

GEOLOGICAL RAMBLE THROUGH THE QUANTOCKS

Led by Charles Hiscock
Saturday 13th June 2009

Jenny Martin

Twenty five people from BGS and WEGA met Charles in North Petherton on a lovely sunny day. The convoy of cars then wended their way through narrow lanes to our first port of call, only losing one car in the process! We made our way single file through the woods to King's Clyffe Quarry where we viewed and heard about the Morte slates. These Upper Devonian slates and sandstones were formed by sediments from mountains of the Caledonian orogeny when Britain was south of the equator around the Tropic of Capricorn. They were subsequently metamorphosed and then folded during the Variscan orogeny. They are a pinkish red hue of varying thicknesses and strengths, some surfaces were shiny. There are reddish sandstone beds within the formation. The beds dipped at 20 - 30 degrees away from us down to the Vale of Taunton Deane; we had an excellent view across to the Blackdown hills from the road.

We then drove about five miles through narrow lanes, through woods and past fields until we dropped steeply down off the Quantocks; in doing so we crossed the Cothelstone fault. This is a splay fault forming a half graben which has been in-filled with Permo-Triassic sediments laid down when Britain was about as far north of the equator as it had been south when the Quantocks were laid down. The Carboniferous and most of the Triassic is missing. As we dropped down the soil in the fields became a bright red characteristic of Triassic rocks deposited in arid conditions which caused the iron to be highly oxidised in the form of haematite.

We visited an extremely attractive group of buildings at Cothelstone Manor, entered by an impressive arched 16th century gate.

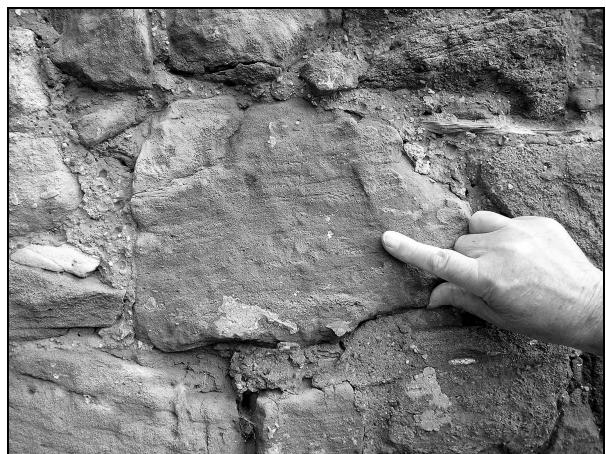


The gate leading to Cothelstone Manor

The Manor itself has two wings built of different stone. The right-hand wing is of Otter sandstone, the other of Morte slate, the windows are Jurassic limestone.



Cothelstone Manor: The wall along the drive is local grey Roadwater limestone.



Otter sandstone



Budleigh Salterton pebble beds

Behind the Manor is a row of cottages and behind them a very interesting and unspoilt Church built of many different stones. We found Morte slate, Budleigh Salterton sandstone which is red and has a very pebbly texture, Otter sandstone with red fine grain, a local North Curry sandstone a very gritty siliceous grey sand, Roadwater limestone that was weathering badly and one quartz stone in the porch wall. Both the Deane Way and the Macmillan Way footpaths pass the church gate.



Cothelstone church (Photo L D-H)

After examining the outside we entered the C15 Church of St Thomas of Canterbury to view two impressive tombs; the effigies of Sir Matthew Stawell and his wife in Jurassic limestone dating from 1379 and the particularly interesting one of Sir John Stawell and his wife dating from 1603. This later is made from alabaster from Watchet. Each of the heads was one solid piece but the rest is a regular jigsaw of pieces as the alabaster at Watchet outcrops in narrow bands. The chancel steps are of Lias limestone, very polished with

visible shell fossils. There were some interesting stained glass windows as well.



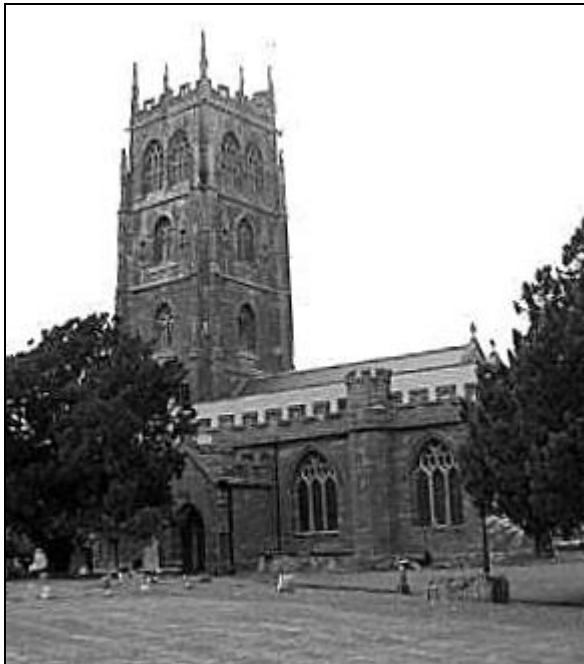
Jurassic limestone effigies of Sir Matthew Stawell and his wife dating from 1379 (Photo L D-H)



Alabaster effigies of Sir John Stawell and his wife dating from 1603

Our next stop was Bishops Lydiard where we had a picnic lunch before visiting St Mary the Virgin Church (1400). This "red" church built of Otter sandstone with yellow Hamstone windows (from Montacute) stands in a largish cemetery with some interesting tombs of North Curry quartz and Mercia mudstone. It was possible to see some dune-bedding in the Otter sandstone. Within the church the floor is of Lias limestone slabs; there is also a magnificent carved wooden rood screen and

some very interesting medieval pew ends.



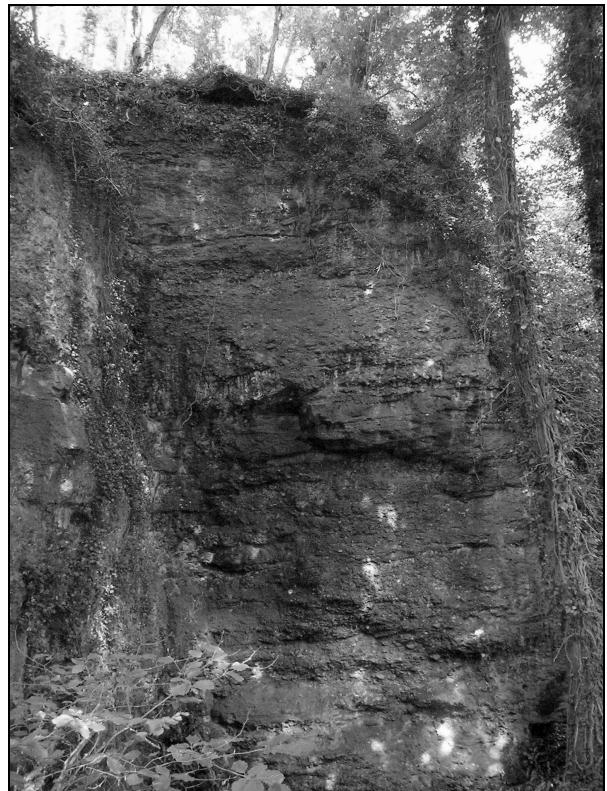
Bishops Lydiard Church



Medieval carved pew-end

After crossing the West Somerset Railway line we travelled to view a quarry near Ash Priors. After a walk up a lane into the woods we climbed up a bank to find the remains of a quarry in the Budleigh Salterton pebble beds. The main reason for the quarry had been the extraction of the Carboniferous limestone pebbles, some quite large, which were transported to a nearby kiln (which we viewed from the road on our way up) to be turned into quicklime as the soil is acid; it

also helps to break up the clay found in Taunton Vale. The source of the pebbles was thought to be S Wales and the Mendips. We could see some cross-bedding in one layer of the sandstone - probably a short-time event such as a flash flood. The quarry ceased working about one hundred years ago and in one or two places has built up a layer of tufa that has washed out of the limestone.



Budleigh Salterton pebble bed at Ash Priors quarry

We made our way back through the lanes to Bishop's Lydiard and on towards Taunton to Hestercombe House. It was getting rather late so some of us decided to leave visiting the gardens for another day, but not before Charles had shown us some samples of an igneous rock found in the gardens. It is reddish brown with pale pink plagioclase feldspar, dark green ferro-magnesium mineral spots and some glinting mica crystals and was thought to have been intruded into the country rock at about the same time as the granites of the South West. The stone has sometimes been called a lamprophyre but is now thought to be a diorite.

Thank you, Charles, for a most interesting day.

Photographs by Jenny Martin unless indicated otherwise