

EXCURSION

Irchester and Twywell

Sunday 20 May 2018

Leader: Ian Clarke

A member of the Open University Geological Society, Ian Clarke has been involved in the development of the Ironstone Heritage Trail at Irchester Country Park, within a former ironstone quarry southeast of Wellingborough. The EMGS participants were joined by several OUGS members and enjoyed a walk on a warm sunny day round the Country Park to see various aspects of the ironstone quarrying. The country park was opened in 1971 on the site of the former Wembley ironstone quarry, which was worked between 1924 and 1941 in the Northampton Sand Ironstone at the base of the Inferior Oolite Group (Middle Jurassic epoch). The ore was mainly sent by rail to the Cargo-Fleet blast furnaces on Teeside, next to the Dorman-Long steelworks that supplied steel for the Sydney Harbour Bridge.

The group followed parts of the recently installed Ironstone Heritage Trail. First stop was a prominent 'calcining bank' where thousands of tons of ironstone were mixed with coal slack in a ratio of 40:1 and piled onto a 300-mm-thick layer of coal. This was then set alight and left to burn for several months to reduce the water content and upgrade the iron content, thus saving on transport costs. The group then walked to the former final face of the Wembley pit, where the ironstone seam, which was only 3–5 m thick, was worked after the removal of several tens of metres of overburden. The latter consisted of the Rutland Formation of clays,

sands and silts with the thin Wellingborough Limestone overlain by the Blisworth Limestone Formation.

The face is over a kilometre long but has degraded over the years, with extensive vegetation now covering most of the exposure. The pit was worked with a steam-powered 300-ton Ruston face shovel, which removed up to 10 m of Blisworth Limestone and Rutland Formation clay and silt overburden, while a smaller face shovel loaded the 3-m-thick ironstone into railway wagons. Much of the limestone and ironstone had to be blasted, adding to the dust, smoke and noise of the quarry. A viewing platform in the shape of the jib of a shovel enabled the group to get an excellent view up and down the quarry area. Everyone then descended to the floor of the quarry, over the fortunately dry clay layers, to examine the small outcrops of ironstone still remaining as well as the overlying Blisworth Limestone.

After lunch around the country park's 'Quarryman's Rest' café, the group travelled the short distance to the Twywell Hills and Dales nature reserve on the site of another former ironstone working, east of Kettering. There they walked along the 'gullet' formed by the workings and saw numerous boxstones, where ironstone layers at a particular horizon appear to have been dissolved and reprecipitated around central cores of unaltered ironstone.

The route out of the gullet and back to the car park provided an excellent view of the 'hill and dale' topography formed by the working of the quarry, where spoil was dumped behind the working face as it advanced; this left a series of ridges and furrows up to 10 m high. Before departure, Ian Clarke was thanked for an excellent day in perfect weather.

Tim Colman



Boxstone structure in ironstone, in an exposure within the Twyford Hills and Dales nature reserve.