

Iron - a once great Wealden industry

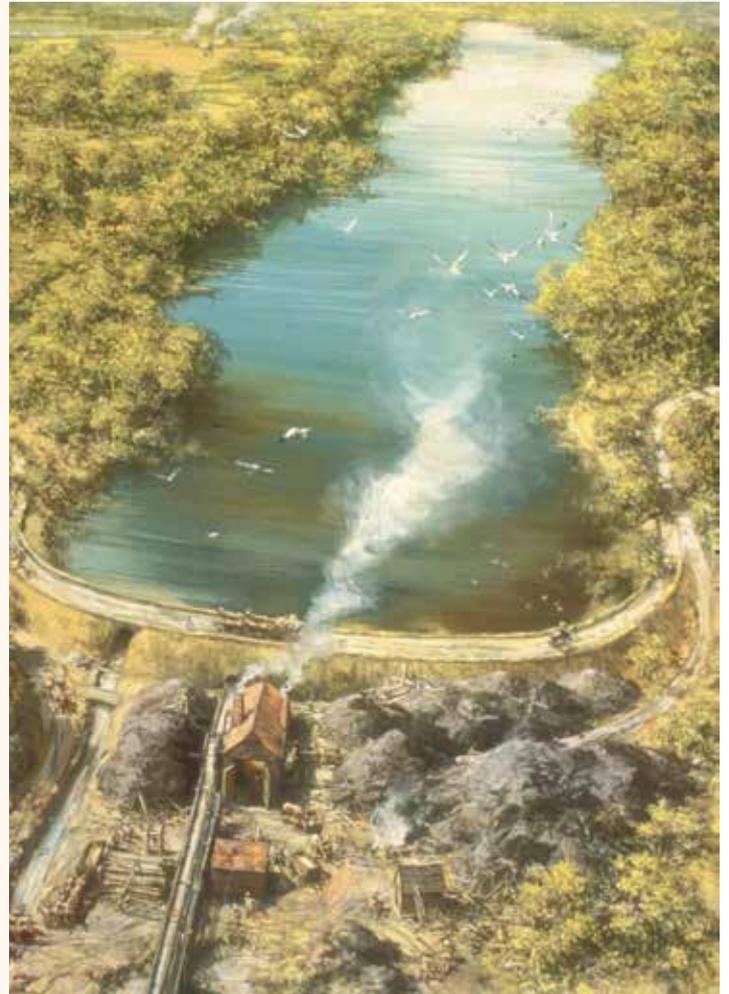
It is hard to picture the former iron industry in today's countryside of small fields, woodlands and steep, narrow gill valleys. But in this landscape existed all the necessary raw materials that allowed iron to be smelted for over 2,000 years.

The Wealden geology of sands and clays yielded the iron ore, as well as the stone and brick to build the furnaces; the woodland provided the charcoal fuel; and the numerous small streams and valleys ensured water power for the bellows and hammers of the forges and furnaces.

For two periods - in the first two centuries of the Roman occupation, and during Tudor and early-Stuart times - the Weald was the main iron-producing region in Britain; Julius Caesar first drew attention to iron being produced in the coastal parts of Britain. Archaeologists have found evidence of iron-working from the late Iron Age at sites near Crowhurst and Sedlescombe just a few miles from Brede High Woods.

When the Romans invaded in AD 43, they found a well-established local tradition of iron-making, using small, clay bloomery furnaces. With growing markets generated by the building of towns, villas and farms, the Romans encouraged this native industry. Sites from the period have been found all over the eastern part of the High Weald including at Brede High Woods where a bloomery excavated in 2013 has been dated to the early Roman period.

The 'Classis Britannica', or British Fleet, an imperial supply organization as well as a navy, took a strategic role in iron production. It managed several large smelting sites in the area around Hastings, such as one at Beauport Park, near Battle. This may have produced as much as 30,000 tonnes of iron over 130 years, and a substantial bathhouse was built there for some of the workforce.



We know little about iron-making in the Weald in Saxon times, and the industry receives only one mention in the Domesday Book for Sussex, at a location near East Grinstead. However, during the Middle Ages iron production grew steadily, concentrated more in the northern part of the Weald. Towards the end of the medieval period, water-power began to be used for forging iron, heralding the introduction, in 1496, of the blast furnace. Brede Furnace, situated where Powdermill Reservoir is today, was built in 1578 and ran for about 200 years before being converted to a gunpowder mill.

Introduced from northern France, and operated by skilled, immigrant workers, the blast furnace was a much larger, and more permanent structure than the bloomery; and instead of a few kilos of iron being made, daily output was nearer a tonne.



More ore and charcoal were required, and the need to operate the bellows by waterpower, instead of by hand, meant that ponds had to be created to store the water. This all left a lasting impact of the landscape, particularly the woodlands supplying charcoal and areas where iron ore was dug. In Brede High Woods many of the pits and holes that can still be seen were probably from the extraction of iron ore (or 'mine' as it was locally known). One of the old field names from the 1767 map of Brede High Farm is Mine Pit Field and the pits can still be found among the trees.

By the mid-16th century there were 50 furnaces and forges in the Weald, and that number had doubled 25 years later. All over the Weald, the iron industry was having an effect, with large numbers of people employed in digging ore, cutting wood and transporting both raw materials and products.

Most furnaces made "sows", or lengths, of iron for refining, but from the 1540s a small number began to make cast-iron cannon, a product that grew to be a profitable, and sometimes illegal, export. Improvements in house design led to the building of chimneys, and the need for iron fire-backs to protect the brickwork. Many Wealden farmhouses contain examples of these decorative and functional plates. In several Wealden churches there are examples of iron memorials. The oldest is in Burwash, dating from the 1530s, while Wadhurst church has over 30, dating from the early-17th to the late-18th centuries.

As competition from imported iron increased, the Wealden ironmasters began to concentrate increasingly on gun founding, and examples can be found all over the world, wherever Britain fought or traded. Eventually, the onset of the Industrial Revolution took heavy industry north to the coalfields, and the last furnace in the Weald, at Ashburnham, closed in 1813.



So, where are the remains of iron production? Building stone was too valuable in the Weald to be left unused, so the works were dismantled, and the woods grew back over the former sites. Only the tell-tale waste, called slag, from the smelting process, and some of the hammer and furnace ponds are left to remind us of a once-great Wealden industry.

by Jeremy Hodgkinson

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