Cuillin Hills 6:

Coire Uaigneich and Blà-bheinn

The view of Blà-Bheinn (commonly corrupted to 'Blaven') from Strath is one of the most recognisable on Skye. This gabbro outlier of the Cuillin Hills is most easily accessed from Coire Uaigneich. The views of An Stac and Sgùrr nan Each from the access path to Coire Uaigneich provide a flavour of what lies ahead if the summit of Bla-bheinn is tackled.

Aspects covered: Glacial and post-glacial topography; hornfelsed Middle Jurassic Great Estuarine Group strata; hornfelsed Paleocene basaltic lavas; Paleocene dykes and cone-sheets; the Coire Uaigneich Granite; Outer Bytownite Gabbros of the Paleocene Cuillin Intrusive Centre.

Route: Loch Slapin – Allt na Dunaiche – Coire Uaigneich – Fionna-choire - Blà-bheinn (- return).

Distance: *c.* 12 kilometres (7 miles).

Time: 7-8 hours.

General comments: The route into Coire Uaigneich and Fionna-choire involves a well-maintained path with a gentle gradient from the public road, up to the head of Coire Uaigneich. Thereafter, the route into Fionna-choire is less well defined and entails picking one's own way, either on rocky surfaces or on scree, to the col above Fionna-choire at *c.* 600m OD. From here, the views are spectacular whichever direction you look.

A final arduous option is to the summit of Blà-bheinn, which demands a modest degree of scrambling, and should only be undertaken on long good weather days, most likely in the late Spring and early Summer. Stunning views throughout.

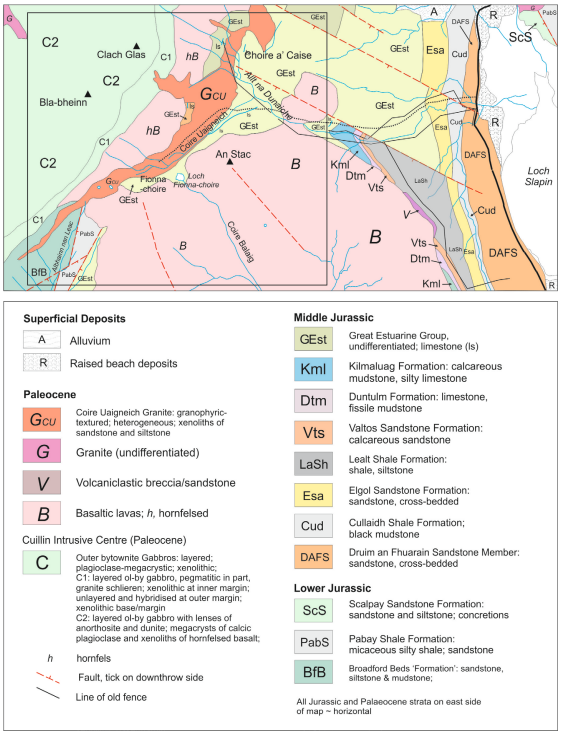

Figure Cuillin 6.1: Summary map of the Coire Uaigneich area.

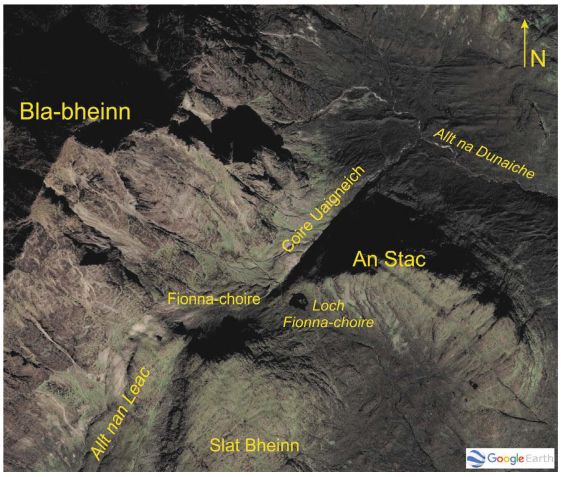

Figure Cuillin 6.2: Annotated Google Earth® images of the Coire Uaigneich area.

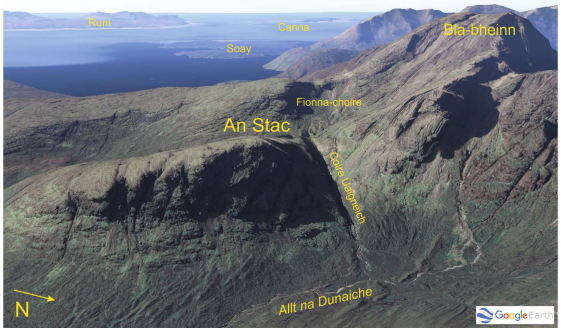

Figure Cuillin 6.3: Annotated oblique Google Earth® image of the Coire Uaigneich area.

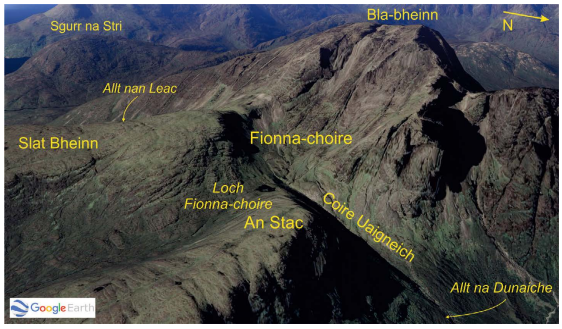

Figure Cuillin 6.4: Annotated oblique Google Earth® image of the Coire Uaigneich area.

Access to Coire Uaigneich is from the Broadford-Elgol (B8083) road. The start of the path is approximately 1km south of the head of Loch Slapin (towards Elgol), where the road crosses the Allt na Dunaiche. Parking is on the west side of the road, south of the Allt na Dunaiche. Take the path on the north side of the river for *c.* 1.5km, to where it crosses to the south side of the river at *c.* 200m OD. Within the bed of the river, difficult to access Middle Jurassic Great Estuarine Group strata crop out, cut by Paleocene dykes and inclined sheets, resulting in many fine waterfalls. Consequently, it is suggested that examination of these strata is restricted to the stretch of the river from *c.* 200m OD. to where the path crosses the river in Coire Uaigneich at *c.* 220m OD. There are abundant loose blocks of material in the bed of the river.

Figure Cuillin 6.5: One of the waterfalls on the Allt na Dunaiche caused by resistant-to-erosion Paleocene minor intrusions within Great Estuarine Group strata. View is towards the west, with Blà-bheinn in the distance.

En route, note the dip of the substantial sequences of basaltic lavas on Belig and the eastern side of Sgùrr nan Each to the north, and the sequence on An Stac to the south, which dip towards the east.

Figure Cuillin 6.6: The eastern summit (right-hand-side) of Sgùrr nan Each, composed of the Outer Bytownite Gabbros of the Paleocene Cuillin Intrusive Centre, intruded by basalt and dolerite cone-sheets (dip towards the west (top-right to bottom-left). On the middle lower ground, country-rock hornfelsed basaltic lavas dip towards the east (right). View is from the north bank of the Allt na Dunaiche, towards the north.

Figure Cuillin 6.7: An Stac, composed of Paleocene basaltic lavas dipping towards the east (bottom left). View is from the north bank of the Allt na Dunaiche, towards the west.

Locality 1 [NG 5404 2160]:

Continue along the path, parallel to the river, into Coire Uaigneich. On the SE side of the ravine, Great Estuarine Group strata, with obvious limestones, form a prominent continuous layer, intruded by Paleocene inclined sheets and dykes of the NW-SE -trending main swarm. Overlying the sedimentary rocks is a thick sequence of Paleocene basaltic lavas, forming the crags of An Stac.

The Middle Jurassic Great Estuarine Group comprises a complex sequence of strata deposited in a coastal setting, ranging from prograding deltas (sands; sandstone) through lagoons (muds; mudstone) into shallow marine (calcareous muds; limestone) conditions. Further south, on the west coast of Strathaird, the entire sequence can be examined in detail. Here, however, the thermal effects of the Paleocene Cuillin Intrusive Centre make distinguishing the different members difficult. Argillaceous beds are hornfelsed and limestones recrystallised. In the sequence exposed at the base of An Stac, limestones are particularly prominent.

Figure Cuillin 6.8: Dark crags of Paleocene basaltic lavas overlying thinly bedded Great Estuarine Group strata on the north side of An Stac. View is towards the SW from the north side of the Allt na Dunaiche.

Figure Cuillin 6.9: Minor dolerite intrusions within Great Estuarine Group limestones, Allt na Dunaiche. Pole *c.* 1m long.

Figure Cuillin 6.10: Great Estuarine Group strata below the lava crags on the NW side of An Stac. View is towards the SW into Coire Uaigneich.

Figure Cuillin 6.11: Great Estuarine Group strata below the lava crags on the NW side of An Stac, intruded by dolerite dykes. View is towards the SE across the ravine in Coire Uaigneich.

Figure Cuillin 6.12: Detail of Great Estuarine Group strata below the lava crags on the NW side of An Stac. View is towards the SE, across the ravine in Coire Uaigneich.

Locality 2 [NG 5381 2136]:

Continuing into Coire Uaigneich, exposures of the pale-weathering, slabby Coire Uaigneich Granite occur on the path, intruded by several contrastingly dark inclined dolerite sheets and dykes.

The Paleocene Coire Uaigneich Granite is the only rock of truly silicic composition associated with the Cuillin Intrusive Centre and crops out along its SE margin, between Coire Uaigneich and Sgùrr na Stri (to the SW), in a narrow, discontinuous, ribbon-shaped outcrop. It ranges between coarse- and fine-grained facies and contains partially-digested xenoliths of sandstone. In hand-specimen, needles of hypersthene (typically replaced by bastite) are also conspicuous, in a pale granitic groundmass. Near to its margins, fine-grained facies of the granite are locally developed, grading over a few tens of centimetres into typically coarser material towards the interior of the intrusion.

The granite contains quartz crystals, interpreted either as paramorphs, after tridymite, or as the result of some form of later silicification event (hydrothermal replacement of plagioclase by quartz). Experimental melting studies suggest the granite's formation by the partial melting of Late Proterozoic ('Torridonian')

sandstone, a country-rock lithology in Camasunary Bay where there is abundant evidence of melting during the emplacement of the Paleocene Cuillin Intrusive Centre. However, differences in the trace-element compositions of the granite and typical Torridonian sandstone may suggest that a contribution to the bulk composition of the granite was provided by crystal-liquid fractionation of some sort of basaltic magma, possibly involved in the formation of the Cuillin Intrusive Centre.

Figure Cuillin 6.13: The upper part of Fionna-choire, viewed towards the SW. The pale scree of slabs of Coire Uaigneich Granite help to define the granite's outcrop. The dark rocks to the left (SE) and right (NW) are hornfelsed Paleocene basaltic lavas.

Figure Cuillin 6.14: Typical slabby exposure of Coire Uaigneich Granite, in the upper part of Fionna-choire. Pole *c.* 1m long.

Figure Cuillin 6.15: The contact of pale Coire Uaigneich Granite (left) with dark hornfelsed basaltic lava (right) on the NW side of Fionna-choire. Pole *c.* 1m long.

Figure Cuillin 6.16: Dolerite (cone-) sheet within the Coire Uaigneich Granite, Fionna-choire. Pole *c.* 1m long.

Figure Cuillin 6.17: Xenolith of hornfelsed basaltic lava in the Coire Uaigneich Granite, Fionna-choire. Pole *c.* 1m long.

Figure Cuillin 6.18: Xenolith of gabbro in the Coire Uaigneich Granite, Fionna-choire. Pole *c.* 1m long.

Continue into Fionna-choire, with the pale scree of granite dominating the back wall of the corrie. The easiest access to the top of the corrie is *via* the NW edge of the scree, although ephemeral zig-zag paths may be identified and used.

Locality 3 [NG 5317 2099]:

Upon reaching the col above Fionna-choire at *c.* 600m OD, the view back down the corrie, towards the NE, beautifully illustrates the relationships between the Jurassic strata and the Paleocene lavas.

The back wall of Fionna-choire is dominated by slabs of the granite, an excellent example of a blockfield or felsenmeer (German: 'sea of rock'), formed by free-thaw action.

Figure Cuillin 6.19: Fionna-choire and Coire Uaigneich viewed towards the NE. The upper part of Fionna-choire is dominated by a blockfield or felsenmeer (German: 'sea of rock'), formed by frost action on the granite. In the distance are the Red Hills of Strath.

To the SW is a view into the valley of the Allt nan Leac, with Strathaird, beyond. In the distance are the islands of Eigg and Rum.

Figure Cuillin 6.20: The Valley of the Allt na Leac, with Strathaird, beyond. In the distance are the islands of Eigg and Rum. View is towards the south.

Figure Cuillin 6.21: Rum from the col between the valley of the Allt na Leac and Fionna-choire. View is towards the south.

The Coire Uaigneich Granite is separated from the margin of the Cuillin Intrusive Centre by a steep, narrow outcrop of basaltic lavas that have been subjected to thermal metamorphism.

In the range 200-1,000m from the margin of the intrusive centre, exposed to the NW and SE of the granite-dominated saddle between Fionna-choire and the top of the Allt nan Leac valley, the grade of metamorphism is defined as hornblende hornfels, a subdivision of the Albite-epidote Facies, containing actinolite, chlorite, albite and epidote. Amygdaloidal textures are still recognisable, and the groundmass has a distinct dark green coloration due to the secondary mafic minerals.

Close (up to 200m) from the gabbro-lava contact, the highest grade of contact metamorphism is achieved, defined as pyroxene hornfels, with four textural types recognised, ranging from lavas that retain their igneous mineral textures, through to lavas where recrystallisation is almost complete, containing a mineral assemblage of plagioclase, clinopyroxene, orthopyroxene and (metamorphic) olivine, typical of Sanidinite Facies thermal metamorphism. Temperatures were more than 900°C, possibly as high as 1,000°C.

Figure Cuillin 6.22: Crags of hornfelsed basaltic lavas, with crudely developed columnar joints, on the lower slopes of Blà-bheinn on the NW side of Fionna-choire.

Figure Cuillin 6.23: Hornfelsed amygdaloidal basaltic lava, NW of Fionna-choire. Pole *c.* 1m long.

Figure Cuillin 6.24: Hornfelsed amygdaloidal basaltic lava, NW of Fionna-choire. Pole *c.* 1m long.

What cannot be missed is the stunning, near-vertical wall of Paleocene lavas, and gabbro above, forming the SE face of Blà-bheinn ('Blaven'). The entire cliff is riddled with cone-sheets, resulting in a stratified appearance to the gabbros (which are layered, but not obvious from a distance), and deep vertical gullies that have formed where dykes have been prefertially eroded.

Figure Cuillin 6.25: Gully formed by preferential erosion of a dolerite dyke on the SE side of Blà-bheinn. The lower pale grey rocks are hornfelsed basaltic lavas and the higher darker rocks are gabbros of the Cuillin Intrusive Centre.

Figure Cuillin 6.26: The summit of Blà-bheinn, viewed towards the west. The near-vertical gashes are due to differential erosion of dykes. Much of the steep side of the mountain is composed of glacially-sculpted gabbro. The pale grey stone chute (of Coire Uaigneich Granite scree) marks an offshoot of the intrusion.

Figure Cuillin 6.27: Detail of the pale grey stone chutes, composed of Coire Uaigneich Granite scree, which defining offshoots of the intrusion on the SE side of Blà-bheinn. View is towards the west.

A final option is to go to the summit of Blà-bheinn to enjoy the spectacular views, especially west to the main ridge of the Cuillin Hills. This should only be attempted by those confident of their scrambling skills, have a good head for heights, and if the weather conditions are favourable. Otherwise, return to Loch Slapin, reversing the outward route.

Ascend along an indistinct path, first on the grassy slope, giving way to gravely ground. Continuing up, with the top of the so-called Great Prow coming into sight to the right, and with the ridge slanting off to the left. Continue upwards on the rockier ground, with short sections of scrambling where the most direct line is taken. Finally a stony path is reached, which leads to the Blà-bheinn summit trigonometrical point at 929m OD.

Figure Cuillin 6.28: 'Tourist Route' to the summit of Blà-bheinn from Coire Uaigneich. View towards the west.

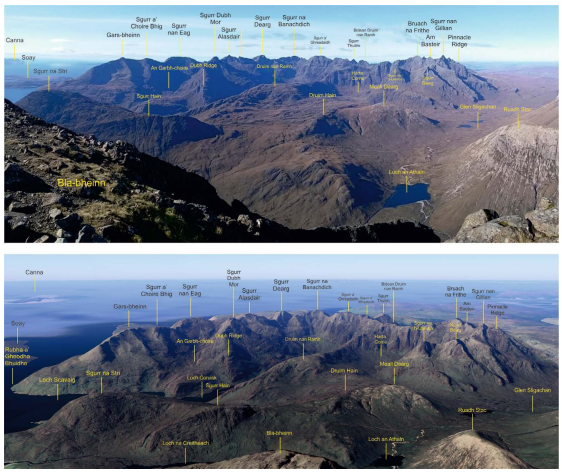

Figure Cuillin 6.29: Annotated view and annotated oblique Google Earth® image towards the main arc of the Cuillin Hills from the summit of Blà-bheinn. The Cuillin Hills, from Gars-bheinn in the south (left) to Sgùrr nan Gillean in the north (right) is a truly Alpine landscape, with classic examples of corries, arêtes, and horns.

Return to the road using the reverse route.

End of excursion.