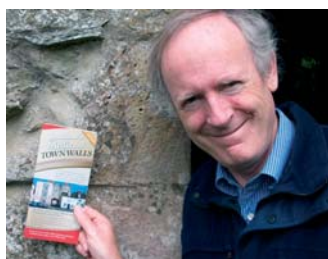


TEME BANK TRAIL TAKE A WALK THROUGH LUDLOW'S SILURIAN GEOLOGY



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There are eight stops on this walk which allow you to examine the famous rocks along the banks of the River Teme.

This walk will take around 1 hour to complete. The paths are generally good but the ground is uneven in places with some steep slopes and steps in others. You should always wear appropriate footwear and watch out for slippery surfaces especially after rain.

Start your walk in front of and facing the gates of Ludlow Castle, SO 510 746 and follow the path to the right.

Background

Although most key geological exposures are still known, many are in a state of decay or overgrown, and few have any readily accessible description as a guide to their intrinsic interest or indeed their value.

Shropshire has a higher than average number of such important exposures: the result of an accident of geological evolution which has seen this region located on the edges of continents as they have evolved.

The development of a trail along the banks of the local river: the Teme, uses a dozen exposures illustrating not only the local rocks and fossils but also an anticline: a broad up-fold of rocks which causes the sequence to be repeated and thereby illustrate some of the basic principles of geological science.

This has been achieved by a partnership between local government through the Museum Service and volunteers from the Shropshire Geological Society and the Shropshire Wildlife Trust, experts in their own scientific disciplines.



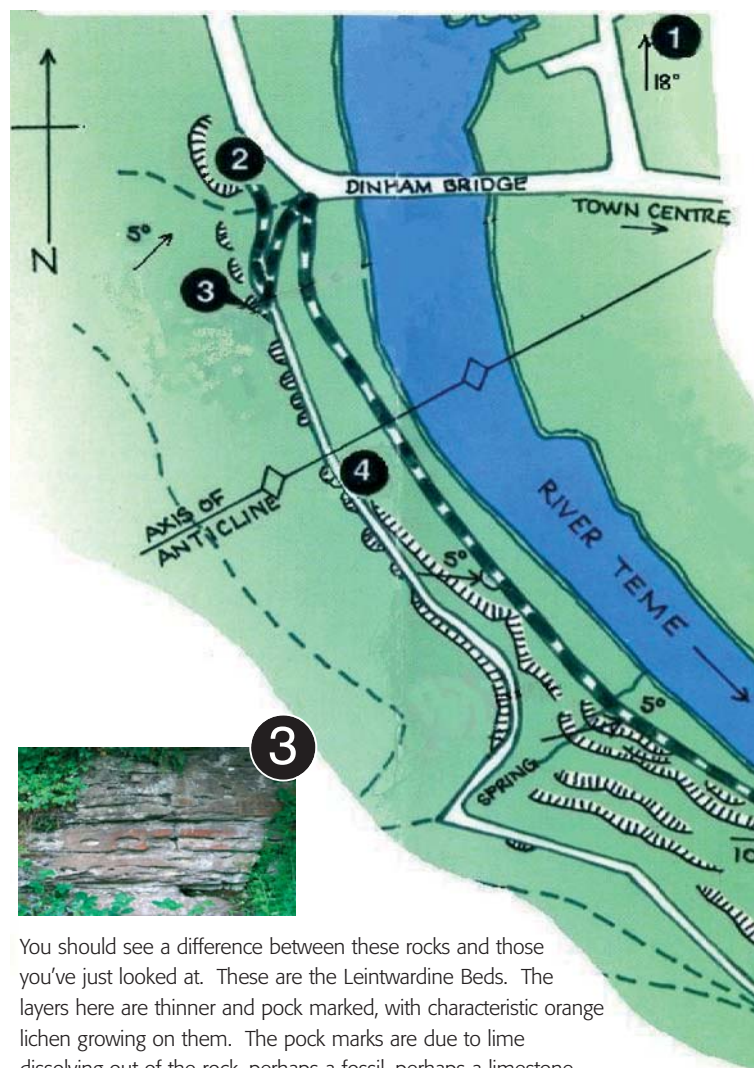
1 Follow the path past the castle until you reach a bench on the left hand side beside a large yew tree SO 508 747. Here, beneath the castle this tiny exposure of rock sets the scene for what you will see on the rest of this walk. The castle stands overlooking the town and countryside, resting on a plinth of rock, the same rock that much of the town is built of. It is hard to believe that these rocks were made beneath a warm shallow sea that was teeming with life, when Ludlow was south of the Equator some 419 million years ago. Now continue down the path and join the tarmac path on the right which joins the road by Dinham Bridge. Cross the bridge to reach stop 2.



2

Beside a picnic table you'll find an information board facing toward the river, SO 506 745. Behind this you'll see a quarried rock face. Stand back a little and look at these rocks. You should be able to see that the layers or beds in the rock are tilting at an angle. These rocks are made of lime-rich silt and as the lime has leached out of the rocks it has formed a white crust on the surface that gives the area its name, Whitcliffe or White Cliff. Indeed these rocks are called the Whitcliffe Beds.

Before you move onto stop 3, make sure you remember which direction these beds are dipping! Stop 3 is just a few yards up the path which slopes up from the river, and is beside another bench at SO 506 744.



3

You should see a difference between these rocks and those you've just looked at. These are the Leintwardine Beds. The layers here are thinner and pock marked, with characteristic orange lichen growing on them. The pock marks are due to lime dissolving out of the rock, perhaps a fossil, perhaps a limestone nodule once filled the gap but has long since been eaten away by rain and river water. Now return to the lower path and walk along until you come to the first bench on the right.



4

Behind the bench at stop 4 are the oldest rocks you'll find on this walk at around 423 million years, SO 507 743. They don't appear tilted like the other rocks you've seen. This exposure forms the heart of a huge fold, like an overturned bowl, where rocks have been bent out of shape in response to pressure deep inside the earth. Years of erosion from ice and water have brought them to the surface to form the landscape around Ludlow.

You now need to walk along the path past the point where a stream runs under it until you reach stop 5, where a large section of rocks filled with holes can be found.



5

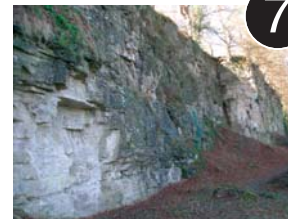
You are now on the other side of the fold, SO 508 742. Look at the beds; you can see they're dipping in the opposite direction to those you saw at stop 3 but it's the same rock type, the one with the tell-tale orange lichen and pock marked surface. Here you can really see the effects of water on lime-rich rocks; it has worn out deep holes and crevices in the rock, making a mini cave system (right hand side of photo).

Now continue up the path for another 100 metres or so until you reach stop 6 which is adjacent to the weir at SO 509 742.



6

You need to take care at this stop, the natural rock has been used as the path and it can be very slippery. Some of the fallen blocks at the foot of the steps are enormous, perfect for building stone. These are the Whitcliffe Beds again and this particular rock was used to build much of the medieval splendour of Ludlow, and was cut and shaped on the platform above. An inscription commemorates the sweeping away of the old path by a flood and the construction of this new route. If you look above the inscription you can see some really thin layers in the rock, a huge contrast to the giant blocks resting at the foot of the steps.



7

If you branch off to the right at the top of the first flight of steps you'll see a large cliff face. This is Whitcliffe quarry, SO 509 741. Wander along the path around 35 metres and you should find some evidence of turbulent times. You'll need sharp eyes, but there's one layer in the cliff face, about one third of the way up that doesn't appear level, it looks scooped and twisted.

This buckled layer is the result of an earthquake millions of years ago, shaking the soft sediments on the seabed out of their neat layers.

The cliff face is sometimes unstable but if you look closely at some of the fallen blocks away from the rock face you may see layers of semi-circular holes where there were once fossil shells. Return to the main path and continue up the steps.



8

Follow the path down to the road and on the corner a small metal plaque marks the site of the world famous Ludlow Bone Bed, SO 512 741. Don't expect to see dinosaur bones poking out of the rocks; the bones are the remains of prehistoric fish and fragments of charcoal, tiny but very important since this marks a change from the shallow seas where the other rocks on this walk were made, to a point much closer to the sea shore, eventually becoming land cloaked in primitive vegetation which caught fire and burned.

The Bone Bed itself is actually beneath ground level at this site and collecting is not allowed as this is a Site of Special Scientific Interest (SSSI).

Number 8 is the last stop on this walk. You may now return via the route you took to the centre of town, or alternatively cross the bridge beside the Charlton Arms and continue up Broad Street, passing through the arch and then up the hill until you reach the Butter Cross at the top. Turn left to return to the Square where you will find Ludlow Museum SO 513 748.

