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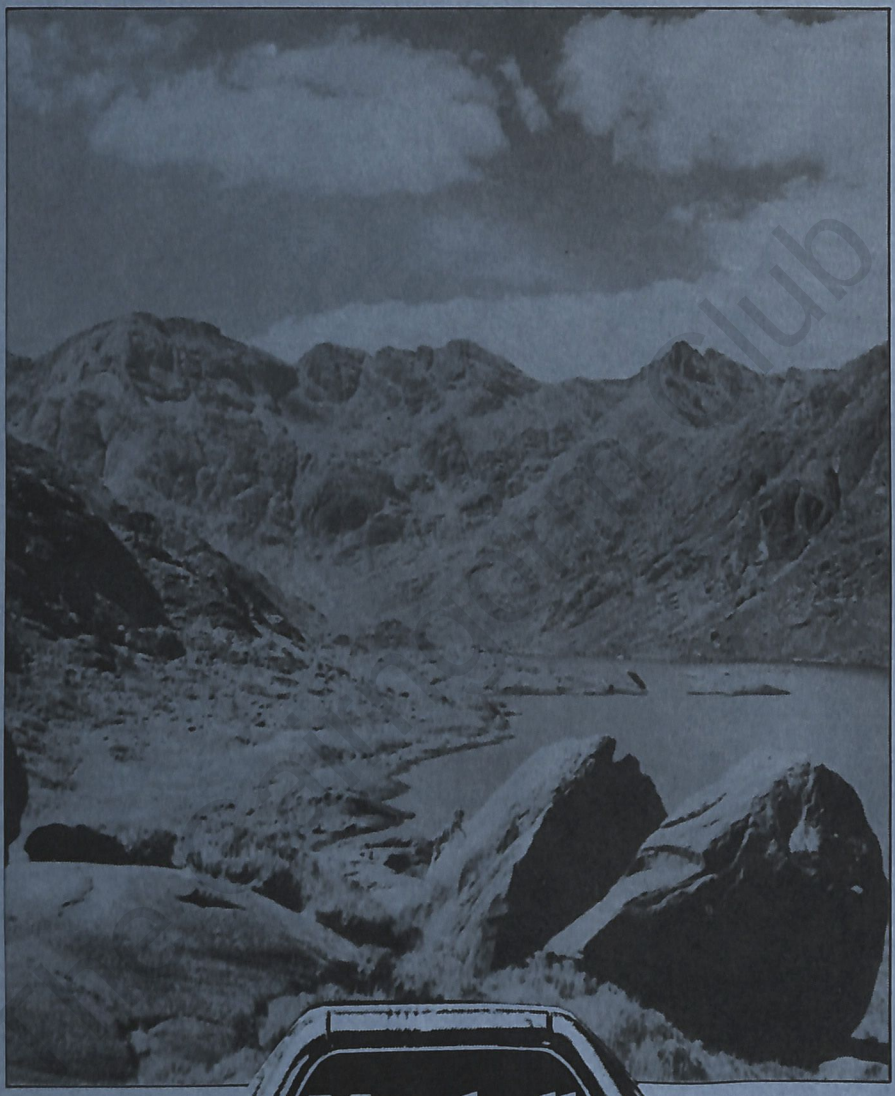

THE PRESIDENT

At the Annual General Meeting of the Club on 17 November 1982, Mr. E. F. Johnston was elected as the 32nd President in succession to Mr. P.F. Howgate.

Eric Johnston was born in Aberdeen and gained his banking qualifications during his early career with Aberdeen Savings Bank. He has since held senior positions as Manager of the St. Machar, Bucksburn and Southern Branches, followed by promotion to Bank Secretary, Senior Assistant General Manager and then to his present position as Area General Manager, East, for TSB Scotland.

Mr. Johnston joined the Club in 1954 and his wife, Joan, joined more recently. Mr. Johnston was appointed Meets Secretary in 1957 and held this position until 1967. He was Secretary from 1968 until 1972 and Vice-President from 1967 until 1969. As described in C.C.J., Vol. 17, No. 92 p.p 210/211, Mr. Johnston climbed the six Cairngorm tops on 31 July 1960, in a time of 11 hours 10 minutes.

Mr. Johnston was in the 4/7th Royal Dragoon Guards (Tank Crew) during the Second World War and saw service in north west Europe and in the Middle East.

Mr. Johnston has climbed in the French and Swiss Alps and throughout the United Kingdom. He was Chairman of the Aberdeenshire Countryside Committee from 1972 until 1974 and his long experience of Club matters as a member and office bearer, fit him well for the Presidency.

ORIGIN OF THE LANDFORMS IN THE FALKLAND ISLANDS AND SOUTH GEORGIA

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Prior to 1982 the title of this article would have sent many people scurrying to their atlases searching for the Falklands somewhere to the north of Scotland and South Georgia in the southern United States. Today there can be few people who don't have a clear impression of the scenery of the two island groups. They lie much closer to the equator than many people realise. The Falklands are situated in about 52°S and South Georgia around 54°S. In the Northern Hemisphere the equivalent latitudes would be central England and the Isle of Man (Fig 1). But they are separated longitudinally by 1600 km of sea, which is almost equivalent to the distance between the Shetland Islands and Greenland (Fig 2).

The landforms of the islands could hardly be more different. The Falklands consist of scenery reminiscent of eastern Scotland with rolling lowlands and gently sloping hill massifs. There are two main islands and the highest summits of each rise to only 700 m (Fig 3). The coast is indented with deep sinuous inlets and fringing islands (Fig 4). Most of the lower slopes are mantled in peat. South Georgia is quite different. Gentle slopes and lowlands are rare. Instead the island, which is 160 km long and 5-30 km wide, is little more than the crest of a mountain range (Fig 2). The centrepiece is the Allardyce Range with a profusion of ice and snow-clad peaks rising spectacularly to altitudes above 1700 m (Fig 5). The highest peak is Mt. Paget at 2960 m and the steepness of the scenery can be appreciated from the fact that this summit is only 7 km from the southern coast.

The contrasts between the two islands reflect their different geologic and geomorphic histories. In a nutshell the geological contrast is between part of a stable continent and a part of a mountain range while the contrasting geomorphic histories reflect the position of the islands on either side of the Antarctic Convergence, an oceanic boundary in effect separating the Antarctic domain from temperate environments.

Geologically, the Falkland Islands on the continental shelf of South America are part of the former super-continent of Gondwanaland (Adie, 1952). The main rocks and structures were formed when the island was attached to South Africa before the opening of the South Atlantic by plate tectonic movements. Indeed individual structures in the Falklands and the fossil content of individual geological beds may be closely matched with those in South Africa. The main consequence of this for the present day landscape is that the rocks and structures are over 180 million years old and that there has been a long period of time for the rock

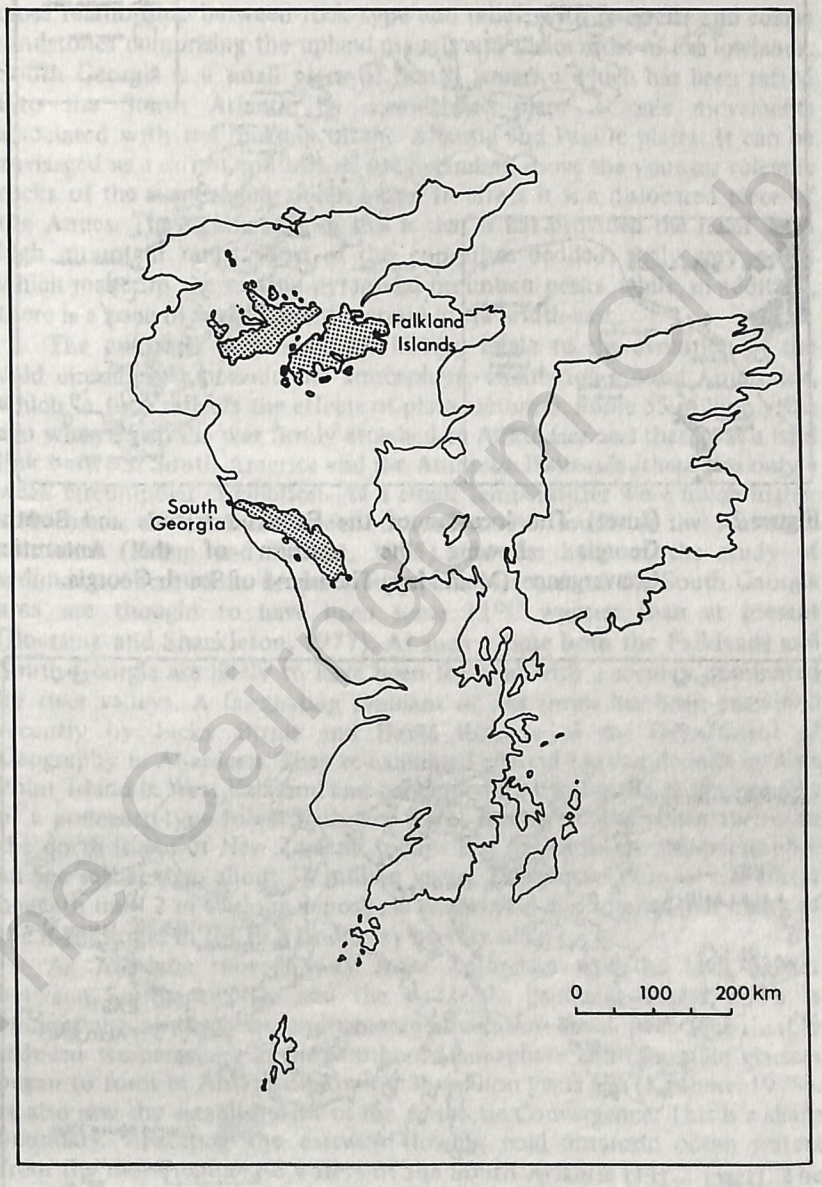

Figure 1 South Georgia and the Falkland Islands shown in their equivalent latitudes in the Northern Hemisphere.

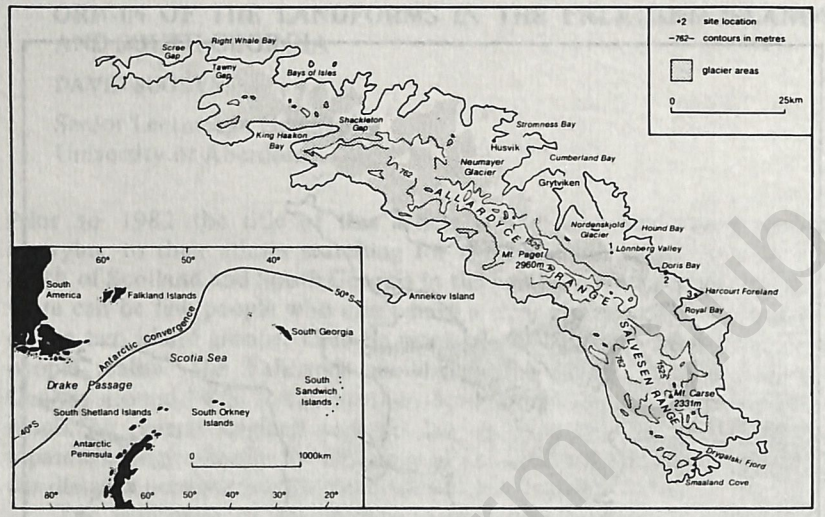

Figure 2 (Inset) The location of the Falkland Islands and South Georgia, showing the position of the Antarctic Convergence. (Main Map) The island of South Georgia.

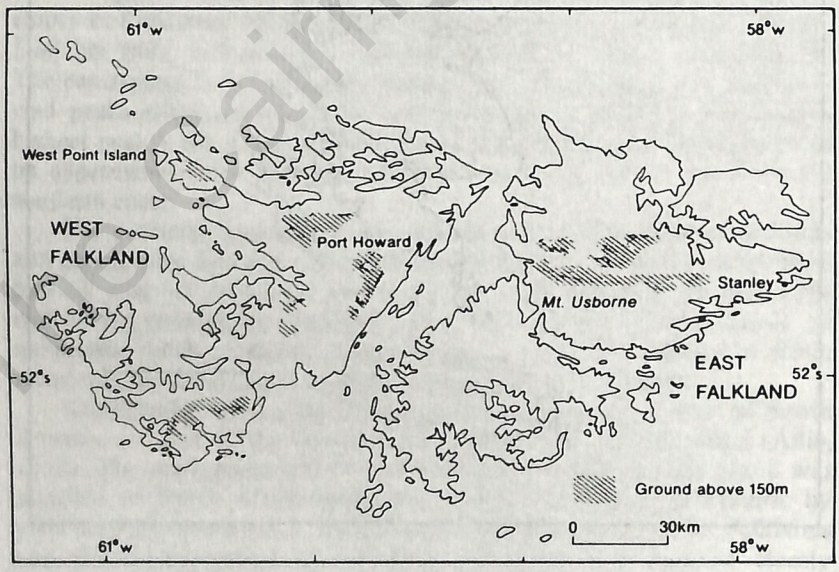

Figure 3 The Falkland Islands, showing the main upland and indented coast.

structures to be exploited by erosion. In practice this means that there is a close relationship between rock type and relief, with quartzite and coarse sandstones comprising the upland massifs and shales most of the lowlands. South Georgia is a small piece of South America which has been rafted into the South Atlantic by complicated plate tectonic movements associated with the meeting of the Atlantic and Pacific plates. It can be envisaged as a raft of continental rock standing above the younger volcanic rocks of the surrounding ocean basin. In effect it is a dislocated piece of the Andes. The significance of this is that it has provided the relief for a high mountain range. Most of this comprises bedded, shaly greywackes which make up the soaring pyramidal mountain peaks, while, in addition, there is a zone of rugged granite terrain in the south-east.

The contrasts in geomorphic history relate to the evolution of the cold circumpolar oceanic and atmospheric circulation around Antarctica, which in turn reflects the effects of plate tectonics. Some 55 million years ago when Australia was firmly attached to Antarctica and there was a land link between South America and the Antarctic Peninsula, there was only a weak circumpolar circulation. As a result temperatures were much higher and forests of southern beech thrived as far south as the Antarctic continent (Kemp and Barrett, 1975). On the basis of the study of sediments obtained in deep-sea cores, temperatures in the South Georgia area are thought to have been some 11°C warmer than at present (Boersma and Shackleton, 1977). At such a time both the Falklands and South Georgia are likely to have been forested with a scenery dominated by river valleys. A fascinating remnant of this forest has been examined recently by Jacky Birnie and David Roberts of the Department of Geography in Aberdeen. They re-examined a wood-bearing deposit in West Point Island in West Falkland and concluded that it was the *in situ* remains of a podocarp-type forest with tree ferns, similar to that which thrives in the north island of New Zealand today. The pollen in the deposit implies an age earlier than about 38 million years. The preservation of the forest beneath only 2 m of slope deposits is remarkable and implies that many of the main slopes in the Falklands may be very old.

As Australia moved away from Antarctica and the land barrier between South America and the Antarctic Peninsula broke down, a circumpolar atmospheric and oceanic circulation developed. This sharply reduced temperatures in the Southern Hemisphere and mountain glaciers began to form in Antarctica around 38 million years ago (Kennett, 1978). It also saw the establishment of the Antarctic Convergence. This is a sharp boundary separating the eastward-flowing cold antarctic ocean waters from the more temperate waters of the South Atlantic (Fig 2 inset). The boundary may represent a 5°C difference in water temperature over a distance of a few 100 m. The importance for the two island groups is that the Antarctic Convergence developed between the two and that subsequently over tens of millions of years South Georgia has experienced

Figure 4 Port Howard, a farm settlement in West Falkland is situated at the head of a sheltered sea inlet, which is a drowned river valley.

Figure 5 The snout of Harker Glacier, South Georgia. The corries and peaks of the Allardyce Range are in the background. (Photograph by Gordon Thom).

a sub-polar climate while the Falklands have experienced a cool temperate climate.

The contrast is best displayed by glacier extent today. Although it is only 250 km further south, South Georgia is heavily inundated with glaciers, while the Falklands are free of ice. The southwest coast of South Georgia, lying athwart the track of depressions sweeping round the Antarctic, receives an exceedingly heavy snowfall and virtually all rock slopes down to sea level are plastered in ice. Rock buttresses are encrusted in rime ice and frequently ice breaks off and, together with snow, avalanches onto glaciers which flow to the coast where they calve into icebergs and brash ice. The glaciers flow rapidly and their surfaces are sharply crevassed as a result. The lee north eastern side of South Georgia is less bleak (Birnie 1978). Here glaciers flow down to sea inlets (Fig 5) but there are also pleasant ice free peninsulas (Fig 6). The Falklands do not support glaciers today. Snowfall is relatively light and it rarely persists in the mountains, even in winter. It comes as a surprise to many to discover that the annual precipitation in Stanley is less than in Aberdeen. At present it is simply too warm on the highest Falkland summits for the little snow that accumulates there to survive a summer melt season and form a glacier.

The glacial expansions that have characterized the Ice Age during the last few million years in the Northern Hemisphere have also affected the Falklands and South Georgia and have added further contrasts to the two island groups. During glacial expansions the glaciers on South Georgia covered all lowlying peninsulas and extended offshore to form an ice cap 300 x 130 km in size (Fig 7). The evidence of this ice cap is seen in the glacially-scoured landforms of the coastal peninsulas where irregular rock knobs and small lochans produce a landscape similar to that of western Scotland (Fig 6). This scoured scenery also extends offshore. In places striations on coastal peninsulas tell of the direction of flow of overriding ice. The expanded ice cover was also responsible for the excavation of fjords and other troughs (Fig 6), with many features characteristic of erosion by glaciers, such as truncated spurs and overdeepened rock basins. Also the troughs may be traced offshore as prominent trenches incised into the shelf surrounding the island. In places the ice cap axis was offset from the present island axis and as a result ice flowed across the island. One result was the excavation of glacial valleys across the island, similar in many ways to the Lairig Ghru in the Cairngorms. One such gap has been named Shackleton Gap after the memorable crossing of the island by Ernest Shackleton in 1916. The middle of the ice cap is likely to have been no higher than about 900 m and as a result the mountains of the Allardyce Range would have protruded as nunataks, though they themselves would have been sculptured by corrie glaciers. Today there is a sharp morphological contrast between the knobbly terrain of the areas submerged by the ice cap and the sharp ridges of the mountains which were too high to be submerged.

Figure 6 An early winter snow cover on the ice-free north eastern side of South Georgia highlights the site of the old Grytviken whaling station at the head of a fjord bounded by ice-scoured peninsulas.

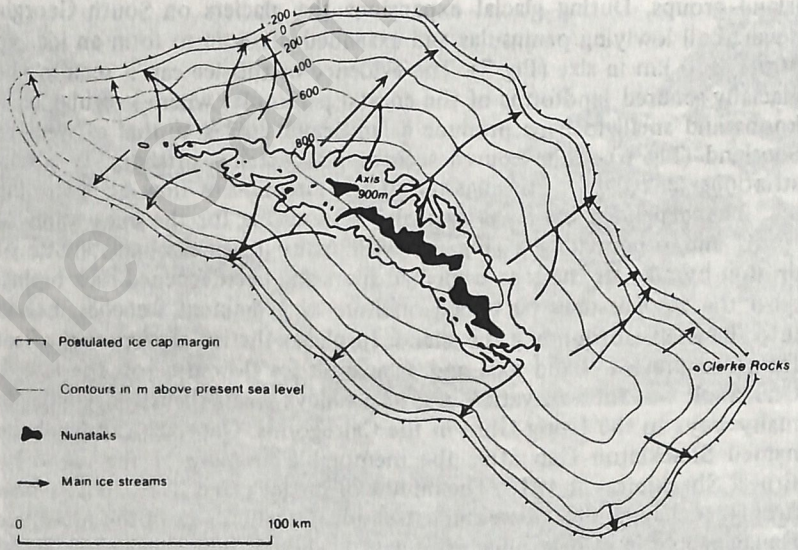

Figure 7 A reconstruction of the ice cap which extended offshore around South Georgia. The shaded areas mark the mountains which protruded above the ice surface as nunataks (From Sugden and Clapperton 1977).

Glaciation of the Falkland Islands was very limited. There are a handful of corries on the two upland massifs on East and West Falkland (Fig 8) and evidence of glacial deposits suggests the longest glacier was no more than 2.7 km long (Clapperton and Sugden, 1976). In addition there are a number of nivation hollows, excavated by snow patches. These are similar to corries but less well shaped. David Roberts has analysed these features and discovered that their predominant eastward orientation points to the influence of strong westerly winds. He is also able to demonstrate statistically that their locations are typical of an exceedingly marginal glaciation. Such conditions would occur with a mean annual temperature fall of 2°C. Exhaustive work has revealed no evidence of more extensive glaciation in the Falklands. This evidence of limited glacial activity throughout the many cold phases of the glacial epoch is interesting for such a cool temperate location. Probably the major explanation is the relative aridity of the islands which has kept total snowfall small.

The lack of extensive glaciation in the Falklands is perhaps the critical factor in understanding the contrast with the landforms of South Georgia. In the Falklands the lowland has not been scoured into an irregular rock and lochan topography, the pre-existing river valleys have not been deepened into glacial troughs and the surrounding offshore shelf is smooth and unmodified by ice action. Instead, gentle slopes leading down to rivers, which are well adjusted to rock structure, are the norm. The lower parts of these river valleys have been excavated to a level some 46 m below sea level (Maling 1960) and at some stage since they have been flooded to form rias, inlets of a type which is common in south-west England. Port Howard is a good example (Fig 4). The landings at Port San Carlos by the British Task Force in 1982 took place in one such drowned river valley and one reason for selecting this inlet was to seek protection from the valley sides.

It would be wrong to imply that glacial periods had little impact on the Falklands' landscape. Indeed, many detailed slope forms are related to downslope soil movement under periglacial conditions. The word periglacial is used to describe those cold landscapes which are not covered by glacier ice. The main characteristic is the presence of frozen ground where surface layers thaw only in the spring and summer. Under these conditions a saturated layer of surface soil or surface stones may move downslope under the influence of gravity. The overall process of soil flow is called solifluction and indeed the word was introduced by Andersson in 1907 following a visit to the Falklands! Today, if such downslope movement is frost assisted, it is commonly called gelifluction.

Gelifluction forms are widespread in the Falklands. The most famous are the stone stripes or stone streams. Typically these consist of 30-200 cm boulders of sandstone and quartzite and originate at rock outcrops on ridge crests. The boulders are arranged into stripes running down the valley sides, although in places they may form a sheet (Fig 9). The alignment of

Figure 8 Corries on the flank of Mount Usborne, East Falkland. (Photograph by David Roberts)

Figure 9 Stone stripes and sheets on a hillslope in East Falkland.

the long axes of the stones in a downslope direction and the sorting into stripes is typical of gelifluction and it seems reasonable to assume that stones, derived from the rock outcrops, have been moved down the valley sides. In certain places the boulders accumulate in the valley floors and one such accumulation, called Princes Street, is 6 km long and c. 800 m wide (Fig. 10). Other typical gelifluction forms are lobes bounded on their downslope sides by boulders. Such lobate forms are common in the Cairngorms in Scotland, for example in Lurcher's Gully. A final characteristic of intense periglacial action is the presence of rock outcrops on hill crests. Such resistant rock masses are left upstanding when active slope processes remove surrounding frost-shattered rock fragments. Good examples of such rock outcrops were seen in the television pictures of the hills around Port Stanley during the final days of the fighting in 1982.

The periglacial features of the Falklands are notable for their large size and fine degree of development. Probably there are two main reasons for this. First, the quartzite and sandstone rocks provide an unusually suitable source of boulders. Second, the islands were exposed to periglacial conditions throughout the cold periods of the last few million years. Both dating and morphological relationships suggest that the periglacial features were contemporaneous with the corrie glaciers. Unlike South Georgia (and indeed Scotland, Scandinavia and North America) where periglacial activity could take place only between glaciations, in the Falklands it could occur throughout the main cold periods.

Radiocarbon dates of peat on both South Georgia and the Falklands suggest that the last cold period was over by about 9,500 years ago (Clapperton *et al.* 1978). Since then both island groups have enjoyed climates similar to those of today, or at least that is the implication drawn from preliminary analysis of pollen contained in peat cores (Barrow, 1978). Nevertheless there are differences in the geomorphology of both islands resulting from this recent period of warmth. In South Georgia 9,500 years ago, glaciers had retreated from their last maximum position (c. 18,000 years ago) and were close to their present limits. Since then there has been a minor advance of the glaciers which has created fresh moraines several 100 m in front of existing ice fronts. A date in peat beneath one such moraine suggests the advance took place in the late 18th century (Clapperton *et al.* 1978). This date makes it the probable equivalent of the Little Ice Age advance which culminated in the 16th-19th centuries in most parts of the world.

Whereas peat growth is restricted in South Georgia, in the Falklands it forms a blanket over most of the islands varying from perhaps 30 cm to 2 m in depth. In many areas details of the underlying ground are completely obscured. The bottom of the peat has produced several dates of 9,500 years old and no older peat has yet been discovered. The implication is that any former cover of peat was stripped off during the last periglacial phase and that new peat was able to reform only after active soil movement ceased around 9,500 years ago.

Figure 10 The 'Stone Stream' of Princes Street, a vast accumulation of geliflucted boulders in a valley bottom. (Photograph by David Roberts)

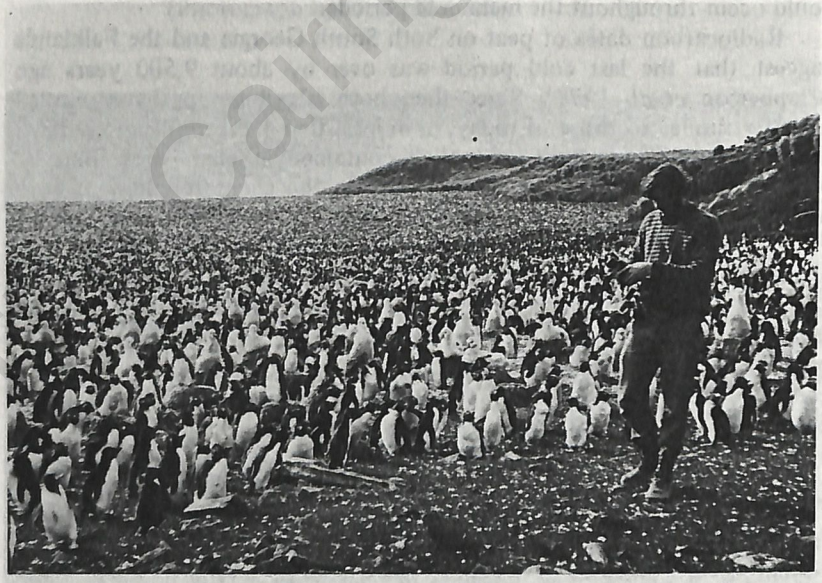

Figure 11 Penguins and albatrosses nesting on a popular raised beach, Beauchêne Island, Falkland Islands. (Photograph by Gordon Thom)

Both island groups have evidence of recent variations in sea level. Curiously the reasons for the variations may be different in each case. In South Georgia there are raised beaches at 7.4 and 3 m above sea level. The upper beach, consisting of shingle ridges and raised terraces, is intimately associated with moraines marking former glacier positions and is related to the main phase of deglaciation perhaps around 10,000 years ago. It has been tempting to relate the elevation of this beach at least in part to the isostatic uplift of the island as it rebounded in response to the loss of the burden of overlying ice. However a raised shoreline also exists in the Falkland Islands at about 6 m above sea level. It is marked by terrace remnants of former deltas, raised shingle ridges, shell deposits and also by the way it truncates peat deposits in many areas (Fig. 11). David Roberts has obtained two dates on shells in the beach which suggest it is around 6-7,000 years old. In the absence of a former ice cap, isostatic uplift is an unlikely explanation for its elevation. Until recently it has been difficult to explain a rise in sea level of this amount at such a date. However, a new model of world sea level change which compensates for the effect of changing ice masses in modifying the earth's geoid, predicts just such a high sea level in the Falklands at such a time (David Roberts, personal communication 1983).

South Georgia and the Falklands provide fascinating contrasts in scenery. Starting with different geological bases, they have since experienced quite different climates, in spite of their similar latitudes. South of the Antarctic Convergence, South Georgia has been modified by glaciers during both glacial and 'interglacial' periods. Lying north of the Antarctic Convergence, the Falklands escaped massive glaciation and, instead, they represent a river landscape which has been repeatedly modified by intense periglacial activity.

Footnote – Dr. Sugden and his colleague, Dr. Clapperton, have each spent two seasons in the Falkland Islands and South Georgia and are planning another trip. Under their supervision, six research students have worked on the geomorphology of the islands and one of the students, Campbell Gemmell, was stranded in the Lyell Glacier hut on South Georgia during the Argentine occupation of Grytviken. He and his samples were evacuated by the Royal Navy, but his samples went to the bottom of the Falkland Sound when H.M.S Antelope was sunk. The many maps, booklets and photographs prepared by Dr. Sugden and his colleagues were used by the Ministry of Defence during the Falklands war and the assistance given by the Department of Geography was acknowledged by the Ministry of Defence. Dr. Sugden was guest speaker at the Club's Annual Dinner in 1976 and has addressed an Indoor Meet. He wrote an article in the Journal in 1977, CCJ Vol. 18, No. 97 pp 189/201, entitled 'Did Glaciers form in the Cairngorms in the 17th to 19th centuries?' – Editor.

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MOUNTAIN FLOWERS IN THE CAIRNGORMS – SOME ADDITIONS

ERIC JENSEN

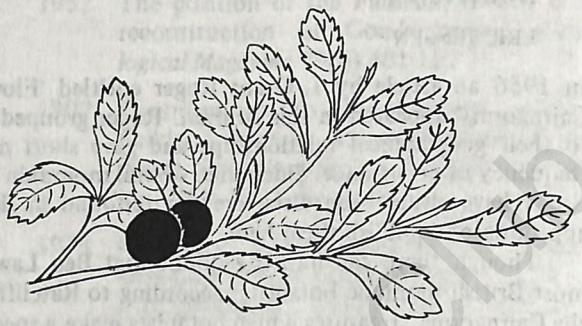
In 1956 an article by J. Grant Roger entitled 'Flowering Plants of the Cairngorms' appeared in this *Journal.* Roger grouped the plants according to their geographical relationships and gave short notes on habitat and frequency of occurrence. Since then several mountain flowers not listed by Roger have either been discovered or re-found in the area and it seems appropriate to publish them here.

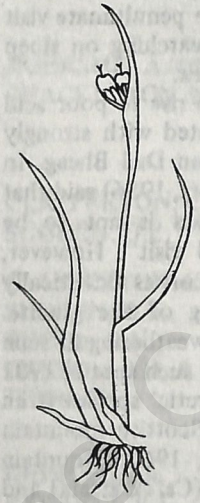
Though there can be little doubt that Ben Lawers is the Mecca of most British montane botanists, according to Ratcliffe (1974) there are in the Cairngorms "treasures which botanists make a special pilgrimage . . . . to see". It took me eight long visits to a particular remote locality before I found the tufted saxifrage (Saxifraga cespitosa) said by Ratcliffe to be "one of the very rarest British montane plants". On the penultimate visit which involved more than twelve hours of intensive searching on steep rocks I found a rush not previously recorded from the area.

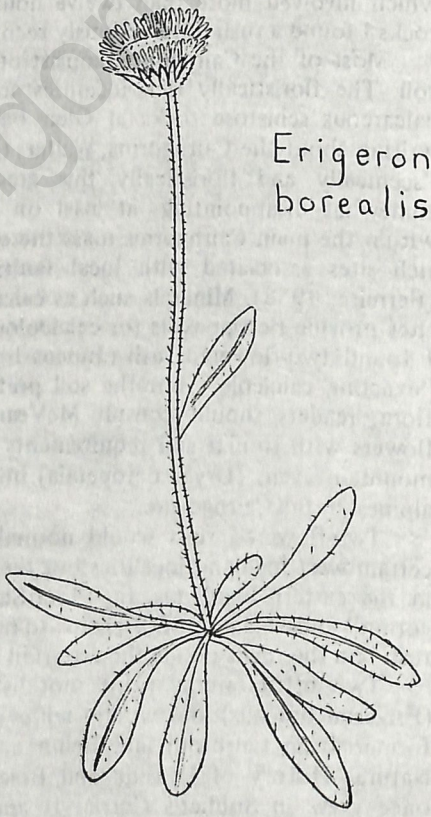
Most of the Cairngorms consist of granite and give rise to poor acid soil. The floristically rich localities are mainly associated with strongly calcareous schistose rocks at Glen Feshie and Creag an Dail Bheag. In writing about the Cairngorms, Walters (Raven and Walters, 1956) said that "scenically and floristically this great mountain mass is apt to be somewhat disappointing, at least on a first unguided visit". However, within the main Cairngorms mass there occur in some corries floristically rich sites associated with local faulting and crushing of the granite. (Ferreira, 1958). Minerals such as calcite and epidote weathering at such sites provide rich pockets for calcicolous plants. At one such spot in 1982 I found two-flowered rush (Juncus biglumis). This 'arctic' species is an "exacting calcicole". For the soil preferences of our Scottish mountain flora, readers should consult McVean and Ratcliffe, 1962. Mountain flowers with similar soil requirements are black sedge (Carex atrata) and mountain avens (Dryas octopetala) both of which are very local 'arctic-alpines' in the Cairngorms.

Two-flowered rush would normally be sought in Breadalbane and certain west highland localities but there are very old records of the plant in the eastern highlands. In 'Flora Scotica' Hooker (1821) lists "Cairngorum" and Dickie (1860) claims to have gathered a few specimens of the rush "on the rocks beside the waterfall at the head of Glen Callater".

Two other 'arctic' plants not listed by Roger are boreal fleabane (Erigeron borealis) and woolly willow (Salix lanata). Dickie records the former from Cairntoul and Beinn a 'Bhuird and we know from 'The Natural History of Deeside and Braemar' (MacGillivray, 1955) that it once grew in Soldier's Corrie. It appears that the fleabane was again located on Cairntoul in 1965 but details of the find are scant. Firm records







of this elusive plant in the Cairngorms would be welcomed by the Nature Conservancy Council (N.C.C.). Webster (1978) records that the woolly willow was found in 1967 in the hanging gardens of Coire Garbhlach in Glen Feshie by Grant Roger and others.

Additional 'arctic-alpines' in the Cairngorms are alpine bearberry (Arctous alpinus), reticulate willow (Salix reticulata), plum-leaved willow (Salix arbuscula), highland cudweed (Gnaphalium norvegicum) and hoary whitlow grass (Draba incana).

Webster records that the bearberry was found on the "lower slopes of Braeriach" in 1966. Ratcliffe provides a further clue to the locality – "the western slopes"! The plant is also believed to grow somewhere on Beinn Bhrotain. In writing about this plant in its north-west highlands setting, Holden (1952) charmingly said, "If the time be autumn when the first powdery snows have fallen and whitened the summits, we shall find large areas of the mountain sides a blaze of red. These bright flaming patches are formed by the dying leaves of the alpine bearberry which are shed each year and beautify the mountain sides for a brief spell before their final extinction".

According to Webster the reticulate willow was found in Coire Garbhlach by R. McBeath in 1972 and this is believed to be its only Cairngorms station. Ratcliffe stated that there was an unconfirmed record of plum-leaved willow from Glen Feshie. However, this willow was found in 1979 on Cairntoul by Dave and Pat Batty. Dave who was formerly National Trust for Scotland ranger at Ben Lawers is meantime N.C.C. warden on the Dee side of the Cairngorms National Nature Reserve (N.N.R.). He would have seen much more plum-leaved willow in Breadalbane.

In his concluding remarks Ratcliffe said, "It is strange that no one has ever found the blue sow thistle (Cicerbita alpina) and Norwegian (= highland) cudweed in the Cairngorms. Even now may they be tucked away in some high ledges or face of the fierce cliffs above Loch Avon? Possibly not, but the thought is enough to inspire a search of these and other likely spots". Sandy Payne having seen the cudweed on Lochnagar was inspired and in 1979 he found it in the central Cairngorms massif. It is interesting that Perring and Walters (1976) show pre-1930 records for highland cudweed at three different localities in the Cairngorms. In the Herbarium of Aberdeen University there are some splendid specimens of highland cudweed gathered on Lochnagar many years ago. Sandy tells me that the ones remaining on our beloved Lochnagar are not nearly so lush and grand as the ones that were picked and mounted on cardboard!

In writing about the flora of the Cairngorms, Ratcliffe included hoary whitlow grass as one of the "rare alpine herbs of these high basic crags", though it is not clear whether he was referring to Glen Feshie or Creag an Dail Bheag. However, Perring and Walters record this crucifer from the ten

kilometre squares covering Glen Feshie and Ben Avon, the latter excluding Creag an Dail Bheag.

Two mountain grasses must be added to Roger's list. In 1974 Don's twitch grass (Agropyron donianum) was found on calcareous rock south-east of Ben Avon and also in Glen Builg. Webster records the glaucous meadow-grass (Poa glauca) from Coire Garbhlach, Coire an t-Sneachda of Cairngorm and the cliffs of Glen Einich.

There remains a small group of plants all placed by Raven and Walters in the category 'mountain flowers'. (their Appendix 1). One of these – thrift (Armeria maritima) – is obviously an inadvertent omission from the 1956 list. It is found sparingly throughout the Cairngorms in corries and on the high plateau in gravel or along with three-leaved rush (Juncus trifidus). Another, the mountain pansy (Viola lutea) – one of the few British 'alpines', like mossy cyphel (Cherleria sedoides) – may have been omitted intentionally depending upon Roger's delineation of the area. The pansy is fairly plentiful on better soils in localities adjoining the main Cairngorms massif such as Glen Feshie (Webster) and Glen Builg. Lastly, the hairy stonecrop (Sedum villosum) has been found recently by Sandy Payne just to the north of Ben Avon.

In addition to the mountain flowers I have mentioned, numerous other flowers occurring at lower levels in the Cairngorms could be added to the 1956 list. A good number of these have been detailed by Ratcliffe in his excellent chapter on vegetation. Dave Batty is compiling a new list of plants growing within the Cairngorms N.N.R. and would welcome any records from Club members or anyone else interested in helping. His address is 'Lilybank', Braemar.

In my experience there is something intensely satisfying about the study of the Scottish mountain flora and fauna. Besides the obvious attraction of wandering in magnificent surroundings (and, of course, one can still botanise when visibility is a mere ten feet!) there is considerable benefit and enjoyment to be gained by a careful search of the old literature, a task that can be accomplished on those grey, snell days of winter. There develops a sense of doing real detective work – one little snippet of information sheds light on another. The pen scribbles more quickly and the heart beats somewhat faster. Soon the day comes when the results of the library search can be put to the test in the field. And, of course, when the ultimate goal has been achieved – and the rare plant has been found or nest located – there is the inevitable talking in whispers!

APPENDIX

Mountain flowers referred to in the text are listed here alphabetically for convenience.

(1) Additions to Roger's 1956 list –

Agropyron donianum	Don's twitch grass
Arctous alpinus	Alpine or black bearberry
Armeria maritima	Thrift or sea pink
Draba incana	Hoary whitlow grass
Erigeron borealis	Boreal fleabane
Gnaphalium norvegicum	Highland or Norwegian cudweed
Juncus biglumis	Two-flowered rush
Poa glauca	Glaucous meadow-grass
Salix arbuscula	Plum-leaved willow
Salix lanata	Woolly willow
Salix reticulata	Reticulate willow
Sedum villosum	Hairy stonecrop
Viola lutea	Mountain pansy

(2) Included in the 1956 list –

Carex atrata	Black sedge
Cherleria sedoides	Mossy cyphel
Dryas octopetala	Mountain avens
Juncus trifidus	Three-leaved rush
Saxifraga cespitosa	Tufted saxifrage

(3) Others

Cicerbita alpina	Blue sow-thistle (very rare; found on Lochnagar, and in the glens of Caenlochan, Callater and Clova)

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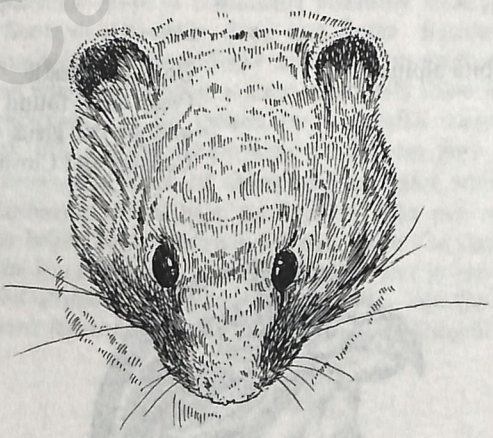


FISHTAIL

A TRIP TO ANNAPURNA SANCTUARY OCT. – NOV. 1980

ANNE CORDINER

Strange, but many of the 'biggest' and most notable mountains get their full stature only in literature. In practice – on the spot, so to speak, they are often 'upstaged' by lesser but far more dramatic peaks. On our Everest trek it was Ama Dablam 6863m which caught and held the eye; and so on our latest trip did 'Fishtail' or Machapuchhare, 7059m. It pulled the eye constantly as it flirted with the clouds, an object of a great deal of film as most camera lens swung toward it again and yet again, for just 'one more shot'!

"I shall pass this way but once" begins a well known little rhyme, but hills and mountains and strange faraway places have a strange fascination for the mountaineer – so it is with Nepal. Terry (Wallace) and I had greatly enjoyed our first visit, so it was not a question of 'did we want to go?' more 'how to afford it!' so beware those of you who have been and those who still have to go!

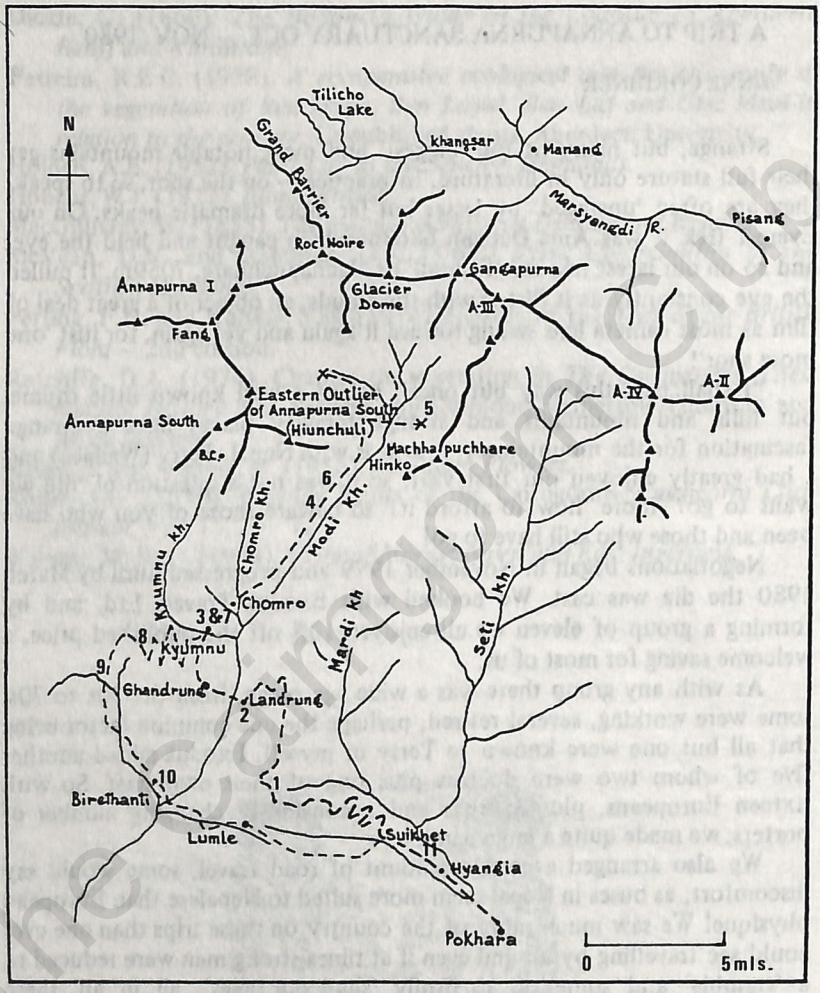
Negotiations began in November 1979 and progressed until by March 1980 the die was cast. We booked with Exodus Travels Ltd. and by forming a group of eleven we all enjoyed 10% off the published price, a welcome saving for most of us.

As with any group there was a wide age range, from the 30s to 70s, some were working, several retired, perhaps the one common factor being that all but one were known to Terry or myself. Exodus added another five of whom two were doctors plus one of their own staff. So with sixteen Europeans, plus Sherpas and a constantly changing number of porters, we made quite a large band.

We also arranged a certain amount of road travel, some would say discomfort, as buses in Nepal seem more suited to Nepalese than European physique! We saw much more of the country on these trips than one ever could see travelling by air and even if at times strong men were reduced to a 'tremble' and some of us firmly 'shut our eyes', all in all, these excursions were to be remembered and the experiences proved quite eye openers.

The magic names, Bombay, Delhi, Kathmandu, floated smoothly by. All formalities completed, the party and its luggage arrived and settled in to enjoy the last comfortable beds, baths or showers for some time. For the first-timers there was some degree of 'culture shock' but all seemed to take things remarkably well and soon set out to explore Kathmandu, its sounds, sights and smells, with commendable energy.

The trek started and finished at Pokhara some 884m. above sea-level. In little more than 40km as 'the eagle flies' the 800m peaks reared



ANNAPURNA SANCTUARY TREK, 1980

Campsites

1. Dhumpus
2. Landrung
3. & 7. Kyumnu
4. & 6. Kuldi Ghar
5. Machapuchare Base Camp
8. Banthanti
9. Ghorapani
10. Birethanti
11. Below Suikhet

above the surrounding landscape. We were not birds so the trek soon became an energetic one, as we rose and fell over rough paths heading for our highest camp under the shadow of Machapuchhare. Soon habitation and the Tibetan villages which string out from Pokhara were left behind and the way lay pleasantly enough through green rice paddies and along the banks of the main irrigation channel; but after lunch the serious stuff began, up and up. The party was soon widely spaced until we reunited at our night's campsite. Nearby was a small village shop and a supply of beer – bliss.

The days fell into a pattern, early rise with tea, coffee, cocoa, (later I swear they were all combined!), hasty packing and departure after skimpy breakfast, walk until lunch, three, four or five hours away dependent upon water supply. A leisurely cooked lunch and then a usually shorter afternoon to get into camp before dark, supper and bed.

The terrain was immensely varied and the days were usually very hot and sunny, though we did experience some thunderstorms and rain and higher up, snow. Up and down, the spurs reaching into the deep cut valleys, built-in steps up and down the hillsides – one day we descended over 450m on man-made steps. Through villages, rhododendron and bamboo forests and finally out onto the scrubby bare hillsides and past the famous Hinko cave we climbed through the 'Gates of Annapurna Sanctuary' while snow fell steadily and hid the vast peaks above us. First arrivals at the campsite under 'Fishtail', we found ourselves helping to erect tents in and on the snow. The stars that night defied description – as we watched the clouds clear and the peaks appear – but the cold cut to the bone and one couldn't star gaze for long.

Next morning camp remained strangely quiet, until the sun lanced down from between the 'Fishes tail' – then all gradually crawled forth to soak up its warming rays and slowly, very slowly began to shed duvets and woollies. It is easy to understand why many primitive races worship the sun!

We enjoyed two magnificent days at our highest camp (about 3,500 m) and saw so many things. The vast circle of mountains and glaciers, dominated by Annapurna South, mostly trailing a plume of snow; an avalanche thundered down the East Annapurna glacier, the play of sun and clouds on the rocks, the cracks and groans as stones slid into the huge crevices of the South Annapurna glacier which terminated some way above our camp. The dwarf willow and edelweiss, the odd cushion of campion and the odd gentian found unexpectedly nestling among such stony barrenness.

Food and fuel are scarce commodities at such altitudes and some members had to retreat (from 3700m) to lower levels before feeling themselves again.

Our route back gave us more views to remember, Dhaulagiri filling our horizon for some hours one fine forenoon. Some of us climbed a

viewpoint in the dawn hours to drink our fill of the everchanging pattern of light on that immense massif.

We had, of course, to return to lower levels, to the more mundane and prosaic, but we stalled for a while and had a last 'fling' in Nepal's jungle region near the Indian border. We rode on an elephant, seeking and finding the wild free roaming rhinos – but not alas the lions or tigers. Hot, sticky and dirty it certainly was, but always interesting.

My last vivid memory is of our last night's camp on the sandy flats of the Narayanga river, watching the setting sun redden behind a skyline of trees which could only have been Asian and a small local boy plying his log canoe in an expert 'ferry glide', ferrying latecomers home across the swift deep waters until at last he could no longer see. To the gurgling of the river and strange jungle noises, we nestled into the warm sand and soon slept.

Additional Facts.

The Trip took 24 days, London to London, Heathrow.
Flight via Bombay, Delhi to Kathmandu.
Kathmandu to Pokhara and Pokhara to Chitwan National Park and back to Kathmandu by locally chartered bus. Arranged by Exodus.
Spent 3 nights at the beginning in Kathmandu, one and part of one at the end in Delhi.
The Trek lasted 15 days. All equipment, food and porters were provided on trek (personal porters extra). B & B in Hotels.
Lowest point-Pokhara 884m. above sea level. Highest point-visit to Annapurna base camp 3700m. Highest camp-Machapuchhare camp 3500m. Five days from lowest to highest point did not allow for acclimatization for all members.
Tentage was of very poor quality.
Costs – Basic Trek. £729.00 Fuel surcharge £52.00 Embassy fees, insurance, permits, porter insurance etc. £93.00 Extra for Game Park £23.50 Total £897.50.
Some members still had time to visit Agra, Taj Mahal etc. and one joined us from and returned to Australia.

GLENMORE LODGE – CAIRNGORM – BEN MACDUI AND RETURN. 1980.

MEL EDWARDS

Following a successful attempt on the 'Four Peaks' record in 1979 (reported in CCJ Vol. 19. No. 98), I began to look for another challenge in the Cairngorms and decided that although I could find no trace of a recorded run to Ben Macdui and back, an attempt on the route would at least set a standard for others to beat.

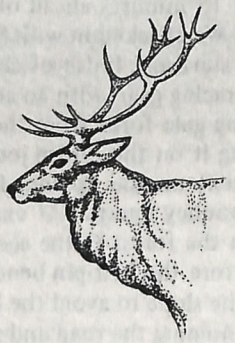
I reckoned that this and all other attempts should, like the Four Peaks Peaks run, start and finish at the back door to Glenmore Lodge. This would result in a distance of 18 miles and a total climb of 1,447.8m (4750 feet). The background to the attempt had been a full summer of hill racing and the date of the run was Saturday, 13 September 1980. The week before, I decided to undergo a modified version of the controversial long distance runner's carbohydrate loading diet, whereby one tries to boost the glycogen in one's leg muscles, prior to a hard effort of over two hours duration in order to delay glycogen depletion, or in layman's terms 'running out of gas'. On the Sunday before the Ben Macdui run, I had a fairly hard 16 mile run with four colleagues, then embarked on a 55 hours spell, during which I reduced my intake of carbohydrates (which is fairly high) to around 30% of normal and concentrated on fats and proteins. Through the week, I did 6 to 8 mile runs, with 3 miles slowly on Thursday and Friday and from Tuesday evening I ate Mars Bars etc. until everything tasted like Mars Bars.

Saturday dawned cool and windy, which was fairly promising and just after 09.00, my training companion Dave Armitage, who had so ably assisted on the Four Peaks run, my wife Kareen and I, set off on the drive to Glenmore Lodge. We arrived just before 12.30 and it was agreed that Dave would set off exactly 15 minutes ahead of me and act as pacemaker on the Ben Macdui plateau. We checked in with Susan Smith, Bursar at the Lodge, who witnessed the start and finish of the run and at 13.05, Dave set off. I donned my full racing gear, with an additional long sleeved top, as the wind was approaching gale force from the north-west and I did not relish the thought of facing it on the return journey in only a vest. Some loosening exercises were next on the agenda, followed by easy jogging, after which I felt full of bouncy energy. At exactly 13.20 I was off and running quite hard through the forest to the access road to Cairngorm, up the hill to the car park before the hair-pin bend and feeling good. At this point, I headed south up the slope to avoid the hair-pin detour and had to scale a high fence before rejoining the road and starting up Windy Ridge. I managed to run all the way up to the Ptarmigan Restaurant, with the strong wind behind me and as I slogged up the slabs to the summit, I saw Dave ahead of me.

The summit was reached in 49 minutes and after shouting to Dave that this was a good time, I followed him down the stony descent to the path above Coire an t-Sneachda. The path was in good shape and around Lochan Buidhe and the March Burn, I began to feel very good and took the lead from Dave on the ascent to the south top of Ben Macdui (1 hour 25 mts).

We turned and Dave took the lead over the boulder section before Lochan Buidhe, where I lost a bit of ground. It was now that I realised that the wind, which had been moderating and was slightly on our faces at the top of Ben Macdui, was now light and behind us! As I hit the stretch of path at Lochan Buidhe, I caught Dave and began to feel very fresh, so started pushing away. On the climb up Coire Domhain, I went a little too far east, but soon picked up the path again and ran all the way up Cairngorm in 7 minutes, thus getting my revenge for feeling dreadful on the same section in the Four Peaks run.

The elapsed time was 2 hours 15 seconds. I lost a bit of concentration coming down to the Ptarmigan Restaurant, but ran very hard from there, following the route of the annual Cairngorm Hill Race via the gravel path to the White Lady Shieling,then down the road to the large car park (2 hours 15 minutes). Again I cut down the hillside to the spot where the Chalamain Gap hits the access road and was beginning to feel a little weary, although still trying to break 2 hours 30 minutes. I broke into the forest and was definitely tired by now, then over the ford with about 600 metres to go and pushed for the finish, only to encounter a large group of walkers on the narrow short hill before the Lodge came into sight. A final sprint to the back door, where Kareen and Susan were waiting – 2 hours 30 minutes 53 seconds.



ELAPSED AND SPLIT TIMES

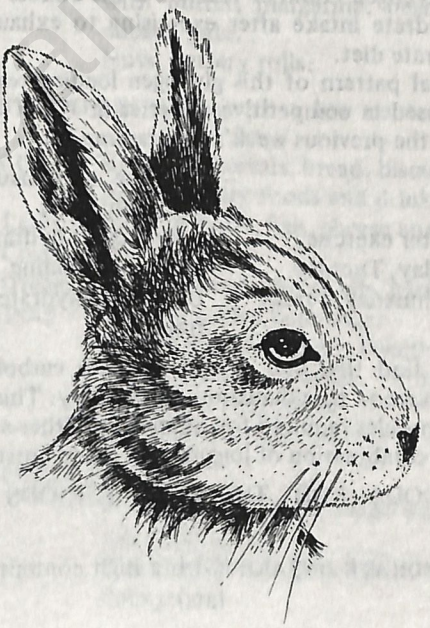
	ELAPSED	SPLIT
Cairngorm	49 mts	
Ben Macdui	1hr. 25 mts.	36 mts.
Cairngorm	2hrs 00mts 15sec	35mts 15sec.
Glenmore Lodge	2hrs 30mts 53sec	30mts 38sec.

Dave took it easily down Cairngorm and trotted in, feeling ravenous and set to on the sandwiches. My stomach was a little more delicate and I left my replenishment until a Chinese restaurant, in Aberdeen.

The run went very well and was much less painful than the Four Peaks run. The pre-race diet experiment was, I feel, the reason why tiredness did not set in until the final ten minutes or so (plus of course, plenty of training). I ran 22 miles during the following four days and was then fully recovered, to the extent that ten days after the run, I was able to produce my fastest time for a number of years, in a 3000 metres race (9 minutes 10 seconds).

The local charity, Family Aid, received £50 towards a Childrens' Christmas Party, as a result of the run.

Footnote – The Author refers to the carbohydrate loading diet and in the next article, Hazel Coubrough describes the diet in detail and explains the reasoning behind the diet – Editor.



FOOD INTAKE AND ENDURANCE EVENTS

HAZEL COUBROUGH

District Dietitian, Grampian Health Board

Increasing interest in long distance running and the publicity given to 'pasta parties' the evening before marathon events, has prompted a number of people to ask whether manipulation of food intake can improve their endurance when hill walking. Here then is an outline of the Carbohydrate Loading regime which you may consider trying for yourself.

Experimental laboratory work has shown that the capacity to perform prolonged heavy exercise can be influenced by preceding diet. This effect is related to the availability of carbohydrate in the form of glycogen stored within the working muscles. During exercise we use up this glycogen as a source of energy. When it is almost depleted, high intensity activity cannot be maintained and we reach what is known as the point of exhaustion. It follows, therefore, that the larger the store of glycogen, the longer we can continue at our peak level of activity.

The way to increase muscle glycogen is to exercise to the point of exhaustion, then for at least three days eat food with a high carbohydrate content and train only lightly. Normal glycogen levels will be regained within twenty-four hours and will continue to increase over the next three to four days. This is what is called carbohydrate or glycogen loading, or supercompensation. Some Swedish researchers found that even higher levels of muscle glycogen could be reached if the athlete had three days of restricted carbohydrate intake after exercising to exhaustion and before the high carbohydrate diet.

Thus, a typical pattern of this glycogen loading regime has emerged since it was first used in competitive athletics in 1969: e.g. if the event is to be on Saturday the previous week's programme is:–

Saturday	– Exercise to exhaustion to deplete glycogen stores
Saturday – after exercise, Sunday, Monday, Tuesday	– Low carbohydrate intake with moderate training
Wednesday, Thursday, Friday	– High carbohydrate intake with light training

Some people find that one day on the low carbohydrate intake is enough, so they exercise to exhaustion on Monday. This can be done by tiring out the leg muscles required for running by either a very long run, or more quickly by a combination of jogging and sharp bursts of speed.

SUGGESTED FOODS FOR THE TWO PERIODS OF DIETARY MANIPULATION

1. LOW CARBOHYDRATE INTAKE (with a high content of protein and fats)

TAKE PLENTY OF:– Eggs, cheese, meats, fish, nuts, cream or top of the milk.

AVOID – All sugary foods and drinks

SUITABLE DRINKS – Tea and coffee (without sugar), water, Low Calorie or Diabetic lemonade and squashes. Unsugared fruit juices. Small amounts of spirits with water or a Low Calorie mixer or Diabetic beer.

THE DAYS' MENU COULD BE:–

BREAKFAST – Scrambled eggs, bacon, sausages, kippers, cheese. Crispbread or thin slice bread or a buttery roll.

MAIN MEAL – Pate/egg mayonnaise/shrimp cocktail. Large helping meat or fish with vegetables. Small helping potato cooked with fat, e.g. chips, roast, creamed.
Cheese and crispbread or crackers/plain yoghourt.

LIGHT MEAL – Cold meat/potted herring/smoked mackerel/ meat pie
Salad with oil and vinegar dressing
Fresh fruit and cheese

BETWEEN MEALS – Crispbread or thin slices or bread spread thickly with butter, margarine, peanut butter, cream cheese, pate.
Nuts, buttery rolls.

2. HIGH CARBOHYDRATE INTAKE (with a low content of protein and fats)

TAKE PLENTY OF:– Breakfast cereals, bread, biscuits, potatoes, rice, pastas, sugary foods and drinks, sweets.

AVOID – Large helpings of meat, fish, cheese and eggs
Cream, fats, oils
Greasy foods such as buttery rolls, pastries

SUITABLE DRINKS – Tea and coffee with sugar
Malted milk drinks e.g. Ovaltine
Lemonades, squashes, fruit cordials and sweetened fruit juices
Moderate amounts of beer or cider.

THE DAY'S MENU COULD BE:–

BREAKFAST – Breakfast cereal/porridge/waffles with sugar, treacle or syrup
Plenty of bread spread with marmalade, jam or honey

MAIN MEAL	–	Thick soup Small helping of meat or fish Large helping of potato – boiled or baked (no added fat) or rice Vegetables Milk pudding with stewed fruit
LIGHT MEAL	–	Grilled sausages, baked beans and chips or any pasta dish made with a minimum of fat and lots of pasta (macaroni, spaghetti) and a small amount of cheese or meat or Rissotto or Pot Noodles Gateau, instant desserts, tinned fruit
BETWEEN MEALS	–	Fresh fruit, fruit yoghourts, ice cream, sweets, cakes, biscuits, dried fruit e.g. sultanas, popcorn Sandwiches (without butter or margarine) of jam, honey, marmalade, syrup, chocolate spread.

SOME WORD OF EXPLANATION

1. These foods indicate a selection from which the athlete may choose. He should never force himself to eat foods which he dislikes.
2. Many athletes have been found to be eating too little during the low carbohydrate period and so have an insufficient energy intake. As a result they break down some of the muscle tissue which they had been training hard to develop.
3. Alcoholic spirit can be taken during the period on the low carbohydrate intake. It depresses the body's internal production of glucose (gluconeogenesis) which, when taken in moderation, may be beneficial.
4. During the high carbohydrate period, some athletes have consumed too much refined carbohydrate (sugary foods and drinks). The absorptive area of the small intestine can only cope with so much at a time and if overloaded, the excess sugar passes on into the bowel. This strong sugar solution draws more fluid into the bowel from the bloodstream, by osmosis and results in diarrhoea. Miscalculations of this kind are the reason for several unexpected last minute withdrawals by some long distance athletes from important events!
5. Athletes should try out these dietary manipulations themselves in the training weeks preceding the major 'event', as individual food preference and tolerance is very variable.

DAY OF THE EVENT

The stomach should be empty at the start of the event, which means that the last meal should be consumed at least three hours before starting time. It's best to avoid meats and fries as they tend to delay the emptying rate of the stomach. The content of the meal should be a continuation of the high carbohydrate intake.

Recent evidence suggests that athletes who have followed this glycogen loading regime will particularly benefit from it if they drink a cup of very strong coffee about an hour before the start of the race. This has the effect of raising the levels of free fatty acids in the blood, so using some body fat stores at first as a source of energy. Thus the glycogen stores are not used at the start, so will last longer.

Sugary foods and drinks should not be consumed during the hour before the race. The reason is that when sugar reaches the bloodstream, insulin is released from the pancreas which, among other effects, reduces the amount of glucose which is normally released by the liver (gluconeogenesis). This can result in the runner tiring more easily.

FLUID – balance is most important during the race.

Exercising muscles generate heat. The athlete can very quickly become dehydrated as regulation of body temperature takes priority over regulation of body water. One to four litres of water can be lost hourly due to sweating and increased ventilation of the lungs, or put another way, 1% of body weight can be lost after only 30 minutes of heavy exercise at an air temperature of 20°C.

EFFECTS OF DEHYDRATION

1% loss of body weight due to fluid loss	– heart rate and body temperature increase
3% " " " " " " " "	– impaired performance
5% " " " " " " " "	– heat exhaustion
7% " " " " " " " "	– hallucinations
10% " " " " " " " "	– heat stroke and collapse

Research indicates that the best way to combat dehydration is to follow these guidelines.–

Drinks should –

(a) Contain less than 2.5g glucose per 100ml (This is much less than the currently available 'sports drinks')
(b) Contain few if any electrolytes – at most 0.2g sodium chloride (salt) in 100ml
(c) Have an osmolality of approximately 200mOsm/litre
(d) Be taken frequently (every 10 -15 minutes) in volumes of 100 - 200ml
(e) Be cold – 4°C or 40°F.

On hot days, at high altitude or in a very dry atmosphere, more water may be needed and on cold days, more glucose in the solution.

It is only possible to replace 800ml – 100ml fluid/hour (due to the stomach's rate of emptying) so runners must discipline themselves to consume this amount to minimise dehydration. Glycogen is stored in the body in association with water, (1g glycogen to 2 – 3g water), so the 'glycogen' loaded athlete does have this as a source of fluid too. During training athletes should drink as recommended above and can gauge their success in minimising dehydration by weighing themselves before, during and after training. The less weight loss they have, the more efficient will they be.

After all this explanation – a salutary reminder:–

Athletes who are at the peak of their training for endurance events DEVELOP AN INCREASED ABILITY TO STORE GLYCOGEN. They are also more able to use fatty acids as an energy source towards the end of a long distance event.

The dietary manipulation described should benefit only those whose training has been less thorough. There is, therefore, at present no substitute for training.

The author acknowledges the assistance given by Dr. R. Maughan, Research Fellow, Institute of Environmental and Offshore Medicine, University of Aberdeen, in the preparation of this article.

HILL RUNNING IN EUROPE – THE SPIRIDON MOVEMENT

MEL EDWARDS

In the early 1970's, a movement was born in Swiss athletics, known as Spiridon. Before this, the Swiss authorities catered only for top athletes and were uninterested in fostering the sport at grass roots level. Noel Tamini, the founder of Spiridon, felt that the sport should be for all, no matter what age, sex or ability and started to organise races in which everyone could take part, naming the movement after Spiridon Louis, the winner of the first Olympic marathon in 1896.

The movement grew quickly and now there are clubs throughout Europe, with excellent magazines containing race news, results, photographs and articles of interest. Spiridon GB has a membership of over 300 and provides information on road and hill races on the continent.

Although the main purpose of Spiridon is participation, it does cater for competitive hill runners by way of CIME or Coupe Internationale de la Montagne Europe. There is a series of mountain races (there were 68 in 1982) categorised Super, A, B and C, from which runners can accumulate points and there are separate championships for juniors, seniors, ladies and veterans. 80% of the races are held in Switzerland or France, with the remainder in Austria, Italy, Germany, Spain and Great Britain (Snowdon).

The characteristics of many of the races are early starts, frenzied dashes over the first half mile or so, flagged courses lined by enthusiastic spectators with their encouraging shouts of 'hup, hup, hup, hup', crowds of villagers at the finish and, after the prizegiving, extensive hospitality.

I have crossed the Channel on four occasions to sample continental hill racing; the Sierre to Zinal event in 1977, 1978 and 1981 and Oberhaslach to Rocher de Mutzig in 1982. Sierre lies in the Rhone valley, 20 miles due north of the Matterhorn as the crow flies and Zinal is equidistant from both, up the Val d' Anniviers at an altitude of 1678 metres. This Category A hill race is usually held in the middle of August and attracts a field of about 1300 runners and 1300 walkers. It may be thought that the latter have the easier time on this 28 km (17.5 miles) trek which involves an ascent of 1900 metres (6200 feet) but they start at 4.30 a.m. whilst the runners can have a Sunday long lie in before their 8 a.m. start!

The event is exceptionally well organised by local runner, Jean-Claude Pont, who always manages to participate in the race. Most of the runners come from Switzerland and France, but the race has become so well known that some 60 to 80 British athletes make Sierre to Zinal an integral part of the annual holiday. The walkers or 'tourist classe' as they are known, set off before dawn and when the runners, who are staying in Sierre fall out of bed at about 6 a.m., it is an eerie sight on the hillside as

the walkers climb by torchlight. The race starts in a large lay-by on the major road from Lausanne to Milan and by one hour before the start, the road is lined with parked cars. The runners have collected their numbers on the previous day and the invited runners have red bands across their numbers indicating that they may start in the front two rows – a big advantage as there are about 50 rows. The count down starts – 5 minutes, 2 minutes, 1 minute, 30 seconds, then the gun and a mad scramble for 100 metres before the field sweeps sharp right onto the tarred road to Zinal. The climbing has already begun and continues gradually for a mile before turning left off the road onto the hillside on a narrow track where for some time it is impossible to pass. After about 10 minutes, the going becomes very steep, although picturesque, through woodland and everyone is forced to a brisk walk, bent over, hands pushing on thighs. Even the leaders have to walk and this continues for some 45 minutes from the start, to Ponchette, altitude 1859 metres (6100 ft) where at long last the 1 in 4 gradient slackens and one can break into a running rhythm. It is at this stage that a panoramic view opens out to the west and the 1219 metre (4000ft) drop to the valley floor can be seen at the edge of the track.

At around the 10km mark, things liven up as the runners pass through the village of Chandolin, which is thronged with spectators offering encouragement and refreshment to those runners they are supporting. A number of times I have heard 'Ecossais' mentioned as the watching crowd linked my number to the programme and the words 'Aberdeen, Scotland'. It is in Chandolin that the walkers begin to be caught by the runners and marshalls along the route issue fierce blasts on their whistles to warn the walkers of the approaching pounding feet.

The field order is settling down by now and one wonders to which nationalities one's close rivals belong, as time passes and as concentration is also focused on the, at times, narrow and stony paths, punctuated by refreshment stations where water, lime, tea and Reville, a local soft drink, are on offer in plastic cups on large tables. The scenery is now magnificent as the Hotel Weisshorn appears, perched on the edge of the cliffs which fall to the Zinal valley. There is always a large crowd at this point, where it is reckoned that the runners have expended three-quarters of the required effort. For the first time, the going becomes a little boring, with featureless stony paths, as the highest point of the race is reached at Nava (2425m). The final refreshment station brings relief – it is a cowshed! The runners' numbers are punched by a marshall at the entrance, then darkness envelopes the athletes as they jog through the shed, afraid to risk taking a drink which they cannot see!

From this point, the legs get a break for the first time, on a gradual decline where those runners who still have energy reserves, can take advantage of the decline and increase their pace. However, by this time, most runners have been on the go for almost three hours of relentless

pressure and glycogen depletion is beginning to take effect. All of a sudden a sign appears, "3 km to go" and the gradient steepens to a fearsome 1 in 4 on a winding path to Zinal. There, the crowds appear, cheering enthusiastically to the 10th or 810th runner and paint on the road proclaims 800 metres, 700 metres and so on to the finish. Through the finish line and the competition number is removed and a beautiful bronze medal placed around the neck.

There is a story behind the medals of Sierre to Zinal. Every year, one of the five major peaks surrounding Zinal is adopted as the patron mountain for that year's race and is depicted in relief on the medal. The mountains are Weisshorn, Zinalrothorn, Obergabelhorn, Cervin (Matterhorn) and Dent Blanche and they are adopted in successive years, in that order. There is keen competition to gain a 'set' of five medals and I have to return in 1984 and 1985 to gain my set (or 1989 and 1990!)

After finishing, there is a long queue at the swimming pool, so most runners do not bother to wait. Within an hour, the results are coming from the computer. There are normally about one thousand finishers and my positions have been:–

1977	99th	3hrs. 22mts. 59secs.
1978	64th	3hrs. 12mts. 57secs.
1981	109th	3hrs. 16mts. 48secs.

The latter preformance would have given me 10th place in the over 40 class.

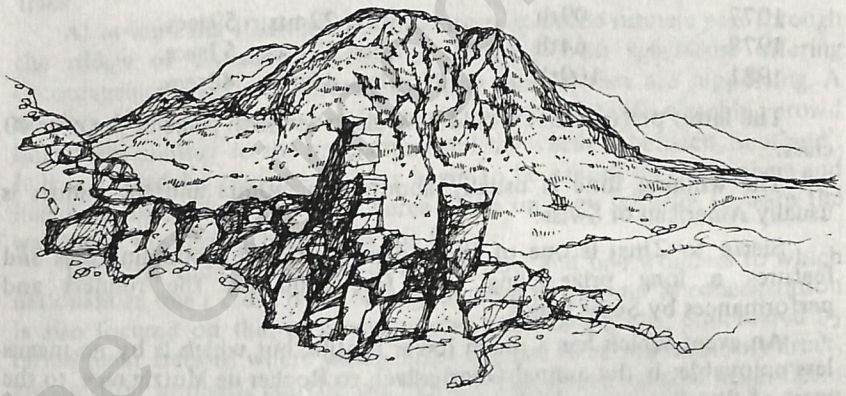
The winning time is usually about 2hrs. 40mts and the winner is usually American or Swiss.

Sierre to Zinal is one of the typical European mountain races and features a long prize-giving with free food for the runners and performances by Swiss bands.

An event which has a much lower profile, but which is by no means less enjoyable, is the annual Oberhaslach to Rocher de Mutzig race, to the west of Strasbourg on the French/German border. The race is 20km. long and has an ascent of only 732 metres (2400ft) and a field of 200, mostly from the surrounding area. It is organised by an English runner, Rob Towler, now working as an architect in Molsheim. The climbing is through beautiful woodland and the weather is invariably hot, so despite the running time being about 1½ hours, the final five miles or so is very fast downhill running and this makes the race a hard one. Last year, the race was won by a veteran, Caraby of France and I was placed 3rd in that class. The Oberhaslach race abides completely by the ideals of Spiridon, with no expenses being paid to foreign runners (unlike the expenses paid to the Americans for the Sierre to Zinal race) and has a small prize list, with awards donated by local stores. This is a tremendously enjoyable event following the true amateur spirit of athletics. I am a firm believer in open

athletics with athletes being paid whatever their performance deserves, but I still relish events like that at Oberhaslach.

I have mentioned only two European hill races in this article, but I hope that I have given an insight to and flavour of the sport and the commendable ideals of Spiridon.



S.K.W.P.2.

ELIZABETH NEWTON

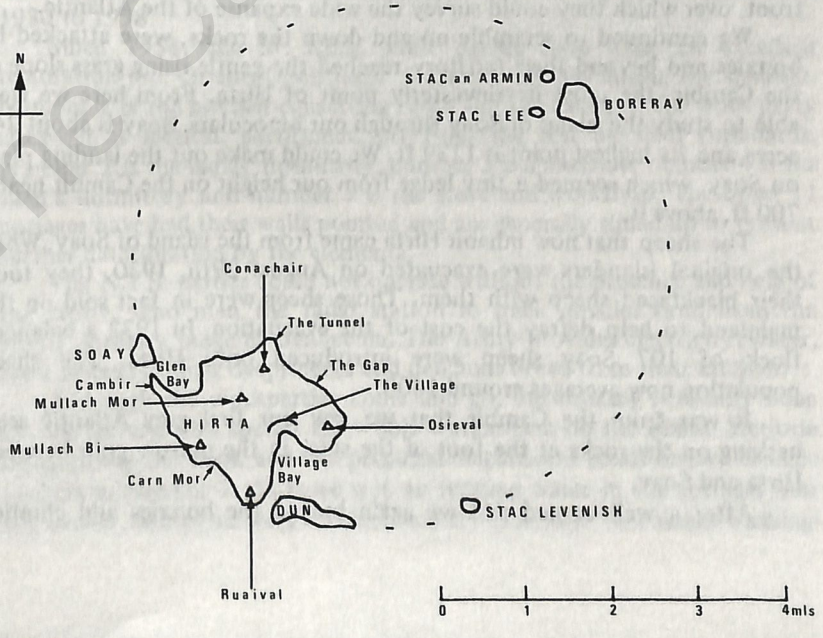
To be a member of a N.T.S. workparty on St. Kilda is a memorable adventure. Everything is totally different from what one has been used to.

Twelve of us sailed from Oban in the good ship Charna on a brilliant day in early June. The Charna is an experience in her own right. She is a converted fishing boat. Sailing through the Sound of Mull and up the Minch was great, we all sat on deck, enjoyed the views of the different islands and started to get to know each other. We had retired to our bunks sometime before we reached the Sound of Harris. Many of us woke up then as the movement of the ship changed somewhat. The constant swell would last all the way out in the Atlantic till we reached St. Kilda.

We were lucky and did the 150 mile trip in less than 24 hours. At about eight o'clock in the morning our leader Richard Castro encouraged us all to get up and stagger on deck. The island of Boreray and her stacs were looming above us, wrapped in cloud and mist. Although Hirta was only about 4 miles away as the puffin flies, it was impossible to see her cliffs.

After a very short while we were in Village Bay, still going up and down and sideways, but not with quite the same intensity. All of us were extremely grateful to see land again. To reach it we had to disembark from the Charna into a Gemini craft, which quickly deposited us at the pier.

The St. Kilda islands are approximately 50 miles west of the Outer Hebrides and are the remains of a volcano. The centre of the crater is somewhere between Boreray and Hirta.



Hirta covers nearly 1600 acres with 3 peaks over 1000 ft., the highest being Conachair at 1396 ft. All hills on the island have steep slopes, covered in short grass or heather with rocks all over the place. The seaward sides of the hills are sheer cliffs and birds nest on every available ledge, nook and cranny. Many seabirds also nest in amongst the rocks on the landward slopes. In many places walking up-hill is in fact easier than going down as one is really on a kind of steep grass ladder, the steps made by all the different sheep tracks. A complete circuit of the island involves some 8 miles of walking and over 3000 ft. of climbing.

We explored the island in a more leisurely fashion. On our first afternoon we walked across to Ruaival (584 ft.), then up to the old Decca station where we picked up the road all the way to the new radar stations on Mullach Mor (1185 ft.) passing the top of the road from the Village at about 700 ft. From Mullach Mor we descended about a hundred feet and then climbed to the top of Conachair. From here we made our way down to the Gap, the top of yet another sheer cliff at 736 ft. and from there went all the way downhill to the Village.

The next day was magnificent too, so it was decided to work extra on another day and take the opportunity to investigate the rest of the island, in case the weather should change. So we all toiled up the road, past the quarry, to the saddle rising over 700 ft. in less than a mile. We passed the bus stop and the Zebra-crossing and got our first view of Glen Bay a few yards beyond the letterbox. These signs of modern life were put up by persons unknown sometime prior to 1965.

Our next objective was Mullach Bi (1182 ft.) with spectacular views down on our left. The kittiwakes and fulmars had lovely homes on little ledges with the cliff at their backs and a beautiful clump of sea-pink in front, over which they could survey the wide expanse of the Atlantic.

We continued to scramble up and down the rocks, were attacked by bonxies and beyond their territory reached the gentle rising grass slope of the Cambir, the most northwesterly point of Hirta. From here we were able to study the island of Soay through our binoculars. Soay is about 245 acres and its highest point is 1239 ft. We could make out the landing place on Soay, which seemed a tiny ledge from our height on the Cambir nearly 700 ft. above it.

The sheep that now inhabit Hirta came from the island of Soay. When the original islanders were evacuated on August 29th, 1930, they took their blackfaced sheep with them. Those sheep were in fact sold on the mainland to help defray the cost of the evacuation. In 1932 a balanced flock of 107 Soay sheep were introduced onto Hirta. The sheep population now averages around 1400.

It was from the Cambir that we saw our first grey Atlantic seals basking on the rocks at the foot of the stacs in the narrow grap between Hirta and Soay.

After a well earned rest we again braved the bonxies and climbed

down into Glen Bay, where we could see more Atlantic seals from a good deal closer. We inspected some of the prehistoric dwellings in this area and then set off for the Tunnel, a very large spectacular arch about 300 ft. long. The sea sloshes in and through and out, more Atlantic seals are playing in the waves, while razorbills and guillemots sit crowded on the ledges. The rocks are pretty slippery, but one can walk right through to the other end and get a magnificent view of Boreray, Stac Lee and Stac an Armin 4½ miles to the N.E.

We returned to the Village by climbing out of Glen Mor, following a row of cleits which took us back to the roads to the radar station. It was a stiff climb and we thought of the St. Kilda women who walked twice a day from Village Bay over the saddle down to Glen Bay to milk the cows which were grazed in this area. The women used to pick dockleaves on the way up, as the cows only allowed themselves to be milked while munching dockleaves. The women and girls then carried the full milk pails up again and then down to their houses in the Village.

Cleits were stores for anything from nets to dried seabirds. The dry stone walls of the cleits allowed the wind through the storage space while the large stone slabs of the roof, covered with turf, prevented the rain from getting in. Cleits are found all over the island and now give shelter to the wild Soay sheep during the gales, particularly in the long winter months.

The Village consists of the Street, approximately 100 ft. above sea level, with 16 cottages built in 1861-62. These replaced the old black houses, which became stores and stables. Although most of the cleits are still in very good condition, all the houses lost their roofs and parts of the walls during the period when the islands were totally uninhabited from 1930 to 1958.

Since 1958, the St. Kilda work parties have done an excellent restoration job. Of the 16 cottages, 5 are now in use during the summer. Number 1 is the kitchen cum living room and the leader of the work party sleeps in a section, partitioned off from the rest by steel cupboards. Number 2 is the ladies' dormitory, number 3 is a museum, number 4 is the men's dormitory and number 5 is the store and workshop. The other 11 cottages have had their walls pointed and are generally tidied up to prevent further deterioration by the elements.

The N.T.S. parties could not operate without the presence and help of the Army, who man the radar station to track missiles fired from the Royal Artillery range at Benbecula. The Army provides electricity, water, food storage in their deepfreezes and delicious bread from their kitchen.

Although the workparties come and go, the cooking is usually done by one person who spends the whole workseason on the island. Marjorie Douglas was our cook and she prepared magnificent meals on two electric cookers in number 1. As there was no running water in the cottages, nor any drains, two of us were on kitchen-duty each day. This meant washing-

up after all meals, fetching water in buckets from the standpipe, emptying the slop-pail, scrubbing the tables after breakfast, sweeping out the cottages 1 to 4 and cleaning the ablution block. This building is a few 100 yards down the Street, opposite the Factor's house. It contains 2 toilets, 1 bath, 1 shower, 2 sinks and a heated towelrail. There is always hot water, except in times of drought when the water may be rationed.

The dormitory cottages are furnished with army beds and mattresses plus army blankets and a pillow. Shelves are planks hanging from the rafters and there is a good supply of nails on which one can hang all manner of things. Certainly not 3 star hotel accommodation, but perfectly comfortable and completely in keeping with the surroundings.

The Factor's house, the only two-storied building on the island, is now used by the Nature Conservancy Warden, who is stationed on the island from about March to September. The island group belongs to the National Trust for Scotland, who have leased it to the Nature Conservancy Council, who in turn sub-let a small area to the Army.

Wally Wright, the Warden, told us how St. Kilda is the only place in Great Britain where no chemical pollution has been found, as yet, on analysing eggs or dead birds and sheep. While St. Kilda was inhabited the Factor's house was used by the Factor on his yearly visit to Hirta to collect the rent, in the shape of feathers, fulmar oil and tweed. In the last few years before the evacuation, the nursing sister lived in the house.

Set completely apart form the Street and the Factor's house are the Church and the Manse. The minister and his family were never really part of the community and must have led a rather isolated existence. When the harvest of seabirds or eggs was shared out amongst the inhabitants, the minister would get some as a gift, but never as a share. The Manse is now part of the Sergeants' Mess. The Church and adjacent schoolroom have been restored and while I was on St. Kilda we had a service in the Church. On one wall is a plaque commemmorating the crews of 3 aircraft which crashed on the islands during World War II. It is known who were in the Beaufighter and Sunderland, but the identity of those in the Wellington on Soay has not been established with absolute certainty.

Beyond the Church and Manse are the Gun and Featherstore. The Gun is an old Navy gun, placed there in 1918 and never fired in anger. It was brought to Hirta after the island had been shelled by a German submarine from Village Bay in 1917, when the Navy had a wireless station on St. Kilda.

The Featherstore is very tumbledown and plans are under foot to restore it in 1983. It is very near the shore and gets the full brunt of the gales in winter. Enormous waves then come through Dun gap, while rain and spray make everything very wet and the wind blows incessantly.

Fortunately we were there from June 6th to 20th and had only one day of rain, but there was nearly always a breeze. Lenticular clouds would form near the top of Conachair and over Boreray.

Our workparty did maintenance on the drains round the cottages, varnished an original wooden bench which had been returned to the island, and built the coping at the top of the chimneys of cottages 3 and 5. There was masses of stone, but it wasn't easy to find stone of the right shape and size.

We all got very involved with the history of St. Kilda. There is a good library box in number 1, which includes a number of photocopied rent reports, schoolregisters etc. We also were lucky enough to see a silent film, made in the 1920s, which showed the cottages and their inhabitants and the cultivated fields, a strip running down to the beach from each cottage on which the St. Kildans grew barley, oats, potatoes etc. Quite often the crop was spoilt, or greatly reduced, by high winds and salt spray.

Behind the 1860s cottages are the remains of the old black houses and also many cleits. The graveyard is a little way behind cottages number 10 and 11. The whole village area had a dry-stone wall along its landward perimeter to keep the sheep and cattle out of the cultivations. Now the gates in this wall have gone and the Soay sheep wander everywhere. Beyond this wall, on the way up to the Gap, are several sheepfanks. Further up on Osieval (948 ft.) there is an old wall running down hill to stop the sheep falling into the sea down the steep cliffs.

It is hard to convey the enormous numbers of sea-birds one sees on every cliff, rock and stone. These huge colonies of breeding sea-birds are forever busy. This is not surprising, as it has been estimated that the puffins and gannets alone could consume 250 tonnes of fish each day in the breeding season, some birds go up to 80 miles away to get their fish suppers.

We spent a night on Carn Mor, first to see the puffin flypast which is a wonderful sight – thousands of puffins flying round and round in a huge cloud. They look like a gigantic mass of bees dancing in front of their hive. After the puffins settled down to sleep, we waited till it was really dark, when the Manx shearwaters came in. One shearwater sits on the nest, in a burrow under a rock, while the other goes far out to sea for food. It returns in the dark and the bird on the nest calls to direct the returning mate. This noise is very weird and eerie. One minute you are sitting in silence on the rocks in the boulderfield and the next minute you are surrounded by this plaintive crying. In June when it doesn't stay dark for very long, or if there is a full moon, the feeding shearwater may not dare to land and scuttle to it's hide-out for fear of attack by other birds, so sometimes the sitting bird is not relieved for several days – their cries are very haunting.

The greater blackbacked gulls prey on puffins on the island of Dun, but the gulls on Stac Levenish feed on fish. On Hirta these gulls have been seen killing new-born lambs. When a greater blackback kills a puffin, it opens the puffin's back and eats all it's insides, more or less turning the puffin completely inside out. Gannets are very large birds – they dive

straight into the water for their fish, fascinating to watch from the top of one of the cliffs.

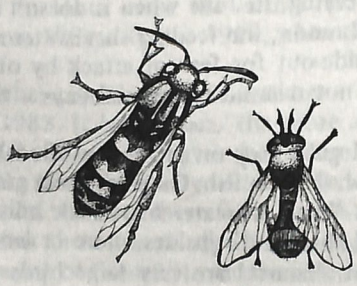
In the summer there is never a dull moment, either working for the N.T.S., walking up and down the hills, watching all the different sea-birds, trying to take photographs of the St. Kilda mouse or just sitting in the sun somewhere along the Street. Winter is a very different scene – dark, but not very cold, lots of rain and always wind, frequently getting to 'severe storm' or 'hurricane' force. This in turn whips up the sea, the waves pounding on the cliffs and beaches.

On our last but one day we all went across to the island of Dun, just across the bay from the Village, but separated from Hirta by the 150 foot wide Dun Gap. We went across the bay, in groups of about four, in the Gemini inflatable craft. When we got to the landing place, a rocky ledge, we stood, one by one, right in the bows of the Gemini, grabbed hold of a rope, which is firmly secured to the rock much higher up, and jumped onto the ledge as the Gemini goes up on a wave. As the boat goes down in the next trough, you are left to haul yourself up the rock along the rope. Going back is even more sporting as you descend to the ledge along the rope, stand with your back to the Gemini and simply let go of the rope and jump backwards into the craft when the boatman calls as the Gemini rises on the crest of a wave.

Dun is quite different from Hirta as there are no sheep on the island and therefore the vegetation is thick and lush. Walking is further made difficult by the thousands of puffin burrows. About 40,000 to 60,000 puffins nest on Dun. We climbed up to the highest point and through our binoculars could actually see the houses on the Long Island, 50 or so miles away.

The whole fortnight was a most memorable holiday, not only because of the unforgetable landscape and the splendid isolation of the islands. Sharing all this with a dozen people who have been brought together more or less at random, was an experience I will always remember.

Sources: N.T.S.:A St. Kilda handbook.
David A. Quine:St. Kilda revisited.
R.A. Spackman:Soldiers on St. Kilda.



MOUNTAIN ACCIDENTS – GRAMPIANS AND CAIRNGORMS

Compiled by JOHN DUFF

16/17.5.80 Charles Vincent McHugh (66), Coatbridge, overdue from hill walking in Lairig Ghru. Rescue helicopter found him the following day walking towards Aviemore. Due to exhaustion he had spent the night in Corrour Bothy.

26.6.80 John Harkai (40), Aviemore, was launched in his glider aircraft from Feshie Bridge Airstrip. He got lost in low cloud and eventually crash landed near the mouth of Glen Geusachan. Not knowing his whereabouts, he stayed with his aircraft until located and airlifted out by helicopter uninjured.

21.7.80 Alan Morton (47), Essex, sustained a heart attack while walking with his family towards summit of Cairngorm. He was evacuated by helicopter to hospital where he later died.

23.7.80 James Muirhead (33), Skene, and Derek New (13), Currie, left Spittal of Glenmuick for Glen Doll Youth Hostel via summit of Lochnagar. On reaching summit of Lochnagar were engulfed in mist and became lost. New fell 100 feet on wet slab rock in North West Corrie and was seriously injured. Evacuated by helicopter to hospital in Aberdeen.

6.8.80 George May (58), Kent, was hillwalking with a party of scouts when he tripped and fell near Loch Avon, and broke his ankle. Evacuated by stretcher.

6.8.80 A party of four Venture Scouts set off from the Cairngorm Ski Slopes to walk to Corrour Bothy via Chalamain Gap. After getting soaked by rain one of the party was falling behind and complaining of chest pains. On reaching the point where the Lairig Ghru path crosses the Allt a' Choire Mhor burn the youth was unable to continue. Evacuated by Argo Cat and made good recovery.

7.8.80 Graham Wilson (19), Gillingham, was on a climbing exercise with a scout group on Creag Bheag, Kingussie when he slipped and fell, dislocating his right knee.

31.8.80 One of a party of three males became cragfast while scrambling in Raeburn's Gully, Lochnagar. Rescue Teams alerted but man found own way off before their arrival.

1.11.80 Christopher Paul Harvey (16), Glenrothes, went hill walking in the Cairngorms. He arrived at the Scottish Ski Club Hut, Cairngorm in an exhausted condition. After examination by a doctor he was allowed home.

23.11.80 Dougal Bannerman (19), Portlethen, along with a group of others was cycling over the Capel Mounth from Glen Doll to Spittal of Glenmuick when he went into soft ground and fell off. He received a small gash to his forehead and complained of neck and chest pains, especially when walking. He continued to Spittal of Glenmuick and was thereafter taken to hospital in Aberdeen, where it was found he had a fracture to the top of his neck.

31.12.80 Neil Adrian Bailey (22), Blackpool, collapsed and died from hypothermia while hill walking with two companions in the Lairig Ghru.

18.1.81 Three of a party of 30 members of St. Andrew's University Mountaineering Club left Spittal of Glenshee Hotel to walk up Allt Ghlean Thaitneach and down Glen Baddoch. They missed Glen Baddoch and eventually landed in the head of Glen Ey. Because of this they were unable to meet the rest of their party at the appointed hour and were reported missing. They were eventually traced safe and well, although tired, in Glen Ey near Inverey.

27.1.81 Orange flare reported seen in direction of Coire an Lochain/ Lairig Ghru area. Area searched but nothing found.

21.2.81 Three men, were climbing Parallel Gully 'A' in the Coire of Lochnagar. They were roped together and the lead climber was about 50 feet above the other two and about 300 feet above the bottom of the climb. A wind slab avalanche missed the lead climber but hit the other two knocking them off the face. The lead climber held them both but not before they had fallen 100 feet and 240 respectively, One of them, William Wilson (32), Glasgow, was knocked unconscious and was eventually airlifted to hospital in Aberdeen suffering from a broken clavicle, collapsed left lung and severe body bruising. The other two escaped unhurt.

3.3.81 Thomas Washington (15), Forres, with two companions, who were climbing in Winter Corrie of Driesh, Glen Doll, fell a short distance while belayed by rope and landed awkwardly, breaking left tibia and fibula. Rescue Teams made their way to Glen Doll in difficult road conditions due to snow. The casualty, who was being sheltered under a big rock by his companions, was stretchered off the hill during the night and taken to Dundee Royal Infirmary.

15.4.81 Robert Alexander Wilson (38), and his son Keith (11) went hill walking on Creag Ruadh, Newtonmore. About 100 feet

below the summit of the hill they found themselves unable to move with safety in any direction. They succeeded in attracting the attention of a local man and were subsequently led to safety.

29.4.81 Patrick Hanrahan (30), Glasgow while in charge of a party of youths hillwalking on Carn-an-Sgliat, Braemar, stumbled on a tree root. He was unable to walk. After being examined by a local doctor was found to have damaged a cartilage in his right knee. Declined hospital treatment until he returned to Glasgow the following day.

30.4.81 to 31.5.81 David John Deneau (23), a sergeant in the United States Air Force, stationed at Lakenheath, Suffolk, travelled by car to Ballater where he abandoned it in a car park. He then laid a false trail indicating that he was going hillwalking in the Lochnagar area. He was subsequently reported missing by a girl friend and rescue teams were called out and searched the area for four days before the search was called off because it became doubtful if he was in fact missing. In early June, 1981 Deneau was arrested in the United States of America as a deserter. As a result of this a total of 3537 man hours were spent searching for him, not including the time of a helicopter and crew over three days.

24.5.81 Alexander Pithie (70), Aberdeen, slipped and fell while descending into head of Glen Callater by 'Jock's Road' and broke his leg. Evacuated by stretcher.

28/29.5.81 Christian Eichhorn (37), a German visitor in Braemar, set out for Ben MacDui. He intended returning to Derry Lodge via Loch Etchachan. He got lost and landed at Loch Avon and not knowing where he was, followed the valley, eventually coming out at Tomintoul, one day later. He was none the worse of his ordeal.

2.6.81 Linda Elliott (38), Arbroath, one of a party of five on a walk from Aviemore to the Linn of Dee via the Lairig Ghru, was suffering from exhaustion and exposure on reaching Derry Lodge. Party evacuated to Braemar.

7.6.81 Steven Leith (15), became separated from his party while walking on Ben Avon. He began to panic and increased his pace in an effort to find his party but in doing so stumbled on a stone and badly sprained his right ankle. He attracted attention by blowing his whistle. He was assisted downhill by members of his party until met by rescue teams and later conveyed to hospital in Aberdeen.

9.6.81 Three boys taking part in a three day 'Duke of Edinburgh Silver Award Scheme' in the Cairngorms, became ill after cooking and eating frozen sausages on the first night. By the following morning, two had recovered but the third had to be assisted to Derry Lodge from where they telephoned for assistance. He was conveyed to Braemar and an examination by local doctor found to be suffering from gastro-enteritis and a chill.

24.6.81 Harold Holland (30), became separated from his three companions while walking between Glas Maol and Cairn of Claise in poor visibility. On failing to return to the party's car at the Cairnwell, Holland was reported missing. Found safe and well at Tulchan Lodge by rescuers about 0235 hrs the following morning.

24.6.81 James Reid (15), Aberdeen, along with three companions and a teacher, were descending off Cnap a' Chleirich, when Reid fell among scree and broke his left leg. Evacuated by stretcher and Argo Cat.

27.6.81 Richard Eggleston (26), was hang gliding in the Cairnwell area when on attempting to land, the wing tip of the glider touched the ground causing it to spin round and crash nose first. As a result Eggleston was knocked unconscious and broke his left arm. Carried down by stretcher and thereafter taken to hospital in Aberdeen.

18.7.81 James McPherson (50), accompanied by a male and two female companions embarked on a walk from Glenmore Lodge to Inverey, via Strath Nethy and the Lairig an Laoigh. McPherson became ill near Fords of Avon but continued slowly while females went on ahead to Derry Lodge to call for assistance. Found by rescue team near head of Glen Derry, suffering from the effects of a cold and exhaustion.

20.7.81 Alexander Benzie (27), and five companions were on a walk from Coylumbridge to Linn of Dee, via Lairig Ghru. On reaching the Luibeg Burn at GR 014939 Benzie started crossing it on his hands and knees. In mid stream his hand slipped off a stone and he fell head first against the stone. He was rendered unconscious and rolled over, face down into shallow water. He was pulled out by his companions and eventually evacuated by helicopter to hospital in Aberdeen suffering from concussion and a broken nose.

30.7.81 Two girls went walking on Sgor Dubh, near Luibeg, Braemar and became separated. One girl returned to Luibeg

and after waiting some hours reported her friend missing. Rescue teams were called out but the girl returned to Luibeg safe and well before a search got under way.

8.8.81 John Michael Robbins (30), Mitcham, while hill walking on Ben MacDhui with three companions slipped and fell down a slope for a distance of about 20 feet. As a result he injured his right ankle and was unable to walk. Conveyed by helicopter to Raigmore Hospital, Inverness.

16.8.81 Roy Irvine Tait (45), fell to his death while climbing, unroped and leading two companions on final pitch of Black Spout Buttress in North East Coire of Lochnagar. Died instantly.

19/20.9.81 Brett Newsome (33), Edzell reported overdue on walk from Linn of Dee to Achlene, Kingussie. Was held up because burns were in heavy spate but eventually arrived 12 hours late, safe and well. NOTE: It was considered by Rescue team members that the River Feshie had risen about 10 feet that day (19th).

29.9.81 Lynn Hammond (15), Glasgow walking with a party from Blair Athol to Aviemore, was uplifted by helicopter suffering from hypothermia and conveyed to Raigmore Hospital, Inverness.

2.10.81 A party of five officers and four potential officers from Glencorse Barracks, Penicuik, were on a walking exercise from Blair Athol to Aviemore via Glen Tilt and Lairig Ghru. On the second day the party reached a point in the Lairig Ghru just north of Corrour Bothy when Bruce Hobson (19), collapsed from exhaustion and exposure. He was carried to Corrour Bothy where after being given dry clothing he was able to walk back to Derry Lodge. In the meantime two of his party had continued to Aviemore to raise the alarm.

4.10.81 A party of Aberdeen hillwalkers were traversing Jock's Road to Glen Clova where a female injured her ankle. She was helped off the hill by companions.

4.10.81 Two couples arranged to hike from Glen Clova and Lochlee, Glenesk respectively and to meet on high ground midway to exchange car keys. Due to poor visibility and bad weather both couples had eventually to turn back. One couple became overdue, but managed to return to Lochlee in darkness prior to deployment of rescue teams.

8.11.81 Hillwalkers Robert Murray (41), Wormit, Peter Clese (53), and Norman McLeod (56), both St Andrew's, failed to return to their car at Glen Doll after leaving to hike out Jock's Road in mild weather, but deteriorating visibility. A search commenced at first light 9.11.81 covering a large area west of Jock's Road towards Glen Prosen and Glenisla. The three men turned up at Tulchan Lodge, Glenisla, in clearer weather, just after midday. They were uplifted by helicopter and brought back to Glen Doll, exhausted but not requiring medical attention. They had become lost and spent the night in a space blanket.

20.11.81 Stewart Young (23), and Ewan Fleming, both Dundee, were hiking from Braemar over Jock's Road to Glen Clova when about 1600 hrs same date, they stopped to rest at Davy's Bothy at the head of Glen Doll. Fleming continued after a short time, but left Young to come down after further rest. Young failed to arrive and his companion and others retraced most of the route towards the bothy, without finding him. The weather was mild and it was assumed that Young, who was well equipped, had fallen asleep. Searchers went out to search bothy area at first light 21.11.81, and met Young walking down the track fit and well. He had lost the lenses from his spectacles and had been unable to see well enough to continue his journey in darkness the previous day.

13/14.12.81 Ruairidh Smith (24), Aboyne and Ronald Wood (29), Aberdeen, reported overdue after climbing in North East Coire of Lochnagar. The following morning they were located by Rescue Teams safe and well, trying to make their way down from the Coire in blizzard conditions. As they were located a second pair, Gordon Clark (19), Arbroath, and John Fleming (19), Blairgowrie, were also reported missing in the same area. Within half an hour they too were located safe and well, trying to make their own way down to safety.

23.12.81 White flare reported in Strathnethy area, Cairngorm by party of hill walkers. Area searched but nothing found.

30.12.81 Peter Robinson (18), Chatham, died from exhaustion while on a climb in Hells Lum Crag, Cairngorm. One of his companions received slight injury after falling from the top.

13/21.1.82 Dr Kenneth MacRae (41), Penicuik, Midlothian left home to go hiking alone in Glen Tilt area of Blair Atholl, intending to climb Benn a' Ghlo and 'Munros' west of Glen Tilt,

but failed to return on 17.1.82. He car was found at a farm in Glen Tilt late on 18.1.82 and a full scale search began from first light 19.1.82. Search was hampered by poor visibility and deep snow on the hills. Helicopters were able to assist on 21.1.82 and MacRae was found dead by ground searchers. He was covered by snow on the steep north west face of Meall a' Mhurich, Glen Tilt and appeared to have been involved in, or caused, a minor avalanche while descending. Body was evacuated by helicopter.

26.1.82 Party of three R.A.F. men reported overdue on hillwalking exercise to Ben MacDui from Linn of Dee. Took wrong turning at Luibeg Bridge, taking route back to Linn of Dee via the White Bridge in blizzard conditions.

13.2.82 About midday Christine Smith (42), Dundee, was climbing the snow covered 'Easy Gully' in Winter Corrie of Driesh, Glen Clova, accompanied by four companions, two of whom had just completed the climb. The party had no ropes and Smith slipped and fell 100 ft breaking her left wrist and ankle. Mountain Rescue Teams were called out along with a helicopter from R.A.F. Leuchars. After several attempt in strong winds, Smith was able to be winched aboard and flown to Ninewells Hospital, Dundee.

24.2.82 Alan Catney (25), Banchory, fell from second pitch of snow and ice climb of West Gully, North East Coire of Lochnagar and broke right fibula. Evacuated by stretcher and thereafter R.A.F. helicopter.

27.2.82 David Wood (23), and David Woodman (23), both Aberdeen, were climbing Raeburn's Gully, North East Coire of Lochnagar. Wood leading, reached the large cornice at the top and in negotiating it the snow gave way and he fell dragging Woodman off with him. They fell about 500 ft to bottom of gully. Wood was evacuated by stretcher to a snow vehicle and thereafter by ambulance to hospital suffering from broken ribs, bruised left ankle and abrasions to forehead. Woodman suffered chest bruising and sprained ankle and was able to walk out to awaiting snow vehicle.

8.3.82 David Allan (24), Aberdeen, became unwell after three day expedition with two companions. Evacuated from Luibeg Bothy to Braemar suffering from exhaustion and severe headaches.

8.4.82 Colin Coulling (41), Greenford, became overdue on walk from Cairngorms to Braeriach. A search was commenced and he was found safe and well after staying overnight on

hill. He was unable to return from his walk due to weather conditions and the fact that he did not carry a compass.

18.4.82 Drew Coull (17), Arbroath and a companion arrived at summit of Lochnagar en route for Glen Doll to rock climb. Coull abseiled a short way down West Gully to retrieve a karabiner and sling they had seen from the top. On retrieving the equipment, Coull found he could not climb back up again although the abseil rope was moved to an easier route. After about 3 hours Coull, getting tired decided to climb down unroped. He only got a few steps down when he lost his footing in the snow filled gully and fell a total of 700 feet seriously injuring himself. Coull was wearing trainer shoes. Evacuated by helicopter.

9.5.82 Steven Haines (29), Aberdeen, went over his right ankle while walking down Allt Lochan nan Eun Burn, Lochnagar, on uneven boggy ground. Evacuated by R.A.F. helicopter.

13.6.82 Dr John Calder (27), and Doreen Hutcheson (11), both Cults, reported overdue from Club outing to Ben Avon. Arrived safe and well at isolated farm some five hours later. Got lost in poor visibility.

14.6.82 Search for a geologist working from a tent at Loch Brandy, Glen Clova when his return was overdue. Man found nearby. False alarm with good intent.

16.6.82 Grahame MacDonald (16), and Ian Deuchars (15), Dundee, slipped while descending a steep snow patch without crampons or ice axe. Both sustained slight injuries.

6.7.82 Mary Elizabeth Thomson (31), Strathdon, while walking with two friends near Shelter Stone, Cairngorm, slipped on loose scree and fell about 20 feet breaking her left tibia.

16.7.82 Jeremy Ian Sinclair (17), Guildford, while rock climbing and abseiling on craig Dhubh, Newtonmore, with five companions, slipped and fell some 60 feet and bounced a further 60 feet on large boulders. He sustained serious head injuries and was conveyed to Foresterhill Hospital, Aberdeen.

21.7.82 Olaf Zwar (16), West Germany and three companions left Braemar to walk through Lairig Ghru to Aviemore. On the third day Zwar became unwell near Allt a Choire Mhor Burn where he passed out for a time. Examined at the locus by rescue team doctor and found to be suffering from dehydration and hypoglycaemia. Evacuated by Argo Cat

vehicle and Landrover to Braemar, where after a night's rest he made a total recovery.

14.9.82 Patsy Cumming (52), Innerleithen, slipped on stone while walking near Luibeg Bridge, and broke her right ankle. She hobbled to Derry Lodge where she was picked up by Landrover and was attended by local doctor.

4.10.82 Dr Raymond A.W. Ratcliffe (59), Edinburgh became overdue on a walk from Derry Lodge through the Lairig Ghru to Coylumbridge. He was found safe and well within the Sinclair Memorial Hut. Heavy rain had caused him to seek shelter in the hut and nightfall prevented him completing his journey.

9.10.82 Brian Crawford Hill (22), Glasgow received severe head injuries and injuries to lower back when he fell and rolled some 70-100 feet in the Lairig Ghru.

17.10.82 A party of six Venture Scouts from Dunfermline left Glen Doll at 1330 hrs to walk over Jock's Road, to Auchallater, Braemar. They encountered very heavy rain and cold winds en route and carried heavy packs. Although they carried tents they had no tent poles. On reaching the head of Glen Callater, two 16 years old girls in the party were unable to continue. When located they were found to be wearing only wet sweaters and trousers and sheltering in polythene bivvy bags. Carried out by stretcher. When given a hot bath and dry clothing made a rapid recovery.

21.11.82 Maureen Borthwick (25), Culter, on a club outing from Spittal of Glenmuick to Auchallater, Braemar, fell in water en route which slowed down her progress. She was reported overdue by some of her companions but arrived safely at her destination before rescue personnel were called out.

10.12.82 Two radio technicians on maintenance work at the Goring Radio Hut Morrone, Braemar, were caught out in whiteout conditions on completion of their work and had to radio for assistance to get off the hill.

12.12.82 Three climbers, Jonathan Glover, London, George Corbet (24), Glasgow, and James Armstrong (23), Cumbria, were climbing snow and ice filled Diagonal Gully, in Winter Corrie of Driesh, Glen Clova when Corbet leading the last pitch fell when ice gave way. He was roped to the others who were belayed to a piton on the rock face. The belay failed and all three slid and fell 100 ft. Glover, who had lost his helmet during the climb landed on rocks sustaining

multiple injuries which proved fatal. Corbet and Armstrong landed on snow, the former sustaining minor injuries and shock and the latter sustaining a broken ankle. Nearby off duty Marines, who were hillwalking, raised the alarm. Mountain Rescue Teams were called out and two helicopters from R.A.F. Leuchars were scrambled. Although darkness was falling, the conditions were calm and the first helicopter was able to winch Glover aboard. The second helicopter edged towards the locus in darkness by its searchlight and successfully uplifted Corbet and Armstrong. All the casulaties were flown to Ninewells Hospital, Dundee.

22.12.82 Patrick Temperal (18), and Paul Kane (17), both Port Glasgow, reported overdue from 1 day walk in to the Shelter Stone from Aviemore. Weather closed in and unable to continue. They made a hole in snow in which they spent the night. Both picked up the following morning by helicopter in Coire Domhain suffering from hypothermia.

31.12.82 Robin James Hall (25), Gateshead, was fatally injured when he fell about 300 feet while descending a snow and ice slope in Coire Brochain, Braeriach.

2.1.83 Ken Fryer (20), R.A.F., Lossiemouth, slipped and fell whilst walking up Fiacaill Ridge Coire an-t-Sneachda and dislocated his right knee. Conveyed to Raigmore Hospital, Inverness.

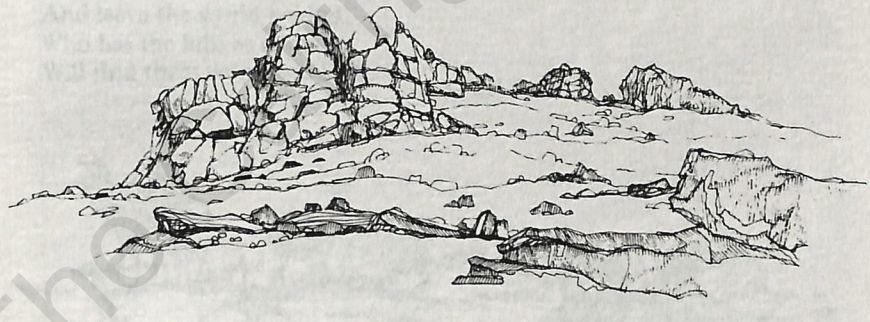
6.1.83 Ian James Bennet (18), and Simon Christopher Miskell (18), Chester-le-Street, Co Durham, were climbing on Ben McDhui intending to camp when darkness fell. They dug a snow hole which collapsed during the night and both men were soaked through. At first light they made for the Sinclair hut, arriving very weakened. Other climbers made them comfortable and sought help. Uplifted by helicopter and detained overnight in hospital suffering from frost bite and minor cuts.

12.01.83 Christopher Keith Braer (22), Gwynedd was walking down slope in Coire an t-Sneachda, Cairngorm with crampons, when he went over on his left ankle breaking it and tearing ligaments.

23.1.83 Edward Thomson (32), Glasgow, slipped and slid approximately 60 ft into boulder field while climbing 35^{o} ice slope in Coire an-t-Sneachda. Airlifted direct to Raigmore Hospital, Inverness.

FOOTNOTE – The Editor is grateful to John Duff, BEM, of the Grampian Police Force for compiling the above list. John Duff acknowledges the assistance and information received from the Grampian Police Force, Tayside Police Force and the Northern Constabulary and mentions that apart from the Police Teams the Rescue Teams usually involved in Cairngorms rescues are:

R.A.F. Leuchars and Kinloss
Search and Rescue Dog Association
Aberdeen, Braemar, Cairngorm, Glenmore Lodge, Gordonstoun School and Tayside Mountain Rescue Teams
Helicopters from R.A.F. Leuchars and Lossiemouth



TWO POEMS

WINTER

Winter casts its snowy cloak
Wide across the silent land,
Soon transforming lichened rock,
Where naked birches bend
To kiss the velvet folds,
Draped in curving wreath;
And silver moulds on icy floes,
Where frozen river winds beneath.

Glowering cliff looms above
Shattered limbs of ancient pine,
That writhe in snowy sleeve,
Weirdly etched in azure plan.
Life is stilled, while creatures lie
In sleep, till storm has gone;
And yet the slender buck treads slowly
Through the wood in darkened outline.

IAN STRACHAN

I LEAVE TONIGHT FROM EUSTON

I shall leave tonight from Euston
By the seven-thirty train,
And from Perth in the early morning
I shall see the hills again.
From the top of Ben Macdhui
I shall watch the gathering storm,
And see the crisp snow lying
At the back of Cairngorm.
I shall feel the mist from Bhrotain
And pass by the Lairig Ghru
To look on dark Loch Einich
From the heights of Sgoran Dhu.
From the broken Barns of Bynack
I shall see the sunrise gleam
On the forehead of Ben Rinnes
And Strathspey awake from dream.
And again in the dusk of evening
I shall find once more alone
The dark water of the Green Loch,
And the pass beyond Ryvoan.
For tonight I leave from Euston
And leave the world behind;
Who has the hills as a lover,
Will find them wondrous kind.

ANON.

Footnote – The second poem was contributed by Frank Connon who enjoyed reading it at the home of Dr George Lumsden of Peterhead and who obtained a copy for the Journal – Editor.

THE PUBLIC INQUIRY INTO THE FURTHER DEVELOPMENT OF SKIING FACILITIES ON CAIRNGORM.

PETER HOWGATE

According to Myrtle Simpson's recent history of skiing in Scotland, skis were used by Scottish climbers as long as a century ago and enough people took an interest in skiing as a pastime for the Scottish Ski Club to be formed in 1907. However the huge increase in the numbers of people skiing in Scotland is a phenomenon of the last thirty years or so and it is not at all surprising that Cairngorm with its extensive and lasting snowfields and proximity to the good communications and accommodation facilities of Speyside should develop as the major skiing area in Scotland. By 1960 a road had been driven into Coire Cas to a height of 625m (some of the difficulties experienced during its construction are described in volume 94 of the Club's *Journal)* and later a spur into Coire na Ciste. The car parks at the ends of these roads can take about 1,200 vehicles. Downhill skiers require uplift facilities and there are now chairlifts in each corrie and between them ten ski tows. A restaurant has been constructed at a height of 1,080m in Coire Cas and various buildings lower down in both corries. The name of the top restaurant, the Ptarmigan, is perhaps ironical; evidence was given at the inquiry that skiing activity had driven this bird from Coire Cas.

These various facilities were developed bit by bit over many years and no single addition was sufficient by itself to arouse strong and co-ordinated opposition. That is not to say that considerable misgivings were not expressed about the developments and their effects. Already by 1962, two years after completion of the ski road, Bill Murray in his book Highland Landscape referred to it as "an ugly scar on what was until recently the fairest scene on the north side of the range." But it was not just the visual impacts of the developments which aroused disquiet. Climbers and hill-walkers resented the intrusion of people and human artifacts in what had hitherto been wild and remote mountain areas. Naturalists and conservationists became more and more concerned at the effects human activities were having, in summer as well as in winter, on the ecology of the corries and of the plateau beyond. As the facilities on the slopes increased so more skiers came to use them. At times, particularly so during the winters in the latter half of the 1970s when skiing conditions were particularly good, pressure of numbers overwhelmed the uplift facilities and long queues formed at the chair lifts and the tows. Naturally the Chairlift Company sought ways of accommodating these increasing numbers of skiers but by the end of the 1970s both Coire Cas and Coire na Ciste were almost fully developed and it had to look towards the west and Coire an t-Sneachda and Coire Lochain for sites for any worthwhile expansion of facilities. In January 1980 the Company formally applied to

Highland Regional Council for outline planning permission to develop these corries for skiing. The proposal involved the construction of a road from the Coire Cas car park approximately along the 600m contour line into lower Coire Lochain with associated car parks for about 1,000 cars. From there chair lifts would carry skiers into Coire an t-Sneachda and into Lurcher's Gully and in addition there would be four ski tows on the slopes. Buildings would be constructed at the car parks and at the upper stations of the ski lifts. Though Lurcher's Gully was only one of the snowfields to be developed, for the sake of brevity, its name was attached to the entire proposal and to the subsequent inquiry.

The Chairlift Company's ideas were well known even before the planning application was submitted and had aroused considerable opposition. Individuals and bodies representing a wide range of outdoor activities and conservation interests objected strongly both before and after the submission to any extensions of skiing facilities westwards into the other northern corries of Cairngorm. Because of both the strength and the nature of the objections, the Secretary of State for Scotland announced in November 1980 that he would hold a public inquiry into the application.

The representative bodies for climbers in Britain, the Mountaineering Council of Scotland and the British Mountaineering Council, had opposed any extension of skiing facilities into what they considered to be climbers' preserves and resolved to be represented and present evidence at the inquiry. The Mountaineering Council of Scotland formed a working party, supported by the British Mountaineering Council, to prepare and present the case on behalf of climbers and hill-walkers. Because of the obvious local interest, Greg Strange of the Etchachan Club and myself were appointed to the working party and later Drennan Watson, chairman of the North East Mountain Trust, joined it. The group first met in early December and soon realised the enormity of the task ahead. Within a short time, six months as it turned out, it had to collect, evaluate and collate information, select and instruct appropriate witnesses, assemble the case and brief the solicitor who was to present it. This was Douglas Graham, a keen hill-walker who was very willing to take on the brief. The working party also soon appreciated the problems which beset any group of amateurs wishing to appear at a public inquiry – those of time, organisation, resources in general and money. Particularly money. Funds were needed for administrative expenses, for publicity to generate more money, to reimburse witnesses' expenses and to pay for legal representation. When the working party set to work the inquiry was expected to last two weeks but it was not long before it was apparent from the amount of evidence being collected by both the supporters and objectors that it would last much longer. In the event the inquiry lasted six weeks and the long duration of the inquiry itself incurred heavy, but necessary, costs of legal representation.

Then followed a very busy winter and spring by members of the working party and others, preparing the case. It would be appropriate to mention here the important contribution made by local climbers working through the North East Mountain Trust. Because of the Trust's excellent contacts and access to considerable local expertise, it was able to collect a great deal of valuable information about the Cairngorms. In addition, the Trust was very successful in raising funds which were used for paying the expenses of expert witnesses from overseas and for other specialist projects. Meetings of the working party were held, in the evenings, in Perth and Greg and I got to know the road there very well. However, we were not the furthest away from the meeting place; Mark Hutchinson, representative of the British Mountaineering Council, drove up from Leeds.

The Cairngorm Club, being a member of the Mountaineering Council of Scotland, naturally supported its case and, through my membership, contributed to the efforts of the working party. In addition, because of the Club's obvious association with Cairngorm, the Committee decided the Club should present its own evidence and be represented at the inquiry. The Club's precognition, reproduced following this account, was largely the work of our secretary and I believe fully summarises members' feelings towards the Cairngorms. I have been congratulated by many people, at the inquiry itself and elsewhere, on the quality of this statement and it was quoted from and summarised extensively in the Reporter's report to the Secretary of State. The Committee was right in its decision to appear at the inquiry and though its contribution to the inquiry was modest in amount compared with other representations, I believe it was important in its effect.

The inquiry was held in the Victoria Hall, Kingussie and opened on the 25th May 1981 though it adjourned almost immediately until the following day. I was not able to be present at the start and our Honorary President, Leslie Hay, represented the Club. He found he was staying at the same hotel as the Reporter, Mr. Campbell, and it turned out that he too is a keen hill-walker. Our Honorary President says he spent pleasant evenings with him talking about matters of mutual interest and though I'm sure Mr Campbell is a Reporter of complete probity I'm equally sure there was no harm done in presenting the Cairngorm Club and hill-walkers in a good light. I arrived towards the end of the first week while the Chairlift Company was presenting its case.

This is the only planning inquiry I've ever attended and I found it both interesting and tedious in turns. The inside of the Victoria Hall is a bare open space with terrible acoustics. It has the peculiar property of amplifying every rustle of paper, scrape of chair leg, whisper, cough or any irrelevant noise while muffling and distorting the voice of the speaker. The Reporter's Office had previously circulated notes about how inquiries are conducted, stressing that they should be informal but in the event this

inquiry took on a more formal, court-room like air. The Chairlift Company and its supporters were represented by Queen's Counsel as was the Nature Conservancy Council. They and the solicitor for the Countryside Commission for Scotland wore court dress of black coats and pin-striped trousers. Many of the witnesses – on behalf of both the developer and the objectors – were experts in their fields, men of great erudition, and I have not seen so many Ph.Ds delivering papers outside of a scientific conference. Being a scientist myself it was with some chagrin that I listened to the members of the legal profession refer in their quaint way only to their fellow colleagues as 'learned'.

The first two weeks of the inquiry were taken up with the developer's presentation and the evidence of the supporters. The Chairlift Company described the steady increase in the number of skiers visiting Cairngorm and the need to expand the facilities to accommodate them. The proposed development would almost double the capacity at an estimated cost of £2million. The Company had commissioned an environmental impact study and the close questioning by the objectors of both the facts in the report and its conclusions took up much of those first two weeks. A major issue of debate was the impact visitors to the corries and to the summit plateau had on the ecology of these areas, the extent to which the existing impact was a result of the present ski development and the likely effects the proposal would have. A survey carried out for the environmental impact report showed that over three fine days in August 1980 an average of 800 people a day reached the top of Cairngorm, almost all from the top station of the chairlift. Almost a quarter of the visitors proceeded further onto the plateau, most by the path along the corrie rims but about thirty going on to Ben Macdui. The results of this pressure can be seen in the heavily eroded path to the summit of Cairngorm and the well marked path from there to Ben Macdui. A point at issue was to what extent the proposed developments would encourage and make easier even more intrusion onto the plateau and further into, at present, less accessible areas. It was accepted that the proposed developments would result in an increase in the number of visitors to the plateau even allowing for the new road being closed in the summer but the size of the increase was difficult to estimate.

This first session of the inquiry ended with a site visit when a large party of both supporters and objectors followed the Reporter in a tour of the corries and adjacent plateau. The day started overcast with light rain though it brightened later. The Queen's Counsel for the Nature Conservancy Council is no hill-walker but much to his credit he accompanied the party in borrowed equipment. I was rather disappointed though that no one could find pin-striped overtrousers for him. The party went through Coire an t-Sneachda viewing the lines of the lifts and tows marked out by posts and crossed high over the Fiacall ridge into Coire Lochain. There we were treated to a discourse on the physiographic

feature of the site, pro-tallus ramparts, solifluction terraces, moraines of various sorts and of their importance as a comprehensive collection. The path up Lurcher's Gully itself, the centrepiece of this inquiry, was next with the naturalists pointing out the features of ecological interest. The weather had cleared by this time and we had an excellent view along the Lairig Ghru from the meadows at the top of the gully.

From there we turned eastwards over Cairn Lochan and near the rim of the corries towards Cairngorm. The spokesman for the Royal Society for the Protection of Birds got in a telling point by declaring that the site inspection party itself was disturbing the dotterel. After all this natural grandeur and natural history it was a salutory reminder of the effects of technology to descend through Coire Cas to our cars.

The inquiry was resumed on the 14th September for a further four weeks. It must be admitted that the adjournment gave the objectors a slight advantage; the developer's case had been presented and there had been time to formulate replies to it. Certainly the Mountaineering Council of Scotland's working party, holidays permitting, had used the breathing space to polish up its case. After the last few witnesses on behalf of Highland Regional Council, who supported the development but with some reservations concerning environmental protection, had been heard, it was the turn of the objectors.

The first was the Nature Conservancy Council supported by the Royal Society for the Protection of Birds and the Scottish Wildlife Trust. The Cairngorm/Ben Macdui plateau is part of the Cairngorm National Nature Reserve and the Council stressed the importance of the reserve for mature conservation in both the national and international contexts. Witnesses described the special features of the ecology of the plateau and testified to the sensitivity of the animal and plant communities to disturbance and danger by visitors. Vegetation is susceptible to damage by boots and skis and once destroyed is extremely slow to recover in the harsh climatic conditions prevailing on Cairngorm. The Council pointed out that the corries though not within the National Nature Reserve were nevertheless important conservation areas. They hold some of the best examples of cliff and scree flora in the Cairngorms along with other features of botanical interest and present a fine and comprehensive assemblage of geomorphological structures of considerable scientific and educational importance.

The Nature Conservancy Council had collected a massive amount of evidence to support its case and an impressive array of expert witnesses to present it. It is not possible in this account to give more than a mere flavour of this huge amount of information but it added up to a comprehensive account of the natural history of Cairngorm and its northern corries. I found this part of the inquiry quite fascinating because it illuminated facets of the Cairngorms which I was not aware of or took

for granted. This was the Nethersole Thomson/Watson book. 'The Cairngorms', brought to life complete with extensive additions.

The conservation case took almost two weeks to present and discuss and was followed by the evidence of the Countryside Commission. It pointed out that the development area lies within a National Scenic Area and the road, car parks and other facilities would constitute un unwelcome visual intrusion into the landscape. The site was a popular recreational area in both summer and winter and the enjoyment of the corries by visitors other than skiers would be greatly impaired by the proposed development.

The Mountaineering Council of Scotland in association with the British Mountaineering Council and the North East Mountain Trust presented ten witnesses to support its case. Bill Brooker spoke about the Mountaineering Council of Scotland and introduced its policy for skiing developments to achieve a balanced allocation of mountain resources, to avoid conflict among various potential users and to avoid damage to the environment in sensitive areas. It points out that climbers and hill-walkers respond to the diverse character of mountains and do not seek to modify the environment. Their activities have little effect on other mountain users and make almost no impact on the mountain resource. Down-hill skiing on the other hand both in itself and through the associated paraphernalia interferes with other mountain activities and makes a considerable impact on the environment. The policy document accepts that further development of skiing facilities in Scotland is required and presents guidelines for the choice of sites.

Greg Strange described in detail the mountaineer's interest in Coire an t-Sneachda and Coire Lochain. The first recorded climb there was in Coire an t-Sneachda in 1904 and the cliffs have played an important part in the development of Scottish rock and ice climbing since. A valuable feature of the corries is that they are readily accessible yet present a wild and remote atmosphere which contributes greatly to the enjoyment of climbing there. Ski developments in them would encourage climbers and hill-walkers, even inexperienced ones, to move deeper into the Cairngorms to the Loch Avon basin and to the corries of Braeriach. These are more serious expeditions with consequent risks to safety should the weather deteriorate.

Mollie Porter, who was a member of the Cairngorm Mountain Rescue for seventeen years and its leader for nine, gave a more extensive presentation of the accident risks associated with the proposed development. In her opinion the developments would undoubtedly increase the number of accidents on Cairngorm. The improved access to the corries would tempt more people into remoter areas and particularly tempt both skiers and walkers to make the round trip along the corrie rims, with an associated risk of collapsing cornices in winter. Some of the proposed tows and ski runs cross paths taken by walkers in the corries giving rise to considerable risk of collision between them and the skiers.

She described how the proposed development is served by a single road which would be prone to being blocked by drifting snow in bad weather. The evacuation of skiers from the existing facilities in deteriorating weather presents serious difficulties at times and the proposed development would only compound the difficulties in such conditions.

In its opposition to the planning application the Mountaineering Council of Scotland and its associates emphasised that they were not opposed to skiing as such but to the mechanical devices and infrastructure concomitant with downhill piste skiing. Cameron McNeish, prominent in Nordic skiing circles, described the considerable increase in popularity of Nordic and cross-country skiing over the previous few years. The area of the proposed development provides excellent facilities for Nordic skiing both as a training ground and for racing. The 1980 United Kingdom championships were held there. Cross-crountry skiers are frequently climbers and hill-walkers at other times and adopt the same attitudes towards mountains. They too enjoy wild and remote areas and appreciate the wilderness experience. The paraphernalia of piste skiing, which cross-country skiers do not require, is inimical to the enjoyment of their sport.

Rodney Ward who had studied the factors affecting the deposition and movement of snow on the Cairngorms as part of a doctoral thesis at Aberdeen University offered evidence on the snow-holding capacity of the development area. Deep snow cover in the northern corries depends on snow being deposited there after being blown off the plateau. His calculations, supported by observation, showed that Coire an t-Sneachda and Coire Lochain collected less snow than the corries already used for skiing. None of the snow slopes in the proposed development area were as high up as the highest in Coire Cas. The two factors together, less deposition and lower altitude, would result in a shorter skiing season for the proposed development. Ward's statement supported the evidence of earlier witnesses who used a variety of criteria like the patterns of vegetation which are affected by snow cover, measurements from satellite photographs and direct personal observations over many years, that snow cover in the proposed skiing area was not as extensive nor as long lying as the Chairlift Company has claimed in its evidence.

Douglas Stewart, a civil engineer by profession and a member of the Cairngorm Club, was called to comment on the proposed and present access roads. He believed that the design study had underestimated the amount of excavation which would be required in the construction of the proposed road and consequently the cost estimate was low. Of more interest to considerations of safety were his comments on vehicle capacity of the complete road system. He estimated that, allowing for the steep gradients, the road linking Coire Cas with Loch Morlich has a capacity of about 370 cars per hour. This is only a little more than the estimated maximum flow of 350 cars per hour to and from the present Coire Cas car park. The proposed development which includes a car park for 1,000 cars

would inevitably lead to congestion at peak times. Stewart's evidence only confirmed the fears of those concerned with mountain safety that the road system could lead to hazardous situations if the development went ahead. The road capacity under good conditions was such that if the proposed development went ahead it would take at least three hours to clear full car parks on the mountain. In a situation with rapidly deteriorating weather – a condition not unknown on Cairngorm – skiers would abandon the slopes and start leaving the car park within a short space of time. The road would not be able to cope with the rush of traffic, particularly as driving conditions would simultaneously be getting worse, and it could prove very difficult to evacuate all these skiers safely.

Alastair Stevenson, formerly the Area Tourist Officer for the Spey Valley, was commissioned jointly by the Mountaineering Council of Scotland and the Nature Conservancy Council to examine the economic effects of the proposals and to determine to what extent they satisfied the demand for skiing facilities in Scotland. His conclusion was that economic benefits would accrue mainly to Aviemore whereas other areas in Badenoch and the Upper Spey Valley were more in need of economic support. The proposed development would satisfy many of the demands of the skiing market but would concentrate even more than at present Scottish skiing facilities into one area under control of one developer. This concentration may not be in the best interests of Scottish skiing or the skier in Scotland.

Drennan Watson quoted from studies of tourism in Scotland which showed that a high proportion of visitors to Glen More Forest Park are involved in a variety of mountain recreation activities. Other studies showed that hill users put a high premium on factors such as isolation, presence of wildlife, rugged character of landscape, scenic beauty and absence of roads and other man-made artefacts. The Cairngorms and the northern corries have these qualities to a high degree and in fact they are often referred to in tourist literature. Amongst the extensive data referred to in his precognition were the results of a survey carried out in 1976 of things liked and disliked by visitors to the Spey Valley. Most liked were the scenery and the peace and quiet; most disliked were Aviemore and the Aviemore Centre. In contrast to these findings the proposed development would detract severely from the scenic grandeur and the peace and quiet of the corries. The Scottish Tourist Board, Highlands and Islands Development Board and the Highland Regional Council included in their grounds for supporting the proposal, their belief that it would help to develop the Aviemore Centre even further.

The Mountaineering Council of Scotland also had two witnesses from overseas. Professor Curry-Lindahl, an expert in the ecology and conservation of wilderness areas, testified to the international importance of the Scottish Highlands generally as a wilderness area and of the Cairngorms within this. In his opinion it had been a serious mistake to

develop the present skiing facilities so close to the National Nature Reserve and to permit further developments would only compound the original error.

There are only three skiing complexes of any size in Scotland and they are of relatively recent introduction compared with those in the Alps and it might be thought that lessons learnt there could be applied in Scotland as well.

Dr. Swarzenbach, at one time Director of the Swiss Centre for Alpine Research and an expert on developments in alpine regions, was called to comment on the proposals for Cairngorm. He summarised the necessary conditions for a successful development in terms of facilities on the mountain and in the valley and applied them to the proposals as presented at the inquiry. He thought there were defects on both counts in the existing facilities and he confirmed many of the criticisms that had already been made about the proposed developments. Though perhaps he did not make any points which had not already been considered by the objectors on behalf of the hill users and the conservationists, it was reassuring to have them reiterated by an 'outsider'.

Though I have focussed on the evidence of the major objectors, many others made their contributions. The Reindeer Company was concerned at the effects on their herds. Bill Murray spoke on behalf of the Scottish Countryside Activities Council. The evidence of the Badenoch and Strathspey Conservation Group was presented by Basil Dunlop, a ski instructor, who had maintained the local meteorological records since 1962 and could speak authoritively on snow conditions in the proposed development area. I read the statement on behalf of the Cairngorm Club and individuals spoke on behalf of themselves. When all the witnesses had been heard, the legal counsels and solicitors summarised the cases on behalf of their clients and the inquiry ended on the 2nd October.

After such a long inquiry it was not surprising that Mr Campbell took a long time to prepare his report – part 1, that section dealing with findings of fact, alone runs to 225 pages with 20 pages of annexes – and the Secretary of State a corresponding period to consider it. It was a long and anxious wait and was not until the 15th December 1982, more than a year after the inquiry closed, that his decision to reject the application in its entirety was announced.

Though there were no joyous celebrations at the news with popping of champagne corks (at least to my knowledge) those who had been involved in the opposition to the planning application could feel very satisfied at the outcome. Their stance had been vindicated and the effort and time put into the objection had not been wasted. The character of the corries had been retained (I hope forever but I'm not sure there might not be an attempt to propose a modified scheme for them at some time) and personally I am pleased I played some part in what became known as the 'Lurcher's Gully Affair', the more so as it was as President of the Cairngorm Club.

SUBMISSION BY THE CLUB TO PUBLIC INQUIRY AT KINGUSSIE COMMENCING 25 MAY 1981 RELATIVE TO PROPOSED SKIING DEVELOPMENTS IN LURCHER'S GULLY AND OTHER NORTHERN CORRIES OF CAIRN GORM

Submission to Public Inquiry into planning application for skiing developments in Northern Corries of Cairn Gorm

The Cairngorm Club is a club of climbers and hillwalkers based in Aberdeen. Its membership has stood at between 350 and 400 for the last 25 years, making it Scotland's largest single climbing club. While it was not Scotland's first climbing club, it is Scotland's oldest surviving climbing club, having been founded on 23 June 1887, the morning after Queen Victoria's Jubilee, by six climbers who had been celebrating the Jubilee with fireworks on Ben Macdui.

In terms of its constitution, a copy of which is lodged, the objects of the Club are to encourage mountain climbing in Scotland, with special reference to the Cairngorm group of mountains; to produce and impart scientific and other information concerning mountains; to consider the right of access to Scottish mountains and to adopt such measures in regard thereto as may be deemed advisable; and to issue such publications as may be considered advantageous.

The interests and activities of the members of the Club are extremely diverse. Unlike a number of other leading climbing clubs, the Cairngorm Club has always been open to men and women alike. It is also open to and equally participated in by members of all ages from 16 upwards, younger members attending the same meets and social functions as members in their 60's and 70's. A common interest in the mountains draws them into and keeps them in the Club, but beyond that the diversity is considerable. Some members climb on rock while others have never been on a rope; some unashamedly collect 'Munros' while others simply revisit their respected home hills again and again, always finding something new; some regard 15 miles as a minimum respectable walk while others are simply glad to be out; some make plants, birds or animals their especial interest while others look for landforms or rocks; an increasing number ski as well as climb, even on Club meets, while others prefer the one activity only. All in all, the Club can be regarded as an extremely broadly based group, representing all types of interests likely to be found amongst climbers, not excluding skiing. The strength of the Club and breadth of its activities are vouched by its Members' Handbook and members' circulars, the Handbook and four most recent circulars being lodged.

The Club has always been outward looking and not simply a means for arranging shared transport to the hills. This is evidenced in many ways. Its objects under its constitution, already quoted, are themselves outward looking. Its founding members included such outward looking men as

James Bryce, Liberal MP, later a most successful ambassador to the United States, and subsequently created Viscount Bryce, who campaigned in Parliament and sponsored a Bill for free access to mountains and moorland for recreation and was deeply concerned with the protection of natural scenery, particularly in the mountains. As first President of the Club, Bryce along with other early members was responsible for the infant Club commencing within six years of its foundation the publication of a high quality *Journal* which has now reached its nineteenth volume and ninety-eighth issue; the *Journal* is not only a chronical of Club events and climbing exploits but also an account of scientific investigation of numerous aspects of the mountain environment. Another important outward-looking aspect of the Club has been its responsibility for or involvement in the construction of bridges and mountain indicators. In the 1920's James A. Parker designed and supervised the erection of indicator plates on the summits of Ben Macdui and Lochnagar, both of which survive, almost as new, 50 years later. In 1912 the same James A. Parker had been responsible for the erection of a footbridge to carry the Lairig Ghru path safely over a river whose spates had washed away several predecessors; this footbridge still stands and is named on the map 'Cairngorm Club Footbridge' (OS grid reference NH 926077); an account of the opening of this footbridge is contained in Volume 12 of the Club *Journal* at pages 235 to 240, copies of which pages are lodged. More recently Club members have had a large part in the design and construction of five other footbridges in the Cairngorms area, two in Glen Derry, one over the Luibeg, one near Corrour Bothy and another over the Eidart. It can only be esteem for a Club with a history such as this that leads so many members to keep up their membership long after they have left the Club's home area, something which is uncommon in activity-based clubs but is clearly borne out by the range of addresses in the list of members, a copy of the last printed version of which (1977) is produced.

The Cairngorm Club objects to the granting of planning permission for any further skiing developments in the hitherto undeveloped corries on the north flank of Cairn Gorm. The Club's reasons will be more fully explained later but may be summarised as this, that the proposed development would represent a further unwarranted and irreversible encroachment of human disturbance into an area highly prized by climbers and walkers (including ski mountaineers) for its wilderness character and highly prized by other interest groups for a range of other qualities, including its scenic grandeur. Many Club members ski as well as climb, either as the opportunity arises in conjunction with climbing or as a separate sport for separate days; many of these members are also members of ski clubs and the Club still has amongst its members at least one founder member and several other early active members of the Aberdeen Ski Club. Far from being an objection to skiing as a sport, the Club's objection is to the intrusion into the particular area of ski facilities and the infrastructure of roads and car parks which service them.

It is often thought (or argued by those whose case it serves) that some of the present day pleas of climbers and other outdoor users for conservation of wilderness areas are a novelty, a selfish and elitist trend of the last ten or fifteen years. However the history of the Cairngorm Club bears out that this is not so. It is clear from the Club's *Journal* that there has for at least a century been a demand from members of the public (who cannot all be cranks) for opportunity for 'wilderness experience', opportunity to get away from the usual trappings of civilisation. It seems likely that so long as there are places to satisfy it this demand will be an eternal one. References to it occur throughout the volumes of the *Cairngorm Club Journal,* which, as already mentioned, has been published continuously since 1893. Two references to this demand in the Club *Journal* are worthy of quotation. Firstly in an article in the very first issue of the *Journal* (Volume 1 at pages 7 to 14), the then Vice-President Rev. Robert Lippe, after recounting how the six founder members came to be together at the Shelter Stone, close to Loch Avon and just below Cairn Gorm, tells us this:– "Before finally taking our separate ways we spontaneously and unanimously agreed to form ourselves into the Cairngorm Club, the name being naturally suggested by the monarch mountain so full in view in the foreground and calmly looking down on our meeting. Office-bearers were elected by acclamation and with that generous and genial absence of selfishness which has always characterised our society we resolved to open our ranks to the admission of men and women of heroic spirit and possessed of souls open to the influences and enjoyment of nature pure and simple as displayed amongst our loftiest mountains." (In the passing it may be noted that this founding of the Club was immediately followed by an ascent of Cairn Gorm as the first Club meet, five of the party traversing it to Loch Morlich.) The second pertinent quotation is in Volume 12 of the *Cairngorm Club Journal*, at page 166, in an account of the toast to the Club at its 1929 Annual Dinner by its then President, the already mentioned Dr. James A. Parker. Parker had served on a national committee, the Scottish Forest Reserve Committee, whose purpose it was to promote the establishment of national parks with the Cairngorms as a prime candidate. He is quoted thus "I think that one essential condition of such a reserve is that it must be mountain land remote from civilisation and that it must be so large that no matter how popular it may become it will still retain its charm of solitude. (Applause). The Cairngorms have this essential to a degree perhaps not equalled by any other area of land in the Highlands. Probably no other solitudes in this country are so remote from civilisation as say Loch Avon or the rough corries of Braeriach and Beinn a' Bhuird." Later he points out "Absolutely no huts or works of any kind must be erected or carried out in or near the innermost sanctuaries of the Cairngorms or on the summits of the mountains themselves. These must be left untouched."

Such then are two expressions of demand for and appreciation of wilderness character generally and of the unique suitability of the Cairngorms to meet that demand. They stem one from nearly 90 years ago, the other from over 50. They epitomise the feelings of Cairngorm Club members then and are no less representative of the feelings of Cairngorm Club members now.

Cairn Gorm as Bruce, Lippe and Parker knew it was very different from the Cairn Gorm of today. The development of facilities for downhill skiing has brought profound changes. Many active Cairngorm Club members, some still only in their 40's, remember when an ascent of Cairn Gorm – the Club has a meet there at least once a year – began, from the north, at Loch Morlich. As shown on the map lodged (1957 edition of the OS 1in to 1 mile Seventh Series map), there were no roads beyond Loch Morlich other than private forestry roads. Above, one had a prospect of a mountain apparently untouched by human intervention, with wooded lower slopes giving way to moorland which in turn merged into deep corries leading through steep and in parts precipitous back walls to the plateau itself. The standard route up as shown on that and current maps was by the ridge between Coire Cas and Coire na Ciste, past the present Ptarmigan Restaurant. Anyone climbing in any of the northern corries or following the corrie backwalls along the edge of the plateau was already well into the wilderness area as Rev. Lippe in 1887 or Dr. Parker in 1929 would have known it. Indeed the latter would certainly have considered Coire Gas and Coire na Ciste, the sites of the present skiing complex, as "innermost sanctuaries".

Now, the upper part of the old standard route is largely obstructed by snow fencing and crossed by a ski tow; there is a high level restaurant; the summit is marred by huts and masts; the solitude aspect is lost not only because of these intrusions but also because of the visible and often audible presence of chairlifts and ski tows and, in the skiing season, snowmobiles and other service vehicles. Fortunately the two fine corries to the west, Coire an Lochain and Coire an t-Sneachda, are as yet unspoiled. The ridge of the Fiacaill a'Coire Cas shields the visitor to these corries from the sights and sounds of Coire Cas. The hillwalker can have a pleasant and rewarding day free for the most part from intrusions of downhill skiing by ascending into these corries or by following the course of the Lurcher's Burn to the plateau and thence round the rims of these corries to the summit of Cairn Gorm.

If the present proposals were to be approved and implemented these corries too would be despoiled. The qualities which the climber and hillwalker seek would be permanently degraded. The walker who wished to reach the summit of Cairn Gorm from the north without being faced with the artefacts necessary for downhill skiing would find it impossible to do so except by two roundabout and unnatural routes, one along the ridge to the north-north-east of the summit and the other even longer from the

Lairig Ghru track. It is no part of the Cairngorm Club's present case that the clock should be turned back or that the present facilities should never have been allowed. It is merely submitted that enough is enough, and that the whole eastern half of the northern corries of Cairn Gorm having been given over to skiing interests, the western half should not lightly be given over to the same interests. The Club believes that it should not properly be up to persons such as itself to argue a conclusive case against the granting of planning permission for the despoliation of Coire an Lochain and Coire an t-Sneachda; it believes that it is firmly the onus of the developers and their supporters to prove that their proposals if implemented would produce a public gain greater than the public loss. In this connection it is pertinent to consider the relative impact that skiers and other mountain recreation groups have on each other. The ski tows, snow fences and other facilities which are the inevitable concomitants of downhill skiing have a very considerable impact on the pleasure which other recreational users of mountains, whether active ones such as climbers or more passive admirers of scenery or flora and fauna, derive from their activities; furthermore, when the downhill skiers leave the mountain their facilities remain as a year-round reminder of their intermittent activities. By contrast, the activities of other recreational users of the mountains have negligible impact on each other and no impact on the activities of skiers.

The Club accepts that the existing skiing facilities are overloaded at some weekends and in holiday periods; it has adequate anecdotal evidence of this from its own members who ski there and accepts the findings to this effect of the Winter Sports Market Research Study prepared for the Highlands & Islands Development Board and listed as a report to the Winter Sports Technical Working Party. This same report, however, points out that the present facilities are under utilised on weekdays and are adequate to cope with any likely increase in demand for weekday skiing for many years to come. It appears then that the extra facilities are needed only to satisfy the excess demand at weekends and holiday periods. Out of an average season of 150 days the extra facilities are therefore required for at most 50 of them. After allowing for days when skiing is not possible because of adverse weather conditions and for the lower demand at the beginning and end of the season, the number of days when the extra facilities are really needed will be much less than this. The Club maintains that the serious degradation of the environment of the western corries and the gross impairment of the pleasure and enjoyment of climbing and walking in them, which will be occasioned over 365 days a year, is too high a price to pay to satisfy the convenient but not essential requirements of a single recreational group for only 20 to 30 days a year. It must be remembered that if the objections to the proposed developments are sustained the snowfields will still be there, unimpaired by the activities of climbers and other recreational groups, for skiers to enjoy if they are simply prepared to leave behind the mechanical uplift facilities. If however

the development were to go ahead, the climbers and walkers would be unable to enjoy these corries; their essential qualities would have been destroyed. The Club would not wish these thoughts to be viewed as indicative of any feeling that the debate over the present proposals involves any direct and simple confrontation between skiers and climbers. This is not so. As already mentioned, the Club does include skiers amongst its members. Most other climbing clubs are the same. The situation is one where two groups with a certain common element both have special needs which can be satisfied only in a few places. In these circumstances there must be a rational assessment firstly of the loss which would accrue to each group through the granting or refusing of planning permission and secondly of the possibility of making good that loss elsewhere.

So far as skiers are concerned the loss of potential facilities that would result from refusal of the present application would, in the view of the Cairngorm Club, easily be capable of being made good by development on a comparable scale elsewhere. The skier wishes snow, slopes of certain gradients, ease of access from home, and in some cases nearby accommodation and facilities. He does not seek grandeur of scenery, solitude or interesting flora or fauna. If the facilities are provided the needs of the skier can be met in various other places. Some of these places might be valued by climbers as highly as the northern corries of Cairn Gorm, but not all. The Cairngorm Club would not object to ski development at Drumochter, either on the east side of the A9, in the corries thought suitable for development by the preparers of the Langmuir report, or on the west side which others consider suitable. Drumochter is as accessible from the south as Aviemore and as close to Dalwhinnie, Newtonmore and Kingussie for accommodation as Cairn Gorm is to Aviemore and Coylumbridge and the skiing potential seems as great; given that some winters, such as 1980 - 81 produce less snow than others, further development in a new area seems more likely to assure skiers of skiable snow somewhere than extended development in substantially the same place. What Drumochter does not have is substantial appeal to climbers; there are no recognised climbing cliffs, none of the grander, wilder aspects of the Cairngorms, only sprawling hills on the east and more interesting although still unexciting hills on the west, with the busy A9 and nearby railway excluding the climber's other desire, solitude. Cairn Gorm on the other hand possesses almost every feature that is attractive to climbers; it still has parts that are remote; it has cliffs for climbers and ridges and plateaux for walkers; it embraces on its various quarters a complete range of mountain landforms – high level plateaux, deep corries with precipitous back walls, shallower corries on the south, aretes as well as more gentle ridges between adjoining corries, boulder fields, the vast trenches in the form of the Lairig Ghru and upper Strath Nethy, and tors visible a short distance away on Beinn Mheadhoin and Ben Avon.

In making any comparison between the attractiveness to others of

possible sites for skiing developments it is surely worth considering what views past generations have formed. These can show whether current views are ephemeral or reflect a viewpoint which has been held for some time and can be expected still to be held in the forseeable future.

The fact that Scotland's oldest and largest climbing club is as closely linked with a group of hills as the Cairngorm Club is with the Cairngorms cannot be simply a coincidence or an accident of a large centre of population being close to a significant mountain area. The closeness of this link is exemplified by the things already mentioned about the history of the Club such as its erection of mountain indicators and bridges. If other mountain areas had quite the same qualities there would surely be a 'Glencoe Club' or 'Arrochar Alps Club' based in Glasgow. It may be impossible to define it beyond what was expressed or implied in the quotations already made from the *Cairngorm Club Journal,* but the Cairngorms clearly have 'something' which other mountain areas do not.

This something has equally clearly been perceived over the years not just by members of the Cairngorm Club, nor indeed just by climbers. It must have been perceived fifty years ago by those urging the establishment of something in the nature of a national park as referred to in Volume 12 of the *Cairngorm Club Journal* at pages 163 and 164, copies of which are produced: it must have been perceived again in 1947 or thereby when there was fresh discussion of the whole question of national parks in Scotland. It was certainly again perceived in the 1970's by the Countryside Commission for Scotland, whose report 'Scotland's Scenic Heritage' (1978) includes it as one of the largest areas thought worthy of especial protection. With this continuity of high esteem for the Cairngorms in the past there can be little doubt that present objections to further development are founded in a viewpoint which will outlive objectors and supporters alike.

The Club is aware of the other arguments, including arguments of safety, which have been raised on behalf of climbers generally by the Mountaineering Council of Scotland. The Club supports all of these arguments and scarcely needs to add anything further to them. It hopes that its presenting a more personalised view of Cairn Gorm and its attractions will show how deeply individuals can feel about the preservation of their environment and how there is absolutely nothing novel in the appreciation of that mountain and its qualities. The Club urges that no further development of this mountain be permitted, at least in the hitherto undeveloped corries, and that it be conserved without further despoliation for future generations of "men and women of heroic spirit and possessed of souls open to the influence and enjoyment of nature pure and simple."

IN MEMORIAM

It is with regret that the Club records the death of the following members:

Mr Alexander F.Duncan (O 1940)
Mr. James E. Bothwell (OH 1927)
Mr. William M. Duff (OH 1936)
Dr. R.L. Mitchell (OH 1935)
Mr Kenneth G.Mckenzie (O 1950)
Mr Terrence Nugent (A 1959)
Mrs H.M.M. Jessamine (OL 1934)
Mr William A. Ewen (OH 1931)
Dr. John H.F. Crawford (OL 1935)

JAMES E. BOTHWELL

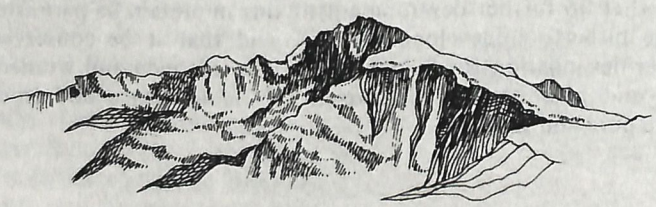
We regret to record the death on Fourteenth November, 1980 of James E. Bothwell at the age of Seventy-five. He became a member of the Club in 1927 and of the Scottish Mountaineering Club in 1938. He was a Vice-President of our Club in 1937-46, Secretary and Treasurer 1949-62 and President 1962-64. He continued as an active member almost to the date of his death and the high esteem with which he was regarded is evidenced by the fact that the Committee intended to nominate him for election as Honorary President of the Club at the Annual General Meeting in November 1980.

A solicitor by profession, he was Secretary, Treasurer and Librarian of the Society of Advocates in Aberdeen from 1967 until he retired from that post in February 1980.

A keen chess player, he represented the Bon-Accord Chess Club on many occasions. A life-long member of Queen's Cross Church, Aberdeen, he acted as Session Clerk from 1963-68. His services to the Forces Help Society and Lord Robert's Workshop were recognised by the Award of the M.B.E. in the New Years Honours in 1950.

Eddie Bothwell was a quiet and unassuming man but he was also a man with varied interests and of a sociable and friendly disposition. He always had a smile of greeting for acquaintances as well as friends and maintained a lively interest in the mountain doings of those much younger than himself. He is greatly missed by his many friends.

A.L.H.



ROBERT L. MITCHELL

It is with deep regret that we record the death on February 7th, 1982 of Bob Mitchell after a period of failing health.

He joined the Club in 1935 and was intensely loyal, in his unassuming way, to the ideals and objects which are inherent in the Club's existence. He gave long and valuable service on the Committee from 1937 to 1945, as Librarian from 1945 to 1969, Editor from 1953 to 1969 and Vice-President from 1949 to 1952. In recognition of these services he was elected an Honorary Member in 1970.

It was not in the nature of the man to over-enthuse about his enjoyment of the hills, but it was obvious to all who walked or climbed with him that he gained tremendous inner satisfaction and fulfilment from a day's outing in the high places. He was always ready to help the beginner with kindly advice on matters of mountaincraft. A keen photographer, he had an extensive knowledge of the wild life and flowers of the mountains at home and abroad. On one occasion he gave a precise map reference for a clump of edelweiss in the Zermatt valley to a Club member paying a first visit to the area.

He was one of the men of vision who soon after the war saw the necessity of having a list of names of volunteers who would be ready to take part in any search and rescue operations needed on the mountains and thus the local forerunner of today's highly organised Mountain Rescue teams was formed in Aberdeen with Bob as 'convener of keymen'.

Bob had a particular love of the Alps, and was a member of the Alpine Club and the Swiss Alpine Club, as well as the Scottish Mountaineering Club. He joined a number of Hamish McArthur's walking/climbing trips, notably to Zermatt in 1949, climbing the Matterhorn, Rimpfischhorn etc., to the Oetztal and Pontresina area in 1950 and to the Lienzer Dolomites, Stubaital and Zermatt in 1952, climbing Monte Rosa, Lyskamm, Zinal Rothorn etc. He remained an enthusiastic devotee of Switzerland. Until recently he regularly visited his friend Toni Biner, of the famous family of Swiss guides, and returned many times to his favourite haunts of St. Niklaus and the Zermatt valley.

However, even in the vastness of the Alps his international reputation as a scientist could not be overlooked. A member of the Club recalls meeting in a mountain hut in the Mischabel, an American who said that his object in coming to Europe was not to climb mountains but to meet the top man in spectrochemistry, Dr. Robert L. Mitchell of the Macaulay Institute in Aberdeen. When advised that the learned Doctor was then in Zermatt the American said that he could not wait to go there to meet the great man and requested, there and then, a suitable letter of introduction. Though no very adequate notepaper was available in the hut, the rather junior Club member obliged as best he could. Profuse thanks were his only

reward, and not the drink which he so dearly wanted but which he could so ill afford.

Bob studied chemistry at Edinburgh University and graduated B.Sc. with 1st Class Honours in 1931, when he joined the staff of the newly formed Macaulay Institute for Soil Research where he remained till his retirement in 1975. He was Head of the Department of Spectrochemistry from 1937 to 1968, Deputy Director from 1955 to 1968, Director from 1968 to 1975, and a Fellow of the Institute from 1975 until his death.

As a Department of Agriculture for Scotland Research Scholar carrying out research on soils and soil colloids, first at the Macaulay Institute and then for a year in Zurich, he was awarded the degree of Ph.D. by Aberdeen Unviersity in 1934. It was while in Zurich that his interest in spectrochemistry began and to which he devoted his career.

He was a world-wide authority on his subject and gave lectures in the U.S.A., Canada, Australia, New Zealand, the U.S.S.R. and many European countries, and produced some 90 publications. In recognition of his contribution to the advancement of the knowledge of trace element problems, he was awarded the Research Medal of the Royal Agricultural Society of England, and for his service to trace element analysis, the Society for Analytical Chemistry's Gold Medal in 1975.

He is survived by his brother, David, to whom we are most grateful for the gift of a large number of Cairngorm Club and Alpine Club Journals and other mountaineering publications and maps.

S.M.

DR. JOHN H.F. CRAWFORD

Within weeks of his return from service in the Falklands as Ship's Surgeon on the R.F.A. 'Resource', the news of John's sudden death at the age of 63 came as a tremendous shock, all the more so as he was spending his leave buying a new car, planning his annual continental tour and various other trips, after which it was his intention to return to the R.F.A. for another tour of duty.

He joined the Club in 1935 and during his student days was a very active member and served on the committee from 1945-1949 and from 1966-1969. He attended Easter Meets and Annual Dinners whenever possible and his incredible memory made it possible for him to recite in chronological order the venue of every Easter Meet from the time he had joined the Club. It had been one of his ambitions to climb all the Munros but lack of time and latterly lack of stamina denied him this satisfaction.

His medical studies spanned the period from 1938 to 1951, interrupted by five years in the R.A.M.C. and the Enniskillen Fusiliers. He spent thirteen years in general practice in Invergowrie, retiring from there in 1964, after which he was in the fortunate position of being able to combine his medical knowledge with his thirst for world travel. He

worked for a short time as G.P. with a cousin in South Africa, then as ship's doctor on several cruises, the final one ending in disaster when the ship went on fire resulting in the deaths of a number of the crew, which affected him deeply. Since 1972 he had been with the R.F.A. At the time of his death John was eagerly waiting to substantiate the fact that he was the only holder of both the Burma Star and the Falkland Islands Medal.

On first acquaintance, John gave the impression of being a jovial, ebullient figure with a never-ending fund of stories and ceaseless chatter, the life and soul of any gathering, which indeed he was, but underneath there lay an entirely different personality – one of deep religious conviction, who showed great consideration for and kindness to those less fortunate than himself.

To those of us who knew John best, the Club will never be the same again, for a unique and colourful personality has gone from our midst.

S.M.

WILLIAM A. EWEN

Hon. Mem. 1966. Com. 1931-34, 1954-56, 1958-60. Vice Pr. 1947-49 Editor 1934-53.

A Club excursion to Lochnagar via the Danzig Shiel provided an early memory of Bill Ewen. I had hacked my amateurish way up the shallow gully which runs out on the plateau just NE of the summit and stopped to have a look down and around. I saw a small group headed by Bill coming over the ridge and into the gully. He was using his axe single handed, cutting a groove one way and cutting another on the way back. His steps synchronised with his cutting as he strolled casually up and along. I watched for some time fascinated by the precision and artistry of the performance.

Later on, as I came to know him better, I realised that his combination of precision and artistry was evident in everything that he did, said or wrote. It was not cultivated or deliberate; it just happened. It was just Bill and he could not have done anything any other way.

As a young man of enquiring mind growing up in Ballater, it was inevitable that he should explore the surrounding hills and streams and graduate to stiffer problems. Over the years there had been sporadic interest in rock climbing in the NE corrie of Lochnagar but it took the exploits of Bill Ewen and his partners to really open the eyes of the climbing world to the possibilities there. In the short space of four years he was involved in nine 'first ascents' and besides putting Lochnagar on the map, put himself into the climbing elite.

I did not know him then but I cannot help feeling that the precision and artistry to which I have already referred, played a considerable part in his success.

In the mid thirties the pen became mightier than the axe as he set about editing his first Club *Journal,* No. 76. He retired after No. 88 in 1953 having produced a *Journal* annually except during the war years when it came out bi-annually. This was really a tremendous and sustained effort on his part. In those days it was customary to record the activities of members on Club outings. Bill introduced his own brand of subtle humour into these reports and transformed otherwise dull records into fascinating stories enjoyed by all. Circumstances now make it impossible for editors to continue with this section of the *Journal* so Bill's retirement meant the end of an era, an era noted for the production of uniformly excellent Journals. Around this time, no doubt because of the reputation he had acquired as a Climber and an Editor, he was invited by The Scottish Mountaineering Club to revise the third Edition of Sir Henry Alexander's 'Guide to the Cairngorms'.

This involved the visitation of areas where the existing information seemed scanty, the introduction of fresh photographs where this seemed desirable and much checking and cross-checking. No-one I know had the knowledge, the ability and the stamina to do this with the precision he always demanded.

Much has been written about developments at Muir Cottage, at Derry Lodge, at the Parker Memorial Bridge and at Corrour Bothy but there has been very little mention of the part played by Bill Ewen in these enterprises, mostly perhaps because of his own policy of self effacement. It should be stated however that Bill was a full partner in that particular construction firm.

He and George Taylor lived almost opposite each other. George was basically a lonely man who needed companionship and this resulted in close discussion, argument and collaboration in whatever project was on hand. This prior planning ensured that work in the field was almost automatic. George on occasion became a bit depressed over what he regarded as slow progress and it was Bill who took him in hand, sometimes bullying, sometimes comforting and cajoling, so that he gradually got his batteries recharged and his enthusiasm renewed. There were other occasions when this enthusiasm threatened to run riot and then Bill had to restrain him.

He was therefore so essential to the organisation and development of the various enterprises that I sometimes speculated on how George would have managed without him.

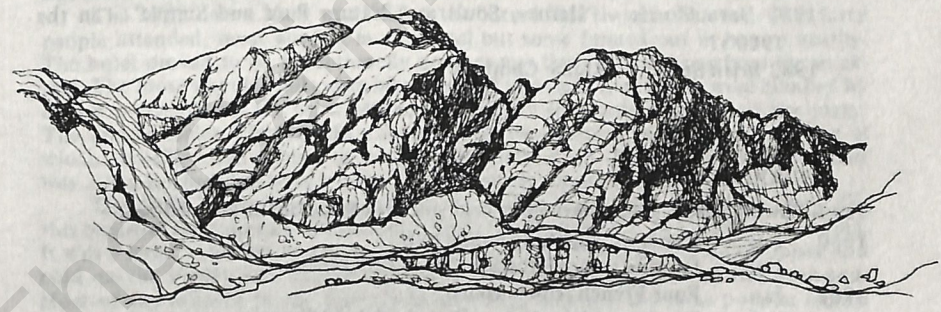
More than once his friends tried to persuade him to allow himself to be proposed for the Club Presidency but he always declined. His reasons were his own and not for speculation but his refusal was a great pity. Bill would have had the knowledge that he had the admiration and support of his many friends while the Club itself would surely have derived some associated kudos by having such a renowned rock climber as its President.

In due course his elevation to Honorary Membership went some way towards easing our disappointment.

On a more personal note we exchanged an irregular correspondence after I had retired to my native Perthshire. His letters contained the same enthusiasms, the same subtle humour which characterised his 'editorial notes' in the Club *Journals*. Each was a literary gem to be read, and laid aside to be read and re-read over and over again.

I had been speaking to him by telephone on the occasion of the birth of another grandson. He was happy and jovial and seemed to me to be better in health than on previous occasions so it was a very great shock and sense of loss to learn of his passing so soon afterwards. It is a loss which will be felt by many.

R.B.



PROCEEDINGS OF THE CLUB

GENERAL MEETINGS

The Ninety-second Annual General Meeting was held on 26 November 1980. The office bearers appointed were Hon. President Leslie Hay, President Peter Howgate, Vice-Presidents Denis Hardy and Richard Shirreffs, Secretary Richard Shirreffs, Treasurer Sandy Reid, Editor Antony Chessell, Librarian Jean Callander, Huts Custodian Eddie Martin, Meets Secretary Graham Ewen and Indoor Meets Secretary Neil Cromar.

The Ninety-third Annual General Meeting was held on 25 November 1981. The office bearers appointed at the 1980 Annual General Meeting were re-appointed apart from the appointment of Ruth Payne as Vice-President in succession to Denis Hardy. Other significant business included the election of Sheila Murray and Adam Watson as honorary members, a decision to increase subscriptions by 50% from 1 October 1982 and a resolution to allow direct debiting as a means of subscription payments.

The Ninety-fourth Annual General Meeting was held on 17 November 1982. The office bearers appointed at the 1981 Annual General Meeting were re-appointed except that Eric Johnston was appointed President in succession to Peter Howgate.

ANNUAL DINNERS

The 1980 and 1981 Annual Dinners were held at the Queen's Hotel, Aberdeen, and the 1982 Annual Dinner at the Royal Darroch Hotel, Cults, Aberdeen. The guest speakers and their subjects were –

1980 Richard Stroud – Ski-Mountaineering in the Alps and Arctic Sweden

1981 Dave Morris – 'Heroes, Souls and Nature Pure and Simple' – in the 1980's?

1982 Brian Sprunt – Alpine Climbing

INDOOR MEETS

The following indoor meets have been held since the issue of the last *Journal:–*

1980	Nov.	Members' Night, including quiz
	Dec	Deeside through the Seasons – Eric Jensen.
1981	Jan.	Four French Alpine films.
	Feb.	The Lure of the Hills – Rev. Archibald Grant.
	March	The Care of Boots – Ernest Baker
	Nov.	Members' Night, including quiz.
	Dec.	Glen Muick through the Seasons – Neil Cook.
1982	Jan.	French and Swiss Alpine films.
	Feb.	The Bailies of Bennachie – James MacKay.
	March	The Geological Base to the Scottish Hills – George Downie.
	Nov.	Members' Night.
	Dec.	Climbing in Scotland and the Alps; Trecking in California and Nepal – Dr. Andrew D. Nisbet.
1983	Jan.	Focus on the Cairngorms – Dr. Gordon R. Miller.
	Feb.	Trip to Nepal – Terry Wallace (deputising at short notice).
	March	Moments Spent in Joy – Ian Strachan.

SOCIAL EVENTS

The Supper Dances initiated in 1974 continued on an annual basis until 1981, when one was held at the Amatola Hotel, Aberdeen on 8 May, but were discontinued in 1982 because of poor support in 1981. However barbecues (initiated in 1980) and cheese and wine parties (initiated in 1981) have now become annual events. Barbecues were held at Templars' Park, Maryculter, Aberdeen on Wednesday 26 August 1981, on Wednesday 30 June 1982 and on Wednesday 29 June 1983. Cheese and wine parties were held at Provost Skene's House, Aberdeen, on 18 February 1981 and 19 February 1982 and at the Winter Gardens, Duthie Park, Aberdeen, on 4 March 1983.

MEMBERSHIP LIST

A list of members, up to date as at 28 February 1982, was issued to all members with the spring 1982 Club circular.

R.C. Shirreffs

MEETS AND EXCURSIONS 1980 - 83

The attendance recorded at the excursions for the period covered by this *Journal* continues to show a drop, the average being 32 on this occasion compared with 35 last time. The drop however, is almost entirely due to a long run of poor attendances during the first six months of 1982. (The number attending is given in brackets after each excursion in the list at the end.) The biggest turn-out was at the 1981 Lochnagar excursion which attracted 50, whether for the climb or Christmas Dinner at the Craigendarroch Hotel is not clear! One bus has been sufficient for all the excursions but there were three occasions when one or two members failed to obtain a seat.

The 1981 Easter Meet was held at the Glen Affric Hotel in Cannich. Over forty people attended, most staying in the hotel but some farmed out in houses nearby. The hotel proved to be exceptionally good as was the weather throughout the week-end. The most popular hills were Mam Sodhail and Carn Eige which were climbed by almost everyone. All the other Munros in the area were visited by at least one party. The remote Beinn Fhionnlaidh was visited by two parties, the more enterprising of which actually hired a boat to go up Loch Mullardoch. The boat broke down half way along the loch but once repairs had been made the party continued.

The 1982 Easter Meet was held at the Tarbet Hotel on Loch Lomondside. On this occasion the turn-out was disappointingly small with only 24 members attending. It was a large hotel but it was quite comfortable. The weather started off misty and cold on the Friday but cleared up and was excellent for the rest of the week-end. Most of the Munros in the immediate area were climbed, the most popular climbs being the traverse of Ben Vane and the triple ascent of Beinn Ime, Beinn Narnain and the Cobbler. One keen Munroist travelled as far as Beinn Chaluim. Two parties spent an enjoyable day on some lower hills to the west of Luss. On the Saturday there was a wedding reception at the hotel and Club members were invited to join in the dancing afterwards.

The 1983 Easter Meet was held at the Ballachulish Hotel. It was attended by about forty people. Winter conditions prevailed with rather deep wet snow lying from about 1500 feet upwards. Nevertheless a wide variety of hills were climbed from Beinn Sgulaird in the South to the Mamores in the North and Glen Etive Hills in the East, while a smaller hill on the other side of Corran Ferry called Sgurr na h-Eanchainne attracted some interest. The snow conditions perhaps dissuaded members from tackling the steeper Glen Coe hills but one party climbed Buchaille Etive Beag. The hotel was very comfortable and enjoyed by all despite the rather unorthodox early morning call we had on the last day.

The 1980 overnight excursion was from Kinlochleven to Glen Nevis. After some heavy rain in the early part of the night the weather cleared to give a very fine morning. Brocken spectres were to be seen on various parts of the ridge near Binnein Mor in the early hours of the morning. Most of the party climbed several of the tops of the Mamores; one actually completed all ten.

In 1981 the overnight excursion was from Braemore to Kinlochewe. It was a beautiful night throughout making progress possible during the darkest hours. The main target seemed to be Sgurr Ban and Mullach Coire Mhic Fhearchair as on the last occasion that the Club did this trip. One party however went to Ruadh Stac Mor and A'Mhaighdean with one of their number climbing Slioch as well.

The 1982 overnight excursion, from Cluanie Inn to Morvich started cloudy but quickly cleared to produce a beautiful night. Most of the party chose the hills along the north side of Glen Shiel. It was possible to keep walking throughout the hours of darkness without difficulty, the hills ahead being visible all the time. Several members completed all the hills from Sgurr an Fhuarail to the Five Sisters. Several flocks of wild black goats were encountered high up on the Five Sisters.

Bad weather conditions were experienced as usual on several excursions. In 1980, on Meall Ghaordie, after a very hot humid climb, several loud peals of thunder rang out just as the President's Party was approaching the summit. All but one went on to the summit however and although there was some very heavy rain it was not accompanied by lightning.

In October of the same year the excursion to Glen Tilt was a very wet day. One member slipped on wet grass at Falls of Tarf and broke his leg. Perhaps this was one occasion where we could excuse the estate for having bulldozed a track to near this location. Help was sent for, and after a rather cold wait the casualty was taken to Bridge of Earn hospital by ambulance.

In 1981 another very wet day was experienced on the occasion of the Devil's Elbow to Glen Clova excursion. There had been a heavy fall of wet snow on the Friday followed by heavy rain all week-end. The effect of the melting snow and the rain together created a dramatic spate on the burns and rivers making them impossible to cross. Nevertheless everyone managed to find a suitable route over but on this occasion another member received a serious leg injury while descending into Glen Doll but managed to finish the walk.

Then in January 1982 we had the coldest day of the century (-28°C at Braemar). It had been intended to go to Lochnagar but the bus was left in Ballater and various walks were done from there. Steam was rising from the rivers and the air was crystal clear. Everything was plastered with deep snow and many trees were bent right over with the weight of it. Sandwiches froze solid and were uneatable. Most of those who attended found this quite a memorable day.

The excursion to Mount Battock in 1983 was attended by a high wind and it was snowing. It was felt too risky to leave the bus at Tarfside all day so it was sent back to Gannochy and members walked from Tarfside to there along the West side of the River Esk.

There were also many days when good weather was experienced. Those which stand out include the Monega Pass in 1980, although the good day brought out a rather annoying species of insect which was found even at the top of the hill. The Trossachs excursion in 1981 also had an exceptionally good day, most people climbing Ben Ledi. Very good weather was also experienced in 1982 on the excursions to the Steplar Pass and Ben Chonzie.

Some may wonder why we had two excursions to the Sidlaw Hills on successive years. On the first occasion we started at Lumley Den on the Dundee to Glamis road and hoped to follow the main ridge westwards at least as far as Pitcur. It proved far too much for us and we had to settle for coming off at Newtyle instead. On the second occasion we started at Collace Quarry and climbed Dunsinane Hill, of Macbeth fame, and continued eastwards to Newtyle thus completing the traverse of

the Sidlaws. Both trips were quite interesting with fine views over the hills of Glen Clova and Glen Isla to the North and over the Firth of Tay to the South.

It is not yet clear how the new EEC regulations governing drivers' hours are going to affect future meets programmes. These came into effect last year. Briefly it seems that we can now only be away for fourteen hours, or seventeen if two drivers are employed. If two drivers are used it obviously adds to the cost of hiring the bus. Only two excursions last year exceeded the fourteen hours, both from Speyside to Linn of Dee. On each occasion one driver took us to Speyside in the morning and then took the bus right back to Aberdeen. Another driver came out to Linn of Dee in the afternoon to meet us.

G. Ewen

EXCURSIONS

1980

27 Apr.	Beinn A Bhuird (36)
17 May	Drumochter Pass (27)
7 Jun.	Meall Ghaordie (30)
28/29 Jun.	Mamores (28)
24 Aug.	Monega Pass (33)
13 Sept.	Cairngorm to Linn of Dee (42)
5 Oct.	Glen Tilt (40)
26 Oct.	Cairnwell to Inverey (47)
15 Nov.	Bein Rinnes (35)
7 Dec.	Sidlaw Hills (29)

1981

11 Jan.	Lochnagar (50)
31 Jan.	Glen Esk (36)
21 Feb.	Cockbridge (42)
15 Mar.	Auchallater (45)
29 Mar.	Inverey (32)
26 Apr.	Glenlivet to Strathdon (18)
16 May	Ben Avon (30)
6 Jun.	Meall Glas (31)
27/28 Jun.	Braemore to Kinlochewe (29)
23 Aug.	Ben Ledi or Ben Venue (16)
12 Sep.	Cairngorm to Linn of Dee (47)
4 Oct.	Devil's Elbow to Glen Clova (42)
25 Oct.	Auchallater to Glen Muick (42)
14 Nov.	Feughside Inn to Tarfside (33)
6 Dec.	Sidlaw Hills (18)

1982

10 Jan.	Lochnagar (36)
30 Jan.	Glen Clunie (29)
21 Feb.	Morven (26)
13 Mar.	Cockbridge (20)
28 Mar.	Glen Clova (24)
24 Apr.	Steplar Pass (18)
15 May	Ben Chonzie (17)
6 Jun.	Beinn a Bhuird (29)
26/27 Jun.	Cluanie Inn to Morvich (21)
22 Aug.	Glen Feshie to Linn of Dee (41)
11 Sep.	Cairngorm to Linn of Dee (31)
3 Oct.	Ballater to Glen Esk (25)
23 Oct.	Inverey to Spital of Glenshee (38)
14 Nov.	Fir Mounth (43)
5 Dec.	Coreen Hills (28)

1983

15 Jan.	Lochnagar (46)
6 Feb.	Mt. Battock (20)
27 Feb.	Linn of Dee (38)
19 Mar.	Blair Atholl (35)

EASTER MEETS

1981	Glen Affric
1982	Arrochar
1983	Ballachulish

WEEKEND MEETS

Since the last *Journal* was published, weekend meets have continued to be a successful venture. Five meets are arranged each year by the sub-committee with each member assuming responsibility for organising one of them. They are arranged between May and October often coinciding with local holidays. The sub-committee tries to ensure that one meet will be to a relatively remote area e.g. Knoydart. The areas visited recently have included Achnasheen, Torridon, Glencoe, Roybridge, Bridge of Orchy and Ben Lawers.

In 1982 the Glen Brittle Memorial Hut was booked by the Club for a week during August; this was a successful gathering in all respects.

An Alpine meet is now being planned for summer 1984. It is proposed that two types of holiday will be organised; (1) a trek using mountain huts and following a recognised route e.g. round the base of the Matterhorn and (2) a centre-based holiday from which members can take whatever day walks attract them – ideal for those wishing to be less energetic and more comfortable and for those with families.

As in past years a variety of accommodation has been used from tents to hotels, although self-catering accommodation as at Mr. Matheson's in Roy Bridge generally proves to be the most popular and suitable. If any members know of or have had recommended to them any accommodation which they consider may be of interest to the Club, the writer or any sub-committee member will be pleased to hear from them as an accommodation list is kept for members' reference.

Although those attending the meets are largely local members, the sub-committee are pleased that a number of more distant members also attend and urge more to do so when they can.

The sub-committee recently underwent some changes. Bill Barlow and Anne Lindsey have both had to resign. They were both in the original 'gang of four' to promote and then to put into effect the idea of weekend meets and over the years their help has been invaluable. The sub-committee is most grateful to them. The new sub-committee comprises Ray Craig, Tibby Fraser, Frances Macrae-Gibson, Bob Scott and Gillian Shirreffs who are always pleased to have comments and suggestions concerning the meets in order to learn what members want.

Gillian Shirreffs

THE LIBRARY

For many years now, there has been no Library report in the current issue of the *Journal,* not because of inactivity on the part of Librarians but because everything was running smoothly in Advocates' Hall. The Library was moved there from 34, Bridge Street, in January 1969, when the late Mr. Eddie Bothwell became Secretary to the Society of Advocates and thereafter carried on his own Law practice from there. Members enjoyed the comparative privacy of a Library room in Advocates' Hall but, since office hours were adhered to, the number of books borrowed each year was small. Since 1974 however, a selection of around 50 books is taken to the monthly Indoor Meets, held between November and March, and this has increased the number of borrowings four-fold.

Unfortunately for us, alterations planned for Advocates' Hall necessitated the removal of the Library and, for about a year, members had been seeking a home for it elsewhere. The Club is very indebted to the Master of Christ's College, Dr. Sefton, for offering accommodation for the three large bookcases and our many hundreds of books and journals. The move, made easier by willing helpers who filled over 70 'banana' boxes, was accomplished on 26th January this year but much rearrangement of books had to be done after that. The two large bookcases are in Christ's College Library, 2, Alford Place, and they hold the lending books, including the large-

AN ABORTIVE ATTEMPT TO COMPLETE A TWO DAY TRAVERSE OF THE CUILLIN

Robin Grant and I have long wanted to traverse the main ridge of the Cuillin, but, not being speed fanatics, we favoured taking two days with a bivouac somewhere on the ridge. For our most recent attempt last summer, we arrived at Sligachan on a glorious sunny sevening, setting up camp the following day at Glenbrittle. After lunch, we climbed to Bealach na Banachdich in order to cache our bivouac gear. The good weather did not continue, and one 6.30 a.m. start resulted in a retreat before we reached the ridge. The following day, in spite of mist and cloud, we again left at 6.30 a.m. and eventually arrived at Gars-bheinn at about 10.15. We had engaged the local mountain guide Gerry Akroyd to lead us over the Thearlaich/Dubh gap, and he met us there at about 1.0 p.m. with a small party he was leading on a scrambling course. We abseiled into the gap, where I had been once before. On that occasion, the up-current of air from the Coruisk side was so strong that a glove I inadvertently dropped floated a few feet from me over the abyss, tantalisingly just out of reach, before, after a few moments disappearing from view! Then we had escaped from the gap by a long detour down the somewhat messy gully on the Ghrunnda side. However, with the encouragement of a top rope from Gerry, I none too elegantly thrutched my way up what seemed to me the completely smooth and holdless chimney. Robin followed rather more efficiently – he had obviously learned from my errors! We continued over Sgurr Alasdair, Sgurr Thearlaich, and, after a brief inspection of King's Chimney, we decided that it wouldn't go, and we reached Sgurr Mhic Coinnich by Collie's Ledge. Conditions had by now become rather damp and greasy, which rendered even the 'easy' long side of the Inaccessible Pinnacle rather forbidding. After a rather faint-hearted attempt, which involved Robin in a hair-raising abseil to retrieve a jammed rope, we bypassed this obstacle and crossed Sgurr Dearg to our bivouac site. It did not actually rain, but it was dampish and very windy. Neither of us slept much being kept awake by the noisy flapping of a polythene sheet we had engineered into serving as a makeshift awning. Preparing breakfast took almost three hours as the wind kept blowing out the stove – and even then the porridge was not very appetising! However our bivouac site was in a most spectacular situation, and boasted a fine echo, of which we took full advantage producing at times some quite complex harmonies.

We eventually set out for our second day, but the heavens soon opened, and, convincing ourselves that we really needed good conditions for the difficulties still ahead, we sadly abandoned ship at Sgurr Thormaid, and descended Coire na Banachdich to our camp. It had been an interesting experience, and the following day as we walked round the coast to Coruisk and climbed back over the ridge to recover our gear, we vowed to come back soon to have another attempt.

Donald Hawksworth

Footnote – Robin Grant has since written an account of a successful traverse, but this will have to wait until the next issue – Editor.

70 YEARS AGO – JULY 1913

CCJ, Vol. VII, No. 41 p.296 – In the REVIEWS section:–

It is a pleasing reflection – which we may be pardoned for making and making with some pride – that of the 830 individual lots of an extensive and valuable library, dispersed by public auction a few months ago, the six volumes of the ***Cairngorm Club Journal,*** handsomely bound, with the accompanying maps in a case, fetched the highest price obtained for any single lot – namely £2 10/-. There was a good 'run' too, on bundles of the early numbers, the first eighteen numbers (one wanting) fetching 10/6. This demand for the ***Journal,*** denotes an increasing interest in mountaineering.

60 YEARS AGO – JANUARY 1923

CCJ, Vol. X, No. 60 p.268 – In the NOTES section:–

'The Aberdeen Centre of the Royal Scottish Geographical Society provided us again (Nov 7) with a lecture by Mr George L. Mallory on the year's climbing on Mount Everest; and aided by Mr Mallory's charming exposition and a fresh series of magnificent photographs, the lecture proved as fascinating as was the one he delivered in February. Unfortunately, the lecturer could tell us only of a succession of baffled efforts to reach the summit. The first attempt was made on May 19/21, when a party of four (of whom Mr Mallory was one) started from the camp at the north col, at a height of 23,000 feet. Three of the party, after very severe hardships, reached a height of 26,985 feet on the third day, but finding that the top could not be attained before nightfall, they retraced their steps, rejoined their comrade (who had been obliged to give up) and returned to the base camp. A second attempt was made on May 28, by Captain Finch and Captain Burce, who used the oxygen apparatus, which weighed thirty two pounds and had to be carried by the climber. When they reached a height of 27,235 feet (only 1,905 feet from the summit) it was found that the oxygen apparatus was not working so well as was expected and they had to turn back, a severe wind-storm being experienced. A third attempt was made by Mr Mallory and Dr Somervell on 7 June, but it was quickly brought to an end by an avalanche, which carried nine of their porters into a crevasse, two only being rescued alive. Mr Mallory furnished interesting details of all these attempts, his account being rendered all the more vivid by the accompanying photographs; and in concluding he reviewed the possibilities of Mount Everest being climbed. He is a decided optimist and thinks it can be done – possibly without oxygen, certainly with it; and he is of the opinion moreover, that the task, having been begun by Britons, should be accomplished by them. His view, indeed, may be expressed in the title of Millais' famous picture about the north-west passage – "It ought to be done and Britain should do it!"

NUMBER ONE HUNDRED

Peering though the window in the early morning it seemed as if it were snowing. Yet this was May 1st 1982 at Roy Bridge and Roy Bridge is 90m above sea level. It couldn't be snow but a further look showed that it really was snowing. After much discussion it was agreed to attempt some of the eastern Mamores. Perhaps I would be able to ascend the three at the east end.

Back in January it had seemed an easy task. Casually I said I would celebrate number one hundred at the Roy Bridge meet. Some people climb mountains for enjoyment and some people climb 276 of them, or is it 279? Somehow I had been inveigled into joining the latter group and was now in sight of a landmark on the way. Indolence and bad weather combined to make it three short on arrival at Roy Bridge. Never mind, it shouldn't be too difficult to do three in one day and meet my commitment.

So we travelled to Kinlochleven and at 10.20 began to ascend. There was much uncertainty even from the start as to whether we were on the correct route. After much peering through mist, attempting to estimate the extent of the forestry and consulting of maps, the mist lifted enough to show we were on the path intended. We dropped down slightly and met the broad track from Mamore Lodge. A little backwards movement along the track, and off we went up the path to Coire an Lochain. The mist had descended again and the snow became deeper so each burn reached was carefully checked against the map. The mist lifted momentarily to show us Loch Eilde Mor far below, just where expected – a reassuring sight indeed.

The snow began to fall more persistently and it became ever deeper under foot. The wind rose and at Coire an Lochain my companions decided to call it a day and

returned to Kinclochleven. I was glad. It's not that I dislike their company but I could not ask them to endure the conditions as they were now developing.

Sgurr Eilde Mor was the first objective and so began the ascent of the steep boulder strewn slopes leading to its summit. The wind grew in ferocity as each upward step was made. A map case was hanging on a cord round my neck. It had seemed a good idea since I had to be very careful with navigation. The wind buffeted and tore at the case – it must be put in a pocket or I would be strangled by the cord. I had never realised this danger before so now the map goes in a pocket with the compass tied to the zip of another pocket.

Higher up another problem, of iced rocks covered with soft snow, made progress slow but eventually the summit was reached. In reward the mist lifted for a time and I could make out the next objective, Beinnein Beag. So it was down the north west slopes in more mist and ever deepening snow, waist deep in places. I climbed up to join the path which wanders between Beinnein Mor and Beag. It must be a well defined path for it showed up clearly and provided a useful route forward in spite of the large amount of snow.

Peter Bellarby

ALL THE MUNROS

On the very first day of our retirement we climbed Dorain and Dohaidh. This day will always be remembered for it was then that we became aware that we were gloriously free, happily released from the nine to five treadmill of the previous forty three years. The notion to 'do' all the Munros which we had toyed with for some time began to take root, but we would take it cannily so as not to jeopardise our other interests.

From then on we have gone out about once a month for two or three days, coming home with maybe six to strike off the list, maybe four or two or maybe none at all. We climbed the near-at-hand and easy-to-get-at ones first. This may not have been the mistake it seems, for although it entailed long expeditions into truly wilderness areas towards the end of the enterprise, these excursions, being most recent, feature most vividly in our minds. As all climbers appreciate, the more remote, the greater the fascination and sense of achievement.

We made mistakes of course. We often wonder if anyone else has climbed the wrong mountain as we have done on two occasions, or descended on the wrong side of a bealach to follow a stream running north instead of south. These can be bad moments with severe complications.

Our most curious experience was on an overnight expedition to A'Mhaigdean and Ruadh Stac Mor. We set off from Poolewe, motoring as far as we could, cycling as far as we could, then walking to Carnmore Bothy which we had permission to use, arriving at midnight. We found it full of bodies all in identical black sleeping bags. We flashed our torches around and were anything but quiet, but not a body stirred, not a head looked up. We were strongly reminded of bodies prepared for burial. Bill and Lewis squeezed in somehow and stayed for two hours, but in spite of the noise they inevitably made there was no response whatsoever from their companions. (We discovered later that they were men from an Army Music School. Were they playing low key?).

There has been much fun and laughter, especially perhaps when cycles were used. Outstanding was the day we made little of the ascent of An Sgarsoch and Fhidhleir by cycling all the way to Geldie Lodge and the day when we approached Mhanach by Auch Gleann, crossing the river nine times when it was full flowing with stepping stones awash.

Ten years on, with all the Munros behind us, what have we gained? We have seen the mountains from all angles and on days of clear visibility have gazed in awe upon half of Scotland. We have watched the white mist foaming out of the valleys and skirting the surrounding peaks and we have seen the dark clouds brooding over those same peaks. We have walked on the high tops with the sun and the wind in our faces and have tested ourselves in the most bitter weather, battling our way to our goal, exulting in our endeavours. Above all we have experienced the spiritual uplift which the remote wilderness engenders and gathered memories to last a lifetime.

Perhaps we have not studied in depth the flora and fauna of the mountains, but can recall with pleasure the many occasions we have marvelled at the beauty of the birds and flowers existing in high inhospitable places. Geology has been discussed too, with more enthusiasm than knowledge. To our amazement many people have taken an interest in our progress and we are most grateful for their unselfish encouragement. In particular we would like to acknowledge the support of Bill Baxter, Sandy Black and Lewis MacAllan who have accompanied us on many of our expeditions. We hope they – and others – share with us the memory of many perfect days.

To finish on a romantic note, we two have stood together on the summit of all the Munros with the exception of Ben Wyvis and this we plan to remedy soon. Surely this is a record of some sort.

Kenneth and Tibbie Fraser

Footnote — I am sure that Club members will wish to congratulate Kenneth and Tibbie Fraser on their achievement which is all the greater since it was a project which they set themselves to complete after retirement. — Editor.

A SUMMER WEEKEND IN KNOYDART

Wednesday, June 29th, 1983 dawned bright and fair in Edinburgh and Margaret Munro and I set off in high spirits, the car laden with more camping gear than any normal two-some would ever think of taking, bound for Mallaig and the head of Loch Nevis by courtesy of Bruce Watt and 'The Western Isles'.

Some weeks beforehand we had telephoned both from Edinburgh and Aberdeen in an attempt to make a definite arrangement about being taken to Camusrory at the head of the loch and were assured there would be no trouble on the day. We reached Mallaig some two hours before the boat was due to sail to be informed by the woman in the office that the boat would go only as far as Tarbet, which was worse than useless to us. Outside the office a board advertised the cruise up Loch Nevis, the chief attraction being the many seals to be seen on the rocks well up beyond the narrows. However, we were told, the seals had not been seen for several weeks, hence the boat going no further than Tarbet. We then spoke to 'Brucie' on the telephone, but he was no more forthcoming and he would see us when he came down to the boat about 1.30. We could not do more, so went to the fish shop round the corner and bought superb freshly-boiled prawns which we ate from a bag each in the warmth and comfort of the car, while waiting for 'Brucie' to arrive, biting our nails the while.

About 15 minutes before the boat was due to sail he appeared. It took a fair amount of tact and diplomacy, some might call it 'charm', before we were sure that we were making progress, though how far he would take us remained to be seen. All we knew for sure was that he could not take us as far as Camusrory.

With five minutes to spare our gear was out of the car, on to the boat, the car parked at the far side of the harbour and Margaret was back just in time to jump aboard before we sailed off to an unknown destination. Our hopes rose as mugs of tea were served after we had made our last official stop at Tarbet, and through the

narrows we sailed. By this time even the seals were on our side, for there they were making their ungainly way down the rocks to splash into the water as we passed. The boat then headed towards a bay and we and our equipment were manhandled into the dinghy and rowed ashore, some half mile or more short of Camusrory. The passengers and crew waved farewell to the two white haired figures left behind on the loch side with tent, three rucksacks of varying sizes, three cardboard boxes and one zipp bag. This was still Wednesday, and our next contact with the outside world was to be at 3.45 pm the following Monday.

Fortunately we found an excellent site to camp at no distance from where we had landed and in no time the tent was up and all our home comforts unpacked. Splashing along the boggy hillside for 25 minutes we reached Camusrory only to find it deserted, with water pouring from a burst pipe right on to the rear wall and looking as though it had been unoccupied for some time. We did spot one distant figure disappearing further into the distance and as we were a party of only two we would have welcomed the sight of some other human life. However nothing daunted we returned to the tent and fortified by some liquid refreshment and a good meal, we gazed in admiration at the summit of Sgurr na Ciche our objective for the next day framed in the tent door.

The following morning was clear but grey as we set out wearing our 'wellies' to splash through the bog till we reached the foot of the ridge where we donned our boots and left our 'wellies' to await our return. Our climb to the top was uneventful and we were rewarded with magnificent views in every direction. On our way down we spotted an excellent new bridge over the river just below the ruins of Carnoch. (We had been able to wade across the river on our way up, but on subsequent days that would have been impossible).

That night or the next day the rains really began, so, one Munro in the bag, we decided to take the day off and visit Sourlies, a very fine and well maintained bothy at the other side of the head of the loch.

As we passed Camusrory on our return we were quite relieved to hear sounds of activity, and learned that two instructors from the Loch Eil Outwardbound School were preparing for a party of twelve due to arrive next day for a fortnight's Survival Training Course.

This left us with two days and two Munros to go, so though the mist was well down we set off for Luinne Bheinn, informing those at Camusrory of our intention as we passed. We splashed for what seemed miles up the side of the Carnoch river before putting on our climbing boots and starting in earnest up the hillside until we reached the summit ridge, by which time the mist had lifted and remained so until we reached the top. Looking across to Meall Buidhe we decided to leave it till the morrow which was just as well, for the cloud immediately came down again. We were relieved some time later to see the river appear below. No more navigation problems, only the long, weary plod back to our tent.

Another night of relentless rain was followed by a long lie. The prospect of spending a whole day in the tent did not appeal, so we decided to have a go at our final objective, Meall Buidhe, knowing that there was a good track to take us so far on our way. On reaching the bealach we were each privately feeling anything but enthusiastic, but, having come so far and being as wet as we could be, we set off into the unknown, making our way around what in the mist appeared to be vast rock faces, leaving a trail of upturned boulders as we went. We plodded on for what seemed an eternity until at last we attained the ridge where we built a fair-sized cairn to ensure that we knew at which point to leave the ridge on our return. The mist hung all around as we made our way up and down along the ridge until we passed one, two, three cairns, the last the most westerly and therefore the summit. We paused briefly and then retraced our steps, successfully finding our markers, till we thankfully reached the track and set off at a spanking pace. Soon we realised the surroundings looked somewhat unfamiliar and on checking our compasses discovered

we were heading for Inverie instead of Camusrory! Turning right about we headed for home and our last night under canvas.

Our appointed hour for pick up was 15.45 hrs. on Monday and great was our delight when only 10 minutes behind schedule we saw 'The Western Isles' coming up the loch and in no time the dinghy was being rowed towards us. We went aboard sad that we were leaving that area without ever having seen its full beauty, but most gratified that in spite of the weather we had achieved all we set out to do and one of us at least was able to score off another three from her slowly decreasing list of Munros still to do. I have never been a committed Munro-bagger, but having reached a certain age and more important, having climbed the Inaccessible Pinnacle last year, a fresh impetus is spurring me on to try within the next year or so to complete all those in the original table and, with the help of Margaret, Gordon, Peter, Ruth and John and anyone else willing to take me on, I hope so to do, more of which, I hope in the next *Journal.*

Sheila Murray

BOOK REVIEWS

A Sunny Day in the Himalayas. Peter Hillary. Hodder & Stoughton, 1980. £7.95.

A difficult book to review without seeming unduly hard on Peter Hillary. I got the impression it had been put together in a hurry to help defray the outstanding costs of his expedition attempt to climb Ama Dablam.

For fifteen chapters and 166 pages it is a fairly slim volume and we are well through the book (ch. 12) before we even come to the Expedition itself. The first chapters seem to be mere padding. The expedition eventually got off to a good start on a difficult and risky route up Ama Dablam and depending on how you view these things the 'Gods' were not unduly severe. The climbing party were swept off the face by an avalanche and one member killed. The others, all with some serious injuries, managed to beat an epic retreat and extricate themselves from a very dangerous and uncomfortable situation. Peter Hillary does give Reinhold Messner and his colleagues full credit for their help in the final stages of the retreat and all have recovered from their harrowing experiences.

This is probably a book mountaineers will read, therefore it would have helped one's judgement to have known the full extent of the party's injuries, as discovered after the retreat from the mountain – nowhere are these clearly stated. I doubt if there is sufficient of interest about the country to keep non-mountaineers enthralled. There are a few lovely pictures and some explanatory line drawings.

Perhaps since this young man was lucky enough to survive this unpleasant experience and to climb again, his next book will be of a somewhat higher standard.

A.F.G.C.

K2 – Mountain of Mountains. Reinhold Messner & A. Gogna. Kaye & Ward Ltd, 1981. £12.50.

K2, 8611m, is the second highest mountain in the world. It has a fearsome reputation and has claimed many lives since the first attempt on its summit in 1892. This is the mountain upon which Nick Estcourt lost his life. K2 was first climbed in 1954 by an Italian expedition.

K2 – Mountain of Mountains is the story of the successful 1979 ascent by Reinhold Messner's international expedition.

This is a book written in a rather unconventional style for a mountaineering book. The text is divided by magnificent photographs into four complete sections, two of which are by Messner and two by Alessandro Gogna. The weakness of the book lies in Gogna's sections.

Alessandro Gogna is described by Messner as "one of those people who knows what death is about and loves the world". His preoccupation with death, his worries about his health which amount almost to hypochondria and his worries about his relationships with other members of the expedition leave an uneasy impression on the reader. His style is rather florid but may not have been improved by translation.

Reinhold Messner's contribution is happier. He tells the story of the climb itself and gives some interesting information on the Karakorum and its inhabitants. His style is rather metaphysical and less practical than, say, Bonington's.

But one would buy this book for its photographs alone. It is lavishly illustrated with superb photographs – in fact, it contains some of the most impressive mountain photographs I have ever seen.

The rest of the book, after the main text, is taken up with a history of K2, information about successful ascents and a list of expeditions to the mountain between 1892 and 1980.

G.S.J.C.

Classic Walks. K. Wilson & R. Gilbert. Diadem Books, London, 1982. £17.85.

This book is a companion volume to Big Walks by the same authors. The walks described here are 'classic' in the sense of being typical and excellent of their kind but unlike those in the earlier book they are not necessarily long and strenuous nor are they all mountain walks. Indeed the book opens with one more or less at sea level, the walk from Kinlochbervie to Cape Wrath, but this surely must be considered a classic. Seventy nine walks are described throughout the British Isles, including nine in Ireland and about a third of them are in Scotland. The Cairngorms feature only one, the traverse of the Lairig Ghru. The character of the walks is very varied – coastal paths, ridgeways and ancient tracks, crossings of mountain and moorland – and illustrates the wide variety of rough walking available in Britain and Ireland.

The compilers have brought together an impressive array of over fifty writers to describe these walks and expeditions. The descriptions are brief but all give vivid accounts of the character of the walks and the impression which they make on the authors. The text is accompanied by many superb photographs, records not only of the magnificent scenery which make these walks classics but of people on the hills and in huts and bothies.

This book is not intended as a guide book; it is meant for browsing through and for firing the imagination. Of the walks included in this book I found I had done, all or in part, a third of them and on reflection I had to agree with the compilers that they should all be considered as classics. On the basis of this sample I would very much like to do the remainder. I tried to think of walks which I had done which they had not included, excluding those already described in Big Walks and I must admit there were very few which I would want to add. In fact the idea could be used for a hill walker's party game: list your seventy nine favourite walks and see how many are in the Wilson/Gilbert book. The collection could also be a goal for all those who enjoy ticking things off lists. I would like to christen the walks 'Wilberts' and one could collect these like others collect Munros except that the collection would appeal to those very superior walkers who appreciate quality in preference to the brute energetics of peak-bagging.

At nearly £18 the book carries a hefty price tag, but it is worth the money for its blend of imaginative and evocative writing and also the illustrations.

P.H.

Walking in Scotland. Edited by Roger Smith. Spur Books, 1982. £4.95.

This book aims to provide an introduction to 'the infinite richness and variety of Scotland's Walking Country'.

It can perhaps be fairly defined as a 'potted guide', including advice on transport and accommodation, information on local history and geology and notes on the walks themselves. This is in sections which cover all Scotland's Regions, with the exception of the Northern Isles. The routes are defined rather sketchily, so a map of the area described is an essential accessory while using the guide. Despite these limitations it is likely to be of value to those visiting an unfamiliar part of the country and wanting to get the maximum out of their stay.

Good features are an introduction emphasising mountain safety and the need for proper footwear and clothing, and the repeated warnings on the ease with which the wilderness, so strongly recommended for enjoyment and exploration, can be destroyed for ever by 'developers' with their bulldozers.

R.P.

Grampian Ways. Robert Smith. Melven Press, 1980. £8.95.

An entertaining and easy to read book covering all the Grampian Passes, starting with the Causey Mounth in the east – the original route from Aberdeen to Stonehaven; to the farthest west, the Road to Atholl, through Glen Garry and the Pass of Drumochter, now mostly covered by the railway line to Inverness.

Robert Smith obviously has a great love for the history of the region, and recalls that the Mounth tracks were used from Roman times, through to Bruce, Montrose and the Covenanters, and not least by Queen Victoria on her expeditions along her favourite hill paths – quoting her enthusiastic comments on the scenery. He mentions too, the tragic deaths of 5 hillwalkers one winter's day on Jock's Road, illustrating the harshness of the north east climate.

The passes are quite graphically described, each chapter has a simple map though I found a one inch map in hand made the routes easier to follow. The author has included many of his own photographs which one can only wish were in colour.

Grampian Ways will not only appeal to the hill-walker who can tread the tracks but to the reader who appreciates the wildness of this area of Scotland's countryside, enjoying its legends and history.

J.J.

Cold Climbs. Compiled by Ken Wilson, Dave Alcock and John Barry. Diadem Books, 1983. £17.95.

This splendid book is both an exciting account of sixty-five notable snow and ice climbing routes in Great Britain, forty-seven of them in Scotland and also, read as a whole, a fascinating history of the challenging and addictive sport of winter climbing from the days when the early pioneers were keeping their hand in for the Alpine season to today's climber ascending the old routes in record time and attempting harder and harder new climbs with the benefit of modern techniques and equipment. From the exhausting ambidexterous chipping of steps by Raeburn "the only way to make an impression on this toughest of snow is to cut a groove with the blade and then drive the piece out with the pick", to the front-pointing crampon and curved hand-pick technique of the modern climber.

The early pioneers of winter climbing were followed in the thirties by a small group of influential Scottish climbers who began to show the potential of the Scottish mountains in winter. After the war there was a renewed interest in snow and ice climbing with strength and resolution still the main criteria for success but gradually, as the equipment and resultant techniques improved, there were astonishing advances. The classic gully climb, Point Five, on Ben Nevis was first climbed by controversial seize tactics lasting five days. The second ascent took seven hours and now it has been soloed in less than an hour. However, the essential attraction of winter climbing for the enthusiast remains the same, the hostile environment, the short winter day, the often unpredictable conditions, the challenge and the exhilaration of success and all this is captured in this fine book.

Cold Climbs is the latest in a series on aspects of British mountaineering. The standard of writing is very high, much of it being commissioned from climbers recording their experiences on repeat ascents and the contributors include many of today's top climbers as well as legendary names from the past.

The price is high but this is an exceptional book profusely illustrated with spectacular photographs, both black and white and colour. It will appeal to, and inspire, the growing number of winter climbers and give much vicarious pleasure to the armchair enthusiast who enjoys epic accounts of struggle and adventure.

E.F.J.

CONTRIBUTIONS

The Editor welcomes a constant supply of material for the *Journal.* The main articles, by tradition, should be from 1500 to 3000 words in length, However, smaller articles would be appreciated particularly for the Notes section. Black and white photographs need not be larger than contact prints and it is helpful if the negatives are available. It would be much appreciated if all contributions could be typewritten 'fair copies'. The Editor reserves the right to edit, abridge or omit material submitted for publication.

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