# West Skye 7:

## Ramasaig, Duirinish



The west-facing cliffs between Ramasaig Cliff and Hoe Rape offer spectacular views of the stratified Paleocene basaltic lavas of the Ramasaig Group on Duirinish. A place for spectacular sunsets with a backdrop of South Uist, Benbecula and North Uist.

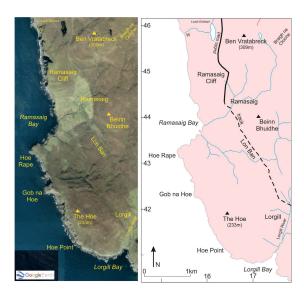
**Aspects covered:** Large-scale architecture of Paleocene basaltic plateau lavas viewed in coastal cliffs (no access); small-scale internal characteristics of the lavas; lateritised tops of lavas.

Route: Ramasaig Bay - Ramasaig Cliff.

Distance: 3km (2 miles).

Time: 2-3 hours.

General comments: Ramasaig is located on the far west side of Duirinish, 33 miles (53km) east of Portree, which involves a vehicle journey of at least 1 hour, possibly much more during busy tourist months. From Portree, take the Dunvegan (A87) road to Borve and then the Dunvegan (A850) road to Dunvegan. From Dunvegan, take the Glendale (Gleann Dail) (B884) road. Before proceeding to Ramasaig, continue to the end of the public road at Neist to obtain a southward view of the cliffs at Ramasaig.



**Figure West Skye 7.1:** Location map and annotated Google Earth® image of the area around Ramasaig.

From the end of the public road at <u>Neist</u>, there is a superb view SE across <u>Moonen Bay</u> towards the cliffs of <u>Waterstein Head</u> and <u>Ramasaig Cliff</u>, dominated by flatlying Paleocene plateau lavas. This coastal section cannot be safely accessed, therefore the main points made here are described such that they can be viewed from afar.

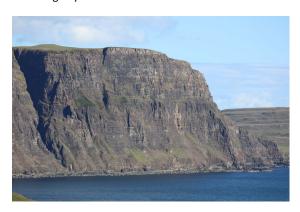
The section at the Ramasaig Cliff is the type-section for the formation of that name and is dominated by multi-layered ('thin-bedded') compound (pahoehoe) basaltic lavas (see below), together with some thicker simple (sheet) lavas (basaltic, although more evolved compositions are likely) with crudely developed prismatic joints. Many of the lavas have a distinctive orange-red lateritic top, formed by weathering during hiatuses in the volcanism. In the section through the lavas provided by these cliffs, there is a paucity of dykes of the regional swarm that would indicate the location of fissure feeder conduits.



**Figure West Skye 7.2:** Detail of Ramasaig Cliff, viewed towards the south



**Figure West Skye 7.3:** Ramasaig Cliff and, beyond, Ramasaig Bay. View towards the south from Neist.



**Figure West Skye 7.4:** Detail of Ramasaig Cliff. Excursion West Skye 7: Ramasaig, Duirinish



**Figure West Skye 7.5:** Hoe Rape, forming the low peninsula south of Ramasaig Bay, with, beyond, the cliffs of The Hoe.

Return to the <u>road junction</u> west of <u>Hamaraverin</u> at <u>ING</u> <u>1646 4913</u>] and then south along the minor (and, in places, very poorly surfaced) road for *c*. 6km to its end at <u>Ramasaig</u>. Parking is available, with care, at the end of the road.

From the parking area, head west over the open ground, on the north (right) side of the fence, as far as the cliff-parallel fence. Head SW to Ramasaig Bay.

### Locality 1 [NG 1597 4404]:

Although accessible with care, views of the Paleocene Ramasiag Formation volcanic sequence should be made from a safe distance, back from the cliff edge. The inland terraced character of the lavas can be seen in the area east of <a href="Hoe Rape">Hoe Rape</a>, south of <a href="Ramasaig Bay">Ramasaig Bay</a>, attributed to the more-resistant-to erosion central or core parts of individual lavas. Immediately to the south, the unnamed burn forms a spectacular waterfall, especially during rare periods of high rainfall.



**Figure West Skye 7.6:** Lava sequence in Ramasaig Bay and, to the south, Hoe Rape.



Figure West Skye 7.7: Waterfall where the unnamed burn enters Ramasaig Bay. Note weathered tops to (at least) two prismatic-jointed lavas on the nearside of the waterfall.



Figure West Skye 7.8: Raised beach platform of Ramasaig Bay, with terraced lavas on Beinn Buidhe and Ben Allarnish in the distance. In the past, the relatively fertile and free-draining beach platform was used for crop cultivation, using the so-called (misnamed) 'lazy bed' system, whereby soil was built up into ridges and augmented with seaweed to maximise growth potential.

Turning to the view to the north, the spectacular Ramasaig Cliff provides a complete section through the lowest part of the Ramasaig Formation.

### Locality 2 [NG 1591 4408]:

Much of the sequence is composed of simple prismaticjointed sheet lavas, some of which may be attributable to a single (protracted) eruption. In the middle of the cliff section, there is a 'thin-bedded' interval, typical of inflated pahoehoe lavas, whereby multiple subsurface injections of magma inflate the flow, maintaining magmatic temperatures and feeding magma to the flow front and enabling the propagation of the flow front.

Close to the top of the section, an obvious thick orangered laterite (bole, fossil soil) indicates a significant hiatus in the volcanism.



**Figure West Skye 7.9:** Ramasaig Cliff lava sequence, viewed towards the north. Waterstein Head in the distance.



**Figure West Skye 7.10:** Detail of the Ramasaig Cliff lava sequence, viewed towards the north. Note 'stratified' middle section of the profile.



Figure West Skye 7.11: Detail of 'stratified' lava, the product of multiple (subsurface) emplacement events as the lava developed (inflated) and magma was delivered to the flow front. The pale layers were originally vesiclerich (abundant gas cavities) and now contain strings of amygdales (hence paler appearance). Slight reddening at some horizons indicates exposure to (atmospheric) weathering, prior to the subsequent eruption event.

In the distance is Neist Point (Rubha na h-Eist), composed of one of the dolerite sills of the Paleocene Little Minch Sill Complex. The high point in the profile is An t-Aigeach ('The Stallion'), where the sill is locally thick. The lighthouse at the Point was designed by David Alan Stevenson and was first operational in 1909.



**Figure West Skye 7.12:** Neist Point (Rubha na h-Eist) and An t-Aigeach, formed of a dolerite sill of the Little Minch Sill Complex. View is towards the NW from Ramasaig Cliff.

Return to the road and go c. 2km to the north, where there is a loch, Loch Eishort, perched close to the cliffs. The outflow burn, Moonen Burn, gives rise to a waterfall on the sea cliffs to the west.



**Figure West Skye 7.13:** Loch Eishort, with small outflow burn, Moonen Burn, which gives rise to a waterfall on the sea cliffs to the west.

Walk west to the cliffs, south of where the Moonen Burn enters the sea.

#### Locality 3 [NG 1582 4503]:

The view north from close to the cliff edge reveals another spectacular section through the Ramasaig Formation lavas, with the bonus of a very fine waterfall. In the exposures on the nearside (south) of the waterfall are excellent examples of lateritised tops (boles, fossil soils) of lavas.



**Figure West Skye 7.14:** Cliffs north of Ramasaig Cliff, with waterfall where the Moonen Burn reaches the coast. Under good lighting conditions, weathered tops to some of the lavas are particularly obvious.

Return to the road.

End of excursion.