

Moorwood Geological Trail

The Geological Trail starts at Hartshill Hayes Country Park, which is owned and maintained by Warwickshire County Council. From the car park, head towards the far corner, opposite the adventure playground. Follow the path into the woods, and then out towards the meadow along the embankment of the covered reservoir. Continue along the path until you reach (1)

1) Viewpoint

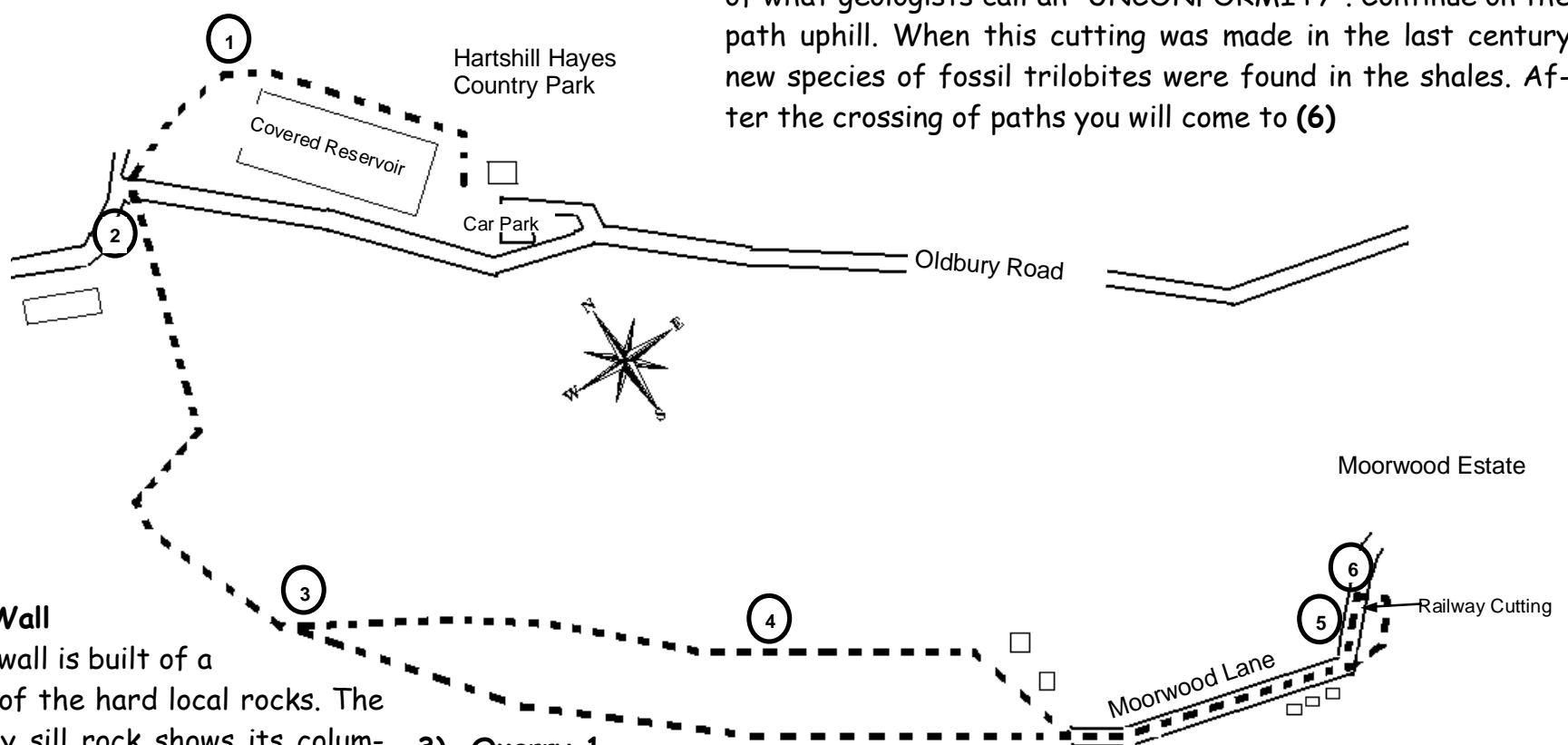
You are now standing on the ridge of older, harder rocks which protrude through the softer younger rocks of the plain. To the north-east the even older rocks of Charnwood Forest are visible in good weather. The ridge structure runs roughly NW-SE with the rocks tilting down to the SW at an angle of 30 - 35 degrees. On the ridge itself the harder sill rocks have resisted the effects of weathering more than the relatively softer shales to give the hillside its stepped appearance.

4) Quarry 2

Quarrying of sill rock has formed this large trench. The vertical face here is protected from the weather by over-hanging trees. It shows the direction in which the sill is running (the STRIKE) and the angle at which the shales and the sill are tilted (the DIP). You can also see the way in which the sill rock has cracked to form roughly hexagonal columns.

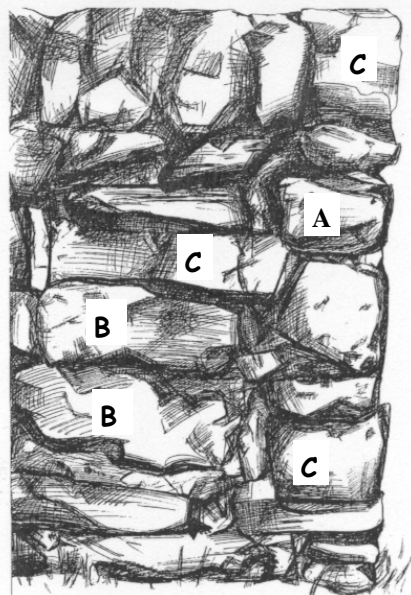
5) Railway Cutting RIGS site

Here you can stand with one foot placed on rocks two hundred million (200, 000,000) years older than those below your other foot. How's that for "time travel"? This is an example of what geologists call an "UNCONFORMITY". Continue on the path uphill. When this cutting was made in the last century new species of fossil trilobites were found in the shales. After the crossing of paths you will come to (6)



2) The Wall

This old wall is built of a mixture of the hard local rocks. The dark grey sill rock shows its columnar shape and "onion skin" weathering; the Hartshill sandstone blocks have sharp angular edges whereas the Coal Measure sandstone is much yellower in colour and softer in texture so that it tends to crumble



Key

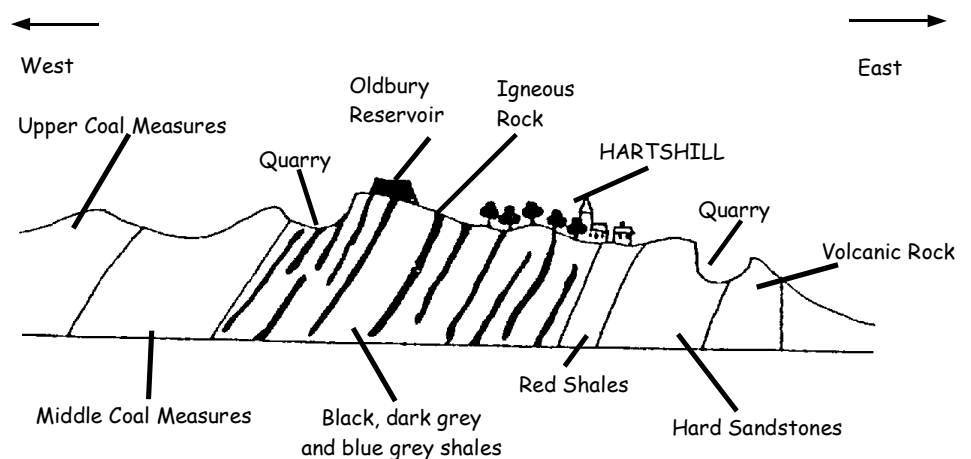
- A Onion skin weathering
- B Coal Measure Sandstone
- C Hartshill Sandstone

3) Quarry 1

This is where the farm owner has been taking some rock to repair the tracks on the farm. Fossil trilobites, which lived in the seas some 560 million years ago, have been found in these rocks. The parallel tilted layers of rock have been much contorted by earth movements and shattered by freezing and thawing during the last ice age.

6) Sill Exposure

Here you can see one of the intruded sills in plan view. You are looking at the top surface of the rock, which was revealed when this railway cutting was excavated about 100 years ago. Low down on the right you can see how the heat from the molten rock has baked the underlying shale



Sectional model of area showing tilted strata [Above]

Later, in geological times, earth movements tilted all the rocks with the harder layers forming the ridges which poke through a plain of softer, younger rocks.

RIGS site:

A RIGS site is a Regionally Important Geological Site and is afforded the same protection as a SSSI (Site of Special Scientific Interest). For a site to be awarded a RIGS, it would need to be of important geological significance.

Unconformity

An unconformity is a line where two differing aged rock strata meet.