

SW Skye 3:

Talisker Bay



Talisker Bay (Norse: the house off/at the rock) is located on the western side of Minginish in west central Skye and is flanked by spectacular cliffs composed of Paleocene plateau lavas. Talisker House, built in the 1720s, was visited by Dr Samuel Johnson (he of the first English language dictionary) and Mr James Boswell (his biographer). Boswell comments:

“Talisker is a better place than one commonly finds in Sky. It is situated in a rich bottom. Before it is a wide expanse of sea, on each hand of which are immense rocks; and, at some distance to the sea, there are three columned rocks rising to sharp points. The billows break with prodigious force and noise on the coast of Talisker. There are here a good many well grown trees.”

Aspects covered: Large-scale architecture of Paleocene basaltic-mugearitic plateau lavas; small-scale internal characteristics of the lavas; lateritised tops of lavas; folded bands/banding within a mugearite lava; dykes of the Paleocene regional swarm; fault zones, with brecciated, sheared and veined basaltic rocks.

Route: [Talisker Farm](#) - [Talisker House](#) - [Leathad Beithe](#) – [An Stac \(south side of Talisker Bay\)](#) - (return [Talisker Farm](#)) - [Eas Mòr](#) - [Cnoc na h-Eighich](#) - [Sròn Mhòr](#) - [Sgùrr an Fheòir](#) - [McFarlane’s Rock](#) (- return [Talisker Farm](#)).

Distance: Part 1: 4 kilometres (return trip); Part 2: 6 kilometres (return trip).

Time: Part 1: 2/3 hours; Part 2: 3/4 hours.

General comments: Access is via [Gleann Oraid](#) and many of the key exposures are easily reached. The bay has a well-developed storm beach, behind which are raised marine deposits that extend inland for c. 1km. [Talisker Bay](#) sunsets are spectacular, fringed by the impressive lava cliffs.

Coastal exposures are involved and, therefore, low (preferably Spring) tide conditions are necessary.

The exposures on the south side of the bay are accessed across boulders exposed at low tide that can be very slippery, requiring great care. Furthermore, it is easy to misread the state of the tide for the return journey and so timing of visit requires attention.

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](#), towards [Carbost](#). Continue west, bypassing [Carbost](#) by using the [high road](#), to the [Talisker junction](#) and continue along [Gleann Oraid](#) to the end of the public road at [Talisker Farm](#).

Limited parking is available near to the end of the public road. Parking should not block access to the farm or be a hindrance to farm vehicles. The path to the south side of the bay is located behind [Talisker House](#) and visitors should be sensitive towards the privacy of the residents. The track to the north side of the bay should be treated similarly.

From the end of the public road, follow the track SW, passing behind the grounds of [Talisker House](#). The track continues over a [footbridge that crosses the Sleadale Burn](#) and below the crags of [Leathad Beithe](#). The formal track ends at the southern limit of the present-day storm beach of the bay. From here, access to the rock pinnacle of [An Stac](#) at [Talisker Point](#) on the south side of the bay and the adjacent sea cliffs.

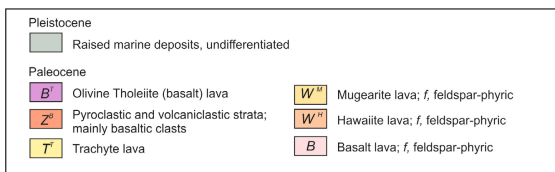
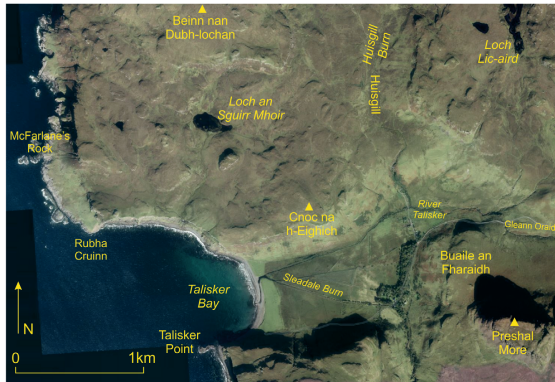
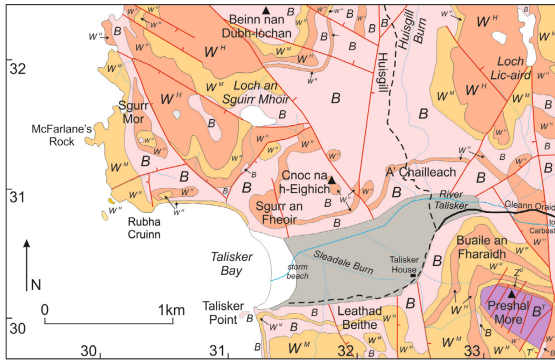


Figure SW Skye 3.1: Simplified geological map and annotated Google Earth® image of the Talisker Bay area.

The Paleocene volcanic sequence at [Talisker Bay](#) comprises the Glen Caladale Formation to the south and the Fiskavaig Formation to the north. The large-scale architecture of the lavas is revealed on the northern cliff section and smaller-scale features of the lavas are illustrated well at several locations on both sides of the bay. At [McFarlane's Rock](#), north of the Bay, spectacular banding within a thick mugearite lava is revealed on coastal exposures.



Figure SW Skye 3.2: Talisker Bay, viewed towards the west from the summit of Preshal More. Talisker Bay has

a well-developed storm beach, behind which (landward of) is a raised beach, as far east as Talisker House. This area of coastal deposits has, in the past, been cultivated, but is now redundant. In the distance is South Uist of the Outer Hebrides.



Figure SW Skye 3.3: Talisker Point from the north side of Talisker Bay. The sea stack, cut off at high tide, is commonly referred to as An Stac [[Locality 1](#)]. To the left, the crags of Leathad Beithe are typical of the terraced topography of the lava field. Talisker Bay is backed by a storm beach, behind which are vegetated raised marine deposits.



Figure SW Skye 3.4: Detail of Talisker point and the crags of Leathad Beithe from the north side of Talisker Bay. The uppermost part of these crags is a remnant of a prismatic-jointed mugearite lava. To the west (right) is the sea stack, An Stac.

Locality 1 [[NG 3111 2997](#)]:

[An Stac](#) and the adjacent coastal cliffs of [Talisker Point](#) have excellent exposures of typical Paleocene subaerial lavas (of the Glen Caladale Formation). It is best and suggested to restrict observations to the sea stack, where a more three-dimensional perspective is available.



Figure SW Skye 3.5: The east face (landward side) of An Stac. Height of the main face is c. 18m, with a further c. 5m for the central top. Detailed observations are restricted to the lowest part of the main face and the lowest part of main face at the level of the platform on the south (left) side of the sea stack. The most conspicuous feature of this face of basaltic lava(s) is the distinctive red-orange-brown layers, which are rubbly top facies. The four coloured layers suggest four discrete lavas: however, more detailed examination suggests that this interpretation is not correct (see figures below). A brown-weathering, jointed, basaltic inclined sheet cuts the sequence on the north (right) side of the face. Iain Allison for scale.



Figure SW Skye 3.6: Inclined intrusive sheet, most obvious where in contact with reddened rubbly (lava) top facies on the main east (landward) side of An Stac.



Figure SW Skye 3.7: East (left) side of An Stac with thin sheet facies of pahoehoe lava at the accessible base of crag; a thicker sheet forms the top of the crag, above and below which are intervals of similar reddened, brecciated
Excursion SW Skye 3: Talisker Bay

lava. The material above this sheet can be reached via the SW side of An Stac, where its step-like profile enables access.



Figure SW Skye 3.8: South side of An Stac, with: thin sheet facies of pahoehoe lava at the accessible base of crag; a thicker sheet forms the top of the crag, above and below which are intervals of reddened, brecciated lava.



Figure SW Skye 3.9: South (left) side of An Stac with thin sheet facies of pahoehoe lava. Pole c. 1m long.



Figure SW Skye 3.10: Detail of sheet facies on the east face of An Stac. Note: sharp sheet-sheet contacts whereby the order of development can be determined; amygdale-rich intervals parallel to the margins of individual sheets; minor reddening of fine-grained margins of sheets. Pole c. 1m long.



Figure SW Skye 3.11: Detail of banded lava facies on the east face of An Stac. Note: sharp sheet-sheet contacts whereby the order of development can be determined; amygdale-rich intervals parallel to the margins of individual sheets; minor reddening of fine-grained margins of sheets. Pole c. 1m long.



Figure SW Skye 3.12: Pahoehoe (compound) lava (Hawai'i; USGS public domain) during its growth, with countless thin, irregular, sheet-like lobes with complex geometries, including the formation of voids and ropy upper surfaces. Typically, recognisable, and preservable sheet-sheet contacts form, with individual sheets commonly being vesicular (and amygdaloidal after burial and the ingress of mineral-rich heated groundwater through the lava sequence).

Access, with care, the low platform on the south side of [An Stac](#) via the SW side.



Figure SW Skye 3.13: The reddened brecciated lava facies at the top of the platform on the south side of An Stac. Pole c. 1m long.



Figure SW Skye 3.14: Detail of the reddened brecciated lava facies at the top of the platform on the south side of An Stac, with angular fragments of amygdaloidal basalt, some over 10cm across. The reddening is particularly well developed in the finer-grained material. Coin c. 24mm across.



Figure SW Skye 3.15: Invasive lobe (centre right) of basalt into reddened brecciated lava facies, indicating that the lava has developed by multiple 'injection' or 'intrusion' events and that each layer of reddened brecciated lava seen in section view need not necessarily indicate the top of a lava formed by a discrete eruption event. Pole c. 1m long.



Figure SW Skye 3.16: Large gas cavities partially filled with hydrothermal minerals. The left-hand cavity is coated by prismatic crystals and the right-hand by delicate acicular crystals. Both minerals are members of the zeolite family. Coin c. 24mm across.

Return to the [storm beach](#) in [Talisker Bay](#) and thence to the [parking area](#). From here, head north along the track past [Talisker Farm](#) to the [zig-zag path](#) up to the [Eas Mòr waterfall](#). Having gained height, continue SW above the crags of [Sròn Mhòr](#) to where the vertical cliffs on the north side of [Talisker Bay](#) can be viewed safely, well back from the cliff face.

Locality 2 [\[NG 3125 3073\]](#):

Due to the poor exposure of the scree-covered base of the cliffs on the north side of [Talisker Bay](#), it is best that they are used to get a more general view of the architecture of the lava field. These lavas are attributed to the Fiskavaig Formation and show many features in common with those at [An Stac](#). In addition, there are thicker, simpler, sheet lavas of more evolved composition, hawaiite and mugearite. These lavas are typically prismatic-jointed and have reddened tops. A particularly conspicuous example occurs at sea-level at the west end of the cliff, [Rubha Cruinn](#).



Figure SW Skye 3.17: General view of the cliffs on the north side of Talisker Bay. View is towards the west to the point of Rubha Cruinn. Height of cliff is c. 120m.



Figure SW Skye 3.18: Detail of the cliffs at Rubha Cruinn on the north side of Talisker Bay. View is towards the west. The thick mugearite lava at sea-level has a conspicuous reddened top. Height of cliff is c. 120m.

Locality 3 [\[NG 3101 3087\]](#):

The upper part of the lava sequence in the cliffs on the north side of Talisker Bay [west of the Allt Mheididh](#) is dominated by pahoehoe sheet facies. Although not accessible, a conspicuous normal fault can be identified, with an obvious displacement, revealed by a distinctive pale grey, bedded (arenaceous) sedimentary bed within the sequence, indicating an (apparent) downthrow to the east.



Figure SW Skye 3.19: Cliffs on the north side of Talisker Bay, west of the Allt Mheididh waterfall, composed of stratified compound lava(s). Above the middle of the

section is a grey-weathered, stratified arenaceous sedimentary unit, cut out to the right by a steeply inclined fault with a relatively small displacement (downthrow to the right).



Figure SW Skye 3.20: Detail of cliffs on the north side of Talisker Bay, west of the Allt Mheididh waterfall, composed of stratified compound lava(s) with reddened tops (R). The grey-weathered, stratified arenaceous sedimentary unit (S) is cut out to the right (east) by a steeply inclined normal fault (F) with a relatively small displacement (downthrow to the right/east).



Figure SW Skye 3.21: Detail of the grey-weathered, stratified arenaceous sedimentary unit (S), cut out to the right by a steeply inclined normal fault (F).

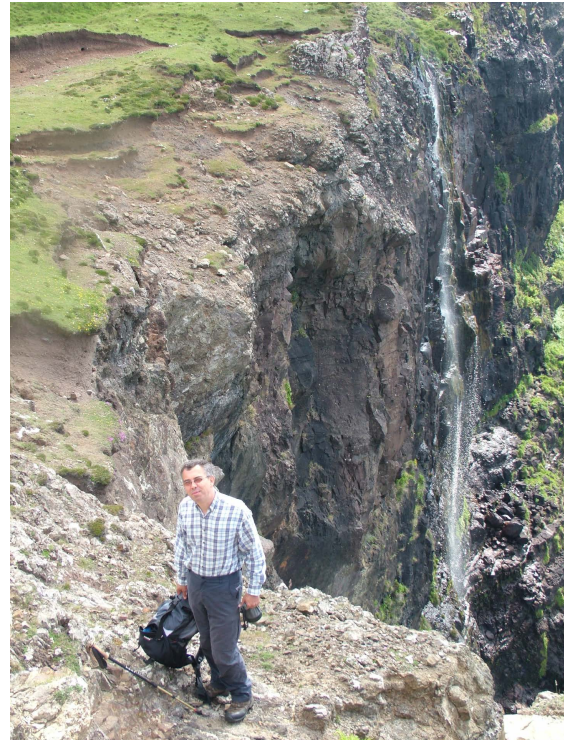


Figure SW Skye 3.22: Lava section west of the Allt Mheididh waterfall, composed of stratified compound lavas, some with weathered (reddened) tops. The white-weathered rock in the foreground is mineralised fault breccia. Author for scale.



Figure SW Skye 3.23: Lava section west of the Allt Mheididh waterfall, composed of stratified compound lava(s), some with weathered (reddened) tops. The white-weathered rock in the foreground is mineralised fault breccia. View is towards the west. Author for scale.



Figure SW Skye 3.24: Detail of mineralised fault breccia, with angular fragments of lava in a complex matrix of comminuted basalt and hydrothermal minerals, mainly calcite and zeolites. Pole c. 1m long.

Continue west along the cliff top and then north towards the crags of [Sgùrr Mòr](#). Access to the coastal section at [McFarlane's Rock](#) is via a grassy slope before reaching [Sgùrr Mòr](#).

Locality 4 [NG 3016 3109] – [NG 3020 3157]:

(Flow-) banding within the McFarlane's Rock mugearite lava (McFarlane's Rock Member of the Fiskavaig Formation) has developed to an exceptional level.

Fabrics of this type in volcanic rocks typically develop in more evolved lavas; on Skye the progression of increased development of fabric is from hawaiite, through mugearite and benmoreite, to trachyte. The extent of development of this fabric/foliation/fissility is a useful field recognition indicator of lava type.

Such fabrics are attributed to the deformation of relatively high viscosity evolved magmas and their further increase in viscosity as they crystallise. As flow of the magma occurs, its crystallising minerals, in particular plagioclase, both groundmass and microphenocryst types, align parallel to the flow direction. Where flow (and deformation) is complex, folds can form. Elongated vesicles can also partially define the fabric in lavas. The overall mineral fabric is typically oriented parallel to the base of the lava.



Figure SW Skye 3.25: (Flow-) banded mugearite lava at McFarlane's Rock on the north side of Talisker Bay. In the distance are the lava crags of Leathad Beithe. Ian Williamson for scale.



Figure SW Skye 3.26: (Flow-) banded mugearite lava at McFarlane's Rock on the north side of Talisker Bay. Ruler 30cm long.



Figure SW Skye 3.27: (Flow-) banded mugearite lava at McFarlane's Rock on the north side of Talisker Bay. Pole c. 1m long.



Figure SW Skye 3.28: (Flow-) banded mugearite lava at McFarlane's Rock on the north side of Talisker Bay. Pole c. 1m long.



Figure SW Skye 3.29: Contorted (flow-) bands in the mugearite lava at McFarlane's Rock on the north side of Talisker Bay. Ruler 30cm long.



Figure SW Skye 3.30: Contorted (flow-) bands in the mugearite lava at McFarlane's Rock on the north side of Talisker Bay. Ruler 30cm long.

Return to the [parking area](#) at the end of the public road at Talisker.

Two additional near-to-roadside stops are available:

Locality 5: A mugearite lava overlying a shale at the [waterfall on the Carbost Burn](#), immediately north of the minor road that bypasses (to the south) [Carbost](#);

Locality 6: A trachyte lava forming the twin-summit hill of [Cnoc Scarall](#) on the east side of [Glen Eynort](#), c. 2km (1.5 miles) south of the [Talisker road turn-off](#).

Locality 5 [NG 3734 3100]:

The [Carbost Burn waterfall](#) comprises a prismatic-jointed mugearite lava overlying shale of the Eynort Mudstone Formation at the boundary between the Skridan Member of the Glen Caladale Formation and the overlying Arnavaal Member of the Gleann Oraid Formation.



Figure SW Skye 3.31: Prismatic-jointed mugearite lava forming the waterfall in the Carbost Burn, south of Carbost, overlying shale of the Eynort Mudstone Formation (forming the ledge above the final drop of the waterfall). View is towards the south. Telephone pole for scale.



Figure SW Skye 3.32: Detail of the brown-weathering laminated Eynort Mudstone Formation, overlain by a prismatic-jointed mugearite lava, on the west side of the Carbost Burn. Hammer c. 60cm long.

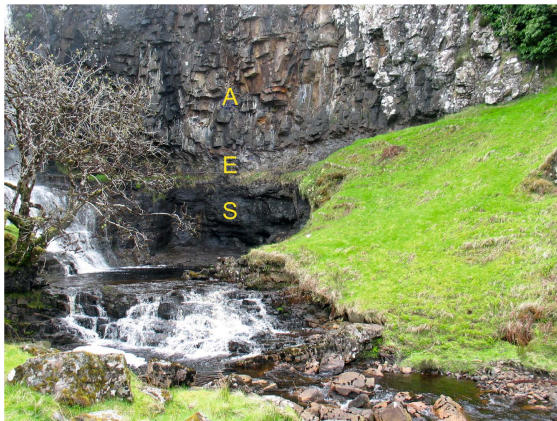


Figure SW Skye 3.33: The lower part of the volcanic sequence at the waterfall in the Carbost Burn. The sequence, from base to top, is: a basaltic lava of the Skridan Member (S) of the Glen Caladale Formation; the Eynort Mudstone Formation (E); and, a prismatic-jointed mugearite lava of the Arnaval Member (A) of the Gleann Oraid Formation. View is towards the south.

Locality 6 [\[NG 3893 2843\]](#):

The twin summits of [Cnoc Scarall](#) are composed of a pale alkali feldspar porphyritic trachyte lava of the Cnoc Scarall Member of the Gleann Oraid Formation. This terraced, eroded remnant is several tens of metres thick and has a steeply inclined banding/foliation. The lava was impounded within a broad palaeo-valley carved out of the subjacent Skridan Member of the Glen Caladale Formation. Fresh samples are very hard and produce a distinctive 'ringing' upon hammering.



Figure SW Skye 3.34: Cnoc Scarall, composed of a sheet-like lava of trachyte of the Cnoc Scarall Member (Gleann Oraid Formation), viewed towards the NE.

End of excursion.