between the middle of March and the end of April I did it three times in company with one or more of the other rock instructors. On the first occasion none of us had done the trip before. Jack Clough and I planned it pretty seriously, allowing 36 hours for it and carrying sleeping-bags and other impedimenta totalling about 30lbs each. We started up the Grande Coulée at 10.30am but we soon found that our skis were sticking badly owing to wrong waxing. This had to be rectified, after which we had a long stretch of good running down towards the lowest point of the ridge. The snow was fast and we enjoyed some intriguing and very varied skiing, in and out among the bumps and potholes and depressions which characterised the crest of the main ridge. Towards the bottom there were plenty of bare patches, and
several times we had to carry our skis. When it got dark we stopped and cooked some porridge and slept till shortly before midnight. There was a full moon, a frost, but no wind, and after some more porridge we left at 12.30am, carrying our skis. This we continued to do for the rest of the night, pausing now and again for a brew of tea. Some time after dawn we came to the edge of the Cedars basin where we hoped for a good run down; but the snow was hard frozen, uneven and windblown – a tiring finish to a splendid trip. We took 23 hours over it altogether, but this included 11 hours of halts.

On the next occasion, Duncan Winder (another rock instructor) and I had a very much less enjoyable trip. This was entirely our own fault, as we did it on the spur of the moment without any sort of preliminary planning. We thought we ought to be able to get through in a single day if we started soon after midnight, and this we managed to do. But we had stupidly failed to remember that the stretch which had given such good downhill running for two or three hours a fortnight previously (when we were doing it in the afternoon) would, of course, be frozen so hard in the early hours that it would be like skiing on ice. As a result, we soon discovered that we should get on much better if we carried our skis; and in fact we hardly put them on at all except for a couple of hours uphill later in the day. We arrived at the Cedars at 10pm, having taken about 21 hours – a most strenuous trip compared with the previous one, mainly because this time we carried no sleeping-bags or cooking equipment and therefore could not afford to have any prolonged halts.

But the most luxurious of the Sannine-Cedars trips I was involved in was the final one. This was made, with four of the other rock instructors, at the end of the third week in April. In fact it marked the end of the Sannine camp, as orders had come through a week or so earlier that this was to be closed down. The packing-up operation had just about been completed when we started up the Grande Coulée at about 6pm. We spent the night comfortably in a small hut at the top and waited till 10 next morning to let the snow soften; we could look down on the last lorries moving out of Sannine. This time the downhill stretch gave good running for many kilometres – there was still plenty of snow, with a few unavoidable bare patches. At lunch-time we stopped for a splendid cooked meal (in which cutlets certainly figured) and a period of sunbathing. After this we were mostly carrying our skis until we stopped for the night somewhere in the open. It was still cold enough for a hard frost and our boots froze; but we thawed out quickly when the sun reached us and we enjoyed a good breakfast before resuming the journey at about 8.30am. It was all uphill for the next few hours but we ground along quite pleasantly, with a couple of good halts, before reaching the edge of the Cedars basin at about 4 o’clock. Here the first 200m of the descent were on good snow, after which it became more and more slushy; however, we did not have to carry our skis until the very end. We had taken nearly 48 hours over the trip, and it had been an extremely enjoyable way of doing it.

So far as I can recollect there were now no major army units at the Cedars, and most of the instructional staff were overdue for some leave. Jimmy and I and John Carreyer (a delightful New Zealander who was ‘Chief Instructor, Snow’) went off in a jeep. We visited Jerusalem, the Dead Sea, Amman and
Petra, which were all of course quite free of tourists; and, in a fascinating fortnight, we got as far south as Wadi Rumm on the borders of Saudi Arabia. Readers of Seven Pillars of Wisdom will recall T E Lawrence's description of this marvellous place: 'a processional way beyond imagination'\(^1\) — as indeed it was. On either side of its dead flat sand a wall of red rock peaks went straight up for 600m or more. But there was no question of trying to climb them, if only because the rock itself was almost too hot to touch.

Sadly, it was not very long after this that the Cedars organisation itself was disbanded. Many of the instructors were sent to carry on similar training work in Italy, while some, including Jimmy and myself, eventually landed up in Canada as observers of a dull and protracted winter exercise in northern British Columbia. At least we could not complain that, until then, mountain warfare training had not given us some magnificent enjoyment, mixed in with the hard work and many worries which it sometimes also involved. We hoped that it had also been of some relevance to the business of winning the war. Certainly it had made the units we were training even fitter than they were before; it had accustomed them to the sort of conditions they were likely to meet in the mountains during the Italian campaign; and it had given them a few weeks of delightful contrast to the heat and flies of North Africa.

REFERENCE