



Bucks Earth Heritage Group

Coombs and Thornborough walk From geology to history

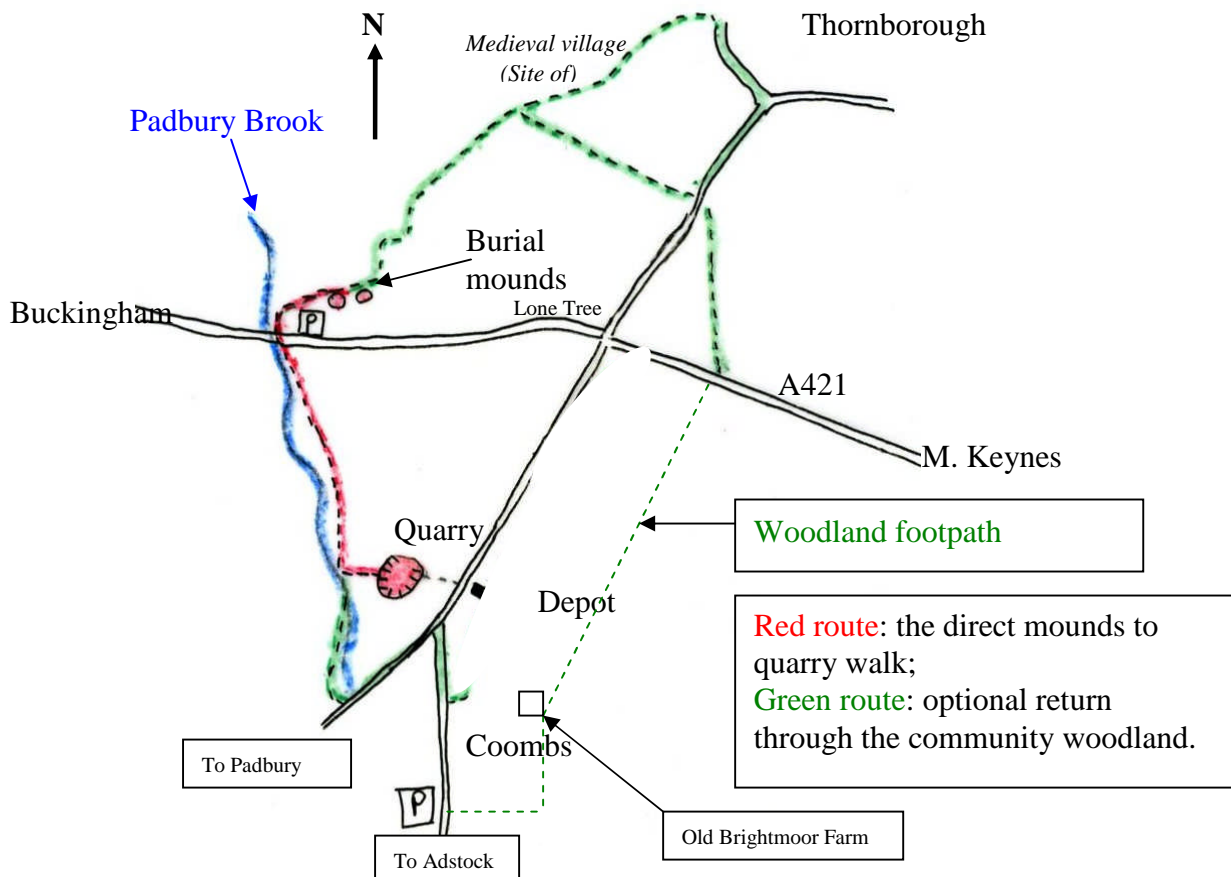
Park:

In the car park for the Thornborough bridge picnic site at SP 731 332 off the A421 near Buckingham, just west of the Lone Tree pub.

Map: OS Explorer 192 *Buckingham and Milton Keynes*.

The route:

Walk through the gate adjacent to the car park to get to the *tumuli* – the hills in the next field which are burial mounds. From here walk back to the car park to look at the old bridge, and then walk down to the river, under the flyover bridge and into the field in front of you. Then, following the path of the stream walk across the first 2 fields to the stile and tiny bridge, cross the bridge and walk almost fully across this next field. However, before you go through the far gate look to your left – there is another gate here and turn left here and walk to the next fence line - this gate leads into a quarry. Please ensure the gate is kept closed. Once you have viewed the quarry you can either return via the same route (shorter walk) or follow the circular woodland route for the longer walk by picking up the footpath at the Coombs Depot, turning left after this building (north) to Thornborough, past the site of the Medieval village and then back to the *tumuli* and car park.



What to see:

The burial mounds (*tumuli*): the two mounds are Romano-British in age (1st or 2nd century AD). These are the burial mounds of high status Britons at the time of Roman occupation. They may have origins from the Coritani tribe (the original Iron Age tribe of the Buckingham area) or from the Catuvellauni (a Belgic group who took over a large territory with a 'headquarters' in St Albans). The mounds were excavated in 1839 for the Duke of Buckingham and the finds were sent to the Cambridge Museum



of Archaeology. The finds included bronze jugs, a bronze lamp, amphorae and samian pottery - a high status collection. In addition, a temple dedicated to the Egyptian Goddess Isis was found on the south side of the road and is also Romano-British.

The **medieval bridge** is visible from the car park, back by the gate, and is a good place to start the geological visit. This narrow lane was the main road before the A421 and flyover was built in the 1970s! The 14th century bridge is in remarkably good condition, despite the amount of traffic it has seen.



The structure can be seen better down by the river bank and it is made from the local stone: the Blisworth Limestone. Some of the

blocks within the bridge show sedimentary structures of the limestone better than they can be seen in the fresher faces of the quarry later in the walk.

Look out for the evidence of the rock's formation: oolites and shells (whole and fragments) indicate a warm sea with intermittent currents that shattered shells, and the cross-stratification that shows the movement of water currents in the sea that deposited these particles.

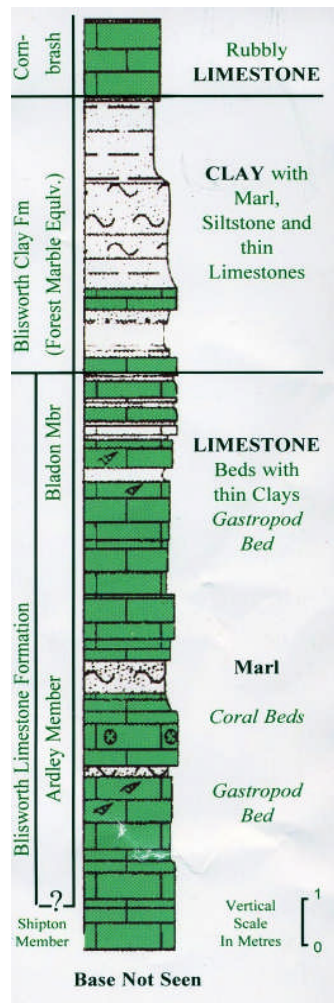


Thornborough Bridge showing cross-stratification (the lines) which are made by gentle currents moving sediment into small dunes. If you look closely at the rock you can see it is made up of small balls – called oolites. The fossils are marine species that lived in this tropical sea 170 million years ago.

Walk under the new bridge and into the fields. If the grass is low enough you can see the

wide undulations of ridge and furrow marks indicating a manorial farming system here.

As you walk along by the **Padbury Brook** take a look at how the sediment is being moved – eroding from the outer bends and being deposited in the slower-moving inner bends. You may see dragonflies, kingfishers, fish and a huge range of aquatic insects – keep an eye out for hares in the adjacent field too!



Coombs Quarry. This quarry is maintained for public access but please respect the site for rock exposure and nature. The quarry was used until about the end of the 1890s for extracting building stone and rock for lime burning (note the two collapsed brick lime kilns at the northern end of the site). These kilns are 19th century, but lime-kilns have been on site since the Roman times. The quarry has been designated a RIGS site for Bucks as it is currently the best exposure of the Blisworth Limestone in Bucks. The sequence shows 12 m of Blisworth Limestone overlain by 5 or 6 m of Blisworth Clay (often overgrown) and 2 m of Cornbrash.

There are a number of clues which inform us of the ancient environment represented by these sediments. Firstly there are the fossils. Examples of several different bivalves, gastropods and corals should be found within the rock debris often deposited in the central area and in the rock face itself. The following are common species from the limestone on this site:

- Bivalves:**
Modiolus (mussel)
Liostrea (oyster)
Plagiostoma
Pleuromya
Bakervillia
Rolierella

- Gastropods:**
Aphanoptyxis bladonensis
Aphanoptyxis langrunensis

- Coral:** *Thamnasteria*
Sea-urchin: *Nucleolites*
Brachiopod: *Cererithyris*

These are all marine forms and indicate a shallow, tropical sea. Secondly, there are the rocks themselves. The limestones vary between two distinct types. One is a greyer, shelly, fine-grained form that indicates a carbonate-rich muddy sea-floor with very low energy and no wave action. The other is a paler cream-coloured, shelly and oolitic limestone. This indicates a shallow, tropical sea floor which is agitated by waves. The clue here are the



ooliths ('oo' = egg-shaped particles of carbonate; they are tiny spheres of 1 mm or less in size). These particles only form in warm, tropical waters where the carbonate content is high. They also require the gentle agitation of waves, rolling the particles to and fro, thus attaining an even coating of carbonate all round. They are very diagnostic of ancient environments - indicating a much warmer climate, very similar to the present-day Florida Keys!

The Blisworth Clay overlying the limestones is more difficult to see as it becomes overgrown with vegetation fairly rapidly. However, if an exposure is available this will show a pale-grey clay with minor silts and probably no fossils. If fossils are found these are always plant debris and rootlets. However, just one record of another type of fossil has been found - a dinosaur footprint (a theropod). This was found in a temporary exposure in nearby Thornborough Mill. The footprint was preserved in a slightly harder bed, and therefore is very likely to be the thin band of limestone within the clay unit. Both items of evidence indicate the close proximity of land. In fact, the Blisworth Clay represents an area of shallow water at the edge of the sea, perhaps a back lagoon. Clearly, the dinosaur was out for a paddle!

The Cornbrash at the top of the sequence is a much harder bed of rubbly, fossiliferous limestone. The fossils are mostly broken, although a few whole specimens of bivalves and brachiopods can be found. This indicates a return to the sea, the broken fossils are evidence for wave activity.

Return to the car park via the Padbury Brook route or a longer walk can take you out of the quarry by the east entrance, across the road into the Coombs Depot and follow the public footpath to Thornborough or the Medieval village for a longer circular walk.

The Thornborough Community Woodland

If you choose this return route then look out for the following, depending on the time of year:



Flowers: yellow-rattle, primrose, cowslip, ox-eye daisy, burnet-saxifrage, lady's bedstraw, knapweed and salad burnet.

Yellow rattle

Birds: Sparrowhawk, great tit, heron, long-tailed tit, blue tit, lesser whitethroat.

Thornborough village: you will find this a quiet and pretty village. Look out for the local building materials – stones such as the Blisworth limestone in numerous cottages and walls, and of course bricks – made from local clays.

Deserted Medieval village: just to the SW of Thornborough the circular route passes through a part of the village which was inhabited from the 1200s, but deserted by the 1600s. The reason for the desertion – evictions to enable more grazing for cattle and sheep by the landowners! You can still trace the lines of the village on this walk.