

This is an attempt to record what the geology group is doing, and also provide information for those members of the group unable to attend the visits that we have had thus far.

Since the group formed in July this year, we have had two visits: in August we visited **Wren's Nest SSSI National Nature Reserve**, in Dudley, and in September we visited **Saltwells Nature Reserve**, a triple SSSI site, (Doulton's Pit, Brewin's Cutting and the Ludlow Bone Bed). On both occasions we benefited from the knowledge of the local reserve wardens who shared with us their knowledge and enthusiasm for the sites they manage.

Wren's Nest SSSI National Nature Reserve

Location: Post code DY1 3SB; Grid ref: SO935920

Visited on Wednesday, 8th August, 2012



Probably the view with which the Wren's Nest site is most associated internationally, for this site is known the world over as being an excellent example of Silurian rock types, as well as being the site where many of the world famous fossils of the period have been found during the quarrying of the limestone for agricultural and industrial use during the 18th, 19th and early 20th centuries. Many of these classic fossils can now be found in the local Dudley Museum. (A possible future visit for the group, perhaps?)

Wren's Nest is formed mainly of Wenlock limestone laid down during the Silurian Period 443 – 417 million years ago (mya). The rock dome forming Wren's Nest was the result of intense upward pressure occurring during the Variscan mountain building period towards the end of the Carboniferous.



Group members begin their visit to the site at the entrance to the 'time trench', where the Silurian limestone geology of the area, over a 3 million year time span, can be viewed in section.



The quarry where limestone was quarried until the 1920s. Note the steeply sloping angle of the strata (LHS) which was once part of the rock dome that formed one of the three Silurian inliers in the area – the other two being Castle Hill (to the SE) and Hurst Hill (to the NW). The structure to the right of the picture is a bioherm or ancient reef.



The tribute to those in the past who have discovered, explored and utilised the geology of Wren's Nest. (Near Seven Sisters caverns)



The blocked up entrances to the limestone caverns of the Seven Sisters where the rock was quarried to a depth of about 100m following the dip of the strata. Originally there were 7 entrances to the caverns, each supported by natural limestone pillars left in place by the quarry workers to support the quarry vault.

A canal was cut through the rock at the base of the caverns to transport the quarried limestone from Wren's Nest to where it was needed in the industrial locality. The canal was also used to import coal to fire the lime kilns based at Wren's Nest. The canal links up to the canal system at Castle Mill Basin and thereafter into the Birmingham Canal at Dudley Junction.

*Information based on **Wren's Nest NNR Geological Handbook and Field Guide**, 2nd edition published by Dudley Council 2009*

The lime kilns, built in the early 20th century, were used to process the limestone on site.



The Ripple Beds form part of the steeply sloping strata that once formed the dome of limestone of the Wren's Nest inlier. Once part of a flat tropical seabed, the rock bears the fossilised indentations of ripples made by ancient winds and waves.



Group members locating fossil remains in the rock debris at the base of the Ripple Beds, among which were remnants of Brachiopods, Bryozoans, Trilobite parts and others.



*Contributions welcomed from group members
Email Mike Carter mjcarter44@btinternet.com*