

6 May 2017

## Skrinkle Haven and Manorbier

The second day of the trip started at 9.30 when the group boarded the coach with our leader Dr Gareth George. Gareth is a retired geologist and he proved to be cheerful and very knowledgeable; he has worked in the area and has published a field guide to the geology of South Wales. We were driven to a car park adjacent to Manorbier Military Camp and then walked across to cliffs above Skrinkle Haven. The weather was overcast but dry. The bay is divided into three by two ridges going into the sea; Church Doors and Horseback. The rocks were originally horizontal but became stacked in vertical layers after earth movements. The beach was reached by descending a steep, lengthy (140!) series of stone and metal steps.



SKRINKLE HAVEN SHOWING BEACH AND STEPS

The geology mainly comprises Skrinkle Sandstone Group (86-330m) and its transitional contact with Lower Limestone Shales. It dates from the late-Devonian to early- Carboniferous periods and is a very good fossil locality. Both marine fossils and fish beds can be found here. The Horseback ridge is Black Rock Limestone and contains an impressive natural arch in the cliff at the eastern side.



HORSEBACK NATURAL ARCH

The group re-ascended the steps and walked along the cliffs to the Lydstep Peninsula. The weather had now changed and was warm with some sunshine. The coastline here comprises indented bays of east-west striking Carboniferous Limestone, discontinuous drifts and Triassic gash breccia.



VIEW TOWARDS LYDSTEP PENINSULA

The group then re-joined the coach and were driven to Manorbier. Some members were dropped off at the Castle Inn for lunch (food and/or liquid!). Others went on to the beach car park, where an ice cream van did a good trade as temperatures went higher. The group re-convened and walked down to the beach to examine the Lower Freshwater West Formation. Row upon row of vertically aligned rock stretch across the bay.



### WAVE-CUT ROCKS; MANORBIER BEACH

Each is the result of depositing sediments @410 million years ago and are made from clastic sediments and particles can vary in size from silt to boulders. The sediment size is dependent on the speed and volume of the water carrying the clasts. The greater the speed and volume the larger the clast size can be transported, but these are deposited sooner than the finer particles.

The group then walked eastward on the cliff path to the landmark of the Kings Quoit Cromlech, a small Neolithic chambered tomb built of local red sandstone.