

Thomas Telford and the Ellesmere Canal, 1793–1813

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Canal management in the 1790s

Canals were generally local projects, with most of the finance being provided by the landowners, industrialists and bankers of the area. At the annual meeting these shareholders elected a committee from amongst their number, and usually it was a smaller group from within this committee who took on the arduous but unpaid role of managing the company. Sometimes this group would contain people with specific valuable expertise: as agent to a large landed estate, perhaps, or as an ironmaster.

To assist them they would employ outside expertise: a clerk and legal adviser (usually from a local firm of solicitors), a treasurer (often a local banker), and a principal engineer — someone who (ideally) had considerable experience in the then-emerging profession of civil engineering who could help steer the project through Parliament, undertake the design work using his own assistants as required, advise on contracting and settle disputes, and thus bring the construction project through to completion. Some staff would be employed directly by the canal company: perhaps a resident engineer and surveyor (appointed on the advice of the principal engineer), a general agent to carry out the day-to-day administration, and an accountant/cashier.¹

We nowadays tend to credit the canal to the principal engineer, though the driving force was usually the active group within the committee of shareholders. The principal engineer could be working on several schemes at the same time so actually be devoting relatively little time to the specific project. This was particularly true in the 1790s, the time of the 'Canal Mania'.

The Ellesmere Canal

The Ellesmere Canal was a product of the Canal Mania. It was intended to be a trunk route linking the river Severn at Shrewsbury with the Dee at Chester and the Mersey estuary at what is now Ellesmere Port. En route it (or branches from it) was to serve the limestone quarries of the Llanymynech/Froncysyllte area, the coal mines and industry

of the Wrexham/Ruabon area, and the rich agricultural area of north Shropshire and west Cheshire.

As was usual, only a small group of the shareholders were actively involved in the detailed decision-making: the people in this inner group varied slightly over the years but numbered about eight, of whom three seemed to share the role of chairman — all three being members of the Shropshire squirarchy. The committee met virtually every month from 1793 until mid-1797, then at least six times a year until the works were substantially completed towards the end of 1805.

The embryonic canal company had employed local surveyors and, with the advice of William Jessop, the leading canal engineer of the day, in 1793 obtained the necessary Act of Parliament. Charles Potts and Stephen Leeke of Chester were appointed solicitors; Eyton & partners of Shrewsbury as Treasurer. Jessop never seems to have been formally appointed but continued to be consulted. An advertisement was then placed for 'a person qualified to superintend the works as a general overlooker, to keep accounts and to pay workmen'.

Telford's appointment as General Agent

Thomas Telford, a well-connected Shrewsbury 'architect' (as he described himself) who had in 1787 become Shropshire's County Surveyor of Public Works, wrote to the canal company proposing himself as 'general agent, surveyor, engineer, architect and overlooker of the canal and clerk to the committee ... and, when appointed, to make drawings and submit them to the consideration and correction of Mr Jessop or their principal engineers'. This was of course a wider role than that envisaged in the advertisement — in modern terms it would be 'Chief Executive'. The committee accepted Telford's offer, except that appointing him clerk would need the approval of the General Assembly of Proprietors (GA).²

Telford's autobiography, written almost forty years after the event, implies that, rather than applying for the post of general agent, he was invited to take it:

The committee of management, composed chiefly of county magistrates, having, at the quarter sessions and other public meetings, observed that the county works were conducted to their satisfaction, were pleased to propose my undertaking the conduct of this extensive and complicated work; and feeling in myself a stronger disposition for executing works of importance and magnitude than for details of house architecture, I did not hesitate to accept their offer.³

A letter written by Telford at the time confirms the sequence of events and gives more details:

I was last Monday appointed sole agent, architect and engineer to the canal which is to join the Mersey, the Dee and the Severn. ... You will be surprised that I have not mentioned this to you before, but the fact is that I had no idea of any such thing until an application was made to me by some leading gentlemen, though many others had made much interest for the place.⁴

The meeting which appointed Telford was chaired by John Hill, one of the two MPs for Shrewsbury. The other Shrewsbury MP, and Hill's political ally, was William Pulteney, Telford's patron — indeed, the man who had brought him to Shrewsbury.⁵

The person most disappointed by the committee's decision to appoint Telford was William Turner, who had done many of the early surveys and had hoped to get the job of general overlooker. He wrote to William Jessop (who, contrary to normal practice, had not been consulted) explaining what had happened and asking for his opinion. Jessop's reply would better have been addressed directly to the committee than via a disgruntled candidate. He stated:

I think as you do that no one man can properly undertake the actual direction of the whole of so extensive a concern as a man of art [in other words, engineer], and at the same time manage the accompts [accounts].

I have always advised every person who had engaged in the direction of the mechanical part of a business of this kind not to divide his attention by interfering as an accomptant [accountant] because he may have full employment in the former if he makes best use of his time; and others better qualified for the latter than he probably can be may have full employment also. I am quite unacquainted with Mr Telford and his character; from the little acquaintance I have had with you I wish you might have had the direction of that part of the business which you have proposed to undertake, and I do not think that the terms you have offered to undertake it for are unreasonable. If the committee should consult me on this question, I should tell them so.⁶

This letter was considered by the committee at its meeting just before the General Assembly on 30

October 1793. Nevertheless the latter confirmed Telford's appointment as 'general agent, surveyor, engineer, architect and overlooker of the works' but declined to appoint him clerk as well, appointing Charles Potts, one of the solicitors, instead.

Katherine Plymley, an acquaintance of Thomas Telford, wrote in her diary on 5 November 1793 that he had visited the family that day and that he 'has just received a very advantageous new appointment, the entire management of the canal that is to form a junction between the Severn, Dee and Mersey'.⁷

Telford's role during the construction period (1793–1805)

Over the years, the minutes of the Ellesmere Canal company indicated what Telford was actually expected to do and what he should leave to others. (Often the minutes did not specifically ascribe who would be responsible for implementing a decision — such instances are ignored below.)

The minutes were not consistent about his job title. He was usually described as 'general agent' but occasionally as 'general agent and surveyor', 'general surveyor and agent', 'general agent and engineer', or 'surveyor'.⁸ He was never referred to solely as 'engineer', though this was how he was described (presumably by himself, or at least with his approval) in a schedule of the dimensions of the Pontcysyllte and Chirk Aqueducts which accompanied the official opening of the former in 1805.⁹

On several occasions Telford was asked to make surveys and plans but, certainly until 1796, the minutes made it clear that William Jessop was the person responsible for advising the company about the best course of action with regards to the most important engineering issues.¹⁰ The minutes refer to Jessop as 'principal engineer' on three occasions¹¹ but he does not seem to have attended many General Assembly or General Committee meetings.¹²

However, Telford's autobiography minimises Jessop's role. In the context of the Ellesmere Canal, the only mention of him is: 'in regard to earth work, I had the advantage of consulting Mr William Jessop, an experienced engineer, on whose advice I never failed to set a proper value'.¹³ There is no hint that Jessop may have had wider responsibilities.

In his oration at the opening of Pontcysyllte Aqueduct, Rowland Hunt, who had been closely involved since 1791, gave a brief history of the canal project, acknowledging the contribution of the

various people involved. He said:

We will mention, as concerned in the scientific and practical construction of the works, our general agent, Mr Telford; who, with the advice and judgement of our eminent and much respected engineer, Mr Jessop, invented, and with unabating diligence carried the whole into execution.¹⁴

As a confirmation of the extent of Jessop's involvement, the accounts show that he was paid £1,103.18s for 'sundry surveys, journeys, inspections, plans, estimates, and for attending Parliament at several times'.¹⁵ His rate of pay was five guineas a day plus expenses, so this equates to about 180 days' work.

The minutes show that the actual making of the survey was sometimes explicitly delegated, most often to John Duncombe, but in one or two instances each to William Turner & John Duncombe, John Fletcher, John Duncombe & John Fletcher, and Arthur Davies & Richard Jebb. On one occasion Telford and Duncombe were asked jointly to report.¹⁶ John Duncombe was described as 'engineer'; he had become a salaried employee in April 1795.¹⁷

Technical issues delegated to Telford alone included the site for Rowland & Pickering's experimental boat lift trial (December 1794), the possibility of a pumping engine to raise water from the Mersey (May 1795), a comparative engineering and cost assessment of lockage and an inclined plane (April 1797), 'to make out the necessary drawings and specifications for ... compleating' Pontcysyllte aqueduct (November 1801), and advising on the rails and wagons to be used for the Ruabon Brook railway (April 1803). In March 1798 Telford, with Duncombe and a committee member, was asked to view the Peak Forest Canal's railway and report on costs; at the following meeting the same team was asked to examine the option of replacing part of the proposed line of the canal with a railway.

On the other hand, Jessop was specifically assigned the responsibility for assessing the compensation tolls if the Commercial Canal were to be built from the Potteries (September 1796), and for giving his opinion on Rowland & Pickering's experimental boat lift (September 1800 with John Rennie).

The Ellesmere Canal required several Acts of Parliament, mainly because of the repeated changes in the plans but also to permit more money to be raised. Jessop gave evidence for the initial Act of 1793 and for subsequent Acts of 1796 (two), 1801 and 1804. The 1793 Act was before Telford was appointed, of course. Jessop was assisted by Denson

at one of the 1796 hearings, and by Telford and Denson at the other. In 1804 Jessop was responsible for proving the preamble and the estimates, whilst Telford gave evidence on the financial position of the company — this is exactly the division of duties one would normally expect between the principal engineer and the general agent.¹⁸

The surviving formal progress reports made to the General Assembly meetings were presented by Jessop in July 1795 and January 1800, and by Telford in November 1801 and June 1802. In October 1803 Jessop was asked to inspect the whole canal and provide a written report. There is no mention in the minutes of the report being received though that does not mean it was never written. The minutes do not generally seem to have mentioned matters where the decision was merely 'Report noted'. Jessop gave evidence to Parliament the following spring on the issues which the committee had asked him to specifically look at when writing this report. Telford, as general agent, wrote various other formal reports, such as the circular to shareholders in October 1795.¹⁹

Telford let construction contracts and settled issues concerning them;²⁰ on one occasion these were assigned to Jessop (November 1796). Telford was in charge of the section built by direct labour between Chirk and Pontcysyllte aqueducts, 'agreeable to the directions in Mr Jessop's report' (December 1795). He also let contracts for building boats (December 1794, June 1796, February 1804), making bricks (December 1795), erecting a windmill (February 1797, though this was not proceeded with), constructing limekilns (February 1798), and for a pumping engine powered by steam (June 1798).

He often met and negotiated with landowners or their agents or with other canal companies, and sometimes acted as a valuer.²¹ At other times these duties were undertaken by named committee members or by outside valuers.

Occasionally he was specifically named in connection with purely administrative affairs: to find a convenient office and committee room at Ellesmere (December 1793); to arrange the payment of interest on calls (August 1794); to 'make a circuit' to collect money due from shareholders, register stock transfers and answer questions (March 1795); to provide a list of shareholders who were in arrears (August 1798); to place an advertisement concerning calls on shares (GA November 1802); and to calculate the interest due from the Chester Canal (March 1805). He was given an imprest of £200 to meet expenses

(August 1794). Some administrative tasks were explicitly delegated to others; for example, Charles Potts was asked to settle the committee's wine bill of £102 less any discount (September 1801).

Certainly in the earlier years, much of Telford's energy was devoted to the purely management issue of resolving conflicts. In a letter he referred to the 'violent agitations ... and often clashing interests to contend with or reconcile'. Once part of the canal was open he had to spend time developing the trade; again he mentioned dealing with 'many contending and clashing interests'.²²

The operational period (1806–1813)

Once the construction of the canal had been substantially completed, the management structure was changed. Thomas Telford's role was reduced to having the duty 'for some years to come, twice in every year, to examine and report upon the state of all the canal works, and point out what occurs to him, not only with regard to the works, but also to the general interests of the company'.²³ Thomas Stanton became general accountant and Thomas Denson resident engineer.

Thomas Stanton was referred to as 'agent' in the minutes of the meeting on 9 July 1806. Stanton was doing such work as paying contractors and arranging the sale of surplus assets and, judging by subsequent minutes, undertook almost all the day-to-day administrative affairs of the canal after this date. In 1811 the minutes refer to him as 'general agent' at the time when the role of engineer was added to his other duties, following the death of Denson.

However, Telford was referred to as 'general agent' in March 1806 when he (or the clerk) was instructed to write to the Chester Canal company stressing that the greatest care should be taken to prevent any waste of water. The title 'general agent' was used again in March 1808 when, because he was in London, he was asked to enquire about the Trent & Mersey Canal Company's Bill concerning the rating of canal property.

The minutes were not explicit, but it can be inferred that from 1809 Telford was visiting only once a year, during the winter. He does not seem to have attended any meetings but his reports were read and Denson (later Stanton) instructed to take the necessary action.

The other specific references to Telford after 1805 concerned: producing a statement of assets and liabilities (March 1806); to attend a committee

auditing the late treasurer's accounts (June 1806); directing the construction of graving docks and buildings at Pontcysyllte (November 1806); the tonnage rates for iron (September 1807); the painting of Pontcysyllte aqueduct, the construction of a further wharf at Chester, and the extension of a public house at Ellesmere Port (all November 1807); settling tolls for passenger boats on the Whitchurch line (March 1808); and to report concerning a dispute with Messrs Turner, Llangollen mill-owners (October 1809, February 1810).

In 1810 Telford reported on the need for a graving dock and associated buildings at Ellesmere Port for the repair of flats and small coasting vessels. He proposed that the site should be leased to him; he would construct the facility at an estimated cost of £5,000 and sub-let it. The canal company could take the land back any time after 14 years on payment of a sum not exceeding £5,000. This was agreed and a contract was drawn up and sealed.²⁴

Physical evidence

In the absence of signed drawings, it is not possible to say for certain which buildings and structures were designed by Telford personally, which somebody else designed but he then approved, and which were fully delegated. However, two houses in particular have the appearance of being true Telford designs: the company offices by the junction at Ellesmere (later known as Beech House) and the lock-keeper's house at Grindley Brook. The other smaller houses are more bland in appearance — unlike, say, the delightful lock-keepers' cottages on the Birmingham & Liverpool Junction Canal, which are clearly based on Telford's designs for toll-houses on the Holyhead Road.

The exact responsibilities for the great aqueducts at Pontcysyllte and Chirk have been a matter of dispute but are certainly credited to Telford both in his autobiography and in the popular imagination.²⁵ Telford probably had the idea of allowing the water to flow under the towpath in the tunnels; this had first been done in Berwick Tunnel on the Shrewsbury Canal, with which Telford was associated.²⁶ It is difficult to come to a firm conclusion about the other engineering structures, which generally do not have the elegance associated with later Telford projects — the bridges, for example, do not have the subtle and complex curves possessed by those on the Birmingham & Liverpool Junction Canal.

Telford's terms of employment

Telford had offered to undertake the work for a salary of £500 a year, from which he would meet the salaries 'of his confidential foreman or inspector and clerk and other persons as shall be necessary' to be employed by him. He soon had second thoughts, and only three months later proposed that he should be paid £300 a year with the salaries of any assistants being paid by the company. This was agreed with effect from 1 January 1794. Unfortunately, the minutes do not record what assistants were actually appointed.²⁷

In his letter to the committee when he made his original offer, Telford undertook 'not to engage himself in any other concern that may require his personal attendance or in any way interfere with the duties of his intended appointment ... without leave of the committee'.²⁸ In a letter to a friend he wrote: 'I have reserved the right to carry on such of my architectural business as does not need my personal attendance, so that I shall retain all I wish for of that, which are the public buildings and the houses of importance.'²⁹

Telford therefore continued as County Surveyor, a role which carried no salary, instead being paid an appropriate fee whenever he was called to advise. Thomas Denson and (later) Thomas Stanton, both employees of the Ellesmere Canal company, assisted him in this work, drawing up plans under Telford's supervision, and monitoring the contracts.

Telford also continued his work in Scotland for the British Fisheries Society, mainly harbour works and 'town planning'. From 1795 to 1797 he advised the Shrewsbury Canal's committee about engineering aspects of the completion of its canal. Then from 1801 he was involved in government surveys for roads, harbours and other public works in the Highlands of Scotland, culminating in his appointment in 1803 (jointly with Jessop) as engineer for the construction of the Caledonian Canal.³⁰ About this time he also took permanent lodgings in London, appropriately at the Salopian Coffee House.³¹ No doubt the Ellesmere Canal committee was aware of these other commitments, though there is no reference in the minutes to them. It is clear from the summary accounts produced in November 1805 that Telford claimed his full salary of £300 every year with no diminution for his increasingly lengthy absences.

When Telford ceased to have day-to-day responsibilities at the end of 1805, his annual salary was reduced to £100. Stanton and Denson were both paid

£150 a year; these amounts were both increased by £15 in 1809 to compensate them for the introduction of income tax.³² Following Denson's death in 1811, Stanton's salary was first increased to £320, but when his appointment was confirmed by the General Assembly in July 1812, it was made £400.

The committee was unhappy about Stanton's work for Telford as County Surveyor. In November 1811 they permitted this work to continue until the following June though they minuted that 'such employment is incompatible with the due discharge of his duties'. At the General Assembly meeting in July 1812, Stanton 'engaged to devote the whole of his time and attention to the concerns of this company'. Nevertheless, Stanton continued to design bridges and supervise their construction right up to the time of Telford's death in 1834.³³

Conclusions

During the construction period, William Jessop was clearly regarded as the principal (consulting) engineer. Jessop took the main burden of the parliamentary work but seems to have taken a diminishing part of the design work as time went on, partly, no doubt, because he knew he had such an able person as Telford working locally. Perhaps as importantly, Jessop was over-committed during these years. His other canal works included the Grand Canal (Dublin to the Shannon, 1789–1800), Grand Junction Canal (1793–1803), Barnsley Canal (1793–1802), Grantham Canal (1793–1797) and Rochdale Canal (1794–1802). From 1800 to 1805 his major project was the West India Docks. In addition to these he was consulted on various other canals, river improvements, drainage schemes and harbours. He was also a partner in Butterley ironworks, and somehow he found time to be mayor of Newark in 1803/4.³⁴ The Ellesmere Canal was unique amongst his works a being a canal for narrowboats — all his other canals being for boats 14ft wide — and it may have been that he found it less satisfying.

Thomas Telford's appointment into a post which combined the roles of general agent with those of resident engineer was certainly unusual and possibly unique. He seems to have been involved in all aspects of the work, and this appears to have been successful because he was a person who was willing to listen to others and to delegate effectively — unlike, say, Brunel. He and Jessop must have got on reasonably well together, or Jessop would not have agreed to work in partnership with him again on the Caledonian

Canal from 1803.

Disputes about who designed exactly what are largely fruitless, as the designs of the most important structures almost certainly emerged from the collaborative effort of not only Telford and Jessop but also Matthew Davidson (the resident engineer for the stonework of the aqueducts), Hazledine (the contractor for their ironwork), William Stuttle (Hazledine's foreman) — and possibly others. My opinion is that Telford probably had the largest contribution to their design, but that Jessop bore the ultimate responsibility.

The attitude to outside work seems curious and would not be tolerated nowadays. Telford said that he would only do work which did not require his personal attendance, but proceeded to use a member of the canal company's staff, first Thomas Denson and later Thomas Stanton, to undertake the time-consuming parts of that work, including attendance at the sites. Then in 1812 Stanton promised not to continue his work for Telford — but did so nevertheless.

It is not now possible to assess accurately how much absence Telford had from what was meant to

be full-time employment by the Ellesmere Canal, but after 1801 his Scottish commitments must have taken at least a third of his time. His role changed at the end of 1805 to reporting twice a year, but from 1809 he seems to have been doing this only once a year, though there is no mention in the minutes of his remuneration changing from an annual salary of £100 to a daily fee.

Telford cannot be blamed for the Ellesmere Canal failing in its original objectives of linking the Severn, Dee and Mersey and serving the industries of east Denbighshire. The inner group of shareholders who oversaw the construction must take the responsibility for this, particularly their continuing indecision about how they could best achieve their objectives. Costs increased in excess of the original estimate — which was Jessop's, not Telford's, of course — largely because of the price inflation which affected all civil engineering projects during this period. Telford's designs were not unduly expensive, a criticism which could more fairly be made of some of his later schemes. However, this flawed canal project has nevertheless left us with two of the finest structures of the Canal Age: Pontcysyllte and Chirk Aqueducts.

Notes and references

The sources are inconsistent concerning what words are given capital letters. The quotes in this article therefore generally use small case letters, regardless of what was in the original text. The modern spelling has been used for place names.

The minutes of the Ellesmere Canal are in the Public Record Office: General Assembly meetings, file RAIL827/5; General Committee, files RAIL827/1–3. References to the minutes of the General Assembly of Proprietors are indicated by 'GA'; all other minute references are to the General Committee unless indicated otherwise.

1. A typical contemporary example was the Grand Junction Canal, 93 miles long from the Thames at Brentford to Braunston in Northamptonshire, with a 13 mile branch to Paddington, which received its Act on the same day as did the Ellesmere Canal. Edward Gray of Buckingham and Acton Chaplin of Aylesbury were appointed as joint solicitors and clerks, Philip Box (a Buckingham banker) as treasurer, and William Jessop as chief engineer. The two senior directly-employed staff were James Barnes as resident engineer, and Thomas Homer as superintendent, his duties being to 'control, audit and methodise the accounts' and to superintend matters generally. (Alan Faulkner, *The Grand Junction Canal*, 1993, 2 & 9)
2. 23 September 1793

3. Thomas Telford (edited John Rickman), *Life of Thomas Telford*, 1838, 34
4. Letter from Thomas Telford to Andrew Little, 29 September 1793. Transcripts of the Little letters are in the Ironbridge Institute Library.
5. William Pulteney (1729–1805) was born at Westerhall, Eskdale, the Dumfriesshire valley which was also Thomas Telford's birthplace. Thomas Telford's uncle was probably factor to Sir James Johnstone, Pulteney's elder brother. (William Pulteney changed his surname on marrying the heiress of the Earl of Bath.) Telford was employed by Pulteney on various projects from 1783, and a close friendship developed.
6. Letter from William Jessop to William Turner, 2 October 1793: Shropshire Archives, 6000/15016
7. Quoted in Anthony Burton, *Thomas Telford*, 1999, 21
8. General agent: 7 February 1798, 25 November 1801, GA 25 November 1801, 9 February 1803, 13 March 1805, 26 June 1805, 31 July 1805. General agent and surveyor: GA 29 April 1795. General surveyor and agent: 17 January 1794, 10 August 1795. General agent and engineer: 17 July 1803. Surveyor: 18 December 1793.

9. Oration annexed to the *Report to the General Assembly of the Ellesmere Canal Proprietors*, 27 November 1805, 32: Shropshire Archives, 665/3/206
10. Examples include 3 March 1794, 31 March 1794, 8 July 1795, 10 August 1795, 9 September 1795, 14 October 1795, 21 December 1795, 29 July 1796.
11. 6 March 1795, GA 29 April 1795, GA 28 October 1795
12. As the minutes do not list exactly who was present, it is not possible to create a definitive list of Jessop's attendances. However, he certainly attended on 17 January 1794, 10 August 1795 and GA 30 November 1803 — the last is known because he was included in the list of shareholders present.
13. Thomas Telford (edited John Rickman), *Life of Thomas Telford*, 1838, 34
14. Oration annexed to the *Report to the General Assembly of the Ellesmere Canal Proprietors*, 27 November 1805, 21–2: Shropshire Archives, 665/3/206
15. *Report to the General Assembly of the Ellesmere Canal Proprietors*, 27 November 1805, 28
16. John Duncombe: 25 May 1794, 10 August 1795, 21 December 1795, 29 July 1796, 30 November 1796, GA 30 November 1796. John Duncombe & William Turner: GA 30 October 1793. John Fletcher: 1 August 1794, 27 June 1796, John Duncombe & John Fletcher: 9 April 1800, 25 June 1800. Arthur Davies & Richard Jebb: 10 August 1795. Thomas Telford & John Duncombe: 6 October 1797.
17. GA 30 October 1793 jointly with William Turner, 10 August 1795, 30 November 1796. John Duncombe had become a salaried employee in April 1795. Initially he had to meet the salaries of Thomas Denson and his other assistants out of his own annual salary of £250, but in January 1798 his salary was reduced to £210 a year and his assistants were transferred to the company's payroll. He resigned in 1803 to work for Telford as chief superintendent of the Highland roads of Scotland. Thomas Denson, formerly Duncombe's assistant, was appointed engineer of the Ellesmere Canal company on the substantially lower salary of £150 a year.
18. Charles Hadfield & A W Skempton, *William Jessop, Engineer*, 1979, 148 & 151–2. In Hadfield's *Canals of the West Midlands* (second edition, 1969, page 179) it is stated: 'Jessop left about 1801'. Hadfield was then obviously unaware of Jessop's evidence in support of the 1804 Act.
19. Unfortunately, a full set of the reports to the General Assembly have not survived. Similarly, only one letter from Jessop to Telford has survived, though there must have been many more.
20. 30 April 1794 jointly with Potts, 9 September 1795, 29 July 1796, 9 August 1797, 7 February 1798, 14 November 1804 jointly with two committee members.
21. Negotiator: 29 October 1794, 24 August 1796, 13 January 1797, 9 September 1800, 31 July 1805. Valuer: 5 January 1795, 12 April 1797, 6 October 1797, 21 August 1799
22. Letters to Andrew Little, 6 November 1795 & 6 March 1798
23. *Report to the General Assembly of the Ellesmere Canal Proprietors*, 27 November 1805, 20–2: Shropshire Archives, 665/3/206. These decisions never appeared in the minutes of the company. Telford's role does not seem to have been given a formal title at this stage.
24. 20 November 1810, 27 November 1811
25. Charles Hadfield, *Thomas Telford's Temptation*, 1993, 92–6; Roland Paxton, book review in *ICE Panel for Historical Engineering Works Newsletter*, December 1993 (no 60), 6–7; Thomas Telford (edited John Rickman), *Life of Thomas Telford*, 1838, 39–47
26. Thomas Telford, 'Canals', in Joseph Plymley, *General View of the Agriculture of Shropshire*, 1803, 301
27. 18 December 1793
28. 23 September 1793
29. Letter to Andrew Little, 3 November 1793
30. Roland A Paxton, 'Thomas Telford', *Biographical Dictionary of Civil Engineers*, Volume 1, 1500 to 1830, 2002, 693–4
31. L T C Rolt, *Thomas Telford*, 187
32. *Report to the General Assembly of the Ellesmere Canal Proprietors*, 27 November 1805, 21–2: Shropshire Archives, 665/3/206; 1 March 1809
33. Anthony Blackwall, *Historic Bridges of Shropshire*, 1985, 27–49, ascribes the following bridges to Stanton after 1812, and there may have been others: Newton, Cantlop (both 1813), Rhyd-y-Croesau, Cound (1818), Barton's (1819), Caynham (1821), Stokesay (1822), Wolverley (1824), Dinham, Marlbrook, Glazeley, Horseford, Priors Moor, Walltown, Wallsbatch (1825), Strefford (1826), Llwynymaen (1827), Ollerton, Brockton (1829), Bearstone (1830), Milford, Broadward (1831), and Clunford (1834). Most of these were built after the merger with the Chester Canal, but it reasonable to assume that his terms of employment were unchanged.
34. A fuller list of his main works is given in R B Schofield, 'William Jessop', in *Biographical Dictionary of Civil Engineers*, Volume 1, 1500–1830, 2002, 372. For further details, see Charles Hadfield & A W Skempton, *William Jessop, Engineer*, 1979.