

MGA / GeoLancashire joint field excursion.

31st March 2019 - 10.30am at 'Cowm Water Ski Centre', off Tong Lane, Whitworth, OL12 8BE (modest parking fee)

Thurns Head quarry, Whitworth (near Bacup, Lancs.), water ski centre car park at SD882188 (leader Arthur Baldwin)

Thurns Head quarry is in Namurian sandstones with mudstones. Spectacular examples of the non-marine bivalve trace fossil, *Lockeia isp.*, are abundant. Escape shafts of this bivalve were not found on the recce, so the challenge for the day will be to find an example. An exposure in an old quarry face contains loading structures about a metre across where, at the time of deposition, incoming sand has deformed soft mud beneath.

There is plenty of evidence of the industrial history of the site. Part of the route is up an impressive inclined stone trackway with setts in the centre and metre long flat stones for tracks either side. The long stones have grooves worn into them from long use by quarrymen, perhaps using sleds to transport stone more than a hundred years ago.

The walking distance is about 3km over moorland paths. The stone trackway is potentially slippery in wet weather.

Healey Dell Nature Reserve, car park at SD879164 (leader Ron Powell).

The River Spodden flows through Healey Dell nature reserve, in part through a narrow gorge with waterfalls. Ferns and other damp and shade loving flora abound. There is abundant evidence of the early woollen industry, including a waterwheel pit for a fulling mill. There are also the remains of a paving slab 'stone rubbing mill', used to smooth ripple marked stone flags. An adit, likely the site of mediaeval siderite mining, can be seen in a mudrock cliff by the side of the river. The reasons for the formation of siderite will be discussed.

Two faults, one at either end of the reserve, bring the older Upper Namurian, Rough Rock, into juxtaposition with the younger Westphalian, Lower Coal Measures. The more southerly fault is visible in the gorge. In the river bed are nice examples of potholes, formed when water born small pebbles and sediment swirl to erode flask shaped holes in the bedrock. There is also a variety of sedimentary structures in the cliffs on the side of the gorge, where the Rough Rock is well exposed.

The walking distance is up to about 4km, mostly on excellent tracks and paths. In one location the riverside path is rather narrow and potentially slippery in the wet. For those who do not feel confident about it there is an alternative route. The main route continues along the side of a leat to a mill lodge. The café and associated small visitor centre are not far from the lodge. Return will be via the railway track over the gorge and thence to the carpark. For those who wish to visit the café later in the day, there is parking available, see second website.

<https://www.woodlandtrust.org.uk/visiting-woods/wood/10383/healey-dell-nature-reserve/>

<http://www.visitrochdale.com/rochdale-all/where-to-go/healey-dell-nature-reserve-and-tea-rooms-p85871>

Logistics

Bring a packed lunch. We will a suitable place for lunch at Healey Dell. There are no toilet facilities at either Thurns Head quarry or Healey Dell nature reserve. For those who want a café and facilities, it should be possible to find some sort of hostelry on the short drive between the two locations or in nearby Bacup or in the outskirts of Rochdale. There are some cafes advertised on the internet.

Safety

A risk assessment will be available on the day. Apart from what has been mentioned above the hazards are only what one would expect on a country walk. Healey Dell is a lovely place for a stroll, regardless of the geology. It is popular with dog walkers. We have seen dog walkers at Thurns Head too but there are sheep, so dogs would have to be kept on leads. It is strongly recommended that walking boots are worn.

Peter del Strother

If you have questions, please email secretary@geolancashire.org.uk