

Garth Iron Mine

This mine was located at the top of the Little / Lesser Garth hill which forms the high ridge of ground extending east from Pentyrch and between Gwaelod-y-garth in the north and Morganstown / Radyr in the south at NGR 118823 which today, early 2007, lies within the confines of the enormous Cemex quarry (previously known as the Steetley Quarry).

I use the term mine advisedly as although the workings of the four main entries commenced at the surface and progressed downwards following the haematite ore and could, therefore, be described as quarries, the extent of the workings eventually necessitated the linking-up of these below ground by a maze of caverns and staple shafts. Some of the caverns were eventually excavated to impressive dimensions one being estimated to have been about 200ft long, 100ft wide and 70ft high and not a support in sight. The overall depth of the workings in 1884, at time of abandonment, was approximately 400ft. The main pit was some 120ft diameter at the surface.

Although it is thought that iron-making in this area dates back to Roman times it is not known to what extent this body of haematite was worked at that time or indeed in the period leading up to the end of the 18th. Century. The exploitation of the mine started in earnest with Richard Blakemore in the early years of the 19th. Century when he acquired the Melingriffith tin-plate works together with the Pentyrch iron works in 1805 , previous owners having used the coal measures ironstone together with imported Lancashire haematite - and with his nephew Thomas W. Booker assisting him, developed the enterprise into a major source of tin-plate production.

Initially the mine was worked by sheer muscle power and the liberal use of black-powder with horse- powered windlass as the means for raising the ore and spoil from the depths. The ore was then transported by packhorses via tracks down the steep wooded hillside to the furnaces at Pentyrch iron-works. The packhorses were to be replaced by a horse drawn tramway connecting to a lower level tramway alongside the Pentyrch road to which the Coed-y-bedw mine tramway also connected and ended at the Pentyrch Iron Works. Some stone sleepers of the inclined tramway can still be seen in the woods. A steam engine supplied by the Neath Abbey Ironworks replaced the horse-drawn windlass for raising the ore and spoil from the mine to the hilltop.

Between 1842, with some fifty men and boys employed, and 1860 the mine received substantial investment with the sole management having being vested in T.W. Booker by his uncle since 1837. This included the driving of a 400yd long rock tunnel heading south-eastwards from the low level tramway near the Pentyrch road to intersect the main working chamber some 200ft below the top surface level - a capstone retrieved from the portal in 1930 bore the inscription "June 30th 1842". This served as an easier and shorter horse drawn rail access to and from the mine and was situated close to the furnaces, doing away with the high level tramway. The tunnel also provided a much needed drainage outlet from the mine at this depth in conjunction with a Cornish beam pump to dewater the lower workings. The low level tramway west of this adit remained in place only to serve the Booker's Coed-y-bedw mine. This mine provided the fuel for other developments at this time included the provision of steam boilers (complete with exhaust ducts) and haulage engines, located inside the mine, together with an underground rail haulage system and vertical shaft winding from below this tunnel level to exploit even lower ore deposits. To facilitate the transporting of all this heavy and bulky gear underground many items had to be broken down and rebuilt at their place of work inside. Additional facilities on the surface included a new sorting shed alongside the tramway where inferior ore was segregated and the higher grade re-trammed via chutes into drams on a lower level tramway and hence to

the furnaces via a balanced incline (this incline can still be seen opposite the entrance to Heol Berry). The inferior ore from this sorting shed together with spoil from the mine was removed via a bridge to the other (north) side of Pentyrch hill (Heol Goch) where it eventually formed a substantial tip. This was removed in the 1930's to be used in the construction of a dual carriageway named Forge Lane at Tredegar Park, Newport.

In the early 1870's the output of ore from the mine was approx. 15,000 tons a year-"and capable of increase"- from caverns mined below the tunnel level together with some 265 tons of high-grade ochre, prepared at Melingriffith for sale to paint manufacturers in Bristol.

Such was the scale of the mine at this time that curious Victorian travellers from far and near were given conducted tours of the caverns. I myself visited this (disused) mine in the 1950's on a college excursion and recall being amazed at the scale and complexity of the workings - we couldn't even begin to fathom out how they worked the place, it was a rabbit warren both horizontally and vertically. The mine must have been worked by men and boys filling baskets and manhandling these to lifting points within the pits
The mine was flooded below tunnel level for a depth of 200ft at that time so we could only see less than half of the old workings but we were still mightily impressed. The sunlight shafted down through the upper caverns and I was sorry I hadn't taken a camera - you don't get those opportunities too often.

The mine was officially abandoned in June 1884 following the failure of the Booker Empire in 1879, due to its inability to financially adapt to the new market for steel, by which time it is estimated some 700,000 tons of haematite had been removed by hand over the lifetime of the mine (some estimates are as high as 1,000,000 tons). This had been supplemented with Lancashire haematite and coal measures ironstone for a large part of the lifespan of Pentyrch Iron Works.

From 1880 -1884 the mine was producing only yellow ochre and operated by the liquidators of T.W. Booker & Co. producing 127 tons in 1880 and a mere 11 tons at time of closure.

The mine became flooded up to the tunnel level and continued to be the object of curiosity for Victorian and Edwardian visitors over the following years. Apparently one of the lower flooded caverns reflected sunlight off minerals in the water and became known as the Blue Waters cavern whilst a high level cavern reflected sunlight off yellow ochre and was named the Golden chamber.

In 1926 the mine was partly reopened on a short lease by the West of England Ochre & Oxide Co. and a local resident of Taffs Well who worked for them as a young man, Mr. John Tyler, wrote a very informative Community Booklet in 1988 entitled "Iron in our Soul" which gives an interesting insight into the mine at the time it reopened.

They removed the old engine beds and flues together with debris from the pits and laid a new track system through the access tunnel together with building loading chutes alongside the Pentyrch road. The dewatering of the flooded lower workings was a major task, this being accomplished by building a floating pontoon for the pump using four large wooden beer barrels as floats. It took 18 months to fully dewater the lower workings! Mr. Tyler stated that following dewatering the lower workings below tunnel level "were many hundreds of feet deep" - the plans I have studied show them to have been some 200ft. deep- i.e. the tunnel was sited at mid-depth of the mine.

Many artefacts from the Booker days were uncovered after dewatering including old drams with flangeless wheels, flanged rails, hoisting cages, wrought iron drill bits and a fully fitted out blacksmith shop where the tools and drill bits had been repaired and maintained.

Working the ochre was done using ladders and suspended bosun chairs on ropes - Mr.

Tyler commented on how hard and slow the work was and stated that the working of the haematite would have been even harder for the earlier miners.

He noted that the earlier pits had been interconnected at intervals to facilitate natural ventilation, providing good air-flow throughout the mine.

Surprisingly, the drams of ochre were manhandled through the access tunnel to the surface as the budget would not extend to the use of horses (as used in Booker days). The ochre was then tipped into the storage chutes and transported to the Taffs Well railway sidings by lorry for transportation to the West of England - perhaps this firm was the same paint firm previously supplied by Booker.

The lights used by Mr. Tyler in the mine were candles held in place on the rock by clay and a small paraffin oil lamp fixed to his cap. He recalled some coal miners working with him who, if they hadn't had families would prefer the dole to working in this place- this was largely due to them not getting used to the unsupported rock and being lowered some 200 ft on a "plank of wood" (bosuns chair) suspended from a rope into the chambers.

This under-funded enterprise ceased eventually in 1936, after employing on average only 6 or 7 men, and the lease was taken over by F. Watkins & Co. of Coleford to mine the haematite but this venture also ceased within the same year. For another short spell in 1937 the Garth-wood Co. of London employed some 10 men to mine haematite but this venture also fizzled out and the mine was left to re-flood.

The mine enjoyed its final period of use during WW2 when it was used to store anti-aircraft shells etc in the high caverns, serviced by small diesel locos. To achieve this much debris was cleared out and dumped into the flooded lower section of the mine. Security fences and guard posts were erected, the remains of some of these still being visible near the tunnel entrance. The former manager from the 1930's, Mr. Henry Ellaway who was awarded the M.B.E for his efforts, supervised this work.

Following the war the mine was left to itself with only curious locals, students, cavers and foxes (pursued by hounds of the Pentyrch hunt) venturing in. During the 1950's local people with an interest in its history attempted to have the mine preserved as a tourist attraction but the then owners, Steetley, weren't interested. A similar campaign during the 1990's to obtain Heritage protection for the site has been resurrected recently via Kim Howells and CADW are considering possible listing.

Today only two of the main top caverns are visible at the north side of the Cemex quarry, the others having been in-filled over the years. These are inside the confines of the quarry and located within the limestone aggregate stockpile area and surrounded by trees and safety fences.

These may also come under threat in the near future with a current multi-million re-development scheme at this Mexican owned quarry which will see quarrying carried out in the immediate vicinity of the pits. (I trust they will think of dewatering the lower caverns first!) Perhaps CADW will come to a timely rescue!!

Also still to be seen is the tunnel entrance and associated tramway tracks some 200ft lower down the hillside near the Pentyrch road. This entrance was sealed with steel-plate doors in Jan. 2004 to prevent persistent scuba diving enthusiasts entering (this also makes it Adam-proof!)

Some 360m to the east of this entrance along the tramway track can be seen the un-gated entrance of a second tunnel which was intended to intersect the eastern caverns in Booker's time but was unfinished when that business went into receivership and never completed. It remains in excellent condition, though wet, with the sound of rushing water echoing down the tunnel. The remains of the loading chutes alongside the Pentyrch road, from the 1920's, are also still in place.