



Large folio (710 by 520mm); 48 engraved maps, plans, and profiles, including several multi-sheet, folding and hand-coloured in outline; red half-calf over blue marbled paper boards, black morocco label to spine, lettered in gilt.

CANAL MANIA!

[Composite Album of eighteenth century canal maps and ephemera]

Author

SHARP, James; and Catherine SHARP [compiler]; Thomas JEFFERYS; William FADEN; Robert WHITWORTH; James BRINDLEY; and Ralph DODD, et al.

Publication date

[1697-1805]

Publisher

Publication place

Physical description

Large folio (710 by 520mm); 48 engraved maps, plans, and profiles, including several multi-sheet, folding and hand-coloured in outline; red half-calf over blue marbled paper boards, black morocco label to spine, lettered in gilt.

Dimensions

Notes

A remarkable and unique album of canal maps, plans and profiles, compiled during the heady days of Canal Mania by inventor and ironmonger Thomas Sharp (1731-1783), and his wife Catherine. During the decades spanning the end of the eighteenth and the beginning of the nineteenth centuries, a phenomenon occurred known as "Canal Mania"; a period of intense canal building and accompanying speculative frenzy.

The plans, maps, and profiles in this album were chiefly compiled by James Sharp (1731-1783), brother of the abolitionist Granville Sharp. James was a successful inventor and ironmonger, listed in London 'Directories' from 1763-1784 at 15 Leadenhall St. He was succeeded at that address by his wife Catherine Sharp, who was still running the business until the middle of the 1790s. James is depicted in the famous painting by Zoffany of the Sharp family - on a barge in the middle of the

Thames, each with their musical instruments. He was the author of at least two full trade catalogues: 'A Description of Rolling Carts and Waggons' (1772); and 'Descriptions of some of the Utensils in Husbandry, Rolling Carriages, Cart Rollers, and divided rollers for land or gardens, mills, weighing engines, &c. &c.' (1773).

As well as running a successful business, James was also a fierce advocate of the construction craze of its day: Canal Mania! Sharp was one of its earliest proponents, and knew many of the canal engineers personally; including James Brindley and Robert Whitworth. The album includes numerous plans by both men, and works by many of the leading engineers of the day, including William Jessop, John Smeaton, and Joseph Priestley.

The majority of plans within the album were published to accompany pamphlets, Parliamentary Bills, and prospectuses for the construction of new canals throughout the British Isles, many, in fact most, of which never came to fruition. That many of these maps were published in ephemeral publications meant that almost all of the plans survive in only a handful of examples.

Contents

(1) DOWNES, [Charles John]; after T[homas] DADFORD

Plan of the canals between the Ports of Liverpool, Bristol and Hull... and the Cities of Coventry and Oxford.

[c.1783-1785].

Engraved plan, with original hand-colour in outline.

Dimensions: 300 by 465mm.

The plan includes a sketch of James Bindley's grand design to link the four great rivers: the Thames, the Severn, the Mersey, and the Trent. Each canal is coloured, and a key to the lower left provides information on miles completed and miles unfinished for each canal. A note below the key explains that the Coventry Canal has yet to be completed, as the various canal companies are currently waiting on a bill going through parliament for them to proceed.

James Brindley had originally been placed in charge of building the Coventry canal, which would link Coventry with the Trent and Mersey Canal, in 1769. However, due to his exacting standards, the canal company ran out of money, with the work ending at Atherstone. The work would not recommence until 1785, when Thomas Sheasby was awarded the contract. The canal was opened in 1789.

Thomas Dadford Sr. (d.1809), along with his sons Thomas Dadford Jr. and John and James Dadford, worked on several canal projects throughout the late eighteenth and early nineteenth centuries, the majority of which were carried out in the Midlands and Wales.

Rarity: Only one recorded example; that in the British Library.

(2) [BRINDLEY, James]

A Plan of the River Thames from the Kennets Mouth to London, shewing the intended canal from Sunning Lock to Monkey Island and from thence to Isleworth...

[London, Thomas Jefferys, 1770].

Engraved plan on three sheets, joined, canal marked in blue, loss to right hand sheet, skilfully repaired.

Dimensions: 350 by 980 mm.

James Brindley's proposed canal for the upper Thames that was never realised.

Although the surveyor is not named on the plan, later states, also published by Jefferys, mention James Bindley (1716-1772), the leading canal engineer of his day, and his pupil Robert Whitworth (1734-1799), who continued Bindley's work following his death in 1772. The left-hand sheet bears a vignette of the proposed aqueduct near Sanford Mill.

In 1770, Brindley was commissioned by the City of London to come up with proposals for improving the navigability of the upper Thames, which had become difficult to negotiate during winter because of flooding, and in the summer due to drought.

Brindley concluded that the obstructions to navigation were "considerable and many". He proposed

that a canal be built to bypass the river. He estimated that this would reduce the cost of transport fivefold and reduce barge times to London by 75%. Unfortunately, there was huge opposition from landowners along the proposed route, and the canal was never realised.

Rarity: Only one recorded example; that in the British Library.

(3) BRINDLEY, James; and Robert WHITWORTH

A Plan of the River Thames from Boulter's Lock to Mortlake, surveyed by Order of the City of London in 1770 by James Brindley Engineer. Engraved by Thomas Jefferys, Geographer to the King 1771. Revised and continued to London Bridge in 1774 by Robert Whitworth.

[London, Thomas Jefferys, 1774].

Engraved plan, on three sheets, joined, a little soiled.

Dimensions: 670 by 1440mm.

Another plan, this time on a larger scale, outlining the proposed route of Brindley's canal.

With a key to the lower right, providing information on various ferries and bridges, and their distance from London Bridge.

Rarity: Three institutional examples: BL, Weston Library, Oxford; Spanish National Library.

(4) BRINDLEY, James

A Plan of the River Thames from Boulter's Lock to Mortlake, surveyed by Order of the City of London in 1770 by James Brindley Engineer. Engraved by Thomas Jefferys, Geographer to the King 1771. London, Thomas Jefferys, 1771.

Engraved plan on two sheets, joined, wash colour to banks of the Thames.

Dimensions: 530 by 1070mm

A further plan of Brindley's proposed canal. This time with a key denoting length between various points and their falls.

(5) WHITWORTH, Robert

A Profile of the River Thames from Boulter's Lock to Mortlake... James Brindley.

London, Thomas Jefferys 1771.

Engraved plan on three sheets, joined, original hand-colour in outline.

Dimensions: 340 by 2080mm

A profile of Brindley's proposed canal, showing the fall from Boulter's Lock to Mortlake.

(6) BRINDLEY, James; and Robert WHITWORTH

A Plan of the Intended Canal in Berkshire from Reading to Monkey Island. Survey'd 1770. [and] A Plan of the River Thames from the Kennets Mouth to London, shewing the intended canal from Sunning Lock to Monkey Island and from thence.

London, Thomas Jefferys, 1770.

Two engraved map on three sheets, joined to form one continuous map, fine original hand-colour, extensively annotated, tear skilfully repaired.

Dimensions: 360 by 1060mm.

A further plan of Brindley's proposed canal with extensive manuscript annotations.

(7) SMITH, John (engineer); and ELLA and FLETCHER (surveyors)

Plan of the Intended Canal from the River Trent to Langley Bridge, in the Counties of Derby and Nottingham 1777.

[London], William Faden, 1777.

Engraved plan on two sheets, joined, intended canal coloured orange.

Dimensions: 390 by 1110mm.

Plan of the Erewash Canal.

The canal obtained its act of Parliament, the Erewash Canal Act, in 1777. Neither the surveyors Ella and Fletcher, nor the engineer John Smith, mentioned on the plan, would work on the canal, with John Varley appointed as engineer and John and James Pinkerton the main contractors. The canal was completed in 1779 at a cost of £21,000. It was a commercial success from the start, mainly transporting coal.

Rarity: Two institutional examples: the National Archives; and the BNF.

(8) BOWLES, Carrington Bowles

Draught of the River Thames from it's [sic] Spring in Gloucester-shire, to it's influx into the sea..., 1774.

London, Carrington Bowles, 1774.

Engraved map, fine original full wash colour.

Dimensions: 220 by 920mm.

Bowles's map showing the whole of the river Thames.

(9) [JESSOP, William] Plan of the Rivers Aire and Calder, from the Towns of Leeds and Wakefield to Armin with the proposed cuts and Canal to Selby.

[c.1774].

Engraved plan, on two sheets, joined.

Dimensions: 380 by 910mm

The Selby Canal.

A plan of the Rivers Aire and Calder, and the proposed cuts to the river Aire and the canal from Haddlesey to Selby. The Aire and Calder Bill was successful and became the Aire and Calder Navigation Act 1774. Work of the Selby canal began in 1775 and was open to much fanfare in 1778.

We are unable to trace any institutional copies, but the plan was most likely published to accompany: 'A state of the case in support of the petition now depending in Parliament for extending and improving the navigation of the rivers Aire and Calder in the county of York' - an example is housed at York University Library, part of the Hailstone Collection.

(10) WHITWORTH, Robert

A Table of Distances of the several Towns and Bridges upon the River Thames between London Bridge and Boulders Lock... 1779.

[London, William Faden, 1779].

Engraved chart, on vellum.

Dimensions: 235 by 470mm.

A distance and timetable for navigating the Thames from London Bridge to Boulter's Lock. This is part of Whitworth's continued enquiries into improving the navigability of the upper Thames.

Curiously the table is printed on vellum.

(11) [PARKER, Joseph]

Plan of the Navigable Canal from Basingstoke to the River Wey.

[London,] William Faden, [c.1776].

Engraved plan.

Dimensions: 280 by 790mm.

The original proposed route of the Basingstoke canal.

The route was about 44 miles long, running from Basingstoke to join the Wey and Godalming Navigations near Weybridge, with a large loop running to the north to pass around Greywell Hill. The loop cut through the grounds of Tylney Hall, owned by Earl Tylney, and he objected to the route. Due to this objection, difficulties in raising capital funding, and the American Revolutionary War no construction took place for some time.

Nearly ten years later, a favourable forecast of expected traffic was published in 1787, and the canal committee took action. John Smeaton was appointed engineer, together with Benjamin Henry Latrobe, and William Jessop was appointed as assistant engineer and made a survey. To avoid Tylney Hall the route was changed, with the original long contour-following route which had been surveyed around Greywell Hill being replaced by a tunnel through it, shortening the canal by nearly 7 miles. Although the plan does not name the surveyor, an example in the British Library bears the name of Joseph Parker. Little is known of Parker, though he is recorded as working on several projects at this time, including the Coventry Canal and the Basingstoke Canal.

(12) WHITWORTH, Robert

A Plan and Profile of the proposed navigable canal from the line of the Thames and Severn Canal... to the River Thames at Abingdon, 1784

[London, William Faden, 1784].

Engraved plan.

Dimensions: 350 by 630mm.

The proposed Thames and Severn extension.

Having been granted their Act of Parliament for the Thames & Severn Canal in 1783, it soon became clear that the upper stretches of the Thames were not fit for navigation and, in 1784, they commissioned Robert Whitworth to survey a route between Kempsford and Abingdon. Unfortunately, due to opposition from both the Oxford and the Thames Commissioners, the bill was defeated and the link was never completed.

Rarity: Four institutional examples: BL, National Library of Scotland, National Library of Wales, Oxford.

(13) WHITWORTH, Robert

A plan of the intended navigable canal from the Coventry Canal near Griff in the County of Warwick, to the Coal Mines at Measham..., 1781.

[London, William Faden, 1781].

Engraved plan.

Dimensions: 280 by 580mm.

Whitworth's first survey of the Ashby Canal.

A proposal for what became known as the Ashby Canal, linking Ashby-de-la-Zouch and the mining district around Moria, with the Coventry Canal at Griff.

This would be Whitworth's first proposal for such a canal. The plan was eventually rejected due to opposition from landowners, however, Whitworth would revisit the scheme, in 1792, with the junction to the Coventry Canal moved from Griff to Marston. Construction began in 1795, but huge cost overruns led to the canal never being complete as envisioned.

Rarity: Only one recorded example; that in the British Library.

BL Maps 181.a.1

(14) [WHITWORTH, Robert]

A plan of the continuation of a proposed collateral cut or Branch to communicate with the intended canal from Stourbridge to the canal from the Trent to the Severn near Stourton from... Black Delfe... county of Stafford to an Estate of Thos' Talbot Foley Esq'r called Netherton...county or Worcester.

London, William Faden, [c.1775].

Engraved plan, some foxing.

Dimensions: 255 by 390mm.

Robert Whitworth's survey of the Dudley Canal.

The Dudley Canal was part of a scheme to transport coal from Dudley to the Stourbridge. Whitworth was commissioned in 1775 to survey a potential route from Dudley to Stourton, just to the west of Stourbridge. Opposition from the Birmingham Canal Company, meant the proposal was withdrawn, with two separate bills being put forward to parliament. One for a canal from Dudley to Black Delph (the present plan), and the other from Black Delph to Stourton. The two bills passed and became acts in 1776.

Thomas Dadford Senior was employed as the chief engineer, with the canal opening in 1779.

Rarity: Only institutional example BL.

BL Maps 181.a.1

(15) PATY, James

A plan of the Floating Docks and other Premises mentioned in the Bristol Port Bill, Survey'd by James Paty, 1776, Engineer.

[London, William Faden, c.1776].

Engraved plan, with original hand-colour, spotted.

Dimensions: 275 by 400mm.

A proposal for floating docks at Bristol.

The port of Bristol's growth had been hampered throughout the eighteenth century, by its huge tidal

range (some 12 metres) meaning that boats were beached at low tide. Several bills were brought before parliament in order to remedy the situation by building floating docks. John Smeaton had put forward a plan in 1765, but it was not until 1804, that work would commence on the docks, with them opening in 1809.

Rarity: Only one recorded example; that in the British Library.

BL Maps 181.a.1

(16) WITWORTH, Robert

A profile of the line of the proposed navigable canal from Bishops Stortford to Cambridge, Survey'd by Order of the City of London.

[London, William Faden, c.1780].

Engraved plan on three sheets, joined.

Dimensions: 300 by 1110mm.

The profile of Robert Whitworth's canal from Cambridge to Bishops Stortford.

The rich agricultural districts of East Anglia are relatively close to London, but there has never been a direct waterway connection to take produce to the city markets, despite the huge increase in population. The opening of the Stort Navigation in 1769 left a gap of only 28 miles between Bishop's Stortford and the River Cam at Cambridge. Robert Whitworth was instructed by the City of London in 1779 to survey a canal link, but his report the following year attracted fatal opposition from Lord Howard de Walden, who objected to the route across his estate in front of Audley End House at Saffron Walden.

Rarity: Only one recorded example; that in the British Library.

BL Maps K.Top.6.54.b.

(17) WHITWORTH, Robert

A plan for a navigable canal from Stourbridge in the county of Worcester, to the Canal from the Trent to the Severn... Surveyed in 1774 by Robert Whitworth.

[London], Jefferys and Faden, 1775.

Engraved plan.

Dimensions: 270 by 410mm.

Proposed route of the Stourbridge Canal

The plan accompanied 'An act for making and maintaining a navigable canal from or near the town of Stourbridge...'

The Stourbridge Canal was part of a scheme to transport coal from Dudley to the Stourbridge. Whitworth was commissioned in 1775 to survey a potential route from Dudley to Stourton, just to the west of Stourbridge. Opposition from the Birmingham Canal Company, meant the proposal was withdrawn, with two separate bills being put forward to parliament. One for a canal from Dudley to Black Delph, and the other from Black Delph to Stourton (the present plan). The two bills passed and became acts in 1776.

Thomas Dadford Senior was employed as the chief engineer, with the canal opening in 1779.

Rarity: Two institutional examples: British Library, and the Huntington Library.

c.f. BL 1565/168. For the Act and map.

(18) [ANONYMOUS]

A survey of the River Wear from Mr. Allens Staiths to the city of Durham, 1731.

[c.1731].

Engraved plan.

Dimensions: 240 by 390mm.

An early plan of the River Wear from Durham to Biddick Ford.

In 1717, an Act of Parliament set up the River Wear Commissioners, who were entrusted with its development. The main aim of the commission was to aid the transport of coal and other raw materials from Durham to the port of Sunderland. As a result Sunderland would become one of the major trading and shipbuilding ports in northern England.

The plan marks the owners of the land along the river.

Rarity: Two institutional examples: The Royal Society, housed in the Smeaton archive; and the University of Durham.

Durham University: SD+ 00228

(19) WESTON, William

A plan of the line of the proposed London and Western Canal from Hampton Gay to Isleworth.

[London], Benjamin Baker, [c.1792].

Engraved plan, on two sheets, joined, minor foxing.

Dimensions: 530 by 1475mm.

A large two sheet plan of the proposed canal from Hampton Gay on the Oxford Canal to Isleworth. The so-called London and Western Canal was a scheme put forward by the Oxford Canal Company, as an alternative to the Grand Junction Canal. Both schemes hoped to circumvent the difficult navigation of the Thames and Cherwell, which in places would often become too shallow in the summer or flooded in the winter.

The Oxford Canal Company's survey was carried out by William Weston, who would later find great success in the United States. Unfortunately, his plan was rejected by Parliament, with the Grand Junction Canal Company's scheme receiving royal ascent in 1793.

Rarity: Only one recorded example; that in the British Library.

BL Maps * 1265.(42.)

(20) WHITWORTH, Robert

Plan and Profile of the intended Navigable Canal, from Moor-Fields, into the River Lee at Waltham Abby... 1773.

[London], Jefferys and Faden, 1773.

Engraved plan, on two sheets, joined.

Dimensions: 330 by 1150mm.

The plan accompanied 'A report and survey of the canal, proposed to be made on one level, from Waltham-Abbey to Moorfields'.

An early advocate of the canal was Robert Whitworth, who in 1773 published a report proposing plans for a new canal to ease the Thames traffic in central London. Encircling North London and so altogether bypassing the Thames, his proposed channel would run from the Lee Navigation at Waltham Abbey to a basin at Moorfields. A further waterway would leave this basin for Marylebone to form a connection with another canal to Drayton. Whitworth's canal would largely follow the natural contour of the land, meaning that locks could be avoided.

Whitworth's plan never became a reality, although the Regent's Canal built during the 1810s followed a similar route in part and succeeded in connecting North London with the main canal to Birmingham.

Rarity: Only one recorded example; that in the British Library.

BL Maps Crace Port. 18.47

(21) FADEN, William

A plan of the intended Navigable Canal from Basingstoke to the River Wey.

[London], William Faden, [c.1776].

Engraved plan. Dimensions: 290 by 790mm.

Same as item 11.

(22) BRINDLEY, James

A plan of the navigable canals now making in the Inland Parts of this Kingdom.... for opening a Communication into the Ports of London, Bristol, Liverpool, and Hull...

London, James Brindley, 1769.

Engraved plan on two sheets, joined, fine original full wash colour.

Dimensions: 530 by 840mm.

James Brindley's plan of the canals completed or under construction in the west of England; these include: The Trent and Severn Canal; the Birmingham Canal; the Coventry Canal; the Oxford Canal; and the Bridgewater Canal; and Droitwich Canal. Each canal is highlighted and keys surround the

plan provide information, on the Parliamentary Acts, its distance, and its rise and fall.
The plan was drawn by Brindley assistant Robert Whitworth and engraved by Thomas Jefferys.
Rarity: Two institutional examples: The British Library and Oxford.

BL Maps K.Top.6.28.a.

(23) WESTWOOD, [John]; after W. WRIGHT

A plan of the navigable canal from Birmingham in the County of Warwick to the canal at Atherley..., 1773.

[Birmingham, c.1773].

Engraved plan.

Dimensions: 480 by 690mm.

Plan of the completed Birmingham Canal; now referred to as the Birmingham Canal Navigation Old Main Line.

An Act of Parliament was passed in 1768. James Brindley was employed as chief engineer, with work commencing in 1769. The canal would open on 21st September 1772, just a few days before Brindley's death.

The plan was engraved by John Westwood (1744-1792), engraver, and coffin furniture maker (among other things), working in Birmingham. He is known to have engraved other plans for Brindley and Robert Whitworth.

Rarity: Only one recorded example; Oxford.

Gough Maps Staffordshire 11.

(24) RYLAND, John; after Benjamin DAVIES

A plan of the River Loddon, and intended navigable canal from Basingstoke... to the River Thames, near Monkey Island.... 1769.

[London, 1769].

Engraved plan.

Dimensions: 380 by 720mm.

The first Basingstoke Canal proposal.

In 1769, James Brindley had recommended a cut across the loop in the river from Monkey Island near Maidenhead to Sonning by Reading. Consequent to this scheme a 29 mile canal from Basingstoke through Eastrop and Basing was suggested, to join the Reading-Maidenhead cut. A survey was made by Benjamin Davies (the present plan), and bill was put before Parliament in 1771, but it was defeated.

Three recorded institutional examples: Oxford; Cambridge; and The British Library.

BL Maps K.Top.6.57

(25) [SMEATON, John]

A Plan of the River Lee from Hertford to the River Thames, with a profile of the fall.

[London, Thomas Jefferys, 1767].

Engraved plan on two sheets, joined.

Dimensions: 250 by 930mm

The plan accompanies John Smeaton's 'The report of John Smeaton, engineer, upon the new-making and completing the navigation of the River Lee...'.
A bill was put before Parliament for the improvement of the navigation of the River Lee, and the River Lee Navigation Act was passed in 1767. Thomas Yoeman was employed to oversee the work, and the proposals outlined on the plan, together with other improvements were completed by 1771.

Rarity: One recorded institutional example of Smeaton's report: The Huntington Library.

(26) FADEN, William

[Engraved map of Shropshire waterways - proposed Hereford and Gloucestershire Canal].
[London, William Faden, c.1777].

Engraved plan.

Dimensions: 340 by 400mm.

A previously unrecorded untitled plan of Shropshire marking the proposed Hereford and

Gloucestershire Canal. The first survey was carried out by Robert Whitworth. The route was part of a grander plan to link Stourport on Severn and Leominster as well, which is also marked on the plan. The great project would never be fully realised.

Rarity: Only example known.

(27) JESSOP, W[illiam]

Plan of the proposed canal from the River Air at Haddlesey to the River Ouse, by W. Jessop Engineer.

[c.1774].

Engraved plan.

Dimensions: 210 by 560mm

The Selby canal.

A plan of the canal from Haddlesey to Selby. The Aire and Cadler Bill was successful and became the Aire and Calder Navigation Act 1774. William Jessop was employed as the chief engineer. Work on the Selby canal began in 1775, and was open to much fanfare in 1778.

Rarity: Only one recorded example; York Minster Library, part of the University of York.

York University SC 24-3-30.

(28) HILL, N[athaniel]

A survey of the country between Newcastle and Carlisle, Representing the several present roads and the tract which is proposed for the new intended road... Course of the Roman Wall...

[London, 1750].

Engraved plan, uncut.

Dimensions: (plate) 410 by 530mm (if joined) 205 by 1030mm.

Plans for the construction of the Military Road between Newcastle and Carlisle.

The decision to improve the road was taken in response to the difficulty moving the Hanoverian army under General George Wade from Newcastle to Carlisle in 1746; the journey reportedly took almost a week between 16 and 22 November. Considering the poor condition of the roads, an improved route was considered as a matter of urgency. Construction began in mid-1751 and was completed in 1758.

(29) WHITWORTH, Robert

Plan and profile of the intended navigable canal from Mary-Le-Bone to Moor-Fields..., 1773.

[London], Jefferys and Faden, 1773.

Engraved plan.

Dimensions: 290 by 400mm.

The Marylebone to Moorfields section of the Robert Whitworth's Waltham-Abbey to Moorfields Canal.

The plan accompanied 'A report and survey of the canal, proposed to be made on one level, from Waltham-Abbey to Moorfields'.

An early advocate of the canal was Robert Whitworth, who in 1773 published a report proposing plans for a new canal to ease the Thames traffic in central London. Encircling North London and so altogether bypassing the Thames, his proposed channel would run from the Lee Navigation at Waltham Abbey to a basin at Moorfields. A further waterway would leave this basin for Marylebone to form a connection with another canal to Drayton. Whitworth's canal would largely follow the natural contour of the land, meaning that locks could be avoided.

Whitworth's plan never became a reality, although the Regent's Canal built during the 1810s followed a similar route in part and succeeded in connecting North London with the main canal to Birmingham.

Rarity: Only one institutional example known, at the British Library.

BL Maps Crace Port. 18.47

(30) YOEMAN, Thomas

A Plan of the River Chelmer from Chelmsford to Maldon, the County of Essex, surveyed by Thomas Yeoman, 1762.

[c.1762].

Engraved plan, spotted.

Dimensions: 230 by 400mm.

An unsuccessful attempt to improve the navigation between Chelmsford and Maldon, in Essex. Several attempts had been made to improve the Chelmer during the eighteenth century, however, they had always come up against opposition from the town of Maldon, who feared loss of trade. Improvements to the river would not be approved until the end of the eighteenth century, when the inhabitants of Chelmsford had the bright idea of bypassing Maldon.

Two recorded institutional examples: British Library; and Canterbury Cathedral.

BL Maps 181.a.1.

(31) BAKER, B[enjamin]

A plan of the Warwick and Braunston intended canal and others with which it will communicate.

[London, c.1790].

Engraved plan.

Dimensions: 90 by 135mm.

Although an Act of Parliament was passed in 1794 sanctioning the building of the canal from Warwick to Braunston, the Act was amended in 1796 - ending the canal at Napton. The canal would eventually become part of the Grand Union Canal.

Rarity: Two institutional examples: British Library; University of Birmingham.

BL Maps C.10.c.24.(46.)

(32) [ANONYMOUS]

A plan of the intended canal & river navigation from Thringston Bridge to Leicester...

[c.1785].

Engraved plan, intended canal marked in red.

Dimensions: 370 by 540mm.

A proposal for what became known as the Charnwood Forest Canal.

BL Maps 1265.(34.)

(33) WHITWORTH, Robert

A plan of the intended navigable canal, from the Leeds and Liverpool Canal near Ecclestone in the County Palatine of Lancaster to Kendal and Westmoreland, 1772.

[London], Thomas Jefferys, 1772.

Engraved plan on two sheets, joined.

Dimensions: 330 by 940mm.

Unrecorded plan of the first proposal for the Lancaster Canal.

Ideas for what would become the Lancaster Canal were instigated as a result of the high price of coal in the city of Lancaster and the surrounding area. James Brindley was asked to make a survey in 1771, but the work was carried out by Robert Whitworth, who presented his plans in 1772. The canal would run from the Leeds and Liverpool Canal at Ecclestone for 54.5 miles on the level to Tewitfield, passing through Preston and Lancaster. Locks would then raise the canal by 86 feet, and a further 18 miles would bring the canal to Kendal. Major aqueducts would be required to cross the River Ribble and the River Lune. In 1787, a scheme to reclaim land along the coast and construct a canal passing through the reclaimed land was suggested by an ironmaster called John Wilkinson, but it failed to attract sufficient support for work to start.

Rarity: Only example known.

(34) BAKER, B[enjamin]

A plan shewing the Lines of the intended Canals viz the London and Western... and their Connections with the Ports of London, Bristol, Gloucester, Liverpool, Hull, &c.

[c.1792].

Engraved plan, with letterpress below.

Dimensions: 225 by 265mm.

Broadside. Plan with text below showing the four intended canals: Leicester to Hertford; Braunston

to Brentford; Oxford to Isleworth; and Gloucester to Bristol. Most likely commissioned by the Oxford Canal Company, whose London and Western Canal proposal is favourably praised. They would lose out to the Grand Junction Canal.

Rarity: Three institutional examples: NLS, Welsh National Library, British Library.

(35) [ANONYMOUS]

A plan shewing the Lines of the intended Grand Junction and Hampton Gay canals, and their Connections... by means of the present inland canals...

[c.1770].

Engraved plan, with letterpress text below.

Another broadside with engraved plan showing the routes of the proposed Grand Junction; and Western Canal. The text below finds in favour of the Grand Junction as the preferred means to connect the north coal fields to the great metropolis.

Rarity: Only one institutional example: at the British Library.

(36) [ANONYMOUS]

Observations on the Projected Scheme of Canal Navigation, from the Grand Junction Canal, at Norwood to Paddington.

[c.1795].

Pamphlet (240 by 190mm), 3pp., and engraved plan, with outline hand-colour.

Dimensions: 200 by 400mm.

A sketch plan of the Paddington Arm of the Grand Junction Canal. An Act of 1795 allowed for the cut from Norwood (specifically Bulls Bridge) to Paddington, designed by Jessop to connect the main canal to the Thames, was opened in 1801.

Rarity: Only one recorded institutional example: at the British Library.

BL Maps * 1265.(10.)

(37) [ANONYMOUS]

A Sketch of the Country to which the Abingdon and the Thames and Severn Canals, will open a communication with the City of London.

[c.1784].

Engraved plan.

Dimensions: 295 by 365mm

Unrecorded sketch map of the proposed Abingdon and Thames and Severn Canals, and their positive effect on the navigation between Liverpool and Manchester and the Thames, and ultimately to London.

(38) WITWORTH, Robert

A plan of the intended canal in Berkshire from Sunning to Monkey Island, surveyed in 1770.

[London, Jefferys, 1770].

Engraved plan.

Dimensions: 310 by 405mm.

In 1770, Brindley was commissioned by the City of London to come up with proposals for improving the navigability of the upper Thames, which had become difficult to navigate during winter because of flooding, and in the summer due to drought.

Brindley concluded that the obstructions to navigation were "considerable and many". He proposed that a canal be built to bypass the river. He estimated that this would reduce the cost of transport fivefold and reduce barge times to London by 75%.

His proposals which were taken on by his successor Robert Whitworth were never constructed.

Rarity: Only one institutional example; at the British Library.

BL Maps K.Top.6.46.1.

(39) [LONGBOTHOM, John] [and] John BUTTERWORTH (engraver)

A plan of the intended navigable canal from Leeds to Selby... with a view of the rivers Altre & Calder.

[Leeds, 1772].

Engraved plan.

Dimensions: 335 by 705mm.

The unrealised Leeds to Selby Canal.

John Longbotham was employed by some of the backers for the Leeds and Liverpool Canal to survey a route from Leeds to Selby, although the Leeds and Selby Canal was not officially supported by the Leeds and Liverpool undertaking. The canal would have been just over 23 miles long, with ten locks, a ten-arched aqueduct over the River Aire at Hunslet, and a 400-yard tunnel at Fairburn. The estimated cost of £59,468 was raised in two months, and a bill was presented to Parliament in December 1772, as was another by the Aire and Calder Navigation for improvements to the Aire below Huddlesley. The parliamentary committee found several issues with the Leeds and Selby scheme, and generally favoured improvements to the Aire, but no decision was made on either proposal.

Following the impasse, the Aire and Calder decided that a route to Selby might be a better solution than improvements to the lower Aire, and William Jessop, working for John Smeaton, surveyed a route that ran from Huddlesley to Selby, which would require a lock at Selby, where the canal joined the River Ouse, and floodgates at Huddlesley. By the spring of 1774, the Leeds and Selby Canal was supported by the Leeds and Liverpool company, and rival bills were presented to Parliament. The Leeds and Selby proposal was defeated, but the Aire and Calder bill became an act of Parliament, the Aire and Calder Navigation Act 1774, on 14 June 1774.

(40) FORREST, Sylvester; after Joseph PRIESTLEY

A General Map of the Grand Canal from Liverpool to Leeds with it's different branches. Carefully laid down from an Accurate Survey by Joseph Priestley.

[?Leeds, c.1775].

Engraved map, on four sheets, joined.

Dimensions: 590 by 1710mm.

Joseph Priestley's monumental plan of the Liverpool and Leeds Canal.

The plan shows the whole length of the canal together with the branches to Wigan, and Bradford; tables note the canals length and fall. Although the plan is not dated it was mostly likely published in the 1770s or 1780s, during the early phase of the canal's construction, with much of it still to be completed. The canal met financial difficulties in 1781, and with the revolutionary war in America, construction stopped for most of the 1780s. It would not be until the first half of the nineteenth century that the canal would be fully operational.

Rarity: Five institutional examples: British Library; Weston Library, Oxford; University of York Library; National Trust Library; and the BnF.

(41) NOLIN, Jean Baptiste

Le Canal Royal de Languedoc...

Engraved map, on two sheets, joined, trimmed to neat line.

Dimensions: 600 by 1420mm.

Fine example of Jean Baptiste plan of the Canal du Midi.

The Canal du Midi, originally called the Canal Royale du Languedoc, was built through southwestern France to connect the Mediterranean with the Atlantic. Extending for 150 miles, it ran from the port of Sete on the Mediterranean to Toulouse on the Garonne River. The project was approved by Royal Decree of Louis XIV in 1666 and took nearly 20 years to complete. It was unquestionably the largest civil engineering project in seventeenth century Europe.

(42) [?JESSOP, William]

A plan of the Proposed Canal from the Oxford Canal at Braunston in the County of Northampton to join the River Thames at New Brentford in the County of Middlesex to be called the Grand Junction Canal...

[London, c.1792].

Engraved plan on two sheets, joined.

Dimensions: 340 by 1340mm.

Large plan of the proposed Grand Junction Canal from Braunston to Brentford

By 1790, an extensive network of canals was in place, or under construction, in the Midlands.

However, the only route to London was via the Oxford Canal to the River Thames at Oxford, and then down the river to the capital. The river, particularly the upper reaches, was in a poor condition for navigation compared with the modern canals. The river suffered from shallow sections and shortage of water leading to delays at locks, and there were frequent conflicts with mill owners over water supplies.

In 1791 and 1792, two surveys of a route from Brentford on the Thames to Braunston on the Oxford Canal were carried out, first by James Barnes and then by William Jessop. There were other proposals for an alternative direct route to London, and two bills were put to Parliament, but it was the bill for the Grand Junction Canal which was passed on 30 April 1793 as the Grand Junction Canal Act 1793.

Rarity: Only one institutional example; at the British Library.

(43) [?]JESSOP, William]

A Section of the Proposed Canal from the Oxford Canal at Braunston in the County of Northampton to join the River Thames at New Brentford in the County of Middlesex to be called the Grand Junction Canal.

[London, c.1792].

Engraved profile, on five sheets, joined.

Dimensions: 360 by 3360mm.

An unrecorded monumental cross-section of the proposed route of the Grand Union Canal.

(44) DODD, Ralph

A plan of the intended South London waterworks at Kennington, Surrey; as proposed by Ralph Dodd, Engineer, 1804 [together with] Introductory Report by Mr Robert Dodd, Engineer, on the intended West Middlesex Water-Works...

[London], 1804 [and] 1805.

Engraved plan, original colour, inset of intended reservoir, slight loss to left margin and tears, skilfully repaired; [together with] 3pp. pamphlet. Dimensions: 430 by 860mm.

Plan and report by the engineer and entrepreneur Ralph Dodd who set up the The West Middlesex Waterworks Company, to supply water to parts of West London including Marylebone and Paddington, in the counties of Middlesex and Surrey from the River Thames.

Although the plan was not realised in the form outline in Dodd's proposal and plan, a tidal reservoir fed from the Thames was implemented, although it was only briefly operational.

Rarity: Only one institutional example; at the British Library.

BL Maps K.Top.40.45.a.

(45) [TOMS, William Henry]

A Perspective View of the Engine now made use of for Driving the Piles of the new Bridge of Westminster.

London, Carrington Bowles, [c.1770].

Engraving. Dimensions: 440 by 355mm.

A print of James Vauloué pile driving machine.

Westminster Bridge was originally built between 1738 and 1750, at a time when central London's only other river crossing was London Bridge. This engraving depicts the machine that was used to drive the timber piles, or foundations, of the new bridge at Westminster into the bed of the River Thames. It shows how the machine was driven by horses to raise a ram to the top of a 20-foot tower before being released. Driving the piles 14 feet into the riverbed every hour, the machine sped up the construction process considerably. Its designer, watchmaker James Vauloué, was awarded the Royal Society's prestigious Copley Medal.

(46) [FOURDRINIER, Paul ; after Charles LABELYE]

A perspective view of the engine made use of for sawing off under water... for turning the arches of

Westminster Bridge.

London, Carrington Bowles, [c.1770].

Engraving.

Dimensions: 445 by 345mm.

An intriguing print showing an underwater saw, signed by the inventor.

The inventor, William Etheridge (1709-1776) was a master carpenter. He worked with James King to build the first bridge at Westminster and took over as foreman after King died. As well as the underwater saw, he also invented a battering ram to help strike the centres. He also worked on the Walton Bridge and designed Queens' Bridge in Cambridge. His name and profession have been added by hand to the dedication.

The project the saw was invented for was Westminster Bridge, designed by Charles Labelye (1705-62), an engineer and architect. Labelye was given the project in 1738 and initially designed a timber superstructure augmented with stone. However, during the severe winter of 1739-40 the Thames froze and the existing timber was destroyed. Labelye regrouped and designed a Portland stone bridge instead. Paul Fourdrinier (1698-1758) was a Huguenot engraver who came to work in England, specialising in architectural subjects.

(47) [ANONYMOUS]

[Five manuscript elevations of bridges].

[c.1780]

Original pen and ink, on two sheets, four on one, and one on the other.

Dimensions: 670 by 470mm [and] 160 by 340mm.

(48) [ANONYMOUS]

[Pencil and watercolour sketch of a paddle steamer for towing a barge].

[c.1780].

Pen and wash colour, with explanatory text below.

Dimensions: 322 by 550mm.

Bibliography

Provenance

Price: £30000

Inventory reference: 24419