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of the

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The Railway & Canal Historical Society

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* Articles marked with an asterisk are based on papers given to the Sixth Waterways History Conference, held at the Birmingham Central Library Theatre on 14 March 2009

German Wheatcroft and the Wheatcroft Family of Canal Carriers

Grahame Boyes

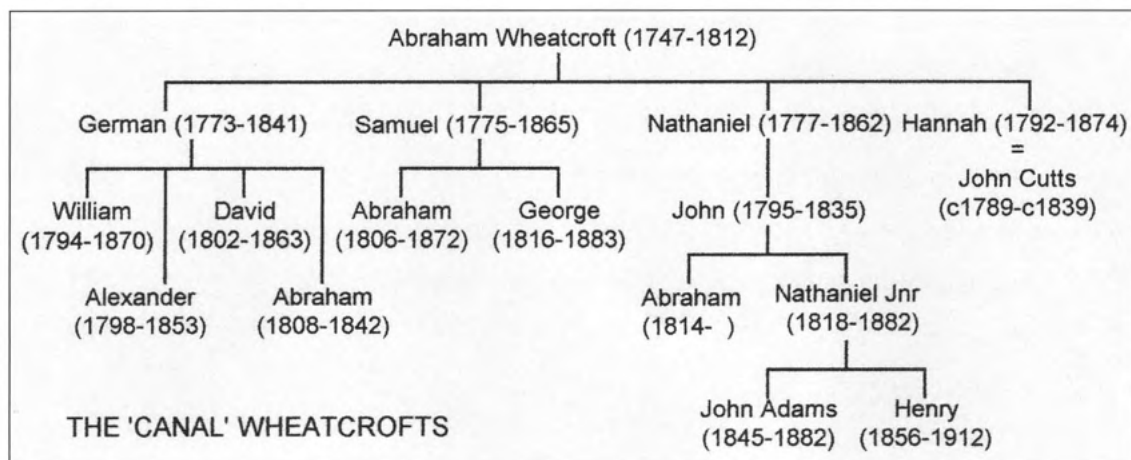
Unlike the canal companies, the carriers of the Canal Age did not leave us a convenient archive of business records to form the basis of our researches. With the exception of Pickfords, our knowledge of them is, therefore, still fragmentary. However, this paper aims to show that it is now possible to put together a reasonably coherent and satisfactory account of a family of carriers that left no personal or business records. In the past this could have involved an impossible search for needles in haystacks. But with the increasing availability of digitised newspapers, directories and other sources accessible on the internet or in major libraries, a modest amount of time spent on key-word searches can produce exciting results.

Such was the character of German Wheatcroft that he is one of those rare personalities who 'comes alive' in the otherwise rather dry accounts contained in a company's minute books. This paper was originally intended to focus on German alone, based largely on the author's researches in the Peak Forest Canal

Railway; and especially Mrs Susan Graham, descendant of a closely-related branch of the Wheatcrofts, who has been piecing together the family's history for the past twenty years and made available extensive copies of notes she has collected from sources that are widely used by family historians, but rarely by transport historians. Their generosity in sharing the results of their labours has resulted in a much more substantial study and is gratefully acknowledged.

Abraham Wheatcroft

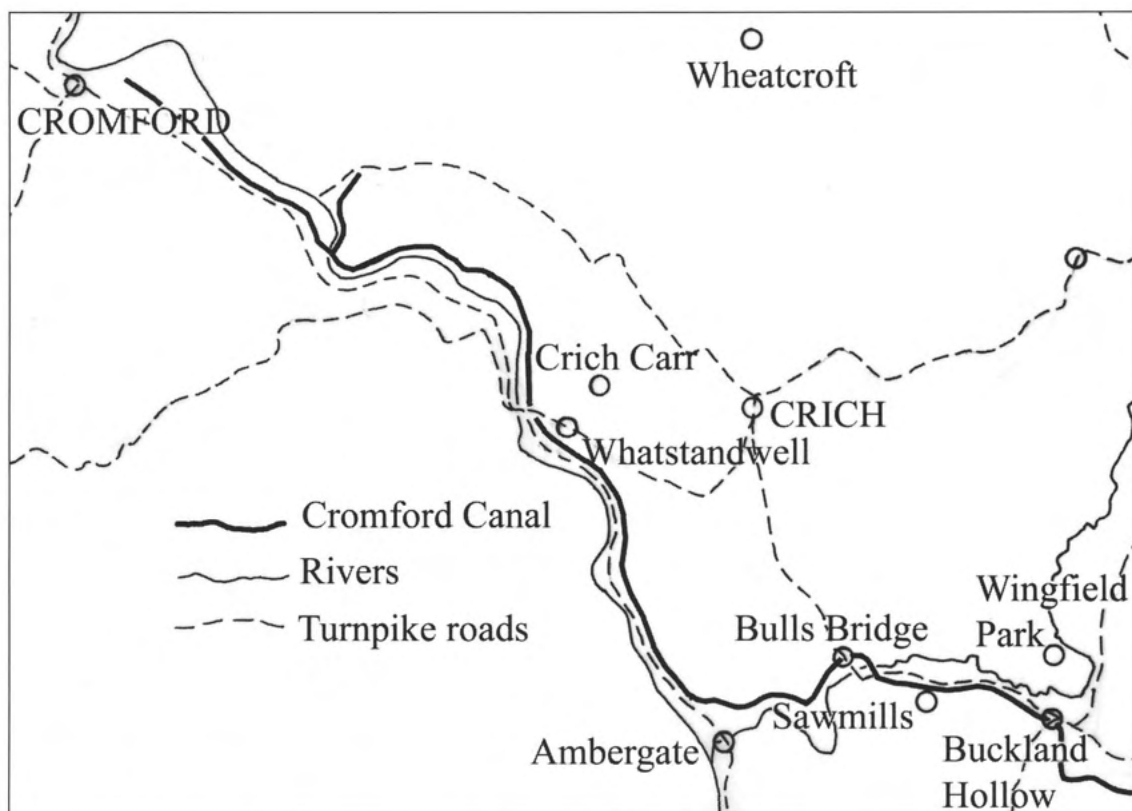
Abraham Wheatcroft, with whom this story starts, was from a family of yeoman farmers in the parish of Crich, Derbyshire, which no doubt originated in the hamlet of Wheatcroft in that parish. Abraham himself lived in Crich Carr and may have farmed there, but he also had other interests. For example, he is recorded as an inn-keeper in Crich in 1790 1800.¹



records. However, during its preparation, three people came forward with much more information on the 'Canal' Wheatcrofts, collected in the course of their researches: Hugh Potter in his capacity as archivist to the Friends of the Cromford Canal; David Hodgkins, who supplied proof pages of his now-published *The Records of the Cromford & High Peak*

His position as a trustee of the Methodist Chapel in Crich indicates that he was of some standing in the community.²

Even while the Cromford Canal was under construction, Abraham Wheatcroft recognised the commercial opportunity that it presented. Evidence from the Trent Navigation boat gauging registers



indicates that he had acquired at least five boats in time for its opening in 1794. His intention may have been to set up his eldest son, German, in business when he became 21 that year. By 1802 there were nine boats in the fleet. All these early boats (or those that were registered) had no floors, which indicates that they were used wholly or primarily for carrying coal from the mines south of the Butterley Tunnel to Cromford and intermediate places along the canal, and probably also other bulk commodities such as stone from quarries around Crich and Lea, and timber.

German Wheatcroft on the Peak Forest Canal, 1794 1809

German did not, however, take over the Cromford Canal carrying business from his father. Instead he was appointed in November 1794 as the first full-time employee of the Peak Forest Canal Company (PFCC). There can be little doubt that Benjamin Outram was responsible for this. During the years 1789–94, Outram had been superintendent of works for the Cromford Canal, under William Jessop as

principal engineer. German's capabilities must have been recognised by Outram — perhaps he had been employed by him as an assistant — and when Outram was engaged as the engineer of the Peak Forest Canal, he would have been keen to take with him someone he knew he could rely on.

German's first duties were to work as directed by the Committee, the Engineer or Thomas Brown, the Surveyor (or resident engineer). He clearly impressed his employers and increasing responsibilities were delegated to him. When the Peak Forest Railway and the upper level of the canal were opened in 1797, German was appointed the toll-collector in addition to his existing duties, taking up residence in the toll-collector's house at Bugsworth.³

In mid-1798 the supervision of the railway and the operational portion of the canal was separated from the supervision of the construction works on the rest of the canal, and German was initially appointed as 'Toll-collector, Wharfinger and Warehousekeeper at Bugsworth and Whaley, also superintendant of the Works between the inclined Plain, Whaley and Furness Clough'. His wages were to be £75 per annum plus the use of the company's house at

Bugsworth Bason, and he was to be subject to three months notice on either side. In spite of these increasing responsibilities, the articles of agreement now drawn up for him to sign referred to him merely as 'German Wheatcroft of Bugsworth, Labourer'.⁴

The PFCC not only owned and operated the canal and the railway up to the quarries, but also leased and managed the principal quarries. In October 1798 the committee added overseeing the stone-getting at the quarries to German's responsibilities, but removed any responsibility for the canal north of Bugsworth Basin. German was given an assistant to maintain the inclined plane and the railway from there to the quarries, and also to oversee the smith's and carpenter's workshops at the top of the incline, and to keep the waggons in repair.⁵

The committee issued Rules and Regulations for the 'Getters, Gangers [the men in charge of each 'gang' of waggons on the railway] and other persons employed in the Limestone Trade'. But the quarrymen would not have been the easiest of men to handle, being unaccustomed to the discipline of working for such a large organisation with a remote and largely unseen management. In the following summer German had to apply to a magistrate for 'Warrants to apprehend the several Men who have deserted their Work and neglected to perform their Contracts for getting Stone'; presumably they had followed their customary practice of returning home to assist with the harvest. German was clearly on a learning curve.⁶

He must have felt undervalued in a job that was critical to the company's prosperity; after all, most of its income was expected to come from the sale and transport of limestone and lime. In August 1799 he gave three months notice of his intention to quit the company's service, but made it known that he was prepared to stay if his salary was increased to £105, which would allow him to keep a horse. (Until that time he must have been walking at least twelve miles a day up and down the railway between Bugsworth and the quarries.) This is the first evidence of some determination in his character. His terms were accepted by the committee, subject to his agreement to give six months notice.⁷

German was now directed to send a report to each committee meeting on 'the conduct of the servants and workmen under his inspection to whose conduct he is expected to pay particular attention and to be answerable to the Committee for their good behaviour'. Samuel Oldknow, the principal shareholder, and Outram were asked to give him such

directions as to regulating the ganging of limestone as they thought necessary.⁸

In 1800, in order to meet the greatly increased demand for limestone following the opening throughout of the canal, the committee decided to increase the number of quarrymen to 200 and to engage 'an active and resolute Man' solely to superintend them. But at its next meeting it authorised German to procure 'a proper person to assist him in the Office of Toll Collector and Wharfinger at Bugsworth', so that he could concentrate on the superintendence of the quarrymen himself. The committee clearly saw in him the toughness of character needed. This experience would have been of great value to him later, when he came to run his own carrying business.⁹

Changes in personnel at the top of the PFCC unsettled German. Outram, who had resigned as Engineer in 1801 but continued as a consultant, died in 1805. Thomas Brown, who had taken over as Engineer, resigned later in the year when the canal was opened throughout (although his association with the PFCC continued as consultant engineer and as a committee member). James Meadows, the agent of the Ashton Canal, was now made joint Principal Agent of both companies. Finally, Samuel Oldknow, who since the early days had chaired the majority of committee meetings, ceased to do so after 1808.

In March 1809 the committee minutes recorded: 'it appearing...that such misunderstanding exists between Mr German Wheatcroft and Mr Meadows that they cannot co-operate or act together as Agents to this Company', the committee forthwith discharged German after nearly 15 years service, with 6 months pay and house rent in lieu of notice. This is another indication of his toughness, although the outcome was probably not unwelcome to him, as he had probably already decided that he was going to go into partnership with his younger brother, Nathaniel.¹⁰

The Cromford carrying business

Nathaniel, four years younger than German, had probably been working boats for his father from when the Cromford Canal opened, as he would then have been 17 years old. He later took over the business, perhaps in 1798 when he attained the age of 21. 'Mr Wheatcroft's passage boat' [passenger boat], to which there is a single reference in the Cromford Canal minutes in 1802, was probably Nathaniel's.¹¹

There are other references to a Cromford–Nottingham passage boat operating in 1797¹² and 1813,¹³ but by different boat owners, so this seems not to have been a very profitable venture and Nathaniel may not have kept it going for very long. Indeed, in 1803 he started to establish himself as a carrier of general goods, using a new boat with a floor and covers built for him by his father at Whatstandwell. This was number 14 in his fleet. In June 1804 he was advertising a new weekly general carrying service between Cromford and Derby,¹⁴ but the evidence of the Trent Navigation boat registers — and, from 1814, the Cromford Canal navigation permit books (see Appendix) — indicates that his principal service was to Nottingham. However, by 1809 he had a fleet of three such boats, serving Nottingham, Derby and Birmingham, and about 15–20 boats in the coal and stone trades, some of which also served Derby. (The highest-numbered boat in his fleet was now 27.)

This is a convenient point to mention Abraham's second son, Samuel, a wheelwright by trade,¹⁵ who established himself in 1799 as a boat-builder in a yard on the west side of the canal, immediately north of the bridge at Hotstandwell (now Whatstandwell), perhaps with help from his father who, as already mentioned, is credited with building one of the boats there.¹⁶ The Trent Navigation gauging registers record another 30 boats built by Samuel over the next forty years, all for the Wheatcrofts. (He probably also built other boats for them that were not registered: see Appendix.) Samuel's sons, Abraham and George, are also recorded as boat-builders in the 1841 census, presumably working for their father. By the 1851 census Abraham had taken over another boatyard which had been bought by Nathaniel Snr 2½ miles downstream at Bull Bridge.¹⁷ However, he probably undertook only repairs, as there are no boats built by him in the Trent Navigation registers.

When in 1809 German Wheatcroft joined the business, which now began trading under the name of N & G Wheatcroft (N&GW), he brought a new impetus and new capital. In 1810 there is the first reference to the firm selling slates.¹⁸ However, trading in the bulk commodities that he was carrying would have been a natural extension of his business, so it is possible that Nathaniel had established himself as a merchant of such goods earlier than this. It was almost certainly on German's initiative that the general carrying side of the business expanded considerably, particularly in terms of frequency, and by 1822 there were some 15 boats with floors and covers out of a

total fleet of about 35 (the latest was numbered 48). By 1820 there were two boats a week to London via Leicester, which were probably their first fly-boats, taking only six days for the round trip.

From the directories that began to appear at this period, it is known that N&GW also began to operate road services to extend its carrying network to places that could not be served by water. By 1813 what probably began as a service to and from Sheffield, connecting at Buckland Hollow with the canal services southwards, had already been extended northwards to Barnsley; it was running through to Wakefield and Leeds by 1822, and later to Bradford. Waggons also operated thrice-weekly between Sheffield and Birmingham via Chesterfield (or alternatively Mansfield and Nottingham), Derby, Burton, Lichfield and Walsall.

Some indication of the relative importance and the growth of N&GW at this time can be gained from the numbers of navigation permits issued to its boats at Langley Mill as they left or entered the Cromford Canal. In October/November 1814 an average of 9 permits per week were being issued to Wheatcroft boats, 8 per cent of the total permits issued. In April/



The original warehouse at Cromford occupied by N & G Wheatcroft and later German Wheatcroft & Sons (Hugh Potter)

May 1820 this had risen to 18 per week (13 per cent).

To give themselves greater influence in the affairs of the Cromford Canal Company, Nathaniel and German bought shares in it — perhaps only one £100 share each, as German had just one at his death.¹⁹

This enabled them to attend the annual general assembly of proprietors in 1813, and almost every year afterwards.

Initially the Wheatcrofts were probably using the canal company's warehouse at Cromford and from 1815 they leased the entire building, together with a small crane. In 1813 they built another warehouse on the wharf at Buckland Hollow under a ten-year lease from the canal company. Buckland Hollow was a good location for interchange with the Derby Sheffield turnpike road, which crossed the Cromford Langley Mill turnpike and the canal at this point.²⁰

With effect from 1 August 1823 the brothers dissolved their partnership, having split their business into two, so that they could each take their sons into partnership.²¹ Subsequently new boats were registered to one or other of the new partnerships.

Nathaniel Wheatcroft & Son

Nathaniel now traded as Nathaniel Wheatcroft & Son (NW&S), having taken his son John into partnership. However, John died in 1835 at the age of only 40 and his son, Nathaniel Jnr, replaced him, probably in 1839 when he became 21.

NW&S continued to provide a weekly service to Nottingham for general goods. Since German took over the existing warehouses, NW&S built its own on Cromford wharf, and 1828, when the Nottingham service became twice-weekly, also built its own at Buckland Hollow beside the 1813 warehouse.²² But Nathaniel concentrated largely on developing his

business in bulk commodities, both carrying and trading in them. By the early 1820s, but probably much earlier, he is listed as a timber, coal, corn and slate merchant. Lime was a regular traffic exported from the district. John Wheatcroft became a partner in the firm of Norton, Williams & Co., lime merchants at Crescent Wharf, Birmingham and at Aston and Dudley; and there is evidence that, for a while, the Wheatcrofts themselves worked a bank of lime kilns erected by the Cromford Canal Co at Buckland Hollow.²³ In 1827 NW&S introduced a service between Cromford and Shardlow, no doubt primarily to pick up the corn traffic coming up the Trent Navigation. A twice-weekly service to the Potteries was also begun, delivering stone and returning with salt from the Cheshire salt field.²⁴ By 1838 NW&S had about 25 boats (of which about one-third had floors and covers).

German Wheatcroft & Sons

German took his sons William, Alexander and David into the partnership, trading as German Wheatcroft & Sons (GW&S), but William left the partnership on 30 June 1831,²⁵ which may not have been unconnected with the opening of the Cromford & High Peak Railway (see below).

GW&S seems to have concentrated primarily on developing the regular long-distance services for general goods. In 1824 it was allowed to build a 'boat shed' (a large canopy overhanging the canal) adjoining the Cromford warehouse. In 1825 it renewed the lease on the warehouse at Buckland Hollow and took over another warehouse there which had been built by Matthew Hopkinson in 1801.²⁶ Both German's and Nathaniel's warehouses survive at Cromford, but all the Buckland Hollow warehouses have gone.

In addition to boats taken over from the partnership, 34 new narrow boats were registered between 1824 and 1846 for the general goods services. They carried numbers between 50 and 117. Two pairs of boats without floors were also acquired for carrying coal and stone to Nottingham. But even allowing for GW&S's Trent- and Manchester-based fleets (see below) this still leaves many gaps in the numbering series, which might possibly have been taken by boats that were used only on the Cromford Canal.

In 1827 it inaugurated a connecting service on the Trent from Nottingham to Newark and



*Nathaniel Wheatcroft & Son's Cromford warehouse of 1823/24
(Hugh Potter)*

The advertisement reproduced here apparently

(The Waterways Archive, Gloucester — BW 111/5/4)

The wharves and inns served by GW&S listed in this advertisement and in the directories are a more

reliable guide to the extent of its services:

Leeds: Black Bull Yard, Lands Lane and 6 Wine Street (1825); Meadow Lane (1828)

Wakefield: Mason Arms

Barnsley: Waggon & Horses (1828); Market Street (1841)

Sheffield: Orchard Street (1813); 11 Norfolk Row (1822)

Chesterfield: St Mary's Gate

Mansfield: Railway Waggon Warehouse, Portland Wharf

Newark: Brown & Ragsdale's Wharf

Nottingham: Leen Wharf (1825); London Road (1828); Three Cranes Wharf, Commercial Street/Island Street (1832)

Derby: Cockpit Hill

Burton-on-Trent: White Horse (1828, 1835); Horninglow Wharf (1828); Bond End (1844)

Lichfield: The Dolphin, Boar Street

Birmingham: Crescent Wharf (Sheffield & Gainsborough Wharf)

Wolverhampton: The Bush, Piper's Row

Bromsgrove: King's Head

Worcester: Coventry Arms, Friar Street (1830); Queen Street (1835)

Bristol: Thomas Street

Leicester: Thames Street Wharf

London: No. 4 Wharf, South Side, Paddington; White Bear Yard, 32 Basinghall Street (to 1842); 126 London Wall (from 1843)

This list does not include places served on the Peak Forest and Ashton Canals (see below).

The addresses in Worcester and Bristol are not waterside premises, which confirms that they were served by road. Although at least one directory entry refers to a fly-boat service from Buckland Hollow to Birmingham, Worcester, Gloucester and via the Gloucester & Berkeley Canal to Bristol and Bath, there is no evidence that GW&S sent boats down the Severn and this must represent another carrier's service with which GW&S interchanged traffic at Birmingham.

One advantage of having many children was that they could be deployed to run the principal centres of the company's operations. David eventually took over the management of Buckland Hollow from his father; William was for some years wharfinger at

Birmingham,²⁹ and Alexander at Nottingham,³⁰ while Abraham was wharfinger at Cromford until he died.³¹ The 1841 census shows that David Buxton, son of German's sister Nanncy, was running the London establishment at White Bear Yard.

Hannah, German's youngest sister, married John Cutts, a Derby Canal toll-collector at Sandiacre, in 1810. (His father was probably Henry Cutts, agent of the Cromford Canal.) Perhaps even while working in this capacity he started buying boats for carrying on the Trent.³² By 1816 he was a wharfinger at Canal Street/Leenside, Nottingham, probably looking after the Wheatcrofts' business as well as his own. In 1827 he was appointed clerk at the Mansfield & Pinxton Railway's weighing machine and was still employed by the railway in 1837.³³ This explains why from 1828 Hannah is herself listed as a wharfinger at Nottingham, acting as agent for several carriers, including NW&S.³⁴ By the 1841 census Hannah was widowed and in 1842 she is listed as a corn, malt and coal dealer, as well as a wharfinger. Three of John and Hannah's four sons were corn factors in Manchester, Nottingham and Ordsall (Retford), and, with their mother, probably gained mutual advantage from their family connection with their uncles' carrying businesses.³⁵

Mansfield & Pinxton Railway

The Wheatcrofts also made use of rail transport from a relatively early date. The Mansfield & Pinxton Railway, opened in 1819, was effectively an extension of the Pinxton branch of the Cromford Canal, although independently built and owned. A branch line served two collieries, which provided the principal traffic, which was hauled on the railway by the coal companies themselves. The merchandise and other general traffics were initially worked by the railway company, but after the first year it leased the warehouses and adjoining houses at Pinxton and Mansfield, together with hand-barrows, a portage waggon (for deliveries around the town) and eight railway waggons, to N&GW, which appears to have had effectively a monopoly of the general trade, subject to maximum rates of 4s 6d per ton (including delivery to anywhere in the town of Mansfield) for traffic brought to Pinxton in Wheatcrofts' own boats, or 5s 6d per ton if carried in other persons' vessels. The lease was subsequently renewed and transferred to GW&S, generally for 3-year periods, until at least 1843 and possibly until the railway was taken over

and replaced by the Midland Railway. Between 1820 and 1840 the rental paid by Wheatcrofts increased from £40 to £90 per annum before reducing to £80 in 1841, which suggests that this was a worthwhile venture for them.³⁶

Cromford & High Peak Railway

When the Cromford & High Peak Railway was promoted to link the Cromford Canal to the Peak Forest Canal, German Wheatcroft made sure that he would be in a position to take advantage of its opportunities by subscribing to three £100 shares in the company. He became the principal, if not the only, carrier of through traffic between the two canals, while GW&S and NW&S seem to have been the principal carriers of other traffics (chiefly stone to Cromford wharf and coal in the other direction).³⁷ The former would have included limestone from the Wheatcrofts' own quarries. Following his withdrawal from GW&S in 1831 it seems that William began buying land for quarrying in Middle Peak, lying south of the C&HPR near Wirksworth, and he was certainly quarrying beside the Middleton incline in 1839. David and his other two brothers established the partnership of Alexander, David & Abraham Wheatcroft, 'stone and marble quarriers and polishers', which opened another quarry in the Middle Peak district that was apparently connected by an incline to the C&HPR in 1842.³⁸

In May 1833 GW&S commenced operation of a passenger coach on the C&HPR from Cromford to Whaley Bridge, connecting with a road coach to Manchester, but it was probably short-lived.³⁹ In 1843, when James Meadows made an inspection of the railway on behalf of the Peak Forest Canal Company, in connection with a proposal that it should take over the railway, he travelled in one of Wheatcrofts' waggons.⁴⁰ (This James Meadows was the son of the James Meadows with whom German had been unable to work in 1809; he succeeded his father in 1831 as principal agent of the Peak Forest and Ashton Canals.)

Although not mentioned in his will, German's shares appear to have passed to David and William, the former becoming a member of the C&HPR committee by 1842. Nathaniel Wheatcroft Jnr and his elder brother Abraham also became shareholders and, in due course, Nathaniel's sons, John Adams (elected a director in 1877) and Henry.

Peak Forest Canal

With the opening of the C&HPR in July and Macclesfield Canal in November 1831 the character of the Peak Forest Canal completely changed. Instead of being a branch canal of not much more than local significance, it now formed part of two north-south through routes in competition with each other and with the long-established route via the Trent & Mersey and Bridgewater Canals.

Pickford & Co. immediately diverted its London-Midlands-Manchester trade from the Bridgewater Canal to the Macclesfield Peak Forest Canal route.⁴¹ German Wheatcroft determined to set up in competition. Until this time, he seems to have sent any Manchester traffic by road via Leeds.⁴² But it was the important trade in grain, flour and malt from the Trent to Manchester that he now had in his sights. In April 1832 he wrote to the PFCC saying he had 'in readiness Boats, Porter Horses, Carriages &c for sending of [sic] to Manchester', but first needed competitive rates, particularly for grain, malt, flour, lead (pig and sheet), red lead in casks, cast iron and mineral paints, and also accommodation for loading and unloading under cover at Whaley. He had already asked the Nottingham Canal to allow his fly boats to pass the locks at all hours to enable him to develop this route. He reported that the Trent & Mersey and Bridgewater Canals had reduced their rates and were 'very intent upon keeping the Trade in its old rout [sic]. I trust you will be equally Zealous to have a share your way.' In the following month he came with



*The Peak Forest Railway's 'Lower Warehouse' at Chapel-en-le-Frith, built in 1836 for German Wheatcroft's Sheffield trade
(Ian Moss)*

a deputation from the C&HPR to meet the PFCC Committee, to ask for help in setting up a competitive route from Nottingham to Manchester. If not 'they might as well shut their Railroad up'. The PFCC Committee immediately agreed to rate reductions, and German probably began operating the service soon afterwards, using the existing small warehouse. A new transshipment warehouse was ready in September.⁴³ This straddled an arm of the basin, wide enough for two boats, so that boats, rail waggons and road vehicles could all be loaded and unloaded under cover. GW&S established its headquarters for this new operation at the Ashton Canal's Ducie Street basin at Piccadilly, Manchester.

In July 1833 German gave notice of a new service from Manchester, by canal to Bugsworth and thence by the Peak Forest Railway to Chapel-en-le-Frith, where he asked for warehousing to be made available, and from there to Sheffield by road waggons. For the time being he shared the existing ('upper') warehouse at Chapel with another carrier, James Hibberson, despite the latter's objection. A new ('lower') warehouse was eventually built for Wheatcroft's use in 1836.⁴⁴

Perhaps because this would compete with Pickfords' waggon service between Manchester and Sheffield via Woodhead, Pickfords immediately retaliated with a service by canal from Manchester to Whaley Bridge with connecting road waggons to Sheffield. This necessitated using the transshipment warehouse at Whaley. To German this was a declaration of war. He claimed that a Pickfords' man was spying on his traffic in the warehouse. Much of this had been won from the Trent & Mersey Canal route, 'where Pickford & Co. have an important interest and will use all their endeavours to turn [it] again into the former channel:... we had better ourselves divert the Goods down the Canal again than give Pickford & Co. the opportunity:... tis very certain we shall not submit to such encroachment ... let them put up with similar accommodations that we started with until you can erect a suitable place [for them]'. James Meadows did his best to smooth things over, but each time he wrote to German a reply came back by return — a total of four letters in two weeks. The fourth advised that he was loading a boat with flour which he would send to Manchester via the T&M. If the flour and malt trade was to return to Whaley, he would need the whole warehouse. He also threatened to withdraw from the Sheffield trade. The PFCC agreed to build a warehouse for Pickfords, but the letters continued for another month. The

company assured German that it was 'fully sensible of the great exertions you have made for promoting a Trade over the High Peak Railway. The business you have done has fully answered their most sanguine expectations'. It maintained that it was not able to grant him sole occupancy, but offered a way out by saying that, if he occupied the warehouse fully, he was unlikely to be disturbed. German replied that 'we shall never concede...that the Co. are...bound to grant facilities to all alike, to come to Whaley, and be placed upon the same footing with us, at once to form an establishment without obstacle or any previous sacrifice of money (such as we have expended) and admitted to full participation in the Trade we have brought there.' Nevertheless he seems to have accepted some *modus operandi* until Pickfords' warehouse was ready. In fact this was an extension to the previous building. The two phases of building can readily be seen in the surviving building, which still has an internal dividing wall between the southern (Wheatcrofts') and northern (Pickfords') portions.⁴⁵

This was German's style. He was a tough negotiator and requests that he made for rate



The differences in the windows show the two construction phases of the Whaley Bridge warehouse. The nearer, original end was later allocated exclusively to German Wheatcroft after the farther end was built for use by Pickford & Co.

(Grahame Boyes)

reductions to enable him to generate business or to meet canal, road and, later, railway competition were similarly robust. Yet he was open and straightforward, and seems to have been respected by James Meadows

and the PFCC Committee. He was an astute and vigorous entrepreneur who had brought good new business to the PFC, and they generally tried to accommodate his demands.

Nathaniel and German Wheatcroft's other interests

The Wheatcrofts' carrying businesses, coupled in Nathaniel's case with his associated trading activities, were clearly prosperous. Nathaniel built himself a substantial house on the recently-built Via Gellia road (now no. 16 Chapel Hill) on the outskirts of Cromford, where he lived for the rest of his life, together with the adjoining row of five houses stretching up the hill, all of which can still be seen. He became a regular preacher for the Cromford



*The row of houses built by Nathaniel Wheatcroft on Chapel Hill, Cromford. He lived in the nearest house
(Grahame Boyes)*

Wesleyan Methodist circuit set up in 1804 and may well have built its first chapel next door to his home in 1810. He was also a partner in a currier's business in Cromford,⁴⁶ and his will shows that he owned (but did not himself work) a silk mill at Draycott (east of Derby), as well as a malthouse in Cromford, and several farms, cottages and other properties in and around Cromford and Crich.⁴⁷

German Wheatcroft built or purchased for himself Ladybank House beside the canal at Buckland Hollow, where he also established his office. It survives as *The Excavator* public house and is Grade

II listed. He seems not to have invested in other businesses, but in c.1828 bought the 351-acre Wingfield Park estate, where he rebuilt the farmhouse as a Regency mansion and then lived there until his death. His eldest son David continued living in Ladybank House until he moved into Wingfield Park after the death of his mother in 1850. Part of the house survives, as does the gothic lodge designed by Sir George Gilbert Scott, which was built at the entrance to the estate in Buckland Hollow.⁴⁸

Decline of the carrying businesses

German Wheatcroft died on 11 October 1841, leaving his share in the carrying and wharfingers business to Alexander and David.⁴⁹ But they dissolved their partnership on 31 December, and David became the sole proprietor.⁵⁰ The business now became styled German Wheatcroft & Son [singular]. The brothers' stone-trading partnership was dissolved on the same date, but Abraham then entered a new partnership with David. However, he died only two months later, but under the terms of his will David was allowed six years to pay back his £6,000 capital.⁵¹

Alexander left David to deal with the consequences of a fire at the Manchester & Liverpool Union Company's warehouse on 19 December 1841. GW&S had a regular contract to carry imported cotton from Liverpool Docks to Jedediah Strutt's mill at Belper, but it sub-contracted the first leg from Liverpool to Manchester to the Union Co. At Manchester the bales were temporarily stored in the warehouse until delivery was requested by Strutts. 103 bales of Strutts' cotton was destroyed, valued at £523. David argued that the storage of Strutts' cotton at both Manchester and at Buckland Hollow was for Strutts' own convenience and no charge was raised for this. Nevertheless he agreed to settle for a payment of £350 rather than risk 'the glorious uncertainty of the law'. This must have drastically reduced the year's profits.⁵² Following this incident, GW&S carried to and from the Duke's Dock at Liverpool in its own vessel, which must have been a newly-acquired barge suitable for navigating the Mersey or one transferred from its Trent fleet.⁵³

By then Manchester was connected by railway to Birmingham, London, and, via the Manchester & Leeds Railway, to Rotherham (for Sheffield) and the East Midlands. German Wheatcroft & Sons began to advertise itself as a carrier by railway as early as 1835 and by 1841/2 was trying to develop railway

traffic from Sheffield, Nottingham, Derby, Birmingham and London.⁵⁴ Railway competition had already hit the canal companies and carriers very hard, both by extracting traffic and by forcing them to make deep cuts in their charges. Faced with canal carriers going out of business the canal companies had obtained powers under the Canal Carriers Act 1845 to operate carrying services themselves.

In 1846 the Peak Forest Canal Co agreed to lease its canal to the Sheffield, Ashton-under-Lyne & Manchester Railway (soon to become the MS&LR). There was talk of the proposed Manchester, Buxton, Matlock & Midland Junction Railway taking over the Cromford Canal and in April 1846 David Wheatcroft came before the Select Committee on Railways & Canals Amalgamation to state his opposition to the amalgamation. At that time he said that his chief traffic was still between London and Manchester. He cannot have been opposed to railways *per se*, as he subscribed to several 'mania' railway schemes in 1845-6, but he told the committee that he did not believe that Parliament would be able to impose effective safeguards to prevent the railway company from stopping traffic on the canal once it had control over it.

Even though David Wheatcroft had been regularly investing in new boats as recently as 1844, these developments must have disillusioned him and in November 1846 he sold his Manchester-based carrying business to the Peak Forest Canal's new railway owners for £1,800. The assets comprised 10 boats, 17 spring wagons and 60 wagons not on springs used on the C&HPR, and 11 wagons on the Peak Forest Railway, together with oil cloths and woollen sheets, spring carts, horses and weighing machines. He then sold his carrying business based on the Cromford Canal to the Grand Junction Canal Company's new carrying subsidiary.⁵⁵ The Derbyshire directories continued to show German Wheatcroft & Son providing a thrice-weekly service from Buckland Hollow to Nottingham and Leicester until 1852 and then, more generally, as carriers by boat in 1855. This suggests that the company continued for a while to manage the Cromford Canal end of the operation on behalf of the GJCC. When the latter's name appeared in the 1857 directory, A Wheatcroft (probably Abraham, Nathaniel Jnr's elder brother: see below) is named as its agent at Cromford. During those years GW&S continued to advertise itself as a carrier by railway, but like other canal carriers must have found that the railways offered no opportunity for independent general merchandise carriers and

there is no further reference to it after 1857.⁵⁶

After selling the canal carrying businesses, David Wheatcroft expanded his stone interests, now trading in stone and marble under the name of German Wheatcroft & Son at both Cromford and Buckland Hollow and establishing a stone and marble factory beside the canal, some 500 yards east of Bullbridge at a hamlet now called Sawmills. In 1856 he took a lease of the Hopton Wood quarry, preparatory to setting up the Hopton Wood Stone Company Ltd in 1857 to run William's quarry at Middleton Peak and David's factory, as well as the Hopton quarry. David and William were both among the first directors and Nathaniel Jnr was also a shareholder. David sold his assets to the company for £14,520 in 1861, before his death in 1863.⁵⁷

Nathaniel Snr died in 1862, but the business had been carried on in the name of Nathaniel Wheatcroft Jnr since at least 1845.⁵⁸ Meanwhile, his elder brother, Abraham, had become a dealer in chert (a mineral used in earthenware manufacture), and Nathaniel Wheatcroft Jnr joined him in a chert-quarrying venture at Encliffe Quarry, Bakewell.⁵⁹

Because of the nature of his canal-carrying business Nathaniel was able to adapt to the arrival of the railway more readily than GW&S. The twice-weekly canal services to Nottingham and the Potteries soon succumbed to railway competition, but a thrice-weekly road service to Manchester and Liverpool was advertised in the early 1850s. However, Nathaniel increasingly concentrated on the coal and corn trades, and ultimately on the former, establishing coal depots at railway stations from Matlock to Buxton, on the C&HPR and on the Wirksworth branch.⁶⁰ He still had a fleet of boats, but almost certainly increasingly confined to these trades. After the Cromford Canal came under railway control in 1852, the C&HPR appears to have decided that it must secure its canal connection by acquiring its own fleet of canal boats, eight for coal and one for goods. At least one of these boats was bought from Nathaniel Wheatcroft Jnr.⁶¹ This must have reduced his trade significantly on both the canal and the C&HPR.

In due course Nathaniel Jnr took his sons into the business, which then operated under the name of Nathaniel Wheatcroft & Sons [plural]. However, John Adams Wheatcroft seems to have been a sleeping partner and, not long after Nathaniel's death in 1882, the residual partnership with his brother was dissolved on 9 February 1884 and the business was then carried on by Henry alone, under the name of Nathaniel

Estimated number of boats		
	Wheatcrofts	Pickford & Co.
1795	5	10
1809	20	50
1822	35	80
1838	25 (NW&S) 65 (GW&S)	112

Wheatcroft & Son [singular].⁶² Henry was the last Wheatcroft to hold shares in the Hopton Wood Stone Co., but he disposed of them, possibly in 1890 when he bought the Via Gellia Colour Works in Cromford

Estimated route miles c1835		
	GW&S	Pickford & Co.
Water	366	845
Road	359	493
Rail	44	

and subsequently developed it as the Via Gellia Paint & Colour Co., initially in partnership with W Cope, later in partnership with George H Key.⁶³ As late as 1898, NW&S launched with due ceremony a new boat, the *Victoria*, at Bull Bridge, the first Wheatcroft boat to be registered for over fifty years.⁶⁴ It seems unlikely that much of the firm's canal trade would have survived the collapse and permanent closure of Butterley tunnel in 1900. In 1911, before his death in 1912, Henry turned NW&S into a limited company, with his friend, George H Key, as chairman and Colin Clive Willcock, his wife's nephew, as managing director. Having no children, Henry left his interest to Willcock.⁶⁵ Although there was now no involvement of the Wheatcroft family, the firm survived until after the Second World War. Joseph, the youngest son of Nathaniel Snr, established his own successful tape-weaving mill in Wirksworth, which maintained an independent existence under the name of his son, George H Wheatcroft & Co., with a mill at Derby as well as a second mill at Wirksworth, until the late 1960s.⁶⁶

Comparison with other carriers

The obvious question is: how did the Wheatcrofts' businesses compare with that of Pickford & Co., which is generally perceived as the most important carrier of this period? Because the Wheatcrofts left no business records, it is impossible to produce any comparative statistics of traffic volume, turnover or profitability. However, it is possible to produce estimates of the numbers of boats (but not waggons) that the Wheatcrofts operated at various dates, for comparison with those quoted in Turnbull's history of Pickfords, and also comparative estimates of the route mileage that they each operated in the years immediately preceding the railway era.⁶⁷ As the following table shows, German Wheatcroft & Sons alone appears to have been broadly half the size of Pickfords. If the chiefly bulk-carrying business of Nathaniel Wheatcroft is also brought into the equation, the combined Wheatcroft businesses are about two-thirds of the size of Pickfords. Comparison with other carriers of this period, such as James Sutton & Sons or Kenworthy & Co., must await further studies.

Appendix — a note on sources

The source of information on the Wheatcrofts' boat fleets is the Trent Navigation boat gauging registers. There is a complete set of the printed registers up to 1919 in the National Archives (RAIL 879/67–87). The Nottingham Central Library also has a set up to 1842.

The Trent Navigation Company operated this gauging service from 1798 on behalf of the Cromford, Erewash, Nottingham, Nutbrook, Derby, Grantham and Leicester Canals, as well as itself. However, the registers clearly do not include all the Wheatcroft boats, as there are gaps in the sequence of fleet numbers. It was not mandatory for the owners to have their boats gauged; indeed the Wheatcrofts did not register any of their boats until after German joined the business in 1809. The gauging weigh-houses were some distance from the Cromford Canal on the Trent at Nottingham and at the southern extremity of the Erewash Canal. It appears that many boats which only plied between Cromford and the coal pits were never gauged and registered.

As well as the gauging details, the data given in

the gauging registers generally includes the names of the owner and master, the date the boat was built (and by whom) or the date bought if second-hand, and the traffic or route for which it was normally employed.

The fleet sizes at particular dates have been estimated as follows. The average life of a boat has been assumed to be 20 years in the case of a coal boat (i.e. one without a floor or covers, or one stated to be used for the coal trade) and 15 years for boats with floors and covers. The fleet size is then calculated from the highest and lowest fleet numbers of boats registered during the relevant period. In the case of German Wheatcroft & Sons' fleet, the large number of gaps in the recorded fleet numbers is explained partly by some boats not having their numbers recorded in the registers, and partly by the firm's boats on the Peak Forest Canal, for which there are no equivalent registers.

Many of the Cromford Canal navigation permit books from the tollhouse at the bottom lock at Langley Mill survive for various periods between 1814 and 1849 and also 1878, chiefly in the Derbyshire Record Office, Matlock. These give further details of the places served and traffics carried, and enable the normal service frequency and round-trip times to be assessed. There was a second tollhouse at Bullbridge, but none of its permit books are known to survive.

Directories for the larger towns generally start to become available from the early 1800s (earlier for London), and county-wide directories from about 1820. They are an invaluable source of information on carriers, the places they served and their service frequencies. They are the only source of information, for example, on the Wheatcrofts' road carrying services. However, they must be interpreted with care, as the carriers clearly included in their lists of services towns that were in fact served by other carriers with whom they connected. A much more reliable indication of the places served by a carrier is the references to specific wharves, warehouses and inns.

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Going 'Up Country':

Gloucestershire boatmen in the nineteenth century

Hugh Conway Jones

During the nineteenth century, hundreds of Gloucestershire men were employed on narrow canal boats that carried cargoes to and from the Midlands via the River Severn. This paper traces the development of this mode of transport and provides new insights into the working of trips 'up country'.

In the eighteenth century, most of the vessels trading on the River Severn were barges and trows (henceforth collectively referred to as barges) based in the up-river towns and the Ironbridge Gorge. A well-known survey in 1758 recorded 245 vessels from Shropshire, 97 from Worcestershire, 18 from Tewkesbury and only 7 from Gloucester.¹ Many of these vessels were carrying a wide range of general cargoes between places on the river, with some continuing to and from Bristol, while others were delivering Shropshire coal as far south as Gloucester.² Goods were landed at Gloucester on the riverside Quay, where there were warehouses run by agents for the carriers.

The opening of the Staffordshire & Worcestershire Canal in 1772 brought a new supply of coal to the river, conveyed to Stourport in narrow canal boats from collieries in Staffordshire. It is likely that this encouraged Gloucester men to invest in barges so they could collect coal for themselves, and certainly barges owned by the Thames & Severn Canal Co. began to make regular trips to Stourport in the 1780s to pick up coal that had come from Bilston.³

swamped, their cargoes sunk and their crews drowned.⁴ However, these fears were evidently overcome around 1815-20 when narrow canal boats did start using the lower river, thus allowing coal to be carried the whole way from Staffordshire collieries without any need for transshipment.⁵ This development was no doubt inspired by the opening of the canal basin at Gloucester in 1812 (which provided a safe mooring off the tidal river) and by the opening of the Worcester & Birmingham Canal in 1815 (which provided a more direct route from the Staffordshire collieries). Nevertheless, when the first boat came to Gloucester laden with coal, the voyage was considered to be so hazardous and of such an extraordinary nature that many people came down from Worcester to witness its arrival.⁶



Gloucester basin in the 1820s with a narrow canal boat extreme left (Gloucestershire Archives)

Canal Boats on the Lower River

In the early nineteenth century, narrow canal boats were not used on the river below Worcester because it was thought that the boats would be upset and

The success of the first canal boat to bring coal to Gloucester inspired others to follow suit, and this led to the development of boat ownership in Gloucester and to Gloucester men going on trips 'up country'. To serve these new owners, two shipwrights moved down from Stourport. John Bird

leased land beside the canal basin to build a dry dock in 1818, and Edward Hipwood established a yard on the river near Westgate Bridge by 1822.⁷ The 70ft long by 7ft wide canal boats must have looked very strange to local people, being longer than most of the barges then using the river, and they were soon being called 'long boats'.⁸

This term was widely used in Gloucestershire for over 100 years, although elsewhere in the country they became known as narrow boats. Sadly, the fears of the sceptics were occasionally justified. At least one early canal boat was sunk in the Severn by the wash of a passing barge. The boat was so heavily laden with coal that her gunwale was almost level with the water, and when she was swamped, three men and a boy on board were all drowned.⁹ To minimise this risk, it became common for boats using the river to be built with an extra plank, so they still had a few inches of freeboard when carrying the usual load of 30 tons.¹⁰

boatmen. Four of the Gloucester merchants had been born in Worcestershire and one in Shropshire, presumably moving south to take advantage of the new opportunities.¹² Although most trips 'up country' involved delivering imports to the Birmingham area and returning with Staffordshire coal, some



Ships in the basin at Gloucester discharging cargo to narrow canal boats

Opening of Gloucester & Sharpness Canal

The opening of the Gloucester & Sharpness Canal in 1827 provided an additional stimulus to boat ownership in Gloucester as there was a need to distribute the cargoes being imported via the canal. Some existing carriers began to use canal boats, such as Humphrey Brown who had eleven boats working between Gloucester and Birmingham by the early 1830s. Some of the new merchants based at Gloucester owned their own boats, such as corn merchant J P Kimberley had two boats gauged in 1835.¹¹ The opening of the canal also encouraged local coal merchants to own their own boats, with the expectation that they could usually obtain a cargo of imports to carry 'up country' when going to collect coal from Staffordshire. In 1837, a group of such owners who signed an announcement in the local paper included nine who can be identified as Gloucester coal merchants, two from Maisemore and one from Hardwick, together with several owner

Gloucester-based boats occasionally used the Grand Junction Canal, presumably on their way to Leicester or Northampton. In the 1830s, these included boats owned by four coal merchants, corn merchant J P Kimberley, ship and boat builder William Hunt and general carrier William Partridge.¹³

The opening of the Gloucester & Sharpness Canal also made it practicable to have canal boats based on the Stroudwater and Thames & Severn Canals travelling to the Midlands to collect coal. In earlier times, the tonnage books for the Stroudwater Canal often show cargoes of 50 to 60 tons of coal (evidently in barges) being carried from Stourport, but from 1828 cargoes of around 25 tons from Tipton (evidently in a canal boat) become increasingly common.¹⁴ The toll collector at the junction of the Stroudwater and Gloucester & Sharpness Canals had no provision for gauging vessels as, on the ship canal, it was normal to rely on a ship's documentation to determine the tonnage due. When there was concern that some boat masters were giving false accounts of their cargoes, the toll collector was directed to

examine the tickets that the boats brought back after their cargoes had been weighed at the place of delivery.¹⁵ As more boats were owned in the Stroud Valley, so more local men (particularly from the Chalford area) became involved in collecting coal from the Midlands. Narrow canal boats were also based in Tewkesbury and Newent (on the Herefordshire & Gloucestershire Canal), but early information about these centres is limited.

As more canal boats were based in Gloucestershire, local boatmen developed special techniques for working boats on the river. Surviving inventories for Humphrey Brown's boats show that as well as the usual towing mast, planks, side cloths and top cloths, most also had a 'Severn mast', 'rigging' and a 'sail' for use when drifting down the river. Some even had two 'oars' for additional help when the wind was light. Two 'rowagers' were apparently used in connection with the oars, possibly being some form of outrigger. A 'kedger' was doubtless a small anchor for use on the river. In the cabin was 'a stove and pipes' with 'fire irons', 'coal box', 'kettle', 'saucepan', 'frying pan' and 'Dutch oven' - a cast-iron cooking pot with a tight-fitting lid. Further items included a 'lanthorn', a 'ticket can' for storing documentation, and sometimes a 'mop', a 'rug' and/or a 'bed'. As the latter two items were only noted occasionally, it seems that the boat crews were normally expected to make their own arrangements.¹⁶

Diglis Traffic in 1845

In the early 1840s, locks were constructed on the River Severn to improve the navigation in the face of growing competition from railways. One early register has survived for the locks at Diglis, just south of Worcester, and this shows the movements of boats and barges in February 1845.¹⁷ For the vessels identified as boats, which carried up to 30 tons of cargo, there were 355 movements up the river and 415 down, the difference presumably representing empty boats which were not logged. The northern end of each trip was usually recorded as Worcester (72%) or Stourport (22%). Only a small number (6%) were recorded as visiting Birmingham, but as all of

the boats were able to pass along the midland canals, it is reasonable to assume that most of the others did so too.

	Worcester		Stourport		Birmingham etc		Totals
	up	down	up	down	up	down	
South Worcestershire	17	31	7	15	0	0	70
Tewkesbury	31	63	12	15	1	0	122
Coombe Hill	1	31	0	0	2	0	34
H&G Canal	30	32	10	3	4	0	79
Gloucester	153	148	40	53	28	0	422
Stroud canals	4	16	7	8	8	0	43
Totals	236	321	76	94	43	0	770

Boat movements through Diglis Locks, Worcester in February 1845

The southern end of each trip was generally Gloucester (55%) or Tewkesbury (16%), but others ended at places on the Herefordshire & Gloucestershire Canal (10%), in south Worcestershire (9%), on the Stroudwater and Thames & Severn Canals (6%) and on the Coombe Hill Canal (4%). The vast majority of these boats were carrying coal (or sometimes salt) down the river and taking timber, grain or hay (or sometimes metals or minerals) up the river. Most of the timber and grain taken up the river had no doubt been imported through the docks at Gloucester, but boats from the Stroud valley sometimes carried beech planks or gun stocks that had presumably come from locally grown trees. Hay was loaded from many canal and riverside meadows for town and colliery horses in the Midlands. Surprisingly, some coal was carried up the river, and it is assumed that this was anthracite from South Wales on its way to maltings in the Midlands. Two boats from Gloucester carried potatoes to Birmingham and another carried fruit to Manchester, but these were exceptional. Salt was carried down the river from Worcestershire for export from Gloucester as well as for local consumption.

The register also records the surnames of owners, which may in some cases refer to the person managing the business of the boat rather than the legal owner. A study of boat names and recorded owners showed that the movements discussed above were made by 464 different boats, which implies that each boat on average made a round trip every 31 days. As later evidence shows that a trip to the Midlands and back actually took 10 to 15 days, it is evident that being a

boatman was not a full-time occupation. The vast majority of recorded owners had just one or two boats, and few had more than four. As only the owner's surname is recorded in the register, it is difficult to identify specific individuals, but many names do match up with known coal merchants based where the coal was delivered, and other names were no doubt owner-boatmen who supplied coal merchants. Those having larger fleets included two carriers who normally handled mixed cargoes, known as sundries - Henry Southan Jnr of Gloucester (17 different boats) and William Partridge of Gloucester (8 boats). Clay & Newman of Droitwich operated 6 boats carrying salt.

Lincomb Lock Traffic 1853

Clearer information about boat ownership (or in some cases effective ownership by a manager) is provided by a register of downstream vessel movements for April to September 1853 through Lincomb Lock, just south of Stourport.¹⁸ Each entry gives an initial or first name for each owner and master, and this allows owner-boatmen to be identified and other owners to be linked with entries in trade directories or census records. It was found that the register recorded 218 different boats, of which 48% were owned by the master, 25% by coal merchants, 14% by other merchants and 4% by carriers. The remaining 9% were not clearly identified. Almost all were on their way to Gloucestershire, although a very few were heading for Hereford. The proportion of owner-boatmen is very much higher than other contemporary figures reported by Hanson,¹⁹ presumably reflecting the lack of any major coal carriers on the Severn. Several of the coal merchants had two or three boats while William Knee of Stroud had four and Rice & Sons of Tewkesbury had seven. The only major fleet was that of William Partridge, a carrier who had recently set up in Gloucester as an iron merchant. He had 27 boats carrying over 400 tons of iron a month to Gloucester, presumably for transfer to coastal shipping. It should be remembered that the sample being analysed only comprises boats passing down river from Stourport and that around three times as many Gloucestershire-bound boats would have been joining the river at Worcester (based on the 1845 figures).

Up to this time, boats had been towed up the river by horses, but in 1854 two powerful tugs were brought into service. Towing six barges and four canal

boats, one of these left Gloucester after four in the afternoon and arrived at Worcester at nine the following morning.²⁰ This was less than half the time it took with horses. When Upper Lode Lock was built near Tewkesbury a few years later to improve the navigation, it was given an extra-large chamber which could accommodate such a tow in one locking.

The carrying of general cargoes on the River Severn had mainly been by barge, but the merger of the last two major carriers in 1873 to form what became the Severn & Canal Carrying Co. led to a greater use of canal boats for such cargoes. The new company built up a fleet of around fifty boats that interchanged cargoes at Gloucester with barges trading to Bristol and other channel ports. These boats did not normally carry coal.²¹

Boat Owners and Crews in 1881

A further review of boat ownership in Gloucestershire around the time of the 1881 census has been obtained from the first Gloucester canal boat register and from tonnage registers for the Stroudwater Canal.²² The Gloucester register records 165 different boat/owner/master combinations in the period 1879-81, and the Stroudwater registers record 43 such combinations (for canal boats) during March and April 1881. Of this total sample, 37% of the boats were owned by coal merchants, 21% by other merchants, 23% by the Severn & Canal Carrying Co., 8% by owner-boatmen and 11% by other boat owners/carriers. Compared with 1853, these figures show a drastic reduction in the role of owner-boatmen, a greater role for coal and other merchants and the beginning of the rise of the Severn & Canal Carrying Co. These changes no doubt reflect increasing competition from the railways and the major trade depression of the early 1880s, but there is scope for further study of these matters.

The sample above was taken at the time of the 1881 census so that complementary information could be obtained about the whereabouts of the boatmen from the on-line transcription of the census returns.²³ Searches for matching names and occupations identified 75 Gloucestershire masters in the sample who were in their own homes and 81 who were on their boats. For those at home, most Gloucester men lived in the many terraced houses close to the river on the west side of the city. These 'westenders' formed a close knit community, and there was much inter-marriage between the boating

families. Many baptisms and weddings were celebrated at the parish church of St Nicholas, while others took place at the Mariners' Chapel in the docks where the chaplain took a close interest in the well-being of the boat families. A few boatmen married girls they had met on trips 'up country', but such events were not common.²⁴

The masters who were on their boats were recorded at places along the Worcester & Birmingham Canal, the Staffordshire & Worcestershire Canal and around the Birmingham Canals, including some in the Cannock Chase coalfield. 52% of masters were accompanied by another man, 26% by a wife and one or more children, 7% by just a wife and 9% by just a child. A few years later, a survey of all boats using the Worcester & Birmingham Canal found a rather higher involvement of families. William George told a select committee in 1884 that about 10% of the boats using the canal were owned by the steerer, 41% had women on board and 28% had children. George said that the boating families generally had homes on shore as well as residing at times in the boats, and it was common for a father to take a teenage son to help work the boat, allowing the mother and young children to stay at home. When trade was bad, however, families could be forced to give up their homes on land, and this also increased the number of children on the boats.²⁵

In his evidence to the select committee in 1884, William George also said that a crew earned about £3 10s in a fortnight, finding all the human power necessary to work the boat and paying for the stabling of the horse. The boat owner provided the horse and its keep or paid the master to find this. The pay had decreased in recent years due to competition from the railways.²⁶ To help meet railway competition, it was common for boats to travel up the river at night, as this allowed cargoes to be delivered to many customers as quickly as by rail. Gloucester timber merchant Thomas Thorpe told a select committee in 1883 that timber loaded in Gloucester on a Monday could get to a canal-side yard in Birmingham on Wednesday and to Wolverhampton on Thursday. The railways could not deliver any faster because of delays while shunting and the need for local delivery by cart. For customers who did not have a yard beside the canal or who only wanted less than a boatload, Thorpe sent the timber by rail.²⁷ For a complete trip returning to Gloucester with coal, records for half-a-dozen boats operating in 1881 show that the time taken was generally between 10 and 15 days, and they averaged a trip every four weeks.²⁸

Letters to James Smart of Chalford

More detailed information about the working of these trips 'up country' to collect coal in the 1880s and 1890s can be gleaned from a remarkable set of letters sent to coal merchant James Smart of Chalford by his boatmen and business contacts. These letters show that, as well as being literate, boatmen were trusted to handle money and occasionally served as agents for their employer's business.²⁹

Although some boats must have been empty on the outward journey, many letters do refer to cargoes of timber or corn. For example, Messrs Webb & Spring at Ebley Saw Mills wanted 400ft of round beech to be taken from Cirencester to Birmingham, and a Cardiff timber merchant wanted eight or nine boat-loads of deals to be taken from Gloucester to Birmingham and Oldbury. Boatman John Webb wrote from Cropredy on the Oxford Canal saying that he had a load of green timber for Wolverhampton and Willenhall. Another boatman, Thomas Gardiner, wrote from Cirencester reporting that he could not load 80 sacks of wheat as had been intended because he could not obtain any hurdles to put under the sacks to prevent the wheat being damaged by bilgewater.³⁰

After discharging the outward cargo, the boats went on to collect coal from one of the collieries in the Cannock Chase coalfield. Those mentioned in the letters include Conduit Colliery No 3 (Jerome) on the Cannock Extension of the Birmingham Canal Navigations and Cannock Old Coppice Colliery on the Churchbridge Branch of the Staffordshire & Worcestershire Canal. Another collection point was Hednesford Basin at the top end of the Cannock Extension. It seems that the choice of where to go and what type of coal to collect was sometimes left to the last moment as several boatmen asked for instructions about such matters to be sent to the Bar Lock in Birmingham. Boatman John Webb did not receive his instructions to go to Hednesford until he reached Cannock, and he wrote back confirming that he had loaded 'slack and black ones at the old side'.³¹

Many of the letters included a request for money, typically a few pounds, to be sent to the colliery, a local post office or a canal office — always with a plea to respond by return of post. These sums were effectively an advance on wages that were normally paid at the end of the trip. One boatman obtained an advance of £2 10s from the colliery at which he was loading, and the management later asked Smart for repayment. Another boatman, who was going to be

late home, asked Smart to let his wife have £1 to settle his (benevolent) club if she wanted it.³²

A request for money was often linked with a report of a delay due, for example, to being caught in a stoppage, low water on the Birmingham Canals or having to wait to load or unload an outward cargo. Boatman John Webb wrote from Wolverhampton that he and his mate were on strike as the receiver of their cargo wanted them to carry and stack deals without pay, and he didn't know how or when the matter would be resolved. Boatman Walter Pearce reported being held up all day in the Birmingham area due to fog which was so bad that two other Gloucestershire boats had met with accidents

reported included a freight payment not being as high as expected and a failure to collect any freight charge at all because the quantity of cargo was short. After boatman Thomas Gardiner had had to pay more than expected for help with loading timber at Upton, he asked for ten shillings to be sent to Gloucester Lock as he had nothing left to pay the canal tonnage charge on the way home.³⁴

As well as dealing with cash, boatmen occasionally helped the business by providing intelligence. Having talked with a potential customer who needed some ash poles moving, Smart's brother Jesse wrote that he believed they would get the job if they could match the railway rate of 10s per ton, as using boats would save the customer some haulage costs. When Henry Stephens reported that four pretty good top cloths were on sale for one pound, Smart promised to pay for them, but Stephens had to write again saying the seller would not part with them without being paid cash.³⁵

Boatman John Webb found himself in a difficult position when his crew went missing. While the boat was towed up the River Severn by a tug, the crewman went ashore at Worcester to collect a horse that would be needed for the onward journey up the Staffordshire & Worcestershire Canal. He was supposed to walk with the horse to meet up with the boat at Stourport, but he was never seen again. Webb wrote to Smart from Stourport explaining what had

happened and saying that he would go back down the road hoping at least to find the horse. As he did not expect to find the man, he asked Smart to be ready to send a replacement following receipt of a confirmatory telegram.³⁶

Some letters concerned infringements of the Canal Boat Act that was intended to ensure boats were kept in good condition and did not carry more than a stipulated number of people. For example, the City of Birmingham Health Department threatened prosecution if a case of overcrowding on the boat *Industry*, first reported two months earlier, was not remedied immediately, and Thomas Gardiner asked



A narrow canal boat, with coal for Chalford, pausing opposite Bakers Quay, Gloucester

resulting in a smashed helm and a broken gunwhale. One winter, the dock at Gloucester was frozen solid for so long that boatman William Staddon returned home, and Henry Stephens reported that over 50 boats and about 10 barges were held up. Two boatmen reminded Smart of the need to send a cheque to the colliery to pay for the coal, suggesting that previous visits had been delayed by payment not being to hand.³³

Further letters concerned the boatman's role in managing the business of the boat, which included paying canal tolls, paying for assistance with cargo handling and collecting the freight charge for the outward cargo when appropriate. Specific difficulties

for his boat's registration certificate to be sent urgently as a Boat Inspector had threatened to summons him for not having one.³⁷

Several letters mentioned arrangements for returning home, often stating on which day the boatman expected to be catching the tug down the river to Gloucester. Most of these were written from Birmingham, indicating that this was the normal route back from Cannock Chase, but there was an alternative. Boatman Walter Pearce evidently intended to return via the Staffordshire & Worcestershire Canal, but he sent a postcard saying that the Churchbridge Locks were stopped and so he was coming the Birmingham way. On another trip Pearce wrote asking whether Smart wanted any salt — occasionally a ton of salt was collected from Stoke Prior and space needed to be left for this when loading with coal. As well as replenishing his own stock of coal at Chalford, Smart's boats also delivered to other wharfs along the Stroudwater and Thames & Severn Canals. Hence some returning boatmen asked for instructions to be sent to Gloucester Lock if any cargo needed to be discharged on the way back to Chalford, one mentioning the need for scales and weights to be available.³⁸

Conclusion

Gloucestershire boatmen continued to make trips 'up country' well into the twentieth century. Although only about a dozen boats were regularly bringing coal to Gloucester by 1925, the Severn & Canal Carrying Co. still had about sixty boats carrying general cargoes between Gloucester and Birmingham, and another ten were owned by other carriers.³⁹ The life and times of the men and women who carried on working the boats for a further twenty years have been recorded elsewhere,⁴⁰ showing much in common with the findings of the present study. It is now apparent that many of the boatmen of that later period came from families who had long been associated with the river — names such as Brown, Dunn, Lee, Mann, Mayo, Parrott, Spiers, Stokes and Tonks regularly appear in records back to 1851 or even earlier. Evidently the skills needed to work the boats were passed on from one generation to another

throughout the 125 years that Gloucestershire men were going 'up country'.

Appendix — Barge Traffic Though Diglis Locks 1845

To complement the summary of boat movements through Diglis Locks in February 1845 given in the main text, this Appendix provides a corresponding summary of barge movements recorded in the same register.⁴¹ Vessels identified as barges or trows (both subsequently referred to as barges) carried up to 60 tons of cargo. During February, the number of barge movements recorded was 158 going up river and 159 coming down. A study of vessel names and owners showed that these movements were made by 116 different barges, which implies that on average each vessel made a round trip every 20 days.

	Worcester		Stourport		Shropshire		Totals
	up	down	up	down	up	down	
South Worcestershire	3	5	0	0	1	1	10
Tewkesbury	8	10	2	1	1	6	28
Gloucester	25	27	15	15	34	41	157
Stroud canals	0	0	0	0	0	1	1
Bullo Pill	7	0	17	0	0	0	24
Bristol	20	24	25	28	0	0	97
Totals	63	66	59	44	36	49	317

Barge movements through Diglis Locks, Worcester in February 1845

About half of the total movements were by barges carrying mixed cargoes known as sundries between Stourport, Worcester, Gloucester and Bristol. The principal owners were Pickford & Co. of Worcester with 16 different barges, Benjamin Devey of Stourport with 14 barges and Danks Venn & Co. of Stourport with 8 barges. Only three barges carried coal down river from Stourport, showing that the former traffic of this nature had largely been taken over by canal boats. A further quarter of the barge movements were due to salt from Droitwich and some minerals going down river with pig iron from Bullo Pill and some other metals, timber and grain going up river. The remaining quarter comprised Shropshire barges carrying coal, metals and bricks to Gloucester (with some to Tewkesbury) and returning with hay, timber or grain. As heavily laden barges could only navigate the upper river (above Stourport) when there was sufficient fresh water following heavy rain, these barges sometimes travelled in groups. In the middle

of February, 14 barges passed down river during two consecutive days, and at the end of the month, 15 barges passed in one day.

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William Reynolds and the East Shropshire Tub-boat System

Neil Clarke



William Reynolds

Introduction

Among the tributes paid to the late-18th century ironmaster William Reynolds, during his lifetime and since, that of the Victorian writer Samuel Smiles touches on the attributes described in this paper. Smiles wrote that Reynolds was 'a man of eminent ability, well-versed in science and an excellent mechanic'.¹ In addition to being an ironmaster on good terms with industrialists such as Richard Crawshaw and John Wilkinson, and a scientist able to count the chemist Dr Joseph Black and the geologist William Smith among his acquaintances, Reynolds was also a canal builder who rubbed shoulders with the likes of William Jessop, Benjamin Outram and Thomas Telford.

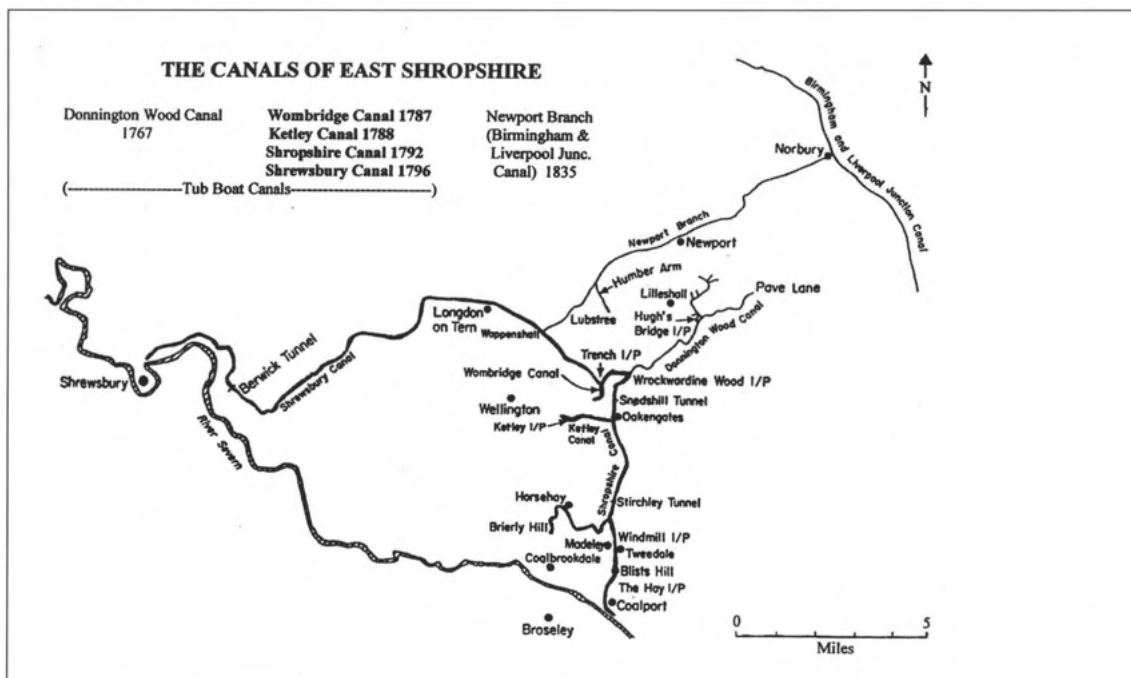
Born in 1758, son of Richard Reynolds, a Bristol merchant and Ketley ironmaster, William Reynolds in his early twenties became a partner in the Coalbrookdale Company, which by the 1780s was

probably the largest single iron-making concern in Great Britain.² The leading members of this Quaker partnership were Abraham Darby III, his brother Samuel, and their brothers-in-law Joseph Rathbone and Richard Reynolds. The partners' large industrial empire comprised iron works at Coalbrookdale, Horsehay, Ketley, Madeley Wood and Donnington Wood, and also mines leased in every parish of the Coalbrookdale Coalfield between the Severn Gorge and Lilleshall. Successive Company managers had taken innovative steps to improve transport facilities between the various sources of raw materials and their works, between the works themselves, and between the works and the River Severn, which was the main transport artery outlet for the area in the late 18th century. They promoted the turnpiking of local roads, introduced the first iron rails on a network which soon exceeded 20 miles of track, and played a leading role in building the world's first iron bridge. In the late 1780s, William Reynolds took the first steps in building up a canal network in East Shropshire that would link the mines and ironworks of the Coalfield with the River Severn and with the county town.

This would mean his involvement, between 1786 and his death in 1803, in the promotion, construction and management of four of the five tub-boat canals that made up the network.

Promotion

When in the early 1780s he joined his father Richard in the management of the Ketley ironworks and he and his brother Joseph opened an ironworks at Donnington Wood, William Reynolds looked to improving the transit of raw materials to these furnaces. Limestone for fluxing was already being brought from quarries at Lilleshall in tub boats of 3-ton capacity along the Donnington Wood Canal, which had been opened by Earl Gower & Co. in 1767.³ Reynolds was clearly impressed by the potential of this means of transport, and planned the construction of two such tub-boat canals to carry minerals to his two ironworks. A canal carrying newly-found deposits of coal and iron ore from



Wombridge Common $1\frac{3}{4}$ miles to Donnington Wood ironworks was opened in 1787 and the following year a $1\frac{1}{2}$ -mile canal was opened from mines in the Oakengates area to the ironworks at Ketley. To build these private canals, Reynolds needed the agreement of the local landowners, the Marquess of Stafford and St John Charlton.⁴

However, a much larger project in his mind at the time, and one that would need legislation to implement, was a waterway that would carry the produce of the northern part of the Coalfield to interchange basins on the River Sever and that would, for Reynolds, link the ironworks at Ketley with the partnerships' other works at Horsey and Coalbrookdale. The idea of such a canal from the Oakengates area to the Sever had first been mooted in 1786, and Reynolds himself made a preliminary survey over the 8 miles or so of the undulating terrain of the Coalfield plateau the following year. He reported this to his brother-in-law William Rathbone in January 1788:

Indeed I have my hands full...we are making a canal from Oakengates to Ketley, and have between 2 & 300 men at work upon it; and as I am head and subschemer, engineer and director, and have besides and re-survey, I have had scarcely time to do anything but think of them.⁵

The campaign for the canal continued apace in the early months of 1788; several public meetings were

convened to sign up potential subscribers of shares; and William Reynolds and his father eagerly solicited local industrialists and landowners for their support for a scheme which, they claimed, would 'open a communication between the said river and several valuable mines of coal, ironstone, lime and other extensive works and be of great public utility'. In fact, it was as a result of the petitioning of one of their fellow industrialists, John Wilkinson, that the Act of Parliament of June 1788, which authorised the building of the Shropshire Canal, actually extended its intended line one mile further north to a junction with the Donnington Wood Canal.⁶ At the southern terminus of the canal, at a point soon to be known as Coalport, Reynolds had plans to develop an industrial community.

If getting the produce of the northern part of the Coalbrookdale Coalfield, particularly coal, to the River Sever at Coalport was behind the promotion of the Shropshire Canal, the same group of promoters likewise saw the potential of a canal that could carry coal from the Oakengates area to the county town. They were fully aware of the complaints about the effect of heavy coal traffic on Watling Street and the rising price of coal in Shrewsbury. Again, Reynolds played an active part in promoting the canal, though on this occasion there is no evidence that he did any of the preliminary groundwork. George Young of Worcester surveyed the route in 1792. Meetings of

interested parties were convened, such as the one John Wilkinson told Matthew Boulton he had attended in October 1792;⁷ and the original promoters were joined by major landowners along the route of the canal, including Lord Berwick of Attingham Park, John Corbett of Sundorne Castle and St John Charlton of Apley Castle. In the early months of 1793 members of the public were invited to subscribe for shares, and the Act for building the Shrewsbury Canal was passed in June. At its eastern end, the 17-mile canal incorporated a little over a mile of Reynolds's Wombridge Canal to give it direct access to the Donnington Wood and Shropshire Canals, and for this Reynolds was paid £840, half of what it had cost him to build the canal six years earlier.⁸

Construction

Having played a leading role in promoting these canals, William Reynolds contributed much technical input into their construction. Of major importance was his development of the inclined plane. It has been suggested that Reynolds heard about the Tyrone Canal's railed boat planes from William Jessop when the latter was surveying the Severn from 1784 onwards. Reynolds would certainly have been aware of the short self-acting wagonway inclines in use in the Severn Gorge. Whatever the origin of his idea, Reynolds built the first successful canal inclined plane in England on the Ketley Canal in 1788. A tub boat, measuring 20 ft by 6 ft-4 in. and carrying up to 8 tons of coal or iron ore, was secured to a submerged wheeled cradle in the top lock; when the water was released from the chamber, the wheeled cradle was lowered by rope down the railed slope, and the winding rope, passing over a drum at the head of the incline, hauled up a boat, either empty or carrying a load a third of the weight, on a parallel set of rails. In other words, the incline was worked by counter balancing, with a steam engine provided only to pump water back to the top lock chamber. On the incline Reynolds employed the L-shaped cast-iron plate rails recently introduced by John Curr at Sheffield Colliery.⁹

It was realised, however, that this pattern of incline would not cope with the expected heavier traffic on the three inclined planes being planned on the Shropshire Canal. Reynolds approached James Watt and John Wilkinson for advice and the canal company held a competition for suitable designs. The winning entry, from a field of eight designs, was that of John

Loudon, the company's surveyor, and Henry Williams. Williams was an engine erector for the Coalbrookdale partners, was close to Reynolds and most likely discussed with him what was in effect a modified Ketley design, with a sill and reverse slope at the top level instead of a lock, and a steam engine for lifting boats carrying 5 tons on cradles over the sill and for hauling them up the incline if required. This design was used on the three inclined planes on the Shropshire Canal and for that at Trench on the Shrewsbury Canal, and Reynolds took responsibility for building all four.¹⁰

The arrangement was somewhat different on the western branch of the Shropshire Canal. When it was decided by February 1791 not to proceed with the construction of the canal down the Coalbrookdale valley to the river, Reynolds on behalf of the Coalbrookdale Company proposed to build at Brierly Hill a tunnel-and-shaft system. Loaded containers, carried on tub boats, were wound down a 120ft. vertical shaft, at the bottom of which railway wagons standing in a tunnel carried goods out into the open and on to the Dale works; and a parallel shaft handled goods in the opposite direction. Reynolds appears to have based this design on that at Hugh's Bridge on the Donnington Wood Canal, where the branch to the Lilleshall limestone quarries met the main line at a lower level. However, at Brierly Hill the tunnel-and-shaft system was replaced after three years by a surface railway incline, and at Hugh's Bridge a replacement canal inclined plane was in use by 1796.¹¹

William Reynolds also contributed to the development of the iron aqueduct. The Shrewsbury Canal Company minutes for 14 March 1795 record that it was 'ordered that an iron aqueduct be erected at Longdon (agreeable to a plan to be approved by Mr Telford) by Messrs William Reynolds & Company'.¹² There has been much speculation as to whose idea it was to use iron. It has to be remembered that after the initial flush of enthusiasm at the time of the building of the world's first iron bridge in 1779, there was a revival of interest in the development of iron structures in the early 1790s; and two drawings in William Reynolds's Sketchbook, now in the Science Museum, suggest that he and Thomas Telford were very much involved in this. One is of the 1793-built 'A-frame' Pont-y-Cafnau at Merthyr Tydfil that had an iron trough aqueduct suspended beneath a tramroad platform; and the other a drawing signed by Thomas Telford and dated March 1794 for an iron aqueduct.¹³ In addition, Reynolds and Telford would surely have been aware, through

William Jessop, of the ideas on iron aqueducts of Benjamin Outram, engineer of the Derby Canal, and Robert Fulton, the American engineer who was one of the contractors for the Peak Forest Canal Company. So when Josiah Clowes, who had been appointed engineer under Reynolds of the Shrewsbury Canal, died and Telford, who was already General Agent of the Ellesmere Canal, was appointed in February 1795 to replace him, with a brief to make a plan and estimate of alterations to the unfinished Longdon aqueduct, it is perhaps no surprise that a month later the plans for an iron aqueduct were approved and the castings ordered. Telford later recorded that while the idea was suggested by Thomas Eyton, chairman of the committee, 'the principles of construction and the manner in which it should be executed', as he put it, were referred to Reynolds and himself.¹⁴ However, since Eyton was a landowner with no obvious technical expertise, it seems possible that Reynolds and Telford planted the idea of an iron aqueduct in his mind.

The aqueduct, completed by March 1796, had three sets of cruciform-section, cast-iron columns and diagonal struts on masonry footings; these supported a 62-yard long trough which had trapezoidal side panels bolted together through flanges. The ironwork, cast at Ketley, owed much to Reynolds's successful experiments with the casting of iron and the testing of the material's strength.¹⁵

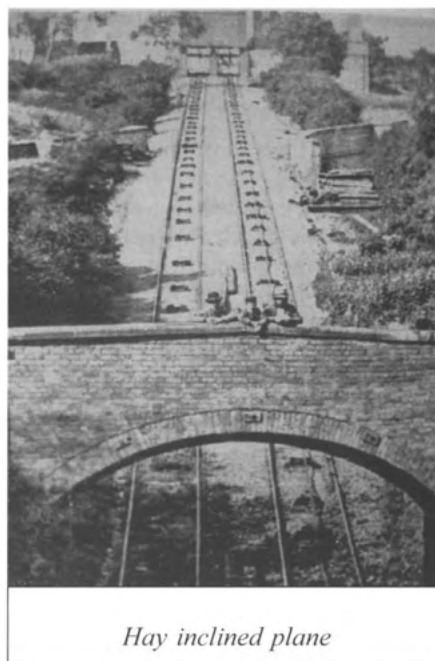
Another civil engineering feature on the East Shropshire tub-boat canals with which William Reynolds is associated are the tunnels. There were short tunnels on Reynolds's two private canals, longer ones on the Shropshire Canal, but at Preston on the Shrewsbury Canal a major tunnel was required. Designed by Josiah Clowes, a length of 970 yards was finally settled on for what became known as the Berwick Tunnel, but the question was raised as to whether a towpath was needed. At the canal company's committee meeting in July 1794, it was ordered that

Mr William Reynolds being of the opinion that a towing path will be necessary in the intended tunnel at Preston, it is proposed by the committee and agreed to by the contractors that the extra expense attending the making the said towing path and widening the tunnel in consequence shall be left to the determination of Mr Clowes.¹⁶

Reynolds recommended a 3ft wide wooden cantilever towpath in the tunnel, which was just over 10 feet in width. This was the first towpath in Britain to be provided in a tunnel of any length, although it

was removed some 25 years later.

A somewhat bizarre tunnel that Reynolds was responsible for was the so-called Tar Tunnel. This resulted from a level being driven into the north side of the Severn Gorge in 1786 at a spot which was soon to be near the bottom of the Hay (Coalport) inclined plane. The level was intended to serve as an underground canal to bring coal and iron ore from the mines below Blists Hill, but Reynolds's miners



Hay inclined plane

struck a spring of natural bitumen. Although the tunnel was used to drain and ventilate the mine workings, it was the bitumen that was commercially exploited, some being converted into pitch and some made into medicinal preparations.¹⁷

It was here at Coalport, at the southern terminus of the Shropshire Canal, where he gained control of land mostly through his father, that Reynolds helped develop an industrial community that within a decade of the canal's completion boasted porcelain and earthenware factories, a rope works, two chain manufactories and a timber yard where tub boats for the Shropshire Canal were built.¹⁸ These various works grew up on both sides of the canal which ran from the bottom of the inclined plane parallel with, and some 20 feet above, the river for half a mile to the Wooden Bridge, built in 1780. According to the survey plan and profile of the Shropshire Canal made in 1788, the original intention had been to lock down

to the river at this point, and there is a document recording payment for a pair of lock gates being built.¹⁹ But it was soon realised that the canal's tub boats were not suited to the more unpredictable nature of the Severn; so instead, coal and other bulk materials were conveyed down the 20-yard slope between canal and river by seven self-acting inclined railways on which ran vehicles called 'trams', which would tip into the holds of river barges on drawbridge-like constructions (as shown on the later Tithe Map). As the canal was being completed in 1792, Reynolds constructed a warehouse for handling small consignments, and this straddled the canal and stretched out over the river.²⁰

Within a decade, these developments earned praise from Thomas Telford, who acknowledged that 'the works at Coalport established by the genius and laudatory exertions of Mr William Reynolds are striking proof of the good effects of an improved navigation', and also from Archdeacon Joseph Plymley, author of *General View of the Agriculture of Shropshire*, who considered that 'Coalport...bids fair to rival Stourport'.²¹

Management

In addition to his efforts at helping to promote and build the network, Reynolds was also heavily involved in the management of the canals during their years of construction and beyond.

Following his sale of the biggest section of the Wombridge Canal to the Shrewsbury Canal in 1793, Reynolds shrewdly managed to arrange that his internal traffic on the former passed free of toll on the latter.²² But his use of the remaining western stump of the Wombridge Canal decreased after his sale in 1796 of the Donnington Wood furnaces to the partnership that was soon to become the Lilleshall Company. At this time the break-up of the Coalbrookdale partnership saw Reynolds take Ketley and Madeley Wood ironworks, and, after his death, Ketley and its canal was managed by his brother Joseph. When Ketley ironworks was closed in 1816, the canal from above the inclined plane to the ironworks was also closed.²³

Reynolds was a conscientious member of the committee that ran the Shropshire Canal. Elected to this committee at the first general meeting of the canal proprietors in June 1788, he attended 97 out of a possible 102 meetings between then and his death in

1803. Of the annual and special general meetings, he was present at 15 out of a possible 18 and was represented by proxy at three. Never a rich man, Reynolds showed his continued confidence in the viability of the canal by increasing his number of shares from 10 in 1788 to 21 by the time of his death. His respected technical and management skills on the committee contributed not only to the canal being completed within its original estimate of £50,000 but also to its instant success. The Company recorded its first dividend of 2½% in April 1793, after which payments were made regularly at a satisfactory rate, considering that the company, being controlled by industrialists, was keeping its tolls low in their interests. The dividend had doubled by the time of Reynolds's death, and peaked at 8% by the 1830s.²⁴

Reynolds was equally involved with the management of the Shrewsbury Canal. With 20 shares in the Company, he was one of the 12 leading shareholders. He attended 38 out of a possible 51 meetings in his ten years on the committee, pointedly chairing one in each of the first six years, and of the 14 annual general and special meetings he attended 11, with two proxies. His absence from committee meetings after 1799 may be attributed perhaps not only to bouts of ill health which led to his untimely death at the age of 45 in 1803, but also possibly to his move from Bank House at Ketley to the Tuckies at Jackfield, where he was involved in overseeing developments at Coalport. On the Shrewsbury Canal, coal traffic to the county town brought prosperity to the company, even if it did not lower the price of fuel to the townspeople; dividends rose steadily to reach £8.00 per share a few years after Reynolds's death, and peaked at £16.00 when the Newport branch linked the East Shropshire canals to the national network in 1835.²⁵

Conclusion

So what was the legacy of William Reynolds? The canals he helped to build continued to serve the area well during its greatest period of industrial prosperity in the early 19th century. His influence continued to be felt after his death through the work of his protégé, Henry Williams. Reynolds's right-hand man during the years of construction not only became engineer and manager of the Shropshire Canal in 1794 and Agent and General Superintendent of the Shrewsbury Canal in 1797, but was also to become a partner in the re-established Ketley ironworks in 1818 —

positions Williams retained until three years before his death at the age of 89 in 1842.

And what became of Reynolds's canals? His two earlier private ones did not survive the economic depression at the end of the Napoleonic Wars. Although the greater part of the main line of the Shropshire Canal closed in 1858, to be replaced by the London & North Western Railway's Coalport branch, the Hay inclined plane was still working until the 1890s and a mile-long section supplying coal to Blists Hill ironworks survived until the closure of the furnaces in 1912. On the Shrewsbury Canal, Trench inclined plane closed in 1921 after 125 years of continuous service; commercial traffic continued on the rest of the canal until the late 1930s, and although the canal was officially abandoned in 1944, it was not until the 1960s that much of it was returned to agricultural use.

Clearly, William Reynolds was a man of many parts.²⁶ But it seems that he himself regarded his work on canals as perhaps his most important contribution to human progress. For on his portrait, painted about 1796, a canal inclined plane (possibly the Hay) is depicted in the background and he is holding the plan for Longdon aqueduct in his left hand.²⁷ The survival and restoration of both structures are a fitting tribute to his memory.

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Waterways Campaigners and Twentieth Century Conservation Movements: towards new interpretations

Joseph Boughey

In 1973, Graham Palmer, the leader of the Waterways Recovery Group, which organised voluntary working parties, reflected that:

...accepting that in the present decade it now looks likely that the majority of the waterways that are worth restoring will be...that the popularity of the existing "pleasure" network will continue and very soon the demand for water, water space and leisure areas on the waterways will be near saturation point....We shall have played a major part in creating this situation and shall be justly proud of ourselves and perhaps of the waterways organizations that have helped bring this about....Remember also we may mutter "well it was the only way" it was "develop or die" in the old days, so we had no choice. Then looking out over acres and acres of floating pleasure plastic we may just wonder...was this really what we did it all for?

IS IT HELL — Restoration is worthwhile and will continue to be for some considerable time, but there must come the point when we as waterway enthusiasts — or even to use that 'in' word 'environmentalists' — realise that this must not be the limit of our ambitions. It was impressed upon me from my earliest days in the waterways that the function of the movement was essentially to provide a platform for those that believed in 'Civilised transport' and as one thing begets another, this would provide a direct contribution to civilized living.¹

He was already looking back over a cause that seemed partly to be won, but 25 years earlier, Tom Rolt, the secretary of the newly formed Inland Waterways Association (IWA), which represented the very small numbers of people then interested, could write:

It is a strange comment on our age to reflect that the custodians of what remains of the England of the spirit are no longer her appointed governors, but a number of voluntary Societies and private bodies engaged in a ceaseless struggle against that collectivist bureaucracy which has now inherited the illusions of industrialism... Yet the canals and rivers, threatened as they are by neglect, maltreatment and pollution, have hitherto had no organised body specifically devoted to championing their cause.²

Palmer and Rolt were both writing about waterways in Britain, but also about values, values which were seen to be under threat. They shared a

vision of waterways as part of a culture that could be threatened if track, vessels and buildings were to be lost. Palmer accepted that the narrow boats which had attracted Rolt would not form part of future transport, but felt that the waterways restoration movement should be about future transport as well as leisure. Yet what remains surprising is that so much progress should have been made in retaining the track, and that so little was permanently lost.

Since 1945, the serious use of smaller inland waterways in Britain for transport, especially the traditional forms by narrow boat, has almost vanished, while much of the associated built heritage has disappeared. However, their courses have been revived and developed for leisure, with greatly increased use of pleasure boats. Almost the entire mileage of waterways has been retained, while many waterways that were unnavigable in 1945 have been restored. The reasons for this major achievement have never been fully examined.

Successful revival has often been attributed to a small number of specified campaigning *individuals* (like Rolt and Palmer), with little reference to the *context* in which they acted. This article aims to consider their role, but also other explanations for revival, and to begin to assess waterways revival against the development and influence of other conservation movements in the postwar period. Much of this is exploratory, and awaits further studies. Although some examples are cited, there are no individual biographical details here or accounts of specific campaigns.

Accounts and explanations of revival

Published accounts have stressed varied explanations for waterways revival. The following approaches may be distinguished:

a. *Semi-hagiographical* approaches have attributed much, if not all, to specific individual waterways campaigners, without whose commitment much

would have been lost. This has tended to portray individual Davids fighting the Goliaths of disinterest or hostility from public authorities, politicians and the general public.³

b. *Institutional* approaches have stressed policy development, focussing on organisations, policy development and decisions. Generally, these have portrayed revival as a sound idea gradually worked through by interactions between growing enthusiast knowledge and commitment and official policy processes.⁴

c. *Factual* accounts have traced the progress of schemes, the formation and development of organisations and personnel involved. These accounts often do not set out to analyse the reasons for involvements and decisions.⁵

d. *Popular/anecdotal* accounts are less common, but these have focused on individual experiences, sometimes with humorous intent.

None of these approaches has proved able to fully explain why so many waterways were retained and developed for leisure. They have also often tended to prove *partial* in another sense, stressing one form of explanation to the exclusion of others. Without dismissing earlier work, fuller discussions require new interpretations. One task is to shed light on explanations for revival, but another is to consider the background to the individual experiences of people who were 'waterways campaigners'.

Most histories of those who worked on or around waterways deal with people who were able to exercise very limited discretion over the kinds of lives that they led. Sadly, for most people, their ability to define the content of their lives has always been limited to choices within highly circumscribed conditions. Only a fortunate few have managed to escape or transcend the lives set out by their class, family and occupations, or have enjoyed an exalted position from the outset.

Those who campaigned for the retention and restoration of waterways involved very different sets of ideas and choices. Varied as such people were in background and experience, they were able to decide to campaign free from any direct economic or institutional pressure, in their leisure time. Even when constrained by employment or other positions (such as external political affiliations), many were able to define, join or leave specific causes as they saw fit. As their experiences were influenced by active choice rather than passively reflected, their motives become paramount, in considering why some participated initially and how involvement might have changed

their perspectives. These become a legitimate focus for enquiry, whereas by contrast the inner world of individual waterways workers, interesting as they might be in some contexts, could be seen as peripheral to history. Even in labour history, individual workers, especially those associated with waterways, bore little influence over the development of institutions of the labour movement.

A further feature of these 'waterways people' is that many are still living, or if not, are well-remembered by those who have survived. Many have left behind writings, sometimes copious, sometimes fragmentary, and sometimes private papers. These provide an opportunity to evoke and consider their motives and feelings, in ways that could rarely prove available now for other waterways people.⁶

The freedom to choose activities in leisure time is subject to strong cultural influences, which would indicate why some valued the waterways and saw protection and change as desirable. Political culture would indicate whether individuals and groups could influence the future of waterways — and thus the context for participation generally, and (often) local power and influence.

An example of political culture lies with the backgrounds of those who founded the Inland Waterways Association in 1946. They would find it familiar to form new organizations to further aims, reflecting their experience of political culture. Specifically, Aickman cited the Light Railway Transport League (founded 1937), of which he was a member, and the Friends of Canterbury Cathedral (1927), both pioneering organizations. Rolt had helped to found the Vintage Sports Car Club (1934), and cited the Society for the Protection of Ancient Buildings (1877), in which he was involved, and the Council for the Preservation of Rural England (1926). His draft of the IWA rules used those of the Newcomen Society (1920). Charles Hadfield would go on to found several organizations, but his main involvement had been in trade unions and the Labour Party.

It does not follow from this that there was an automatic correspondence in ends and methods between these earlier organizations and influences and the new IWA. Hadfield found little support from mainstream Labour or union contacts in his short involvement with the society, while Rolt's cousin, the Labour M.P. Dr Stephen Taylor, did not prove to be interested. The LTRL early splintered into separate wings, one pursuing an enthusiast interest in historic

tram systems (which led to the Tramway Museum Society), and the other in militant campaigning; the latter approach perhaps was closest to that first adopted by the IWA. This, and personality differences, would prompt the divisions within the organization in 1950.

This single case, of the most influential organization in postwar revival, illustrates the diversity of environmental interests involved. SPAB and the National Trust did campaign for landscape and heritage conservation, although the latter did so in a consensual manner with a close direct fiscal relationship with government after 1936. Bodies like the VSCC, and the Little Ship Club (founded 1926; IWA founders Luard and Eyre were members) represented enthusiasms, rather than campaigning. The CPRE pressed for the conservation of landscape, appropriate land use planning and design, and an element of rural cultural conservation.

More general cultural influences can thus be considered, like the meanings attached to countryside and landscapes, to 'traditional' narrow boating, or leisure activities like pleasure boating — and in movements to conserve such features. The influence of literature and other media upon the development of these meanings should be stressed, including the production of supportive media. Writers like Rolt and Hadfield were influential and informative, as were periodicals like the IWA *Bulletins* and later commercial magazines like *Waterways World*. While meanings might vary from individual to individual, much was held in common, and collectively promoted.

Waterways campaigners, supporters and concerns

What is meant by 'waterways campaigners'? These came from the much larger ranks of 'waterways enthusiasts', many of whom would be interested in historic waterways or pleasure boating, but might have only paper membership of organisations. Many would join voluntary organizations like canal societies or the Inland Waterways Association, whose main concern was waterways revival. This parallels the growth of membership in many environmental organisations, in which many members loosely support policies but focus on member benefits.⁶ For some, waterways revival was their central interest, whilst others held or shared other concerns. These could include general conservation, history and

heritage, boating as a leisure activity, or commercial involvement (the latter indicated by the many small business operators, from hotel boats to craftspeople, fuel merchants and carriers). Individuals could pass through one category to another, while some lost enthusiasm altogether.

A very different group of 'campaigners' were those who supported revival but within the constraints of employment and policy. From the 1960s, these would include chairmen of the British Waterways Board like Sir John Hawton and Sir Frank Price, who promoted different agendas to the voluntary enthusiasts.⁷ After the 1960s, growing numbers of public authority officers and professionals became supporters; Douglas Tattersall, chief executive of a council along the line of the Peak Forest Canal promoted a major legal action to force its reopening.⁸

Waterways campaigners would pursue causes that changed over time, as political and economic viability grew or faded. Over the waterways network itself, campaigning changed from attempts to protect most or all of it, from decline and closure, through to a later emphasis on its extension through restoration and the promotion of new links.

Initially, revival often envisaged traffic use, whether using traditional or modern craft, but support for adaptation and revival for leisure use soon became paramount. Although it was advocated in principle, the restoration of navigation began in practical terms with Linton Lock and the Lower Avon Navigation from 1950, and accelerated as waterways like the Stratford Canal and Ashton and Peak Forest Canals became more prominent. The conservation of heritage and landscape, beyond the retention and maintenance of navigable track, also came later. Different campaigning organizations placed varied emphases, with a range of motives, and sometimes wholesale divergences in interest. Thus, support for traditional narrow boat carrying led to the conservation of vessels and the growth of museums, whilst campaigning for modern freight waterways passed to the Inland Shipping Group (and the later the Commercial Boat Operators Association) from the 1970s.⁹

Those involved in the earlier campaigns, now mostly deceased, attempted to develop public opinion and support for waterways that were sometimes little-used or derelict. They did so after 1955 with the tacit if guarded and circumscribed support of some officials within British Waterways, from Sir Reginald Kerr onwards, support from some M.P.s, and figures like

Admiral Parham of the Inland Waterways Redevelopment Advisory Committee of 1959-62, who became gradually persuaded of the cause's merits.¹⁰

Restoration often involved practical physical work on waterways, which brought forward much participation, especially after the British Waterways Board of 1963-6 gave it some tacit recognition. Some working parties had campaigning purposes, as with Operation Ashton in 1968 or the 1969 Big Dig at Welshpool. These aimed to demonstrate the improved appearance, and hence potential, of a disused canal threatened with destruction, and thus gain public support. Other work was carried out as part of an agreed programme for restoration, as with Ashtac in 1972. This belongs partly to the history of volunteering, which grew greatly from the 1950s. Much of this seems to have brought in younger cohorts of people, especially in the 1960s. Finally, some working parties came close to the kind of 'direct action' associated with protest movements.¹¹

Academic discussions of waterways revival campaigners are minimal, but one point of departure lies with a somewhat inaccurate statement from Raphael Samuel's *Theatres of Memory*. Reflecting the important marriage of concerns about landscape, heritage and cultural conservation in Rolt's *Narrow Boat*, he asserted that 'Canal restoration began as an attempt to resuscitate a dying culture.'¹² This is inaccurate about practical canal restoration, but accurate enough about the earliest campaigning period, in which a minority of enthusiasts tried to retain the ways of life that accompanied carrying by narrow boat. The meanings involved need to be examined as part of broader cultural developments. This applies also to other aspects of revival: from what cultural context were ideas of conservation and restoration derived, and how did these affect the individuals involved? This raises questions of culture and meaning that rarely appear in the *RCHS Journal*.¹³

Structural explanations and individuals

The effectiveness of waterways campaigning cannot be judged necessarily in terms of the revival and development of so many waterways by 2000. Legislation, especially the Transport Act 1968, and the public financing of maintenance and restoration, assured the physical retention of most waterways, and it is conceivable that this might have emerged without, or despite, sections of the waterways

movement.

Explanations of waterways retention may be grouped loosely into four areas: structural, institutional, organizational and movements, and individual. Accounts that attribute much to leading individuals often fail to assess the role of broad structural factors. In some cases, it was important that the right individual occupied a key role at significant times. Thus, it was critical that the Minister of Transport at the time just before the 1968 Transport Act was sympathetic to waterways, as the Treasury were keen to minimize financial subsidy. In that sense Barbara Castle M.P. can be said to have been the most important individual in securing the revival of waterways.¹⁴

However, no amount of heroic endeavour, enthusiasm or originality, no forceful attitude of any individual could counter the very wide-scale forces of change, globally and locally, since 1945, had these prevented the waterways revival movement from flourishing and, at least partly, succeeding. The progress of the Light Railway Transport League into the 1960s provides one parallel. Although after its founding in 1937 this pursued forceful and militant campaigning to save and develop street tramways in Britain, it was unable to prevent any closures of historic systems. For a long time, it had to confine itself to monitoring decline and to fostering enthusiast interest. Only after the 1970s, when mass urban transit systems were developed, would part of its original aims be achieved.¹⁵

Organisational and institutional factors do provide a partial explanation. Organisational explanations focus less on dominant and charismatic individuals than on the organisations and movements through which campaigners operated. Much may be owed to effective campaigning and efficient forms of organization. In the cases of the Caldon and Lancaster Canals, the far reaches of which were rendered unnavigable in the 1960s, the lack of a local society that could have presented forceful opposition made it difficult for closure to be prevented.¹⁶

The nature of campaigning or support organizations needs to be examined. At one extreme was the maintenance of a small elite, developing technical expertise and able to deal with events rapidly, and with the authority endowed by specialist knowledge. The Inland Shipping Group, with a very small expert membership, was founded on such principles. Such organizations could be consciously elitist because of the philosophy of their founders, like Charles

Hadfield, who sought to avoid the risks that commitments and clashes from more emotional enthusiasts might present. Alternatively, an elite could come to dominate, in cliquish and exclusionary fashion. Unfortunately, the latter did occur with some campaigning organizations.

At the other extreme was the open participatory organisation with mass membership, with the democratic determination of policy, so that those who represented the organisation could claim to speak for a large number of people. Many campaigning organizations would fall between these extremes, sometimes with the elite, elected or not, making day-by-day decisions for a large passive membership. The Inland Waterways Association, which had an autocratic leadership at first, but later broadened involvement through the formation of branches and regions, demonstrated that organizations could change. Further research would be needed to consider whether these proved effective in achieving their aims, and whether any achievement of aims assured the revival of specific waterways, and in what form.

Similar comments apply to the institutional approach, in which the role of bodies impacting on the future of waterways could be examined. These include waterways owners and authorities — notably British Waterways, although bodies like the Environment Agency and its predecessors have been significant. The duties, operations, successes and failures of such bodies remain a source of significant controversy today. Less obvious are other institutions that had an impact — local authorities, in their roles as highway authorities, planning authorities, environmental health regulators, and later promoters of outdoor leisure and regeneration. The strange continuing hostility or indifference of authorities in Warwickshire to the restoration and promotion of the Stratford Canal is one case. The Manchester authorities pressed to close the Rochdale Canal and the Ashton Canal branches in the late 1940s, but helped to finance restoration of these canals and the Huddersfield Canal from the 1970s.¹⁷ The development of institutional support for revival, including the perspectives of officers and professional bodies, needs further study.

The term 'structural' refers to large scale social, economic and political developments in postwar Britain, which placed limits on what movements towards restoration could achieve. However, structural factors did not determine whether a movement would emerge, or exactly how it would

develop. The context of economic growth and expanding leisure time and opportunities facilitated the development of a holiday boating industry, the tax revenues sufficient to subsidise waterways maintenance and operation, and the conservation of some elements of waterside heritage and buildings. Political developments provided a lasting planning system and other protections like National Parks and nature conservation designations, which began with 1940s legislation. From the 1960s onwards, conservation areas and country parks were designated, with the rise of outdoor recreation management.

'Sociocultural' developments provided a shift in values, at least in influential sections of the middle class, with the growing development of support for the conservation of heritage, nature, culture and landscape. One reason for this, is the development, often from limited beginnings, of what has been termed conservation movements.¹⁸

Conservation movements and waterways revival

A quite different path of development could have emerged in postwar Britain, one that would have excluded any question of the revival of historic waterways. Industrialised agriculture and forestry, wholesale urban redevelopment, massive highway and other infrastructural developments, could have brought about a very different place, albeit, perhaps, one that could have been more affluent in material terms. The kind of world characterised and envisaged by what is termed modernism, would have eliminated all but the minimum of artefacts and spaces designed to educate and entertain. As this would certainly have removed obsolete transport routes and redeveloped their sites, the inhibition of the advance of modernist development was one factor in the survival of waterways.

For the built environment, it seems that conservation partly emerged as a reaction to, and then to diminish the power of, modernist architecture and planning.¹⁹ Its development had political motives, as Samuel suggested in the early 1990s:

Conservation, a minority cause in the early 1960s when the term entered common currency... is today the most favoured outlet for the reformist impulse in national life, mobilizing a vast amount of voluntary effort and enjoying the nominal support of politicians of all stripes.²⁰

Conservation activities had developed with major

public voluntary involvement, but with policy aims compatible with varied formal political positions. Samuel evoked a period when conservation activity ceased to be the interest of isolated individuals and groups and became a movement; a detailed analysis of this development has yet to be published.

Waterways revival did not emerge, and was not sustained, in isolation from other movements to conserve heritage, landscape, amenity, nature — or culture. The term ‘conservation movements’ covers many varied streams of interest in conservation after 1945. These linked many organizations and individuals with enthusiasm, emotional commitment, resources and purposes, and often around protest, pressure and general campaigning. The conditions for their emergence and influence seem often to be much the same as for those that underlay the waterways revival movement, within the overall context of social, economic and political development. One feature of the political system in postwar Britain has been the increasing influence of pressure groups. In part, this has been in response to state developments such as transport nationalisation and the statutory planning system; earlier pressure, notably over planning, encouraged these developments. The involvement of social movements alongside the more formal institutional political system has increased greatly since 1945, and these have influenced the way in which the formal system operates.

What evidence is there of connections between wider conservation movements and waterways revival? Some personal links can be traced, especially with other forms of transport revival or conservation, such as railway or locomotive preservation, historic conservation or wider environmental issues. For instance, Owen Prosser, one of the earliest participants in working parties on the Lower Avon, also suggested voluntary involvement to the Talyllyn Railway supporters, and founded the Railway Development Association in 1951.²¹ In the 1950s, Robert Aickman, co-founder of the Inland Waterways Association, sought to broaden its scope towards wider transport issues, and often expounded this view, without much practical success. Another co-founder, Tom Rolt, was also involved in vintage motoring, railway preservation, museum development, building conservation, and literature.²²

Other conservation interests influenced waterways revival. For instance, the Peak Forest Canal at Marple was the focus of interest by the Marple Historic

Society, the Marple Residents Association and later the Marple Civic Society. Some members of these organizations campaigned against the partial demolition of the Marple Aqueduct, as an historic structure, and then helped to form the Peak Forest Canal Society, with broader aims.²³ Beyond local focus, other organizations became interested in waterways, like the National Trust, which broadened its involvement in industrial archaeology and waterways in the 1950s and 1960s.²⁴ The latter was to prove an unhappy experience in the case of the Stratford Canal, which was passed to British Waterways control in 1988.²⁵

As retention and restoration became more certain, some waterways campaigners’ interests moved towards the conservation of landscape and heritage, and industrial archaeology, and in the process new participants were drawn in. The volunteers who originally set up the North West Museum of Inland Navigation in 1971 (later sited at Ellesmere Port) included campaigners for the Shropshire Union Canal, mainstream museum enthusiasts, and owners of historic boats, as well as many working party participants from the Waterways Recovery Group and elsewhere. Since the early 1970s, some canal societies and IWA branches have fostered the development of Conservation Areas that include waterside environments.

One distinct area in which conservation was seen to clash with waterways revival was, and is, that of nature conservation. Opposition began in Shropshire, in the limits to restoration of the Prees Branch in 1971; it has proceeded to block or slow the restoration of other parts of the Shropshire Union system and the Yorkshire Derwent.²⁶ Despite major similarities in personnel between nature conservation interests and other branches of conservation, outright opposition emerged, partly encouraged by the government agencies involved, the Nature Conservancy and its successors.²⁷ Some element of this is founded in the scientific knowledge involved, with the approach by conservationists resting on an appeal to scientific expertise, in this case the fostering of biodiversity; this has been combined with a fundamentalism that can elevate the interests of the natural environment above that of human concern.

Conservation movements may not, however, have impacted upon individual waterways organizations or individuals so much as they influenced the context in which it was possible to argue on the grounds of heritage, landscape, amenity or culture.

They have also, perhaps, reflected and encouraged changes to the ways in which environmental campaigning has been carried out, and for the values that underlay both this and general concern for the environment. Among those campaigners outside the 'official' channels of power, there has been a continuum of approaches, from those at one extreme who advocated outright confrontation and victory at all costs, to those who preferred subtle influence and negotiation. This seems to correspond to many parts of the wider conservation movements, with the Twyford Down protests at one end, and, perhaps (given its declared insistence on 'non-political' consensus), the National Trust at the other.²⁸ Sometimes this derived from the personal militancy of individuals, or the collective judgement that consensual influence would succeed. In other cases, the development of relations with those with more formal power would influence the form of campaigning, whether this was seen as incorporation or realism. It is hard to determine which tended to prove the more successful, and it remains unclear whether militant or consensual approaches were consciously adopted or proceeded from personalities or from the internal culture of organizations.

Finally, there is the influence of conservation movements on the lives, values, feelings and perspectives of those involved. For many this proved a marginal part of their lives, as with many enthusiasms, and this may well prove to have been the mainstream experience. However, the wider conservation movement included those who developed alternative lifestyles around sustainability, such as organic farming, or who forsook more conventional careers to 'downshift' towards less conventionally ambitious employment. Individual cases in the waterways movement provide some evidence of this. David Hutchings, who had trained as an architect but led and managed the Stratford and Upper Avon restorations, is perhaps the most obvious example. Among participants in the Ashton Canal restoration, practical involvement with narrow boat conservation deflected at least one campaigner from what had been seen as a more socially ambitious life. Another became committed to community businesses and an involvement with hard manual work that would almost certainly not have been her fate in other circumstances. There is a distinction to be made here between advocating change or living it; a minority went on to pursue the latter. Whether

significant numbers of people moved from support for waterways revival into other parts of the conservation movement, or into wider environmental campaigning or the green movement, is an open question.

Some preliminary conclusions

It is sometimes a convention to admit that research has raised more questions than it has answered, and this is the case with this exploratory essay. Many areas for further research have been identified. These would contribute to a developing broad thesis which can link structural change, general conservation movements and individual influence and experience to explanations of waterways revival, and the motives and values of participants.

The significance of cultural factors must be stressed. Transport history has tended to focus on the economic and technological base of development, but this would fail to explain major factors in waterways revival. The economic case for revival, related mostly to intangible economic and social benefits, came much later than pressure based on common emotions and meanings, initially influenced by nostalgic literature such as *Narrow Boat*.

The waterways of Britain represent a substantial environmental heritage, in amenity, landscape, historic interest and nature. However, there is a heritage of experiences and meanings that runs parallel to the environmental heritage; this is a heritage that could be easily lost, and indeed may be hard to retain. Research that investigates this may not only attempt to explain waterways revival, but should expose the underlying values with some potential for their conservation into the later 21st century.

It should be stressed that campaigning to retain and revive waterways has by no means ended, given the current financial crisis for the major waterways authorities like British Waterways and the Environment Agency. Equally, campaigns to restore individual waterways continue, many of which can be traced back to the 1960s, and even earlier in some cases.²⁹ There may be lessons to be learned from history, which can help guide an uncertain future. And at some point there will be future 'waterways people' whose campaigning actions and motives will await their historian.

Notes and References

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2. L T C Rolt, *Narrow Boat*, London: Eyre & Spottiswoode, 2nd edition, 1948, Preface
3. Perhaps the best example of this is David Bolton, *Race Against Time: How Britain's Canal Heritage Was Saved*. London: Methuen, 1990.
4. The leading example may be my own: Joseph Boughey and Charles Hadfield, *Charles Hadfield: Canal Man and More*, Stroud: Sutton Publishing, 1998; and Joseph Boughey and Charles Hadfield, *British Canals: The Standard History*, Stroud: History Press, Stroud, 2008
5. Partly representative is Roger Squires, *Britain's Restored Canals*, Ashbourne: Landmark Publishing, 2008. Dr Squires' *The New Navvies*, Chichester: Phillimore, 1983, does provide some analysis.
6. This account makes use of unpublished interviews with participants who could be considered to be waterways campaigners, notably around the Ashton/Peak Forest restoration. More oral history work is in progress.
7. Sir Frank Price, *Being There*, Peterborough, Upfront Publishing, 2002
8. E Keaveney and D L Brown, *The Ashton Canal*, privately published, 1974
9. Boughey and Hadfield, op cit, Ch. 5, for the Inland Shipping group, which is now known as the Inland Waterways Freight Group. For enthusiasts who continued to foster carrying by narrow boat, see Gerald Box, *Clinging On: The Moira Cut, Coal and the Last Days of Carrying*. London: Ambion, 2003.
10. Boughey and Hadfield, ibid, p.58
11. Oddly, the most prominent militant approaches to campaigning came in the *early* 1960s, from the late David Hutchings. Other involvements tended to be more respectable, although this needs to be further researched.
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14. Barbara Castle, *Fighting All the Way*, Macmillan, London, 1993
15. Geoffrey Claydon, 'Sixty Remarkable Years of the LRTA', *Light Rail & Modern Tramway*, June 1997
16. Boughey and Hadfield, op cit, p.71
17. Keith Gibson, *Pennine Pioneer: The Story of the Rochdale Canal*, Stroud: The History Press, 2004.
18. This term and that of waterways revival have been explained at greater length in Joseph Boughey, *Conservation Movements and the Postwar Revival of Inland Waterways in the British Isles*, paper for the Built Environment And Natural environment (BEAN) conference, Liverpool JMU, 2008. Available online at http://www.ljmu.ac.uk/BLT/BUE_Docs/Joseph_Boughey.pdf
19. For this argument, see Steven Tiesdell, Taner Oc and Tim Heath, *Revitalising Historic Urban Quarters*, Oxford: Architectural Press, 1996, p.46
20. Samuel, op cit, p.145-6
21. Geoffrey Dudley and Jeremy Richardson, *Why Does Policy Change: Lessons from British transport policy 1945 -1999*, London: Routledge, 2000, p.41
22. L T C Rolt, *The Landscape Trilogy*, Stroud: Sutton Publishing, 2001
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24. John Gaze, *Figures in a Landscape: History of the National Trust*, London: Barrie & Jenkins, 1988
25. Guy Johnson, *Save the Stratford Canal!*, Newton Abbot: David & Charles, 1983.
26. For the Yorkshire Derwent, see Pat Jones, *Navigation on the River Derwent*, Usk: Oakwood Press, 2000
27. The successors include English Nature and now Natural England, and the Countryside Council for Wales. I am not aware of research that specifically discusses the evolution of policies and their implementation within these institutions
28. For Twyford Down, see Barbara Bryant, *Roads, Campaigning and Environmental Law*, London: EF & N Spon, 1996
29. The latter would include the very low-key campaigns, or aspirations, to restore navigation to waterways associated with the Norfolk and Suffolk Broads, like the North Walsham and Dilham Canal, the Ant and the upper Waveney, initiated in the early 1950s, which have yet to achieve any restoration of navigation.

Not in Ottley — 1:

Philip Phillips and the Forth Bridge

Robert Humm

During the construction of the Forth Railway Bridge the author-photographer Philip Phillips created a minor industry in producing books about the progress of the great work. Of eight books published between 1886 and 1890 only four are recorded in George Ottley's *Bibliography Of British Railway History* (entries 2719 and 2720). Of those, two are inaccurately catalogued. The purpose of this article is to present as complete a record as is now possible to assemble.

Philip Phillips remains an elusive figure and despite widespread inquiries the writer has yet to discover much about him. Even his full name is ambiguous, appearing variously as Joseph Philip Phillips and Philip Joseph Phillips: the latter more regularly used. All that can be stated for certain is that he was the son of Joseph Phillips, one of the principal Forth Bridge contractors. In the Stationers' Hall Register his address is shown as Catherine House, South Queensferry, West Lothian, a building that still exists.



Philip Phillips' house at South Queensferry
(Robert Humm)

It would seem that he acted as official photographer for the contractors, and of his skill at photography there is no question.

About his later career nothing has yet emerged. We can be certain that he was not the American hymn composer of the same name. It seems unlikely that he was Philip Phillips, draper and jeweller of 34 North Bridge, Edinburgh, against whom bankruptcy proceedings were commenced in December 1897. Tantalisingly there was a firm of Edwardian cigar merchants, Godfrey Phillips, where the chairman was Joseph Phillips and Philip Phillips was one of the directors. As the present aim is bibliography rather than biography the matter has not been pursued any further than this.

The history of the Forth Bridge, perhaps the single greatest British civil engineering achievement of the late Victorian age, is so well known that there is little point in recounting it here in detail. Suffice it say that the foundations were commenced during the summer of 1883 and the bridge was opened by the Prince of Wales on 4 March 1890. The joint engineers were Sir John Fowler and (Sir) Benjamin Baker, and

the main contractors Tancred, Arrol & Co. Phillips usually referred to the three piers — from south to north — as the Queensferry Pier (that is, South Queensferry, though strictly speaking it was at the time of construction in the parish of Newhall), the Inchgarvie Pier (at the extreme western tip of the rock of that name), and the Fife Pier (situated adjacent to the village of North Queensferry).

Let us now turn to the books themselves, which in order of publication are as follows:

(1) THE FORTH BRIDGE:
FOUNDATIONS
ILLUSTRATED 1884-1885. A
Series Of Descriptive
Photographs By Philip J Phillips

Illustrating Processes And Progress Of The Works
On The Forth Bridge In The Course Of Construction
Over The Firth Of Forth — Scotland. Engineers: Sir

John Fowler & Mr B Baker. Contractors: Messrs Tancred, Arrol & Co. Undated.

Description.

A book fashioned in the manner of a photo album, consisting of 38 heavyweight photographic mounting boards affixed to the binding by linen hinges. Thirty-four of the boards each have laid upon them a single photographic image. The remaining four boards comprise the half-title 'The Forth Bridge Works' with on the reverse two sketches of the bridge as it would appear upon completion; the elaborate full title (shown in Figure 1) with on the reverse a diagram of the Inchgarvie Pier; and two boards containing an 'explanatory index'. This preliminary matter is also produced photographically.

Page size is (h) 12½ in. x (w) 16½ in. The boards are natural ivory in colour and have printed on them a cream coloured panel 9 in. x 11 in. to aid the centering of the prints during the mounting process. The prints vary in size from 9½ in. x 11½ in. down to 7½ in. x 9¼ in. Most prints carry a brief description, date of exposure, and a serial number in either the bottom left- or bottom right-hand corner, but do not progress in numerical sequence.

The binding consists of brown grained cloth on heavy bevelled boards with gilt titling and decoration. The spine is divided into five panels by double raised bands but carries no title. On the upper board is an elaborate gilt representation of the bridge after completion with the book title in curved lettering above and the subtitle below, all enclosed by a 10½ in. x 14 in. ruled panel. All edges are gilt. Both copies examined carry the label of R Keene, Derby, on the inside of the upper board.

Comment.

Not in Ottley. A work of the utmost rarity, only two copies being known to the writer: one owned by the Institution of Civil Engineers, London, the other in a private Scottish collection. The former was purchased in 1997 by subscription of certain ICE members. In the library catalogue it is stated to have

been originally the property of John Fowler, though there is no evidence of this within the book itself. Dating is uncertain but probably late 1885 or early 1886.

The R Keene label is something of a mystery. Keene was a bookseller and publisher with premises at 24 Irongate, Derby. He was also an accomplished photographer of Derbyshire scenery and exhibited six prints at the 1883 Royal Photographic Society Exhibition. There is also some evidence that he dealt in cameras. That might provide the connection, Keene perhaps acting as a local trade outlet for albums by Phillips and other notable photographers of the day.

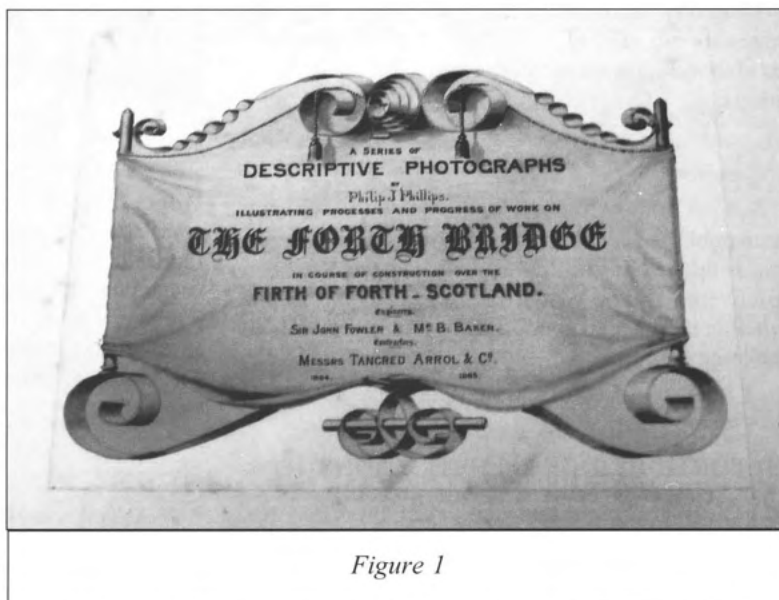


Figure 1

(2) THE FORTH BRIDGE: FOUNDATIONS ILLUSTRATED 1884-1885. A Series Of Descriptive Photographs By Philip J Phillips Illustrating Processes And Progress Of The Works On The Forth Bridge In The Course Of Construction Over The Firth Of Forth - Scotland. Engineers: Sir John Fowler & Mr B Baker. Contractors: Messrs Tancred, Arrol & Co. Undated.

Description

This is a miniature version of the previous entry, with the illustrations printed directly onto cream-tinted paper. The measurements of the boards are (h) 4¾ in. x (w) 6¼ in. Contents are identical to the

large edition, except that the illustration on the reverse of the title page is omitted and an additional leaf is added between the title page and the explanatory index to provide a side elevation of the Inchgarvie Pier. The illustrations are mainly 2½ in. x 4 in. and many of the images have been trimmed slightly when compared with the large edition.

The binding of the only two copies known to the author is in crushed morocco. Within a quadruple-ruled panel is the following title, too faint to photograph successfully:

THE FORTH BRIDGE
FOUNDATIONS (ILLUSTRATED)
1884-1885
COPYRIGHT

This copy also bears an R Keene, Derby label. All edges are gilt. The endpapers are silk on paper with an elaborate geometric pattern in gold, cream and ginger.

Comment

Not in Ottley. Although the book appears to have been published commercially it is of the greatest rarity and is the last of Phillips' eight books to have been discovered by the writer. It is not possible to say whether it appeared concurrently or subsequently to the large edition.

(3) FORTH BRIDGE ILLUSTRATIONS 1886-1887. Undated.

Description.

The copy examined by the writer, acquired in 2005 by the National Library of Scotland (NLS), comprises 40 original silver gelatin prints mounted on stubs within a conventional book binding. The page size is (h) 16¾ in. x (w) 23½ in. There is no title page as such, nor indeed any other text at all. The first leaf is the first plate, and this has a panel at the bottom edge with a few dimensions of the bridge and the words 'Copyright, Entered At Stationers' Hall'. Photographically the title plate is a fake, showing the bridge as it was intended to appear upon completion superimposed upon a general scene of the works site.

All remaining plates are dated to the precise day of exposure, the first being 7 September 1886 and the last 17 November 1887. Most show the bridge

superstructure at an early stage of construction. Plate 4 — and possibly one or two others — carry a PP monogram. No two plates carry the same date, and one can easily imagine that the making of a single exposure, often in difficult elevated locations, was a hard day's work. The prints are almost certainly contact prints from 16 in. x 24 in. glass plate negatives, this size being the largest that was available commercially at the time. As might be expected, they are pin-sharp and the majority display a tonal quality rarely achieved today.

The NLS copy is bound in contemporary quarter morocco with dark green sides, the upper board carrying the title given above.

Comment:

Not in Ottley. This is a grand though bibliographically rather odd production. A book fashioned in this manner must have been highly expensive to produce. No commercial publisher seems to have been involved and copies were advertised as being available from the Forth Bridge Works. It is probable that Phillips himself produced small batches of prints and had them bound as required. How many were sold? It is impossible to say: given the extreme rarity of the book it might have been as few as ten or a dozen. The writer knows of none other than the NLS copy in any British library. The Centre Canadien d'Architecture, Montreal, also owns a copy.

(4) SKETCHES OF THE FORTH BRIDGE, OR THE GIANT'S ANATOMY, from various points of view. By Philip Phillips. Published Edinburgh: R Grant & Son, 107 Princes Street. MDCCCLXXXVIII [1888]. First edition.

Description.

A booklet measuring (h) 8¼ in. x (w) 6½ in. comprising 47 pages of text and nine plates. The cover is printed dark blue on white and is shown at Figure 2. The contents are Title Page, 1-page Introduction, 24pp 'Sketches Of The Forth Bridge' describing the foundations, the approach viaducts and the chief components of the cantilevers, and 19pp 'Description Of Large Illustrations Published Separately.' The latter refers to publication No.2 above.

The plates are printed by the photophane process, a form of collotype. They are about ¼ in. smaller in both dimensions than the text pages. Each plate is

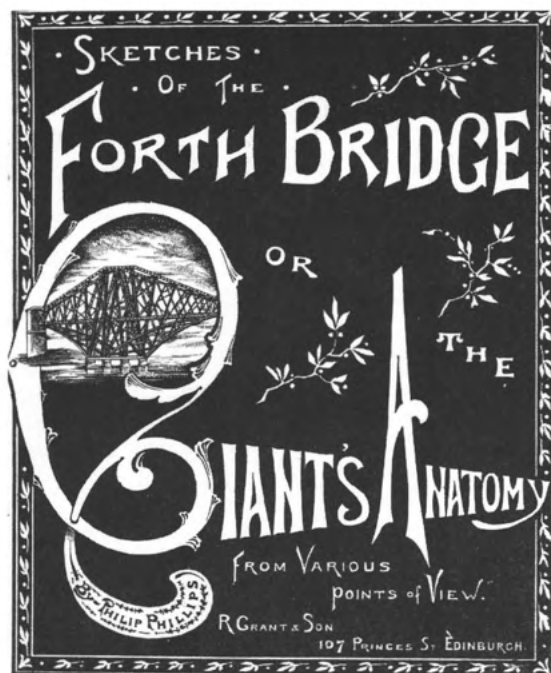


Figure 2
(National Library of Scotland)

attached to the following leaf of text by means of a bead of paste along its inner edge — the book trade would call them tipped-in. Seven of the plates are from real photographs. The frontispiece is from a drawing by the author of how the bridge would appear upon completion (but different from the title page of publication No.2) and plate 4 is a tinted drawing of a cross section of the South-West caisson.

The booklet appears to have been originally saddle-stapled. The copy examined at the NLS has had the staples removed and is preserved within a later plain card cover.

Comment.

Ottley 2720(i). This was Phillips' first attempt at producing a popular publication about the Forth Bridge. The print run, by a commercial publisher, must surely have been of a substantial quantity, yet few libraries apart from the copyright libraries seem to possess a copy. It rarely appears at auction. The reason is the usual one: insignificant booklets tend to survive in fewer numbers than imposing and lavishly bound books.

(5) THE FORTH BRIDGE IN ITS VARIOUS STAGES OF CONSTRUCTION. And Compared With The Most Notable Bridges Of The World. Edinburgh: R Grant & Son, 107 Princes Street. Printed by the Photophane Co, 846 Old Kent Road, London SE. Publication date not given (but see comment section below).

Description:

A book measuring (h) 13 in. x (w) 16 in. containing 122 leaves and two blank end-papers. Text and illustrations are printed on identical paper. All leaves with one exception are printed on the upper (right hand) side only. The exception is the title page which has the printer's details on the reverse. The final leaf of text paper is blank. The pages are numbered idiosyncratically to a total of 233: the printers count all the blanks, but omit the preliminaries. The first numbered page is 7. This makes Page 1 the frontispiece plate and ignores the preceding 5 leaves (or ten pages).

The text consists of the title page; the table of contents (1 page); the author's introduction (1 page); the description of the Bridge — largely a description of the plates (37 pages); half title for Part II (1 page); full title for Part II — The Most Notable Bridges In The World (1 page); description of other bridges (27 pages). In total there are 69 pages of text, printed in double column form.

Turning now to the plates there are two unnumbered plates at the front of the book following the contents page, the first with portraits of the engineers Sir John Fowler and (Sir) Benjamin Baker, the second with portraits of the contractors (Sir) William Arrol and Joseph Phillips. These are followed by 55 plates numbered I-LII. The discrepancy is accounted for by additional plates XIXA, XXXIVA and XXXIVB. Plates XXXV-LII are the other notable bridges of the world — mostly British.

The standard binding consists of crimson sand-grain cloth on heavy bevelled boards. This is identical to the binding of entry (1) except that the title panel is enclosed by a double instead of a single ruled border. The Bridge motif is also identical. All edges are gilt. The folios are mounted on linen stubs to aid the ease of opening of the book.

Comment:

Not in Ottley. This is the first edition of Phillips' best known publication. It is undated, the only internal

evidence being that the latest plate (XXXIVB) is dated September 1889. Some library catalogues and booksellers lists date the book as 1890. That is incorrect: it was reviewed at length in *The Scotsman* on 9 November 1889. The book apparently had a considerable period of gestation, the reviewer remarking drily: 'These plates are familiar figures to the passers-by in Princes Street who may have seen the album 'coming out' at any time in the past five years.' It is likely, of course, that Grant's displayed and sold individual copies of Phillips' prints.

It is surprising that this edition is omitted by Ottley's *Bibliography* as copies are held by a number of major British libraries including the British Library.

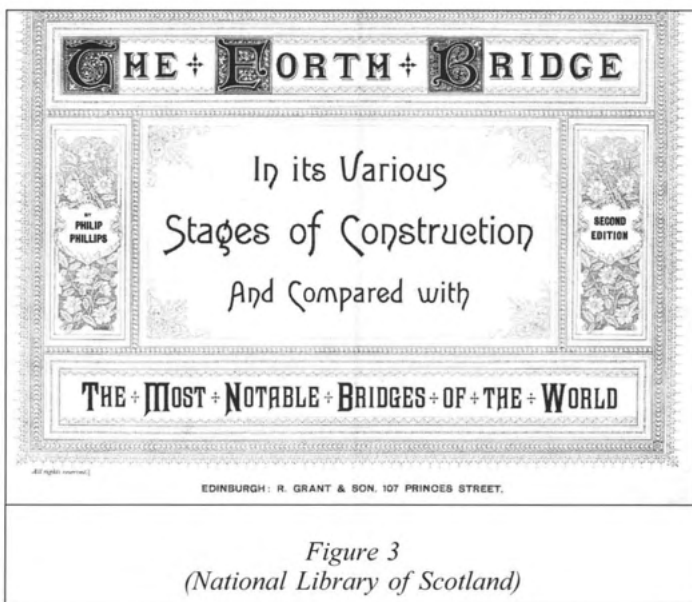


Figure 3
(National Library of Scotland)

(6) THE FORTH BRIDGE IN ITS VARIOUS STAGES OF CONSTRUCTION. And Compared With The Most Notable Bridges Of The World. By Philip Phillips. Second Edition. Edinburgh: R Grant & Son, 107 Princes Street. Printer not given. Undated.

Description:

A book measuring (h) 13 in. x (w) 17 in. containing 139 leaves and two blank free endpapers, the latter being sepia on the side facing the boards and white on the reverse. Text and illustrations are printed on identical paper. Two leaves are printed on both sides (the introduction and the list of plates), the remainder being printed on the upper, right hand, side only. As with the first edition the pages are numbered idiosyncratically to a total of 303, and once again all the blanks are counted. There are, however, discrepancies. The second page of the introduction is numbered 2 but the next numbered page of text, fifteen pages ahead, is shown as 7. Between pages 148 and 175 the page numbering is twice the quantity of pages actually present. The same occurs between pages 256 and 303.

The text consists of the principal title page (shown at Figure 3); the author's dedication to Sir William Arrol (1 page); introduction (2 pages); table of plates (2 pages); full title for Part I - The Forth Bridge (1 page); description of the bridge (46 pages); full title

for Part II - The Most Notable Bridges Of The World (1 page); description of other bridges (30 pages). In total there are 84 pages of written matter. The text is printed in sepia throughout (as are the plates) in double columns within triple-ruled panels measuring 10½ in. x 13½ in. On the elaborate principal title page pale blue ink is used for the borders of the title panels.

When compared with the first edition there is considerable difference in the plates and their arrangement. As before there are two unnumbered plates of engineers and contractors though in some copies the names have been omitted, leaving those buyers not possessing the first edition to ponder whom they might be. Other copies have been seen with the missing names restored in the form of printed signatures, presumably added after Phillips had the omission drawn to his attention. The writer has even seen a copy with the signatures on the first plate but not on the second.

Plates pertaining to the Forth Bridge proper are numbered I-XXVIII. About four of the 1st-edition plates have been omitted and about twenty are new. The total number of individual images is considerably larger, at the expense of reproducing many of them two to a page — and four to the page on Plate IV. The sequence of placing of the plates within the book is almost completely different.

A new feature is the addition of seven magnificent double plates (XXX-XXXVI), measuring 16 in. x

33 in. Most are panoramic views of the bridge in the final stages of construction. The last of these plates shows the completed bridge two days before the official opening by the Prince of Wales on 4 March 1890. Plates XXXIX-LV relate to notable foreign bridges. These show less variation from the 1st edition, with two deletions and four additions, though the placement is considerably different.

The standard binding of this edition is simpler than that of the 1889 edition, the majority being in brown cloth with a plain, unlettered spine. On the upper board the same title panel and illustration of the completed bridge are used but only the bridge itself is in gilt, the wording being in black ink and the ruled borders merely blind-stamped. Copies are also known in dark blue cloth with bevelled boards, and in blue or olive-green cloth with lightweight boards. The latter, too flimsy for the massive contents, might be a cheap remainder binding. As can be imagined they do not stand the test of time. Two copies of this edition are known to exist in a first-edition type of binding with the words 'Second edition' inserted between the inner and outer gilt borders. This is not a matter of using up a surplus binding case as the second edition is an inch wider than the first. These copies might have been executed to the special order of wealthy patrons.

Comment:

Ottley 2719. There is some internal evidence that the book was rushed out shortly after the bridge was opened — the lack of captions to the first two plates and the even more chaotic pagination. It received a brief notice in *The Scotsman* on 9 June 1890, which merely mentioned 'A new edition of Mr Philip Phillips handsomely illustrated work on the Forth Bridge.' The general quality of the printing of the plates is slightly less good than the first edition, though this is compensated by the addition of the new panoramic plates.

The entry in Ottley's *Bibliography* requires two corrections: the nominal page count is 303 not 203 and the number of plates is 57 not 55. BR as the location symbol is obsolete given that the British Transport Historical Records at Porchester Road has long since closed and the contents are now dispersed.

(7) THE FORTH RAILWAY BRIDGE. Being The Expanded Edition Of The Giant's Anatomy. By The Author Of 'The Forth Bridge In Its Various Stages Of Construction'. With Twenty Illustrations.

Edinburgh: R Grant & Son, 107 Princes Street. MDCCCXC [1890]

Description:

A book measuring (h) 12 in. x (w) 9½ in. consisting of 40 pages of text and 19 collotype plates containing 20 illustrations. The text is printed within 8 in. x 6¾ in. ruled panels and is arranged as follows: preliminaries and introduction, pages 1-6; description of the Forth Bridge, pages 7-27; description of the plates published separately (that is, item 2 above), pages 28-40. The 19 plates include the frontispiece opposite the title page, the rest of the plates appearing at appropriate intervals throughout the book.

The binding of the copy examined at the NLS (see Figure 4), which the writer believes to be the standard trade binding, is royal blue silk cloth, with the title and a sketch of the Forth Bridge in gilt, all within a gilt ruled panel. The spine is unlettered. The book is sewn in the conventional manner.

Comment:

Ottley 2720(ii). A well turned-out production and

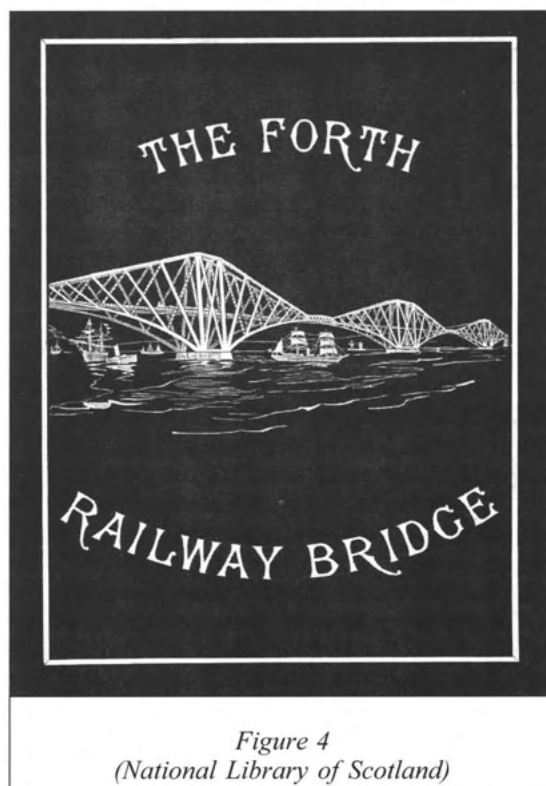


Figure 4
(National Library of Scotland)

the most attractive of the three editions of *The Giant's Anatomy*. The entry in Ottley's *Bibliography* requires correction as the book has 19 plates, not 20.

(8) SKETCHES OF THE FORTH BRIDGE; OR THE GIANT'S ANATOMY. By the author of 'The Forth Railway Bridge In Its Various Stages Of Construction', 'The Forth Railway Bridge', &C. Popular Edition — With Seven Illustrations. Edinburgh: R Grant & Son, 107 Princes Street. MDCCCXC [1890].

Description:

A booklet measuring 8¼ in. x 6½ in. consisting of 36 pages of text, 8 pages of advertisements and 7 collotype plates. Externally it is identical to No. 3 above except that it has the words 'Third Edition Price One Shilling' in the bottom margin. The writer has seen two copies, one with the cover printed in blue, the other printed in red. The contents are: inside front cover (advertising); pages [i-iv] advertising; title page; advertisement on reverse of title page;

introduction; list of illustrations; frontispiece; description of the Forth Bridge (pages 7-22); Appendix — Description of the Special Plates (pages 23-36); pages [v-viii] advertising. The back section of advertising contains a whole page (Figure 5) offering the second edition of *The Forth Bridge In Its Various Stages Of Construction*, Imperial obl 4to, 3 guineas, and *The Forth Railway Bridge* beautifully and profusely illustrated.

The plates are opposite pages 7, 10, 12, 17, 18, 20, and 36. All appear to have been used in earlier publications. The copy examined at NLS is bound within a volume of miscellaneous booklets and it was not therefore possible to examine the original binding in detail, but it appears to be thread sewn with a drawn-on wrapper. The method of fixing the plates could not be ascertained.

Comment:

Ottley 2720(iii). The entry in Ottley's *Bibliography* is correct. This booklet appears to be as rare as the first edition and the same comments apply. It was apparently Phillips' final word as far as the Forth Bridge is concerned.

Postscript

Here the record ends, but did Phillips effectively sink into obscurity or are there more works by this talented photographer yet to be discovered? The writer would welcome further information from readers upon any aspect of Philip Phillips and his work.

Notes

The writer wishes to thank Louise Désy (CCA), Julia Elton (Elton Engineering Books), Louisa Humm (Historic Scotland), Jenni Meldrum (South Queensferry), Carol Morgan (Archivist of the Institution Of Civil Engineers), Miles Oglethorpe (Historic Scotland), Professor Roland Paxton (Heriot-Watt University), South Queensferry Museum, and the staff of the National Library Of Scotland and Edinburgh Central Library, for advice and assistance in preparing this article.

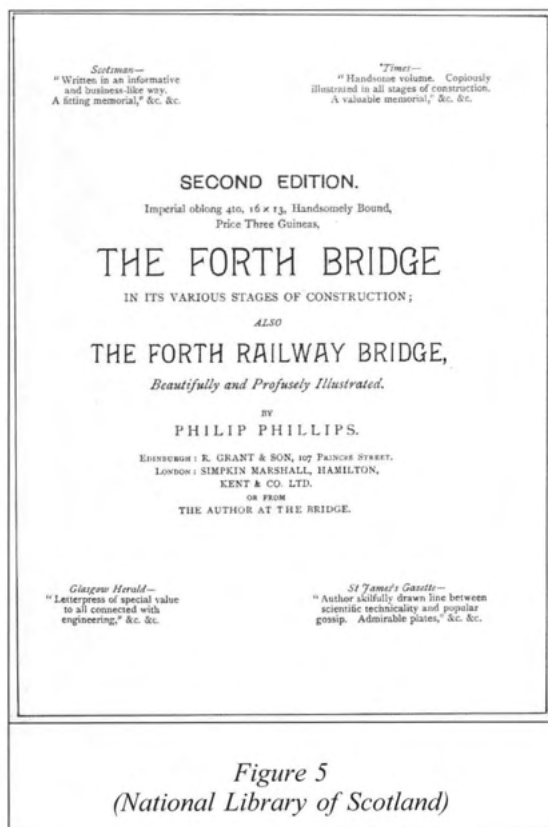


Figure 5
(National Library of Scotland)

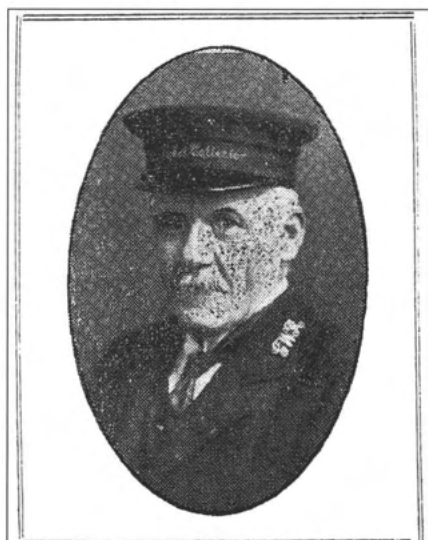
Not in Ottley — 2:

Thomas Phillips and the Humours of the Iron Road

Paul Reynolds

'Not in Ottley' — that was the subject line of a recent e-mail message from Grahame Boyes. He had discovered a book of about 1920 in a bookseller's catalogue that had been overlooked both by Ottley in his original Bibliography and in the subsequent supplements; it had been published in Carmarthen, so since I lived not far away would I be able to locate a copy and confirm the bibliographical details?

The work in question is by a Thomas Phillips who was a ticket collector at Carmarthen station. It was first published in 1921 and consists of a collection of anecdotes in both Welsh and English. Thanks to the internet it was no trouble to locate a copy — several in fact — but it was immediately apparent from the varying descriptions of the work given by different online catalogues that the history of this work was rather more complicated than might have appeared at first sight. Whilst the catalogue entries clearly all referred to the same basic work, there were significant variations in the information they supplied as to the title itself, the language of the work, its date of publication and its size.



THOMAS PHILLIPS.

Portrait, which appeared as the frontispiece in all impressions

The existence of a number of variant editions was confirmed as soon as I started to examine physical copies of the work in different libraries. This made it possible to reconstruct the bibliographic history of this work. It went through at least seven printings in the years 1921-6, each of which differed from the other, often to a considerable extent. Two major variants can be identified, the original version in both Welsh and English (i.e. some content in one language, some in the other, not the same content reproduced in both languages as is often found today) and the second in English only. The first version went through four printings, the last of which in 1923 was in a considerably expanded form. These were followed by a second version in English only with three printings. The basic content remained the same from one printing to another (allowing for the additions made in 1923) although sometimes a story might be added or dropped from one printing to another. The Welsh material in all printings of the first version was reproduced in English in later printings.

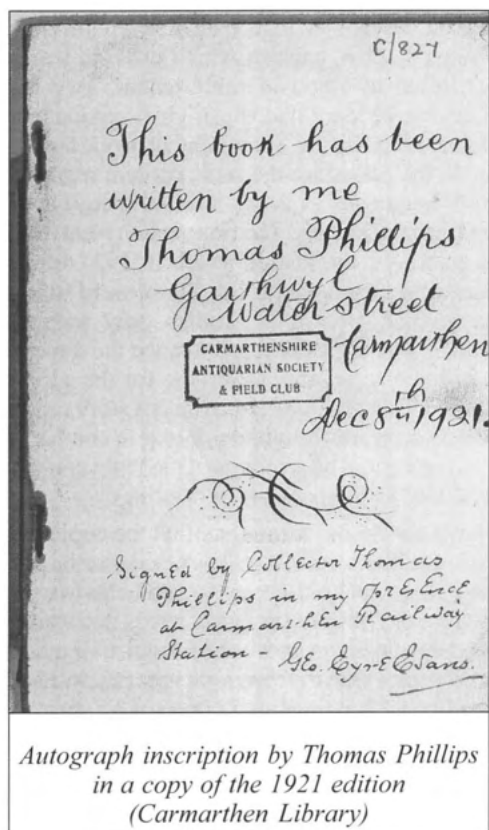
I have shown the locations of all the copies that I have been able to trace. It will be noted that the British Library does not hold a copy, which helps to explain why George Ottley never came across it. Clearly the publishers failed to meet their legal obligation to deposit copies with the copyright libraries. In addition to the library holdings two copies were also being offered on AbeBooks at the time of writing (April 2009).

The different printings that I have identified are these:

First version (English/Welsh), first printing, 1921

PHILLIPS, THOMAS. Difyrion y ffordd haearn; neu, Oriau mewn gorsaf, yn cynwys hefyd ystoriau o'r tren. Caerfyrddin [i.e. Carmarthen]: W. M. Evans a'i Fab, [1921]. pp. 72 : front. (port.), ill.; 18cm. English and Welsh text. Cover title = Difyrion y ffordd haearn; neu, Ystoriau o'r tren. [Title in English = Humours of the iron road, or Hours in the station, including stories from the train.]

There is nothing in the book itself to indicate the date of publication, but this can safely be derived from a manuscript inscription by the author in a copy in Carmarthen library: 'This book has been written by me Thomas Phillips, Garthwyl, Water Street, Carmarthen Dec 8th 1921'. There is a further manuscript inscription in green ink: 'Signed by Collector Thomas Phillips in my presence at Carmarthen Railway Station — Geo. Eyre Evans'.



Autograph inscription by Thomas Phillips in a copy of the 1921 edition (Carmarthen Library)

The date [1921] has been added to the title page in the same green ink. (Evans was Secretary of the Carmarthenshire Antiquarian Society and an Inspector for the Royal Commission on the Ancient & Historical Monuments of Wales.¹)

Copies in Carmarthen Library and Bangor University Library

First version (English/Welsh), second printing, 1922

Although described on the title-page as 'Ail-argraffiad' (second printing), this is certainly not a simple reprint. It can be dated, again by the author's inscription in a copy in Carmarthen, to April 1922 and Evans has again added this date to the title page. Comparison with the original edition shows that the text has been re-set and not simply reprinted from standing type: page-breaks, hyphenation, inverted commas and dates are all noticeably different. Even more, there are significant alterations to the content. Up to page 64 the content follows the first impression, but from that point onwards it is entirely different. A long poem in Welsh said to have been composed shortly after the opening of the railway to Aberystwyth, a poem in praise of Lloyd George for his introduction of the old age pension, and three Welsh anecdotes have been replaced by a selection of new material, all in English only. Among this is a ballad lamenting the imminent closure of Carmarthen gaol which took place in March 1922. The effect of this, together with a slightly more generous setting, is that the book now contains 84 pages rather than 72. The title-page title remains the same and is in Welsh only, but the cover title is entirely different and is now in English: *Humours of the iron road*, or



Cover of the second printing (1922), using one of Phillips' own sketches

Stories from the train (Welsh and English). A different illustration has also been used on the cover: instead of a man running for the train it is now a ticket inspector standing at a carriage door in conversation with a passenger. (But the running man re-appears within the text.)

Copy in Cardiff University Library

First version (English/Welsh), third printing, 1922

This reprint, again described as 'Ail-argraffiad' and undated, was probably produced later in 1922. It again has typographical differences which show that it was completely re-set. The content is very similar to that of the previous printing but a message from the author to the reader that formed the final item in both previous printings has now been replaced by a Pooteresque joke about an Irishman mending a broken window. The same illustrations appear as in the previous printings. The title remains the same as in previous printings, but it is not possible to say whether any changes were made to the cover since the only copy that I have located has been rebound.

Copy in Swansea University Library

First version (English/Welsh), fourth and enlarged printing, 1923

This is a much enlarged version with a great deal of additional material and a consequent increase in size to 116 pages. It appeared in 1923. The date is not given in the book itself but is taken from the National Library of Wales's *Bibliotheca Celtica*.² There is no reason to doubt this date, since it places this edition in its logical position in the publishing sequence. It is described on the title-page as '3rd ed' and this can only be taken to mean third reprint, unless the author and printers regarded the second and third printings of 1922 as together forming a second edition on the grounds that their content was virtually identical. The content remains in both Welsh and English, but the title page is now bilingual: *Humours of the iron road; or, Stories from the train*.

Copy formerly in Bangor University Library (catalogued but not traceable)

Second version (English), first printing, 1924

PHILLIPS, THOMAS. *Humours of the iron road; or, Stories from the train*. Carmarthen: W. M. Evans, 1924. pp. 120 : front. (port.), ill.; 18cm. Cover title = *Railroad humours; or, Stories of railway travel*.

The enlarged English/Welsh edition of 1923 was re-issued in 1924 in English only. For the first time the date of publication is shown. Material that had appeared in Welsh in previous editions was now translated into English. It is so different from the 1921 edition as probably to justify its being regarded as a separate work. The text has of course been completely re-set and this has resulted in an increase in the number of pages to 120. Of the two copies that I have been able to examine, one has the cover printed on buff card, the other in green. Very probably similar variations occur with other printings, both earlier and later. The same blocks are used by way of illustration as in the previous printings but two new ones now make their appearance. One shows a young woman with a short skirt, a muff, a feathery hat and a small dog, and this is used on the cover. The other is a woman buying her ticket with three small dogs in her arms: they are described in the caption as Yorkshire puppies although they look more like Pekineses. Both are very redolent of the 1920s. A further sign of the times is that the London Midland & Scottish makes an occasional appearance, although in this edition and in subsequent reprints the author still generally refers to the London & North Western Railway. The only copy that I have seen is described on the title page as 'New edition', but this probably indicates its relationship to the earlier bilingual version, since there does not appear to be an earlier English-only version without this description.

Copies in Carmarthen Library and University of London Senate House Library

Second version (English), second printing, 1925

Very similar to the previous printing, again with 120 pages and again described as 'New edition' on the title-page. The date is printed on the title-page. It is again clear that it has been completely re-set. This is most noticeable on the cover, where the type ornaments used to make up the frame around the

title are entirely different. Also a typo on p. 20 in the previous edition ('New Quaw' for 'New Quay') has been corrected.

Copy in Cardiff University Library

Second version (English), third printing, 1926

The content is similar to previous printings, although two additional stories appear, both about ministers, one about a minister smoking in a non-smoker, the other about a minister who always insisted on arriving at the station half an hour before the train was due. Despite this extra material, tighter setting has resulted in a reduction in the number of pages back to 116. The cover again shows evidence of having been re-set and the block of the young woman and her dog is now showing distinct signs of wear, more so than the earlier blocks which continue to be used within the text. The date 1926 is printed on the title-page.

Copies in City & County of Swansea Libraries and National Railway Museum library

The content

Altogether over 10,000 copies of the work are said to have been sold. In view of its obvious popularity and the frequency with which reprints were required, it is perhaps strange that each printing should have been completely re-set. This suggests that W M Evans & Son, the printers, were still composing by hand rather than using a machine such as a Linotype or Monotype. The evidence that points to this is that in earlier printings, at least, two different fonts are used for numerals within the same book, one of which is clearly incompatible stylistically with the rest of the text, something that is unlikely to have occurred with machine composition. Similarly differences can be observed in the style of punctuation marks within the same book, especially question marks and inverted commas. This probably indicates that Evans simply could not afford to leave the type standing against the possibility of a future reprint. They were prolific publishers, especially of Welsh-language material, as is shown by the catalogue that is generally attached to the end of each impression of Phillips' book. After each printing they needed to distribute the type in

order to re-use it, even if this did require the added labour of re-composing when it became clear that a reprint was called for.

Much of the interest of this small, it might even be said ephemeral, work lies in the way it illuminates the perception of the railways among the members of a largely rural community before the days of motor transport. The stories relate to the experiences of railway workers and railway passengers. They are short, rarely more than a page in length. Most of them are intended to be humorous, although it has to be said that in most cases the humour fails to elicit more than a condescending smile from the modern reader. This is surely a reflection on how far our sense of humour has changed over the past hundred years, for Mr Pooter and his circle would probably have enjoyed them immensely.

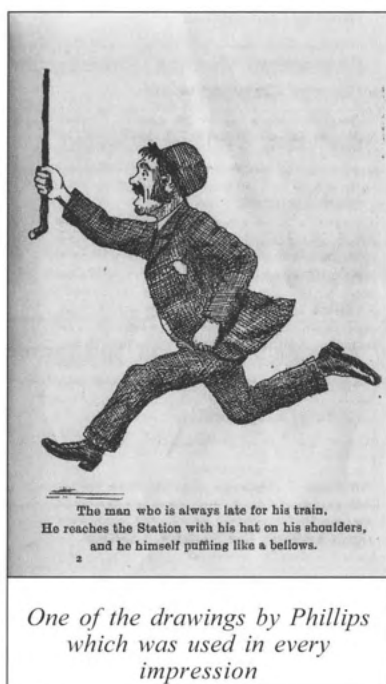
The stories probably derive to a large extent from Phillips' own experience and observations or from tales passed on to him by friends and colleagues, although some of them seem to have the feel of the urban myth.

Most of them are given a clear topographical location, and this is nearly always within the locality of Carmarthen and its rural hinterland: few of them are set east of Swansea or north of Lampeter. A number of them relate to the difficulties that English monoglots had in coping with Welsh place names or, in one case, to the difficulties of Welsh monoglots in their attempts to master the English language. (Is it significant that this is one of the few stories that our south Walian author locates in north Wales?) Another theme is the anxieties of passengers, often elderly, who are unaccustomed to railway travel and their reaction to abnormal — or indeed, normal — occurrences. Incidents involving tickets and ticket inspectors, mislaid luggage, smoking and non-smoking compartments, and passengers finding themselves on the wrong train appear regularly. Ministers are frequent travellers, but so are commercial travellers, card sharps, honeymoon couples, orphans, urchins and passengers the worse for wear through drink.

An equal number of stories relate to work on the railways with stories about station-masters, drivers, guards, platelayers and clerks. Situations include managerial relations (the loco inspector who had been called a 'blooming fool' by one of his men) or relations with the public ('My dear Sir, what would be the use of waiting rooms if the trains were always punctual?'). Sometimes the humour is at the expense of the

passenger who lacks the knowledge of the railwayman, such as the curious bystander who overheard that there would be a 'crocodile' on the train from Cardiff and was most disappointed when he discovered that it was not what he had been expecting. There are also gobbets of railway history in and around Carmarthen, some recent, some going well back into the 19th century, and personal reminiscences of the author's own career.

In the description of the different versions of this work mention has been made of the blocks that were used to illustrate it. The same ones were re-used from one edition to another. They are intended to illustrate different types of passenger and their style and the captions form part of the humour. They have a distinct



feel of the Edwardian era and were probably seen as a bit dated even in 1921. They are the work of Phillips himself: an obituary described him as 'a pen and ink artist of no mean order [who] was able to sketch his characters as well as delineate them in words'. The original drawings, which were supplemented in 1924 by the two additional ones already mentioned, are:

The cattle dealer is often at the station; a big, broad man, wearing a plaid pattern suit, carrying a stout stick, a horse shoe tie-pin, and a heavy watch-chain reaching from the small pocket in the waistcoat down to the lower one.

The man who is always late for his train. He reaches the station with his hat on his shoulders, and he himself puffing like a bellows.

The fussy little woman who is always seen at our Stations. She is full of excitement, and generally arrives half an hour before the train starts.

'Ticket, please'. The passenger who cannot find his ticket.

'Oh dear! Has the train gone? My watch must have stopped in the night'.

Thomas Phillips

Phillips himself was born at Newchurch, a village a few miles to the north of Carmarthen, on 16 January 1860, as he states himself in an inscription in a copy of the second printing in Carmarthen library. As he admits in the introduction, he was 'only a working man who has not had the advantages of modern education'. In 1878 he joined the Central Wales & Carmarthen Junction Railway (the rump of the Llanelly Railway, which operated the 13-mile branch from Llandeilo to Carmarthen) and then transferred to the Carmarthen & Cardigan in 1880 where he worked in the telegraph office. When the Great Western took over in 1886 he was moved to the signalling department, and two of the anecdotes in *Humours* (second version) relate to this period. One describes a busy night at Myrtle Hill Junction box at Carmarthen when the gas light failed and he had to operate the levers by memory; the other is in connection with the re-opening of the North Pembrokeshire & Fishguard line in 1895 when he was serving as a relief signalman at Clynderwen. However, in view of his indifferent health he was appointed ticket collector at Carmarthen in 1896 and he remained in this post until his retirement in 1928. He died on 23 October 1934.³

References

1. 'One of our founding fathers', *The Carmarthen Antiquary* v.1 (1941), 5-10
<http://www.carmants.org.uk/one_of_our_founding_fathers.html> (accessed 26 February 2009)
2. *Bibliotheca Celtica 1919-1923* (Aberystwyth, 1928), 180
3. *The Welshman*, 26 October 1934

Anniversaries 2012

2012			
1762	08Jun	birth of Robert Stevenson	civil engineer
1812	15Feb	birth of Alexander Ogilvie, at Forfar	railway contractor
	07Feb	opening of Brecknock & Abergavenny Canal	Engineers: Thomas Dadford jnr / Thomas Cartwright / William Crosley
	10May	birth of William Henry Barlow, at Charlton	railway engineer
	11May	birth of Richard Cail, at Gateshead	railway contractor
	May(?)	opening of Aberdare Canal	Engineers: Thomas Sheasby jnr / George Overton
	06Jul	opening of Kilmarnock & Troon Railway	Engineer: William Jessop
	23Jul	birth of Peter S Bruff, at Devonport	civil engineer
	12Aug	introduction of steam locomotives into regular service on Middleton Railway, Leeds	engineers: John Blenkinsop and Matthew Murray (first trial – 24Jun)
	05Oct	birth of Rowland Brotherhood, at Hounslow	railway contractor and manufacturer
	25Dec	birth of John S Crossley, at Loughborough	railway engineer
	-----	introduction of Benjamin Thompson's coal drop, probably at Wallsend	
1862	01Feb	opening of Severn Valley Railway	Engineer: (Sir) John Fowler
	31Mar	opening of West Somerset Railway	Engineers: Isambard K Brunel / Robert P Brereton
	24Jun	opening of Border Union Railway	Engineers: Charles Jopp and John F Tone
	05Jul	death of John E Errington, at London	railway engineer, partner of Joseph Locke
	28Aug	opening of Portpatrick Railway	Engineer: Benjamin H Blyth
	08Oct	death of James Walker, at Westminster	second President, ICE
1962	10Jun	official reopening of Lower Avon Navigation	from Tewkesbury to Evesham
	02Sep	last Glasgow tram	
	28Oct	last all-street-running tram, at Blackpool	

Correspondence

Motivations for Mobility

(*RCHS Journal*, July 2009, 66-75)

Professor Divall in his article leaves us with several important opportunities for further exploration.

It would be of considerable value to examine the several essential decisions (made consciously or sub-consciously) that govern one's determination 'to go' or 'to ship' or not to do so. It is the sum-total of these determinations that bring about — or bar — movement; they are the same today as they have been in centuries past, and will be the same for centuries hence:

Is there a need to go or to move goods?

Is there a desire to go or to move goods?

Are there legal sanctions banning the movement (or are taking the risks inherent in skirting them prudent)?

Will there be acceptance at the intended destination?

Are there acceptable facilities at the destination?

Is there sufficient discretionary time for transit?

Are funds available to pay for the movement?

Is there an acceptable means of transport?

'Movement' (*not* 'mobility') occurs when individuals — or a group of individuals — have found (to their belief) satisfactory answers to these considerations.

'Mobility' — an abstraction — is the sum total of social, cultural, legal, and economic circumstances wherein movement is sanctioned.

In his conclusion, Professor Divall states that 'we are, as a society and in many cases as individuals too, very attached to the idea and practice of moving ourselves (and our goods) around, and our propensity to do [so] in particular ways using particular technologies ... is partly to do with culture and identity ...'. More likely, the choice of 'the particular ways and technologies' are the result of *ad hoc* decisions.

Divall continues, 'more-or-less unconstrained mobility is a greatly valued part of what we are'. But when considering travel (or shipment) to North Korea, Bhutan, or Antarctica (as examples)

we recognise that we far from fully mobile.

That the 'patterns to the way we move today, and the technologies we use to this end, are all partly shaped by the individual choices made in the past, choices that themselves were informed by historic cultures ...'. This is, simply put, not so. One can step back and ponder which technologies we use today were available five, twentyfive, seventyfive, or more years past. One can also step back and ponder what drove the several determinations made by those who came before us.

It is only in the consideration, *Is there an acceptable means of transport?* that the individual has any degree of influence on the ecological impact and consequences of his or her chosen movement. And, 'acceptable' is a factor of — *inter alia* — existence, scheduling, price, convenience, and availability.

It is the providers of 'movement technology' who must bear the onus for finding the most environment-friendly alternatives. As individuals, we cannot — from a practical point of view — select the particular aircraft or train or omnibus or container ship that emits the least amount of damaging pollutants from those serving a particular route!

Professor Divall also cites D C H Watts' analysis of the role of London & North Eastern Railway posters in promoting certain destinations ('discretion travel') and of technology. Unfortunately, Watts considers only 16 posters (of the many hundreds published) that were 'exposed to the "ordinary person" '. The latter is not completely true; the viewers were travellers (who had 'good' answers to the eight factors above) passing through stations.

Watts correctly notes that some local councils provided 'input' to their images, but fails to detail this 'artist's license' or 'censorship'. Some councils mandated their posters should *not* be displayed at certain stations. (We should further query what excursion or 'day out' fares were available from such stations.)

Nothing is said about the possibility that some posters and brochures had potential *negative effects* on movement. ('I considered going there

until I saw a picture of the place, and read about it!")

Contrary to Professor Divall's statement, our present-day mobility has not 'emerged, evolved, and reproduced' as a 'culture'. In fact 'mobility' is not a 'culture', but merely one element of our society. The meaning and significance of the 'goal of making the continuing influence of historic mobility cultures more obvious' is elusive. 'Cultures' should not be confused with 'societies'.

Movement occurs when individuals make *ad hoc* decisions related to *ad hoc* circumstances. The 'technologies of movement' – railways, motorcars, aircraft, ships, trams, 'buses, &c. – need each constantly strive for optimal ecological 'friendliness'. Then we can choose a 'means of transport' that will be 'personally good' as well as 'ecologically good', and historians will be able to focus on *history*, while properly leaving the social considerations to sociologists! **Alan M Levitt**

Resignation of Lord Wharncliffe

(*RCHS Journal*, March 2009, 54)

In his letter regarding the Wharncliffe meeting, David Hodgkins reports that Lord Wharncliffe resigned his chairmanship of the Sheffield, Ashton-under-Lyne & Manchester Railway in 1840 'on a subject of great importance' but one which remains unexplained. It may be that an explanation is contained in K H Vignoles's biography of his great-grandfather: *Charles Blacker Vignoles: romantic engineer* (Cambridge University Press, 1982, 80-93).

The biography states that the Sheffield, Ashton-under-Lyne & Manchester Railway bill passed the House of Lords in April 1837, but, because of an incipient recession, subscriptions for it were slow in coming in and that, by law, the compulsory powers of the Act could not be invoked until the shares were fully subscribed. In order to encourage

confidence in the venture, and to bring forward the date on which construction might begin, Charles Vignoles, the Engineer at the inception of the line, bought up a large number of the shares himself, but he placed many of them in the names of friends and relatives so as to disguise the fact that the line's Engineer was buying so many. This arrangement was agreed with the Directors of the Railway, and it may have done some good because the Company's share subscription list became completed some months later, in 1838, and construction started on 1 October that year.

For various reasons, Vignoles then began to lose the confidence of many of the Company's Directors, to the extent that in November 1839 he announced his intention to resign, and this was accepted. At the same time he agreed to forfeit all the shares that he had bought, and he was personally assured by the Chairman, Lord Wharncliffe, that neither he nor his friends and relatives would be held liable for the calls hitherto made on the shares and upon which calls some of the other shareholders had already paid. In June 1840, however, and by a slender majority, the Directors of the Railway decided to renege on the pledge made by Lord Wharncliffe and to demand payment from Vignoles and his associates for the calls already made on their shares, even though by then they had been forfeited.

Having been outvoted on his pledge by his own Board, Lord Wharncliffe resigned and several others of the Directors resigned too. Since the arrangements made with Vignoles may not have been strictly legal, however, and in any case it may not have been considered appropriate to bring them to the attention of the other shareholders, it seems plausible that the reason for Lord Wharncliffe's resignation should be omitted from the Company's records, and simply described as 'a subject of great importance'.

The dates fit, and the claims made on Vignoles (which the Courts subsequently decided should be honoured) almost bankrupted him, and indeed may have achieved this status for some of his unfortunate associates. Moreover, Vignoles's resignation as Engineer of this important line effectively ended his hopes of being counted among the 'big five' leading railway engineers of the time, the others being the Stephensons, Locke, and Brunel.

John Poulter

John Vignoles adds:

I think the case is very fairly put.

The link between the decision on the pledge and Lord Wharnccliffe's resignation is clearly stated in CBV's Diary. According to my father's (KHV's) notes, on 19th June 1840, CBV records receiving a letter from Lord Wharnccliffe stating that the Directors had refused to respect his (Lord W's) pledge, that all CBV's friends would be attacked, that his Lordship and most of the Sheffield Directors had resigned, and that CBV and his friends must take such steps as they thought best.

Measurement of canal water supplies

(*RCHS Journal*, July 2009, 113-14)

We read with interest Mike Clarke's comments on canal water supply measurement in response to our article 'Water from Wendover Springs' (*RCHS Journal*, March 2009, 10-21).

The Leeds & Liverpool flow data from around 1770 which Mike quotes are particularly interesting, especially as to the measurement method. Did John Riley carry around a set of short pipes of different diameters, and then fit each into an improvised small dam in turn until he found one which was exactly filled by the flow? How did he allow for variations in rainfall affecting the flow rate in the stream?

Mike notes too that rainfall data were also collected. However, our particular interest in the Wendover Springs article was the early measurement of flow in open channels, as opposed to the more general topic of relating rainfall to canal water supplies. Rainfall gauges were also installed by the Grand Junction Canal Company around the Tring Summit area, but these would only have given a broad estimate of the water available for supply.

The use of weirs to measure flow in channels was pioneering and obviated the need to use empirical rainfall-runoff relationships. Those relationships were established to relate (albeit approximately) the rainfall across reservoir catchments (or gathering grounds) with resulting recharge of water into the canal supply reservoirs.

Adrian Bayliss and Henry Gunston

Newspapers as a Transport History Source

(*RCHS Journal*, July 2009, 108)

Can I heartily endorse Philip Scowcroft's recommendation of newspapers as a source of transport history. Very many important aspects of west country railway and canal history are only recorded on the local newspapers.

One always has the reservation that journalists of the past may have been no better, or worse, than their modern counterparts so if it is possible to check with a competitor paper it is often worth doing. In Cornwall the Tories, backed by the *Royal Cornwall Gazette*, supported Brunel's broad-gauge coastal route into the county whereas the Whigs, and the *West Briton*, were in favour of the narrow-gauge central route. The two newspapers gave quite different reports of the progress of the two schemes.

A very useful resource is the digitised 19th Century British Library Newspapers, available online at many libraries and in some circumstances at home. This is said to contain two million pages and can give one access to a much wider range of newspapers than can be got by any other means. A basic search on 'railway' gives 1,752,600 results; the first being in 1800 when 150 'strong and able men' were sought to work limestone quarries at the head of the 'Peak Forest Railway'. Similar searches on 'canal' and 'turnpike' give 475,133 and 109,843 results respectively. Clearly more focussed searches are advisable.

Michael Messenger

Reviews

Great Northern Railway of Ireland Road Motor Services 1925-1958 — Sam Simpson

224pp, 210x295mm, 147 b&w photographs, 48 colour photographs, 2 maps, hardback, Venture Publications, 128 Pikes Lane, Glossop, Derbyshire SK 13 8EH, www.venturepublications.co.uk, 2008, ISBN 978 1 90530409 7, £30.00 post free

The Great Northern Railway of Ireland, formed in 1876, was an enterprising railway despite its problems after 1922 caused by cross-border operation: coping with differing government requirements north and south of the border, customs delays and, of course, terrorism. During the 1920s it, like all railways in the British Isles, was feeling the effects of road competition. To counter this it provided road services under contract. Not until 1929 did the GNR(I) own and operate its own buses and lorries, Leyland, AEC and other makes. It built its own Gardner buses, 95 of them between 1937 and 1952, the last surviving until 1964.

The 1930s was a difficult time with political interference. All GNR(I) road transport north of the border went to the Northern Ireland Road Transport Board, later the Ulster Transport Authority, after 1935. A GNR(I) railway strike (1933) with attendant sabotage made similar incidents in the 1926 General Strike in Britain seem like a tea party, and there were

the privations of the Second World War (called 'Emergency' in the Free State). Nationalisation of the GNR(I) by the two governments in 1951 briefly delayed the final break-up in 1958. Yet the road transport achievements of the GNR(I) and the men who brought them about are well worth recalling, especially the technical enterprise and expertise of Dundalk Works in the face of indifferent industrial relations.

The book's research, covering all aspects of bus and lorry operation and maintenance, is impressive and detailed. Consequently it is not an easy read. It is excellently illustrated and appendices list bus and lorry fleets and other vehicles, bus and cartage companies purchased and bus routes operated. The endpaper maps show the situations in 1936 and 1953 but are difficult to follow and there are no references, bibliography or index. Yet it affords a comprehensive picture of a transport operation, little known this side of the Irish Sea, and is recommended.

PHILIP SCOWCROFT

Through the Window: The Great Western Railway from Paddington to Penzance

164pp, 220x140mm, illustrated throughout, 53 maps, 20 GWR pages from Bradshaw's timetable, hardback, Old House Books, The Old Police Station, Pound Street, Moretonhampstead, Devon TQ13 8PA, 2008, ISBN 9 781873 590751, £10.99 + £3 p&p

This is a reprint renewing one's admiration of how God's Wonderful Railway turned publicising itself into a profitable activity. The first and least-sophisticated of the many editions of the famous guide to the countryside through which the Cornish Riviera Limited passed, it is printed on thicker paper than the 1924 original to create a permanent hardback, intriguingly including pages from the appropriate Bradshaw tables of the same date. The Limited's first stop was Plymouth in 4 hours 7 minutes after

shedding slip coaches at Taunton for Weymouth and at Exeter. This was in those pre-King days, the Castles just having been introduced.

For nostalgia and memorable detail, this is unbeatable value. Advertisements of hotels along the route and the brief new editorial add useful touches, the latter reminding us that George Bradshaw was a Quaker who opened soup kitchens and died in Norway where he is buried in Oslo Cathedral.

DAVID ST JOHN THOMAS

***Steam Narrow Boat 'President' – The First Hundred Years* — Neil Ratcliffe (compiler)**

108pp, A5, 119 photographs, 29 in colour, 5 facsimiles, paperback, The Black Country Museum Trust Ltd., Tipton Road, Dudley, Worcestershire DY1 4SQ, 2009, ISBN978 0 9562031 0 6, £6.99 or by post with a cheque for £8.74 in favour of The Friends of President, Briar Cottage, Old Warwick Road, Lapworth, Warwickshire B94 6JU

Steam driven narrow boats were rare, the best known being those owned by Fellows, Morton & Clayton Ltd which operated mainly on the Grand Junction route from London to the Midlands. Of these, No 195 *President* has made it into preservation and is one hundred years old this year.

This book has chapters about the FMC company, the steam driven years of the boat until 1925 and its time driven by an ordinary Bolinder diesel engine ending in dereliction in 1974. The second half of the book is an account of its two restorations and its activities in preservation. The illustrations are necessarily mainly from the preservation period.

Many show the details of the boat and its equipment and, of course the boiler and engine. Restoration has been fundamental and there may be little of the original boat remaining. It is striking how much ingenuity, hard work and money is needed to keep the boat in good working order. There is much basic data about the boat and its activities which is of clear historical value. Perhaps the most fascinating feature is the description of the people who were the boat's crew during its working days and how they lived and worked as a steamer crew. Working 'fly' is described fully. A most interesting and well produced book.

MARTIN BARNES

***The Clydach Gorge: Industrial Archaeology Trails* — John van Laun**

80pp, A5, 58 illustrations (many in colour), 2 maps, paperback, Bloreng Books, Bloreng Cottage, Church Lane, Llanfoist, Abergavenny, Monmouthshire NP7 9NG, 2008, ISBN 9 771872 730357, £9 (p&p £2)

The Clydach Gorge is a wooded, steep-sided valley in the east of the Brecon Beacons, now peaceful except for the traffic on the 'Heads of the Valleys' (A465) road climbing from the valley of the Usk. Once it was a significant industrial area, with ironworks fed from the coal and ironstone mines and limestone quarries further up the hillside. After an introductory section dealing with the processes of iron making, an outline of transport systems and of social conditions, this booklet takes the reader on

three walks in the gorge, describing in detail the industrial remains together with the extensive system of tramroads which served them. Also covered are the Brecknock & Abergavenny Canal at Gilwern, the section of the Merthyr, Tredegar & Abergavenny Railway in the gorge, the turnpike of 1812/13 and the building of the A465 of the 1960s. What sets this apart from almost all books of walks are the depth of research, the clarity of presentation (including referencing) and the quality of production.

PETER BROWN

***The Mile Straight: The fate of the Soar in the centre of Leicester* — Roger N Hutchinson**

40pp, 295x210mm, 99 b&w photographs, 8 line drawings, 3 maps, paperback, privately published, available from Mac Associates (Leicester) Ltd, 39 Hazel Street, Leicester LE2 7JN, 2008, no ISBN, £7.12 (p&p included)

This booklet is one of three planned to cover the history of the Soar, focusing upon the section that was straightened and dredged between 1887 and 1891, primarily as a flood protection measure by Leicester Corporation. Various topics are detailed and illustrated, perhaps the most interesting comprising details of the waterway that was replaced by the Mile

Straight. Despite the copious coverage, more about waterborne traffics would have been welcome. This commendable local publication will be of much interest to those from Leicester and interested in the city, but it is difficult to see a significant appeal to readers who are more generally interested in waterways history.

JOSEPH BOUGHEY

The Stephenson Locomotive Society: a Centenary Celebration 1909-2009

88pp, A5, 55 photographs, 21 line drawings, paperback, Stephenson Locomotive Society, Glenrowan, 5 Pentrosfa Crescent, Llandrindod Wells, Powys LD1 5NW, 2009, ISBN 0 903881 06 03, £4.00 including postage

The Stephenson Society, as it was originally named, was formed out of disaffection with The Railway Club, which some thought was straying too far from locomotive matters. Worse still, it was accused of lauding the L&NW and Midland Railways and belittling the railways south of the Thames. This split did not, however, resolve the tensions, and the professional railwaymen and the knowledgeable amateurs in the new society were soon destined to clash. In 1911 the professionals took themselves off and formed the Institution of Locomotive Engineers; the amateurs stayed, and inserted 'Locomotive' into their society's name, so there was no doubt as to its purpose. Happily, later tensions between the steam and modern traction interests have been settled harmoniously. With the recent sad demise of The Railway Club, the SLS in its hundredth year became

the senior society for railway enthusiasts.

This 'Celebration' is a collection of articles, the first third specifically about the history of the Society and its preservation, publishing and railtour activities. The rest are mainly well-chosen gems from the archives of the *SLS Journal*, plus some that have been specially written, that together represent the range of topics covered over the past hundred years. They include: the experiences a volunteer fireman during the General Strike (there are more such unpublished accounts in the SLS Library); a note on the peppery Dr W A Tuplin and his intemperate exchange with Cecil J Allen; and a full account of the trip by the L&NWR Webb Compound, *Queen Empress*, to the World's Columbian Exhibition in Chicago in 1893. Altogether a very varied and interesting selection, well worth the modest price. GRAHAME BOYES

***The Burry Port & Gwendreath Valley Railway and its Antecedent Canals – Volume 2: The Railway and Dock* — R W Miller**

344pp, 210x150mm, 202 photographs, 19 maps and 13 drawings (locomotive line diagrams), paperback, The Oakwood Press, PO Box 13, Usk, Monmouthshire NP15 1YS, 2009, ISBN 978 0 85361 685 6, £19.95

The Gwendraeth Valley lies to the west and northwest of Llanelli. Coal mining was established here in the 16th century and from 1769 a network of canals and tramroads was built to transport coal and limestone from local mines and quarries to the towns of Kidwelly and Burry Port. In 1838, a harbour and dock were opened at Burry Port. By 1865 the proprietors of the Kidwelly and Llanelli Canal decided to convert one of their canals into a standard gauge industrial railway and connect it with the Great Western Railway's South Wales main line at Kidwelly.

A history of the canals and tramroads comprised Volume 1. Its author, the late Raymond Bowen, died shortly before publication in 2001. Volume 2, written by Bob Miller, provides a thoroughly researched history of the Burry Port & Gwendreath (*sic*) Railway (BP&GVR) from 1869 until 1998 when it was officially closed. The observant reader will have noted the discrepancy between the geographical spelling and the railway name. Incorrect spelling by the English legislators drafting the parliamentary bill was perpetuated when the *Burry Port and Gwendreath*

Railway obtained Royal Assent in May 1868.

In its early years the BP&GVR struggled to survive. However by 1896 it had become a successful and profitable business. This engendered aspirations to carry passengers officially. In 1908 Holman Fred Stephens was appointed as consulting engineer to inspect the line, make recommendations and oversee improvements to the infrastructure. As a result of his efforts, the BP&GV obtained Light Railway Orders in 1909 and 1911 and operated as an independent light railway until it was absorbed by the GWR in 1922. Passenger services ceased in 1953, but coal traffic continued until 1996 when local opencast mines closed.

Ten chapters cover the history of the railway and its branches from inception to its final years under British Railways. Individual chapters are devoted to the Burry Port dock and harbour, the local industries served, motive power, carriages and wagons. There is a large number of photographs and 25-inch OS maps. The book is full of facts and is a most interesting read. GERALD LEACH

***The Records of the Cromford & High Peak Railway Company* — edited by David Hodgkins**

395pp, 209x144mm, 4 maps, hardback, Derbyshire Record Society, 9 Owen Falls Avenue, Chesterfield, Derbyshire S41 0FR, 2008, ISBN 978 0 946324 31 6, £30.00 (available to RCHS members at the special offer price of £25.00)

The Cromford & High Peak Railway was about the last and probably the greatest horse-operated railway to be built. It was a bold concept on up-to-date engineering principles. But railways developed differently and the C&HPR was soon outmoded.

This book reprints the surviving records of the C&HPR between 1824, when its promoters first met, and 1862 when it was leased by The London & North Western Railway. David Hodgkins is modestly described as editor: in fact he adds considerable information about the railway and its traffic, plus biographies of the men who enter the story, particularly for periods where the company's records have been lost. Minutes exist for 1824-25 and 1842-62 with some gaps. In addition the (outgoing) copy letter book survives for most of the period 1832-51. Inevitably some of the content is about mundane and repetitive matters, but much can be learned: as early as 1839 land was purchased for buttressing Minninglow Embankment, and occasional references to steam engine trials reveal that horses were dominant until 1856. Absence of comment about a

private 1833 passenger service indicates that it was short lived. Until 1855 the C&HPR was not a carrier, so it was at the mercy of traders who could use other routes and thus demand low prices. The Chairman later revealed that the line was almost shut up for seven years.

The advent of the Stockport, Disley & Whaley Bridge Railway spurred the C&HPR into planning improvements, including a new, incline-free route from Burbage Tunnel to Whaley Bridge to act as a continuation of the SD&WBR. This was rejected by Parliament but the C&HPR 1855 Act modernised the company's structure. Traffic was on the increase when the company decided that its independent life was no longer viable.

This is an excellent book which shows new light on the CH&PR's independent years, told as far as possible in the words of the people who were there. It is essential reading for those interested in the C&HPR, and students of horse railways will learn from its struggle to survive in a steam age.

ALLAN BRACKENBURY

***The Hythe Pier Railway* — Peter A Harding**

32pp, A5, 71 b/w photographs, 1 map, paperback, Peter A Harding, 'Mossgiel', Bagshot Road, Knaphill, Woking, Surrey, GU21 2SQ, 2009, ISBN 978 0 9552403 4 8, £3.50 (p&p £0.50)

A welcome addition to Peter Harding's series of monographs, this booklet covers the unusual 2ft gauge electric railway that runs the short length of Hythe Pier, on the west bank of Southampton Water, to connect with the Southampton ferries. It uses battery locomotives built for a mustard gas factory in 1917 and converted to third-rail operation. Included are a summary of the history of the pier,

opened in 1881, and of a 2ft gauge luggage tramway that operated between 1909 and the opening of the railway in 1922.

In common with many privately-published books, this one would benefit from the services of an independent proof-reader and editor. However, its strengths are the wealth of fascinating photographs — excellent value for money.

TIM EDMONDS

***A Bibliography of British and Irish Tramways* — David Croft and Adam Gordon (compilers)**

486pp, A4, paperback, no illustrations, Adam Gordon, Kintradwell Farmhouse, Brora, Sutherland KW9 6LU, 2009, ISBN 978 1 874422 72 3, £35.00

Almost every significant British and Irish town once had its own tramway system; this substantial volume sets out to list printed sources of information about them. It also extends to cliff lifts and funiculars,

modern light rail systems, preservation schemes and 'tramway memorabilia'.

The joint compilers have previously completed ten regional tramway 'source books', but this work

appears to be the first attempt at a national bibliography. Of the ten sections and four appendices, Section B, a listing of books and magazine articles subdivided alphabetically by operator, forms the lion's share of the volume. Section J is a useful review of specialist sources such as council minutes, accident reports, newspaper reports and trade literature, but the documents are not themselves listed. The standard of production is high and obvious errors are few. Two

dates, three years apart, are quoted for the last horse tram in Morecambe.

A flaw is that the copious literature is not signposted as helpfully as it might be. The contents lists omit page numbers, there are no page headings and few cross-references and the list of legal cases rarely tells us what they were about. Nevertheless, the volume will undoubtedly form an invaluable source of reference for students of tramway history.

GRAHAM BIRD

***Brightwork: Traditional Paintwork on Leeds & Liverpool Canal Boats* — Mike Clarke and Sam Yates**

88pp, 170x240mm, landscape, 60 colour and b&w photographs, 30 colour and 21 line drawings, 1 map, paperback, Milepost Research, 8 Green Bank, Barnoldswick, Yorkshire BB18 6HX, 2009, ISBN 0 9519236 2 5, £16.50 (inc. p&p) (Order online from www.canaljunction.com/narrowboat/brightwork.htm)

This book describes the decoration of wooden working boats in the heyday of the Leeds & Liverpool Canal examining the variation in styles and customs as the canal traversed from west to east across the Pennines. The origins of the traditional scroll work, central to the ornamentation of L & L boats, are examined in the context of the embellishment of boats and buildings throughout Europe. The work of T & J Hodson's at Whitebirk near Blackburn, the last yard

to decorate boats before working traffic ceased in the 1960s, is discussed in some detail. The book is profusely illustrated with photographs and diagrams in colour and black and white with extended captions on every page. The authors are well qualified to write on this subject, Yates having built and painted boats professionally at Hodson's for many years and Clarke having published an authoritative history of the L & L Canal to which this current book is an invaluable adjunct.

JOHN HOWAT

Bradshaw's Railway Map 1907. (leaflet Geoffrey Kichenside)

London Railways Map 1897. (leaflet Geoffrey Kichenside)

Industrial Heritage Map, 1760-1914. (leaflet Anthony Burton)

Each 860x610mm, thick card, folded or rolled, 12-page explanatory leaflet, 160x110mm, Old House Books, Moretonhampstead, Devon TQ13 8PA, £9.99 each (+ p&p £2 folded, £3 rolled.)

The maps in Bradshaw's classic annual Railway Manuals were flimsy and easily torn. This reproduction is robust and the date chosen is appropriate, when the railway system in the British Isles was virtually at its peak. The map includes Ireland, plus details of the network in the largest cities.

The London Railway Map was first published in the Royal Atlas of England and Wales. Shown in the course of construction are the three earliest tube lines.

The Heritage map is an entirely new publication (2008), highlighting the location of key industrial sites

around the UK. Selected railways and canals are shown, and there are educational tables of key events, population growth and employment, the destination of imports and the range of industries in the capital. Why is George Hudson highlighted in connection with Yorkshire railways in 1800?

The folded maps come in strong card pockets which could conveniently fit into coat pockets for field reference. The explanatory leaflets are too simplistic to be of interest to members but would be helpful introductions for young users.

MILES MACNAIR

***The Anstruther & St Andrews Railway* — Andrew Hajducki, Michael Jodeluk & Alan Simpson**

248pp, 148x210mm, 148 b&w photographs, 24 maps & diagrams, paperback, Oakwood Press, P O Box 13, Usk, Monmouthshire NP15 1YS, 2009, ISBN 978 0 85361 687 0, £15.95

This second volume of a projected trilogy by the same authors deals with the least successful of the railways serving the Fife Coast. (The first volume, dealing with the St Andrews Railway, was reviewed in November 2008). Construction of the initial section of line between Anstruther and Mount Melville, completed in 1883, stretched the locally-promoted company's finances and the final section into St Andrews did not follow until 1887. Although this opened up a possible alternative route from Dundee to Thornton Junction and the south, the line was circuitous and it was not often used for this purpose. The only significant intermediate town was the old-established fishing port (and later holiday resort) of Crail, but even this was barely large enough to support a railway. It was observed at the outset that some of the stations were inconveniently remote from the villages they served, partly because one of the line's

objectives was to promote agricultural traffic. The North British took over in 1897 and made some modest improvements, but it came as little surprise when four minor stations were closed to passengers as early as 1930. Final closure came in 1966, by which time DMUs had arrived, but they made little difference to the line's declining fortunes.

With a similar format to other Oakwood volumes, the book contains 13 chapters. Three of these tell the story of earlier, unfulfilled railway proposals, the remainder giving a historical account of the line, its passenger and freight traffic, topography, operation and ultimate decline. Although the railway was short and only of local importance, the joint authors offer a readable and workmanlike account of its unspectacular existence. The three appendices cover chronology, statistics and an extract from the 1903 working timetable.

GRAHAM BIRD

***The Midland Steam Motor Carriages* — Stephen Summerson**

34pp, 290x210mm, 33 photographs, 8 scale drawings plus sundry maps and timetables, paperback, Midland Railway Society, 56 Main Road, Holmesfield, Dronfield, Derbyshire S18 7WT, 2008, ISBN 978 0 9537486 6 2, £6.50 (plus £1.50 p&p)

This admirable, informative, beautifully illustrated and well produced monograph is a most fitting tribute to the author, the doyen of everything Midland, who died in 2007. The full story of the two steam railmotors, 2233 and 2234, plus the 43ft trailer 2235, is told in fascinating detail, much of which – particularly the later rebuilding(s) of 2234 as an inspection saloon – has never previously been published. Equally

interesting is the re-boiling of both units from the original vertical boilers to (smaller) locomotive types. Details of their rather brief operating history are given with associated timetables.

In its saloon form, 2234 was not withdrawn until 1968. This 'significant artefact of railway history' now lies in 'dilapidated condition' at Shildon awaiting restoration.

MILES MCNAIR

***A History of British Railways' North Eastern Region* — John G Teasdale (editor)**

192pp, A4, 43 colour and 160 b&w photographs, 4 maps and plans, hardback, North Eastern Railway Association, 2009, ISBN 978 0 9561867 0 6, £19.95, obtainable from J G Teasdale, 42 Ridgeway, Leeds, Yorkshire LS8 4DF, £25 including postage (cheques payable to J G Teasdale)

This profusely illustrated collection of eleven linked papers discusses both the operational and engineering activities of the smallest of British Railways regions prior to its absorption into the Eastern Region in

1967. Two papers, which describe the organisational structure following Nationalisation and discuss the sometimes fraught relationship between the Transport Commission, the Railway Executive and the

dependent regions provide rather dry reading. The changing nature of freight traffic is then described, together with the provision of new large marshalling yards. Here a few track diagrams might have replaced wordy descriptions. A case study describes improvements in the conveyance of iron ore to Consett where, despite early success, the service was abandoned in 1974.

The region trailblazed the use of diesel-mechanical units on underused secondary services. Passenger numbers greatly increased, but not by enough to prevent many closures. Although the condemned lines are listed, the effect on passengers (such as the reviewer) are not discussed and the few brief case histories fail to mention the subterfuges employed to enhance expenditure and minimise receipts. The activities of the Marketing and Publicity sections

displayed a transparency regarding reduced fares that contrasts with today.

A somewhat routine description of locomotive allocations leads to a brief discussion of developments in motive power depots and workshops. Two meaty papers on Civil Engineering and Signal & Telecommunications emphasise their innovative role. Both papers are well written, but a few explanatory diagrams might have been more useful than photographs.

The inclusion of additional maps, plans and diagrams would have assisted anyone unfamiliar with the area or the topics described. Multiple authorship results in several projects being split between different sections: although here the index is useful. All papers are well referenced and a comprehensive bibliography is provided. Production is to the high standards characteristic of the Association. DENNIS HADLEY

***Great Western Stations (and Great Western Joint Stations) 1941–1947* — R J Smith**

216pp, A4, 80 photographs, maps, hardback, published by the author in conjunction with the Kidderminster Railway Museum, Station Approach, Comberton Hill, Kidderminster, Worcestershire DY10 1QX, 2005, ISBN 0 9534775 5 X, £19.95

The author has drawn together, apparently largely from published sources, information about stations on the Great Western Railway that were open to passengers some time during the period 1941 to 1947. Opening and closing dates for both passenger and goods traffic are provided as well as changes of name, information about the original companies promoting the line and the relevant acts of parliament. The stations are listed geographically in a line order generally following that in R A Cooke's *Atlas of the Great Western Railway as at 1947*. Where there is a

discrepancy in the information available, the author is honest enough to say so. There are many other snippets of information included. For example, where else would you learn in one place that the bay platform at St Erth was slightly lower than the main platform, that Dockyard Halt was staffed at peak periods only or that New Radnor was incomplete at opening? The author invites readers to provide additional information or corrections. This is an interesting book that represents good value for money.

RICHARD COULTHURST

***An Incredible Journey : the First Story* — Martin Helm**

208pp, 260x220mm, 193 photographs (almost all in colour), Granta Editions, 25–27 High Street, Chesterton, Cambridgeshire CB4 1ND, 2009, ISBN 978 1 857570 96 0, £24.95

When GRT was created as a management/employee buy-out of the former Aberdeen City Transport in 1986, it had 225 buses and 600 staff. It went public in 1994 and merged with Badgerline the following year, creating FirstBus. After gaining rail franchises, it was renamed FirstGroup. With public transport operations in Britain, the United States, Canada and Europe, and support services worldwide, it now has

a fleet of 80,000 buses & coaches and 2,000 railway carriages, and over 137,000 staff. Truly 'an incredible journey', which is fully documented in this beautifully produced book.

As well as the outline of the company's development, topics dealt with in some depth include innovation, safety, and the principles of route and timetable planning. Surprisingly little is said about

the competition with the rival British transport companies such as Stagecoach. The most interesting sections concern FirstGroup's acquisition of the Greyhound network and how it became the biggest provider of the yellow bus school contract services in the States. Finance is hardly mentioned, though it must have been crucially important to support such rapid growth.

The author states that, although the book was commissioned by FirstBus, he was given total

editorial freedom. Nevertheless, it reads like an extended publicity handout. The heroes are the staff and managers of FirstGroup, particularly its Chief Executive, Sir Moir Lockhead. The villains are (most) the politicians, civil servants, local authorities and regulators with which they have dealt. Because everything is considered only from FirstGroup's point of view, seemingly using only FirstGroup sources, it cannot be considered a balanced history.

PETER BROWN

***Waterways Journal: Volume 11* — Cath Turpin editor**

74pp, A5, numerous illustrations, paperback, Boat Museum Society, The National Waterways Museum, Ellesmere Port, Cheshire CH65 4FW, 2009, ISSN 1466 3732, £6.99 (£8.00 post paid)

This is the eleventh volume of this annual Journal, founded by the Boat Museum Society, and continues to feature four long illustrated articles, now under the editorship of RCHS member Cath Turpin. The opening article, by Colin Edmondson, covers the engineering history of the Weaver Navigation in copious detail, although his account does not cover improvements after the early twentieth century. Unusual details such as the ice-weirs, and the varied locations and falls of locks, are discussed. David Blagrove updates his earlier work on the early narrow boats of the Thames, necessarily speculative in view of the dearth of sources, his discussions of the associated Wilts & Berks and Thames & Severn Canals are stimulating, as is the curious history of the Buscot estate.

Martin O'Keefe's contribution on BCN tugs covers a range of studies, from the engine suppliers Perman & Co. to the development of the internal combustion engine, with company histories of the carriers WH Bowater and Chance & Hunt. These help to disentangle many complex questions about ownership and development. Finally, Terry Kavanagh leans heavily on local newspapers and official documents to details the lives of boatpeople, mostly on the Shropshire Union Canal, with many stories of a human interest nature. One issue raised is the variations between prejudice and support by local schools for boat children.

While they cover a range of diverse issues, all of these pieces provide solid contributions which should inspire and contribute to further research.

JOSEPH BOUGHEY

***Aylesbury — a county town and its station 1877–1905: an examination of the goods statistics of the Aylesbury branch of the London & North Western Railway and the characteristics of railwaymen from the censuses 1881–1901* — Keith Bailey**

27pp, 4 illustrations, 3 maps, 13 graphs, 13 tables, softback (*Buckinghamshire papers*, no. 14), Buckinghamshire Archaeological Society, County Museum, Church Street, Aylesbury, Buckinghamshire HP20 2QP, <http://www.bucksas.org.uk>, 2008, £5 (inc. p&p)

This monograph is based on a single source: a semi-official record of goods in and out of Aylesbury over an extended period, a very rare survival. Mr Bailey does this proud, subjecting it to a detailed analysis which brings out a clear picture of what went on in a typical small county town's goods yard over the period, supplementing it by some information on the men who carried out the work. There is plenty of food for thought for anyone with an interest in the

operation, economics and social influence of the pregrouping railways, including a significant rise in traffic of most kinds over the century's turn, and the size of the livestock traffic.

Mr Bailey and his publisher are to be congratulated on making this information available, and it deserves to be much more widely known than its geographical provenance might suggest.

MATTHEW SEARLE

***An Illustrated History of the Welsh Highland Railway* — Peter Johnson**

144pp, A4, 136 b&w photographs, 95 colour photographs, 30 maps and plans, hardback, Oxford Publishing Co. (Ian Allan Publishing Ltd), Hersham, Surrey KT12 4RG, 2009, ISBN 978 0 86093 626 8, £19.99

The Welsh Highland Railway opened in 1923, from Dinas near Caernarvon to Portmadoc. Its route incorporated earlier lines, including the North Wales Narrow Gauge Railway (1877) and part of the Croesor Tramway (1864). For most of its life it was struggling and traffic eventually ceased in 1937. Remarkably, although dead it would not lie down. The liquidator had not been able to dispose of the trackbed by 1961 when he was approached by enthusiasts who wanted to restore part of the line. This was to lead to a multi-million pound project to reopen it all and extend it to Caernarvon, in stages from 1997 to 2009.

This book has been issued to coincide with the grand opening of the whole line. It is nominally a new edition of a work published in 2002, reviewed in the *Journal* for march 2003, but it has been rewritten to incorporate fresh information that has come to light about earlier years, and most of the maps and photographs are different. As well as a detailed look at the development of the main players from the 1860s to the present day, the book covers other railways proposed for the locality, some of them partly constructed. We are taken through numerous legal cases and inquiries, in the 1990s as well as the 1900s. The WHR has a complicated story, and this book tells it well.

ALLAN BRACKENBURY

***Railway Walks: Wales* — Jeff Vinter**

194pp, 235x155mm, 63 photographs (8 in colour), 16 maps, paperback, The History Press, The Mill, Brimscombe Port, Stroud GL5 2QG, 2009, ISBN 978 0 7524 4934 0, £14.99

This book, first published in 1994, has been reprinted with limited updating to coincide with the television series of the same name presented by Julia Bradbury and for which the author was a consultant. It describes a number of walks in Wales, usually along the trackbed of abandoned railways, ranging from the very short such as that along the former Holywell branch to the very long such as the Taff Trail from Brecon to Cardiff. Each chapter provides a history of the line concerned and a description of the route. The author admits in the preface that his television commitments have prevented him from updating the bus and train access information so it remains as it

was in 1994 with details of services, operators and contact telephone numbers that are now wrong. The book is marred by a number of typographical errors.

The sketch maps are useful for locating the walks but anyone planning to undertake them might find it advantageous to obtain a large scale map of the area concerned. The book is well illustrated including eight magnificent colour photographs by the author and has a useful appendix listing the other official railway walks in Wales. The extensive bibliography does not appear to have been added to since the first edition.

RICHARD COULTHURST

***Great Western Stations (and Great Western Joint Stations) 1941–1947* — R J Smith**

216pp, A4, 80 photographs, maps, hardback, published by the author in conjunction with the Kidderminster Railway Museum, Station Approach, Comberton Hill, Kidderminster, Worcestershire DY10 1QX, 2005, ISBN 0 9534775 5 X, £19.95

The author has drawn together, apparently largely from published sources, information about stations on the Great Western Railway that were open to passengers some time during the period 1941 to 1947. Opening and closing dates for both passenger and goods traffic are provided as well as changes of name, information about the original companies promoting

the line and the relevant acts of parliament. The stations are listed geographically in a line order generally following that in R A Cooke's *Atlas of the Great Western Railway as at 1947*. Where there is a discrepancy in the information available, the author is honest enough to say so. There are many other snippets of information included. For example, where

else would you learn in one place that the bay platform at St Erth was slightly lower than the main platform, that Dockyard Halt was staffed at peak periods only or that New Radnor was incomplete at opening? The

author invites readers to provide additional information or corrections. This is an interesting book that represents good value for money.

RICHARD COULTHURST

***The Ulverstone and Lancaster Railway: the challenge of Morecambe Bay* — Leslie R Gilpin**

96pp, A4, 66 b&w and 9 colour photographs and 21 maps, plans and drawings, paperback, Cumbrian Railways Association, 19 Windsor Drive, Miskin, Pontyclun, Glamorganshire CF72 8SH, 2008, ISBN 978 0 9540232 7- , £ 13.50 (+ p&p £1.50)

This is one of a number of books that have been published by the Cumbrian Railways Association about the county's railways and the communities they served. The Ulverstone & Lancaster Railway was constructed in the 1850s after earlier attempts, including proposals to route the West Coast line this way, had failed. Communications were important to the relatively isolated Furness district, so the commercial background and the personalities involved in its promotion are described, before a detailed account of the railway's construction, including the problems of crossing Morecambe Bay. Two-thirds of the book is then given over to descriptions of the development of the area consequent upon the coming of the railway, the progress of the railway from its independent lifetime to modern times, and its train services. An epilogue

briefly considers other proposals for using Morecambe Bay.

The numerous illustrations are drawn from a wide variety of sources and cover the subject well, both chronologically and geographically. Some specially drawn maps are admirably clear and others, based for example on the Ordnance Survey, have been modified in order to support the text more clearly. The author has clearly delved extensively in his research, so it is a pity that his sources are listed too briefly and there are no footnotes to enable readers to follow up items of interest. Occasionally individuals are introduced as old friends and only subsequently is it explained who they are. Nevertheless, it is a well-rounded book that describes the railway itself and sets it in its context, and can be thoroughly recommended.

PETER CROSS-RUDKIN

***Industrial Railways and Locomotives of the County of London* — Robin Waywell & Frank Jux (compilers)**

272pp, A5, 80 b&w photographs, 23 maps, hardback or paperback, Industrial Railway Society, 24 Dulverton Road, Melton Mowbray, Leicestershire LE13 0SF, 2009, ISBN 1 978 901556 51 3 (hardback) ISBN 1 978 901556 52 0 (paperback), £19.95 hardback (£20.95 incl. p&p), £16.95 paperback (£18.65 incl. p&p)

One in an ambitious series that aims to document all industrial railways and locomotives in the UK, this book tackles those that fall within the boundary of the former County of London (in existence 1888 – 1965). The first section covers industrial concerns operating locomotives; following sections cover contractors' locomotives, locomotive builders and dealers, preservation sites, exhibition and other temporary sites and industrial lines that were not locomotive-worked.

At the front of the book there are both general and detailed maps. For each site there is, where known, a reference to the relevant map section and a national

grid reference. Then follows a short historical description, with source references and a table of all locomotives known to have been located on the site, including details of provenance and disposal. There are three indices: by locomotive builder, by locomotive name and by locations and owners. The photographs are isolated in a section at the back. A weakness of this arrangement is that there are no cross references from the site descriptions.

This is an ongoing project, so the amount and completeness of information varies greatly, but it is an excellent book and an essential resource for anyone interested in the industrial railways of London.

TIM EDMONDS

Short reviews

***The Rise and Fall of the Severn Bridge Railway 1872–1970* — Ron Huxley**

174pp, 235x155mm, 75 b&w photographs, plans etc., paperback, Amberley Publishing, Cirencester Road, Chalford, Gloucestershire GL6 8PE, 2008, ISBN 978 1 84868 033 3, £14.99

This is a reprint, without any updating, of a book published in 1984 and reviewed in the *Journal* for March 1985. The Severn railway bridge was an engineering success but a commercial failure as it never attracted the anticipated traffic. The accident in 1960, when two barges collided with the bridge, spelled the end. The late author was a professional engineer and therefore concentrated on the construction and demolition of the bridge.

The following four books by Vic Mitchell and Keith Smith, each 96pp, 236x166mm, 120 b&w photographs, are available from Middleton Press, Easebourne Lane, Midhurst, West Sussex GU29 9AZ:

Rhymney and New Tredegar Lines

4 timetables, 21 illustrated tickets, 2 gradient profiles and 25 maps, laminated hardback, 2009, ISBN 978 1 906008 48 2, £15.95 (post free)

The book presents the railways on either side of the Rhymney valley - north of Ystrad Mynach and Pengam and from the Rhymney Railway from Cardiff on the west to the Brecon & Merthyr Railway from Newport on the east. The lower sections of these railways are dealt with in other books in this series. The authors keep to their usual format – “follow the line stopping at every station”. This time they couldn’t ignore the collieries, and the massive Bargoed tip is prominent in several of the well-selected photographs.

Wolverhampton to Shrewsbury

timetables, illustrated tickets, gradient profiles and maps, hardback, 2009, ISBN 978 1 906008 44 4, £15.95 (post free)

With eight junctions along the way and interactions between the GWR and LNWR at both ends, this line

is interesting. The rarely depicted Kingswinford branch, a late but short-lived addition to the GWR system, is included. The complex junctions north of Wolverhampton are fully covered, helped by large scale extracts from OS maps. Most of the photographs are of the steam era but recent pictures include the new Wrexham to Marylebone service.

Welshpool to Llanfair

timetables, illustrated tickets, gradient profile and maps, hardback, 2009, ISBN 978 1 906008 49 9, £15.95 (post free)

This 2ft–6in. gauge railway, operated in real life from 1903 to 1956 and in preservation since 1963, was a sylvan branch connecting Llanfair Caereinion to the main Cambrian line at Welshpool. The most interesting part of the line, through the backstreets of Welshpool, was never restored so the wealth of pictures from this area is particularly valuable. The short section where the railway ran above the Lledan Brook was unique. Original motive power was only the Beyer Peacock married couple *The Earl* and *Countess*. In preservation a wide variety of diesel and steam examples are depicted, drawn from different parts of the world.

Cardiff to Swansea including the Cowbridge and Porthcawl branches

6 timetables, 10 illustrated tickets, 3 gradient profiles and 31 maps, laminated hardback, 2009, ISBN 978 1 906008 42 0, £15.95 (post free)

This is an informative journey (by stopping train) along the former GWR main line, illustrating all stations and passenger branch junctions along the way. Chronologies, employment and passenger statistics and signalling details are included. The route crossed the railways connecting the industrial Glamorganshire valleys with six rival ports (Penarth, Barry, Porthcawl, Port Talbot, Briton Ferry and Swansea). Detours are taken down two of the branches and the authors can be forgiven as they acknowledge their failure to illustrate every station on the reclusive Cowbridge and Aberthaw branch.

Notes for Contributors

The Editor welcomes the submission of interesting relevant articles. Potential contributors should contact him for a copy of the Guidance on writing for the Journal, including the style sheet. A copy is also available on the RCHS website, www.rchs.org.uk

Authors need not be members of the Society, though preference for publication is normally given to members.

Articles must be relevant to the aim of the Society, which is 'to encourage the study of the history of transport, with particular reference to railways, waterways and all matters associated with them'. Articles will therefore be considered on:

- any mode of transport (not just railways and canals);
- any historical aspect of transport, including social and economic; and
- subjects that would assist others in undertaking transport research.

Articles should be of potential interest to a significant proportion of the general membership. Thus, if they are on a particularly detailed or obscure subject, they should help to illuminate a wider topic.

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