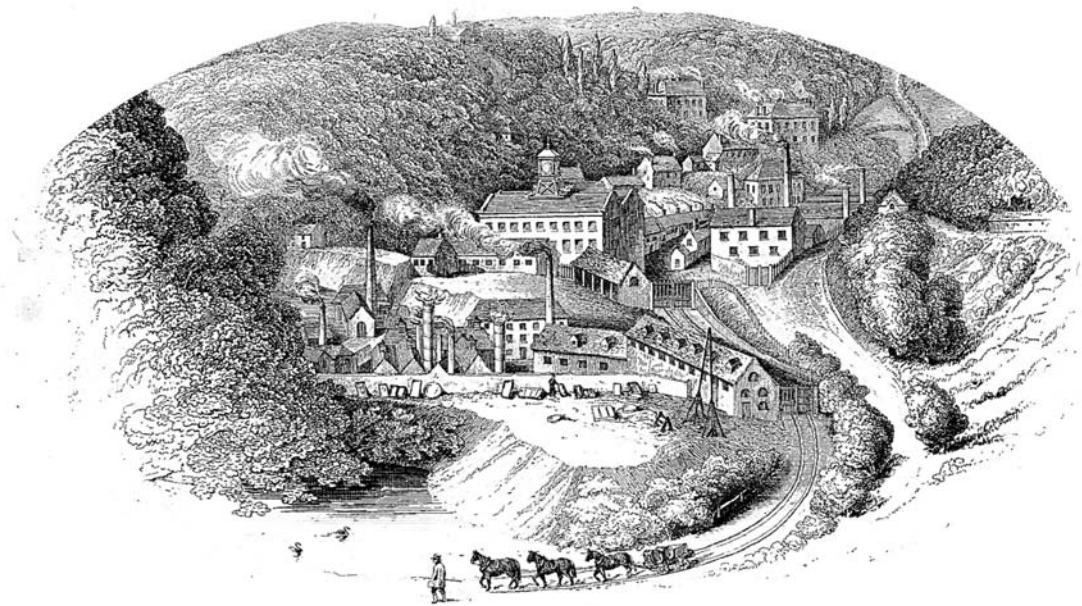


Coalbrookdale MUSEUM of IRON

Coalbrookdale Museum of Iron

In 1707 Abraham Darby patented a method of casting iron pots. Successive generations of the Darby family expanded the output of the Coalbrookdale ironworks to include iron wheels, rails, steam engine cylinders and of course bridges, the most famous being the Iron Bridge itself, erected over the River Severn 1779. During the Victorian period, Coalbrookdale became famous for the production of decorative cast ironwork.

The Coalbrookdale Museum of Iron site now consists of a number of restored buildings all associated with the influential Coalbrookdale Company. Coalbrookdale Museum of Iron, the Darby Furnace, and the Darby Houses give a real sense of an industrial community which flourished between 1715 and 1900.



What makes iron such a useful material is that its properties can be tailored to meet the needs of a huge variety of tasks. This was why it was so important to the success of the industrial revolution and remains such a key material in the world economy today. If you look into the history of iron making you will find three main types:

Cast Iron

Cast iron melts at about 1300 °C and can be easily shaped by pouring the molten iron into moulds. Cast iron smelted from iron ore in a blast furnace is called pig iron. Cast iron has a crystalline structure and a carbon content of 3-4%. This makes it hard and brittle, weak in tension, but strong in compression - just the material for building cast iron arched bridges!

Wrought Iron

Wrought iron was the first type of iron to be used by people. It is relatively soft and once heated can be forged into shape by hammering and rolling. Wrought iron has a very low carbon content (around 0.05%) and unlike cast iron it is strong in tension and resistant to shocks. It was the traditional material of the village blacksmith and during the Industrial Revolution its properties made it essential for everything from nuts and bolts to steam engine boilers.

Steel

Steel has a carbon content of 0.25 - 0.4%. This tiny increase in carbon content gives steel the hardness and the ability to hold a sharp edge that wrought iron lacks. Steel has a long history connected with weapon and tool making but was expensive and difficult to make. In 1856 Henry Bessemer discovered a method of mass producing steel. It could be forged into shape by hammering and rolling but unlike wrought iron it could be produced in large quantities cheaply and with less labour. It rapidly replaced wrought iron in most fields of engineering.

Exhibits

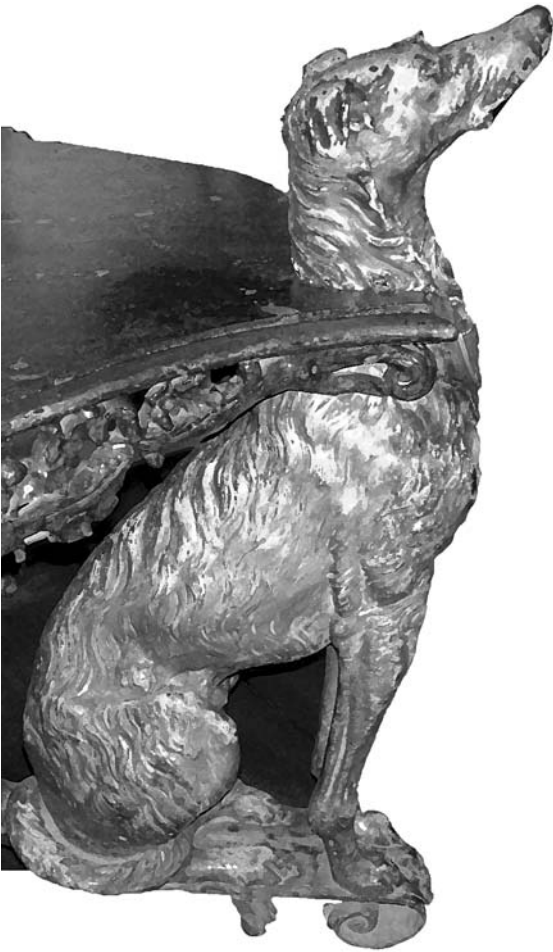
Boy and Swan Fountain

Cast by the Coalbrookdale Company in 1851 for the Great Exhibition, the fountain was designed by John Bell. After the exhibition the fountain was purchased by Wolverhampton Corporation and displayed inside the Market Hall until 1880, when it was moved to Weston Park. It was later dismantled and stored until it was rediscovered by WKV Gale and acquired for the Coalbrookdale Museum of Iron in 1959, when it was restored and displayed next to the Darby Furnace.



The fountain was again restored in 1994 and repainted to resemble the original catalogue finish of 'bronzed' cast iron. The railings surrounding its pool are made of wrought iron, and were designed and forged by members of the British Artist Blacksmiths Association during their conference at Blists Hill Open Air Museum in 1994.

Deerhound Hall Table



This magnificent table was designed by John Bell for the Paris International Exhibition of 1855. The table is made entirely of cast iron, with four life-size deerhounds supporting a table top decorated with a marbled finish. The table weighs about 16 cwt (812kg). The dogs wear the coat of arms granted in 1843 to John Hargreaves of Broad Oak, near Blackburn, Lancashire. His eldest son married in 1855 and this table is thought to have been purchased from the Paris Exhibition as a wedding present.

Purchased with assistance from the National Heritage Memorial Fund, Resource/V&A Purchase Grant Fund, National Art Collections Fund, The Monument Trust and Partidge Fine Art Limited.

Last Supper Plaque

Leonardo da Vinci's famous painting of the 'Last Supper' was copied by many artists in a wide range of materials. By the early 19th Century central European foundries were producing examples in cast iron, and by the 1830s similar plaques were being reproduced by the Coalbrookdale Company.

This example has been polished to resemble steel, but they were also produced in a bronze or, more unusually, a painted and gilded finish. Large numbers of these castings were made and many local houses boasted an example. The finest versions faithfully reproduce all the intricate details of the original.

Andromeda

Among the Coalbrookdale Company's exhibits at the Great Exhibition of 1851 was a bronze figure of Andromeda, designed by John Bell (1811-95). This version is made from cast iron and was produced some time after 1851. The original bronze version was bought for £300 and erected at Osborne House, Queen Victoria's residence on the Isle of Wight.

The figure is based on the Andromeda of Greek legend. Neptune, the god of the sea, had been angered by her parents the King and Queen of the Aethopians. In an effort to appease him, she was chained to the shore as a sacrifice to the Kraachen, a fearsome sea monster. She was rescued by Perseus who, after slaying the Gorgon, used its head to turn the monster to stone.

Retriever & Greyhound

These life-size statues of a Retriever and a Greyhound were both designed by Christophe Fratin, a famous French sculptor who was one of several designers who were brought in by the Coalbrookdale Company.

Startled Stag & Deer Browsing

Paintings and sculptures of hunting scenes, stags and deer became very popular during the nineteenth century. Their popularity was increased further by the interest in everything 'Scottish' which resulted from Queen Victoria's frequent visits to Balmoral Castle.

The larger figure of a 'Startled Stag' was designed by Christophe Fratin, who was particularly known for his sculptures of animals. The browsing deer is believed to be the work of BW Hawkins, who produced several stag sculptures.



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