

Industry in the Tees Valley



River Tees
Rediscovered 

Industry in the Tees Valley

A Guide by
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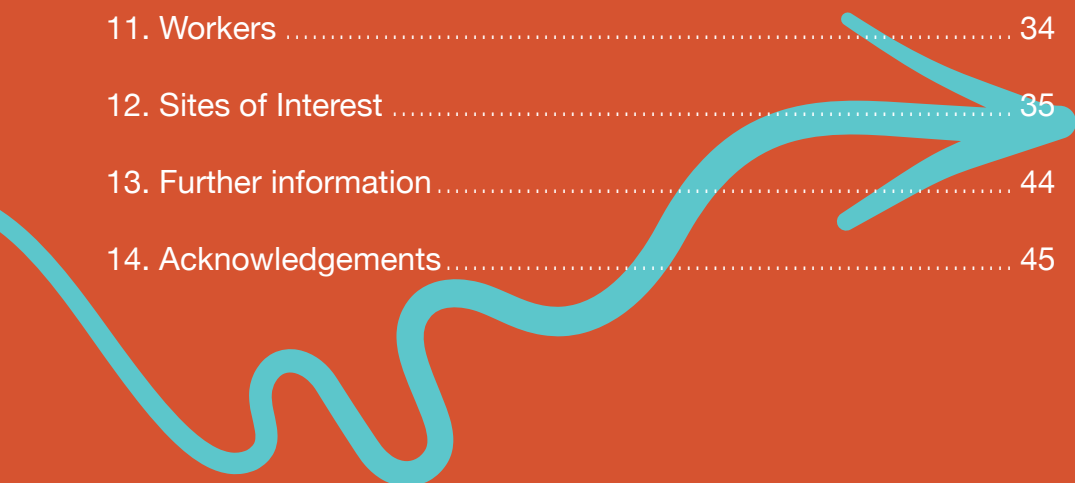
It was put together by Cleveland Industrial Archaeology Society & Tees Archaeology



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FOREWORD

Groundwork NE & Cumbria work on hundreds of projects every year, helping communities find practical solutions to the challenges they face. The River Tees Rediscovered Landscape Partnership with funding raised by National Lottery players and awarded by the Heritage Lottery Fund (HLF), is an exciting initiative involving a wide range of partners, stretching from Piercebridge to the mouth of the Tees.

Our vision is for the Tees Valley to be renowned for its rich landscape, heritage and culture. We aim to connect people and communities to the built and natural heritage within Tees Valley, bringing our heritage to life, by offering new ways for people to see, hear, touch and enjoy it. This is one of a series of guides which helps to increase learning about our landscape and its heritage.

We hope you enjoy it!

Lucy Chapman

River Tees Rediscovered Partnership Manager
Groundwork NE & Cumbria



Introduction

The Tees Valley area is associated with three key industries, iron and steel, shipbuilding, and chemicals. That was not always the case - in early times agriculture was the principal industry of the area.

The area was late in embracing the industrial revolution, but it eventually did so with a vengeance. The district ultimately became one of the most important areas in the country for iron and steel, shipbuilding, and chemicals.

Early times

Until the beginning of the 19th Century, the main industry of the area was agriculture to provide food for the people, using horses and oxen to plough the land and with little artificial fertiliser.

Any ironworking was carried out by the local blacksmith, shoeing horses and making tools and ploughs. Salt for preserving food was produced in the Teesmouth area and some of the salterns are still visible.

There was a certain amount of quarrying for stone, mainly for building work at various sites often close to the river. Flour was produced by grinding corn using watermills and windmills which were both weather dependent.



Medieval ploughing (Tees Archaeology)

One important industry was shipbuilding, although this was carried out on a small scale with ships being built from wood from as early as the 13th Century.



Norton Water Mill in the early 20th century

17th and 18th Centuries

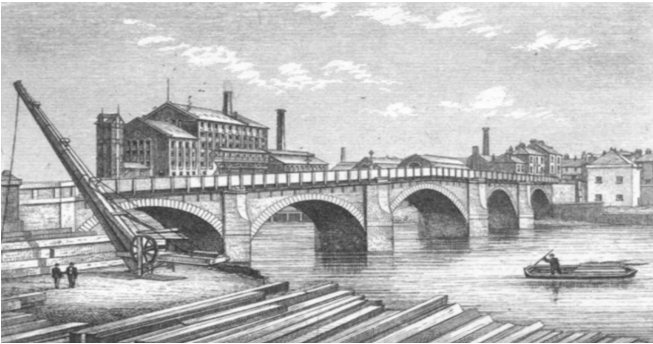
In 1678, Stockton was building ships of 200 tons and Yarm also had a shipbuilding trade at this time, but it was in the late Eighteenth Century that shipbuilding really began to develop. Between 1790 and 1805, Thomas Haw of Stockton was building ships for the Napoleonic wars. While there were two or three dedicated shipyards at the end of the 18th Century, ships were often built by itinerant shipbuilders working with a local timber merchant.

Prior to the 18th Century, Yarm had been the main port on the river Tees, situated at the lowest bridging point of the river and on the main route between York and Durham. The main exports of Yarm were agricultural products and lead from the Yorkshire Dales.

Darlington was comparable to Stockton with a mainly agricultural and market economy, although since Medieval times it had a valuable wool trade with Flanders. By the 18th Century, the town had a strong worsted and linen industry. The town had better communications than Stockton as it was on the line of the Great North Road.

In the 18th Century, flour milling was mainly carried out at water mills such as that at Norton, indeed there were seven water mills on Billingham Beck all using the same watercourse. Many other watercourses had mills such as the Skerne with 13 mills and a number on the river Leven. There were also many windmills in the Tees area, but both types of mills were dependant on the water supply or the weather.

After the civil wars of the 17th Century, it became apparent that Stockton, being closer to the sea, offered a better prospect for the commerce of the district.



The stone bridge at Stockton

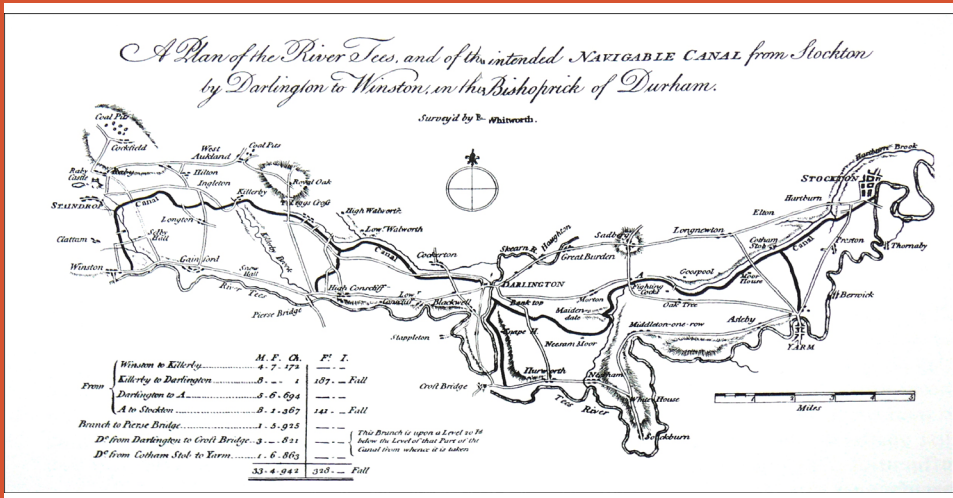
One of the major disadvantages that Stockton had was that the only access to North Yorkshire was either by ferry or a long overland route via Yarm Bridge. This was remedied when an Act of Parliament was obtained in 1762 for the building of a bridge near the ferry at Stockton.

The Industrial Revolution

The First Industrial Revolution ran from 1760 to 1840. This was a fundamental change in the way goods were produced, from human labour to machines. Machines replaced human labour and new energy sources were developed to power the new machinery – water and steam, and eventually electricity and oil.

It started in England, as the country had the capital for investing in the means of production and the colonies provided markets for manufactured goods. England possessed the necessary raw materials to create the means of production. There were vast coal and iron reserves to provide power and materials.

By the mid-18th Century, iron was being produced in Coalbrookdale in the Midlands, where there were deposits of ironstone and coal. The Bridgewater Canal opened in 1761 and was the longest canal constructed in Britain to that date.



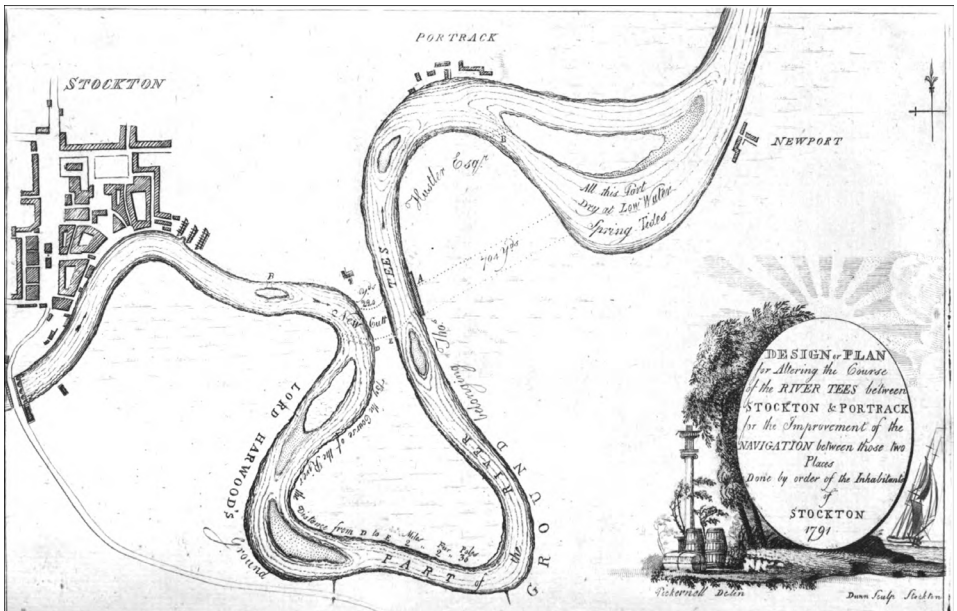
Plan of proposed canal between Winstan and Stockton

Local merchants saw the impact of the canals in other parts of the country and in 1769 it was proposed to build a canal from Winston in County Durham to Stockton, with a view to opening up the coalfields of southwest Durham in the same way that Newcastle and Sunderland had accessed the Northumberland and Durham coalfields.

Although a route had been worked out for a canal from Winston to Darlington and on to Stockton with branches to Piercebridge, Croft and Yarm, the plan came to nothing; it was, however, the idea that would become the basis for the Stockton and Darlington Railway.

One of the major problems with the expansion of Stockton as a port was the tortuous course of the River Tees, which had many bends and sandbanks slowing down shipping. In 1769, a cut was proposed to remove some of the bends in the river which made it difficult for shipping to reach Stockton. Edmund Harvey, a local pewterer, advocated a cut across the neck of a large loop in the river at Mandale, with another at Portrack. This scheme was ignored until 1805, when a cut was planned at Mandale, and finally opened in September 1810. The second cut at Portrack was opened in 1831.

Proposed cuts on the river to improve navigation



Although the first cut improved trade in Stockton, there was still no sign of an industrial revolution.

There were three shipyards at Stockton building wooden ships in the early 19th Century and a number of smaller temporary yards. These were accompanied by many timber yards, a number of rope making factories, and some sailcloth factories.

Two small iron works made materials for the shipyards, but much of this iron work was for the agricultural industry around Stockton.

Darlington was similar to Stockton with a mainly agricultural and market economy, however the town had better communications than Stockton, as it was on the line of the Great North Road. There was also a textile industry in Darlington. Otherwise little had changed for many years. Things were about to change with the coming of the railways and the iron industries.



Stockton High Street in 1785



Darlington in the 18th Century

Railways

After the opening dinner for the Mandale cut in 1810, it was resolved by the businessmen of Stockton to look into a possible canal (again) or a railway. A committee was set up to look into the possibility of a railway or canal from Winston to Darlington and Stockton, resurrecting the 1769 plan.

It was not until 1818 that the scheme to build a canal was finally revived; however, the cost of a canal was estimated as twice that for a railway. Consequently the first bill for a railway was presented to Parliament in 1819. This was vigorously opposed and narrowly defeated.

In April 1821, an Act was passed for the railway and in 1822 the first rail was laid at St John's Well near Stockton Bridge. In 1823, a second bill for the railway was passed which altered the route and allowed for the use of steam locomotives.



Plan of Stockton and Darlington Railway

Finally, with much ceremony, the railway was opened on 27th September 1825. A steam locomotive was used on the opening day although much of the traffic was handled by horses for some years after the opening.

While the Stockton and Darlington Railway was not the first railway in the world and not even the first public railway in the world, it was the world's first steam-powered public railway. Indeed, the Stockton and Darlington railway has been called the world's premier railway, perhaps rightly so.

Although the price of land sale coal at Stockton reduced from 18 shillings per ton to 12 shillings and later to 8 shillings and sixpence per ton, there was very little impact on the industry in the area.

The railway was responsible for a small expansion of industry when a pottery was opened south of the river and a gas works opened in Stockton. At Stockton, the coal staithes were very basic and loading of coal into ships was slow. There were sometimes queues of wagons up to 2 miles long waiting to be loaded. As a result, in 1828 the Stockton and Darlington Railway bill for an extension to Middlesbrough received royal assent.

New coal staithes at Middlesbrough



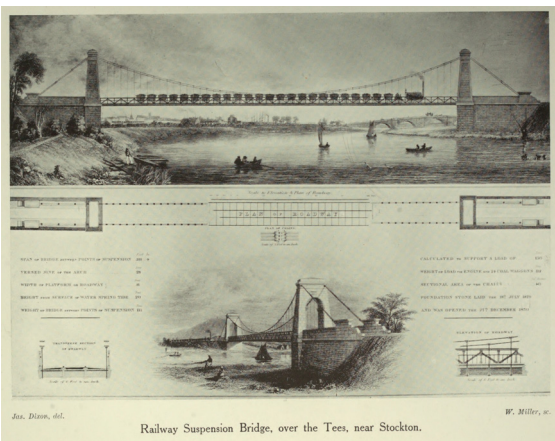
There was a lot of opposition to this extension in Stockton. Despite this, on December 27th, 1830, the branch railway to Middlesbrough and the new Suspension bridge was opened. Middlesbrough provided facilities for six ships to be loaded at once, using much larger capacity staithes. The suspension bridge had a number of problems initially but nevertheless, the line started taking coal trade away from Stockton until much of the coal on the Tees was exported from Middlesbrough.

In 1831, the second river cut was opened at Portrack, reducing the distance from Stockton to the sea to 12 miles and improving access to the port of Stockton.

Between 1830 and 1831, the effect of the opening of the line to Middlesbrough almost doubled the export of coal. Middlesbrough was a small farming village, but with the arrival of the railway, the village rapidly expanded into a town. Exports of coal were the mainstay of the prosperity which soon resulted in more industries such as potteries and shipbuilding appearing.

In 1828, an Act of Parliament was passed for the Clarence Railway, running to the north of the town from the Durham coalfields to Port Clarence, with a branch to Stockton. The Clarence Railway opened in

1833 with new staithes on the River Tees at a place called Samphire Batts, now known as Port Clarence opposite Middlesbrough.



New Railway suspension bridge at Stockton

The Clarence Railway was a contributory factor in the establishment of an industrial complex to the north of Stockton, with factories building railway engines and later ship engines as well as a number of other engineering works.

As the town and port of Middlesbrough expanded, a new dock was built in 1842 to improve trade facilities. The railway network also expanded with the construction of the Middlesbrough to Redcar Railway in 1847. The line of this railway closely followed the shoreline of the river most of the way down to the coast. After the discovery of ironstone in the Eston Hills, this line was soon in a strong position to exploit traffic from the mines opened in the 1850s.

In 1852, the Leeds Northern Railway was completed to Stockton. This line increased trade of the area with West Yorkshire and beyond and was eventually connected to some of the Cleveland ironstone mines. The arrival of this railway was, to a large extent, responsible for the expansion of Stockton as an industrial centre with many industries being constructed on land on the west side of the railway.



Clarence Railway coal staithes

Reclamation of the River

After the completion of the cut in 1810, the Tees Navigation Company spent money on the river, repairing and making new jetties and strengthening the river banks to help make the river more navigable.

This was not enough, so dredging commenced and shoals were removed at Jenny Mills Island, near Stockton, together with others near Newport. After the opening of the second cut in 1831, it was suggested that if jetties were placed in the river opposite each other, this would improve the navigation of the river by forcing the river into a narrower channel.

In the event, it had very little influence on the river channel. By 1850, it was felt that the ports of Stockton and Middlesbrough were stagnating and it was decided to abolish the Tees Navigation Company and create a new organisation, the Tees Conservancy Commissioners, with greater powers.

Starting in 1855, training walls were built to straighten the course of the river. In total, over 20 miles of training walls were constructed from slag from the ironworks between Stockton and the sea. The construction of these walls brought with it the reclamation of land between the walls and the river, land which could be used for industrial purposes. This still left wide expanses of mud flats remaining at low tide. All this work on the south bank of the river resulted in the Middlesbrough to Redcar railway no longer running along the river bank.

Two large breakwaters, North Gare and South Gare, were built in the mid-19th Century to provide a harbour of refuge. Land continued to be reclaimed both on the north and south banks until the 1950s.

Subsequently, there was a need for more riverside land to service the petrochemical industries. This land was reclaimed at Seal Sands in the 1960s and 1970s. This reclamation was carried out by constructing walls and pumping sand and silts dredged from the river into the area behind them.

By the 1850s, Yarm had virtually ceased to be a port and some of the trade of Stockton had been taken over by the port of Middlesbrough. Stockton in turn ceased to be a port in 1967, having been in a slow decline for many years.

A new dock was built at Middlesbrough and opened in 1842, but was soon found to be too small and was extended in 1869, 1885 and 1898, with some new berths added in 1960. The dock was finally closed in 1980 and has since been partially filled in.

A new, much larger dock, known as Tees Dock, was opened closer to the mouth of the river in 1963. Since then, further work has been carried out to provide a roll-on, roll-off facility.

As the industries alongside the river expanded, the riverside facilities expanded too, with refineries and steelworks having their own private berths. New berths were also created at Seal Sands, with the start of the North Sea Oil Industry.



Middlesbrough Dock c1930

Extractive Industries

There were a number of early extractive industries just outside the area - lead mining in Teesdale and Swaledale, copper mining near Middleton Tyas, and of course coal in County Durham and iron in Cleveland.

Within the area were stone quarries used for building stone and whinstone quarries at Eaglescliffe and Ingleby Barwick. The drift geology of the area around the river provided some sand and gravel for the building industry. However, the major extractive industry of the area was the digging of clay for brickworks and potteries.

There were numerous brickworks around the area from the late 17th Century. Initially, many of these were small and short-lived and frequently sited in rural areas to manufacture land drainage tiles.

In and around the towns, these small brickworks provided the materials for housebuilding and often when work was completed, the site, in turn, was built on or used for landfill, with little evidence of their former existence.

A number of larger brickworks were opened in the 19th and 20th Centuries at places such as Hurworth, Skipbridge, Eaglescliffe, Flatts Lane, Middlesbrough, Stockton and Greatham. All of these have now also disappeared. Due to the nature of the industry, there is little remaining, apart from a few ponds and of course the bricks in the buildings of the area.

Clay was also extracted for potteries, the first opening in Thornaby in 1825. There were other potteries in Stockton and Norton within a few years. A pottery was one of the first industries established in Middlesbrough, but the most well-known was the Linthorpe Pottery, established in 1879. Most of the potteries had closed by the early 20th Century.

Other extractive industries covered later in the booklet include anhydrite, salt and iron.

Flour Mills

There had been many water and windmills in the area, but both types of mills were dependant on the water supply or the weather. Once steam engines became commonplace, steam flour mills started to be constructed, with the earliest in Stockton in 1819, however, it burned down within two years. A steam mill was built on the riverside at Stockton in 1840, and the building still exists today.



1840 Flour Mill on Stockton
Riverside c1905

A large mill had been built at South Stockton, now Thornaby, in 1871, to be replaced by a massive concrete mill known as the Clevo Flour Mill in about 1930. The mill closed in 1960 and was finally demolished in 1970.



Clevo Flour Mill Thornaby

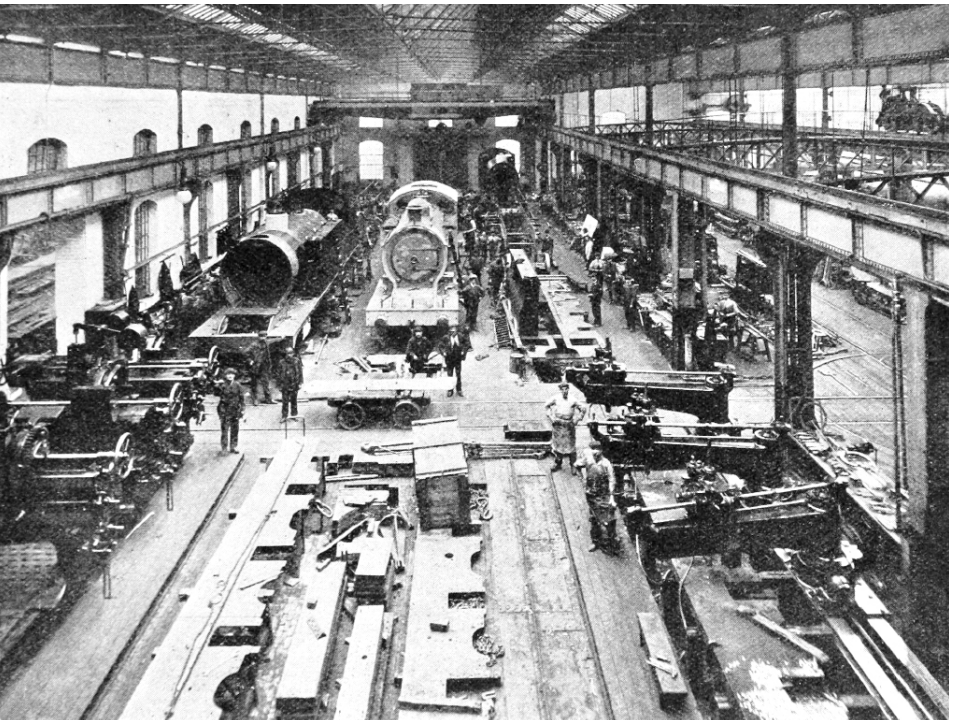
Railway Works

As the birthplace of railways, you would expect the area to have numerous railway engine manufacturing works. Shildon, close to the start of the Stockton and Darlington Railway (S&DR), had a relatively small works producing locomotives in the days of the S&DR. This eventually became a wagon works, finally closing in 1984.

Fossick and Hackworth opened works in Stockton about 1839, but after some years it converted to marine engine construction. There were also a number of small short-lived engine makers in the Stockton and Middlesbrough area.

Darlington was the railway town in the Tees Valley area, with many of the engineering firms making equipment for the railways. Darlington railway works opened about 1863 and became a major works for the North-Eastern Railway and later British Railways, until closure in 1966, constructing a large number of both steam and diesel locomotives and is famously the birthplace of the new steam locomotive, 'Tornado'.

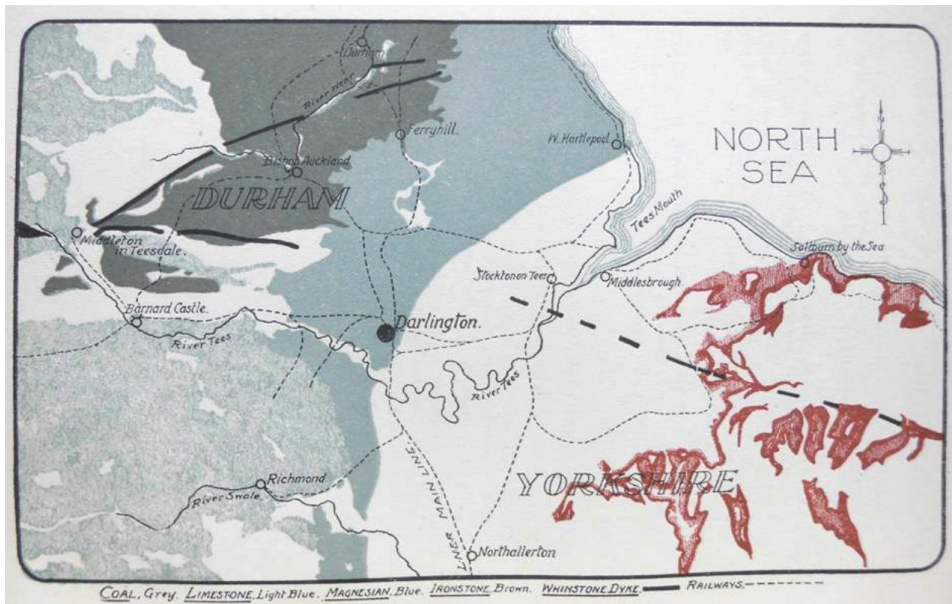
Darlington North Road Engine works c1911



The Iron Industry

The iron industry came to Middlesbrough in the form of works built by Bolckow and Vaughan in 1841, to process iron in puddling furnaces and rolling mills. It was not until 1846 that the company built their own blast furnaces at Witton Park in West Durham, close to the Stockton and Darlington railway, and using ironstone from the Cleveland coast area.

There are rich seams of ironstone in the Cleveland Hills, extending out to the coast, and ironstone rocks were collected from beaches on a small scale, but in 1835 a seam was discovered at Grosmont which was commercially exploited. The first large-scale ironstone mine in Cleveland was opened at Skinningrove in 1848, producing ironstone for shipment by sea and by railway to the Witton Park Ironworks.



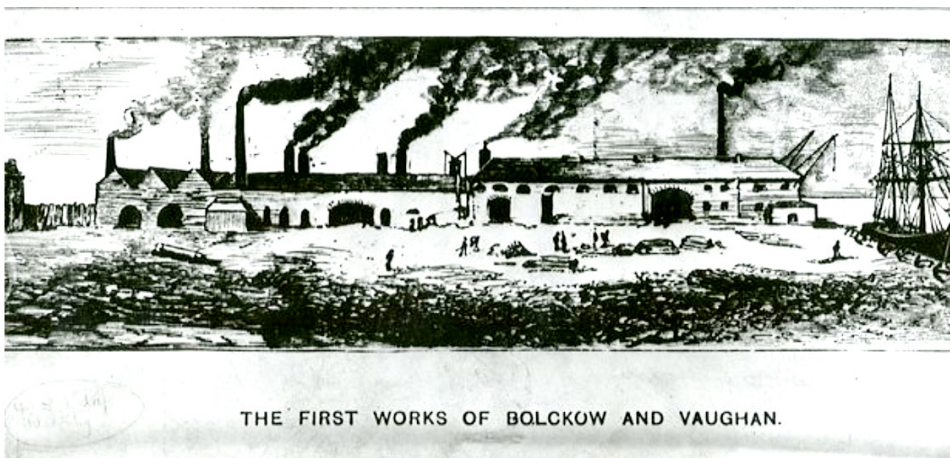
Map showing Ironstone, Limestone and Coal resources in the area

Following the discovery of ironstone in the Cleveland Hills in 1850, a mine in Eston was established almost immediately. A railway was quickly constructed to transport the ironstone down to the newly established works at Eston Junction, and also to the Middlesbrough-Redcar Railway for transport to other new works.

Coal from the coalfields of Durham, ironstone from the Cleveland Hills and limestone used as a flux from County Durham were all readily transported using the extensive railway network already in place, making Middlesbrough and Teesside the centre of the iron industry in Northeast England.

Many other ironstone mines were established in Cleveland after 1850. It was like a 'gold-rush' - one new mining settlement was even named California. Thousands of people came to find work in Cleveland in the ironstone mines and associated iron works - including coal miners from Durham, Northumberland & Scotland, tin miners from Cornwall, farm labourers from Norfolk, and migrants from Ireland. Cleveland produced one-third of the total UK iron output during Victorian & Edwardian times, leading to the rapid growth of Middlesbrough.

The Eston Mine finally closed in 1949, and the last ironstone mine in the area at North Skelton closed in 1964.

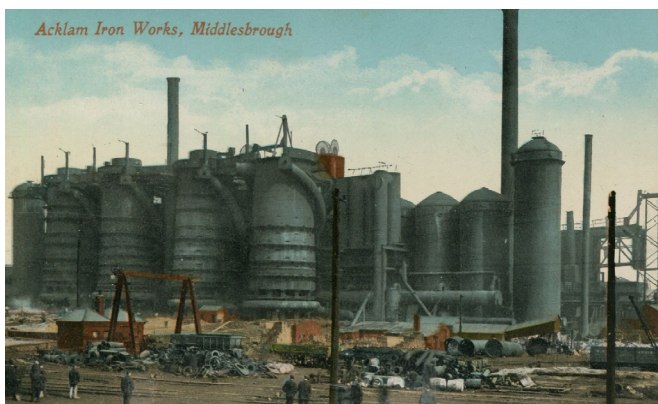


Bolckow and Vaughan opened their first blast furnaces in Middlesbrough and Eston in 1851. They were quickly followed by others such as Bell Brothers across the river at Port Clarence in 1853, Samuelson at South Bank in 1854, and Cochrane's at the Ormesby Ironworks.

Stockton soon had its own blast furnaces at the Stockton Ironworks of Holdsworth, Bennington and Byers in 1854, and Norton Ironworks in 1856. Blast furnaces were opened at Darlington in 1854, at Middleton St George in 1864, and Carlton in 1866. Some companies opened blast furnaces much later, in the 1870s at 1880s, at Middlesbrough, Redcar, Seaton Carew, Hartlepool and Stockton. There was a concentration of both blast furnaces and engineering works at a loop in the river at Newport, which became known as the Ironmasters District of Middlesbrough.

The industry grew from no blast furnaces in the district in 1850, to over forty in 1865 and almost ninety by 1876. They were mainly close to the river and many had their own wharves for exporting products and eventually importing raw materials. There were a few exceptions a distance away from the river at Norton, Carlton, and the Darlington area, but they were well served by railways. By 1872, Teesside produced over 444,000 tons of iron per annum.

In 1881, the production of steel started with the discovery of the Thomas-Gilchrist process, which turned iron into steel which was a much better and stronger metal.



Acklam Iron Works c1910

There were many works involved in processing the iron into products such as rails, railway chairs, plates for ships and structural components.

Some larger companies produced bridges and other structures all over the world. Dorman Long of Middlesbrough constructed the Sydney Harbour Bridge, and nearer to home, the Tyne Bridge and the Tees Newport Bridge, as well as many in Africa and Asia. Structural steel was supplied for many tall buildings all over the world.



Sydney Harbour Bridge (CHM)

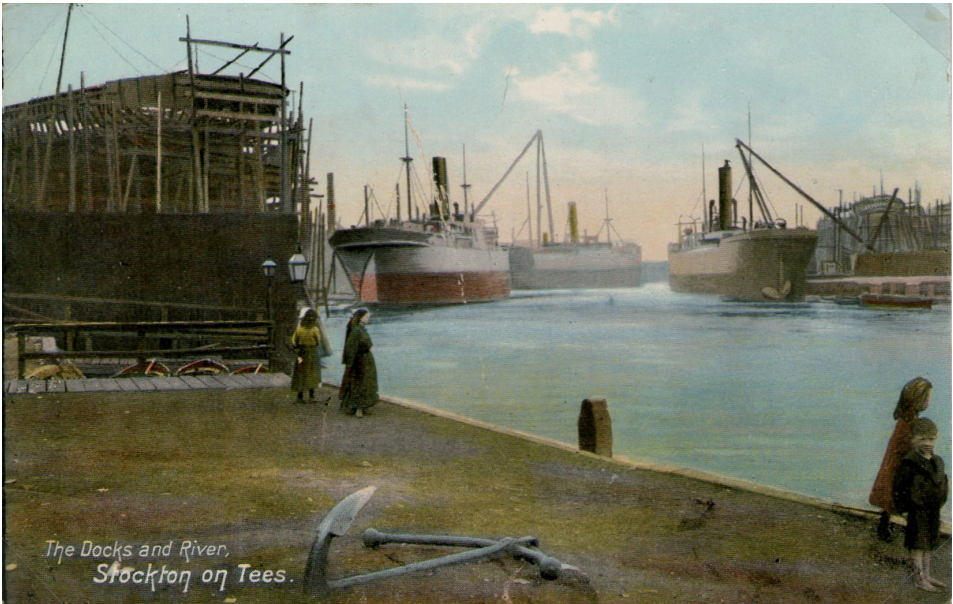
Cleveland Bridge and Engineering of Darlington also constructed many bridges and structures all over the world including the Victoria Falls Bridge and the Wembley Stadium Arch.

Head Wrightson also fabricated structures including Putney Bridge, colliery headgear and piers (including Redcar Pier). In later years they produced vessels for the atomic power industry which were often floated down the river for transport to their final location.



Redcar Pier

In the late 18th Century, the American War of Independence and the Napoleonic wars demanded an increase in shipbuilding in the country, and this was reflected at Stockton with about 2.5% of the country's ships constructed in the town, which surprisingly was the same as the River Wear.

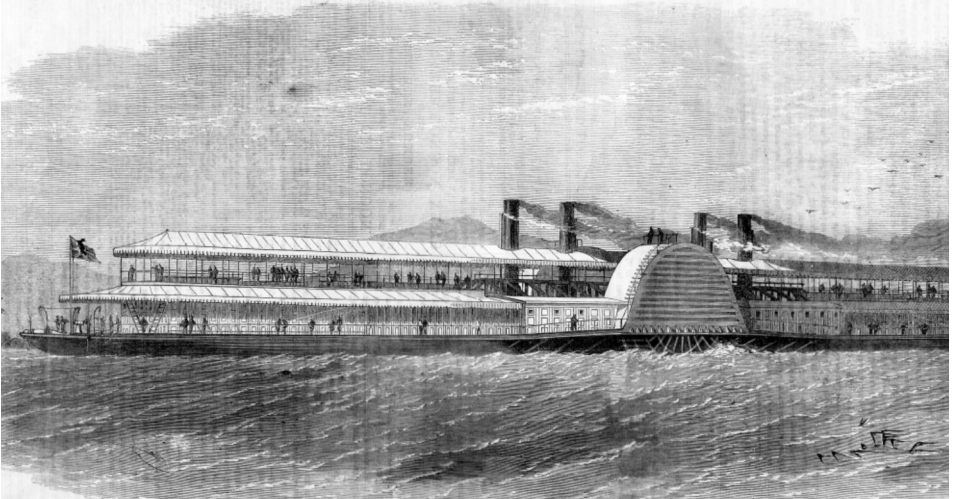


Shipyards at Stockton c 1905

By the beginning of the 19th Century, there were three shipyards at Stockton. In the 1830s, land on the Thornaby side of the river became available for industrial purposes and two or three yards started there, but they were still building wooden ships. In Middlesbrough, shipbuilding did not begin until 1833, when a wooden sailing ship called the *Middlesbro'* was built.

Iron shipbuilding started at Stockton and Thornaby in 1854, and just a few years later at Middlesbrough. Teesside's first iron ship was a screw steamer called 'The Advance', built at South Stockton (Thornaby) in 1854, and Teesside's first steel ship was 'Little Lucy', built in 1858.

One famous Teesside-built ship was the 377 feet long 'Talpore', built by Pearse and Co of Stockton in 1860. It was a troop ship for the River Indus and was the world's largest river steamer at the time.



The Talpore river steamer

By 1895, the Stockton yard of Ropner's was the third largest in the country in terms of tonnage built. There were two major yards at Thornaby, Craig Taylor, and Richardson Duck. Whilst at Middlesbrough, companies such as Raylton Dixon, Craggs, and Rake Kimber as well as a number of smaller yards were building ships.

One unusual type of ship built at Stockton towards the end of World War One was a pair of concrete ships which were sadly not a great success, although the remains of one still exists in Norway. Shipbuilding continued at Stockton, Thornaby and Middlesbrough until after World War I. The depression of the 1920s and 1930s meant that a number of smaller yards were closed.

Smith's Dock, a North Shields company, had opened a new yard at South Bank in 1907, and another new yard had rapidly been built towards the end of the World War I for Furness Shipbuilding Company at Haverton Hill. These new shipyards, which were closer to the sea, were capable of building larger-capacity ships.

Furness shipyard built a number of whale factory ships and some oil tankers and bulk carriers. Smiths Dock built whaling ships and trawlers, as well as normal freighters, and was responsible for the design of the Second World War Flower Class corvettes, made famous by the novel and film 'The Cruel Sea'.



Furness shipyard at Haverton Hill

These yards closed in the 1970s and 1980s due to strong competition from foreign yards with lower costs. Later, the North Sea Oil Industry, with the need for oil drilling rigs and more recently support structures for wind turbines, gave some of the yards a new lease of life.

The Chemical Industry

Teesside is well known for its chemical industry which developed in the early 20th Century, but the first of the modern chemical works in the area was founded by Robert Wilson at Urray Nook, near Eaglescliffe, in 1833, adjacent to the Stockton and Darlington Railway to produce sulphuric acid and fertilisers.



Aerial view of Eaglescliffe Chemical works

The company continued to produce sulphuric acid for many years, later starting linseed oil and cake mills to supply animal feedstuffs which were in great demand. Eventually, around 1927, the company started to produce chromium chemicals which created a great deal of heavy metal pollution, some of which polluted the river.

In 1859, large deposits of rock salt were discovered at a depth of 1,206 feet at Middlesbrough by Bolckow and Vaughan while boring for water, and salt works were established in the Middlesbrough area. Further salt deposits were discovered at Port Clarence by Bell Brothers in 1874, and a number of salt works were set up in the Haverton Hill and Greatham area near Billingham in 1882. Salt workers were brought in from Cheshire and housed at Haverton Hill.

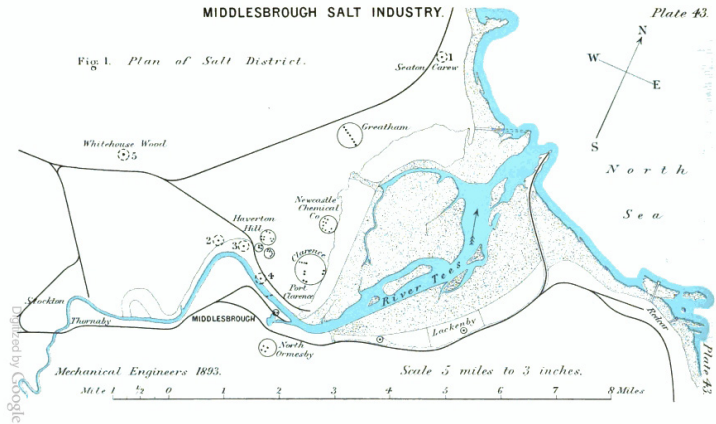


The bulk of the salt was used in the chemical industry, although some was extracted and processed by Cerebos at Greatham for table use. For many years, the area was littered with the salt rigs and pumps. The salt was extracted as brine leaving underground cavities which have been utilised for storage of gases produced by the nearby petrochemical plants.

Nodding Donkey near Greatham (IH)



Drilling Rig near Greatham (IH)



Saltworks around the river Tees

The First World War required the manufacture of more explosives, and a new chemical works, The Stockton on Tees Chemical Works, was set up in the Bowesfield area of Stockton to produce TNT. It was very successful but closed after the war.

During the First World War, supplies of Chilean saltpetre, used as a fertiliser and as a source of sodium nitrate for explosives, had been restricted by the German U-boat blockade. As a result, a chemical factory was established by the Government at Billingham in 1918.

A 700-acre site at Grange Farm Billingham was chosen. The war was over by the time the plant opened and it had to adapt to new processes. It was taken over by Brunner Mond in 1920 and manufactured synthetic ammonia, hence the name it was known by, "the Synthetic". Brunner Mond merged with other large chemical manufacturers in 1926 to form ICI (Imperial Chemical Industries).



Billingham Works

From 1928, anhydrite or dry gypsum was mined from 700 feet below Billingham for use in the making of fertilisers. The making of plastics commenced at Billingham in 1934 with Perspex. A new plant was established the following year for making oil and petrol from creosote and coal through a process called hydrogenation.

Following the Second World War, Teesside was thrust into the age of the 'white heat of technology' when the chemical industry experienced rapid growth. In 1946, ICI ran out of land at Billingham and the company opened another chemical works on the south side of the river at Wilton. This works had its own power station and concentrated mainly on petrochemicals.

Peak numbers employed at Wilton reached 25,000 in the late 1960s and early 1970s, while around 15,000 people were employed at Billingham at its height in the mid-1950s to mid-1960s.

Further land was purchased by ICI and other companies from 1962 at North Tees and Seal Sands, where it had been reclaimed from the estuary. The works in this area had direct access to the river for the import and export of raw materials and product. The discovery of North Sea gas and oil caused a major expansion on the river, particularly at Seal Sands, with oil refineries at North Tees and Teesport and associated storage facilities.

The large scale chemical companies have now gone and it now comprises small specialist companies producing high-value chemicals, replacing the bulk chemicals which were previously the staple product of the area.

Chemical works on the Wilton Site (NJ)



Workers

All the industries needed workers to operate them and the population of the area rapidly increased. Initially, people came in from the countryside with promises of higher pay, but eventually they came from all over the country Pottery workers arrived from Staffordshire and others came from Cornwall, Wales, Ireland, Scotland and the Midlands to work in the new iron and steel industries.

Houses were needed which meant that more and larger brickworks were built. New estates were constructed, and even a Garden City at Haverton Hill for the new shipyard. Roads were expanded and improved. A water and sewage system was constructed and eventually, telephone, gas and electric power systems were established. Some of the industrialists who owned and ran the businesses were philanthropic, and provided funding for museums, such as the Dorman Museum, and land for parks such as the Ropner and Stewarts parks, for the enjoyment of their workers.

The area gradually took on the shape we now see, all as a result of its industrial development.



Bowling Green, Haverton Hill, 5157

New Houses in Haverton Hill

Sites of Interest

Due to the nature of the industries and the rapid advances in technology, most sites have been rebuilt, replaced or even demolished.

A few buildings and sites remain, and although many are on private property, they can often be viewed from the roadside or riverside so please do not trespass. Many of the sites can be seen from the riverside by following the Teesdale Way.

Tees Cottage Pumping Station was opened in 1849 to provide clean, piped water to Darlington and Teesside. The site has a number of open weekends through the year. See the website for details:

<https://www.teescottage.co.uk/>



Tees Cottage Pumping Station

Head of Steam, North Eastern Railway works and Skerne bridge

The Head of Steam Railway Museum, housed in the former North Road Railway Station, opened in 1842 and contains many artefacts pertaining to the history of the Stockton and Darlington Railway.

See website for opening hours:

<http://www.darlington.gov.uk/leisure-and-culture/head-of-steam/>

Nearby is the 1853-built former Stockton and Darlington Railway Carriage Works, now owned by the A1 Steam Trust and is open on the third Saturday of each month see website. <https://www.p2steam.com/darlington-locomotive-works/>

A short walk from these buildings is the **Skerne Railway Bridge**, made famous in paintings of the opening day of the Stockton and Darlington Railway and on the £5 note used in the 1990s.



Skerne Bridge on Opening Day of the Stockton and Darlington Railway

Stockton and Darlington Railway Booking office can be found on the approach to Victoria Bridge, Stockton. This was used for booking in the coal



wagons from the collieries for land sale and export by ship. Next door is the **Railway Tavern**. This was the first ever public house built adjacent to the railway and was so popular it was extended a few years later. The buildings are now in use as a hostel.

Railway Tavern with booking office on the right

Behind the buildings off Boathouse Lane is the old coal yard, and the stumps of the coal staithes can be seen. This is where coal was sold to the local population.

Stockton Steam Mills

The structures of two former Steam flour mills are still visible in Stockton. The former Tees Mill is on the riverside and the former Union Corn Mill is on Maritime Road. These are both in use and are private property.



The Former Tees Mill, Stockton Riverside, 1840



The Former Union Corn Mill, Maritime Road, 1858

The River

Walking along the south bank of the river, the location of the first cut of 1810 can be found. The upstream end was where the Tees Barrage is now and a little way downstream we cross the Mandale Beck which was the original river. The river went all the way around the present Teesside Park retail centre. On the north side of the river small inlets can be seen which were the site of the original course of the river, removed by the second cut. Some of the slag training walls can be seen along this stretch of the river.

Newport Bridge

Dating from 1934, this was a lifting bridge to allow shipping up to Stockton. Built by local company Dorman Long, the bridge was finally closed to river traffic in 1990. On the northern side, the road bridge across the former Billingham Beck Branch Railway, visible from footpaths below, is said to be the first all-electric arc welded portal framed bridge.



View of silo under construction

Billingham Chemical works

Heading east along the riverside, on the north bank of the river is part of the former ICI works. Two of the highlights are the tall prilling tower used to manufacture fertiliser granules. It was a landmark on Teesside with the ICI lettering on the top, visible for some distance. One of the parabolic shaped phosphate rock silos can also be seen. These structures date from the 1920s and the largest is now listed. Also on the river is one of the many jetties, this one with a tank farm for liquid chemical storage.



View from riverside of two silos with the tall prilling tower behind

Newport Ironworks Blast Furnace

The remains of the base of one of the 1874 blast furnaces can be seen in the grassy area. The furnace would have been 80 ft tall.



Remains of Newport Blast Furnaces

The former **Furness shipyard** can be seen on the north side of the river a little further downstream. The building berths are still there, as is the fitting-out berth where ships were completed after their launch.



Former Furness Shipyard, Haverton Hill. Fitting out berth on the right

The Transporter Bridge, Middlesbrough is further downstream. Opened in 1911, it is one of the few bridges of its type still working in the world. Around the corner on Vulcan Street is the **Boundary wall of the former Cleveland Salt Company**. This dates from about 1887 and is now a listed structure. There are two blue plaques on the wall outlining the history.



Saltworks wall and Transporter Bridge

The Dock Tower and Middlesbrough Dock



The Dock Tower dates from 1903 and was built by the North Eastern Railway to replace an older tower. It contained hydraulic machinery to operate dock gates etc.

Part of Middlesbrough dock remains as a landscape feature. The stone construction can clearly be seen although the gates are long gone and the dock is now tidal.

The Dock Tower

Slag Ladle, South Tees Business Centre(TS6 6TL)



This 42-ton slag ladle was built by Ashmore Benson and Pease of Stockton and was used at steelworks in the area.

Dorman Long South Bank Coke Ovens

The former coal supply bunker for the South Bank coke works is a prominent landmark in the area was built in the 1950s. To the right are the remains of the former South Bank coke works. This essential part of an iron and steelworks was closed in 2015.



Coal bunker on the left and part of coke works on the right (AJB)

Redcar Blast Furnace

Opening in 1979, the blast furnace was the largest in the UK and the second largest in Europe. It was capable of producing 10,000 tonnes of iron per day. The molten iron produced by the blast furnace was then moved to Lackenby Works to be converted into steel. After a chequered history, the furnace was finally shut down in 2015 and remains a monument to what was once a great industry. Best viewed from the South Gare Road.

(see photo on front cover)

Museums

Preston Park Museum, Stockton (TS18 3RH)

The museum has a collection of models of locally built ships, local pottery and industrial history artefacts including parts of an engineering works crane and large lathe. In the grounds of the museum is part of the original trackbed of the Stockton and Darlington Railway.

See website for opening hours:

<http://www.prestonparkmuseum.co.uk/>

Dorman Museum, Middlesbrough (TS5 6LA)

The museum has a fine collection of local pottery, some ship models and contains exhibitions on industry and the river.

See website for opening hours:

<http://www.dormanmuseum.co.uk/>

Kirkleatham Museum, Redcar and Cleveland (TS10 5NW)

The Museum has displays covering local and social history, and the maritime and industrial heritage of the area including the ironstone industry.

See website for opening hours:

<http://www.redcar-cleveland.gov.uk/kirkleathamuseum>

Cleveland Ironstone Mining Museum (TS13 4AP)

Although strictly outside the area this museum is a must for anyone interested in ironstone mining, with opportunities to experience an ironstone mine.

See website for opening hours:

<http://ironstonemuseum.co.uk/>

Other Sites

There are many sites of interest around the area and a comprehensive gazetteer is given in the Cleveland Industrial Archaeologist numbers 36 and 37.

Further Information

If you have enjoyed this booklet the following sources of information may be of interest.

- Harrison, J.K. & Almond, J.K (ed) 1978** Industrial Archaeology in Cleveland, A Guide
- Betteney, A 2003** Shipbuilding in Stockton and Thornaby
- Betteney, A 2007** The Brickworks of Stockton-on-Tees
- Heavisides, H 1865** The Annals of Stockton-on-Tees
- Heggie, J 2013** Middlesbrough's Iron and Steel Industry
- Hempstead, C. A. (ed) 1979** Cleveland iron and steel
- House, J. W. 1960** Tees-side at mid-century
- House, J. W. 1969** Industrial Britain: the North East
- Le Guillou, M 1978** A History of the River Tees
- Lillie, W 1968** The history of Middlesbrough
- Linsley, S. M. 2013** North East Industries Through Time
- North, G. A. 1975** Teesside's Economic Heritage
- Sowler, T 1972** A History of the Town and Borough of Stockton on Tees
- Tomlin, D.M. 1980** Past Industry Along the Tees
- Tomlin, D. M. 1982** The Salt industry of the river Tees

Articles on various industries can be found in:

Cleveland Industrial Archaeologist issued from 1974

Cleveland Industrial Archaeology Society Research Reports from 1978

Tees Archaeology Reports:

Rowe P 1998 19th Century Industrial Survey of Middlesbrough

Rowe P 1999 The 19th Century Industrial Archaeology of Stockton on Tees

Rowe P 2000 19th Century Industrial Archaeology of Hartlepool

Green G & Rowe P 2007 The 19th Century Industrial Archaeology of Redcar and Cleveland

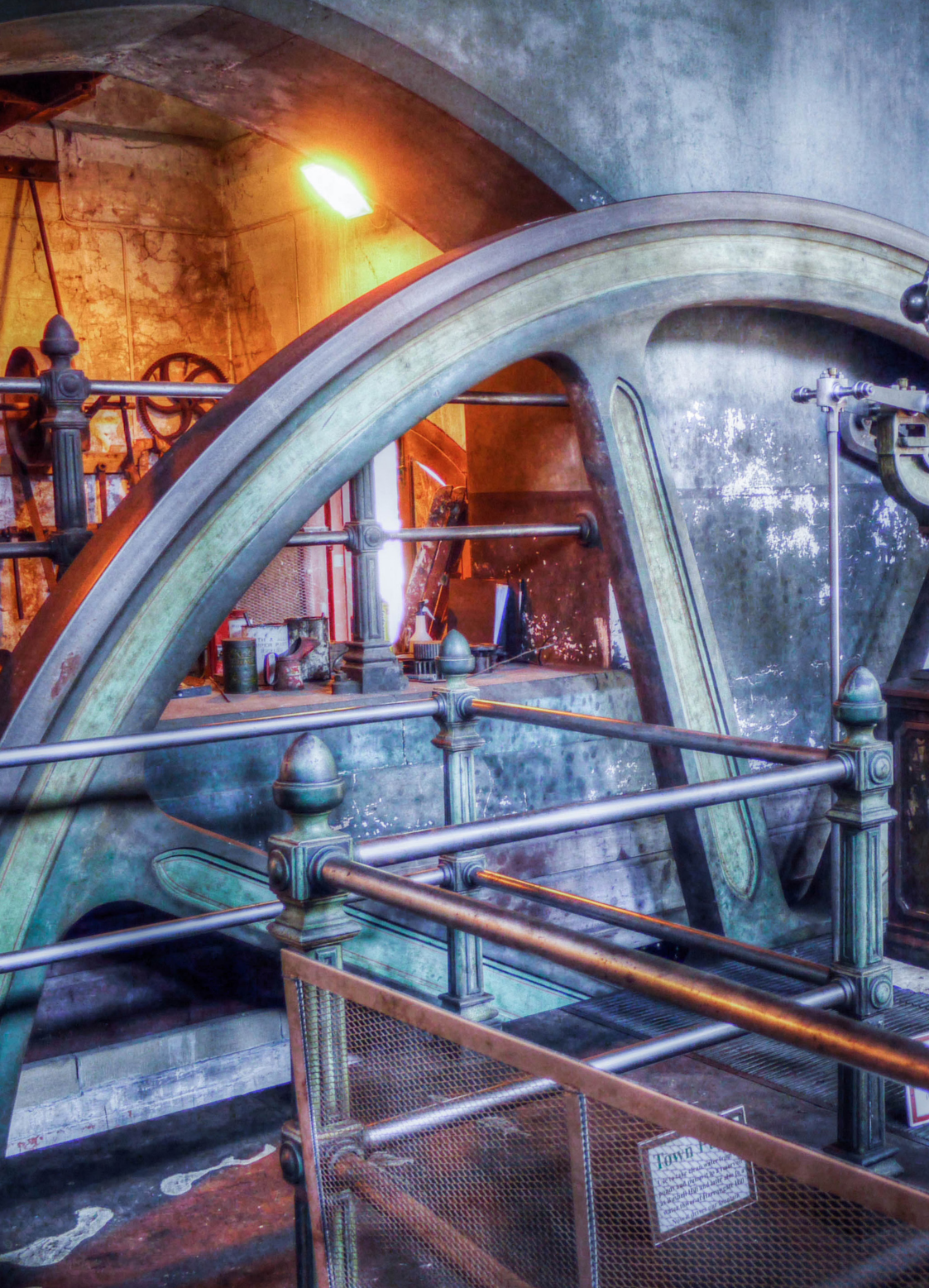


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All other photographs and illustrations by the author or from the author's collection.



The Cleveland Industrial Archaeology Society runs a series of lectures every year, open to all, as well as a series of summer outings for members.

More details of the society membership and its publications can be found on the website:

<http://www.teesarhaeology.com/partners/CIAS/CIAS.html>

