

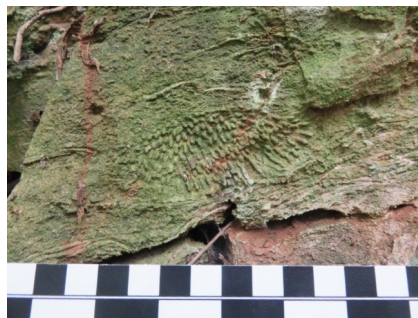
Tor Hill in Wells..... Revealing The Anticline

Wells Cathedral School geologists



Tor Hill, in Wells, overlooks the bustling historical city, as a geological guardian. Its secrets have been revealed to 6th form geologists from Wells Cathedral School, armed with compasses and clinometers.

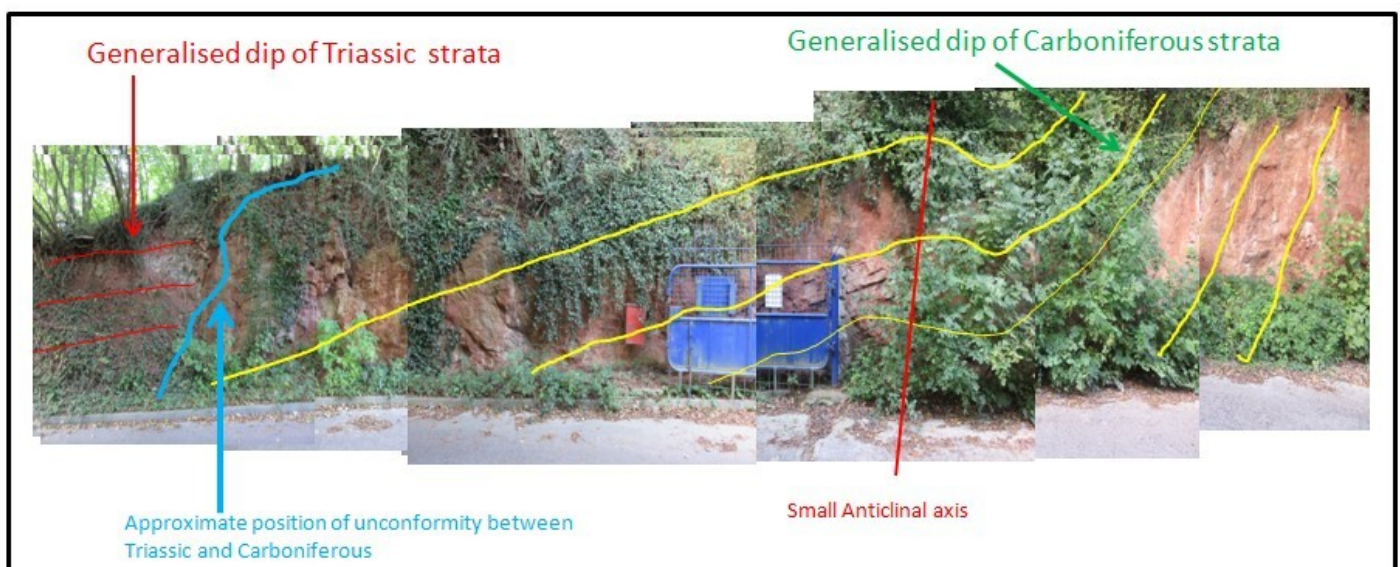
Tor Hill could be seen as the Mendip anticline's younger sibling, or actually more like the smaller twin. They are of the same Carboniferous rock, folded due to tectonic forces during the Variscan/Hercynian orogeny. The Carboniferous limestone on Tor Hill is the 'Clifton Down Limestone' containing *Productid* brachiopods and *Lithostrotion* corals [1].



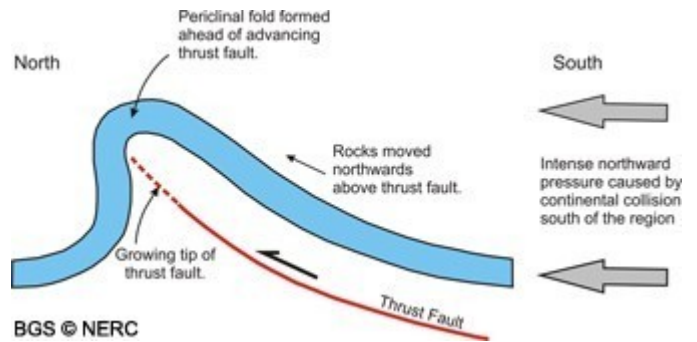
After the deformation, Triassic wadi & alluvial fan deposits were laid down on the flanks of the Mendips and Tor Hill. These deposits consisted of Dolomitic conglomerate and the Mercia mudstone group, resting unconformably upon the Carboniferous limestone. This can be observed by cunning geologists at the entrance to the establishment "Serious Stages" just off the B3139 to Dulcote [2], or to cunning film goers as near to a crime scene in the movie 'Hot Fuzz'.

A more general sense of the geological structure can be grasped by measuring the dip and strike at a number of outcrops over the hill, and slowly piecing together the evidence, allowing the form of the anticline to emerge in front of your very eyes.

The outcrops we measured on the southern flank of Tor Hill [3] indicated a dip of approximately 20 degrees to the south. However, some of the more northerly outcrops [4] showed a dip to the north at approximately 20 degrees. To complicate matters, outcrops even further north showed the strata to be *seemingly* dipping to the south at approximately 70 degrees [5]. However, though clear way up evidence was difficult to find we realised that these south dipping outcrops must actually be overturned by the tectonic forces.

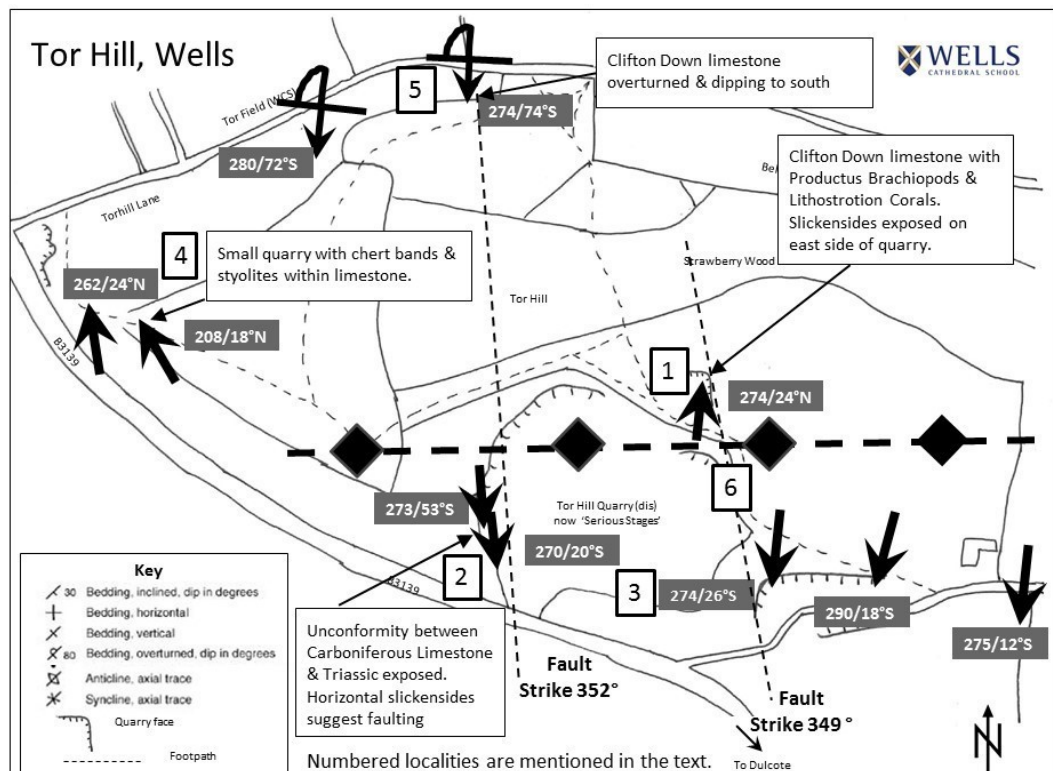


Between locations [1] & location [6] the axis of the fold was clear as the beds had similar strikes but dipped in opposite directions [6]. The axis runs East to West, following the Variscan trend and like the Mendips was created due to the closure the Rheic ocean. The Tor Hill anticline and the small asymmetrical fold at the entrance to 'Serious Stages' verge towards the main Mendip anticline. The cross-section through the Mendip anticline (pericline) from (https://www.bgs.ac.uk/mendips/geology/geological_structure.htm) shows the relationship between these folds and deeper thrust faults.



Slickensides

The core of the Tor Hill anticline exposed in the former quarry, now 'Serious Stages'.





I thought it apposite that we thank the students from Wells Cathedral School who produced the poster—'Fossils are pretty, but they don't do much, do they?' They received an award for 'best' presentation at the Geological Society's National Challenge Final at Burlington House. They are Phoebe Morton, Emily Bell, Bethany Baker, Ella Felton, Ben Richards and Alex Corum. Our thanks go out to all the geology students at the school who have contributed to the BGS Journal this year and in the past, as well as their teacher, Mr David Rowley.

We are grateful to BRLSI who for the last few years have provided specimens for the Bath Geological Society to display at the Geologists' Association's Festival of Geology in November of each year.