

## **A Brief History of the River Tees**

### **Contents**

- 1. Shipbuilding**
- 2. River Tees & Stockton Industries**
- 3. Yarm Industry**
- 4. Kelley's Ferry**
- 5. Bridges over the River Tees**
- 6. River Tees – from source to sea**
- 7. Tees Barrage & International White Water Centre**
- 8. Various photographs of the River Tees**

**These packs are produced by Stockton Reference Library.**

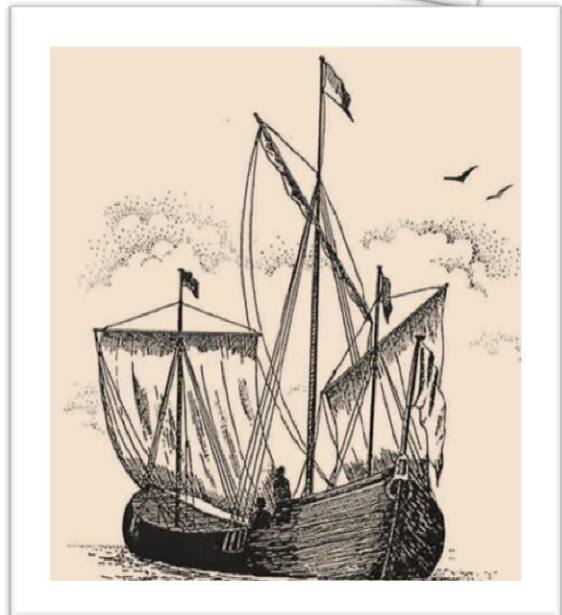
**To obtain a copy please contact Stockton Reference Library on 01642 528079 or email – [reference.library@stockton.gov.uk](mailto:reference.library@stockton.gov.uk)**

## Shipbuilding

The shipbuilding industry has played a large role in the development of Stockton-on-Tees. Stockton's coat of arms embodies symbolic witness to this. The background of six white and blue waves on the shield represents the River Tees and the red anchor the connection to shipbuilding. (This coat of arms is the current version)



Shipbuilding in Stockton on a small scale can be traced back to medieval times. During the 17<sup>th</sup> century shipbuilding increased and became a flourishing business. Traditionally ships built in the south of England were large and heavy. Areas such as Stockton began to produce ships that were of a design similar to the Dutch 'Flyboats' that were lighter, and had a flat bottomed keel. These boats were cheaper to build, could carry more cargo and were able to sail into rivers and harbours that were quite shallow. It was not until the 18<sup>th</sup> century that the commercial shipbuilding of small wooden ships was well established.



During the Napoleonic Wars the demand for ships increased and the Admiralty placed orders for ships with Stockton shipyards. In the late 1770's Mark Pye's shipyard was building frigates for the Admiralty and by 1783 three other shipyards were producing ships for them. Between 1782 and 1790 Pye's shipyard and that of his rival Thomas Haw built 24 ships for the Admiralty.

Stockton began to expand and the shipbuilding industry benefitted from the commissioning of the Darlington and Stockton Railway and the Industrial Revolution. Half way through the 19<sup>th</sup> century wooden ships were replaced by iron ships. Sailing ships were replaced by steam ships.

Several shipyards opened during the first half of the 19<sup>th</sup> century. In 1830 T. Lane & Co. were established and Messer's Spence in 1835. Lane built the "English Rose" in 1843 using engines made by Bolcow and Vaughan. A number of ships were built for the Confederate Government during the American War of Independence. Several



second hand ships were purchased from Stockton shipyards. Pearce, Lockwood & Co. took over one of the North Shore Shipyards in 1854, built three ships between 1861 and 1863 for the confederates. The purpose of these ships was to transport food clothes and armaments to Confederate Southern States whilst avoiding blockades by the Union Navy. In all the company built 229 ships between 1854 and 1888.

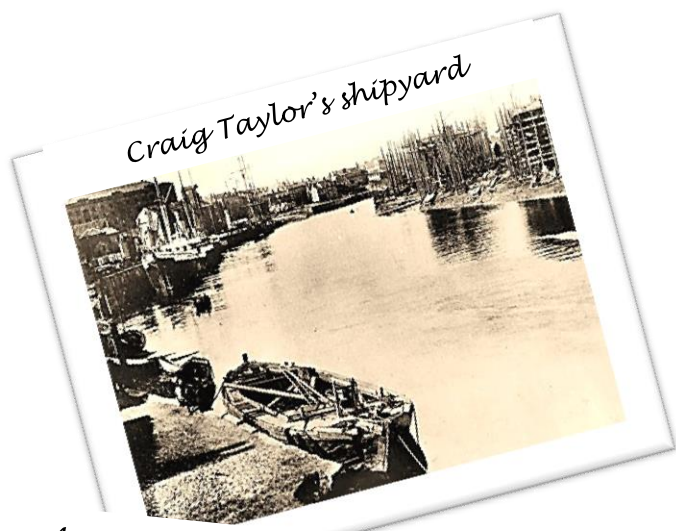


In 1883 there were 3 shipyards in Stockton and shortly afterwards another was opened at Portrack.

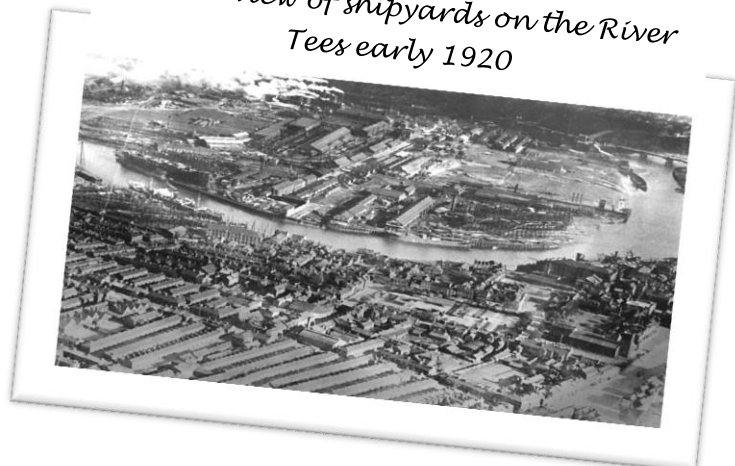
The South Stockton Iron shipbuilding Co. built the first iron ship on the Tees "The Advance" in 1854. Pearce and Lockwood later took over the Yard. In 1888 Robert Ropner bought the yard. Robert built 4 steel steamers by the end of 1889, and had become the third largest yard in the country by 1895. Ropner and

Sons went from strength to strength and prior to WW1 employed 1,500 people. Sadly orders diminished and the company closed in 1928.

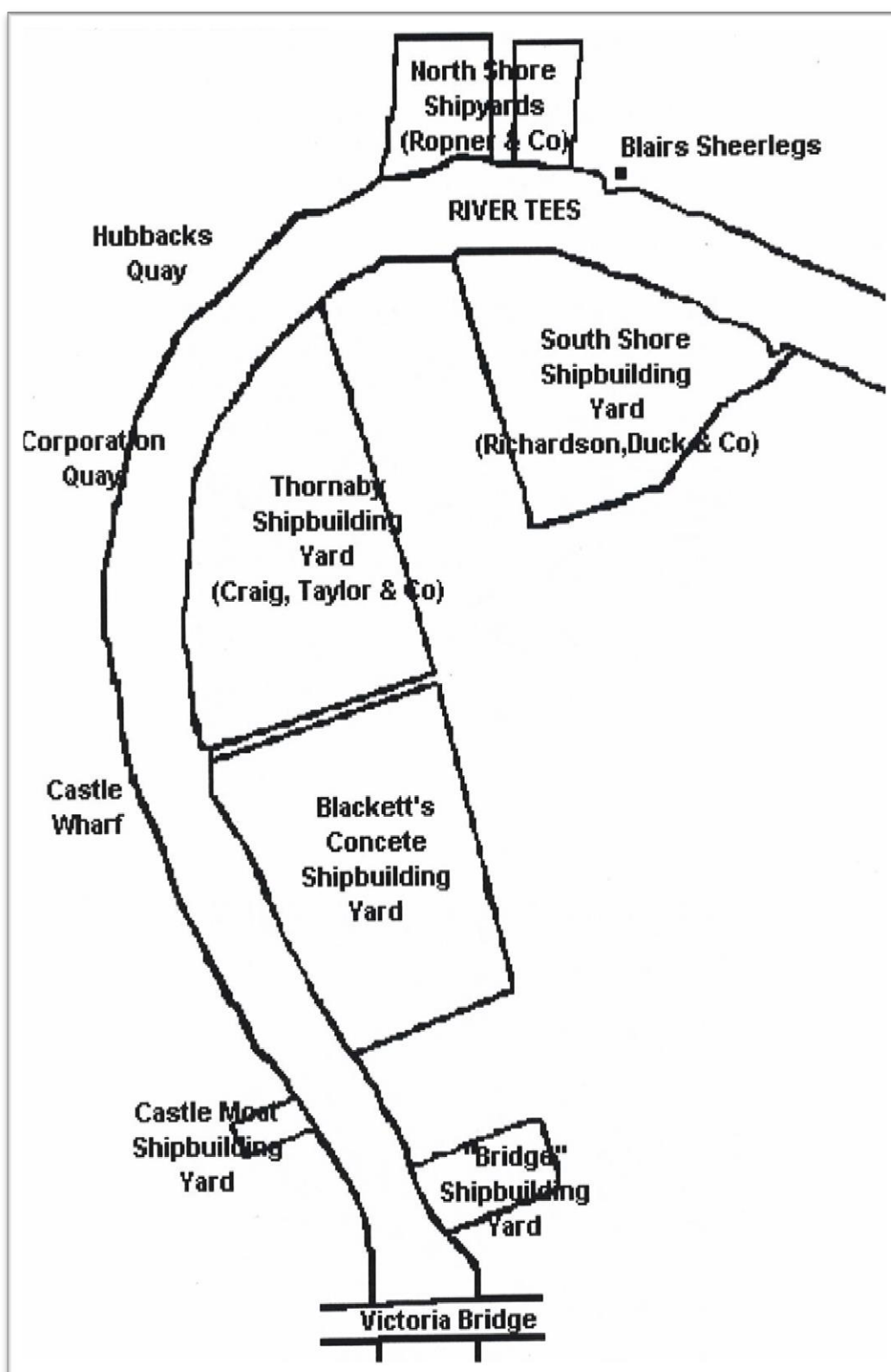
In 1884 Craig Taylor & Co. Ltd. took over the Thornaby Shipyard on the south bank of the river and had six building births for building ships. In the 20<sup>th</sup> century they built oil tankers for the oil trade. If the oil trade failed the tankers had design features which enabled them to be readapted to carry other cargo with little expenditure. The yard was closed in 1932 following a recession in shipbuilding.



*Aerial view of shipyards on the River Tees early 1920*



## *Stockton and Thornaby Shipyards*

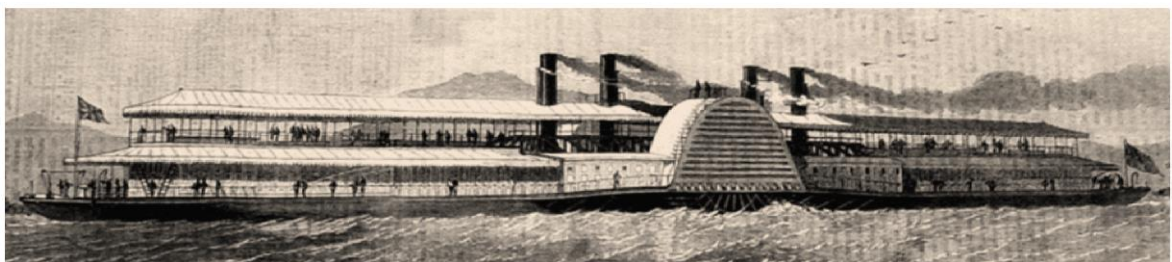




The Haverton Hill shipyard was built on reclaimed tidal land during the war in 1917. Furness owned the yard. Even though the yard was not completed the first keel was laid in 1918. Lord Furness built a village of 531 houses in 438 days for his ship workers and he named the village "Belasis". Colliers, whalers, schooners and tramps made up the bulk of the ships built at Haverton Hill during the 1920's

and 30's. Order books were full during the war years and business boomed. In 1963 the yard was modernised so that super tankers could be built. However, in 1968 the yard closed. Over 3,000 workers lost their jobs. Swan Hunters merged with Furness and the yard continued on until 1979.

Although there is very little physical evidence of shipbuilding remaining today we can still see the influence it had on the towns of Stockton-On-Tees, Billingham and Middlesbrough. Shipbuilding is part of the industrial heritage of the River Tees. You can still see these connections. Pubs such as the "Talpore" celebrate the building of the troop steamer which was launched by Pearce & Co. in 1860 at Stockton.



Robert Ropner bought some land and gave it to the people of Stockton to create a park which is known as Ropner Park. Castle Quay, the Teesquay Millennium Footbridge and many other street names reflect the huge impact the River Tees and in particular the shipbuilding industry had on the growth and development of this area.

## River Tees – Stockton Industries

The River Tees made a very important contribution to the development of Stockton. Many industries were established along the banks of the river so that they could take advantage of the ready supply of water that was available for use in their manufacturing processes. Food stuffs and other cargo could be transported much more quickly by ships and in larger quantities than by road.



*View of the river c1920*

Flour and wheat were the main exports at that time. Corn and wheat were grown locally and were taken from the surrounding area over land to the granaries and mills in Stockton. The Bishop of Durham owned all of the mills and farmers were compelled to use these and pay a tithe to him. After the civil war the monopoly was broken and many more mills were built. Farmers no longer had to pay a tithe to use the mills.



*Wolviston Mill*

By the 17<sup>th</sup> century Stockton was the main port on the River Tees and trade routes developed not just with London and other coastal towns in England but with Dutch and Baltic countries. Butter was in great demand in London in the 1600's and so it was sent by ship on a regular basis. Not only did Stockton export goods but it also imported goods the chief of which at that time was wine.

A small wool industry was established in the 17<sup>th</sup> century. In 1676 records show that 69,856 pairs of stockings were exported from the port of Stockton. The only sugar refinery between Hull and Newcastle was built on the banks of the river at Stockton in 1780.

As shipbuilding prospered the flax industry grew. Flax was produced locally and used to make clothing, linseed oil, and sails for ships, but eventually the demand for these products could only be supplied with the importation of raw flax fibre known as tow. Flax became the major import into Stockton. In 1827 there were four flax merchants and dressers, plus three linen factories - William Emmerson of Thistle



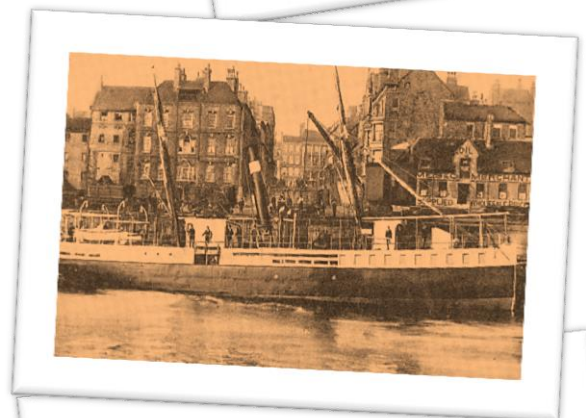
Green, John Lodge and Joseph Whitfield , both of the High Street in Stockton. As steam ships began to replace sailing ships, the cotton industry developed and the flax industry declined. The first cotton mill in Stockton was established in 1839.

Rope making was another industry which was associated with ships and shipbuilding. Stockton imported 1,178 tons of hemp in 1825 for rope production.

Brick making began in the late 17<sup>th</sup> century. Most of the bricks were hand made from clay which was sourced from the area surrounding the river. By the 19<sup>th</sup> century machinery was introduced which helped to increase production. Brick making ended in the 1990's.

Several potteries opened in Stockton as clay was a ready source of material for the making of pottery. William Smith established the Stafford Pottery in 1825 for the manufacture of brown ware. He later produced pottery which was known as 'Queens Ware'. Stafford Pottery was exported by ships from Stockton to Belgium, Holland and some parts of Germany as well as all over the UK. James Smith established the North Shore Pottery in 1840. White and cream coloured pottery was produced and exported to London, Holland, Germany, Denmark and Constantinople.

Two factors had a huge impact on the development of the industry in Stockton. First was the building of the Darlington and Stockton Railway which was opened on the 27<sup>th</sup> September 1825. It was built to transport coal from the Durham coalfields to Stockton. Coal was delivered by rail to the jetties on the quayside and then loaded on to ships and taken to other coastal ports. Secondly the discovery of iron ore in the Cleveland Hills led to the development of the iron and steel industry and an increase in shipbuilding.



When iron ore was discovered Iron and steel works, blast furnaces, foundries and rolling mills were constructed rapidly on the shores of the river . These companies employed huge numbers of people which led to an increase in the population of Stockton.

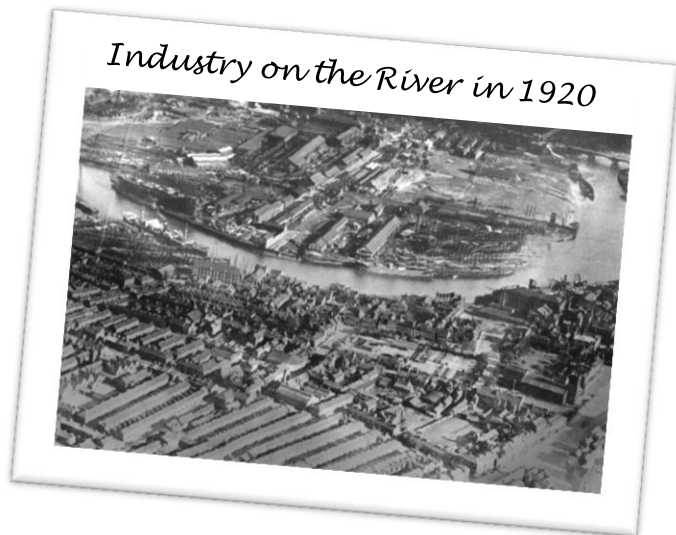
The Malleable Iron Company was established in 1860 and covered a 33 acre site. In 1890 it produced 1,500 tons of puddle bars, 350 tons of angles, 1,200 tons iron plates and 800 tons of steel plates per week. Up to 2,000 workers were employed at the works at any one time. Most of the iron and steel they produced was for the shipbuilding industry in the area. A large percentage of their business was for the shipbuilders on the Clyde. Later they produced many products including gas-holders, scrubbers, condensers and purifiers.

Stockton Forge was owned by the Engineering Supply Company and was established on a six and a half acre site in 1870. They supplied a large amount of products to the shipbuilding and railway industry. Keels, masts, sterns, and bridge cylinders were among a huge array of products they produced.

Ashmore, Benson, and Pease were established in 1885 and the company produced equipment for the gas industry. The Power-Gas Corporation later acquired the company as it was an experienced manufacturer of gas plant and engineering goods.

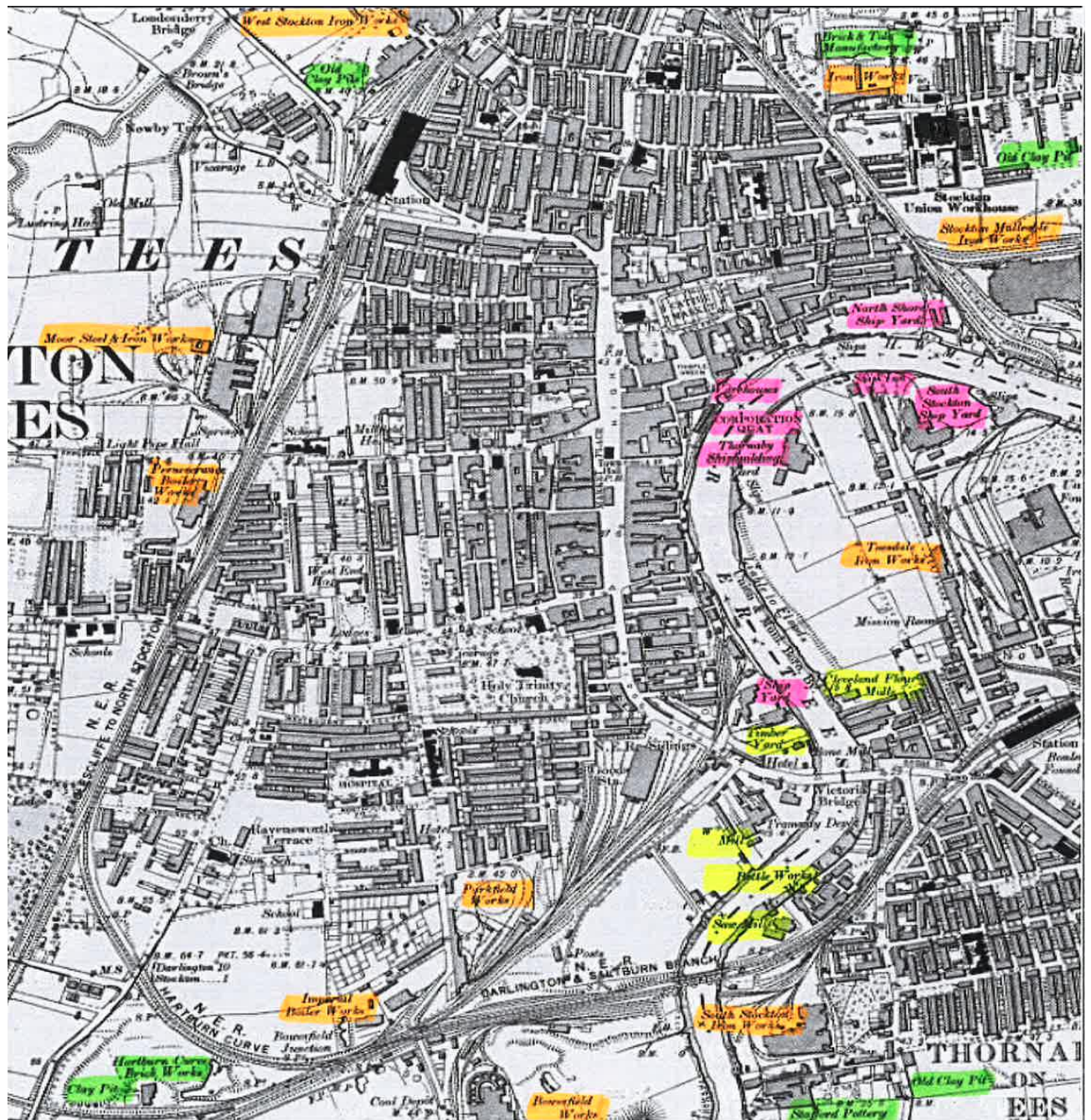
Blair and Co. Ltd were marine engineers and Iron Works. A forge, brass foundry, electroplating shop and repair yard were based on a 400 foot site adjacent to the river. Blair's supplied steam engines for ships and were also the were the first firm to use electric light in their workshops in their line of work. Over 2,500 people were employed in 1890 by Blair.

By the first quarter of the 20<sup>th</sup> century shipyards and engineering companies had declined rapidly. After WW1 the chemical industry replaced the shipyards and Stockton no longer has a major industrial base .There are a few engineering companies like Frances Brown, a fabrication and engineering manufacturer who are an innovative company employing a local workforce.





## Map of Stockton showing industries in the 19<sup>th</sup> Century



### KEY

Shipyards Quays and Warehouses

Iron Works and Engineering Works

Cleveland Flour Mill, Timber Yards, and Saw Mills

Potteries, clay pits and Bottle Works

## Yarm Industry

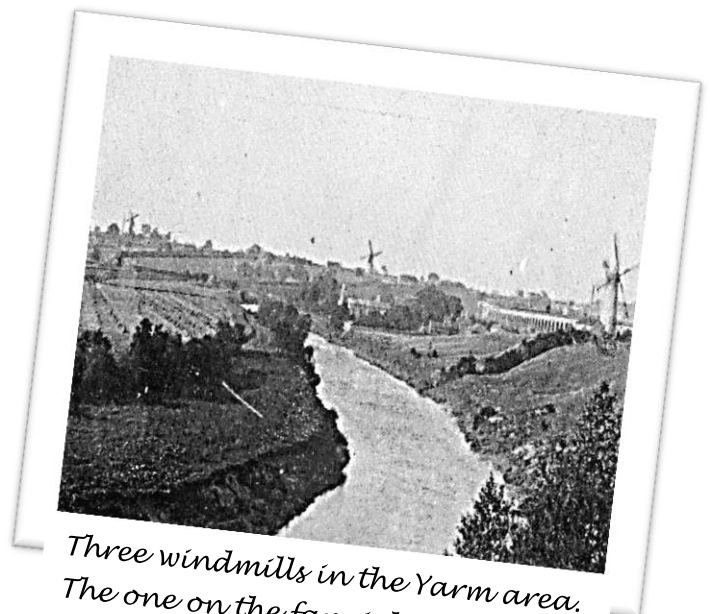
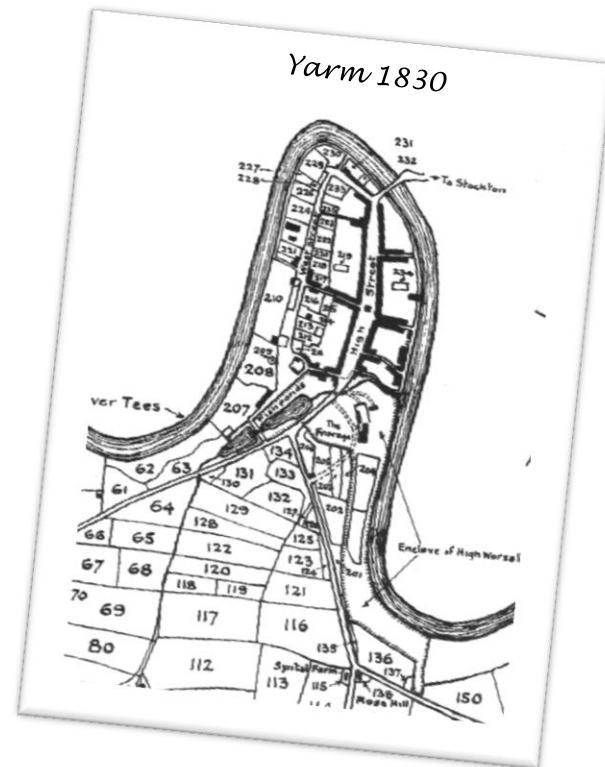
Yarm was the first port to develop on the River Tees. It is situated in a horse shoe bend of the river. Until the building of the Bridge at Stockton in 1771 Yarm was the nearest point of crossing on the Tees to the sea. For this reason it became an important place for the trading of goods. Yarm was the first port on the River Tees in the 12<sup>th</sup> Century and was at that time about 25 miles from the mouth of the river.

In the 12 and 13 century Yarm traded in goods with Scotland, France and Flanders. Farmers brought their wool to Yarm where it was loaded on to ships and sent to Flanders. Those ships then returned to Yarm bringing wines from Gascony, Flemish cloth, and other luxury goods.

Bacon, butter, cheese, paper, leather and coal were many of the other goods that made Yarm a prosperous port.

In 1830 Charles T. Bainbridge purchased the site of some granaries behind the Red Lion Inn, which then stood on the Eggescliffe side of the river on the west side of the bridge, for his paper mill. By 1832 the Tees Paper Mill was in production. At that time it was the most important paper mill in the north east. A variety of products were made for business including wrapping paper, paper bags, and trademarked stationery. A ready water supply was taken from the Tees for the use of boilers in the manufacture of paper. Yarm railway station was close to the mill which made the transportation of raw materials very economical. Many of the products that were manufactured were also transported by steamer down river and on to London. Thomas Wren & Sons built a steam flour mill adjacent to the paper mill.

Granaries and mills were built initially to grind all the grain for all the local farms. Corn was a major export until 1841.

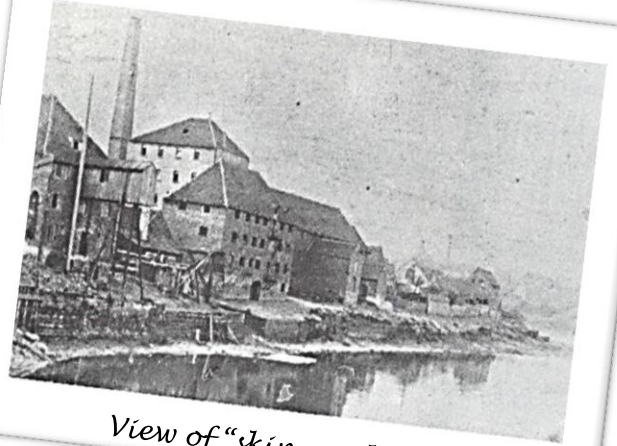


*Three windmills in the Yarm area. The one on the far right was at the far end of the viaduct close to*

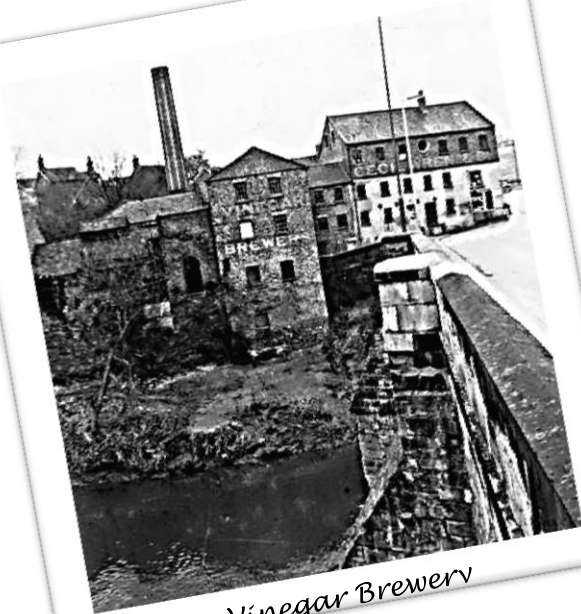


Thomas Wren built a steam flour mill in 1849 and during the following year over £50,000 worth of flour was transported by river alone.

In 1860 H & J.C.Hird moved his business from Bedale to Yarm and opened a skin yard. Barges loaded with sheepskins were towed up the river six or seven at a time to the skin yard to be processed. The skin yard played an important part in Yarm's economy up until the 1980's.



*View of "skin yard"*



*Vinegar Brewery*

In 1904 the paper mill was bought by Cecil Wren & Co. and was converted into a vinegary brewery. In addition to brewed malt vinegar, the company manufactured condiment and a range of pickles and sauces. The site was purchased by Durham County Council in 1972 and the buildings demolished as part of a road improvement scheme.

The banks of the river were low and perfect for the building of wharves which enabled ships to be launched.

These wharves stretched from Silver Street to the skinnery on Atlas Wynd. Wooden ships were built at the shipyard on the north side of the river not far from Yarm Bridge near the Blue Bell Inn. Only small ships were able to navigate the meandering nature of the river. As the river was tidal, ships travelling from Yarm had to wait for 4 tides to be able to navigate to the mouth of the river. Water levels would rise and fall and ships often had to make a hazardous journey to the mouth of the river.

Yarm began to decline as a port when a canal was constructed at Portrack. Stockton was now only four miles from the mouth of the river and larger ships were able to navigate the river much more easily. Iron ships were much larger than the previous wooden ships and were unable to navigate up river as far as Yarm. Yarm could no longer compete with Stockton or Middlesbrough, and it no longer traded as a port.



## Kelley's Ferry

The River Tees today can be crossed by several road and footbridges. However, the first bridge across the river was not built until 1762, therefore before this, the only way across was by boat.

The earliest record of a ferry in Stockton was in 1109 when the ferries would have carried sheep and cattle as well as people and foodstuffs.

In the 18<sup>th</sup> century every inhabitant of Stockton would have had to pay to use the ferry. The fees were 4d to be paid twice a year, and even when the river was frozen, which once lasted from 22<sup>nd</sup> December to 23<sup>rd</sup> January, the cost was 1/2d each way.

As the population of Stockton, and the industries around the river grew, ferries were needed more than ever to transport workers across the river each morning, and then back again at night. These ferries were not the huge boats and ships that we think of today, but simply small wooden rowing boats, which would have been crammed with men being taken over the river to the iron works and shipyards on the other side.



The most well-known of these ferries over the years were owned by the Kelley family, who for generations had carried men and goods across the river. The largest of Kelley's ferries was built to carry 60 men, but regularly held over a hundred, and the fare during the late 1800's and early 1900's would have been around about a halfpenny each crossing, or 6d each week, (about 2 pence today). As factories at that time did not have canteens, some men living on the same side of the river would

go home to have their lunch. Others would have their lunch brought to them by their wives or children on the ferry. Children were actually allowed out of school just to take their father's lunch to him! However older children were appointed monitors to make sure that they returned to classes afterwards!

*Kelley's Ferry (painted by local artist T. Battey c.1914)*



In those days, many people died in the Tees, either by accident, or suicide, and it was a sad, but money making, part of the ferryman's job, to take any bodies that he discovered to the riverside. The ferryman would always choose to take the bodies to the Thornaby side of the river, if possible, as Thornaby Town Council would pay him 7/6 ( about 30p) for each body, whereas Stockton Council would only pay him 5/- ! ( about 25p).

The 1950's brought the decline of the ship-building industry, and meant that many yards on the banks of the Tees were forced to close down. Improved rail and road transport took the place of the ferries and the ferry owners no longer had a profitable business. The last member of the Kelley family to be employed as a ferryman was James Kelley.

Today the Princess Diana bridge stands at the point where Kelley's ferry would have carried hundreds of men across the River Tees.



## Bridges Over the River Tees



### **Tees Transporter Bridge**

The Transporter Bridge was opened on 17<sup>th</sup> October 1911 by Prince Arthur of Connaught and connects Middlesbrough to Port Clarence.

Built by Sir William Arrol and Co. Ltd. of Glasgow and designed by G.C. Imbault of Cleveland Bridge engineering Co., Darlington, the bridge was tall enough to allow the ships using the river to pass underneath it.

The 'car' or 'gondola' which hangs from the bridge runs on rails and is able to carry a maximum of 200 people and nine cars across the River Tees in 90 seconds.

The longest working transporter bridge in the world, this landmark has featured in the film *Billy Elliot* and T.V. programmes *Auf Wiedersehen* and *The Fast Show*.

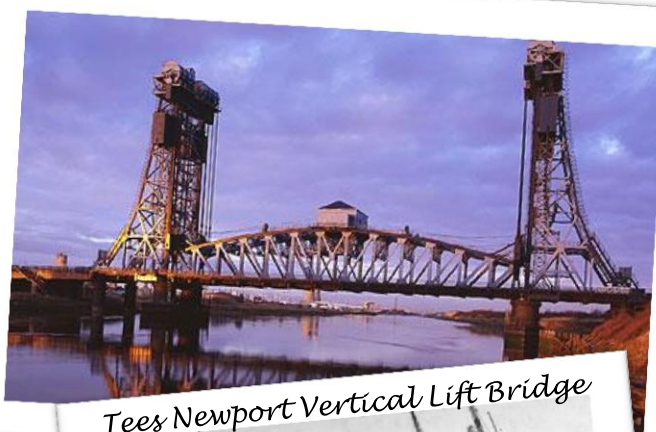
To mark the bridge's centenary in 2011, £2.6 million were awarded by the Heritage Lottery Fund for the Transporter Bridge Visitor Experience Project. As part of the Project a glass viewing lift was installed giving access to the upper walkway. Alongside this the bridge has also become a major site for extreme sports such as bungee jumping and abseiling.



*Gondola, Transporter Bridge*

### **Tees Newport Vertical Lift Bridge**

Newport Bridge was built by Dorman Long & Co. Ltd., (the firm famous for building the Sydney Harbour Bridge in Australia), and opened on 28<sup>th</sup> February 1934 by the Duke and Duchess of York who later became King George VI and Queen Elizabeth. This connected Middlesbrough and Stockton and was the first vertical-lift bridge in Britain with about 800 ships passing underneath the bridge each year during the 1940s and 1950s. The bridge could be lifted either by hand or by machinery but with the decline of shipping in this area the lifting span was fixed down in 1990.



*Tees Newport Vertical Lift Bridge*





### **Infinity Bridge**

The Infinity Bridge was opened on 16<sup>th</sup> May 2009 and is a footbridge for pedestrians and cyclists, linking the North Shore development with the Teesdale area.

Built using 450 tonnes of Corus steel and at a cost of £15 million, it was designed by Expedition Engineering and architects, Spence Associates. A dual tied arch bridge or a bowstring bridge, the Infinity Bridge is so called because of the infinity symbol that is formed by the bridge and its' reflection.

The Infinity Bridge has gone on to win many awards including the Structural Steel Design Award 2010, and the Green Apple Award for the environment.



### **Princess of Wales Bridge**

The Princess of Wales Bridge was opened on 23<sup>rd</sup> September 1992 by HRH Princess of Wales. It carries the road Teesside Boulevard and links the north bank of the river in Stockton-on-Tees with the south bank of the river in Thornaby-on-Tees. After the death of Princess Diana two memorial plaques were fitted to the bridge.

### **Teesquay Millennium Footbridge**

The footbridge links Teesdale Business Park and the University of Durham's Queen's Campus to the Castlegate Shopping Centre. The bridge was designed by Ove Arup and architects Yee Associates.

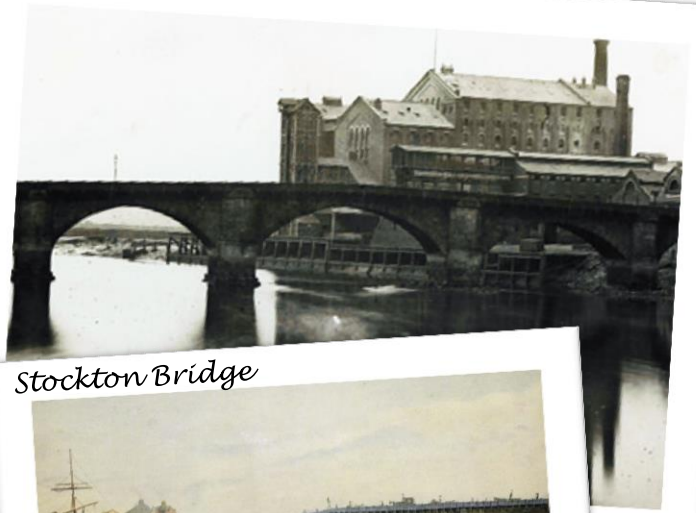
The bridge was made in Spain and built by Birse Construction. It was opened on 20<sup>th</sup> December 2000 by Dari Taylor, who was the MP for Stockton South, and the Mayor of Stockton-on-Tees at that time.



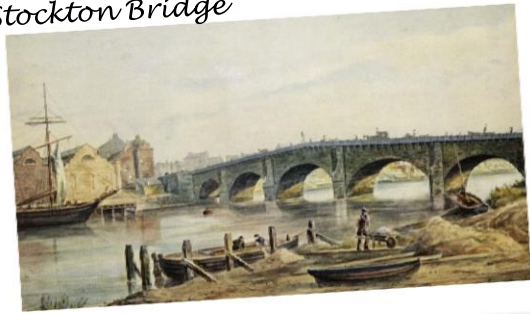
### **Stockton Bridge**

The only means of crossing the river was by ferry until Stockton Bridge was opened in 1769. This was a five-arched bridge designed by Joseph Robson and cost £8,000 to build. To recover the money that had been spent on the bridge it was decided that those who used the bridge would have to pay a toll to cross it. This continued until 1819 when there were riots as people did not wish to pay to cross the bridge anymore.

Stockton Bridge was demolished when it was replaced by the present Victoria Bridge in 1887.



*Stockton Bridge*



### **Victoria Bridge**

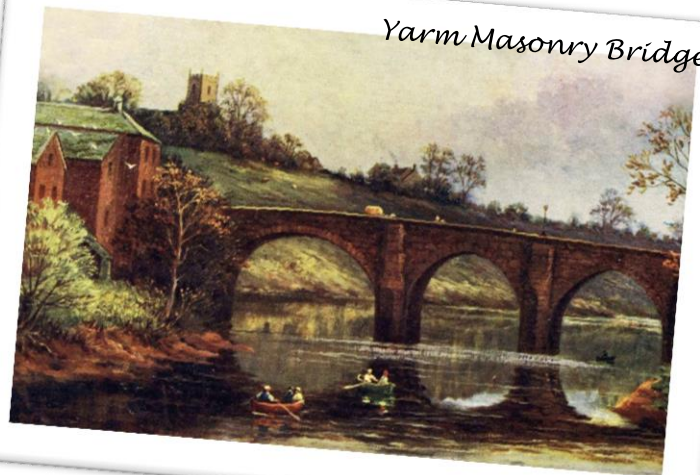
By 1876 the Stockton Bridge was found to be inadequate even though it had been widened in 1858, and so in 1881 work began on a new bridge. This new bridge, finished in 1887 was made of stone and iron. It was officially opened on 20<sup>th</sup> June 1887 and was named after Queen Victoria to celebrate her Golden Jubilee Year. In 2010 the bridge became a Grade II listed building.

*Victoria Bridge*



### **Yarm Bridge**

This bridge was built on the orders of Walter Skirlaw, the then Bishop of Durham, circa 1400, as Yarm's first road bridge was constantly in need of repair. This was built in stone and had five gothic arches, three of which are still present today and form part of the current Yarm Bridge. In 1642, during the Civil War, a drawbridge was put in the arch nearest the north side (Durham), to prevent the Parliamentarians in Yarm from attacking the Royalists who held Stockton. The task of raising and lowering the drawbridge each day fell to the Vicar of Egglescliffe. The drawbridge was removed in 1785 and the northern arch was rebuilt in a semi-circular form with a greater span to try to reduce flooding.



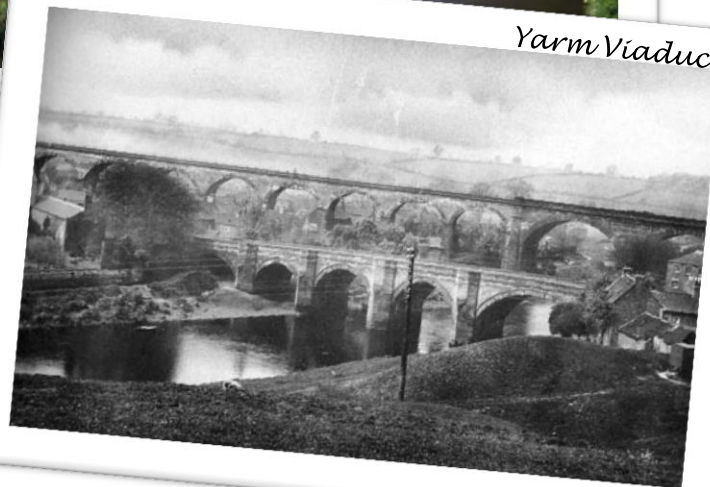
*Yarm Masonry Bridge*



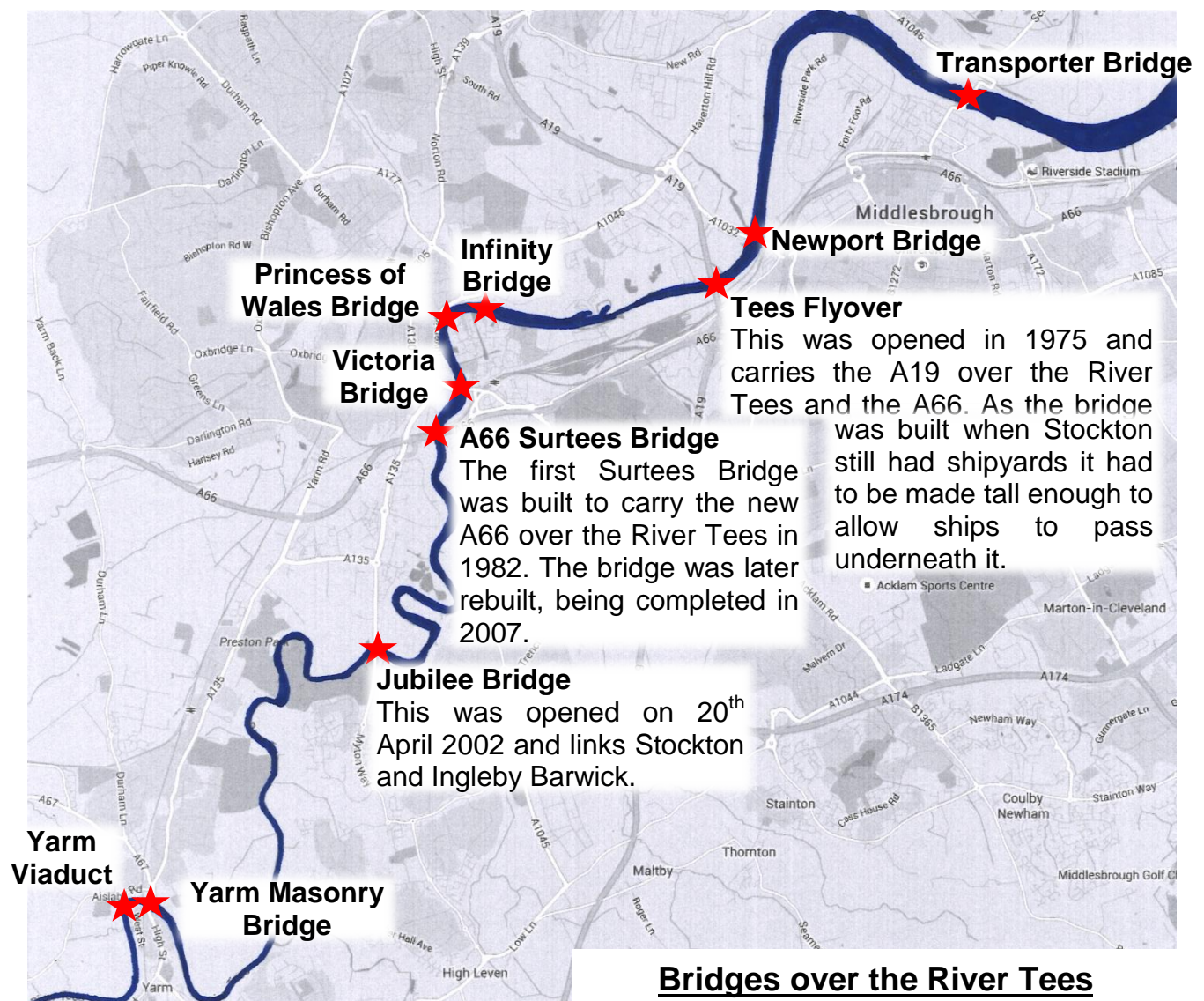


### Yarm Viaduct

Built between 1849 and 1851 to extend the Leeds and Thirsk Railway from Northallerton to Stockton and Hartlepool, Yarm Viaduct has 45 brick arches and a length of 760 yards. Designed by Thomas Grainger and John Bourne of Edinburgh, the viaduct was built using red bricks (over seven and a half million), and stone, which had to be hauled into position by teams of horses and a pulley system. The £44,500 railway viaduct was officially opened in May 1852.



Yarm Viaduct

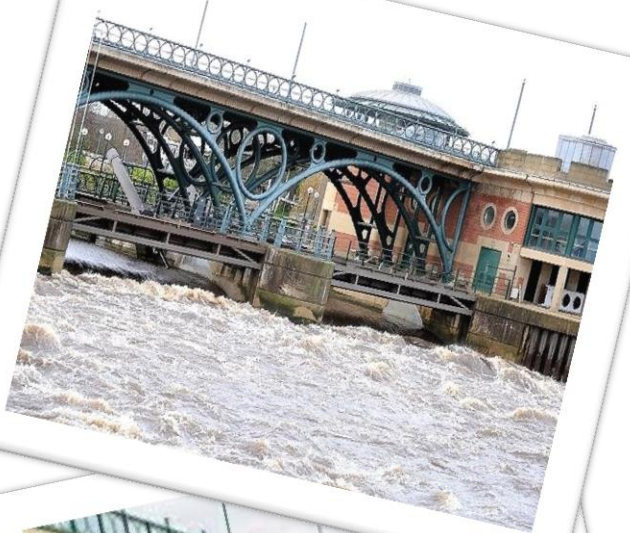




## The Tees Barrage

The River Tees was tidal for 21 kilometres before the Barrage was built between Middlesbrough and Stockton. For many years the water from the river was polluted from chemical, industrial and domestic waste. The construction of the Tees barrage protects the river from flooding, pollution and the effects of tidal change.

The Barrage was built by Tarmac Construction at Blue House Point and took four years to complete. At the time of its construction it was the largest civil engineering project in the UK. 650 tonnes of steel were used at a cost of £50 million. The main road bridge is 160 metres long with 8 spans and there is a lower footbridge for walkers and cyclists. Four massive floodgates operated by hydraulic pistons make sure that the river upstream stays at a constant level.



The barrage has a barge lock which allows light river traffic to pass the Barrage.

There is also a fish pass allowing migratory salmon and sea trout to swim upstream. There is a viewing area and counter next to the North bank pavilion.

The project also included the regeneration of derelict land along the riverside producing riverside walks and parkland as well as leisure facilities;

The Tees Barrage was officially opened on the 17 July 1995 by the Duke of Edinburgh. It is currently operated by the Canal and River Trust North East Waterways



## **Tees Barrage International White Water Centre**

During his visit the Duke of Edinburgh also opened the inlet gate on the white water course which is next to the Barrage.

The Tees Barrage white water course opened in 1995 costing around £2 million. It offered a full range of adrenaline fuelled water sports on its artificial course including white water rafting and kayaking.

In January 2010 the course underwent a £4.6 million re-development, which has transformed the course into a world class facility.

The main channel was upgraded to provide deeper water, a conveyor belt to transport users back to the beginning, two rafting courses, high tech systems for more water control and a modern Centre building with equipment shop.

In 2001 the Princess Royal was guest of honour at the opening of the 9<sup>th</sup> World Canoe Marathon Championships which were held at the Tees Barrage. More recently the course was used as a pre-training ground for the 2012 Olympics.

### **River Tees Water Sports Centre**

In November 2001 the River Tees Watersports Centre opened on a former derelict area on the north bank.

The centre cost £1.5 million to construct and is used by canoeists, dragon boat racers, waterskiers and rowers.

It includes a one thousand metre stretch of tidal free water created by the construction of the Barrage.

The Tees Wheelyboat Club is also based here. The Wheelyboat is adapted for use by people with disabilities or wheelchair users to enable them to enjoy the river safely.



### **Air Trail**

A new dramatic high ropes course is opening on the banks of the River Tees.

The £1 million pound four – storey sky trail visitor attraction will include two zip rails and a 10metre high climbing wall.





*Cauldron Snout*





*Aerial view of Cow Green Reservoir & Cauldron Snout*





*The River Tees rushing over High Force*



*Infinity Bridge*





*River Tees at Stockton*







*Tees Barrage*





*Transporter Bridge over the River Tees*

*River Tees and Yarm Bridge*







*The source of the River Tees on Cross Fell*