

Trail 4: Sobul and Watlee Burn

This trail takes you to the gabbro, which formed at the top of the ancient magma chamber, then back deeper down towards the base of the ophiolite, to the collision zone where the ocean crust meets the continent. The photograph 'Looking east across the ophiolite' on the Introduction card will help you.

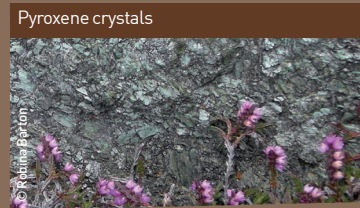
Climbing from the road (1) past the sheep pen (2) you are crossing the middle layers of the magma chamber. The rocks - dunite, wehrlite and pyroxenite - are made of olivine and pyroxene in varying amounts.

Near the ruined stone building (3) the rocks change, as you can see in the large stone marked by a post. It contains swirls of a white mineral - plagioclase - that does not occur in the lower levels. You have entered the uppermost layer - the gabbro.



Rock with plagioclase

Looking back the way you came you can see across the width of the ophiolite to the collision zone and continental rocks beyond. As you walk back down, veering north via the marker, take a closer look at the rocks beneath your feet. Can you see plagioclase? If you can you're going the wrong way!



Pyroxene crystals

You should, however, recognize pyroxenite in places (4) by the greenish pyroxene crystals that are clearly exposed.

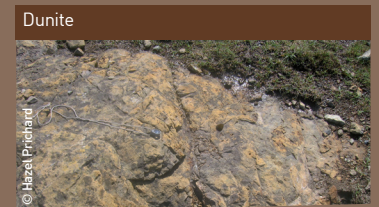
Eventually the pyroxene crystals disappear as you pass through wehrlite and into dunite. The wehrlite is knobbly, with layers containing varying amounts of green-brown pyroxene. The dunite, formed of olivine is orange-brown and has a smoother surface.



Wehrlite

Back at the road head north (5) and then down the Burn of Watlee. You will notice that the rocks along the burn become increasingly stressed, crushed and deformed (6) as you move downstream. The stressed rock is serpentinite - harzburgite or dunite that has been metamorphosed (changed). You are nearly at the point of contact where ophiolite meets continent (7). Close to the contact you will find a dark green rock with white stripes.

This is amphibolite - rock that has been altered by intense heat as the ophiolite was thrust over it. Amphibolite is missing from the Norwick contact (see trail 1) because some of the rocks there were lost due to earth movements after the ophiolite was emplaced. Returning to the road you can visit Heilia Brune (8). According to legend an early Christian missionary was murdered near Watlee. His final prayer was that, since he had failed to help the heathens whilst alive, he might prove of service in death. A healing spring burst forth which has never been known to fail. For a cure you must bring three pebbles from your home area and lay them beside the well.



Dunite



Directions from Hagdale

Allow 3 hours

By car / bike: Turn left onto the main road. Follow the A968 south and park at the end of the track just south of the loch (1). Walk up the track to the sheep pens (2). Continue past the chromite pits to the ruined stone building on the hillside. You will see a marker post nearby (3). Descend the hill heading northwest towards the next marker post (4), then return to the road and drive north. Park beside the roadside (5) and walk down the Watlee Burn (6&7). A marker post shows the point of contact (7). Cross the fence to the south and head back to the road, veering south east to pass the well of Heilia Brune (8).

Interpretation

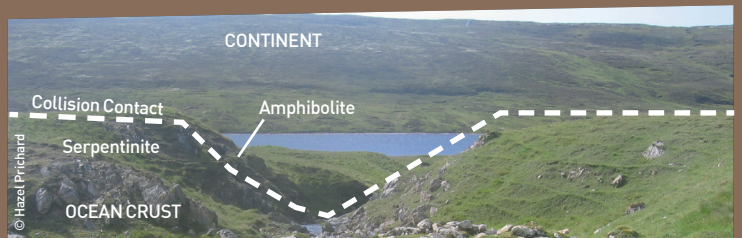
- Marker posts at key sites.

Access

- Route includes a steady climb from the road to the top of the valley.
- Avoid chromite pits close to sheep pen; they are unfenced and deep.
- Ground is uneven, steep and sometimes slippery beside Watlee Burn.
- Route includes a number of two step stiles.

Facilities

Available in Uyeasound.



Contact between oceanic crust and continent at Watlee