

Cuillin Hills 3:

Sròn na Cìche and Coir' a' Ghrunnda



The spectacular arc of summits that define the main part of the Cuillin Hills is the only true Alpine environment in the British Isles. Vegetation is sparse or absent. The views from the summits are worthy of the effort to win them. However, access to much of the ground requires a good level of fitness, a modest degree of scrambling skills, and a good head for heights. As such, by comparison to many of the other excursions, it is a part of Skye that is open to relatively few people. Weather is an important controlling factor, and this part of Skye is notorious for its severe weather, with rainfall totals near to 5,000mm per year. However, if blessed with a good weather day, it justifies all the superlatives that are commonly used to describe the experience. This excursion involves some of the more accessible corries on the convex side of the main ridge and a short length of the main ridge.

Aspects covered: Paleocene hydrothermally altered plateau lavas; conglomerates interbedded with the lavas; the Outer Gabbros; the Outer Bytownite Troctolites; Layered Peridotites; intrusive tholeiite dolerite sheets; cone-sheets; xenolithic and non-xenolithic peridotite dykes; a breccia pipe; Quaternary glacial landforms and deposits of the SW part of the Cuillin Hills (corries, arêtes, horns, moraines).

Route: [Glenbrittle House](#) - [Eas Mòr](#) - [Loch an Fhir-bhallaich](#) - [Allt Coire Làgan](#) - [East Buttress of Sròn na Cìche](#) - [Sgùrr Sgumain](#) - [Loch Coir' a' Ghrunnda](#) - [Coir' a' Ghrunnda](#) - [An Sgùman](#) (- [Glenbrittle House](#)).

Distance: 16 kilometres.

Time: 10–11 hours.

General comments: An arduous excursion on high ground, to be undertaken only on long good-weather days, most likely in the late Spring and early Summer. Stunning views throughout.

An excursion to investigate units of the Paleocene Cuillin Intrusive Centre and, concurrently, various glacial landforms and deposits that dominate this Alpine landscape.

The level of exposure is stunningly good, although access in places is limited unless climbing skills are employed: not recommended. This excursion demands a modest degree of scrambling. It should not be undertaken unless you are fit, have good orientation skills, and have a good head for heights.

[Gleann Bhreatail](#) ([Glen Brittle](#)) lies on the west side of the main Cuillin ridge at the head of [Loch Brittle](#). Follow the Broadford-Portree (A87) road to [Sligachan](#) (26km (16 miles) from [Broadford](#) and 14km (9 miles) from [Portree](#)). Take the Dunvegan (A863) road along [Glen Drynoch](#) to the [Carbost \(B8009\) road](#) (8km; 5 miles). From here, follow the Carbost road, along the south side of [Loch Harport](#), as far as [Merkadale](#) (2.5km (1.5 miles)) and thence take the minor road signposting [Gleann Bhreatail \(Glen Brittle\)](#). Descend into [Gleann Bhreatail \(Glen Brittle\)](#) as far as the [bridge over the Allt Coire na Banachdich](#) (a further distance of 11km (7 miles)), north of [Glenbrittle House](#). Very limited parking is available on both sides of the road c. 100m north of the bridge over the river.

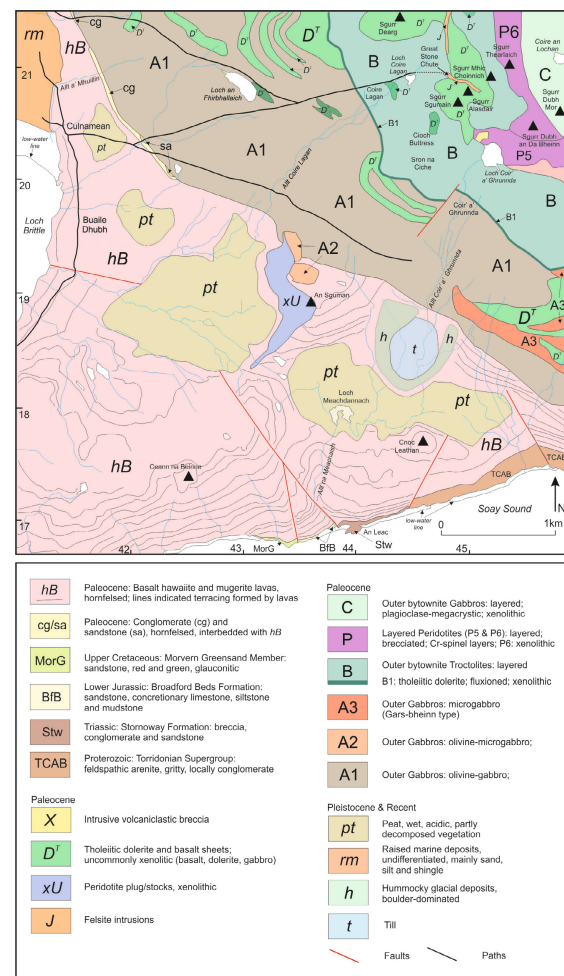


Figure Cuillin 3.1: Summary map and key of the SW Cuillin Hills area.

across [Coire Làgan](#) and around the west side of the [Sgùrr Dearg](#) ridge into [Coire na Banachdich](#), and thence NE between [Sgùrr nan Gobhar](#) and [Sgùrr na Banachdaich](#). The main ridge of the Cuillin Hills, from [Sgùrr Sgumain](#) in the south to [Sgùrr a' Ghreadaidh](#) in the north, is composed of rocks of the Outer Bytownite Troctolites intruded by tholeiitic dolerite sheets. Many of the summit (pyramidal) peaks are composed of the latter. Dykes of the Paleocene NW-SE -trending regional swarm and cone-sheets cut all of these units.

Follow the path SE towards the [Allt Coire na Banachdich](#). Approximately 200m NE of the [sheep pens](#), near-horizontal Paleocene fluvial conglomerates and sandstones, interbedded with plateau basaltic lavas, crop out.



Figure Cuillin 3.5: Interbedded fluvial polymict conglomerates and sandstones north of the Allt Coire na Banachdich. Pole c. 1m long.

Locality 2 [NG 4127 2155]:

Clast-types in the conglomerates include porphyritic granophyre, amygdaloidal basalt, and Jurassic sandstone, implying these lithologies were exposed and available for erosion during the Paleocene. The best match for the porphyritic granophyre is units within the Rum Central Complex, c. 20km to the south, implying its older age relative to the Skye Central Complex, which clearly post-dates the lava sequence in which the conglomerates occur. Return south to the path and follow it to where it crosses the river at a small bridge.



Figure Cuillin 3.6: Hydrothermally altered basaltic lavas exposed in the Allt Coire na Banachdich.

Locality 3 [NG 4143 2144]:

At the bridge, hydrothermally altered basaltic lavas are exposed in the stream bed and on the banks of the [Allt Coire na Banachdich](#), although not easily accessed. Cross the river at the bridge and follow the path on the south bank of the river, upstream, over deeply weathered Outer Gabbros cut by dolerite and basalt dykes, exposed in the gorge as far east as the waterfall of [Eas Mòr](#). As there are few easy and safe routes into and out of this gorge, these relationships are best appreciated from the vantage point of the south bank of the gorge. Similar but unweathered, coarse-to fine-grained Outer Gabbros, also intruded by dykes, crop out around the waterfall.



Figure Cuillin 3.7: The gorge of the Allt Coire na Banachdich, west of the Eas Mòr, comprising exposures of weathered Outer Gabbro intruded by dolerite and basalt dykes. View is towards the NW, from the south bank of the river.



Figure Cuillin 3.8: The Eas Mòr ('big waterfall'), where it is eroding Outer Gabbros intruded by dolerite and basalt dykes. View is towards the NE from the south side of the Allt Coire na Banachdich.

Follow the track, uphill, over further poorly exposed Outer Gabbros, past the NE side of [Loch an Fhir-bhallaich](#). *En route*, note olivine-rich minor intrusions, that weather to a prominent brownish orange, on the south side of [Sgùrr nan Gobhar](#) and the SW side of [Sgùrr Dearg](#).



Figure Cuillin 3.9: SW side of Sgùrr Dearg, composed of the Outer Gabbros and the Outer Bytownite troctolites, intruded by orange-weathering peridotite dykes. View towards the NE.

From the SE end of the loch, the near-vertical buttress wall on the north side of [Sròn na Cìche](#) can be seen. Halfway along this buttress, and running upwards to the east, is a prominent boulder-strewn gully. Mid-way up this gully, on the [Cìoch Buttress](#) face, there is a distinct change in rock-type, with the lighter Outer Gabbros giving way (to the east) to the darker rocks of the fluxioned (banded) and xenolithic dolerite, marginal to the Outer Bytownite Troctolites. This contact is the subject of Locality 4, below. To get to this locality, follow the southern branch of the path [across the Allt Coire Làgan](#) to the base of the north face of [Sròn na Cìche](#). From here, proceed up the boulder-strewn gully to the contact.



Figure Cuillin 3.10: The north face of Sròn na Cìche, composed of the Outer Gabbros and the Outer Bytownite Troctolites. The access gully to the ridge is indicated and requires a moderate amount of scrambling. Also indicated is the dramatic overhang, the Cìoch. View is towards the SE from Glen Brittle.

Locality 4 [\[NG 4440 2041\]:](#)

The sharp contact between the Outer Gabbros (A; light grey) and the marginal fluxioned and xenolithic dolerite (B1; brown) of the Outer Bytownite Troctolites (B) dips at a steep angle to the east. At this locality, many of the features that typify the marginal xenolithic facies and associated zone of 'wispy banding', appear to be missing, but are seen in [Coir' a' Ghrunnda](#) later in the excursion.

Excursion Cuillin Hills 3: Sròn na Cìche and Coir' a' Ghrunnda

Within a few tens of centimetres of the contact, the younger marginal rocks (B1) are fine-grained, passing inwards, over c. 20m, to the east, into a less olivine-rich bytownite troctolite (the so-called 'White Allivalite' of older literature). To the north, this contact can be seen on the West Buttress of [Sgùrr Sgumain](#), dipping at a much shallower angle than at the present locality.

Proceed to the top of the gully, noting *en route* several basalt and dolerite dykes, some up to 3m wide, cutting the Outer Bytownite Troctolites. Also present are cone-sheets, up to 1m thick, dipping at a shallow angle to the east, responsible for the many inclined planar surfaces on the north side of [Sròn na Cìche](#). Dispersed throughout the Outer Bytownite Troctolites are net-veined segregations, and xenoliths of various block-types up to several metres across.

Also, *en route*, note on the [buttress face of Sròn na Cìche](#), to the SE, the often difficult to identify [Cìoch](#), a protruding block that is a target for climbers and where the famous sword 'fight' in [Highlander](#) took place.

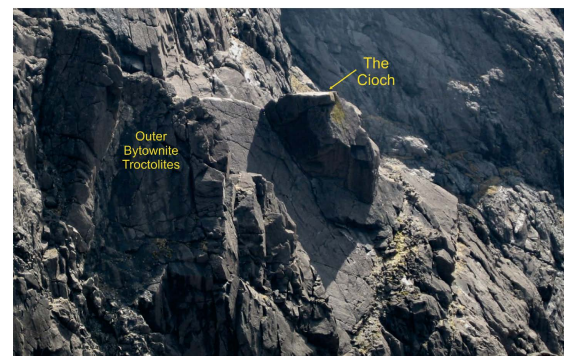
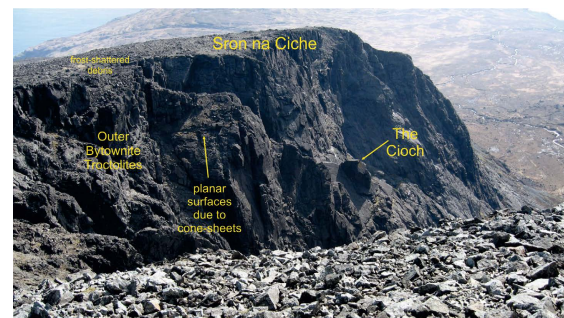


Figure Cuillin 3.11: The buttresses on the SE side of Coire Lagan, below Sròn na Cìche, from south of Sgùrr Sgumain. View is towards the SW from the top of the gully on the north side of Sròn na Cìche, with The Cìoch arrowed.

Locality 5 [\[NG 4482 2052\]:](#)

Approximately 20m below the top of the gully there is an intrusive tholeiitic dolerite sheet within Outer Bytownite Troctolites. This sheet is fine-grained, with a dull grey coloration, and is cut by numerous veins of calcite, giving the rock a sheared appearance.

Continue to the top of the gully, where rocks of the Outer Bytownite Troctolites (B) crop out. Proceed NNW along the path towards [Sgùrr Sgumain](#). Within the first 100m,

note a distinct brownish-orange, tortoise-shell - weathering peridotite dyke, similar to those already seen from a distance on the south side of [Sgùrr nan Gobhar](#) and the SW side of [Sgùrr Dearg](#).

Above this dyke, in the summit areas of [Sgùrr Sgumain](#) and [Sgùrr Alasdair](#), are highly fractured intrusive tholeiite sheets that are members of the so-called Main Ridge Complex. These rocks vary greatly in form, from intrusive breccias to xenolithic intrusive units.



Figure Cuillin 3.12: Sgùrr Sgumain (left) and Sgùrr Alasdair viewed towards the north from Caisteal a' Garbh-choire. The summits are composed of grey tholeiitic dolerite sheets of the Main Ridge Complex, emplaced into Outer Bytownite Troctolites. People on ridge for scale.

The exposures on the west side of [Sgùrr Mhic Choinnich](#) illustrate the large number of cone-sheets that cut the various members of the Cuillin Intrusive Centre. The cone-sheets are readily discerned as ribbon-like features on the [steep back wall of Coire Làgan](#), above the spectacular stone chutes.



Figure Cuillin 3.13: Stone Chute on the north side of Coire Làgan, below the Coireachan Ruadha Crags, viewed towards the north from the flank of Sgùrr Sgumain. The scree within the chute is composed mainly of angular fragments derived from the erosion of tholeiitic dolerite intrusions of the Main Ridge Complex. Beyond the stone chute, partially in cloud, is the ridge of Sgùrr Dearg, with its isolated summit, the Inaccessible Pinnacle (986m OD).



Figure Cuillin 3.14: Coire an Lochain from the SE flank of Sgùrr Alasdair. View is towards the NE. Beyond is the ridge of Druim nan Ramh. In the distance are the Western Red Hills, the most prominent of which, right-of-centre, is Marsco (736m OD).



Figure Cuillin 3.15: Sgùrr Dubh Mor (left) and Sgùrr Dubh an Da Bheinn (right) from the shoulder of Sgùrr Alasdair. Both are formed of Layered Peridotites, intruded by dykes and cone-sheets. View is towards the east from south of Sgùrr Alasdair.



Figure Cuillin 3.16: The southern Cuillin Ridge viewed towards the SE from the flank of Sgùrr Sgumain. The nearest summit is Sgùrr nan Eag, composed of Outer Bytownite Troctolites, with Sgùrr a' Choire Bhig and Garsbheinn in the distance.

Return down the path to the top of the gully. The [NW side of Coir' a' Ghrunnda](#), between the loch and the top of the gully, is composed of rocks of the lowest (oldest) unit of the Outer Bytownite Troctolites (B). Layering is not particularly well-developed, although examples of slump structures occur in the vicinity of the top of the gully. 100m SSE of the top of the gully is a (volcaniclastic) breccia pipe, cut by basalt and dolerite dykes. The pipe is elongate, with a long axis of c. 40m trending NW-SE and a short axis of c. 25m. The angular to sub-rounded, matrix-supported blocks within this pipe are typically 5–10cm across, rarely up to 2m, and are of basalt, dolerite, gabbro, bytownite gabbro, bytownite troctolite, and peridotite, all set in a granular matrix.

Locality 6 [\[NG 4509 2007\]](#):

To the SE of the loch, below [Caisteal a' Garbh-choire](#), is the near-vertical contact between the Outer Bytownite Troctolites (B) and the distinctly brownish-orange Layered Peridotites (P). The Layered Peridotites contain abundant xenoliths of feldspathic peridotite and bytownite troctolite. They are also intensely veined with feldspathic peridotite. Numerous blocks of this tortoise-shell -weathering material litter the glaciated corrie floor.

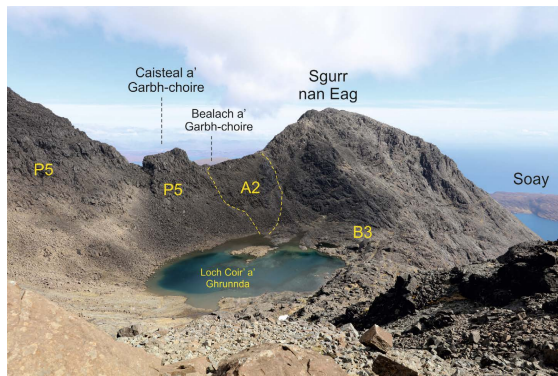


Figure Cuillin 3.17: Loch Coir' a' Ghrunnda and Sgùrr nan Eag, beyond, the latter composed of Outer Bytownite Troctolites. View is towards the SE from the flank of Sgùrr Sgumain. The blocky crag on the ridge (arête) is Caisteal a' Garbh-choire and is composed of Layered Peridotites.



Figure Cuillin 3.18: Loch Coir' a' Ghrunnda viewed towards the SE from the flank of Sgùrr Sgumain. The islet and the scree-covered ground in the top-left of the view are composed of Layered Peridotites. The rock barrier that separates the loch from Coir' a' Ghrunnda (off right side of view) is composed of Outer Bytownite Troctolites.

Descend to the rock basin of [Loch Coir' a' Ghrunnda](#), surrounded by ice-polished slabs of bytownite troctolite to the SW and peridotite to the NE, and thence to the middle of the high ground which forms the prominent (glacially-formed) rock barrier on the SW side of the loch, composed of rocks of the Outer Bytownite Troctolites



Figure Cuillin 3.19: The rock barrier on the SW (top-left) side of Loch Coir' a' Ghrunnda, composed of bytownite troctolite, viewed towards the west from Caisteal a' Garbh-choire.

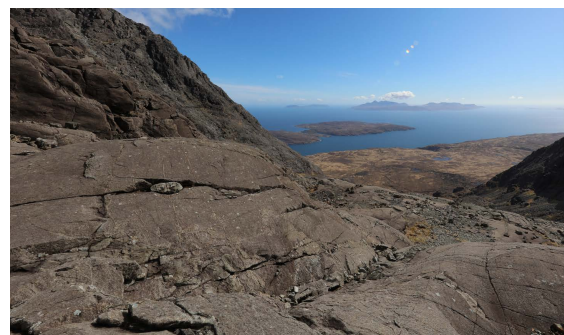


Figure Cuillin 3.20: The rock barrier on the SW side of Loch Coir' a' Ghrunnda, composed of bytownite troctolite.

To the south is [Soay](#), composed of Late Proterozoic 'Torridonian' sandstones (Bheinn Bhreac Member overlying Leac-stearnan Member, both of the Applecross Formation). Beyond, to the SW, the Isle of Rum dominates the skyline. On the east (left) side of the island are the summits of Askival and Hallival, which are composed of layered troctolites (allivalites of older literature and the type-locality as defined by Alfred Harker) and layered peridotites. Further to the west (right) on Rum are lavas overlying (older) granites. To the east (left) of Rum is Eigg, and further south is Muck. To the west (right) is Canna. All three of these islands are dominated by Paleocene plateau lavas. The distinctive cap to the sequence on Eigg, An Sgùrr, is a remnant of a valley-filling ignimbrite.



Figure Cuillin 3.21: View SW from the top of Coir' a' Ghrunnda towards Soay, and beyond to Eigg (left) and Rum (right).

From here, the descent to the base of the glacially-scoured [Coir' a' Ghrunnda](#) involves a traverse over three distinct topographic features (steps) referred to, colloquially, as *boiler plates*. Below the rock barrier, in the NW wall of the corrie, on the lip of the uppermost boiler plate (formed by glacially-induced (erosional) plucking), the steeply-inclined (dipping to the NE) boundary between layered Outer Bytownite Troctolites and unlayered Outer Bytownite Troctolites is seen. This boundary can be traced across the corrie into the NW face of [Sgùrr nan Eag](#).

At the lip of the middle boiler plate, in the NW and SE walls of the corrie, the almost-vertical gully marks the boundary between the unlayered Outer Bytownite Troctolites and the Outer Gabbros. The boiler plate surface and the near-vertical NW face of [Sgùrr nan Eag](#), (forming the SE side of the corrie), are cut by countless dykes and cone-sheets and provide an indication of the complexity of the countless intrusion events involved.



Figure Cuillin 3.22: The NW side of Sgùrr nan Eag, viewed towards the SE from Coir' a' Ghrunnda. The rock face is composed of Outer Bytownite Troctolites intruded by a myriad of dykes and cone-sheets.



Figure Cuillin 3.23: The middle boiler plate in Coir' a' Ghrunnda, viewed up the corrie towards the NE. The bare rock surface of Layered Bytownite Troctolites is intruded by countless dykes and cone-sheets.



Figure Cuillin 3.24: Detail from the middle boiler plate in Coir' a' Ghrunnda, composed of Layered Bytownite Troctolites intruded by *en échelon* bladed dykes. Pole c. 1m long.

Along the SE side of the corrie, at the level of the upper and middle boiler plates, another prominent gully, trending NE-SW, marks the line of a 6m-wide, xenolithic, ultrabasic dyke (of the so-called Ben Cleat type). This dyke can be traced for at least 500m. The xenoliths are of coarse-grained, ultrabasic material (peridotite and troctolite) and the dyke shows only slightly finer-grained margins. The dyke has weathered to a pale rusty-yellow and contains numerous, closely spaced, longitudinal joints that can be traced individually along strike for several metres. These joints typically do not penetrate any of the xenoliths. The olivine content across this dyke, unlike many of the so-called Ben Cleat type, shows very little variation. Basic dykes of the regional swarm cut this dyke. A dyke of similar composition occurs in the NW side of the corrie, also within a small, linear gully. This dyke can be seen at the top of the middle boiler plate, and its course is followed by a small stream along the NW margin of the lowest boiler plate for at least 150m.

Where [Coir' a' Ghrunnda](#) opens out onto the vegetated plain to the SW there is an excellent boulder moraine consisting of blocks of peridotite, bytownite troctolite and gabbro.



Figure Cuillin 3.25: Annotated oblique and vertical Google Earth® images and field photographs illustrating the arcuate moraine dominated by boulders of peridotite, troctolite and gabbro, where Coir' a' Ghrunnda opens out onto the vegetated plain of basaltic lavas, SW of the corrie. The island is Soay, composed of inclined Late Proterozoic (Torridonian) strata.

The path out of the corrie follows a line NW of the [Allt Coir' a' Ghrunnda](#) and skirts NW around the base of [Sron na Ciche](#). Once out of the corrie note to the south an arcuate, brownish-orange intrusion of peridotite cropping out on [An Sgùman](#).

Descend the hillside WNW, via the main path, to Glen Brittle, and thence north to [Glenbrittle House](#). If excursion started from [Glenbrittle Campsite](#), return using the [appropriate path](#).

End of excursion.