

Kirsty Thomas

Blaenafon



(By Alan Stanton, 2008)

What made Blaenafon distinctly prosperous during the industrial revolution?

Blaenafon was created for ironmaking and coal mining in the late eighteenth and nineteenth centuries in South Wales. Unfortunately the natural beauty of Blaenafon was changed and ruined by the ironworks and coal extraction. (GAAT, 2020). Iron ore was extracted on the landscapes of Blaenafon from 1675 and possibly earlier. The Blaenafon landscape had all the raw materials needed for making iron. It also had coal, fireclay and limestone. (UNESCO, 2020).

There are many reasons why they needed coal, it was important as coal provided fuel for smelting, roasting and forging iron. It was also used for burning lime and steelmaking, for making bricks and of course for powering steam engines, and fuelling steamships and locomotives. (GAAT, 2020).

Three entrepreneurs called Thomas Hill, Benjamin Pratt and Thomas Hopkins saw the opportunity to build new ironworks on the mountain of Blaenafon in 1788. Lord Abergavenny then leased the lands, 'Lord Abergavenny's Hills' to the three entrepreneurs. All three men had experience in banking, business and iron making which of course made them confident that their business would be a success. Wales was the second largest ironworks in the world. (GAAT, 2020).

Technology

Three blast furnaces were built by 1789 operated by steam power along with casting sheds and a blowing engine built by Boulton and Watt. The iron works produced 5,400 tons of iron each year before expanding to extra 3 furnaces in the nineteenth century. (Coflein, 2020). They had the most up to date ironwork of all time, using steam power to operate the furnaces. By 1812 they were capable of smelting 14,000 tons of iron a year. The area also has a water balance tower. Around the area was of course the workers cottages where they all lived with their families also mines and limestone quarries, iron forges, and railways created to transport raw materials to the works and products towards the markets. (GAAT, 2020).

"By 1812 there were five furnaces capable of making 14,000 tons of iron a year. New primitive railway connections were made with the Brecknock and Abergavenny Canal through the 2.4km long Pwll-Du tunnel, the longest ever built on a horse drawn railway" (GAAT, 2020).

Shaft mines were introduced with drainage and ventilation agreements as mining for coal and iron ore developed on a bigger scale in 1817. Larger quarries opened as new sources of limestone were found. (GAAT, 2020).



(by Andy Walker)

Workers and the environment

Cottages were built next to the ironworks for all the workers employed and their families also had a church built, company shop, school for the children and a pub. The cottages weren't very big and sometimes had up to eight people sharing one cottage. The cottages had a lounge and a bedroom downstairs along with two bedrooms upstairs but had no water supply. The children of the workers family were also expected to work in the ironworks as young as ten years old. They would work very hard pushing barrows to the top of the furnace, the shifts would be 12 hours long. (Ellis, 2020).



(by Christopher Nicholson, 2018)

The skilled Workers mainly came from West Wales, Gloucestershire, Staffordshire, Ireland, Somerset and Herefordshire. Unskilled workers would come just for the work to support their families. The population expanded from 1,000 in 1800 to 5,115 in 1840 mostly were Welsh speakers. (VIPA, 2020).

With the population growing of course they needed basic things to live. These would be clothes, food, water and shelter. This would be the ironmasters responsibility to house the workers and make sure that their families were looked after and fed. The company shop was built for basic goods like cheese, bread, footwear, clothing, meat and butter, everything basic a family would need. It was never easy for the workers wives to be able to get their hands on basic supplies as sometimes they would have to que up to nine hours to be able to be served. After waiting long hours this would mean most of the supply would already be sold and this would leave their families without goods they desperately needed. The master would also put the prices up high which made it harder for the workers and their families to be able to afford, but this was a big profit to the master. (Mathews, 2018).

The working environment for the workers had a massive impact on their health. Accidents would happen in the mines often, they would have a burn injury, cuts and often back injuries due to working in small areas but there were many more serious health worries for the workers. In 1838 the mine had flooded which resulted in miners drowning including young children. This was of course devastating for their families. Explosions would also happen to miners which again would result in losing so many workers. The coal mine dust can cause various pulmonary diseases including pneumoconiosis and silicosis, but in those times protection was non-existent and also unaware of what the working environment could cause to their health. (Houghton, 2017).

Also the eyes, nose and throat can become irritated due to air pollution and can also cause cardiovascular disease. (Chadderton, 2011).

The local environment was polluted due to the rise of coal. Coal is known to be dirty, producing many pollutants which harms the environment. When coal burns toxic airborne pollutants and heavy metals are carried out into the environment by chemical reactions. Not only was it bad for the local peoples health but also bad for the local water. (NIOSH, 2011).

What is left of the ironworks?

The Ironworks is now open for visitors to view the remains of the furnaces, water tower balance and the cast houses. You can learn the history behind the iron-works and the coal mines. Big pit is also open as a mining museum.

Map of Blaenafon



(By GAAT, 2020)

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