

Trail 2: Braewick beach

To the east are the red cliffs of Da Neap and beyond them three dramatic sea stacks – Da Drongs. All were carved by the sea from granite that formed deep in the earth. At the western end of the beach the cliffs are very different, cut through dark red sandstone and purple lava.

The rocks at the western end of the beach were laid down on the Earth's surface, thousands of metres above the granite to the east, yet now they lie alongside each other. How can this be? The granite has been pushed upwards along a fault in the Earth's crust – the Melby Fault. This huge fault is hidden beneath the beach and loch, but we can trace its route northwards along a shallow valley and see its effect on the opposite sides of the bay.

At the western end of the beach, look for a narrow outcrop of black basalt rock – the first lava to erupt from the Eshaness volcano. The rock is pitted with small holes (vesicles), which were gas bubbles in the lava.

Basalt pitted with vesicles



Further westwards is a layer of red sandstone in contact with more basalt lava. Its colour is produced by iron oxide (rust) coating on the sand grains, which tells us that it was laid down in a desert environment.

Red sandstone



The weather wasn't always dry though – erupting volcanoes can cause intense thunderstorms that send flash floods sweeping down their sides to collect in ponds and lakes. A little further on you will see distinctive alternating dark red and grey banded sandstones, which formed at the bottom of such a lake.

Red and grey banded lake sandstone



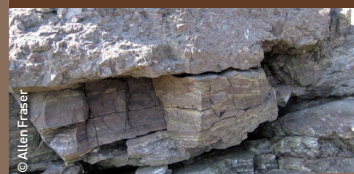
Visible at low tide is a bed of grey sandstone laid down by a river. This contains fragments of volcanic rock called lapilli, which were blasted from the volcano and rained down into the river.

Lapilli in water lain sandstone



Retracing your steps to the beach notice that in places the cliffs seem to be made up of a jumble of large boulders and slabs of rock, surrounded by finer material. This was a lahar or mudflow, probably triggered by the collapse of an unstable volcano slope.

Lahar/mudflow on sandstones



Directions

By car / bike: Continue north along the A970 from Mavis Grind and just before Hillswick take the turning to Eshaness. 5km (3 miles) along this road is the Braewick Café.

Follow the marked path from the café to undertake the beach walk.

Access



- Wheelchair access to café.
- The path to the beach is wet and muddy in places.
- The beach is stony and the trail crosses a small burn.
- The beach walk includes a number of two step stiles.

Interpretation

- Geology exhibit
- Beach walk

Facilities



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| 1 Granite | 5 Red and grey banded lake sandstone |
| 2 Melby Fault | 6 Lahar / mudflow on sandstone |
| 3 Basalt pitted with vesicles | 7 Lapilli in water lain sandstone |
| 4 Red sandstone | |

