

Porth Trecastell to Rhosneigr



This trail is dedicated to Paul Gasson, GeoMon's chairman who recently lost his fight with cancer. This is one of Paul's favourite walks. Dr John Conway (GeoMôn Geopark)

Pictures: J. Conway, unless stated otherwise

Length: 4 miles
Time: 2 hours
Difficulty: easy, mostly level, shore can be wet and slippery
Start/parking: beach car park at Porth Trecastell

Starting point: This is a circular walk that can be started from any parking area but I choose to describe it from the Porth Trecastell end. Take the coastal path on the north side of the bay towards Barclodiad y Gawres 1 where some say there is a powerful ley line; however if you look carefully on the cliff below there is a large dolerite dyke which we shall follow to the far end of Porth Nobla. This dyke is easily recognisable as a vertical wall of smooth dark grey [weathering brownish] rock very different from the rough or jagged greenish rocks surrounding it. It was intruded into the surrounding rocks as molten liquid. Dolerite is an iron rich rock and explains the magnetic force experience by the burial chamber.

Follow the footpath right around the headland just before you come to the field boundary 2, when you are directly between the burial chamber behind you and the seaward end of the rocky island in front, look down on the foreshore and see the dyke emerging from the cliffs and trending across the foreshore which is composed of finely banded and contorted green schists, metamorphic rocks.

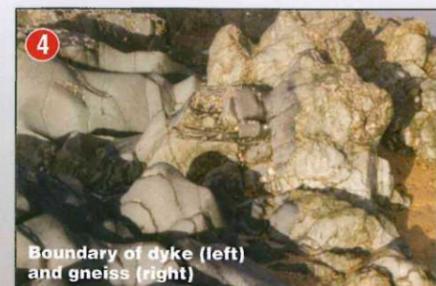
Carry on along the path onto the shore, turn left for a few paces to see a large boulder 3



2 sitting in the glacial deposits; this is picrite, a very unusual igneous rock found in just a couple of places on Anglesey. This boulder has been carried here by glaciers.

Cross the sandy bay until you come to the rocky islands; under the cliff 4 you see a pale grey rock with slight colour banding and coarser contortions that we saw in the schists on the headland, this is gneiss, a higher grade

metamorphic rock. Walk out to the rocky island where the first rock you see is the dyke again, roughly about 3 metres wide and if you stand at its margins you can clearly see where it meets the surrounding rock. There are a few pinkish boulders and possibly you may convince yourself that it looks like granite - this is the south western extremity of the Coedana granite.



3 Picrite boulder in glacial sediments

4 Boundary of dyke (left) and gneiss (right)



The next low headland shows a glacially eroded surface 5, the [relatively] smooth rock surface ground down by the passage of ice, on top sits a rapidly disappearing lump of boulder clay. The sediments in the cliff to the right show some interesting soil features, including several attempts at soil formation, the oldest in the boulder clay, now buried by more recently deposited wind blown sand.

Cross the broad beach towards Lion Rock and then past the cottages where you'll find lots of pebbles of this granite - on weathered surfaces it does look like granite but on broken surfaces it is greenish and looks much more like a very high-grade metamorphic rock.

Passing the last house, 6 again you will see that the rocks are rounded, smooth and dark grey - again the dolerite dyke; looking back



5 River and delta features on beach

you can see how it has trended across the shore from the burial chamber.

Broad Beach - a huge expanse of sand which some geologists may think is boring and devoid of any features but if you cross at low tide and you keep right down by the water you can quite often find some interesting remains of sea urchins and crabs which live below the low tide mark. There are also features of erosion if you follow any of the streams running down the beach. As you approach the river it's safest to go up to the small footbridge but if it's a relatively dry time you can you can often wade without getting too wet.

Carry on to the headland 7 where the rocks are completely different from the ancient



6 Glacial eroded surface and boulder clay



7 Contorted sandstone in slates



8 Conglomerate

metamorphic rocks seen previously. These look almost like stacks of black slates packed standing vertically. They are Ordovician in age and sedimentary in origin, very fine mud compressed to shale and then slightly metamorphosed. The original bedding can be seen by the sandstone layers (2 to 6 inches thick) - paler grey or yellowish grey colour which whilst generally following the vertical structure of the slates are highly contorted which show just how much the original bedding has been distorted and that the vertical structure is really cleavage (a metamorphic structure and not the sedimentary bedding).

The small islands 8 are conglomerates (sedimentary rocks made of pebbles) and contain a wide variety of fragments which

show the rocks exposed and being eroded at the time - enabling geologists to work out the 'geography' 400 million years ago!

There are many routes back to the starting point, retrace your steps across the shore, or visit the cafes in Rhosneigr, or extend your walk around Llyn Maelog or make your way back across the sand dunes.

More details can be found in publications by John Conway available from GeoMon www.geomon.co.uk

