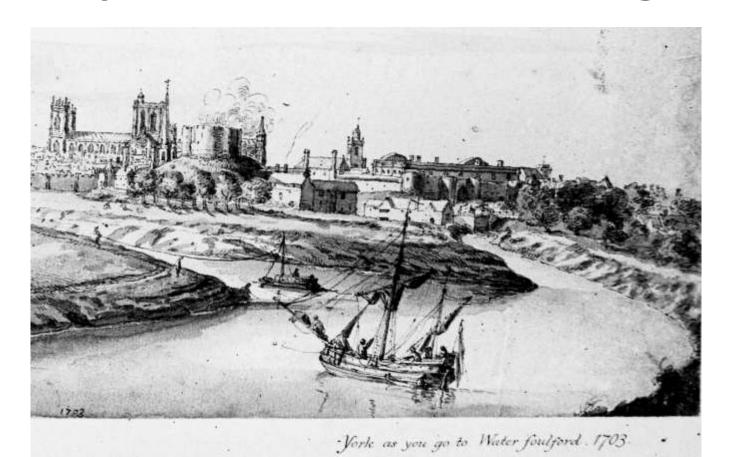
## The River Ouse Through Time

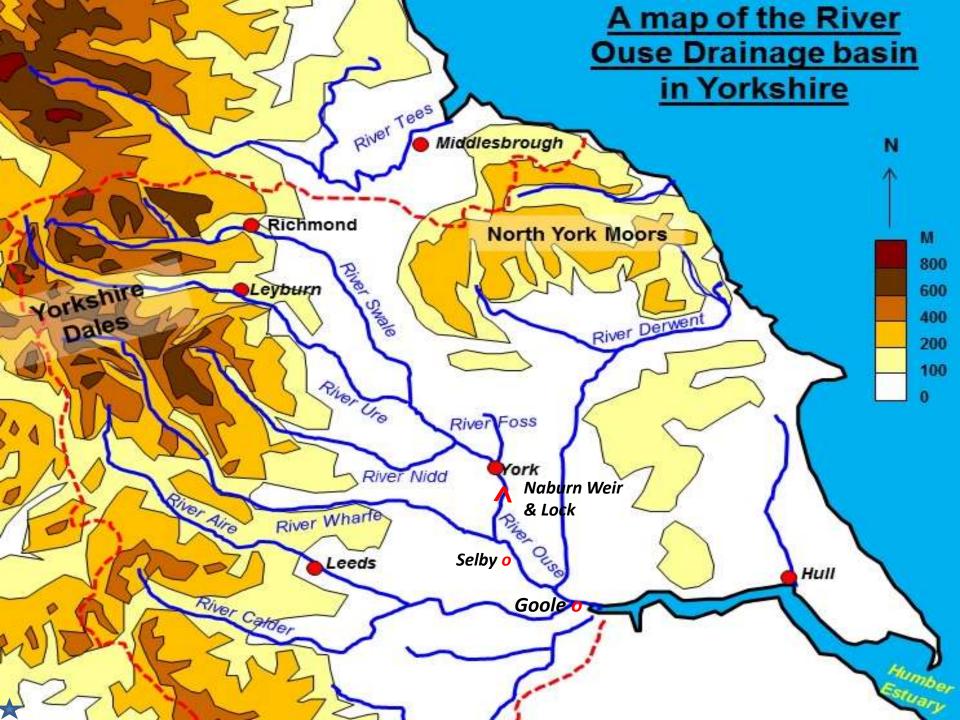
**Judy Nicholson & Chris Rainger** 





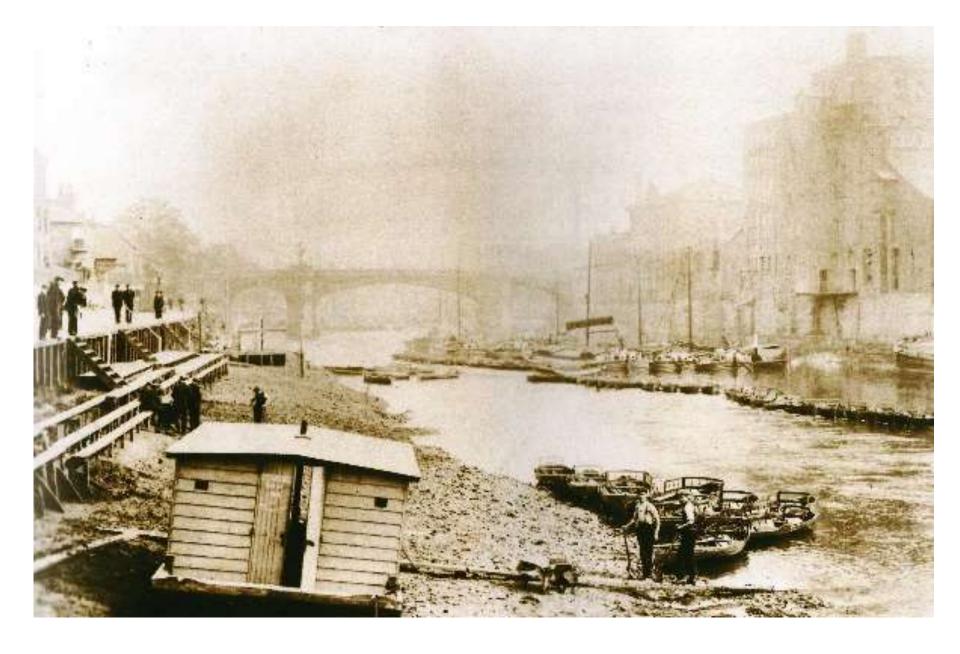


Source-Stone for Ouse Beck Gill, in the gardens of the old workhouse at Great Ouseburn



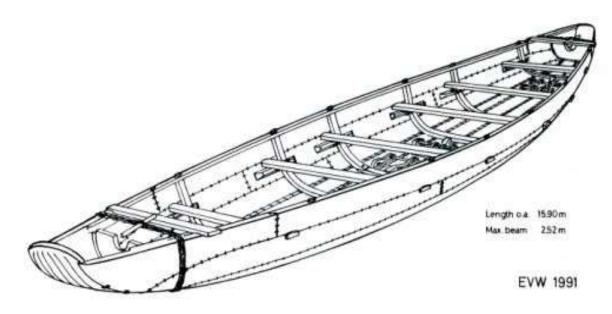


Naburn Swing Bridge 1947



The river was tidal until 1757

Mesolithic arrow heads have been found at Connaught Court, so it is likely that people have lived near the river since soon after the last Ice Age

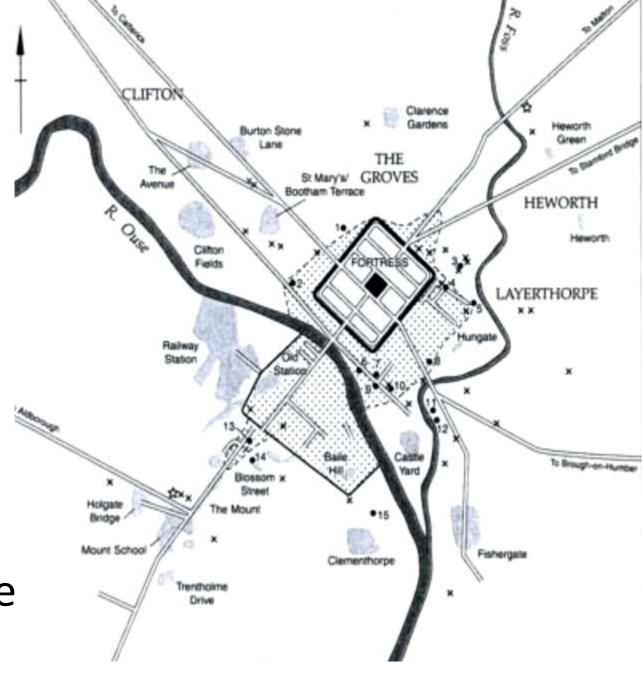


Hypothetical reconstruction of a complete Ferriby boat

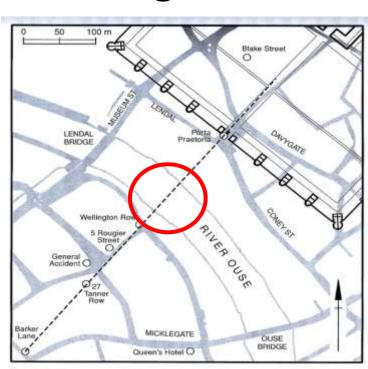




The Romans chose York as their northern military centre because of its accessibility. They built their fortress on the higher ground, protected by the two rivers

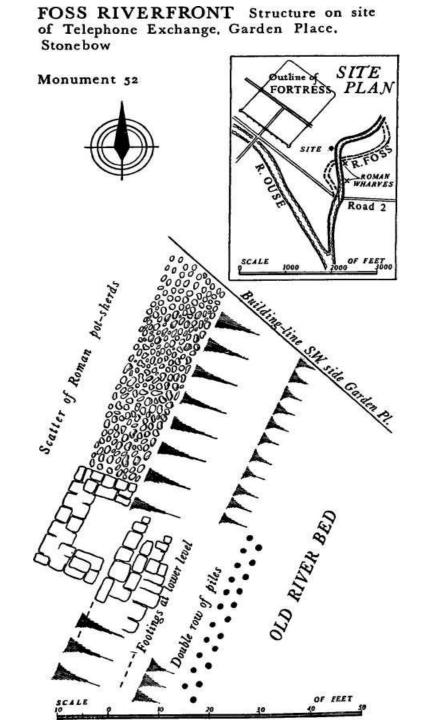


No-one has found the Roman Bridge, but its location is clear, leading from Micklegate to the Fortress gate





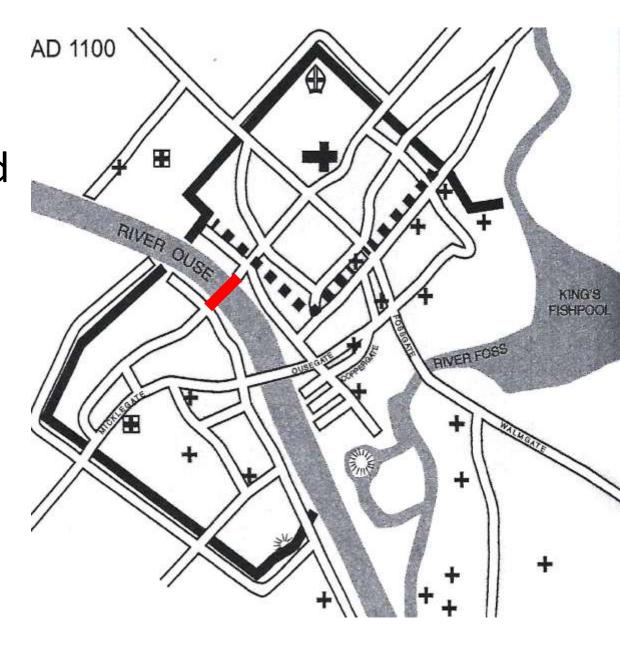
The Romans had wharves and warehouses along the banks of the Ouse and Foss. Remains of revetments and piling have been found at North Street and at the telephone exchange and at other sites.





York recovered through the 7<sup>th</sup> century and became a centre of royal and ecclesiastical power, with staithes in the Fishergate Wic forming the centre of trading, manufacturing and provisioning. Alcuin wrote of arriving in York along the river.

It is now thought the Roman bridge may have survived through to the 10/11<sup>th</sup> century, with a new Anglo-Scandinavian timber bridge on the site of Ouse Bridge serving the new city layout.

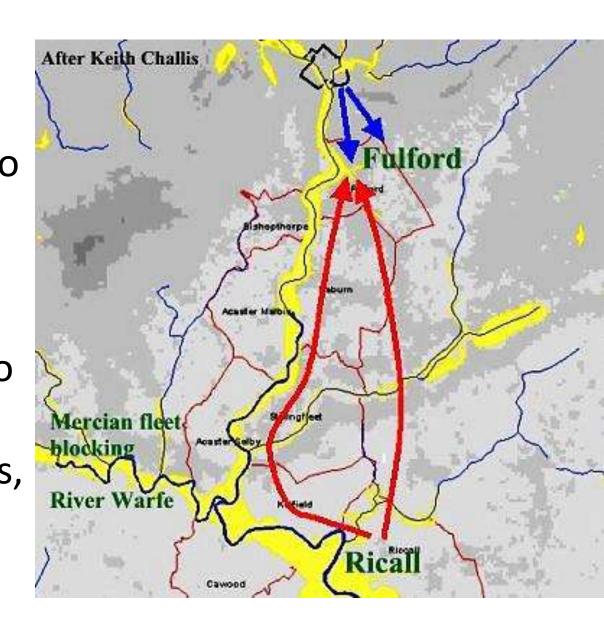


1066 -300 ships rode the tide up the Ouse to Riccall, but walked to battle at Fulford.

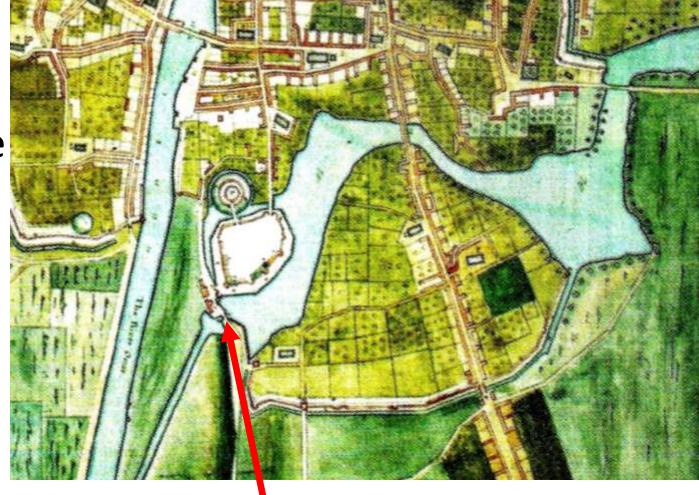
1068 --

army

200 Danish ships came up the Ouse to support rebellions against the Normans, leading to the 'Harrying of the North' by William's



In 1068-9, the **Normans** dammed the Foss, flooding the castle moat & creating the King's Fishpond.



Castle Mills dam prevented boats travelling up the Foss beyond Browney Dyke until 1794





In 1154, Archbishop William was said to have been greeted by such a large crowd that the timber Ouse Bridge collapsed. Miraculously no one was drowned. A new multi-arched stone bridge was built in c.1155.

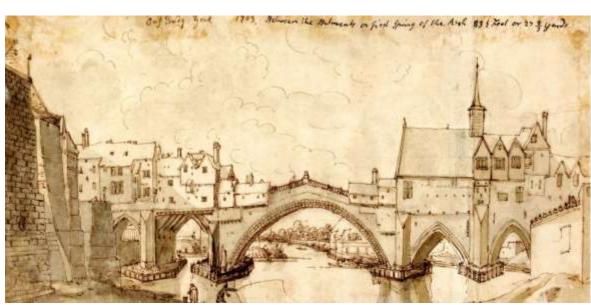
Apart from Edwin
Risdale-Tate's imagined
view, there are no
images of the new 6
arched masonry bridge
of c.1155.

But, we do have many pictures after it lost its central pier - during

floods in 1564.

The outer arches were retained and the two lost central arches were replaced by one elegant arch.





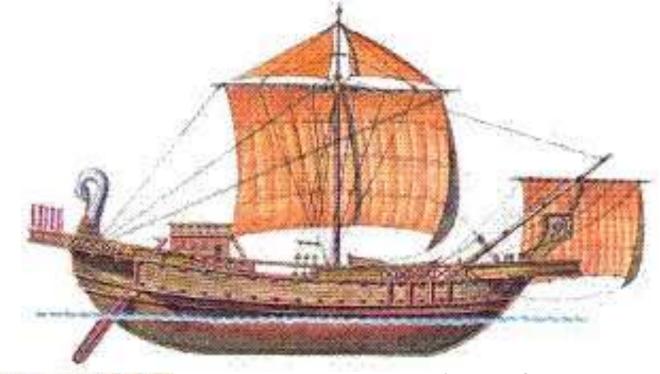


William Marlow's painting of c.1763 shows
Ouse Bridge 50 years before its replacement
with the present structure in 1820.

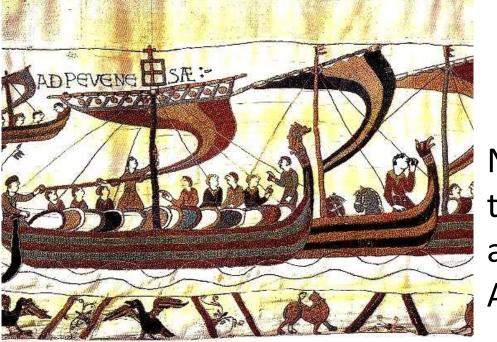


Ouse Bridge, by John Carter, late 18th century

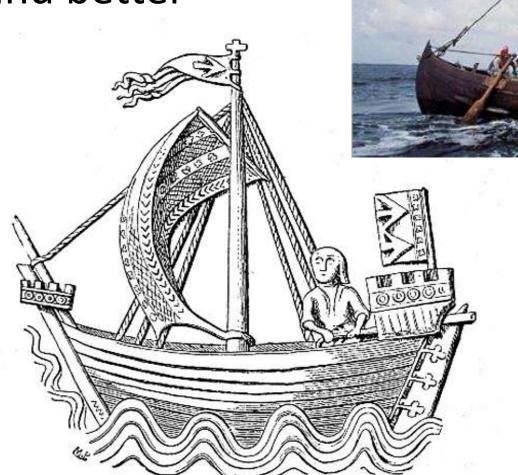
What type of ships were coming to York?



Roman Trading Ship



Norman Ships shown on the Bayeux Tapestry and are probably the same as Anglian and Viking Ships Ships were evolving and getting bigger and better



Knarr – Viking/early medieval trading ship

Cog – 13/14<sup>th</sup> century trading ship, possibly with cabins fore and aft, and a rudder for steering.

Magnesium limestone for the new Minster, St Mary's Abbey, churches and the city walls was brought down the river Wharf from Tadcaster, and Millstone Grit Via the Ure.



Knarr – 10/13th century flat bottomed cargo ship which could easily rest on the river bed. Fore-runner of the Keel.

Medieval York's wealth was built on the river – exporting wool, cloth, lead, grain, and importing basics and luxuries, such as olive oil, figs and raisins from Spain.

York became England's second richest city.



Cog – 13/14<sup>th</sup> century merchant ship



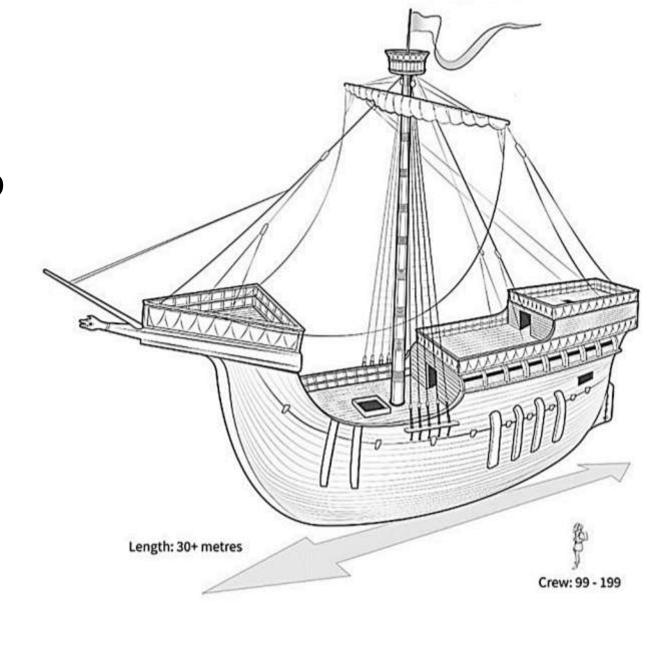
In Jan van Eyck's 1434 painting 'the Arnolfini Marriage' the lady is holding up her very fashionable fullskirted dress, woven in Flanders from English wool.

perhaps exportedfrom York?



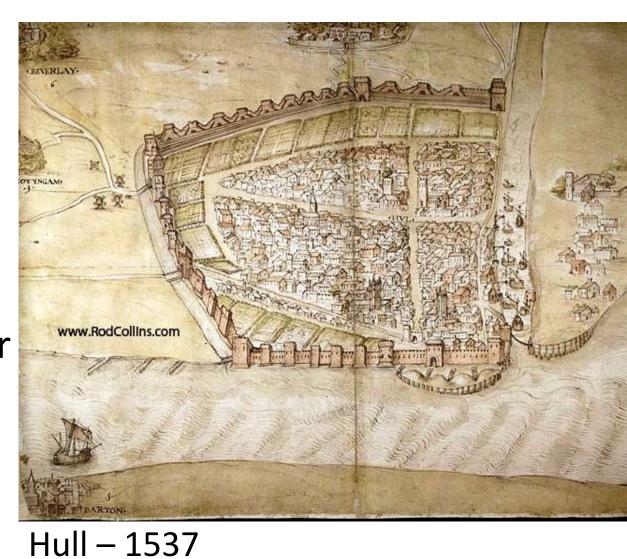
In 1415, York sent 5 ships to join Henry V's invasion fleet to France and subsequently, Agincourt.

This image is of the 'Holigost' a clinker-built Carrack of the period.





Hull began to rival York from the 14<sup>th</sup> century, but York maintained its position for another 100 years, thanks in particular to the rise of the Merchant Adventurers and trading power of the Abbeys.



Note that the ships are all in the River Hull, not the along the Humber

There were complaints in Hull that York merchants controlled most of their port, as they increasingly based their shipping activities there.

As sea-going vessels grew larger the Ouse became harder to navigate.

Selby grew in importance too, as it was easier to reach than York and closer to the growing West Riding wool industry.



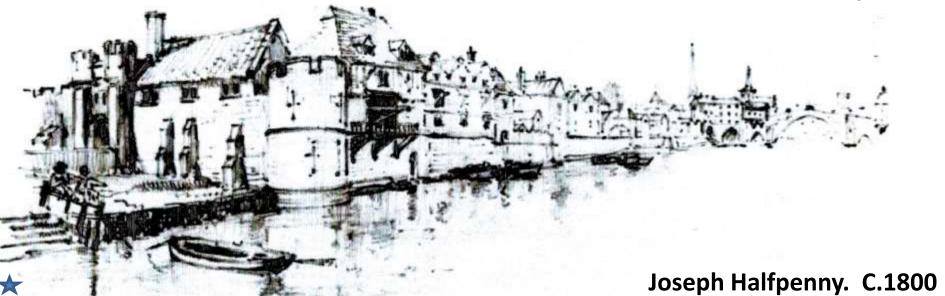


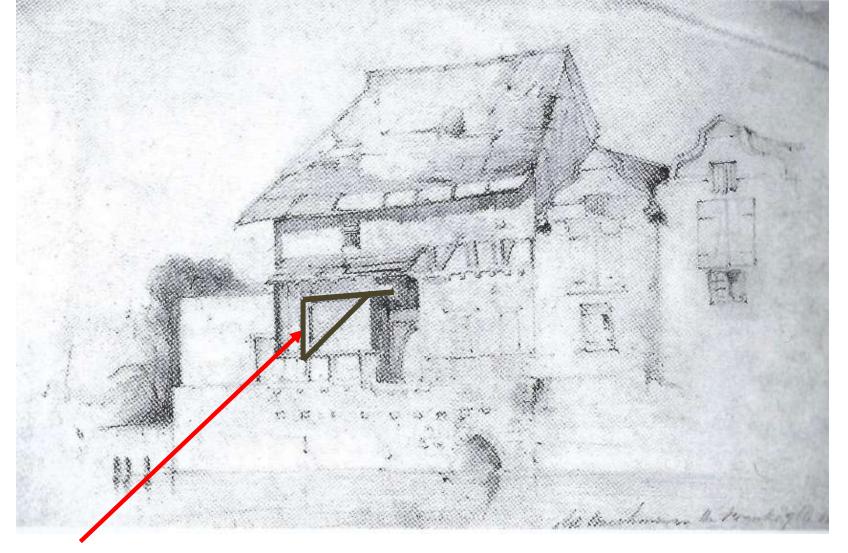
Abbot's Warehouse, Selby

Rebuilt in 1417, the City ordered that 'the wares of foreigners such as spices, wines, alum....were to be stored in the Cranegarth'.

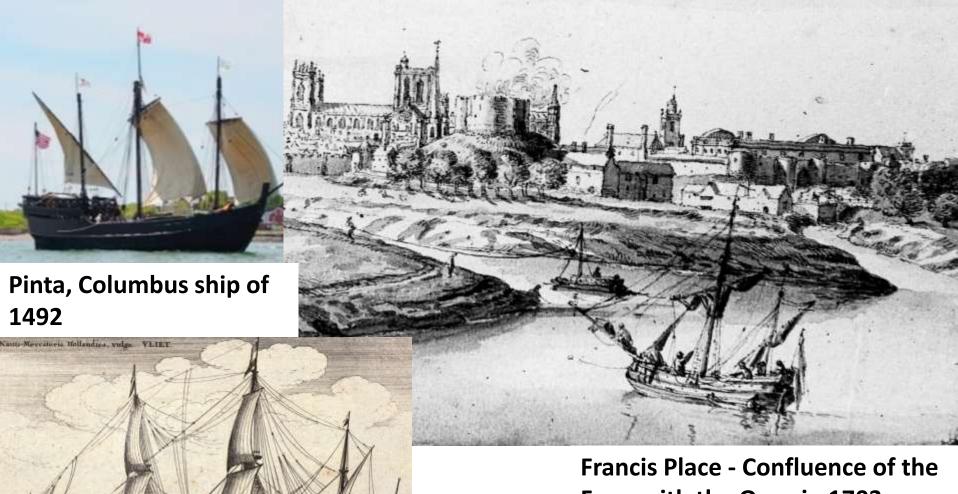


William Boddy. 1909





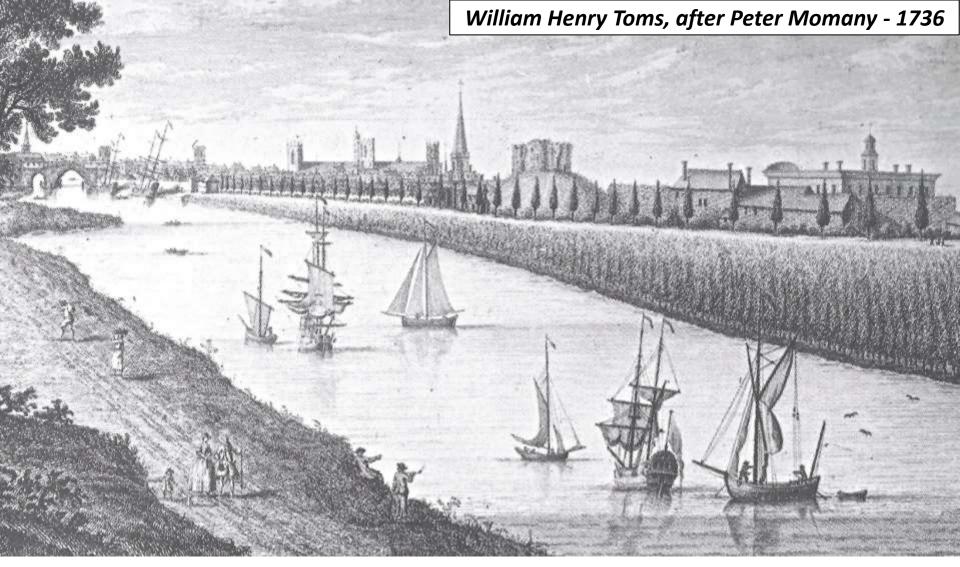
The City Crane, by John Harper. C.1830, showing the swinging boom of the crane and also the Watergate to Skeldergate, partly submerged since Naburn weir.



Foss with the Ouse in 1703

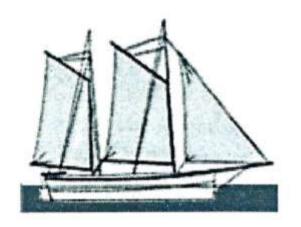
**A Dutch Fluyt Trading Vessel 1677** 

So, what type of vessels were used on the river when it was tidal? ie. before 1757



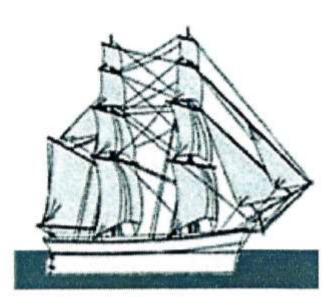
18<sup>th</sup> century engravings show a variety of vessels, but were they romanticising the image or showing us what was really there?

## Ketch



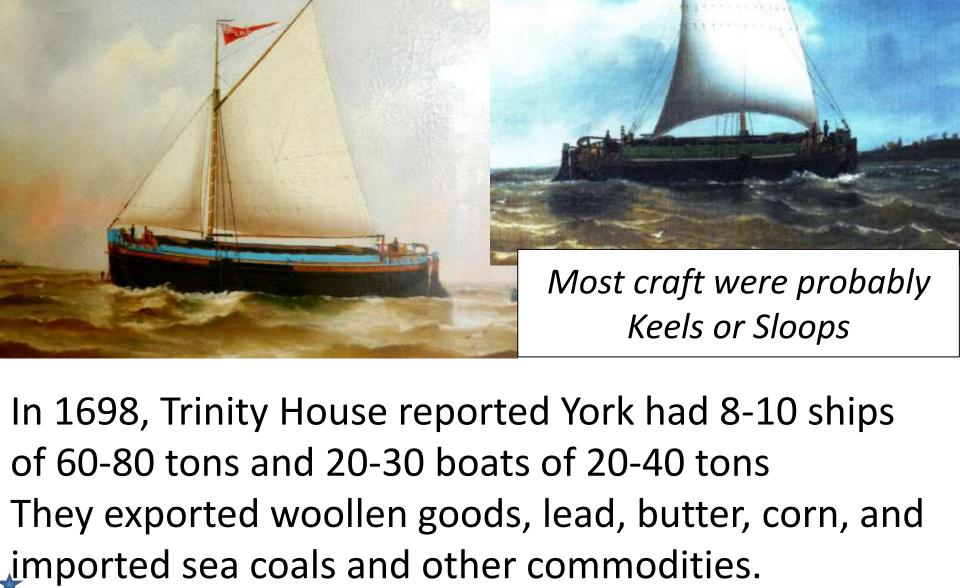
Two masts with a fore- and aft-rigged main mast and a smaller mizzen mast.

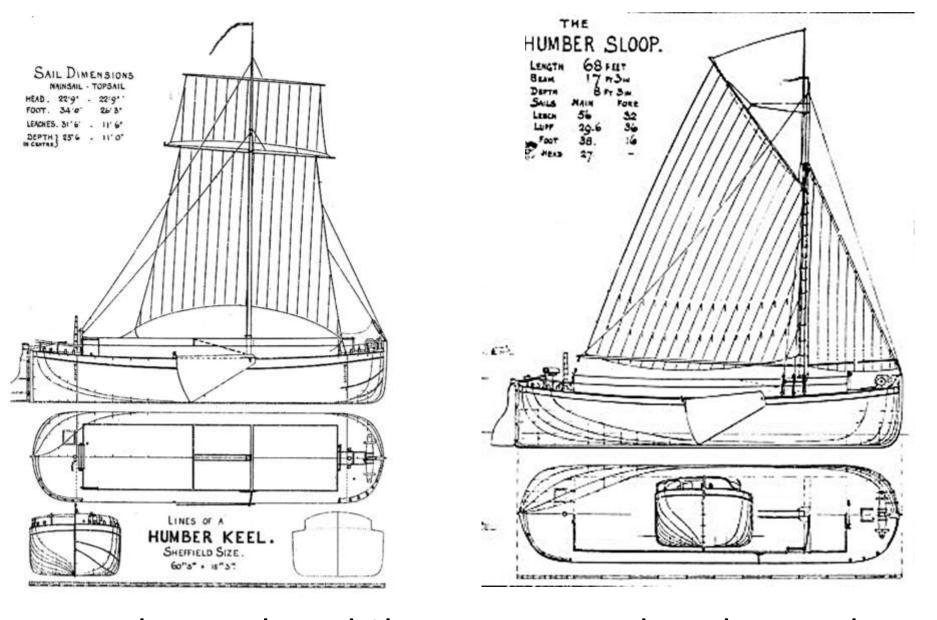
## Brig



Two masts with both fully square-rigged. A spinnaker or trysail is set on the lower main mast.

Larger ships could only reach York when there was sufficient depth of water, ie. twice/month at spring tides





Humber Keels and Sloops were used on the Humber rivers, and occasionally sailed to east coast ports



Humber Keels and Sloops continued to be used into the 20<sup>th</sup> century - becoming the diesel barges we see today

In the late 19th century, the War Office used 2 Topsail Schooners, one called the Princess, bringing explosives from Woolwich Arsenal to Fulford Munitions Depot on New Walk.

This was known locally as the 'Powder Boat'

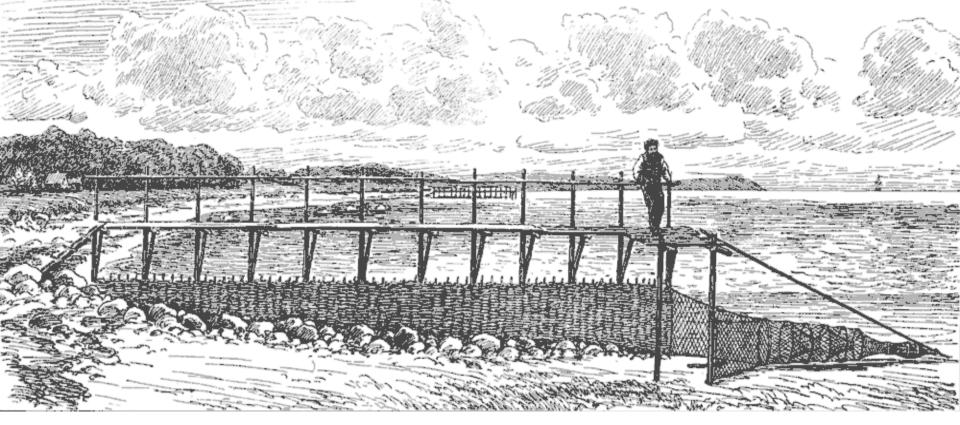


Topsail Schooners were probably the largest sailing vessels to reach York after the Naburn lock improvements.



It is reported that ships firing a salute when passing Bishopthorpe Palace would be sent a flagon of ale!





The first charter giving York Corporation maintenance responsibilities and powers to remove obstructions such as fishgarths, was granted by Edward IV in 1462, but it didn't give powers to make navigation improvements

A City letter to the Duke of Suffolk in 1544 said that two 35 ton 'Crayers' could be put at his disposal, but... "truthe is that the watter of the Owse is often tymes so lowe that crayers cannott passe from York to Hull"

Improvements tended to concentrate on dredging the river.



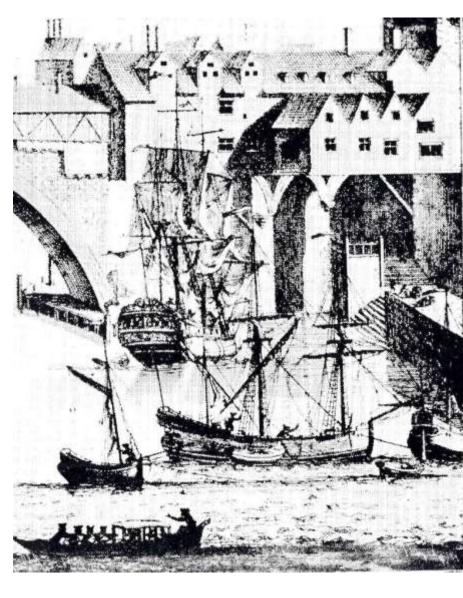


York, its boundarys, the peculiar district, Ayalty, belonging to it; the course of the river Oute; the proposed cuts to be made in it for bettering its navigation; with a draught of the grand project for cutting a Canal from the Humber to the City, anne 1616. Drake's Eboracum To the right honourable the Lord Mayor, Aldermen Sherville, Twenty four, and the whole lody of the Common Council of the City of York, this plate is with much gratitude inscribit by their included this engraving of a 1616 proposal to bypass the difficult reaches of the Ouse with a canal from Fulford to Broomfleet.

This idea is not as fanciful as it may appear... In 1635, Vermuyden diverted 10 miles of the river Don to create the Dutch River at Goole.

By the 17<sup>th</sup> century, the combination of siltation and larger ships, meant that sea-going vessels could only reach York twice a month, utilising Spring tides.

In response to this problem, and improvements on the Aire and Calder, a very comprehensive survey of the Ouse was made in 1699 by Thomas Surbey.

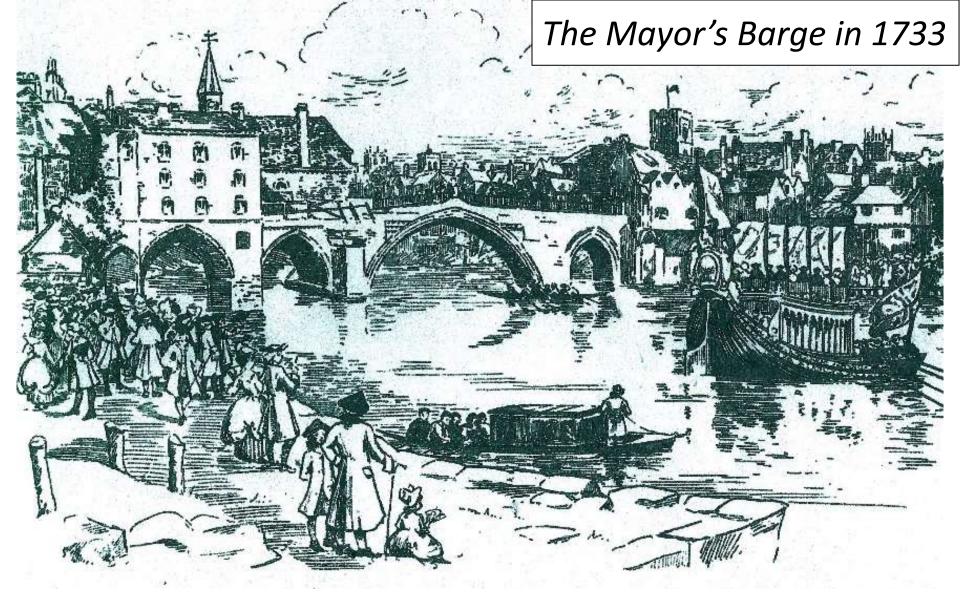


Below Cawood, Surbey found the tidal river to be deep enough, but badly restricted in places by shoals. However, at Water Fulford, he found only



8" of water at low tide and a little further downstream, a shoal ¼ mile long had just 18" covering it at low tide, with the tide adding approx. 3ft (more on spring tides).

His report said that new cuts were not cost-effective, but he is the first to recommend building a weir and lock near Naburn to secure a draft of 7ft to York.



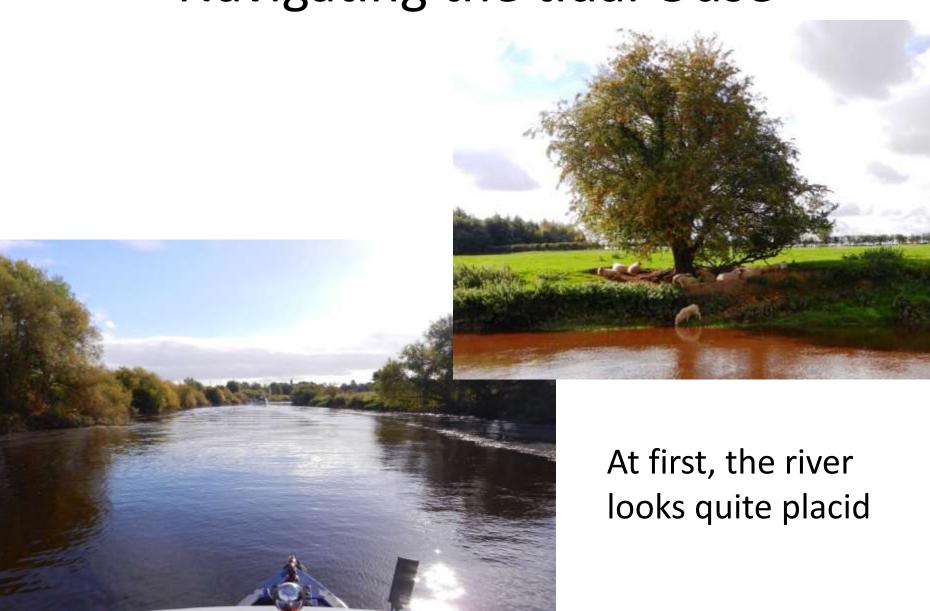
York Corporation held 'septennial' trips down the Ouse on the Barge 'Royal Carolina'

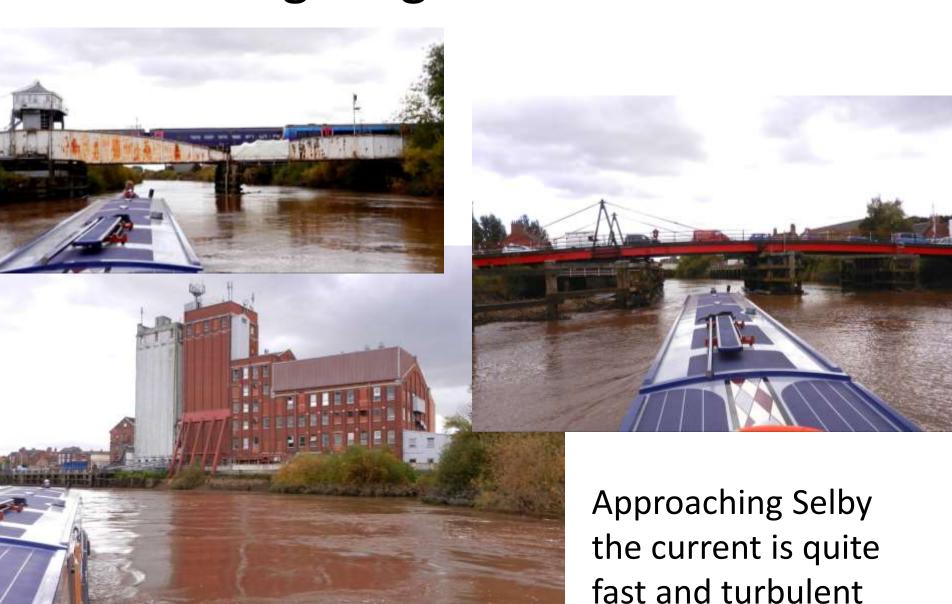


Hull Maritime Museum



Leaving Naburn Lock just before high tide











Entering Selby Lock is somewhat hair-raising!
The lock-keeper casually signals you to turn around and drive back against the flow – and exactly when turn into the lock.

Before Naburn weir was built in 1757, spring tides in York used to reach approx. 3.4m AOD, raising water levels by approx. 1.5m (5ft).



The Weir was initially constructed at 4.44m AOD then in 1835 it was raised to 4.9m, and raised again in 1876 to 5.0m AOD.

### How do the tides work on the river Ouse?

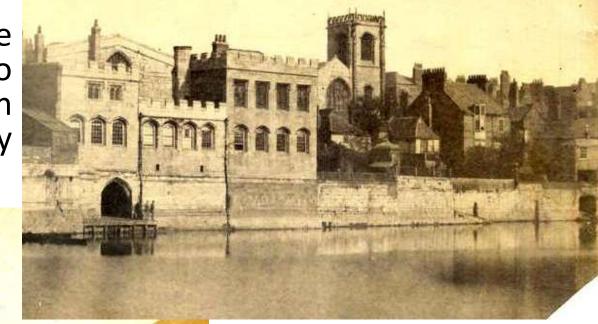
| High tide at |
|--------------|--------------|--------------|--------------|--------------|
| Spurn        | Hull         | Selby        | Naburn       | York         |
| 12.00        | 1.00         | 3.20         | 5.00         | 5.45 ?       |
| 12.00        | Duration of  | Duration of  | Duration of  | Duration of  |
|              | the Tide     | the Tide     | the Tide     | the Tide     |
|              | at Hull      | at Selby     | at Naburn    | at York      |
|              | 6 hrs.       | 2 1/2 hrs.   | 2 hrs.       | 1 3/4 hrs.?  |
|              | Tidal Range  | Tidal Range  | Tidal Range  | Tidal Range  |
|              | at Hull      | at Selby     | at Naburn    | at York      |
|              | 6.9m (22ft)  | 4.5m(15ft)   | 2.0m(6ft)    | 1.5m(5ft) ?  |

From York as a Tidal Port, by Colin Briden

The current can be very fast, eg. around 8 knots at Selby

Floods will add to the height of the tidal range

Water Gates are now much closer to water level than they were originally



Sluices at Naburn were opened in c.1895 to facilitate installation of sewer pipes.

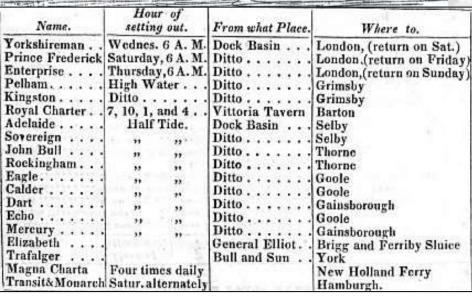
'Normal' water level is now approx. 1.5m (5ft) higher than when Spring Tides used to reach York and up to 3m (10ft) higher than low tide level.



The 1757 lock at Naburn is 27.5m long x 6.6m wide (90ft x 21ft 6in)

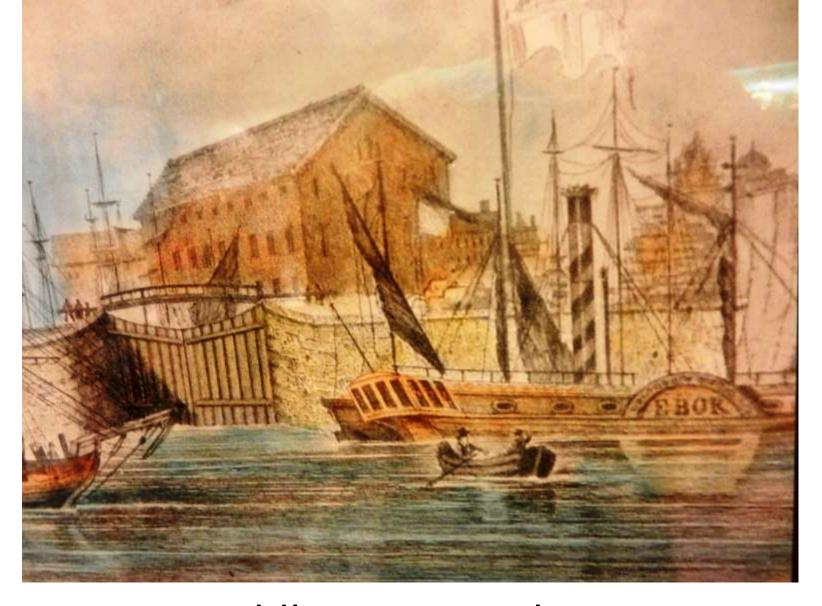
The 1888 Steamship Lock is 46m x 8m (150ft x 26ft)

#### **Aerial Packet Boat**



**Ebor at Goole 1831** 

Naburn weir and lock allowed larger ships to reliably reach York and run scheduled passenger services to Hull and London



Paddle Steamer Ebor, pictured in the Humber at Goole in 1831



Packet boat and Cargo Ship operators advertised in trade directories and newspapers

Telegrams: Telephone: "WOOD, YORK." No. 2979. Steamship and Lighter Owners, Wharfingers, Forwarding Agents, ALBION WHARF, YORK. **公安中安安中安安中安安中安安中安安中安安** Carriers by Water LONDON, GOOLE, SELBY & YORK, HULL, SELBY & YORK, and in connection with steamers plying to and from the principal English, Scotch, Continental and American ports. We shall have pleasure in quoting Through Rates on application, London Traffic should be ordered "via STANTON'S WHARF." LONDON Address:-Wm. France, Fenwick & Co., Ltd., Stanton's \* STEAMERS \*

DO AND FROM

### HULL, SELBY, & YORK,

And is connection with Steamers plying to and from the principal English, Irish, Scotch, Continental, and American Ports.

THROUGH RATES QUOTED.

Freights Low



freights Low

From Woodhouse and Co.'s Wharf, High Street, Hull, every Wednesday and Saturday (loading days Toosdays and Fridays).

From Albion Wharf, York, every Monday and Thursday.

Weether and discounteress formitting,

Par Freights uset full Portletters apply to T. F. WOOD and CO., Albion Wheel, York.

Goods collected Free of Change on except of instructions and Wanshound in Unit, pending shipment.

DE PARTICULAR TO ORDER PER STEAMER

LONDON, GOOLE, & YORK STEAMERS

#### STANTON'S WHARF,

STONEY LANE, TOOLSY STREET, LONDON, S.E. From York every Manchy and Thursday (afteror as Trade requires). From Landon Minist Bully.

Through Rain Queted, including withoring and delivering all Goods in Lundon and York.

W. PRANCE, SCHOOL'S Wasse, Larrow, T. F. WOOD and CO., ALDION WHARP, YORK.

HE PARTICULAR is Order to STEAM once STANTON'S WHARE.
Salling Various when equived. Marine Intercone of order.

Marine Insurances Effected as Instructed.

Head Office: Albion Wharf, York.

Wharf, Tooley Street, S.E. Tel.: Royal 3160.

T. F. Wood & Co., Ltd., Hesslegate Buildings,

Wm. France, Fenwick & Co., Ltd., 9 East Parade.

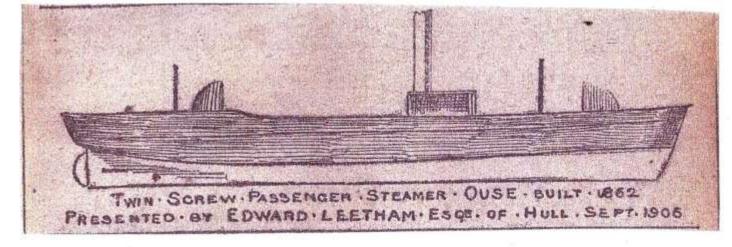
Humber Dock Side. Tel.: 1310.

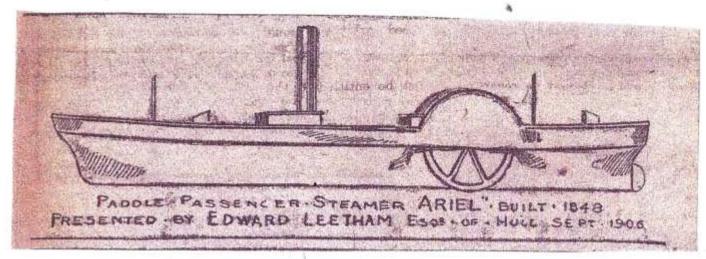
HULL Address:-

GOOLE Address:-

Competition between Packet Boat operators was fierce.

Ebor & Arrow collided near Naburn, when the faster Arrow tried to pass the slower Ebor

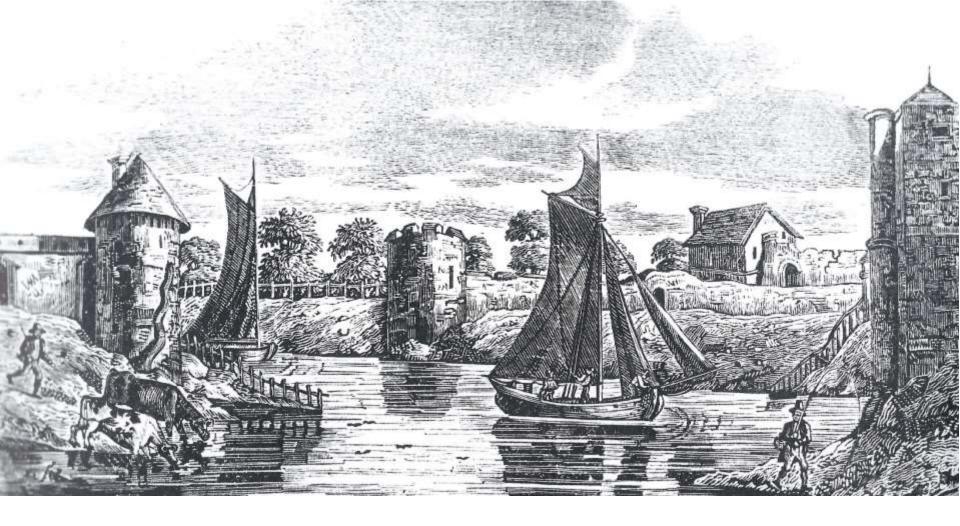




Arrow was screw powered, probably similar to the 'Ouse', pictured top.

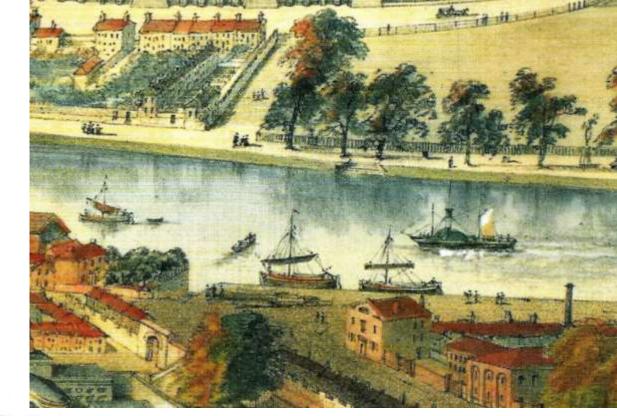
These drawings are of models presented to the Ouse Commissioners by Edward Leetham in 1905 – where are they now?





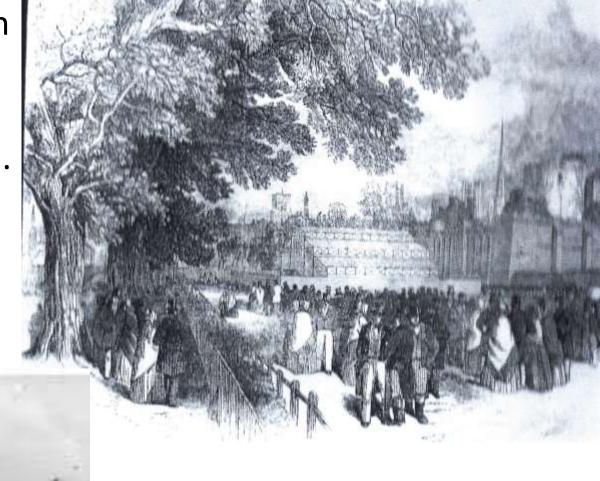
There has been a ferry at Lendal since at least the Anglo-Scandinavian period, and the Victorian steps still remain next to the elegant iron bridge built by Thomas Page in 1863.

There has been a ferry at Skeldergate since at least he Norman period The steps still remain next to the Bonding Warehouse





New Walk was begun in the 18<sup>th</sup> century and is still York's most beautiful riverside path. Pavilions were erected in St George's Field during the York Exhibition of 1879(?)



View from Blue Bridge towards St George's Field in c.1910, with the chimney of the public baths on the right



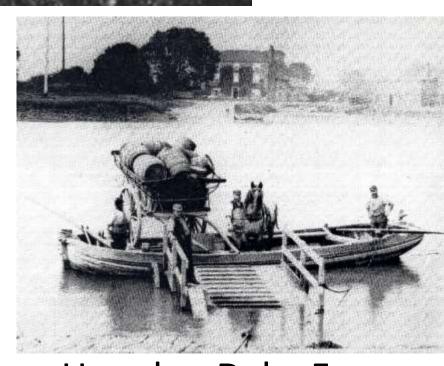
Skeldergate Bridge was opened in 1881, with a steam-powered opening span on the east side

There was also a ferry from Ambrose Street steps on New Walk for Terry's workers and race-goers.

The timber posts which supported the landing stage are still visible



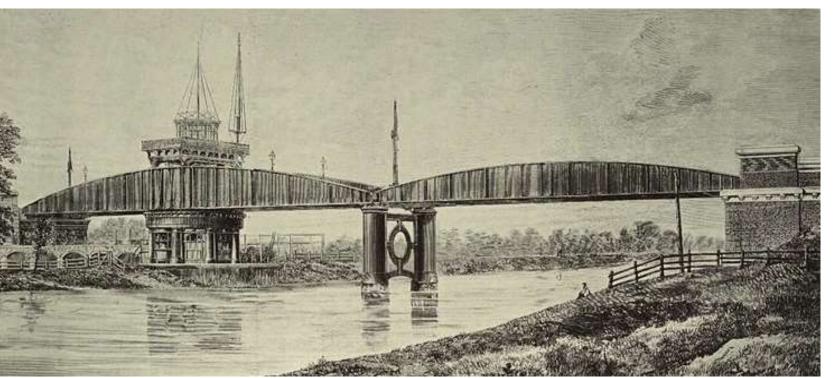
Naburn Ferry c.1900

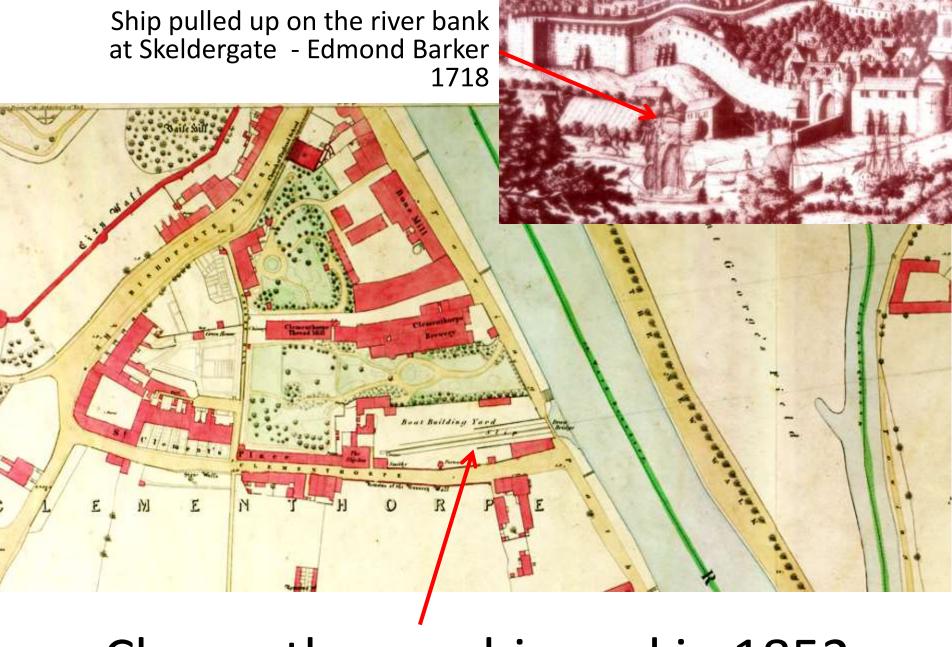


Howden Dyke Ferry c.1890

Naburn's Steam-Powered Swing bridge was built in 1871. The line closed in 1964





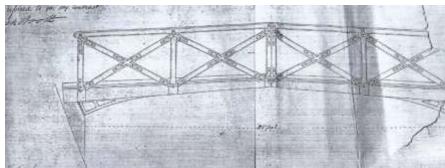


Clementhorpe shipyard in 1852









Shipbuilding and repairing at Clementhorpe

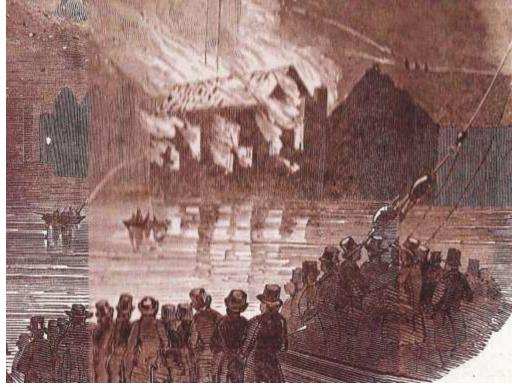




Wharves & Warehouses



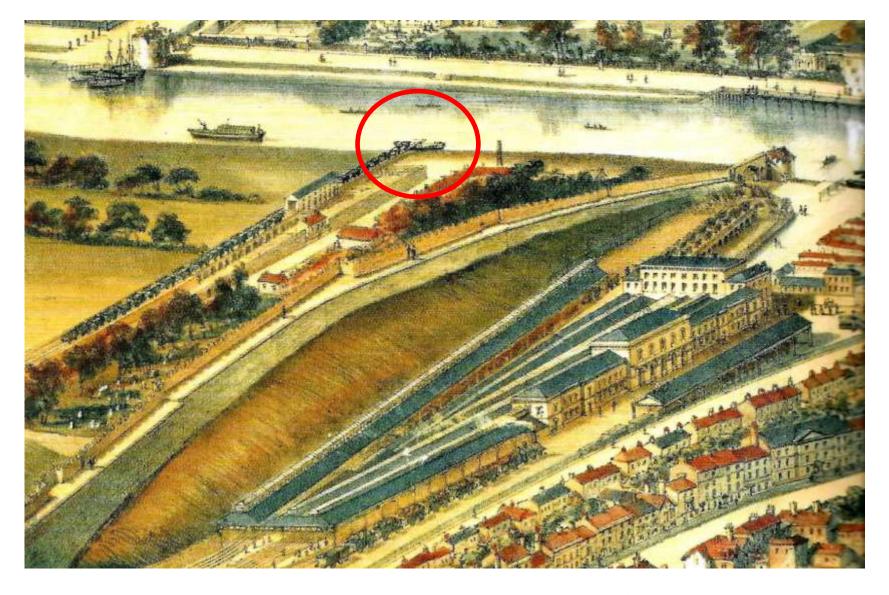
Rowntree's warehouse April 1942



Fire at Hatfield's Steam Mill, Skeldergate 1848

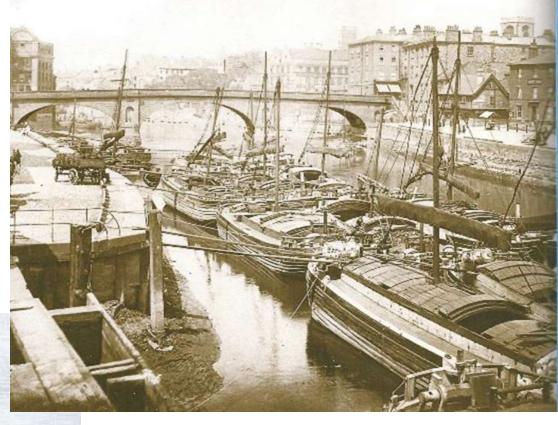
Fire at Fairweather's Mill, Skeldergate 1911

## Riverside Warehouse Fires

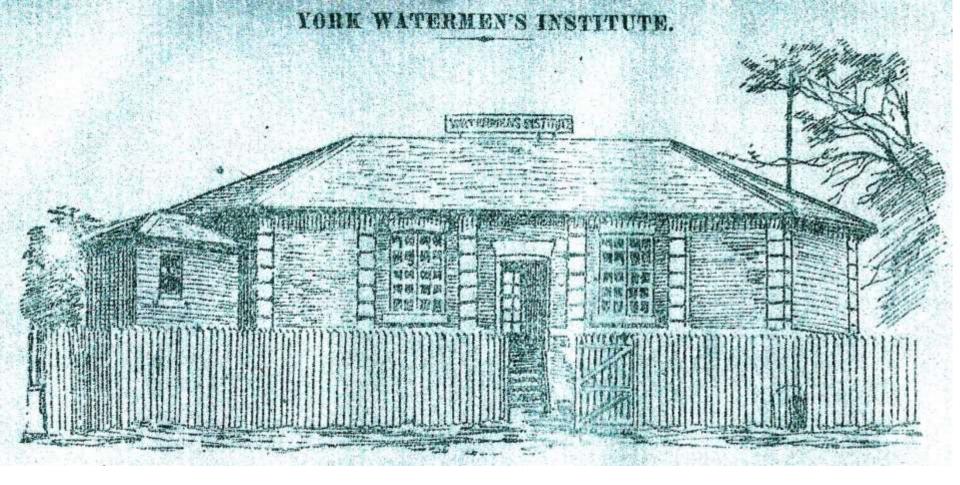


Railway competition & collaboration – Lendal Coal Wharf

York Corporation built 6 steam-powered tugs to tow Keels up to York until 1947. Eventually, barges were diesel powered



Lancelot and Acetut are shown here in 1959, towing the new Spurn Lightship from Beverley, where it was built.



Watermen's Institute, opened in 1909 adjacent to the public baths on St George's Field and overlooking

Browney Dyke



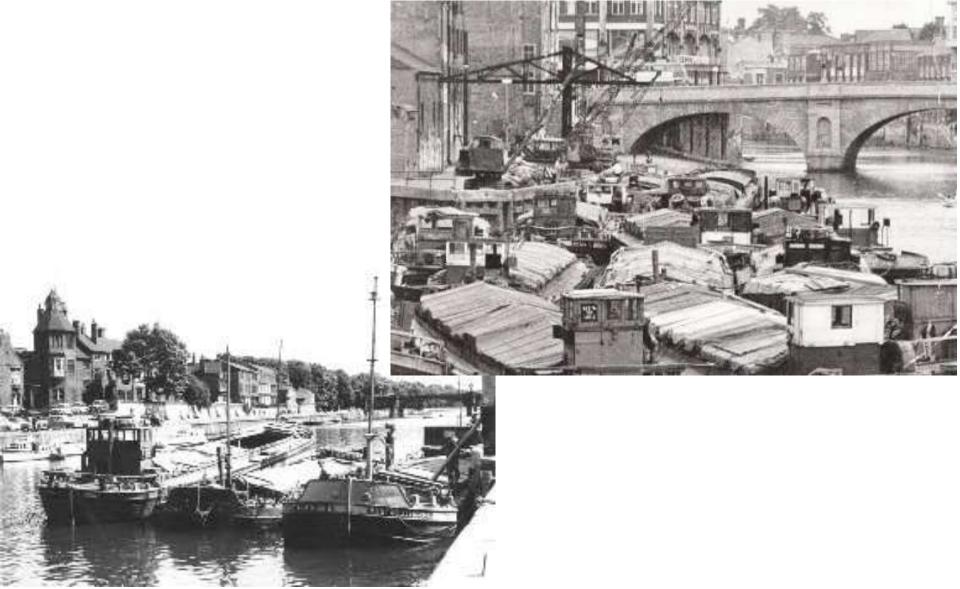


In 1909, the York Equitable Industrial Society built a bacon factory, bakery and coal depot next to the Clementhorpe Shipyard





The Co-op built a wharf on the site of the Clementhorpe Shipyard to unload coal from barges



Diesel-powered barges were a common site in York through much of the 20<sup>th</sup> century

In the early 20<sup>th</sup> century, the River King was York's premier rivertrip boat





It sank in 1932

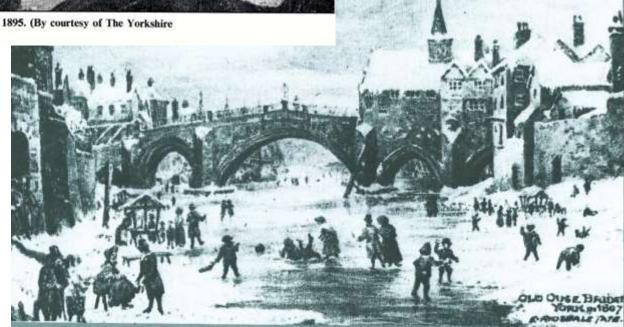


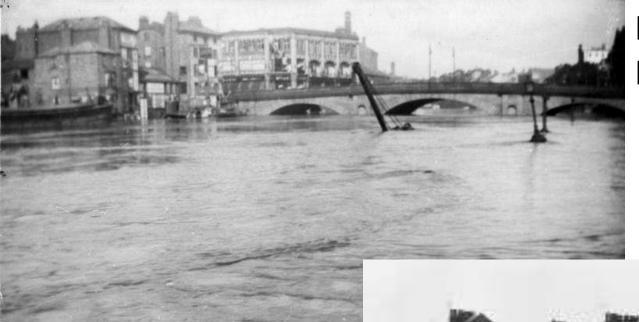
Skating near Lendal Bridge 1895

Skating on the River Ouse, February, 1895. (By courtesy of The Yorkshire Evening Press).

# Floods & Ice

Snow and ice near Ouse Bridge in 1807





Flooding at King's Staithe 1931

# Floods & Ice

York Floods . Sept. 1931.

Fishergate in 1978 (and again in 2016!)









Modern Times:

Trip Boats, Recklaw Sand-Dredger & Newsprint







River Carnivals 1970/80's - are you in these pictures?



Blue Bridge Lane, flooded again