North Skye 6:

The Kilt Rock and Dùn Dearg

The Kilt Rock, located south of Staffin on the east coast of Trotternish, comprises the cliff-forming eroded remnant of a Paleocene olivine dolerite sill emplaced into Middle Jurassic Valtos Sandstone Formation strata of the Great Estuarine Group. The illusion to a kilt is based upon the vertical prismatic joints (locally columnar) resembling the pleats of a kilt and is further heightened by their variation in colour. In the winter months, when there is a strong easterly wind, the waterfall (supplied by Loch Mealt) can be blown inland and said to be defying gravity.

Aspects covered: Paleocene olivine dolerite sills (including the Kilt Rock); the Middle Jurassic Valtos Sandstone Formation.

Route: Scenic viewpoint at Loch Mealt – Dùn Dearg.

Distance: 200m (or 2 kilometres if locality 2 is included).

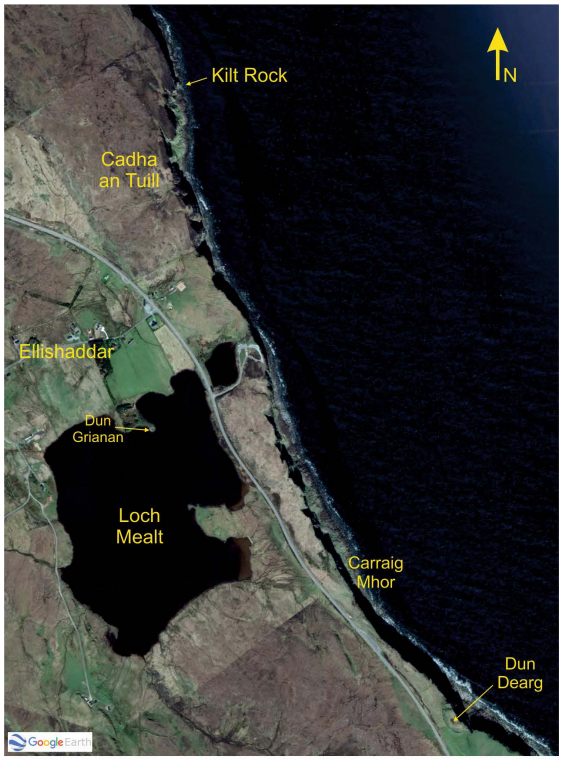
Time: 30 minutes (or 1 hour if Locality 2 is included).

General comments: A road-side excursion with a scenic viewpoint at Loch Mealt for the Kilt Rock and a roadside location at Dùn Dearg to see easily accessed Valtos Sandstone Formation strata of the Middle Jurassic Great Estuarine Group.

The Kilt Rock is located on the east coast of Trotternish, 3km (2 miles) south of Staffin on the Portree-Staffin (A855) road. There is ample parking at the viewpoint for the Kilt Rock on the east (seaward) side of the road. However, this is a popular tourist stop and, at times, can be very busy. With its east-facing cliffs, the Kilt Rock is best visited in the early morning with a low sun to illuminate the cliff face.

The cliff at Loch Mealt is vertical, with a *c.* 70m drop. Stay behind the barriers and well away from the cliff edge.

Figure North Skye 6.1: The Kilt Rock cliffs, Trotternish, with upper and lower sills indicated.



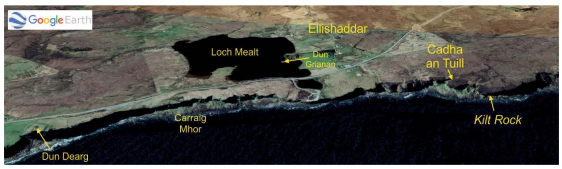


Figure North Skye 6.2: Annotated Google Earth® images for the area around the Kilt Rock, Trotternish.

Locality 1 [NG 5091 6554]:

The Kilt Rock viewpoint is a short distance south of the Mealt Waterfall, with a drop of *c.* 70m into the sea. At the waterfall, the cliff section is composed solely of a single sill. To the north, the section at the Kilt Rock has a dominant sill forming the upper half of the cliff face. Below is a sequence of well-stratified Middle Jurassic Valtos Sandstone Formation strata, *c.* 15m thick, below which is the upper part of another sill, very similar in character to the upper sill.

To the south, the cliffs of Carraig Mhòr, have similar relationships, although in this case the lower sill forms much of the middle portion of the cliff-face.

Figure North Skye 6.3: The Kilt Rock cliffs from Rubha nam Brathairean, viewed towards the NW.

Figure North Skye 6.4: Detail of the upper sill at the Kilt Rock, with well-developed prismatic joints, locally well enough developed to be regarded as columnar joints. Below are strata of the Middle Jurassic Valtos Sandstone Formation.

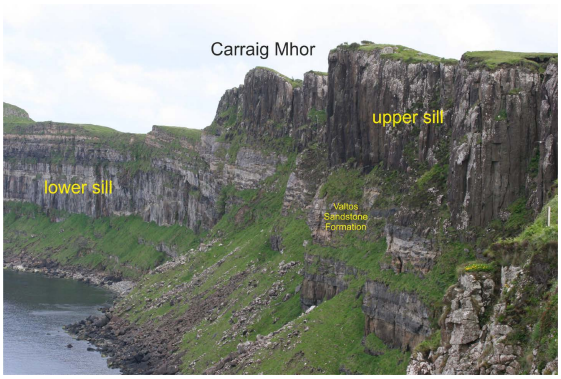


Figure North Skye 6.5: The coastal section SE from the Kilt Rock viewpoint. The upper sill forms the upper part of the section and is separated from the lower sill, which forms much of the cliff SE of Carraig Mhòr, by a considerable thickness of Valtos Sandstone Formation strata.

Proceed SE along the A855 road for *c.* 1km, to [NG 5115 6459], where there is roadside parking (on the NE side). Approximately 250m to the SE, along the road, at Dùn Dearg, there is an exposure of the Middle Jurassic Valtos Sandstone Formation, set back from the road on the NE side.

Locality 2 [NG 5136 6428]:

These pale, cross-stratified, deltaic sandstones contain concretions that have developed where bivalve shells were present. The cliff, below, is composed of a thick sequence of these strata, but (from here) not accessible. To examine this coastal section, the only feasible access to the coastline is a further *c.* 1km further SE, near to the settlement of Valtos (Bhaltos) and is not included in this excursion.

Figure North Skye 6.6: Inaccessible cliff composed of Valtos Sandstone Formation strata, SE of Carraig Mhòr. View is towards the south.

Figure North Skye 6.7: Pale, cross-stratified, deltaic sandstones of the Valtos Sandstone Formation at Dùn Dearg. Within the softer lower part of the section are carbonate concretions. Hammer *c.* 60cm long.

Figure North Skye 6.8: Pale, cross-stratified, deltaic sandstones of the Valtos Sandstone Formation at Dùn Dearg. Within the softer lower part of the section are carbonate concretions. Hammer *c.* 60cm long.

One of the features of the Valtos Sandstone Formation is the rare preservation of the casts of trackways of bipedal dinosaurs.

Figure North Skye 6.9: Information board about Middle Jurassic dinosaurs on Trotternish.

Figure North Skye 6.10: Cast of a footprint of a tridactyl (three-toed) bipedal (two-legged) dinosaur, possibly an herbivorous variety, in the Valtos Sandstone Formation. Part of a trackway on a sandstone bedding surface. Loose block. Ruler for scale.

Return to the parking area.

End of excursion.