
Excursion 2: The south coast caves and Grulin (Route map 2)

This is a low-level route, showing many features of interest in the volcanic geology of south Eigg, as well as sites of historical interest. From the pier, follow the road uphill towards Galmisdale. Just beyond [NM 4790 8395] the community hall, a track leads left to Craigard cottage. Follow the path [NM 4789 8368] below the cottage, across fields. It is marked by purple dots.

Basalt and pitchstone dykes

Bear left downhill towards the shore at [NM 4802 8338], temporarily leaving the path. Basalt bluffs of typical trap topography interrupt the grassy slope. The lowest of these overlooks the lowest raised beach. It is cut by a prominent dyke that illustrates why the term arose; it forms a vertical wall beneath the cliff, and can be seen running out to sea. This dyke, unlike those in Laig Bay, proved more resistant to erosion than the rocks (rubbly basalt lava flows) that it intrudes (see (Figure 17)).

Continue 300 m west along the coast, keeping just above the shore, to [NM 4778 8326], where two distinctive dykes of glassy pitchstone cut the basalt at Rubh' an Tangaird. These dykes were important in the volcanist—neptunist disputes of the early nineteenth century, since their glassy nature implies a high-temperature origin.

The Massacre and Cathedral caves

Climb back up the slope and rejoin the marked path at the cliff top at [NM 4752 8348], where steps follow a small stream valley to the shore. The narrow entrance to the Massacre Cave is immediately to the left (east) of the path and the stream [NM 4748 8345]. Because of a recent rock-fall, it is now strongly advised that you do not enter the cave. Its grim history is in all the guidebooks.

On the foreshore in front of the Massacre Cave, at low tide, there is a distinctive dyke [NM 4749 8343] that contains tabular crystals of white feldspar, up to 10 cm long and 1.5 cm across. Basalt always contains feldspar, but usually only as fine-grained crystals among the dark crystals of other minerals. A similar rock occurs at Guallan na Sgurra, east of the Sgurr summit. It may be a continuation of the dyke on the foreshore.

Basalts and dykes near the Caves

The open Cathedral Cave lies some 300 m to the west. A mid to low tide is necessary for access to it, although the cave itself is dry as it formed when relative sea level was higher than present, like the raised beaches. Examine the shore and cliffs near here [NM 4721 8342] to see good examples of lava-flow features (pages 16), including a reddened lava-flow top near high-tide mark at the base of the cliff, amygdalae (filled gas bubbles) and especially fine examples of pipe amygdalae at the base of a flow. The amygdalae are filled mainly with zeolite minerals in great variety. Dykes cut the lavas, some of them diverging and rejoining as they are traced up the cliff. A small fault probably explains the location of the Cathedral Cave. The basalts here are represented by thin lava flows, lacking the columnar centres seen in thicker flows elsewhere. Return eastwards.

Grulin

Retrace the path up the cliff, and continue uphill across grass and heather until the track to Grulin (green dots) is reached, near the island's wind turbines. Turn left to the abandoned settlement of Upper Grulin, with one house restored as a private bothy [NM 4561 8421]. The houses of the village were set between enormous blocks of pitchstone, as big as the houses themselves, which fell from the Sgurr ridge above in a catastrophic post-glacial rock fall. From here there is a fine view of the south face of the Sgurr ridge, showing prominent layering that has provoked much discussion: are the layers successive extrusions (lavas or ash flows), or later intrusions (pages 23–27)? There are also superb views of

Muck and Ardnamurchan.

From here, follow the track back to Galmisdale House and Glebe Barn or An Laimhrig. The dedicated enthusiast may want to follow the extension now described.

Excursion 2 extension: Bidean Boidheach

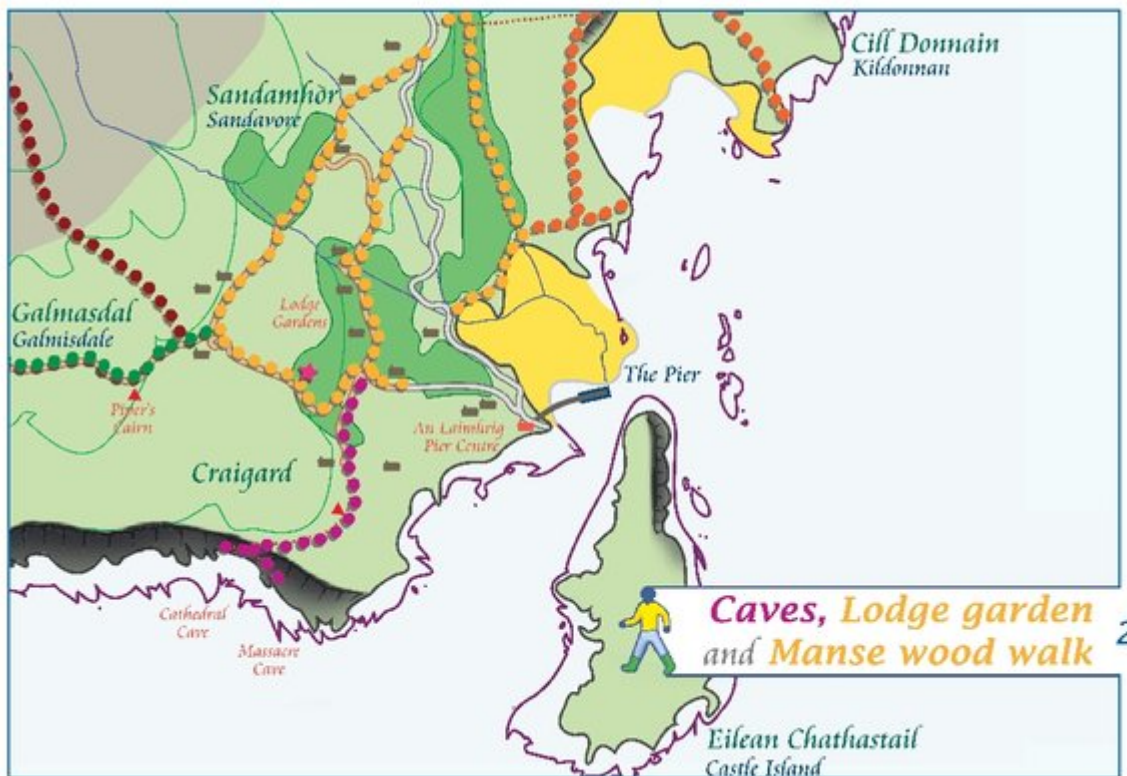
This is the locality where the Sgurr pitchstone and its underlying conglomerates can be seen filling a pre-pitchstone valley, truncated by the western cliffs (see map, (Figure 37). Details in the Geological Survey memoir, pp. 105–111). The locality is spectacular but frustrating, because the cliffs are inaccessible, and scrambling above them to look at the view requires a head for heights, and great care.

From Upper Grulin, a faint track leads to Lower Grulin [NM 4468 8505], another deserted settlement. Beyond this, traverse open moorland towards the termination of the pitchstone ridge at Bidein Boidheach, where the view of the conglomerate-filled valley will reward your efforts [NM 4412 8666]. Boulders a metre or more across can be seen in the conglomerate. The base of the pitchstone here contains pumice-shards, and fragments of wood have also been found. The return is either back along the track, or via the pitchstone ridge with its columnar joints and its attractive lochans. This is more interesting but the going is rough in places and requires a short scramble up the pitchstone. Since there are eagles in this area this route should be avoided in the nesting season.

Figures

(Figure 32) Distinctive dyke with tabular feldspar crystals, on the foreshore in front of Massacre Cave.

(Figure 33) Cathedral Cave.



Caves, Lodge garden and Manse wood walk postcard walk 2



Figure 17 Dyke intruding basalt lava flows, Galmisdale (Excursion 2).

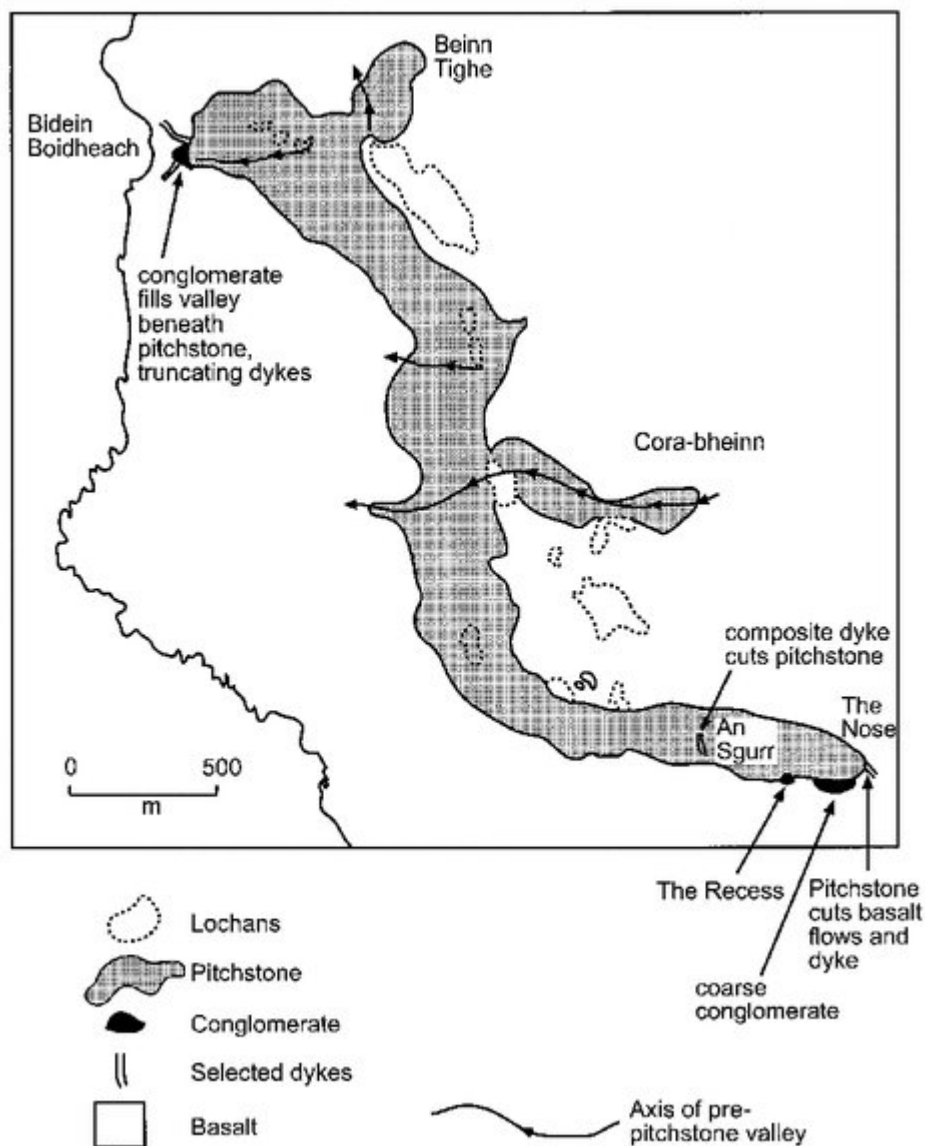


Figure 37 Map of the pitchstone outcrop, showing the locations of valleys eroded in the older basalt lava flows. By permission IPR/25-11C— British Geological Survey.



Figure 32 Distinctive dyke with tabular feldspar crystals, on the foreshore in front of Massacre Cave.



Figure 33 Cathedral Cave.