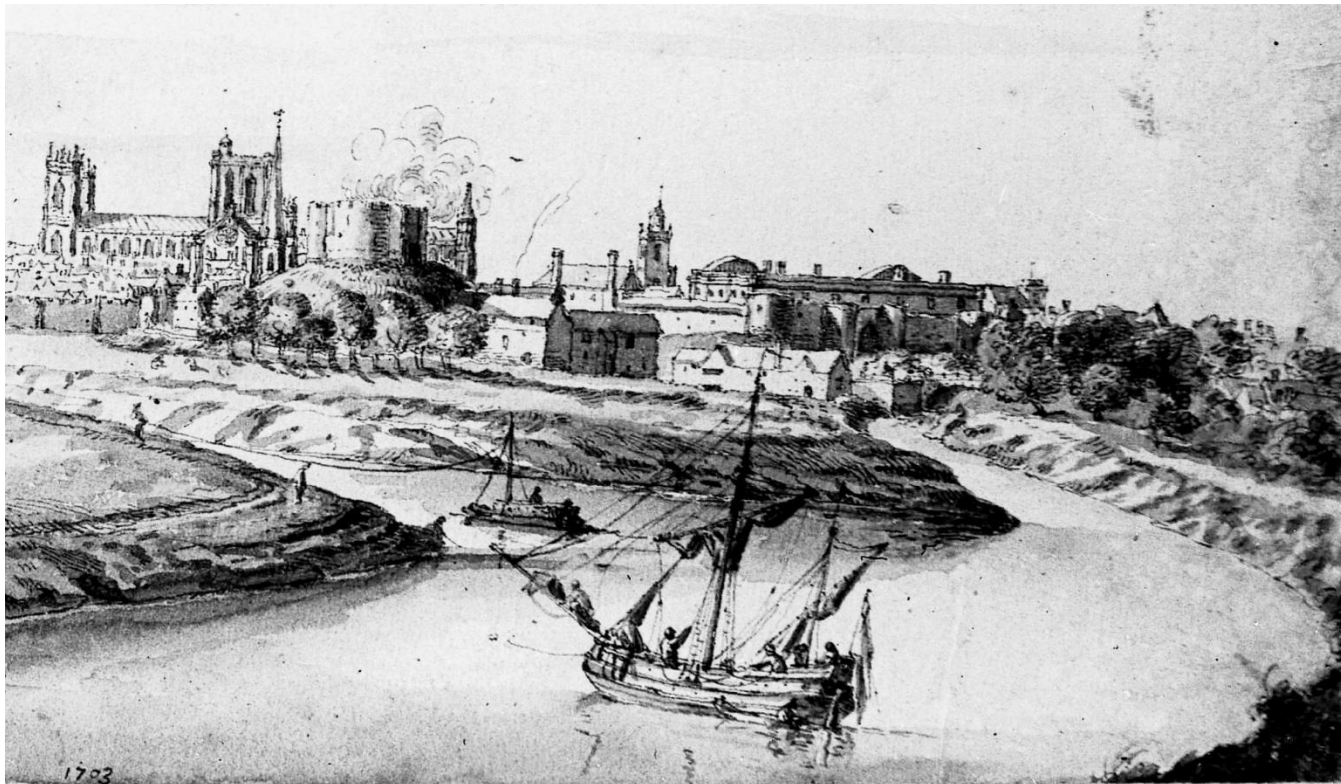


The River Ouse Through Time

Judy Nicholson & Chris Rainger



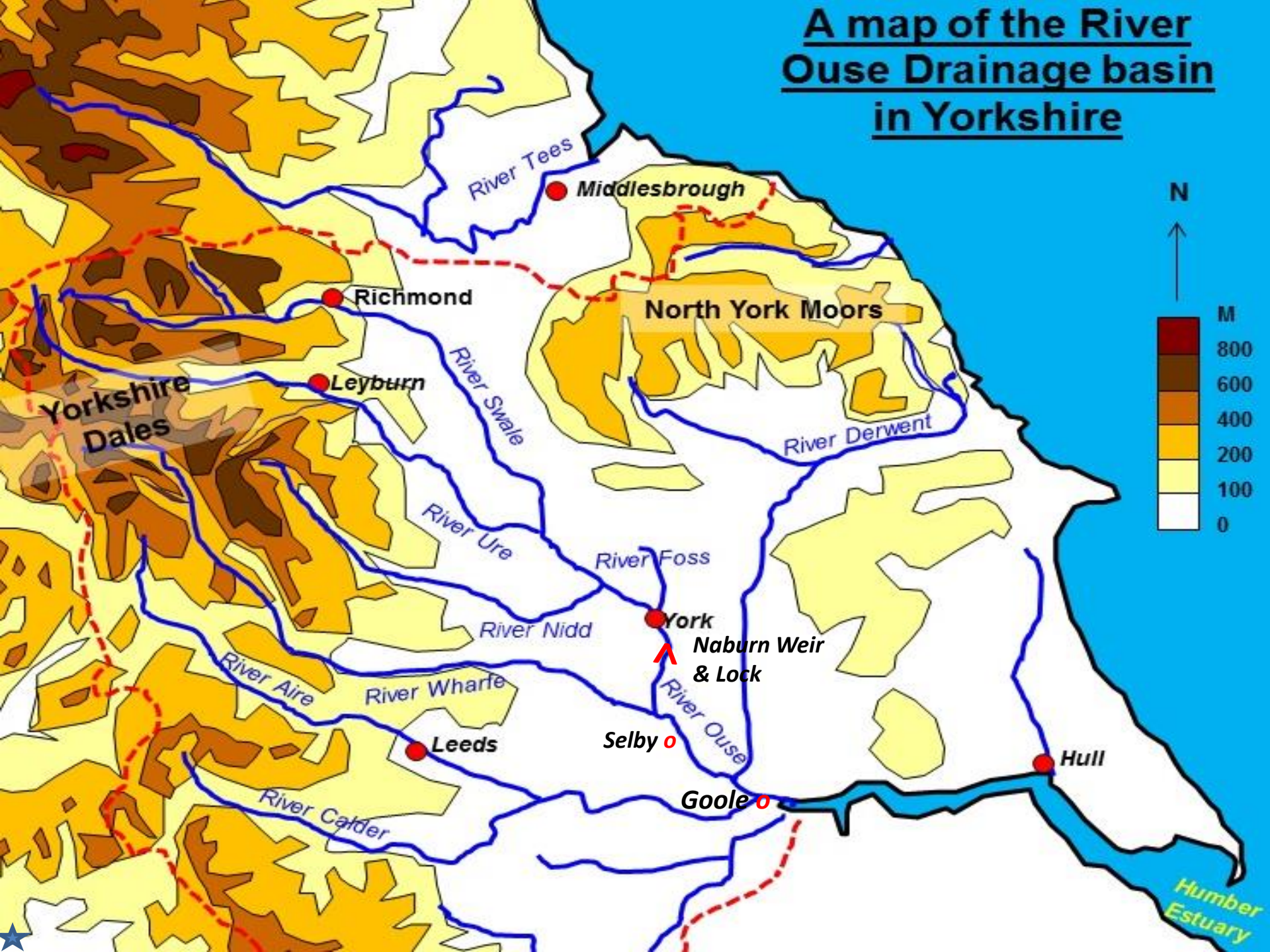
York as you go to Water foulford. 1703.



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



A map of the River Ouse Drainage basin in Yorkshire



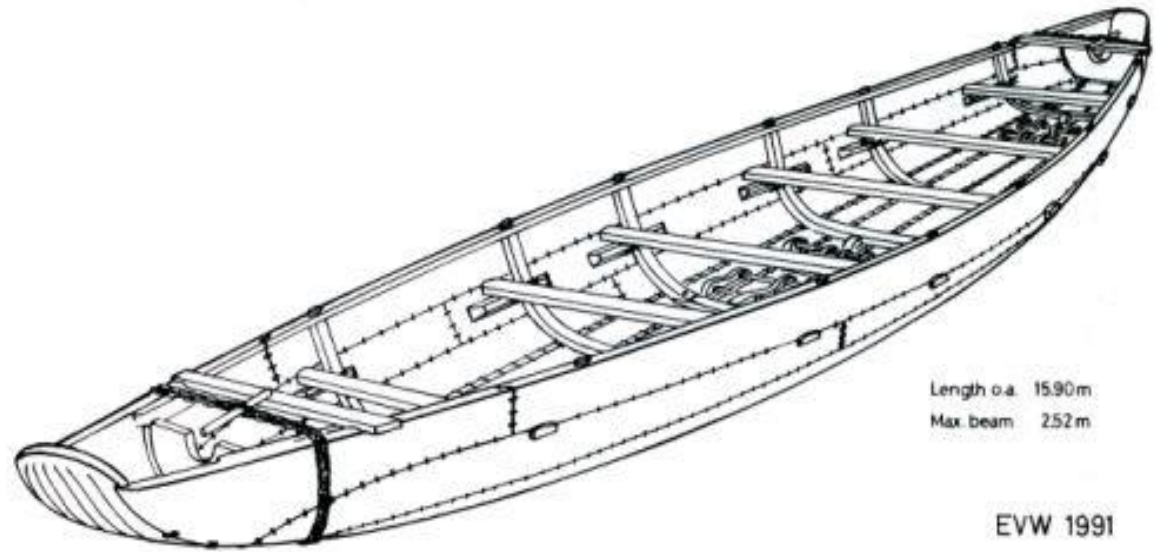


Naburn Swing Bridge 1947

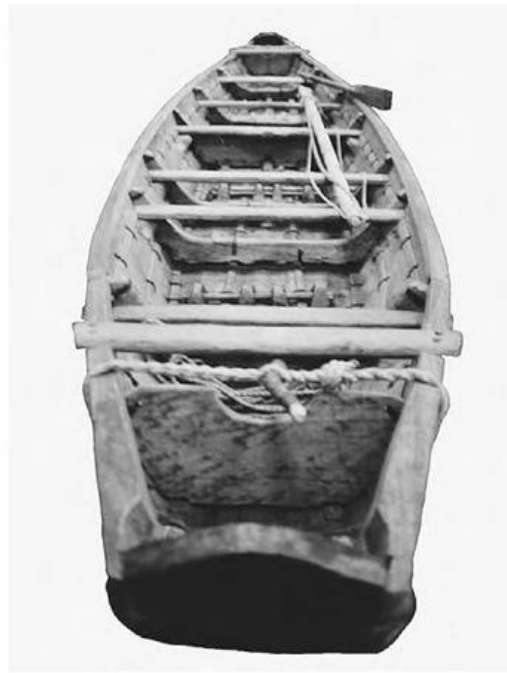


The river was tidal until 1757

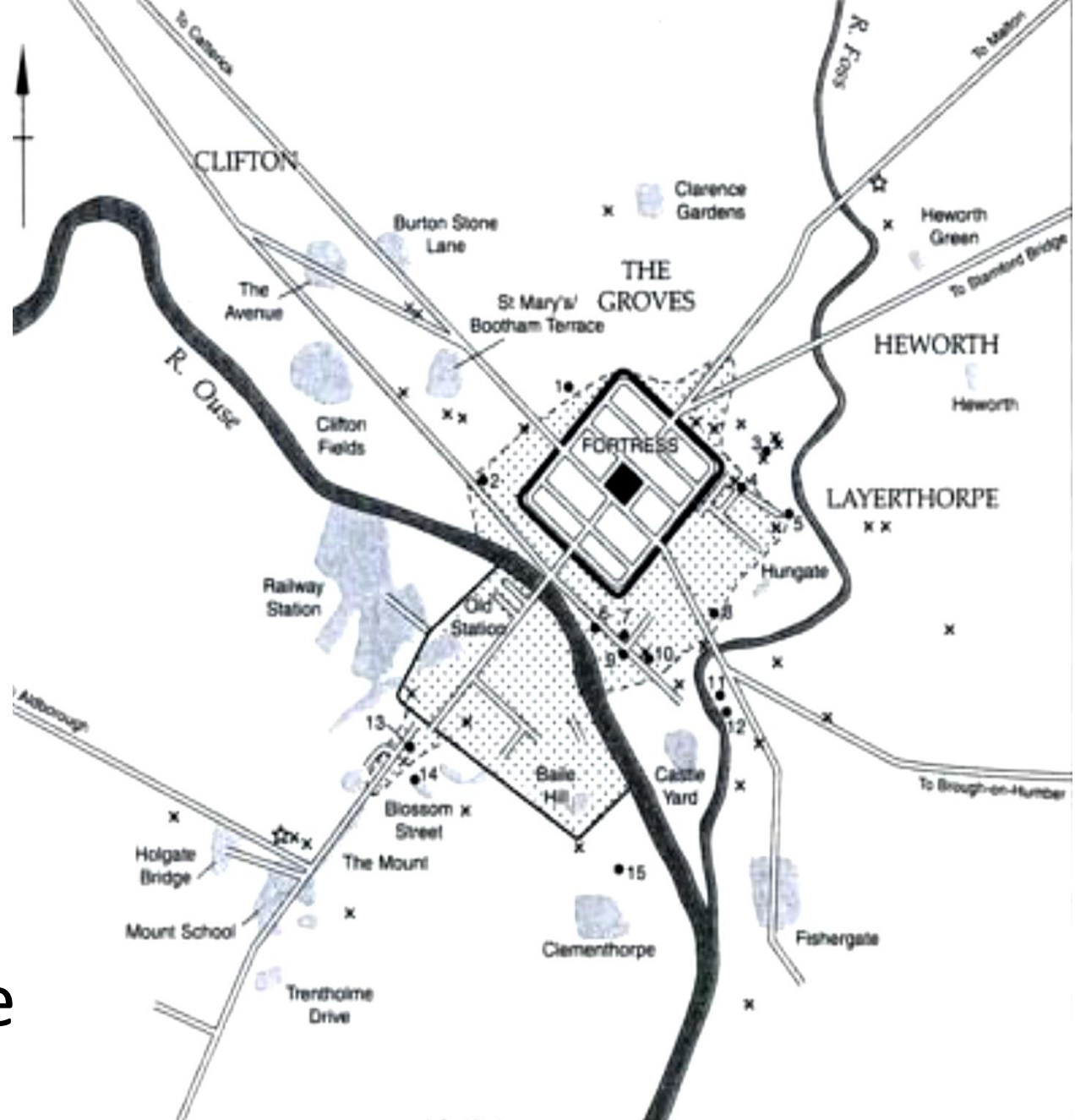
Mesolithic arrow heads have been found at Connaught Court, so it is likely that people have lived near the river since soon after the last Ice Age



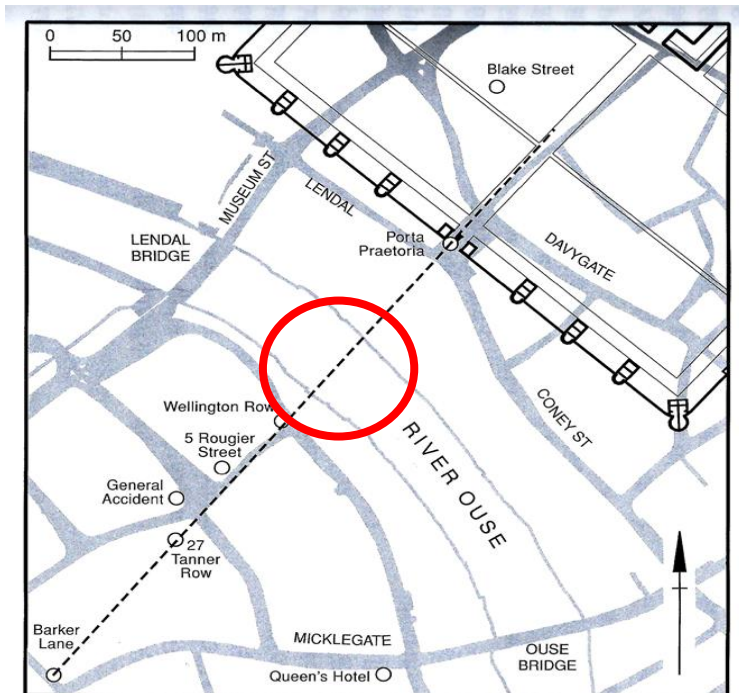
Hypothetical reconstruction of a complete Ferriby boat



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



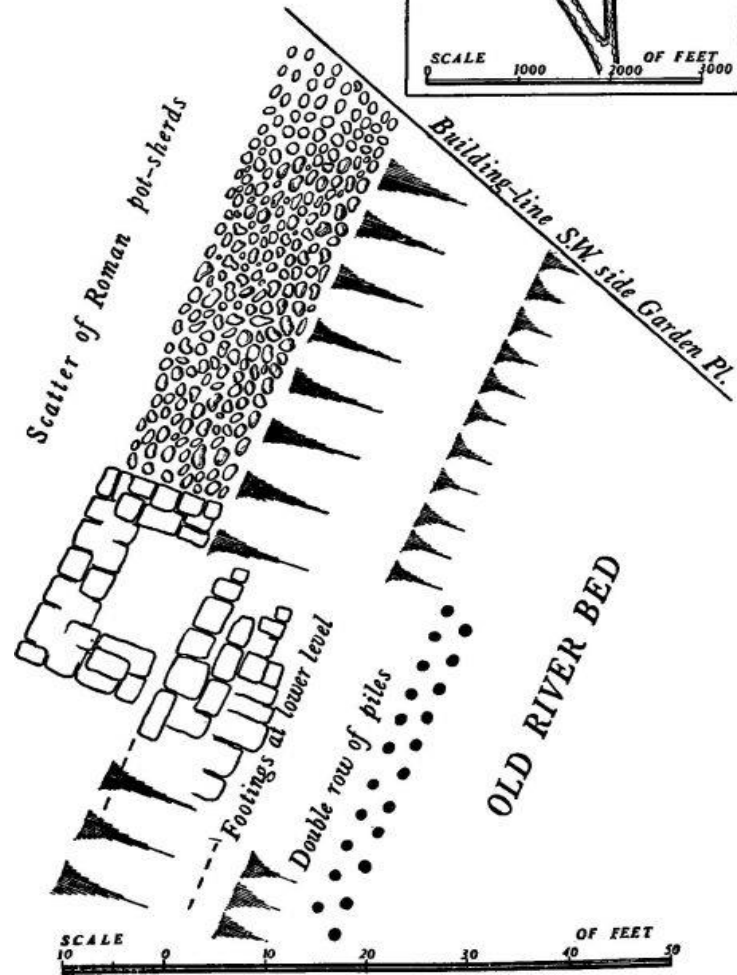
No-one has found the Roman Bridge, but its location is clear, leading from Micklegate to the Fortress gate



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.

FOSS RIVERFRONT Structure on site of Telephone Exchange, Garden Place, Stonebow

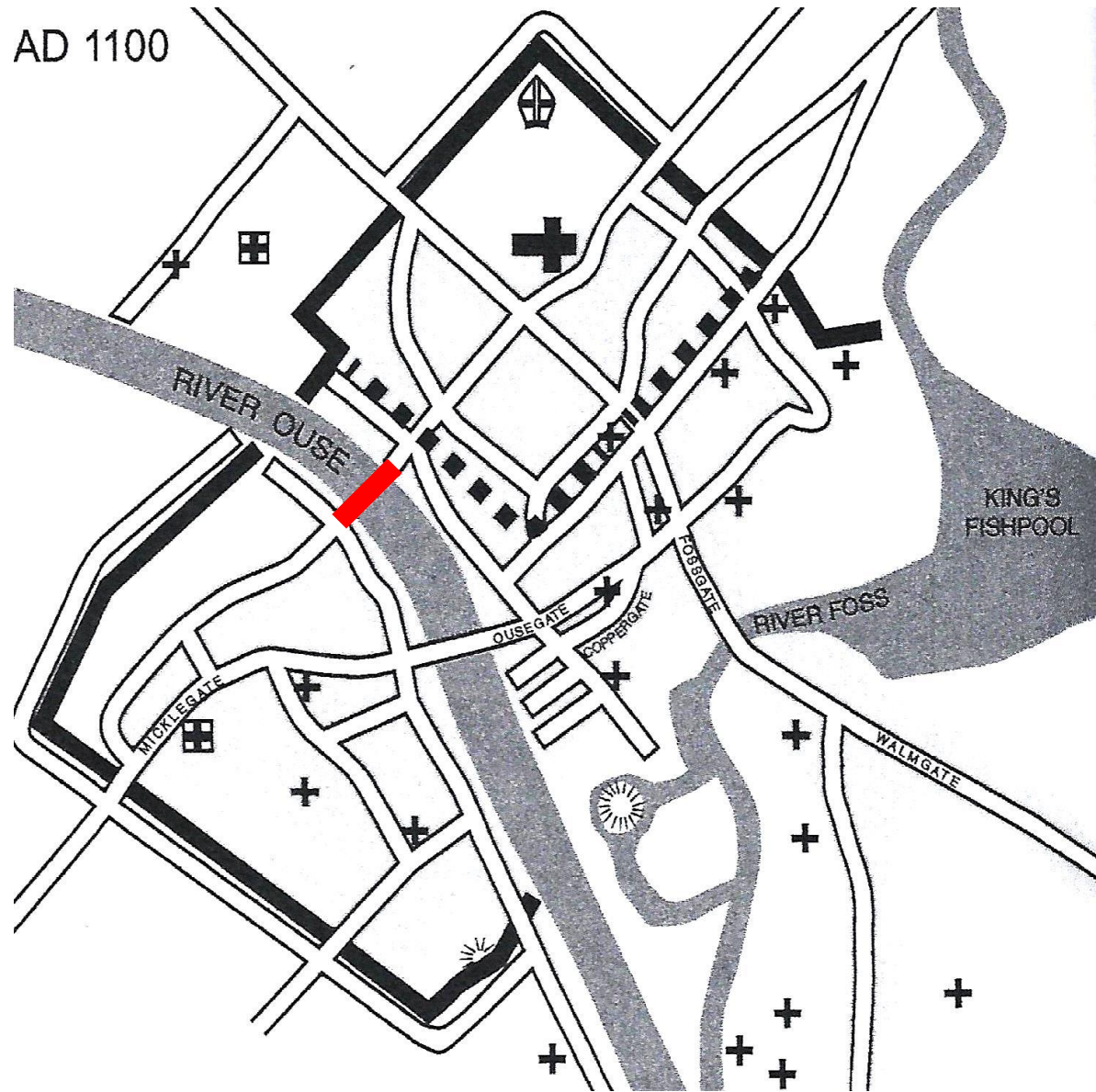
Monument 52





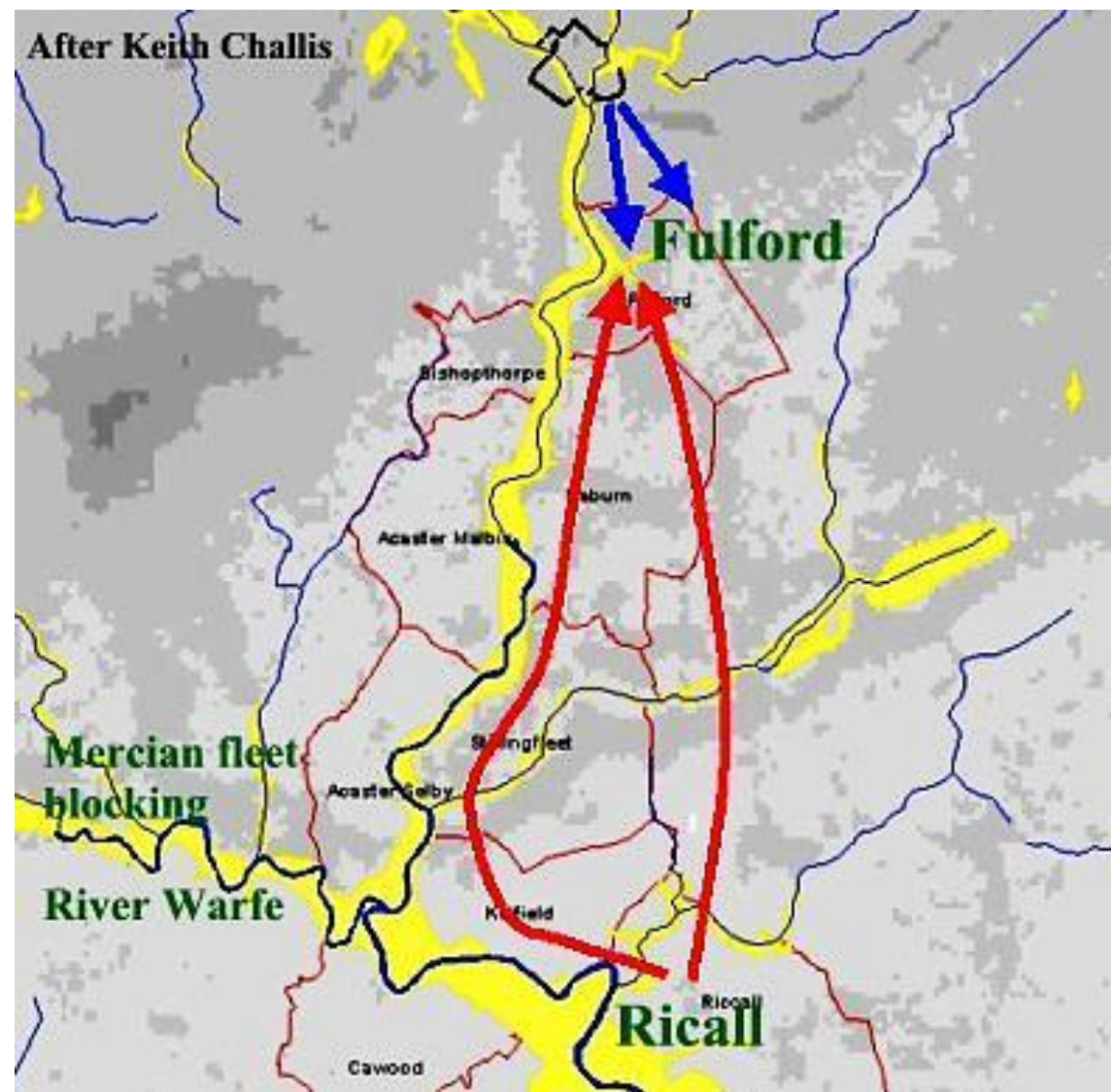
York recovered through the 7th century and became a centre of royal and ecclesiastical power, with staites in the Fishergate Wic forming the centre of trading, manufacturing and provisioning. Alcuin wrote of arriving in York along the river.

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

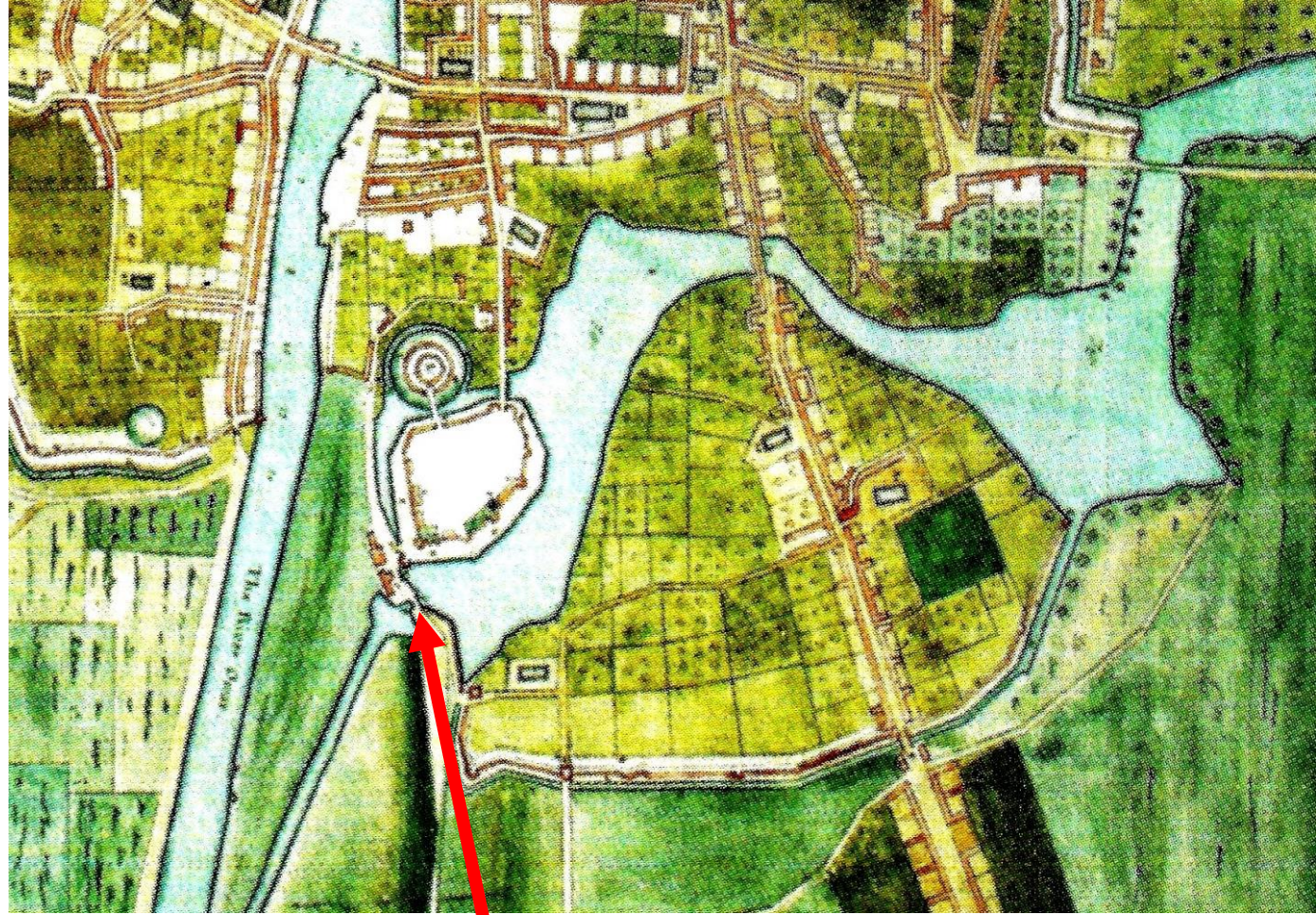


1066 –
300 ships rode the
tide up the Ouse to
Riccall, but walked to
battle at Fulford.

1068 --
200 Danish ships
came up the Ouse to
support rebellions
against the Normans,
leading to the
'Harrying of the
North' by William's
army



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

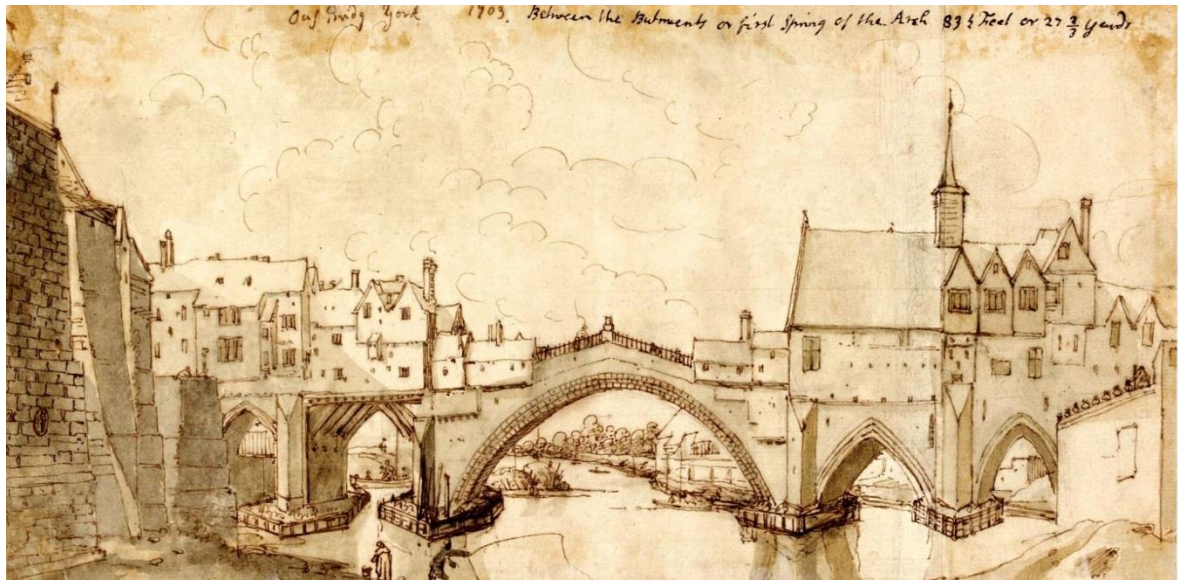


In 1154, Archbishop William was said to have been greeted by such a large crowd that the timber Ouse Bridge collapsed. Miraculously no one was drowned. A new multi-arched stone bridge was built in c.1155.

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.

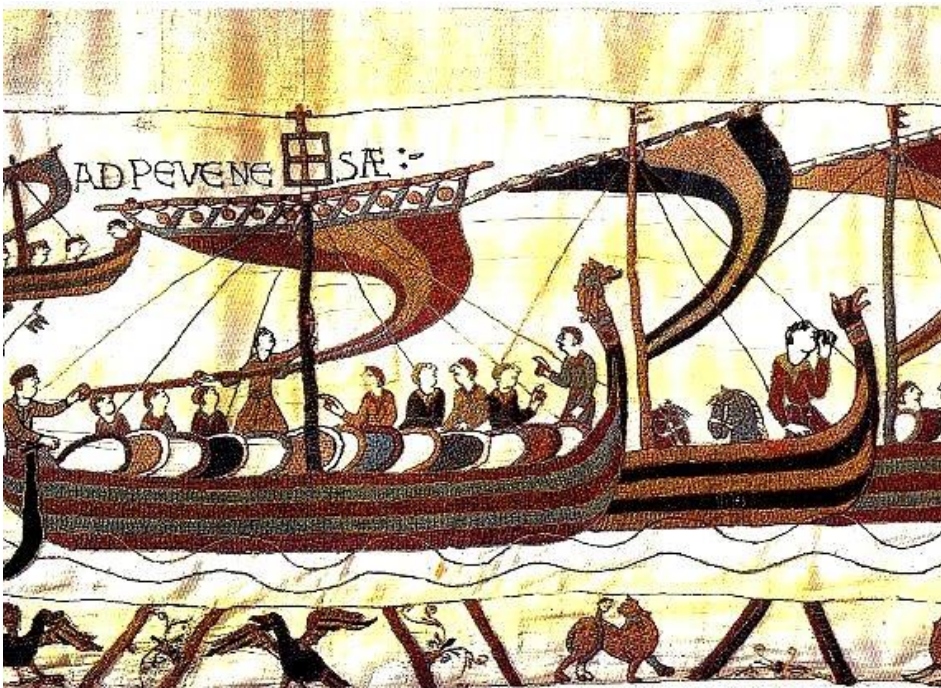


Ouse Bridge, by John Carter, late 18th century

What type
of ships
were
coming to
York?



Roman Trading Ship

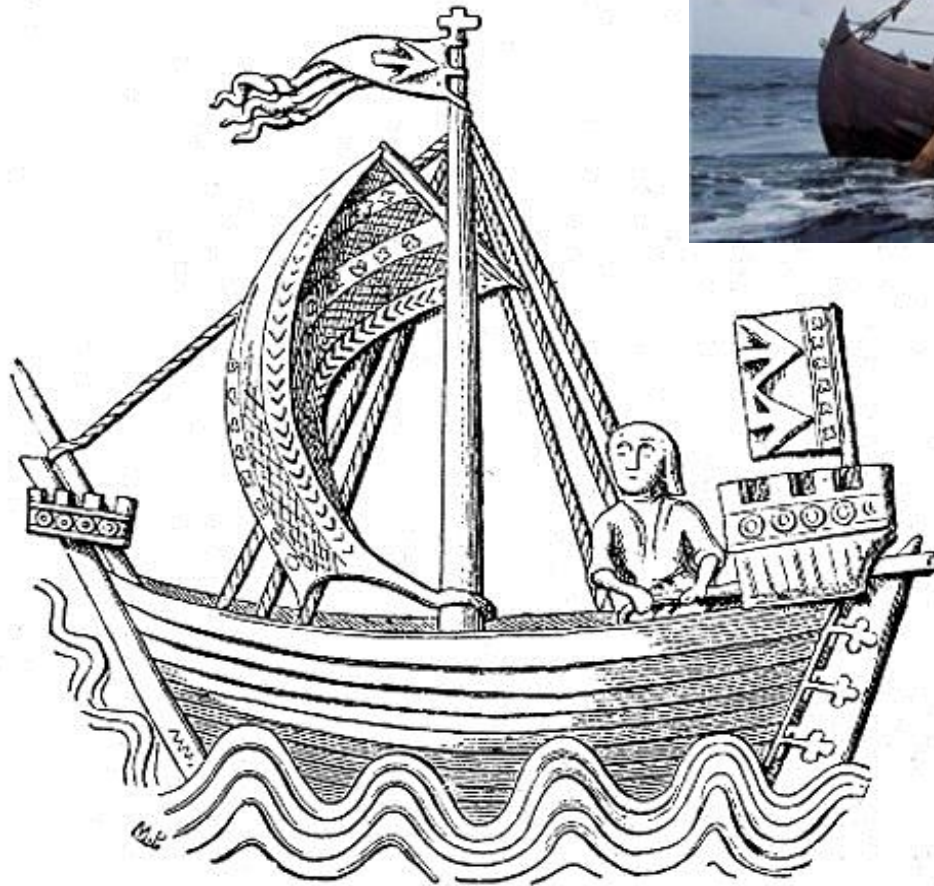


Norman Ships shown on
the Bayeux Tapestry and
are probably the same as
Anglian and Viking Ships

Ships were evolving and getting bigger and better



Knarr – Viking/early medieval trading ship



Cog – 13/14th 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 – 13/14th century merchant ship

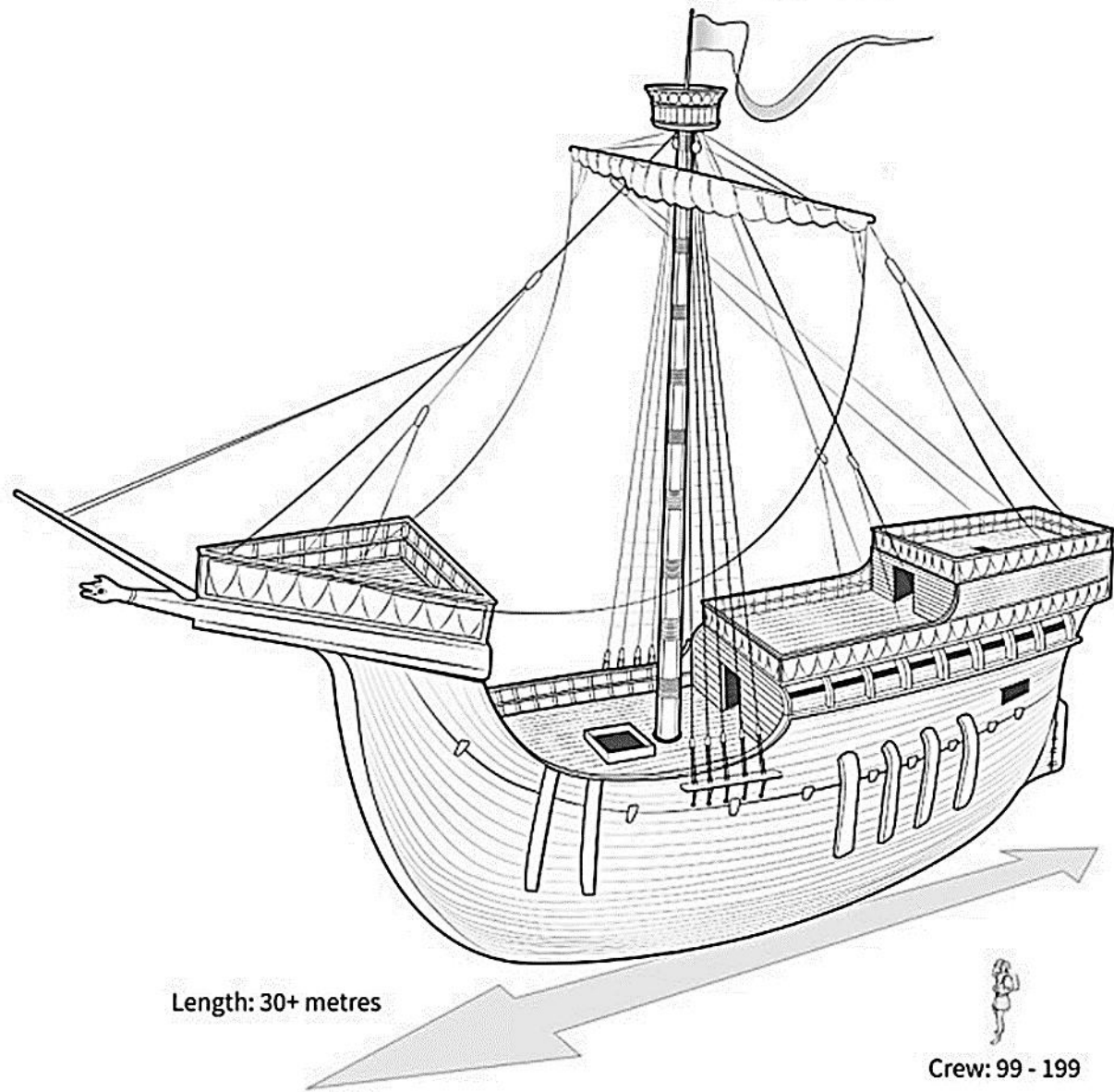


In Jan van Eyck's 1434 painting 'the Arnolfini Marriage' the lady is holding up her very fashionable full-skirted dress, woven in Flanders from English wool.
- perhaps exported from York?



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 14th 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 Abbeyes.



Hull – 1537

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.

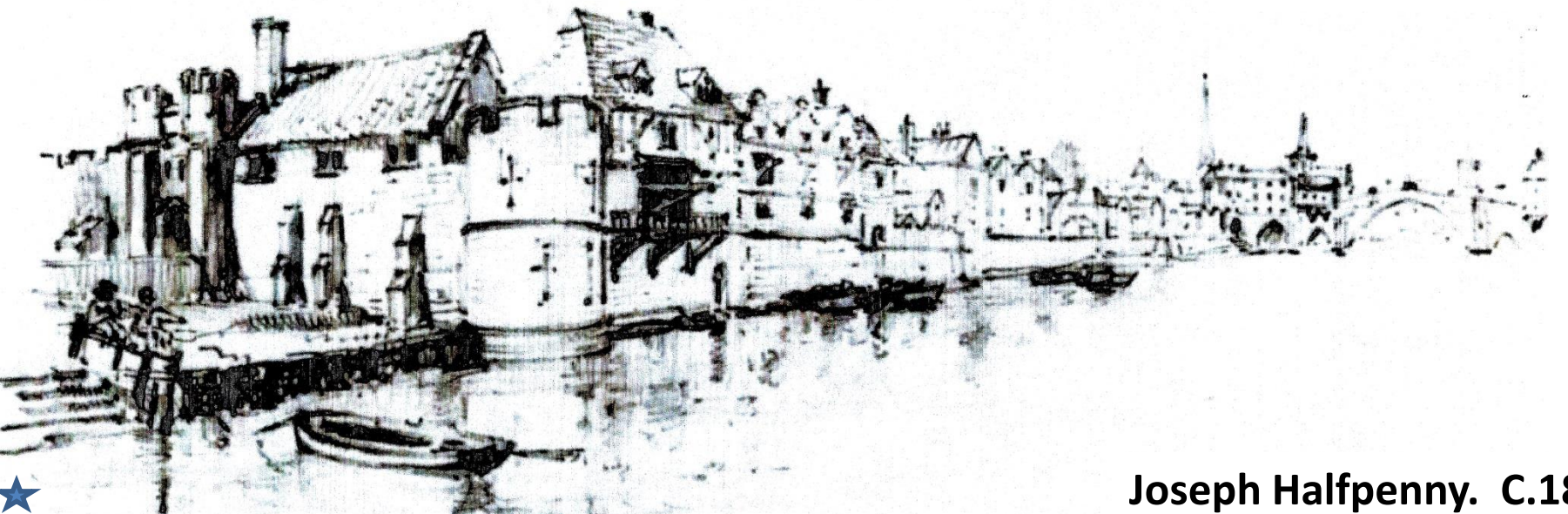


Abbot's Warehouse, Selby

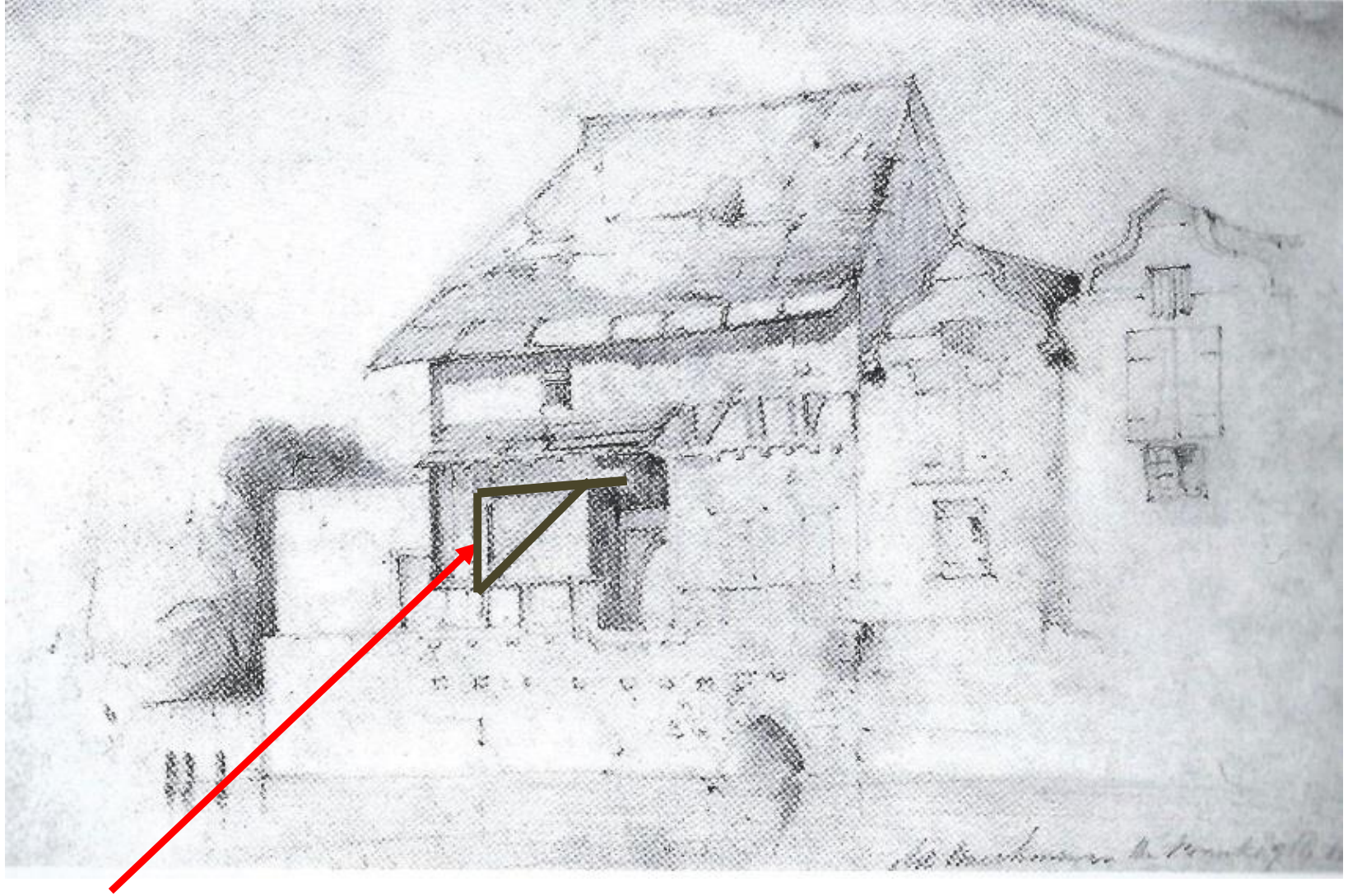
Rebuilt in 1417,
the City ordered
that *'the wares of
foreigners such as
spices, wines,
alum....were to be
stored in the
Cranegarth'*.



William Boddy. 1909



Joseph Halfpenny. C.1800

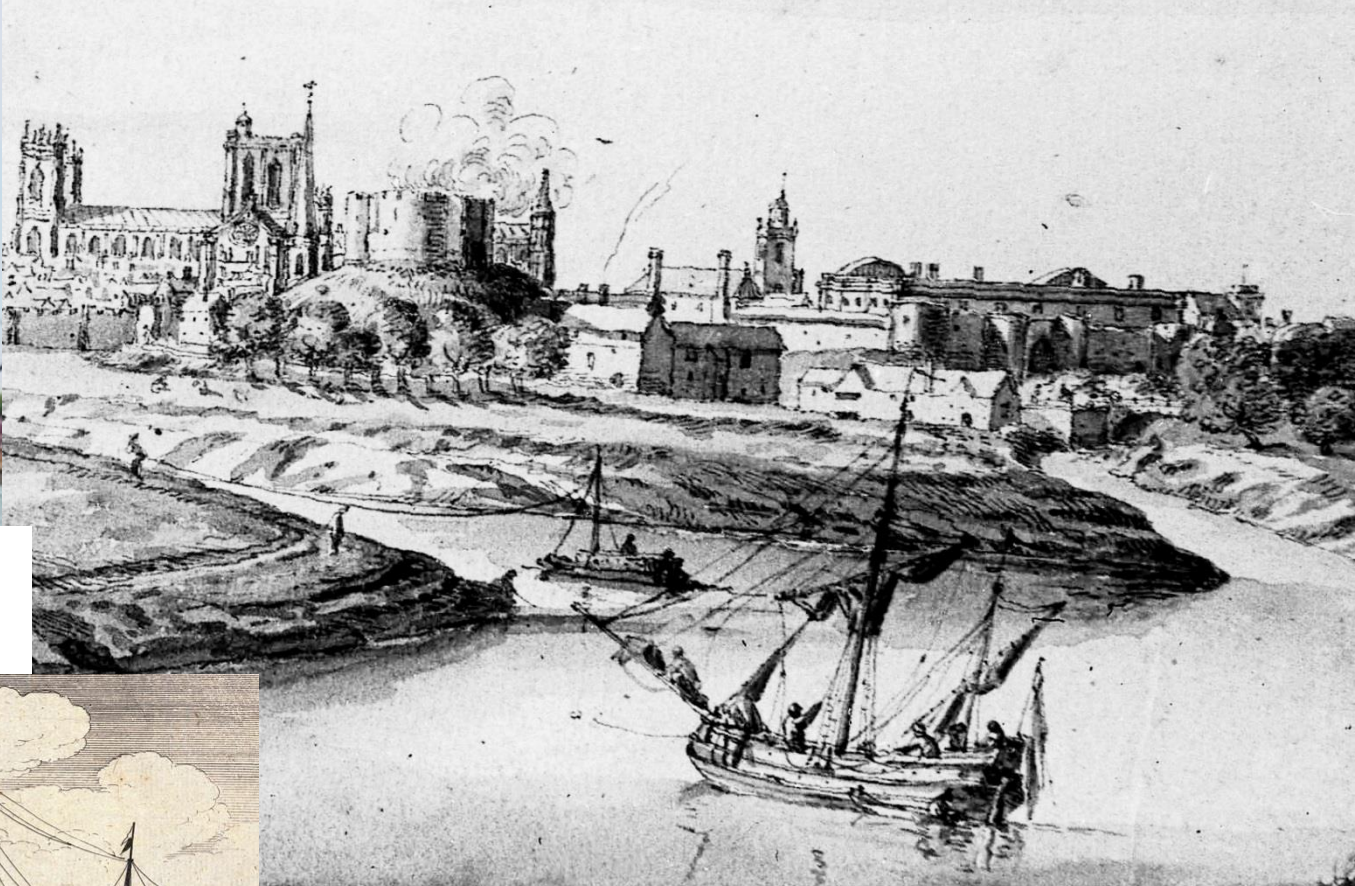


The City Crane, by John Harper. C.1830, showing the swinging boom of the crane and also the Watergate to Skeldergate, partly submerged since Naburn weir.





Pinta, Columbus ship of 1492



Francis Place - Confluence of the Foss with the Ouse in 1703



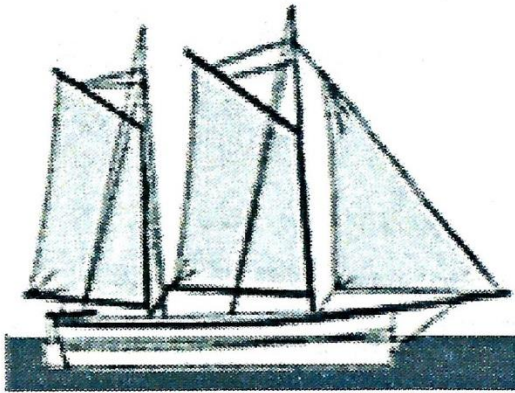
A Dutch Fluyt Trading Vessel 1677

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



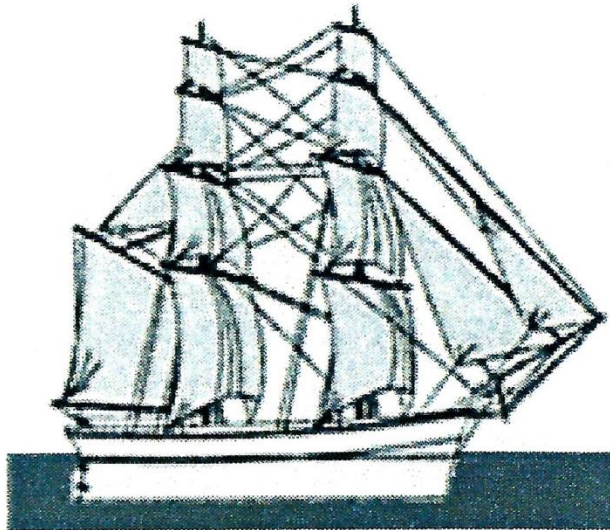
18th century engravings show a variety of vessels, but were they romanticising the image or showing us what was really there?

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.

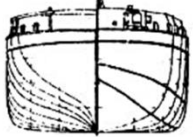
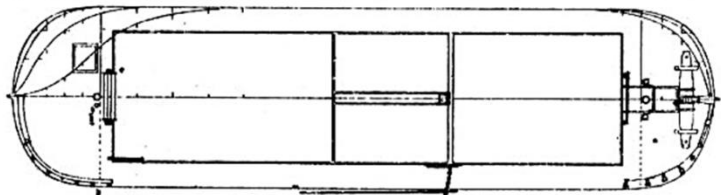
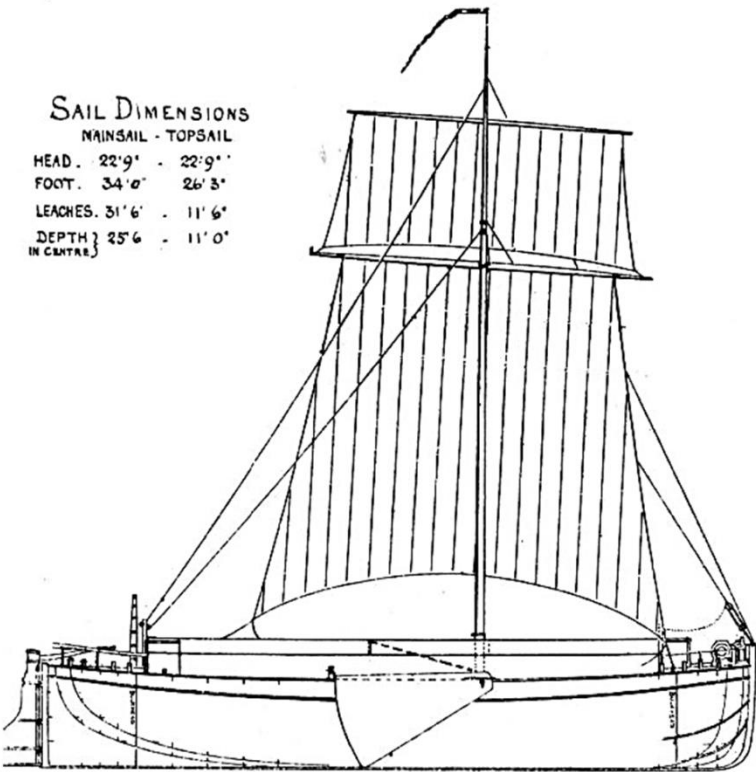
Larger ships could only reach York when there was sufficient depth of water, ie. twice/month at spring tides



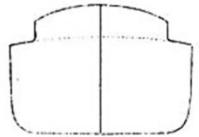
*Most craft were probably
Keels or Sloops*

In 1698, Trinity House reported York had 8-10 ships of 60-80 tons and 20-30 boats of 20-40 tons. They exported woollen goods, lead, butter, corn, and imported sea coals and other commodities.

SAIL DIMENSIONS
 MAINSAIL - TOPSAIL
 HEAD. 22' 9" - 22' 9"
 FOOT. 34' 0" - 26' 3"
 LEACHES. 31' 6" - 11' 6"
 DEPTH } 25' 6" - 11' 0"
 IN CENTRE }

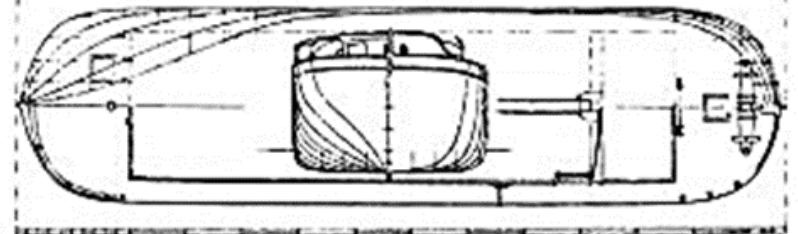


LINES OF A
HUMBER KEEL.
 SHEFFIELD SIZE.
 60' 3" x 15' 3"

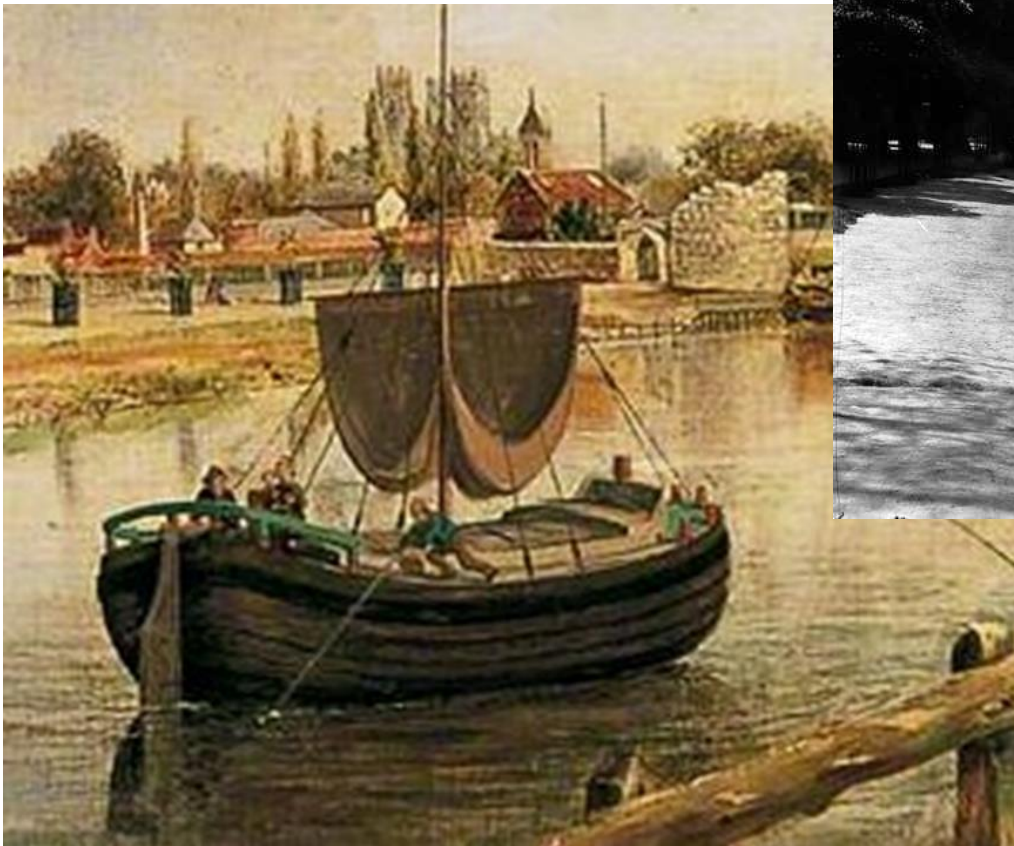


THE
HUMBER SLOOP.

LENGTH 68 FEET
 BEAM 17 FT 3 1/4"
 DEPTH 8 FT 3 1/4"
 SAILS MAIN FORE
 LEACH 56 32
 LEPP 29.6 36
 FOOT 38. 16
 HEAD 27 -



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



Keel passing New Walk

Keel near Marygate Tower

Humber Keels and Sloops continued to be used into the 20th 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'

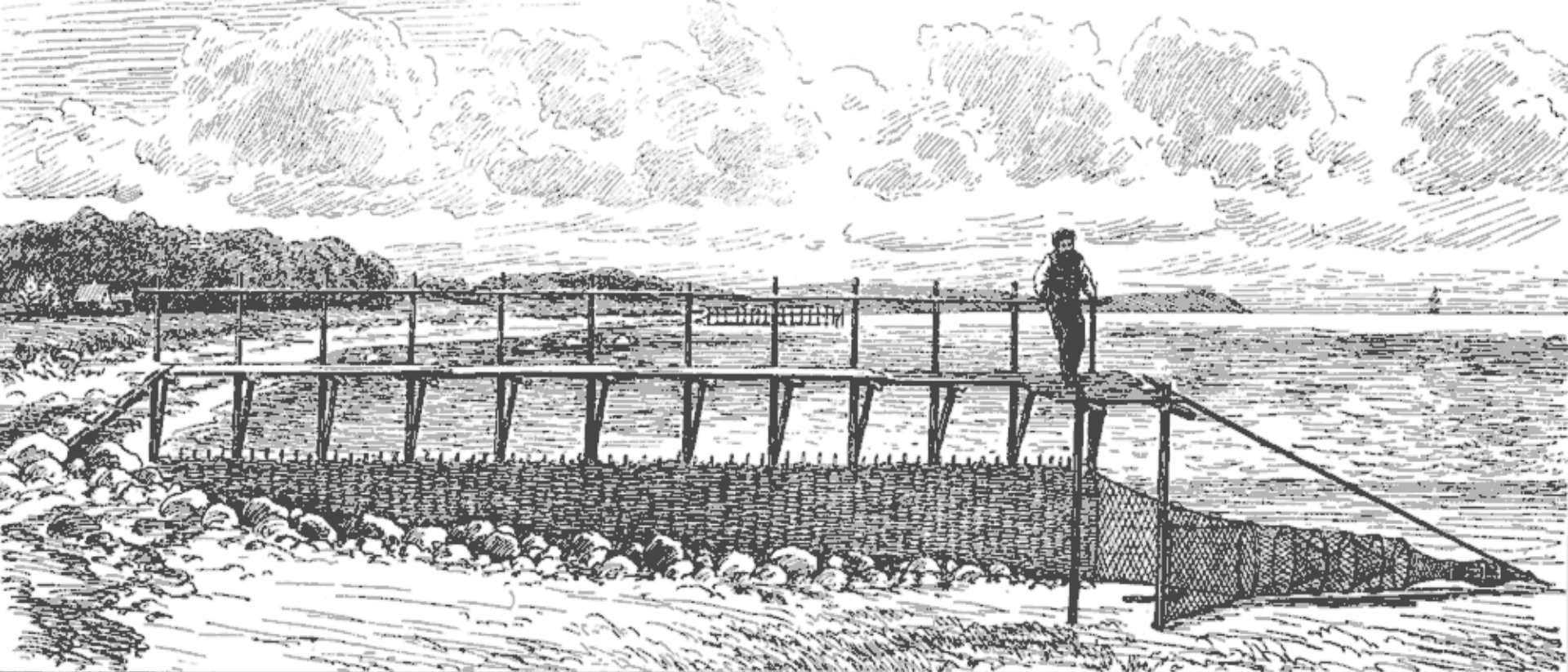
Topsail Schooners were probably the largest sailing vessels to reach York after the Naburn lock improvements.





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





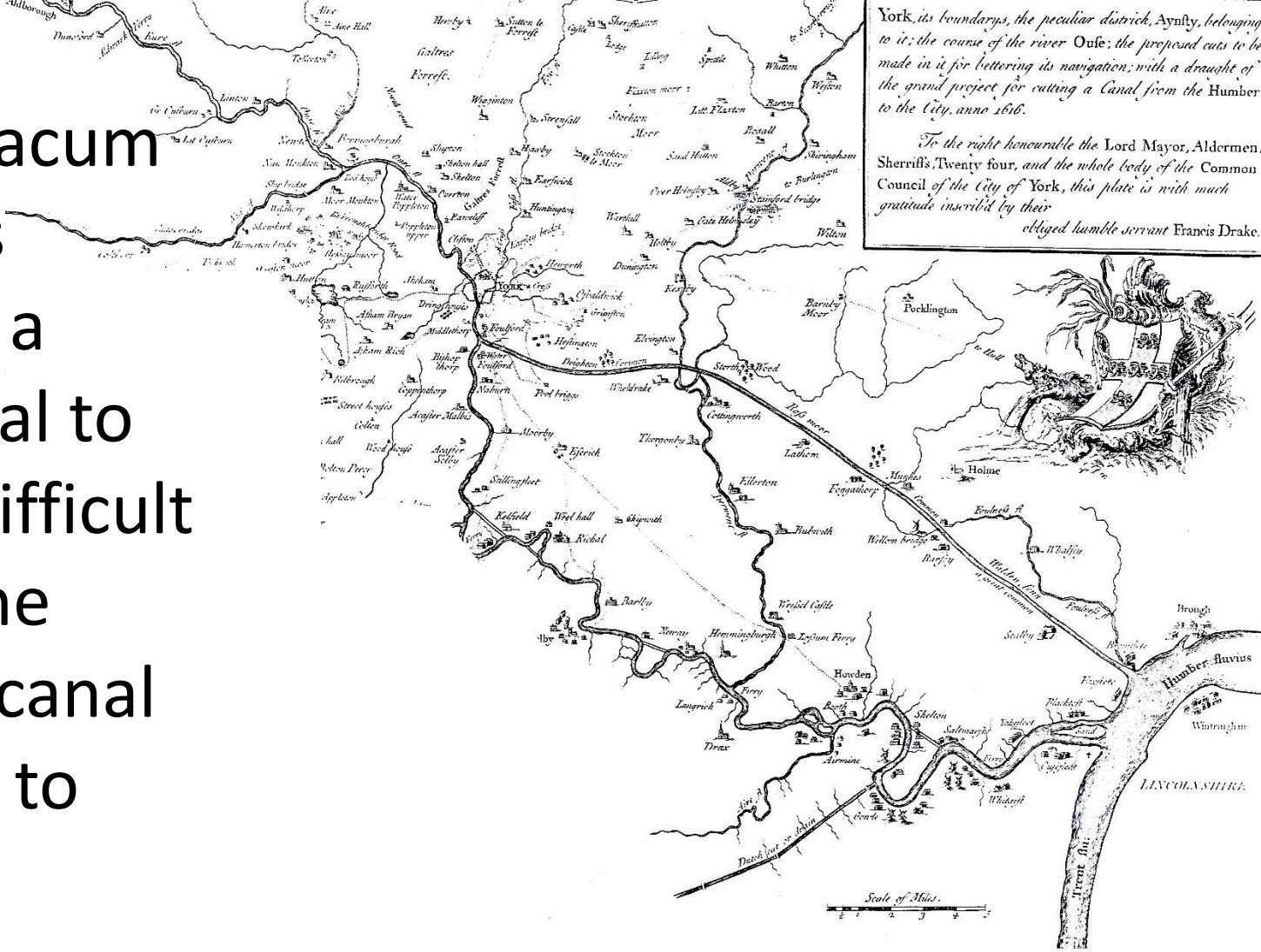
The first charter giving York Corporation maintenance responsibilities and powers to remove obstructions such as fishgarths, was granted by Edward IV in 1462, but it didn't give powers to make navigation improvements



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.



Drake's Eboracum included this engraving of a 1616 proposal to bypass the difficult reaches of the Ouse with a canal from Fulford to Broomfleet.



York, its boundaries, the peculiar district, Aynity, belonging to it; the course of the river Ouse; 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, anno 1616.

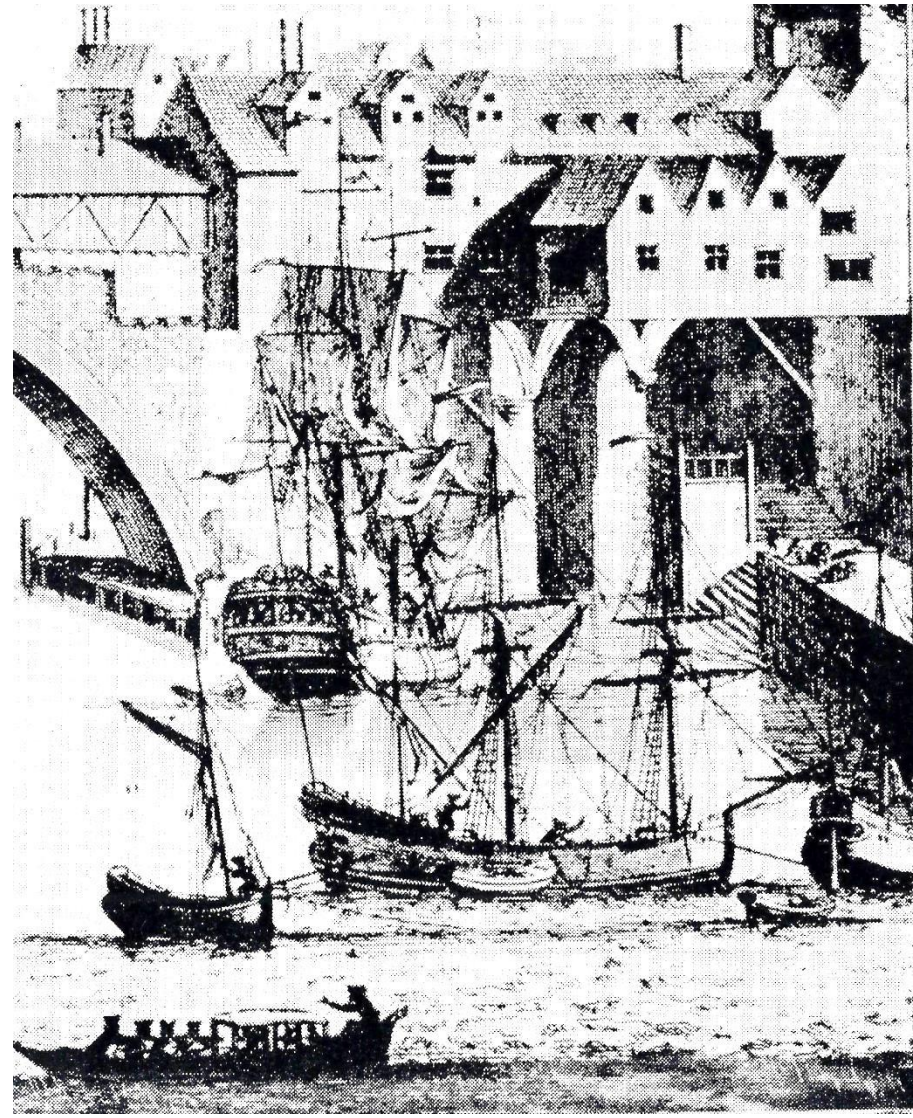
To the right honourable the Lord Mayor, Aldermen, Sherriffs Twenty four, and the whole body of the Common Council of the City of York, this plate is with much gratitude inscribed by their
obayed humble servant Francis Drake.

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 17th 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.



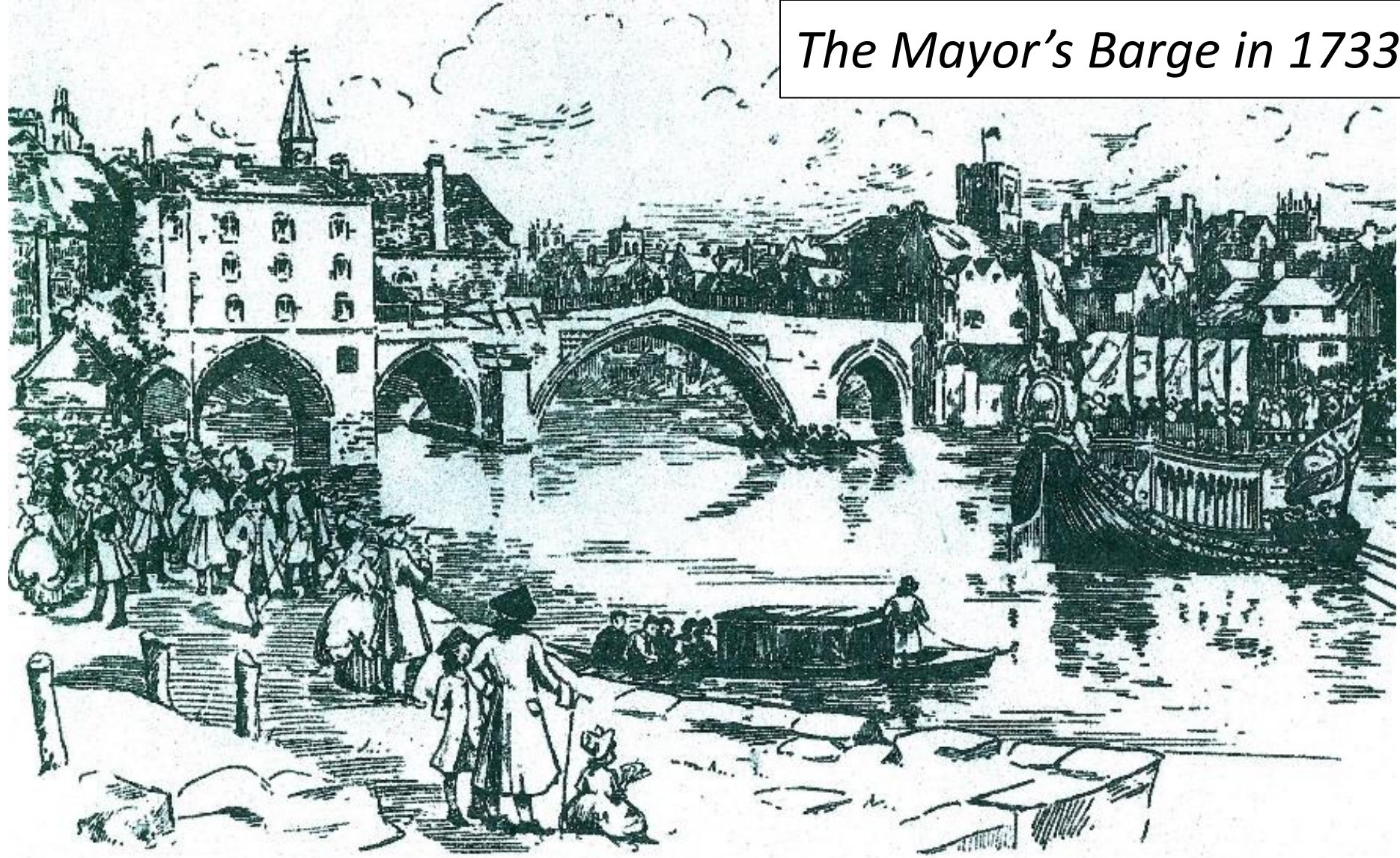
Below Cawood, Surbey found the tidal river to be deep enough, but badly restricted in places by shoals. However, at Water Fulford, he found only 8" of water at low tide and a little further downstream, a shoal $\frac{1}{4}$ mile long had just 18" covering it at low tide, with the tide adding approx. 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.



The Mayor's Barge in 1733



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



Navigating the tidal Ouse



Hull Maritime Museum



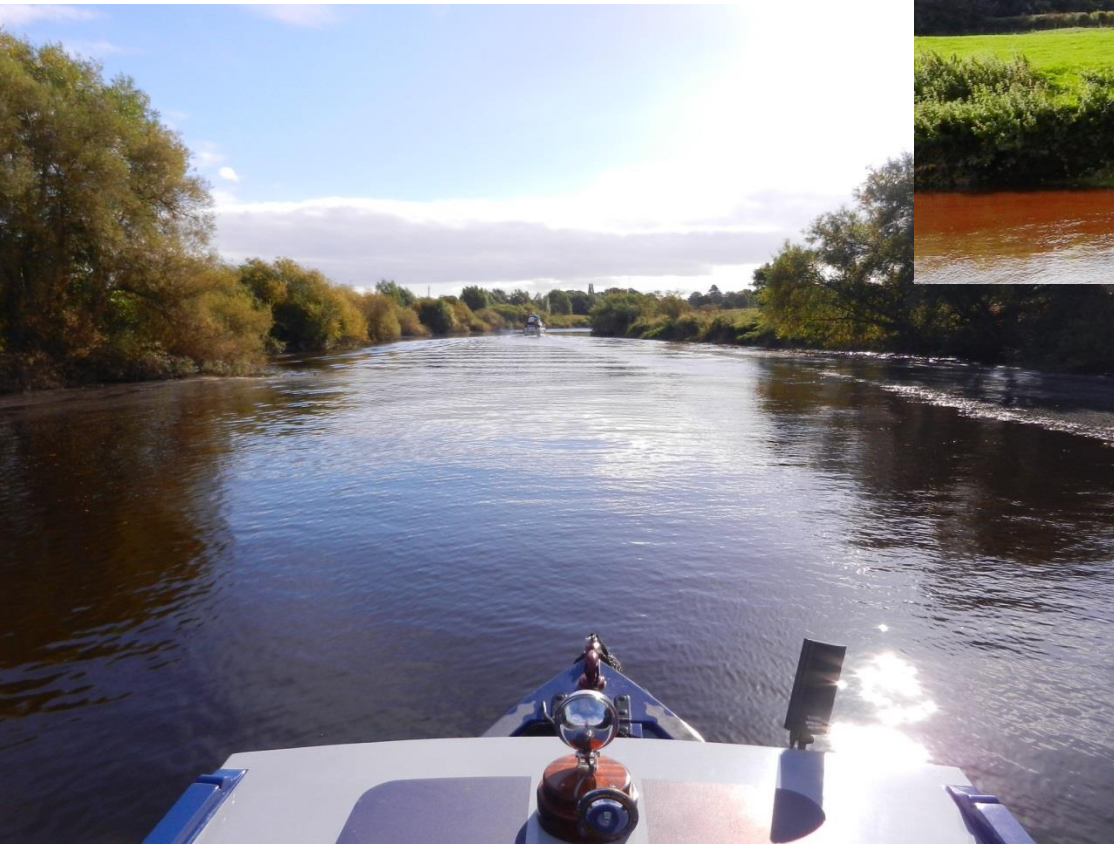
Hull Maritime Museum

Navigating the tidal Ouse



Leaving Naburn Lock just before high tide

Navigating the tidal Ouse



At first, the river
looks quite placid

Navigating the tidal Ouse



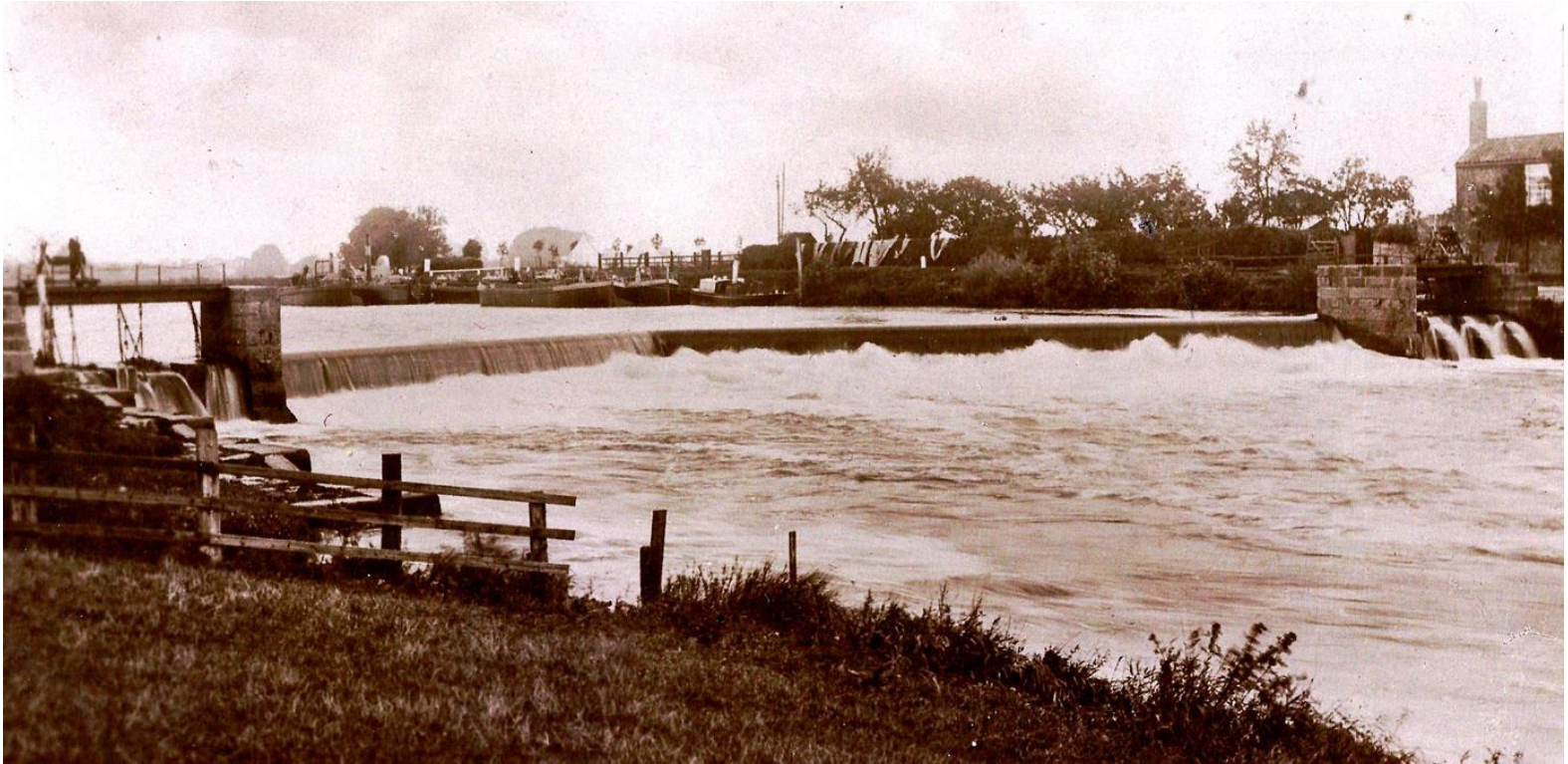
Approaching Selby
the current is quite
fast and turbulent

Navigating the tidal Ouse



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?

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

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.

Former Banqueting House



Steamship Lock

Original Lock



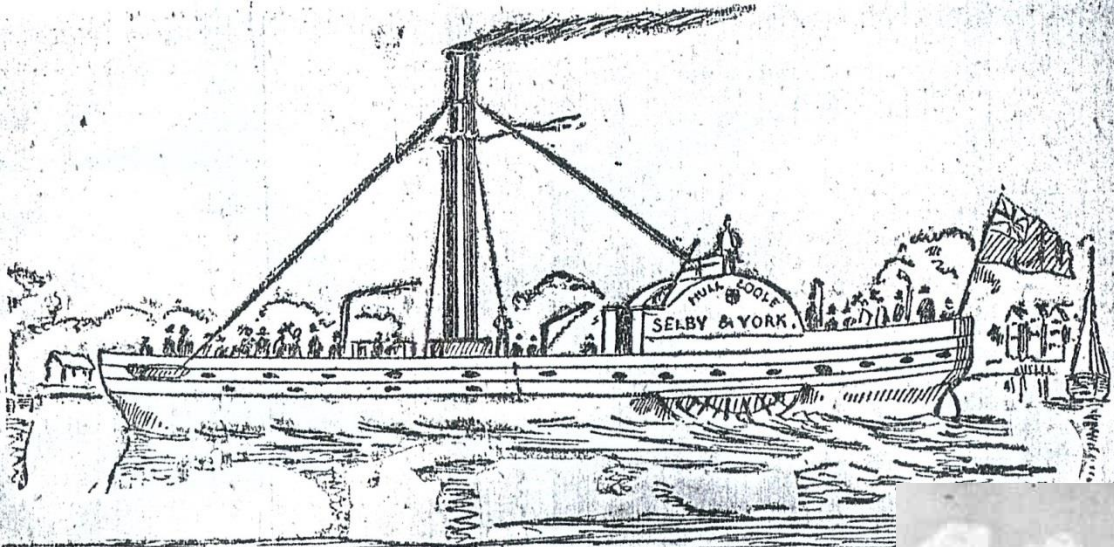
Site of Former Water Mill

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

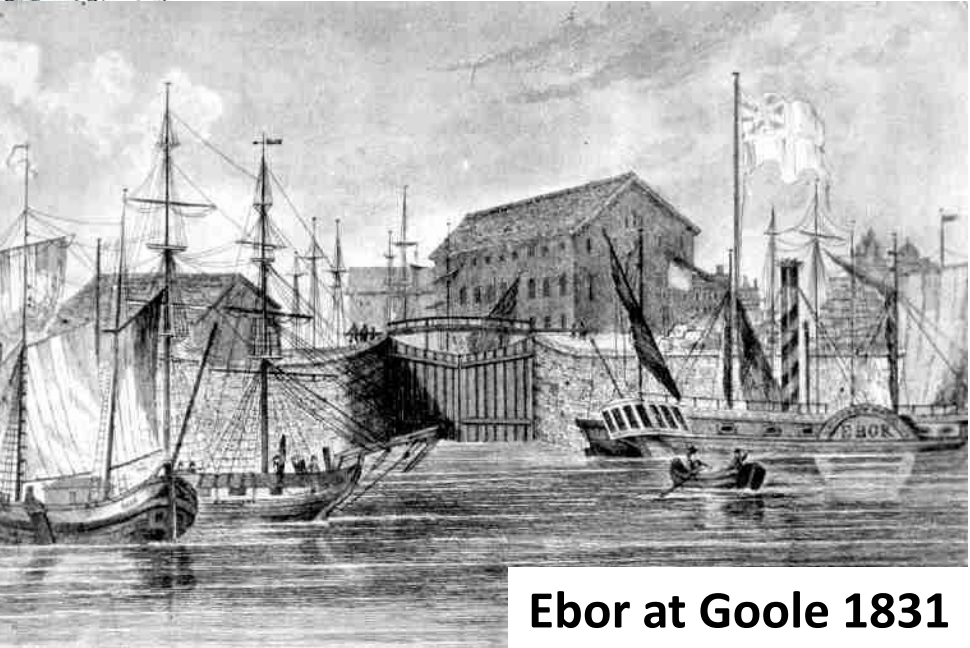
The 1888 Steamship Lock is 46m x 8m (150ft x 26ft)



Aerial Packet Boat



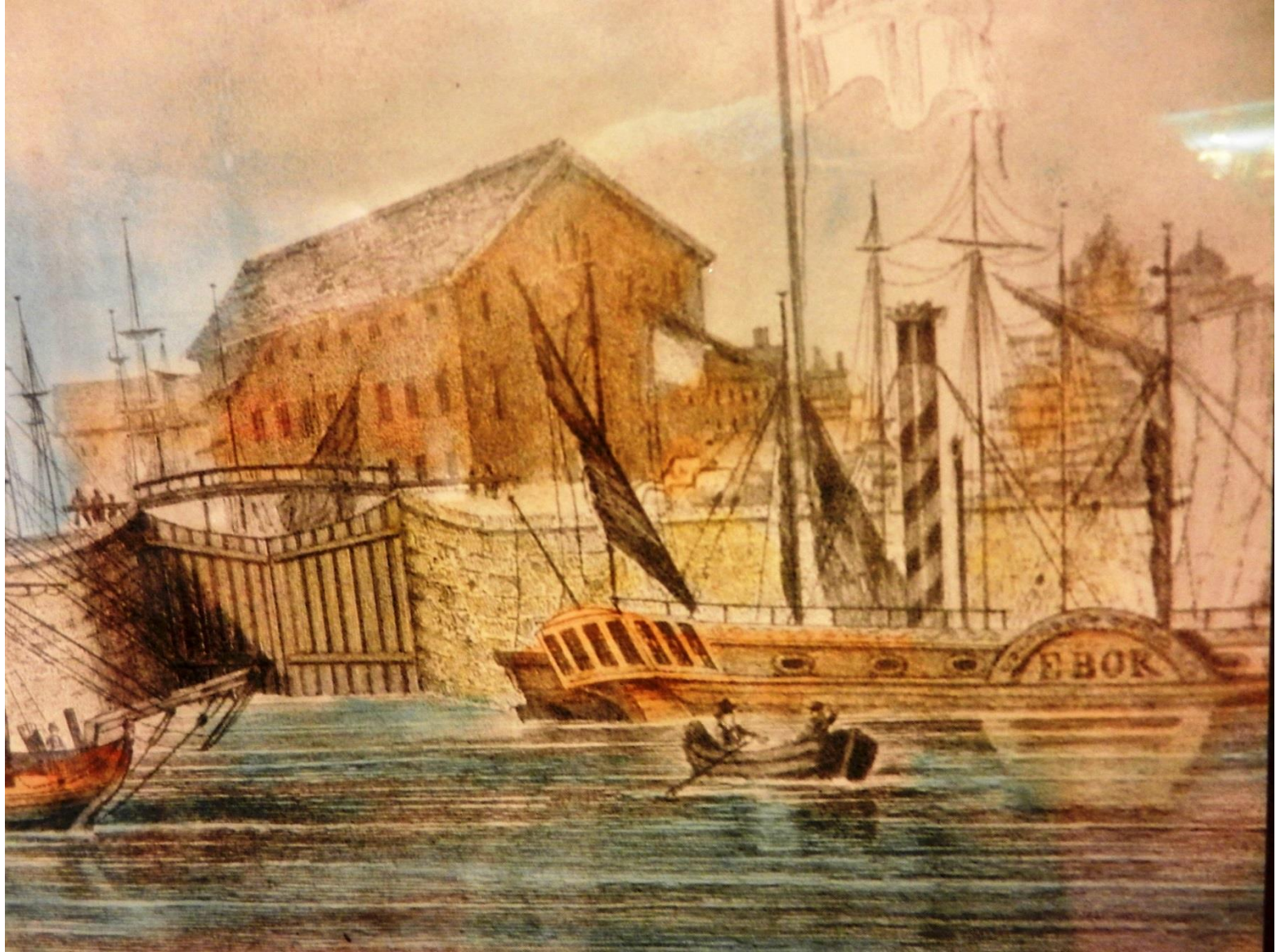
Name.	Hour of setting out.	From what Place.	Where to.
Yorkshireman . . .	Wednes. 6 A. M.	Dock Basin . . .	London, (return on Sat.)
Prince Frederick	Saturday, 6 A. M.	Ditto	London, (return on Friday)
Enterprise	Thursday, 6 A. M.	Ditto	London, (return on Sunday)
Pelham	High Water . . .	Ditto	Grimsby
Kingston	Ditto	Ditto	Grimsby
Royal Charter . . .	7, 10, 1, and 4 . .	Vittoria Tavern	Barton
Adelaide	Half Tide.	Dock Basin . . .	Selby
Sovereign	" "	Ditto	Selby
John Bull	" "	Ditto	Thorne
Rockingham	" "	Ditto	Thorne
Eagle	" "	Ditto	Goole
Calder	" "	Ditto	Goole
Dart	" "	Ditto	Gainsborough
Echo	" "	Ditto	Goole
Mercury	" "	Ditto	Gainsborough
Elizabeth		General Elliot .	Brigg and Ferriby Sluice
Trafalger		Bull and Sun . .	York
Magna Charta	Four times daily		New Holland Ferry
Transit & Monarch	Satur. alternately		Hamburgh.



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



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and Cargo
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operators
advertised in
trade
directories
and
newspapers

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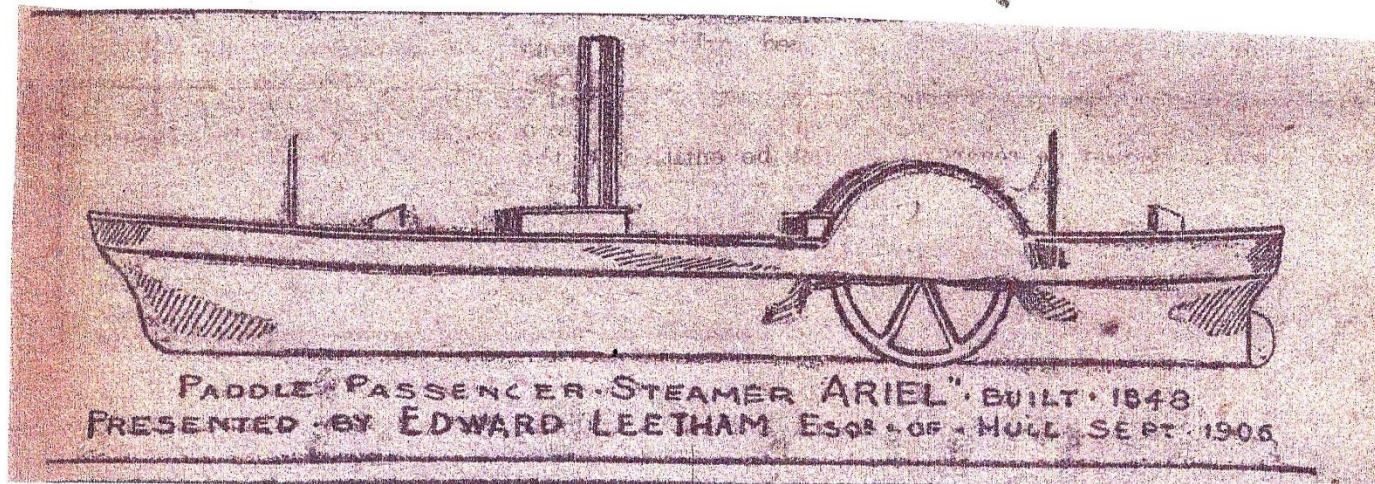
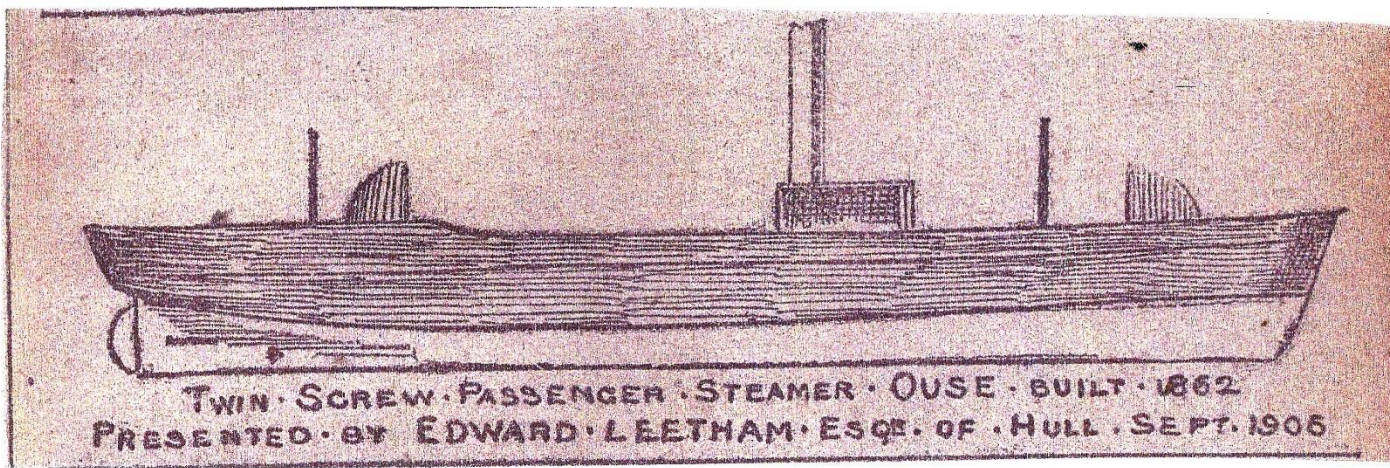
W. FRANCE, Stanton's Wharf, LONDON.

T. F. WOOD and CO., ALBION WHARF, YORK

BE PARTICULAR to Order to STEAM from STANTON'S WHARF.
Sailing Vessels when required. Marine Insurances Effected.

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.

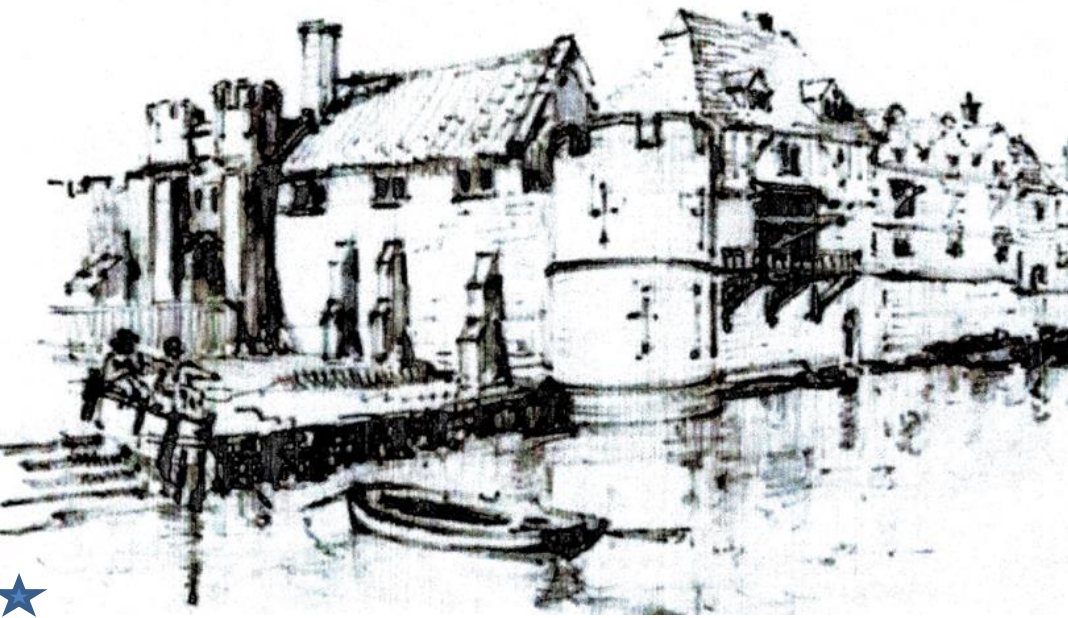
These drawings are of models presented to the Ouse Commissioners by Edward Leetham in 1905 – *where are they now?*



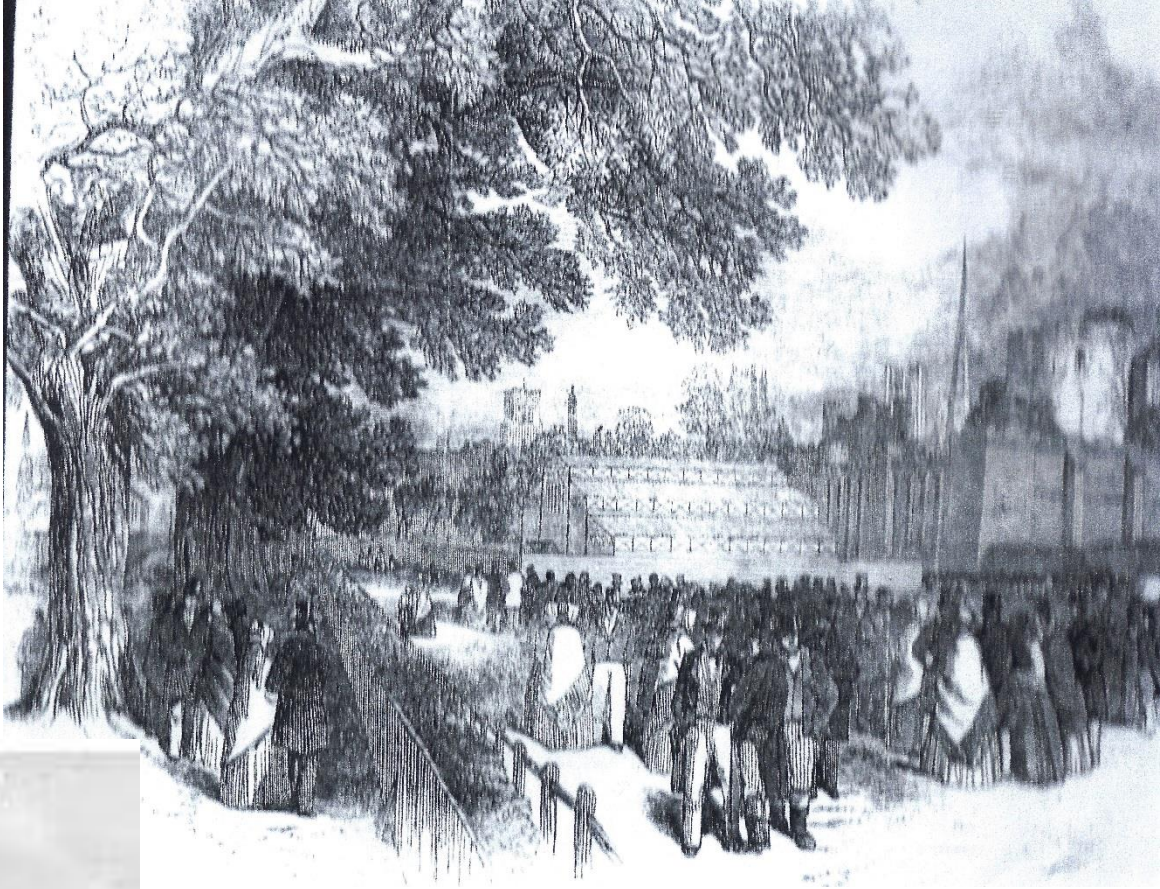


There has been a ferry at Lendal since at least the Anglo-Scandinavian period, and the Victorian steps still remain next to the elegant iron bridge built by Thomas Page in 1863.

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



New Walk was begun in the 18th 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

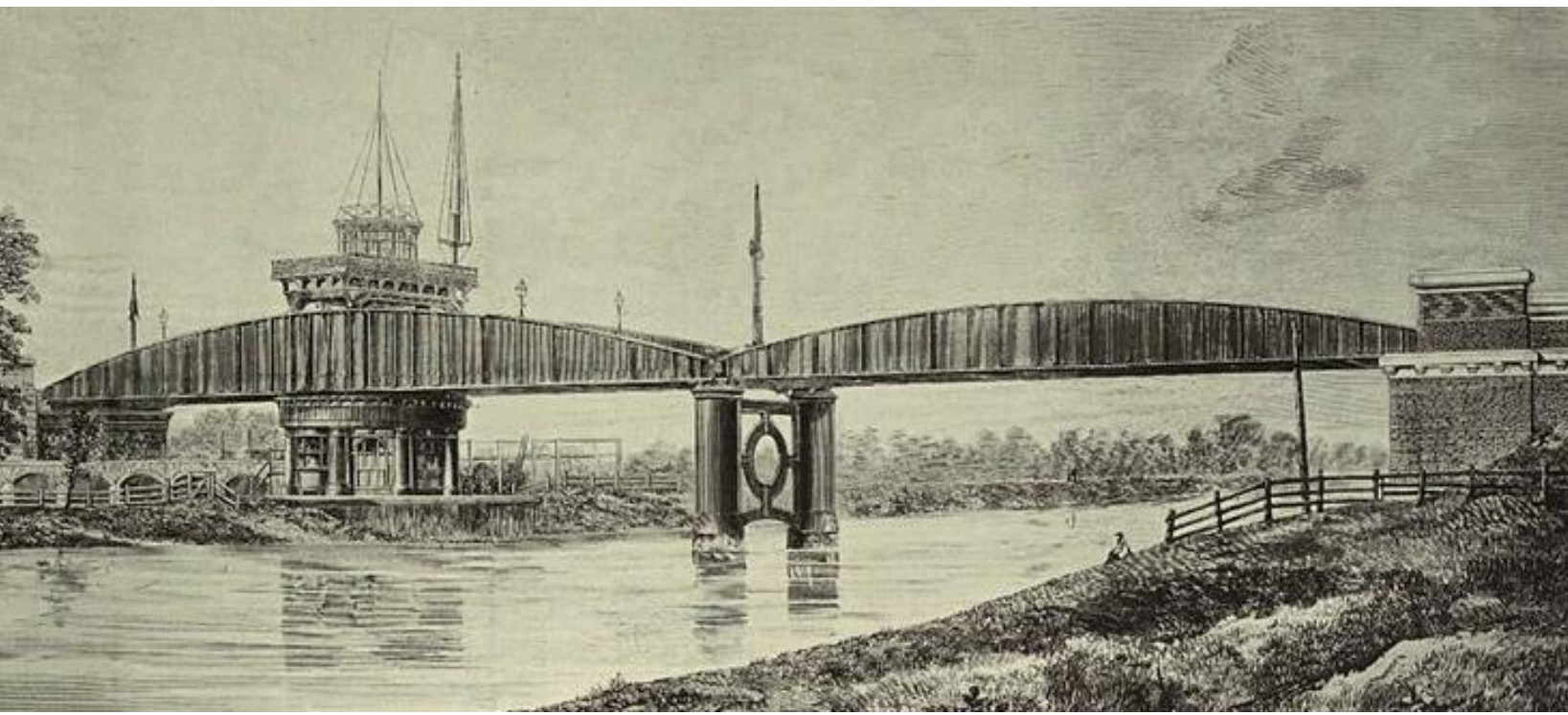
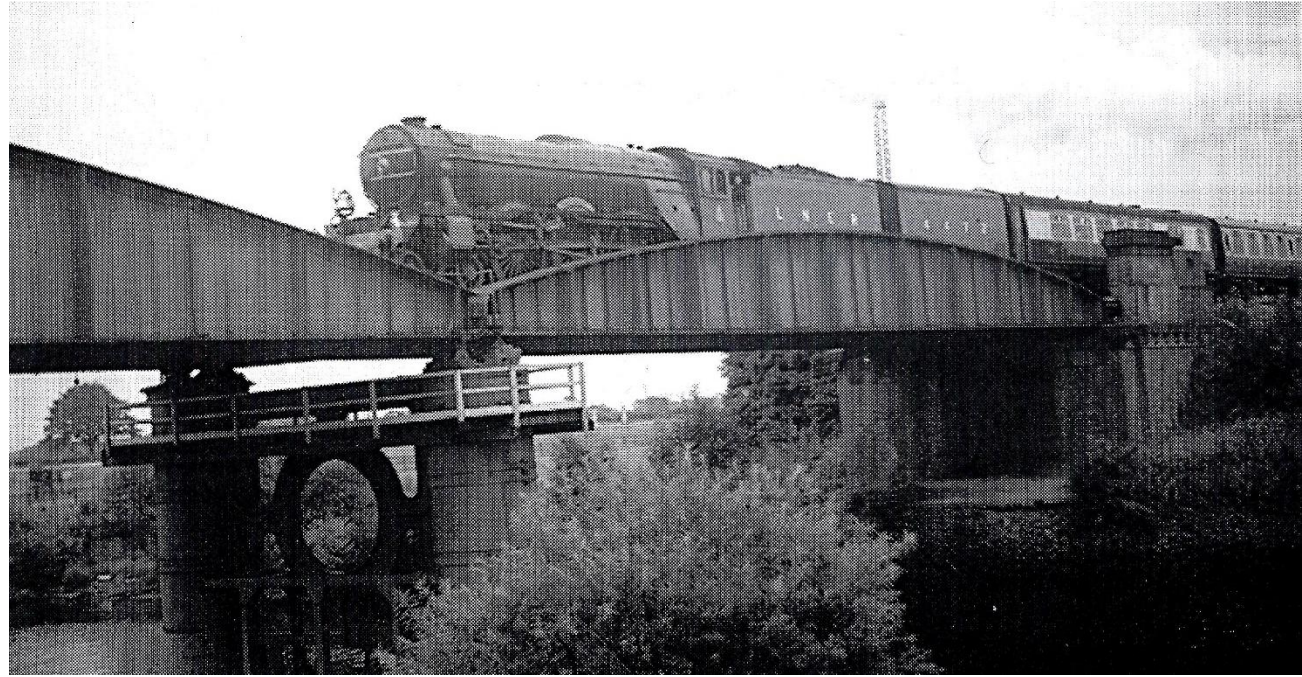


Naburn Ferry c.1900

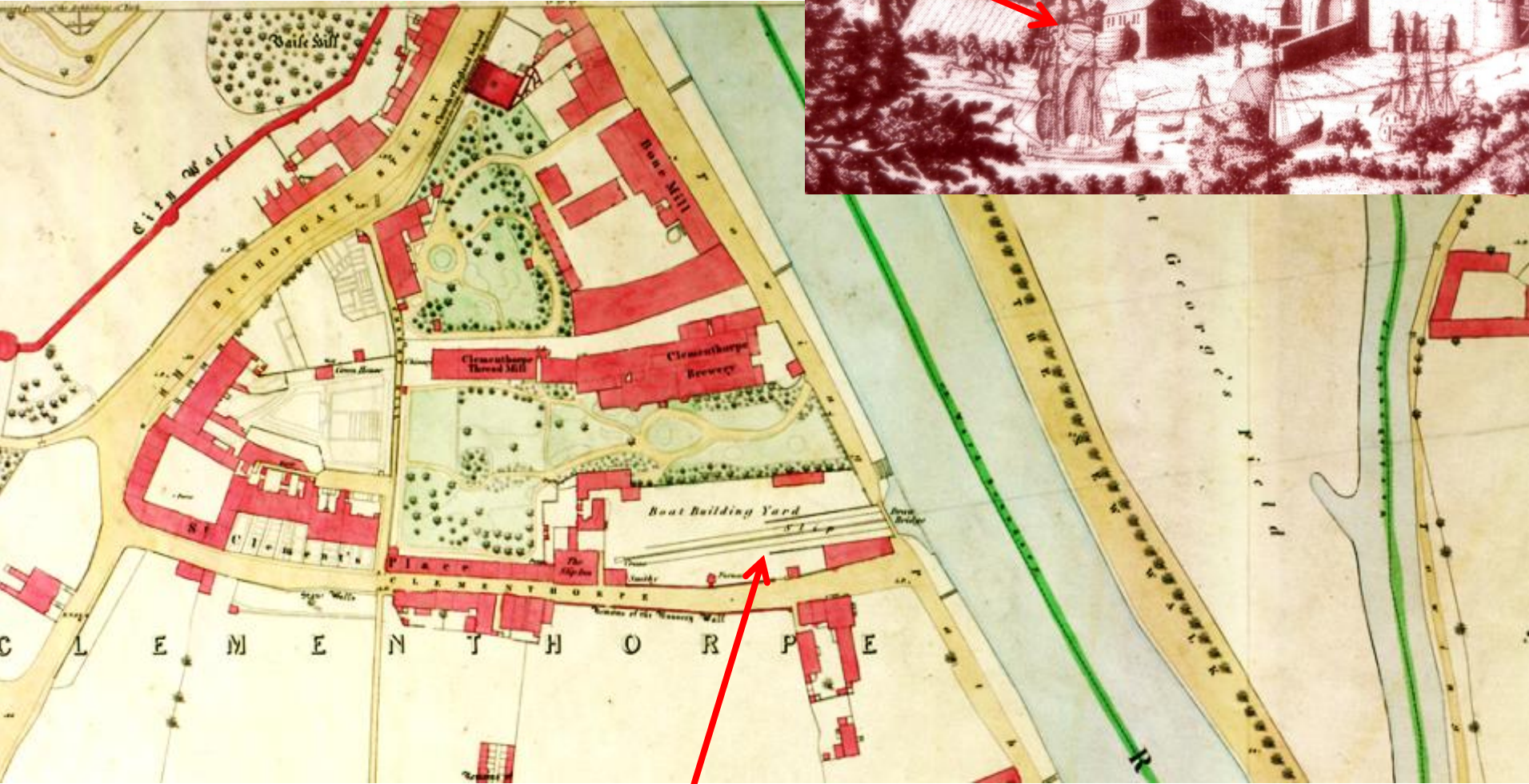
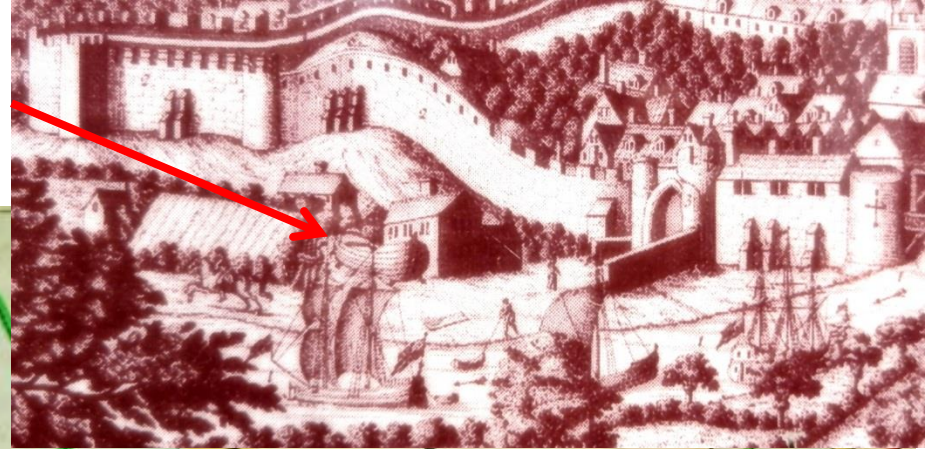


Howden Dyke Ferry
c.1890

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

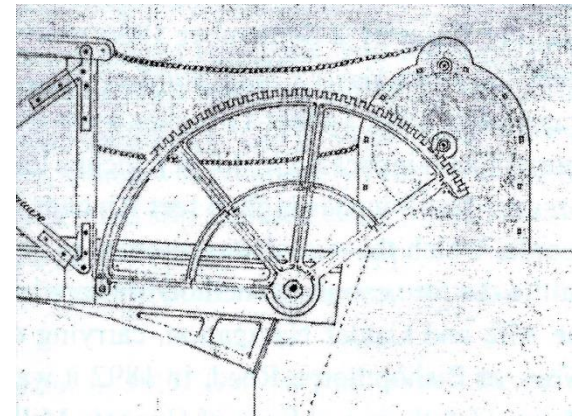
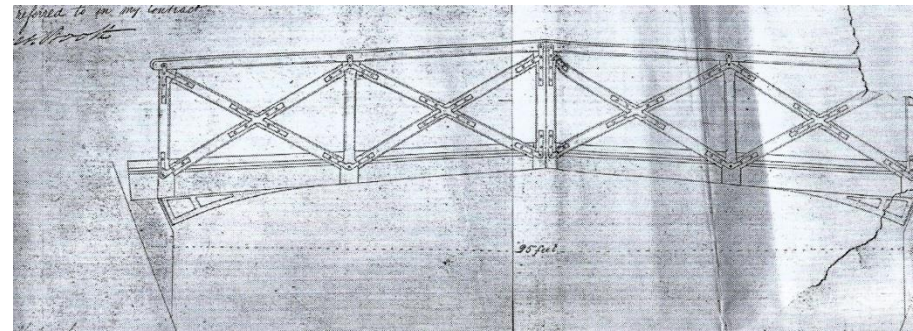
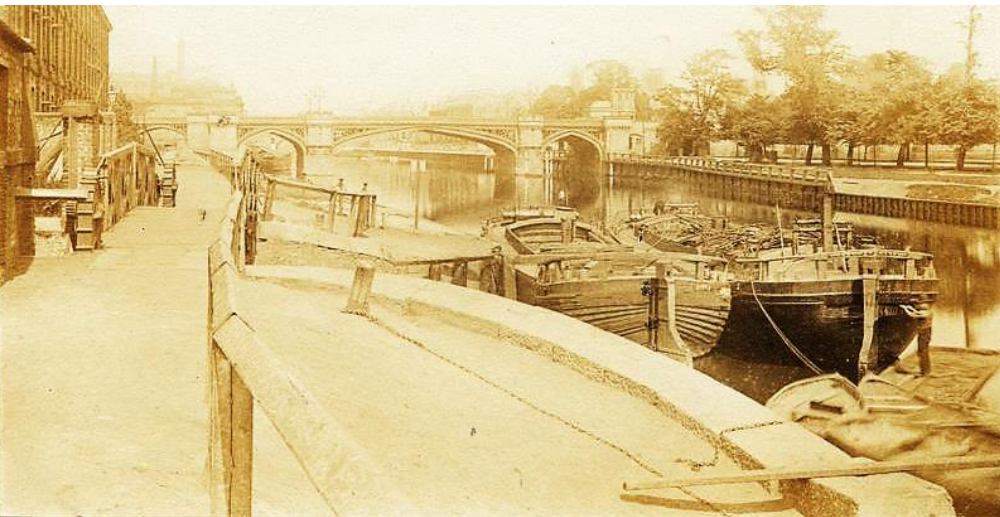


Ship pulled up on the river bank
at Skeldergate - Edmond Barker
1718



Clementhorpe shipyard in 1852





Shipbuilding and repairing at Clementhorpe



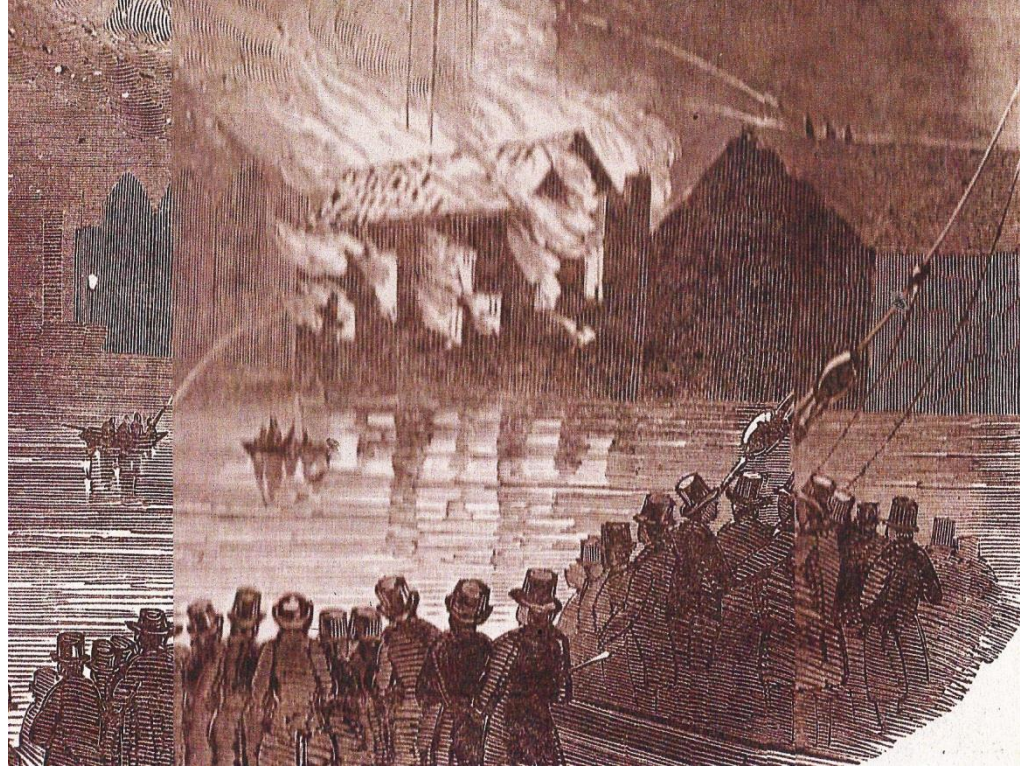


Water Lane. 1810
by Samuel Prout

Wharves & Warehouses



Rowntree's warehouse April 1942

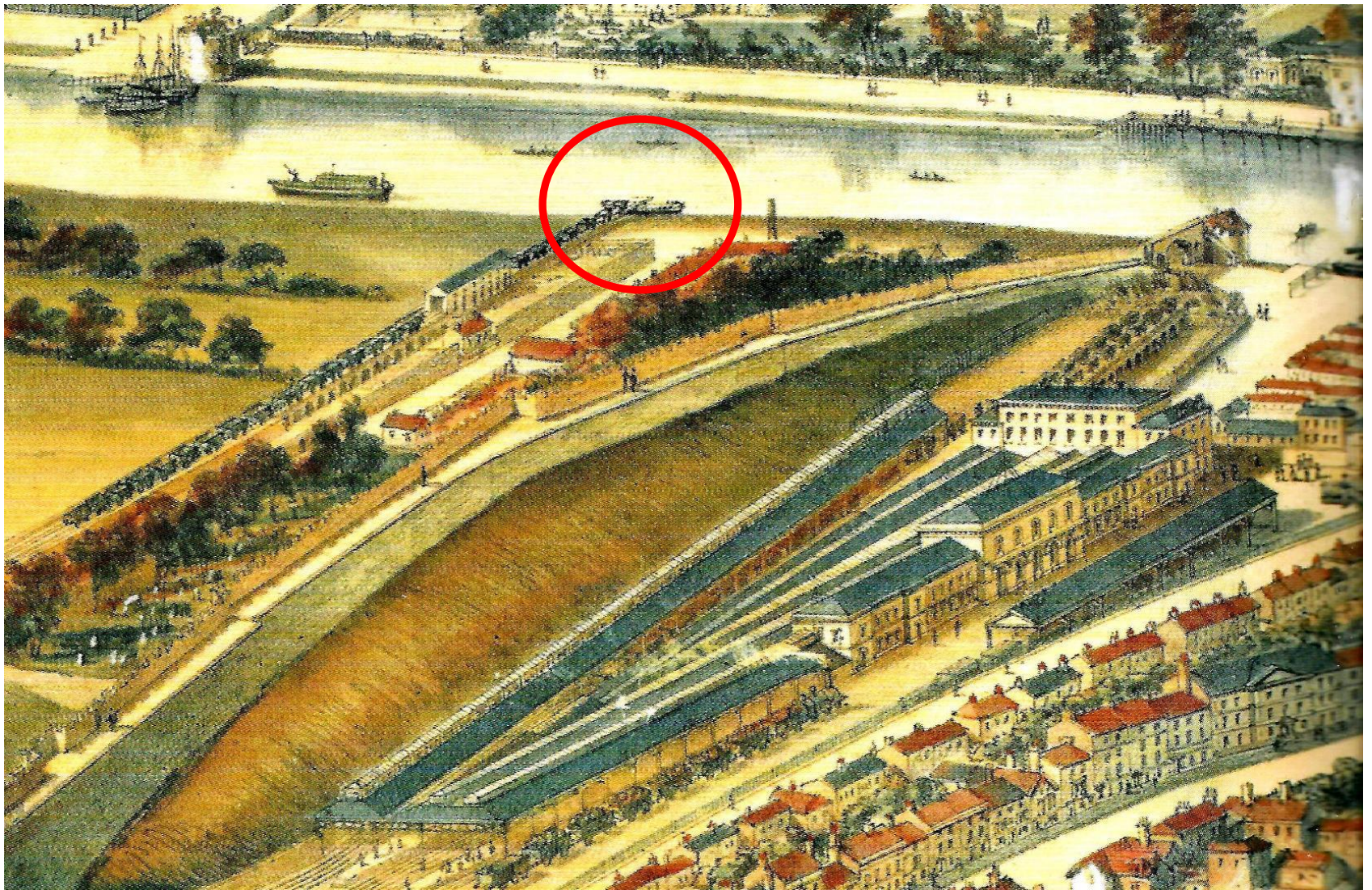


Fire at Hatfield's Steam Mill, Skeldergate 1848



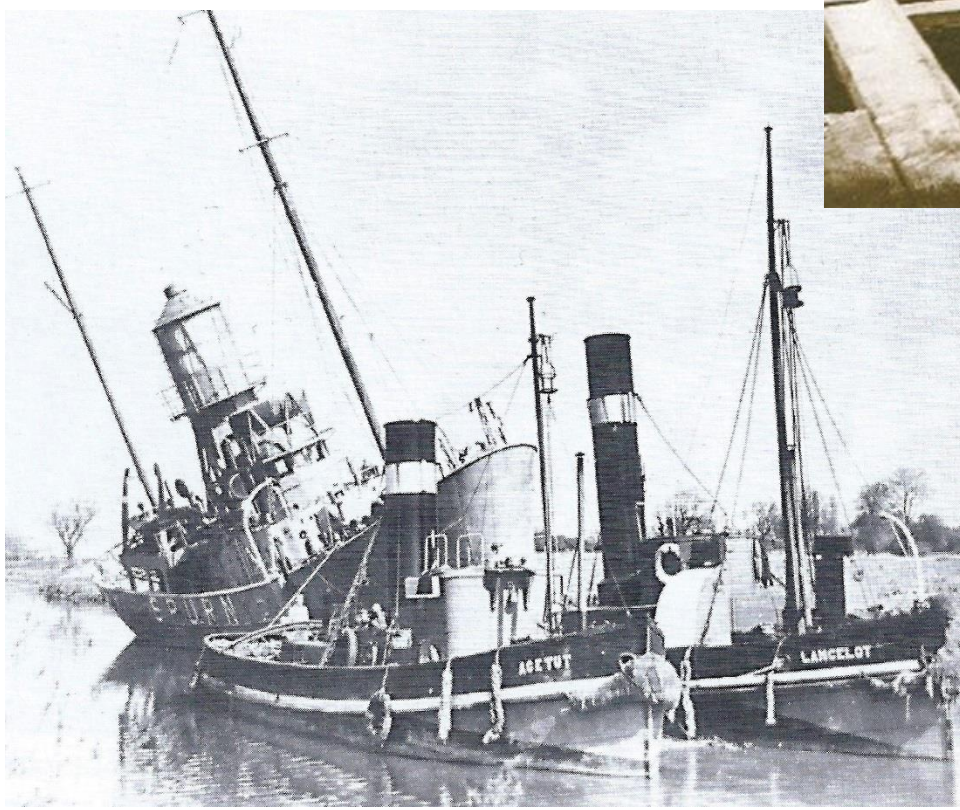
Fire at Fairweather's Mill, Skeldergate 1911

Riverside Warehouse Fires



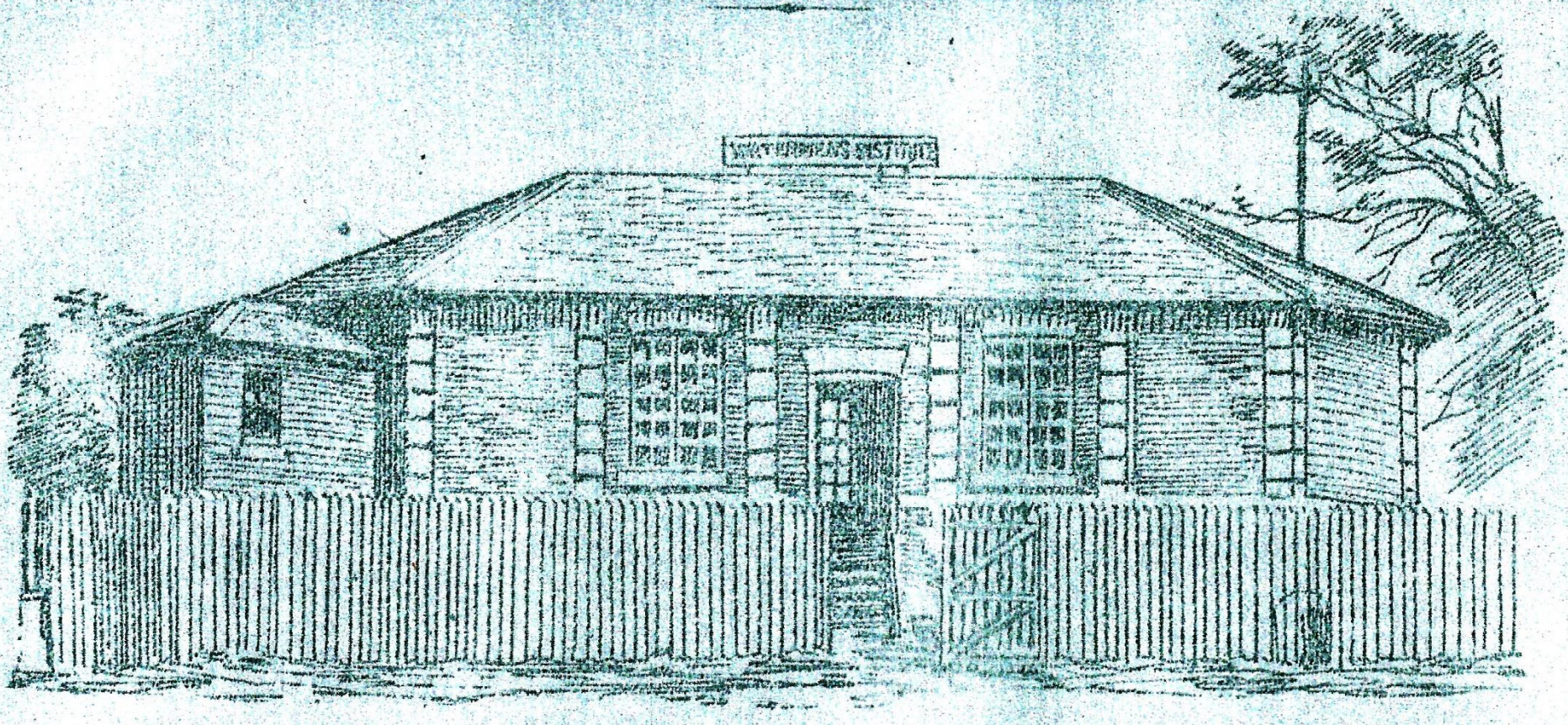
Railway competition & collaboration –
Lendal Coal Wharf

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



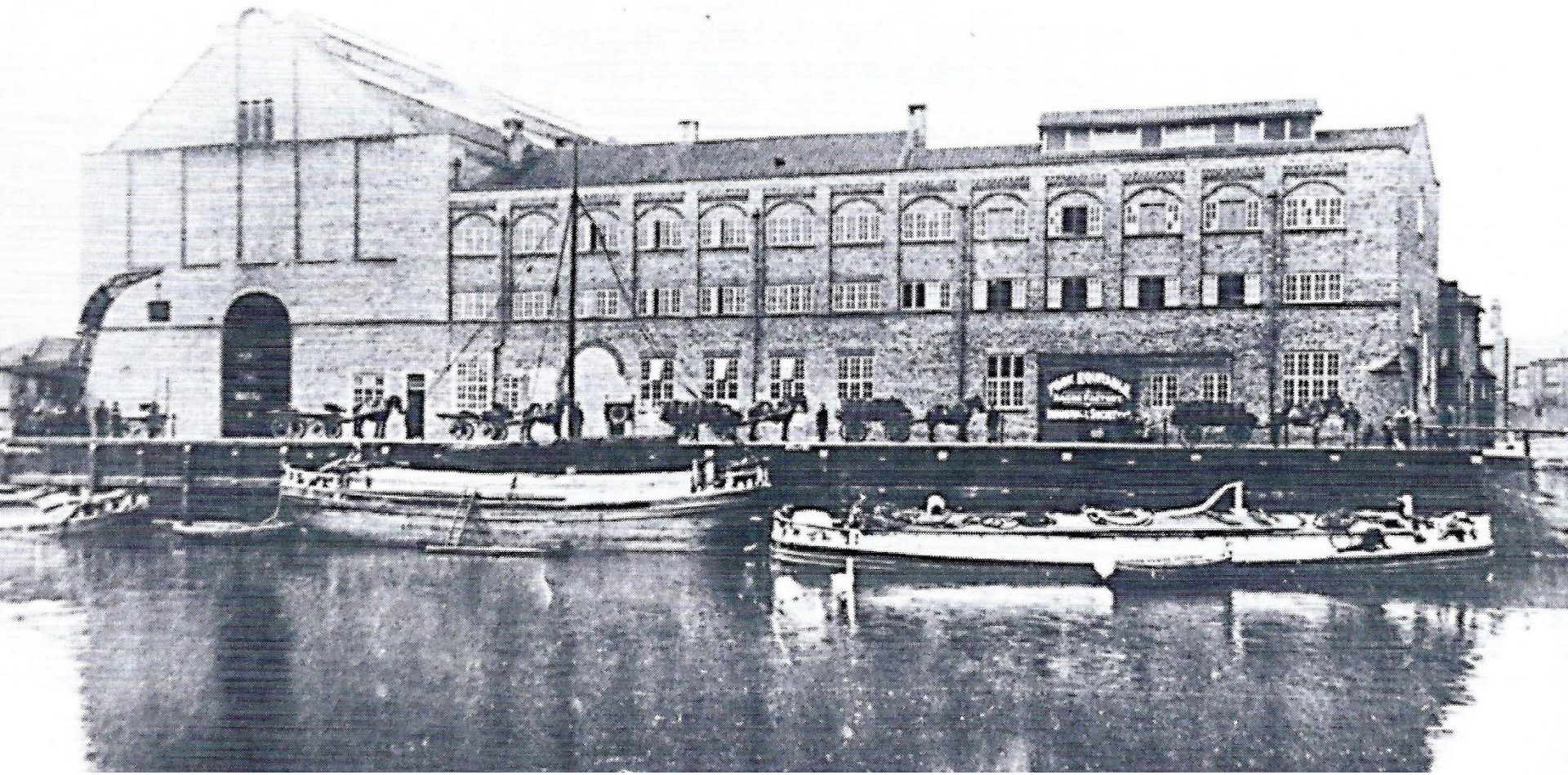
Lancelot and *Acetut* are
shown here in 1959,
towing the new Spurn
Lightship from Beverley,
where it was built.

YORK WATERMEN'S INSTITUTE.



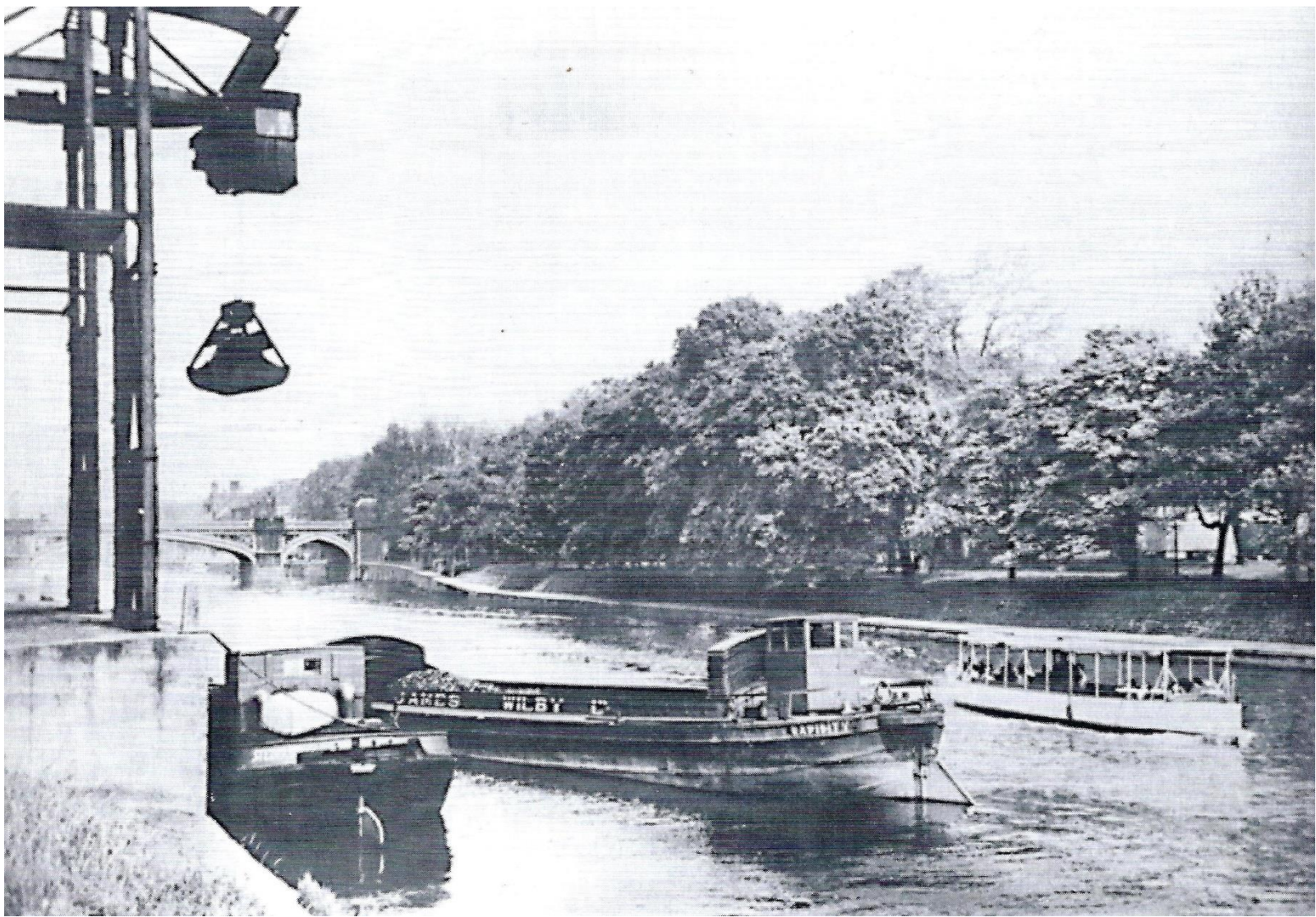
Watermen's Institute, opened in 1909 adjacent to the public baths on St George's Field and overlooking Browney Dyke



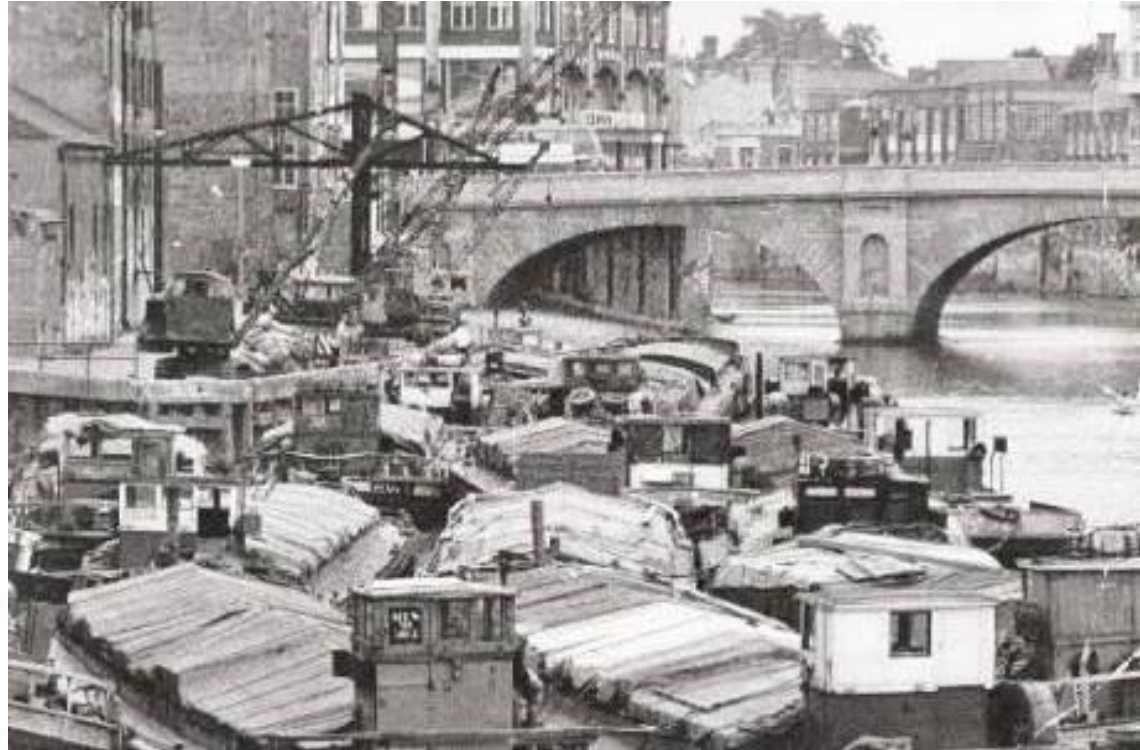


In 1909, the York Equitable Industrial Society built a bacon factory, bakery and coal depot next to the Clementhorpe Shipyard



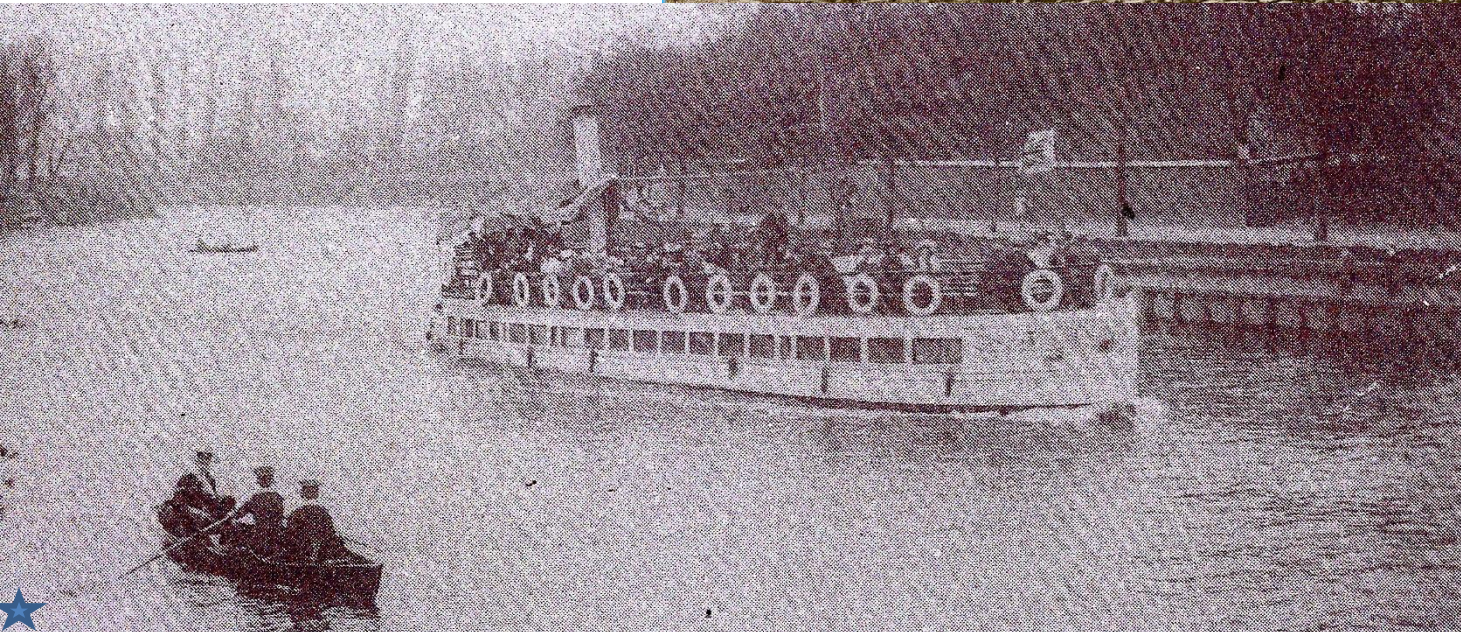
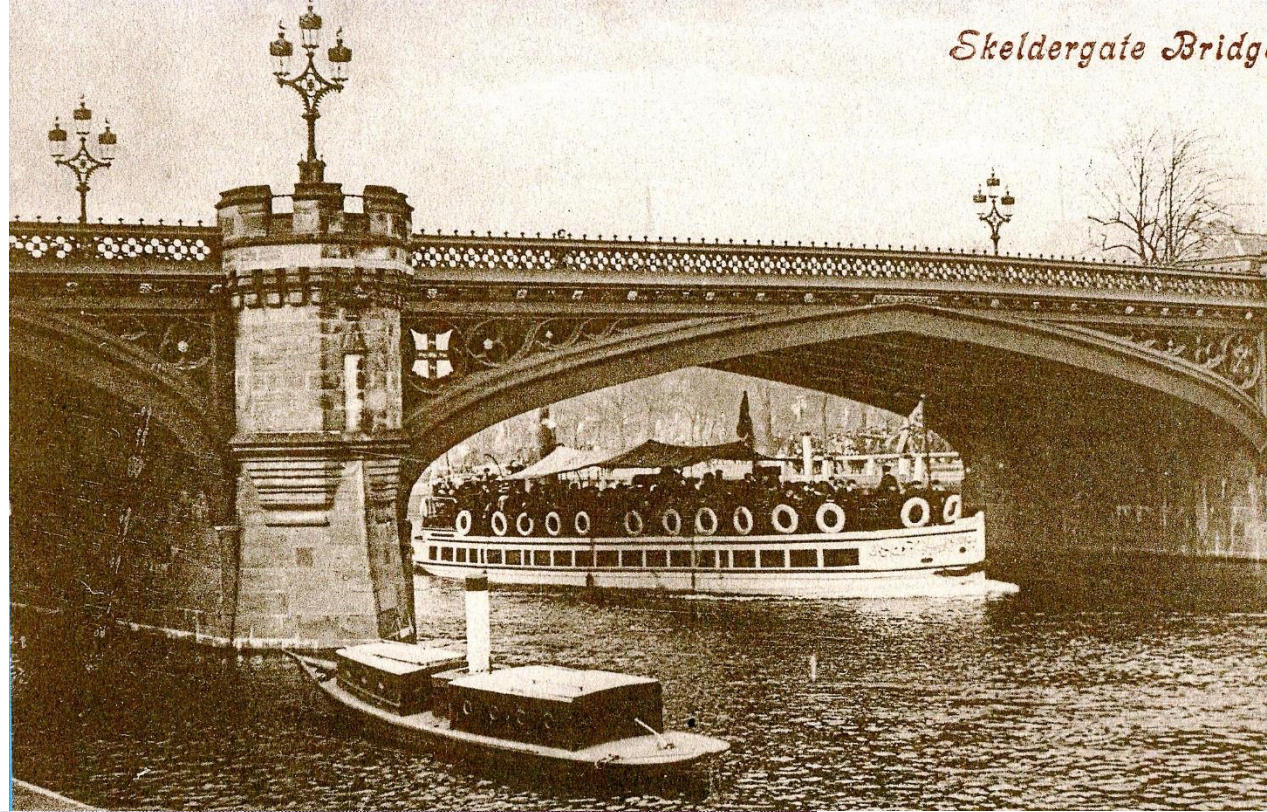


The Co-op built a wharf on the site of the Clementhorpe Shipyard to unload coal from barges



Diesel-powered barges were a common sight in York through much of the 20th century

In the early 20th century, the *River King* was York's premier river-trip boat



It sank
in 1932



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

Skating near
Lendal Bridge 1895

Floods & Ice

Snow and ice near
Ouse Bridge in 1807



OLD OUSE BRIDGE
YORK, 1807
G. ROSSALL 1778

Flooding at
King's Staithe 1931



York Floods. Sept. 1931.

Floods & Ice

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