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THOMAS TELFORD THE ARCHAEOLOGIST

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Three watercolours painted by Thomas Telford survive within the Society's archives. Two of these watercolours are a plan and sections of an excavation of a Roman bath suite, supervised by Telford at Wroxeter, and the third is an elevation of the medieval Mardol gate over the Welsh bridge, Shrewsbury. The paintings provide an insight into his interest in archaeology and ancient buildings whilst practising as an architect in Shropshire, before he began his engineering career. Further, their deposition helps confirm the standing of the Society at the time, as the place where important archaeological discoveries from across the country were brought to public attention, and how it acted as an archive for their primary records.

Thomas Telford (1757–1834), though best remembered as the father of civil engineering, became an engineer only in the middle of his career, when in 1793 he was appointed by the Ellesmere Canal Company to contribute to the design of the Pontcysyllte aqueduct (1795–1805), now a candidate for World Heritage Site status, and oversee its construction. Some of his greatest achievements, such as the Caledonian canal and the Menai suspension bridge, were not completed until he was in his sixties.

His pre-eminence in this emerging profession was confirmed by commissions to carry out projects in Ireland and Sweden, and he offered advice on canals in Canada and Panama. His work on the improvement of the Highland roads in Scotland and the Holyhead road in Wales set the standards for road building across the world. His friend Robert Southey, the poet laureate, christened him the 'Colossus of Roads'. Many of Telford's assistants, whom he personally tutored in mathematics and physical principles, became eminent engineers in their own right. It was fitting, and perhaps inevitable, that he was elected the first President of the Institution of Civil Engineers in 1820, a post he held until his death. [1]

This paper will explore a lesser-known aspect of Telford's working life: his interest in archaeology and ancient buildings. The Society holds three original watercolours produced by him in 1788 and 1789, and was the first to publish any of his drawings (see figs 1, 2 and 6).[2] To understand the background to the submission of these watercolours, Telford's remarkable early life needs to be sketched out in brief.[3]

He was born at the head of remote Eskdale, in the Borders of Scotland. His father was a shepherd, and died when his son was only a few months old, leaving Thomas and his stepbrother to be brought up in extreme poverty by their mother. Despite these hardships, Thomas earned the nickname 'Laughing Tam'. He received a basic education at Westerkirk Parish School, where he showed a great thirst for knowledge. This was fostered by the elderly Miss Pasley, whose library helped widen Thomas's horizons. Aged fifteen, he was apprenticed to a stonemason, firstly in Lochmaben and later in Langholm, Dumfriesshire. Once qualified, he travelled to Edinburgh, where the

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work in building the New Town offered him a greater challenge. On his return journey to Eskdale, he took the opportunity to study and sketch the Rosslyn Chapel and Melrose Abbey. By 1781, he had had two poems published.

In 1782, Miss Pasley gave Telford an invitation to stay with a relative of hers, a merchant in London. Through John Pasley, he met the architects Robert Adam and Sir William Chambers and became employed as a stonemason on Somerset House. Whilst in London, Telford was consulted by Sir James Johnstone of Westerhall about alterations to his house back in Eskdale, and he was instructed in this matter by Sir James's brother, William Pulteney (1729–1805). This encounter was to change Telford's life forever. Pulteney had changed his name upon marrying the heiress of the Earl of Bath. He carefully managed his wife's and his own more limited estates, and through speculations in the West Indies, America and India, became enormously wealthy, though he adopted a relatively frugal lifestyle.[4] Pulteney was clearly impressed by Telford's work and employed him on the restoration of the rectory at Sudborough, Northamptonshire, part of his wife's estate, where the rector was Archibald Alison.

In 1784, when work on Somerset House was suspended, Telford took a job supervising the construction of the commissioner's house and chapel in Portsmouth dockyard, to designs by Samuel Wyatt. At this time he wrote to Andrew Little, his old friend from Eskdale: 'Knowledge is my most ardent pursuit, a thousand things occur that would pass unnoticed by good easy people who are content with trudging on in the Beaten path, but I am not contented unless I can reason on every particular'.[5]

In late 1786/early 1787, Pulteney summoned Telford from Portsmouth to Shrewsbury, where he was one of the town's MPs. He wanted the castle to be restored as an occasional residence. Telford's Gothick detailing of the Edwardian great hall range still survives.[6] Working from an office in the castle, he established a thriving architectural practice and obtained an important commission, first as clerk-of-works and later as architect for Shrewsbury prison.[7] His move into county circles was eased by his patron to such an extent that he wrote ruefully to Andrew Little: 'The world says that I am young Pulteney, I wish I was.'[8]

On 5 June 1785, a local farmer called Clayton, in the village of Wroxeter, a few miles east of Shrewsbury, needed some stone to repair a blacksmith's shop, which had recently burnt down. In a letter written on 16 July, Telford described what happened next:

> The Farmers here never harrow their ground but they find ancient Roman coins and other pieces of antiquity – and they know where there are Ruins underneath by the Corn, being scorched in dry weather, so that when they wish to Dig for Stones they put down a mark on the place untill the corn is off the ground, when on removing the soil they are sure of finding something or another … they discovered a Bath plastered with Roman cement, a floor paved with large Tyles and some Pillars, on this they desisted from destroying. The *literati* were roused, and I was desired to apply to Mr Pulteney about it he being Lord of the Manor – who gave me direction to trace the different appartements at his expense in order that men of learning might satisfy their curiosity – this I have in a great measure done, and have discovered a dressing Room, a Cold Bath, a hot Bath, a large Sudatorium, four Tessalated floors, and places with pillars of Tyles – but, I have not Room to say more this time.[9]

One of the *literati* and men of learning, however, the Revd Francis Leighton of Shrewsbury (1747–1813), did say more in a letter and report he sent to the Director of

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the Society, Richard Gough, on 28 March 1789.[10] These were read at the meeting of 7 May,[11] and subsequently published in *Archaeologia* 9.

An extract from the minute book reads:

> Coins, both of the upper and lower Empire, Bones of Animals (some of which were burnt) Fragments of Earthen vessels of various sizes, shapes & manufactures, some of them black, & resembling Mr Wedgewood's Imitation of the Etruscan ware & (as Mr Telford the Architect informs) pieces of Glass were found in various places, & the whole ground was found full of charred substances in different strata, with Layers of Earth between them which seems to indicate, that the place has suffered more than one Conflagration. Mr Telford, the able Architect before mentioned, has furnished a ground plan & sections of the whole building as far as it is discovered.

The two watercolours in the Red Portfolio for Salop consist of the plan (fig 1) and sections (fig 2). They are unsigned, but the handwriting on the sections is distinctively Telford's, and the versions published in *Archaeologia* are described as Telford *del* and Basire *sc*. The plan shows the extent of the excavation, with different washes showing the walls, the tiled areas, the stone columns and areas of tessellated floors. The plan is to scale, orientated to the compass points and shows the line of the sections. Each area is given a reference letter to relate to the report. Together these drawings provide an archaeological record as detailed as any produced by the leading antiquaries of the day.[12]

The report of the excavation submitted with the letter was written by Leighton and is methodical in its approach. He compared the remains from Wroxeter with 'the Plate of the Baths at Baden Weiler, and the learned Explanation of it in the Appendix to Gov^{r} Pownall's Notices concerning the Roman Province of Gaul', and intimated that Pownall meant 'to sollicit leave from Mr Pulteney, (which will certainly not be refused) to open the ground further'.[13] However, this does not seem to have occurred and the excavations were abandoned. The location was mapped by Corbet Anderson in his book on Wroxeter, published in 1862.[14] It lies in the south-western part of the Roman town, at NGR SJ 564085. Recent authors appear to have confused Telford and Leighton's roles in excavating at Wroxeter, and have implied that Telford's involvement was related to the building of the turnpike road across the northern edge of the Roman town.[15]

Thomas Telford seems to have been very proud of his work at Wroxeter, as he commissioned an isometric reconstruction drawing of the excavations to be one of the 83 plates in the *Atlas to the Life of Thomas Telford*, whose accompanying autobiographical text was edited after his death.[16] This drawing, produced by G Turnbull (fig 3), is a very early example of isometric drawing used to illustrate excavated archaeological remains.

Telford's work as an architect, county surveyor and archaeologist saw him welcomed into Shrewsbury society (fig 4). His friends included Robert Darwin, doctor, entrepreneur and father of Charles, the ironmasters and pioneering engineers, William Hazledine, Charles Bage and William Reynolds, the hotelier and coach operator, Robert Lawrence, and Archibald Alison, former rector of Sudborough and author of *An Essay on Taste*. He even found time to record another Roman archaeological find made at Lea, 9km south west of Shrewsbury (NGR SJ 418085).[17] The drawing of the geometrical tessellated floor was printed as plate IV of the *Atlas* (fig 5).[18]

The regard in which Telford was held at this time is revealed in the diary of Catherine Plymley, daughter of the local archdeacon. In November 1793, she wrote:

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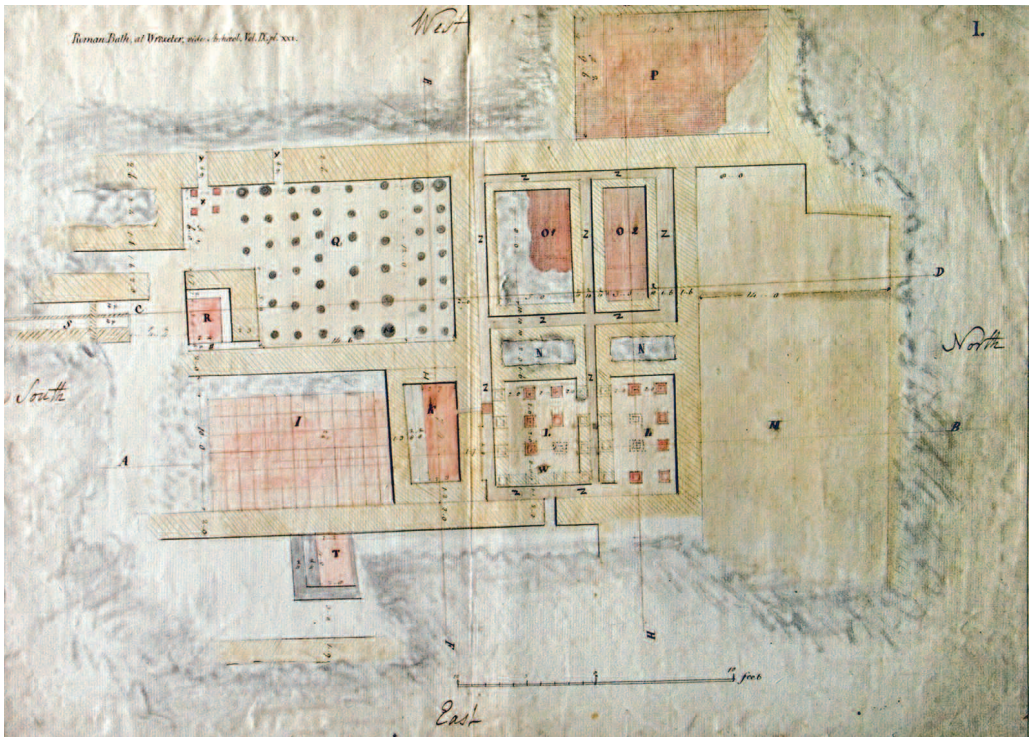


Fig 1. Plan of the Roman Baths at Wroxeter, Telford 1788. *Photograph*: John Hammond © Society of Antiquaries of London

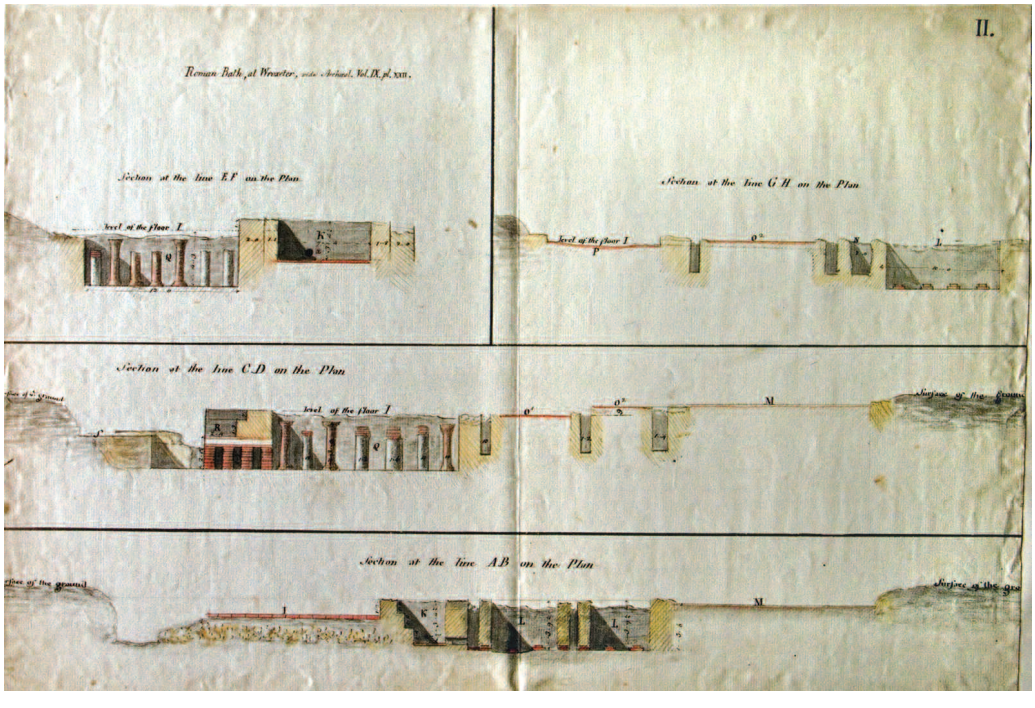


Fig 2. Sections of the Roman Baths at Wroxeter, Telford 1788. *Photograph*: John Hammond © Society of Antiquaries of London

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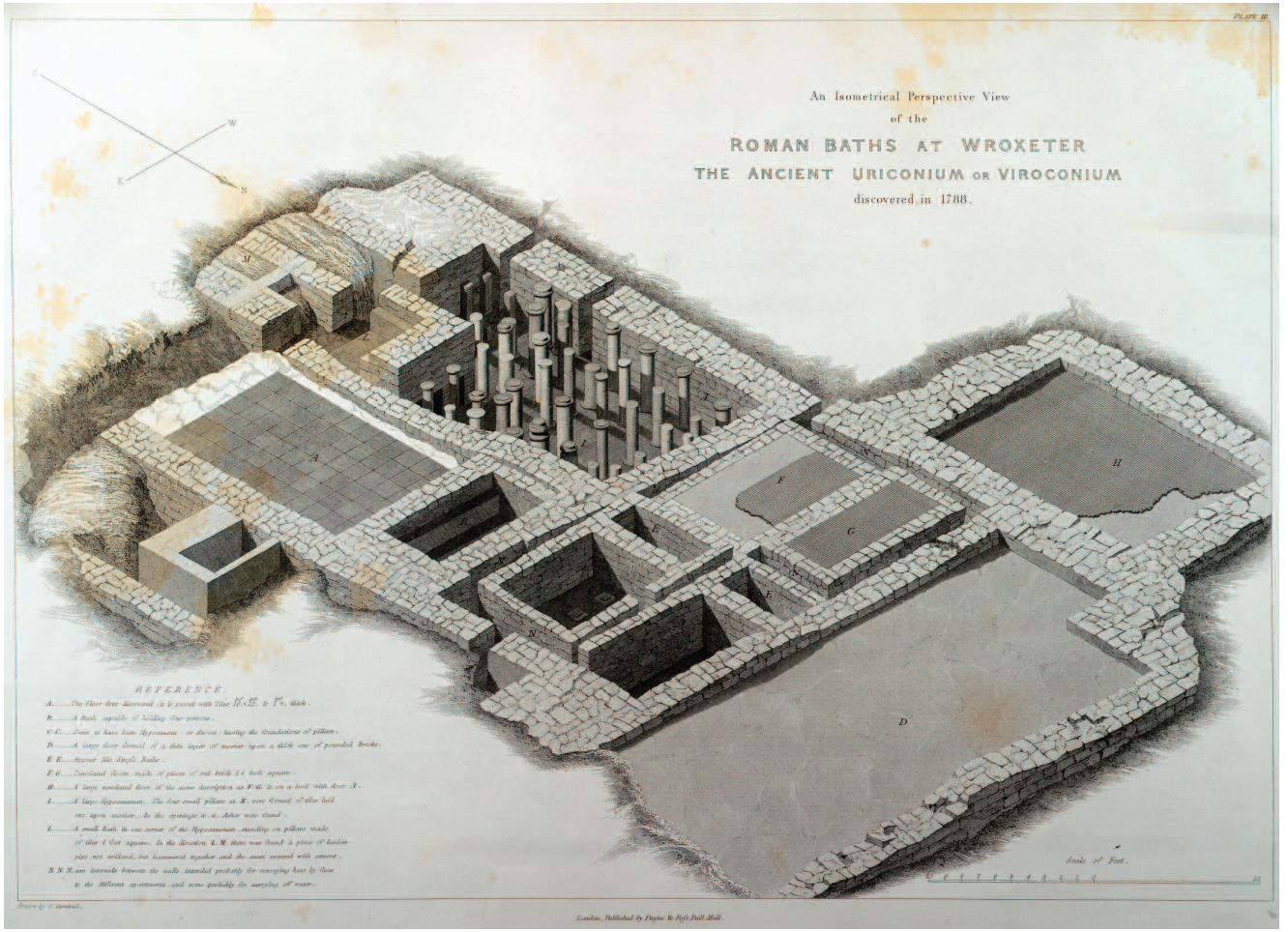


Fig 3. *An Isometrical Perspective View of the Roman Baths at Wroxeter, the Ancient Uriconium or Viroconium discovered in 1788* (Rickman 1838, pl III). *Photograph*: courtesy of Shropshire Archives



Fig 4. Portrait of Thomas Telford *c* 1792. *Photograph*: courtesy of Shrewsbury Museums Service

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Fig 5. Roman tessellated floor discovered in 1793 at the Lea near Shrewsbury (Rickman 1838, pl IV). *Photograph*: courtesy of Shropshire Archives

> I have not often spent so pleasant an evening. Mr Alison was particularly agreeable and Mr Telford is a man I highly respect. Born of poor parents in the shire of Dumfries, brought up a common working mason, he has by uncommon genius and by unwearied industry raised himself to be an excellent architect and a most intelligent and enlightened man, his knowledge in general, his conversation very animated, his look full of intelligence and vivacity, he is eminently cheerful and the broad scotch accent that he retains rather becomes him … he has just received a very advantageous appointment, the entire management of the canal that is to form a junction between the Severn, Dee and other rivers.[19]

The appointment as 'General Agent, Surveyor, Engineer, Architect and Overlooker' of the Ellesmere canal was to launch Telford's career as an engineer and see his practice grow throughout Great Britain and abroad.[20]

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There is a postscript to this story, for also contained within the Red Portfolio for Salop is folio 11, which is an elevation and partial section of the west front of the Mardol gate over the Welsh bridge in Shrewsbury (fig 6). It is dated March 1789, signed Thos. Telford, and was presumably included with the two Wroxeter watercolours submitted that month by Francis Leighton. The drawing is not mentioned in the Society's minute book and is unpublished.

The drawing shows a pair of machicolated towers flanking the arch over the roadway. The tops of the towers include ogee-headed single lights. Over the centre of the roadway is a niche, containing a statue in armour flanked by two coats of arms. The drawing is to scale and includes a section through the roadway and the adjacent arch of the bridge. In style, the archway would appear to date to the late fourteenth or early fifteenth century. The gateway is shown as riven by structural cracks. Thomas Pennant wrote in 1770:

> The Welsh Bridge is a very antient structure, of six arches; with a very handsome embattled gateway at one end. On each side is a round tower, and over the entrance a statue of a prince in armour, generally supposed to be intended for Richard duke of York; for beneath his feet is a rose-sprig, a device usual on the seals of that great prince … This was not the original site of the statue; it having been fixed here after it had been removed from another place in 1695.[21]

The medieval Welsh bridge was replaced by the surviving classical bridge, designed and built by John Carline and John Tilley in 1791–5. Though by this date Telford was Shropshire's county surveyor of bridges, he did not have that role in Shrewsbury itself. The design of the Welsh bridge is very similar to Telford's Montford bridge (1790–2), for which Carline and Tilley were the contractors.[22]

Once the new bridge was completed, the medieval bridge, which was 35m downstream, was demolished. Excavations in 2006 revealed its eastern abutment. Other views of this remarkable bridge show that the gateway illustrated by Telford was sited between the second and third arch from the east bank and had a castellated square tower containing a guardroom over the gate passage behind it.[23]

From 1793 onwards, Thomas Telford was too busy to pursue any other archaeological or antiquarian interest. It was thirty years later that he came to design one of his last masterpieces, the Conwy suspension bridge. It would be good to think that he chose not only to respect the Edwardian castle to which it was attached but also, in raising the two castellated gateways to carry the suspension chains, to remember his drawing of the Mardol gate.

ACKNOWLEDGEMENTS

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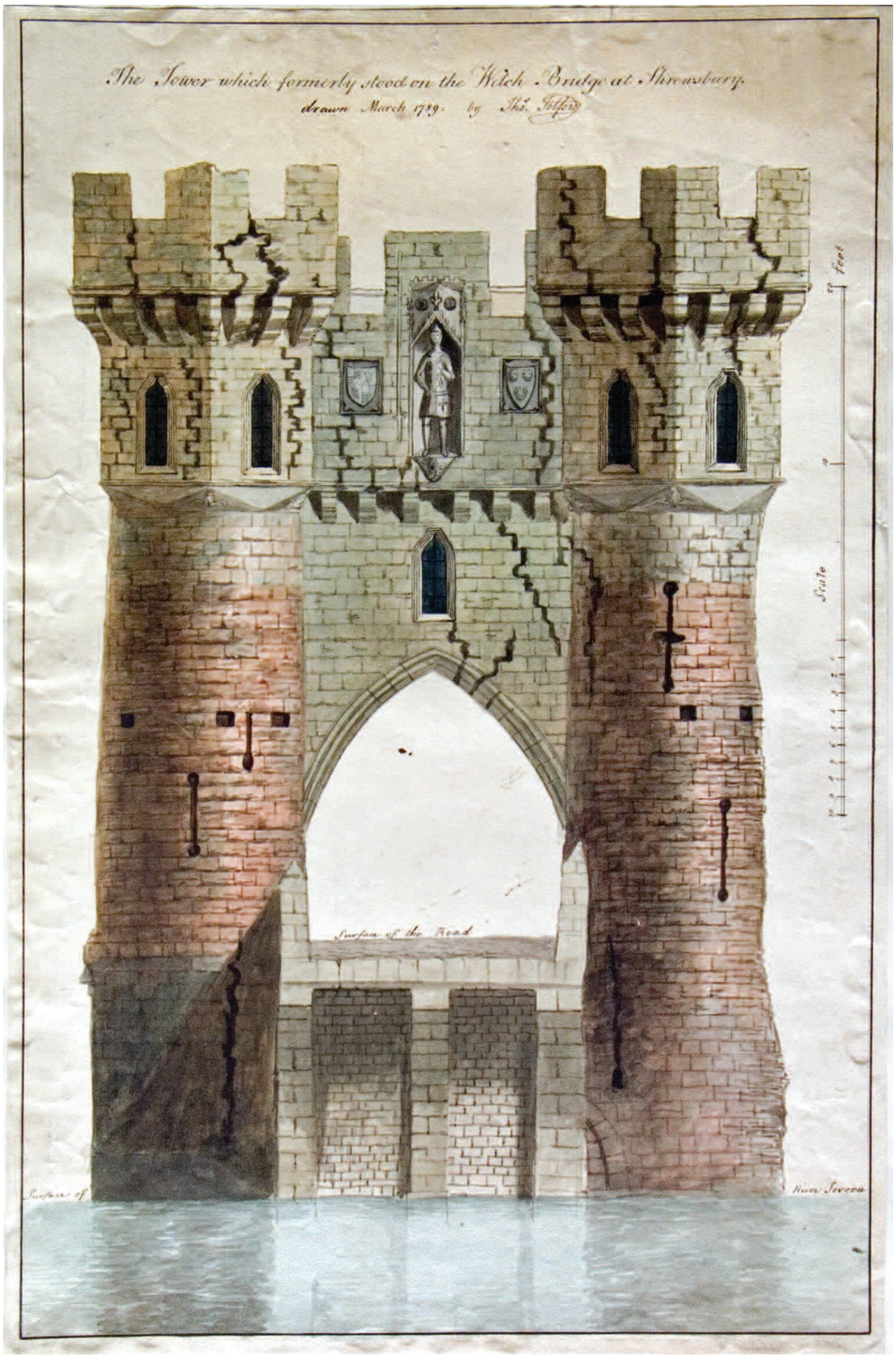


Fig 6. *The Tower which formerly stood on the Wych* [Welsh] *Bridge at Shrewsbury drawn March 1789 by Thos. Telford. Photograph*: John Hammond © Society of Antiquaries of London

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NOTES

1. Paxton 2004.
2. These are mounted in the Society's Red Portfolio for Salop (Shropshire), fols 11, 17 and 18.
3. Paxton 2004. Many other 18th-century engineers also rose from humble origins to become leaders of this new profession, especially those born in southern Scotland, such as Sir John Rennie and Sir William Fairburn. For a history of the profession at this period see Buchanan 1989, 50–68; for individual biographies see Skempton *et al* 2002.
4. Rowe and McBryde 2004.
5. ICE library, 'Two volumes of letters from Thomas Telford to various members of the Little family from 1782(?) to 1833': letter to Andrew Little, dated 1 February 1786.
6. Pevsner 1958, 265–6.
7. Lawson 1980.
8. ICE library, letter to Andrew Little, dated 8 October 1789.
9. ICE library, letter to Andrew Little dated 16 July 1788. The letter ends by saying that he 'had several things in hand, but the principal, was about setting convicts to labour', suggesting prisoners may have undertaken the excavation at Wroxeter. In 1955, Graham Webster used prisoners at the same site.
10. Childe 1915. A family memoir described Francis Leighton as 'sincerely and highly respected by all who knew him as a man eminent for his true piety, charity and benevolence, and learned in etymological studies and antiquities. It is much regretted he did not publish the Monastic Antiquities of Shropshire for which he was eminently qualified, and for which he had made ample collections' (ibid, 105). The Revd Blakeway wrote: 'His account of the Wroxeter Baths in the 9th vol. of the *Archaeologia* was only a communication to Mr Gough (with whom he had occasionally corresponded, and who has acknowledged his obligations in his edition of Camden) for the purpose of explaining the drawings of Mr Telford' (ibid, 110).
11. SAL, Minutes, XXIII, 104–8, 7 May 1789.
12. Myrone 2007.
13. Leighton 1789, 323–4. Governor Thomas Pownall (1722–1805) had a long and financially successful association with the American colonies, most importantly as governor of Massachusetts (1757–9), and as the author of *Administration of the Colonies*. He was MP for Minehead until 1780 and therefore would have known William Pulteney (Gould 2004). For Baden Weiler see Pownall 1788.
14. Anderson 1862, 14 and his pl I, where the site is marked G.
15. White and Barker 1998, 14. They describe the remains as excavated by Telford as being on the line of the new Shrewsbury to Ironbridge turnpike road (the modern B4380), which runs across the northern part of the Roman city. Telford was not involved with that road, and the accusation that he smashed through the cloister of Shrewsbury Abbey is also unsubstantiated.
16 Rickman 1838.
17. Shropshire Sites and Monuments Record Ref No. NO 01057.
18. Rickman 1838.
19. Diary of Catherine Plymley (Shropshire Archives, ref 1066/20) and Lawson 1980, 2.
20. Paxton 2004.
21. Pennant 1783, II, 413.
22. Cross-Rudkin 2007, 8.
23. For a print showing a side view of the gatehouse and the bridge see: <www.discovershropshire.org.uk/html/search/verb/GetRecord/resource:20060912130159> (27 June 2008).

ABBREVIATIONS AND BIBLIOGRAPHY

Abbreviations

ICE Institution of Civil Engineers, London
ODNB *Oxford Dictionary of National Biography: online edition* (eds H C G Matthew and B Harrison)

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ICE Library (letters from Thomas Telford, *c* 1782–1833)
SAL, Minute Book, XXIII, 1789
Shropshire Archives, ref 1066/20 (diary of Catherine Plymley)

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