

Legacies of Rolt: Isambard Kingdom Brunel

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Tim Bryan, Director, Brunel Institute

LTC Rolt's biography of Isambard Kingdom Brunel first published in 1957¹ was not his first book, but the first and arguably the most significant book of a trilogy of highly popular biographies of Victorian engineers that also included George & Robert Stephenson and Thomas Telford².

In the sixty-seven years since its publication, Rolt's Brunel book remains in print having appeared in both hardback and paperback under various imprints; in 1989 the book was reissued with a new introduction from Professor Angus Buchanan which provided readers with some context on the book³. The most recent edition dates from 2003 when the book was republished with a new cover to mark Brunel's appearance in the BBC 'Great Britons' TV series the year before; in 2005 Sonia Rolt was keen to see the book once again reissued in hardback in an illustrated format as part of the then forthcoming Brunel 200 celebrations and a letter from her contained in the Rolt archive at Ironbridge noted that the 2003 cover was 'hated by all' and 'much objected to'⁴. Despite her objections however that 'hated' cover remains on the Penguin edition of the book today.

Writing in 2006, on the bicentenary of Brunel's birth, Christine Macleod argued that the death of the 'railway triumvirate' of Brunel, Robert Stephenson and Joseph Locke within a year of each other in 1859 and 1860 was seen as an era-defining event and the end of what some contemporary observers at least then called the 'age of the engineer'⁵. The death of these three engineers was commemorated widely, cementing the celebrity they had begun to enjoy in the 1830's and 1840's, a status not previously accorded to engineers. This celebrity and remembrance took the form of statues, memorials, paintings and prints and the production of biographies for each man.

Samuel Smiles, better known for his 'Self Help' books, buoyed by the success of his biography *The Life of George Stephenson* published in 1857, was anxious to expand his portfolio to include the younger Stephenson but despite the positive reaction to the book, he was rebuffed by the executors of his estate and they instead commissioned the popular novelist J.C Jeaffreson to write a biography that eventually appeared in 1864. Undaunted, Smiles subsequently included both Stephenson's in the '*Lives of the Engineers*' a three-volume work published between 1861 and 1862⁶. Locke was commemorated with a biography by Joseph Devey that also appeared in 1862.

Surprisingly, Isambard Kingdom Brunel was a notable absentee from the list of iconic figures that graced the pages of '*Lives of the Engineers*' and Smiles later wrote that he would have liked to add Brunel to 'his collection' but following his death in 1859, the Brunel family were anxious to maintain control and protect his legacy. The Brunel Institute collection contains a letter from Smiles to Sir Benjamin Hawes written in February 1862 in which he hints at his interest in writing about Brunel⁷. Disappointingly the reply has not survived, but it seems likely that it was a negative one; the family were clearly unwilling to provide access to Brunel's personal papers as it was likely that they were already contemplating their own biography and they were also concerned that others such as Brereton, one of Brunel's former assistants, were claiming more credit for responsibilities than they deserved. It is also possible that Smiles might have found Brunel's flamboyant style and relatively privileged upbringing hard to reconcile with the 'sober uprightness

and staunch self-improvement' that characterised much of his work. Smiles had to be content with a shorter biographical sketch of both Isambard and his father Marc published in the Quarterly Review, accompanying a review of Beamish's biography of the elder Brunel.

In 1870 Longmans, Green and Company published *'The Life of Isambard Kingdom Brunel Engineer'*, written by his eldest son Isambard⁸. He was not an engineer, but his younger brother Henry who was a civil engineer made a significant contribution to the book. L.T.C Rolt wrote an introduction to the 1971 reprint of the volume and noted that in the course of his own research he had discovered many notes written by Henry to assist Isambard Junior. Written only eleven years after Brunel's death, it seems likely that the family were able to assemble important material from professional colleagues and friends such as Christopher Claxton, although the fact that many of the key figures were still alive may also have inhibited the family from making any critical commentary on aspects of their father's life and career or that of his contemporaries.

Isambard Junior was not a natural writer and the stilted and reserved style, typical of the period, makes the book a laboured read and the fact that the subject of the book is referred to as 'Mr Brunel' throughout exemplifies the lack of personal insight the book could have included. As might also be expected, the family also downplayed the less successful aspects of Brunel's career in the book such as the construction and launch of the SS Great Eastern and the Atmospheric Railway debacle, recording that the abandonment of the latter was recommended by the engineer with a 'simple and self-sacrificing disregard of every consideration except that which was always paramount with him, the interests of those by whom he was employed'. As a number of Brunel historians have however mentioned, the book remains an extremely useful factual source, containing as it does some material now not available in public collections.

The only other significant book on the Brunels to appear after the 1870 biography and before Rolt was *'The Brunels: Father and Sons'* by Lady Celia Noble, which was, she wrote in her foreword, a book one that showed 'human contours' and an attempt to set the two Brunels 'on their feet as living characters'⁹. She also noted, in language and tone typical of the time, that some readers might be 'disappointed that the creations of the Brunels should only be seen through the medium of a woman's non-technical mind'. The book adds much to the Brunel written legacy containing as it does, many family reminiscences and background missing from many biographies of both Marc and Isambard. Further insights can be gained from a modest 14-page printed extract of a lecture given by Noble's daughter Cynthia Gladwyn in 1970. Amongst various observations about the Brunel family Gladwyn muses on some of what she thought were myths about Isambard's appearance particularly reports of his diminutive height, which she dismissed as 'amusing journalism but not history'¹⁰.

Concluding her lecture, Cynthia Gladwyn mused that 'the young dreamer of 1827' might have been surprised that his name still aroused enough admiration to inspire a major biography by Rolt, which, written just over a decade earlier, was still fresh in the memory.

In the years immediately after the Second World War, it might be argued that Britain was too busy rebuilding its shattered infrastructure and creating new very different public institutions such as the National Health Service to ponder too deeply on the works of Victorian engineers. It might also be argued that in an age of atomic energy, the motor car and other new technological breakthroughs, the smoky nineteenth century held less attraction for adult readers although in the 1950's there had been a number of books on Brunel aimed at children (and presumably at that time boys) were published.

Thus it was that when Rolt's Brunel biography book appeared, a number of reviewers remarked how little was known of the work of engineers like Brunel outside the engineering profession: one wrote that 'politicians, soldiers, social reformers, divines, noblemen, artists have all found their

biographers' quoting Rolt who said that these people were 'puppets jerked by the steel threads spun by the engineers...dancing to the tunes they called'.

To take a brief step back, it must be noted that the road to the publication of Rolt's Brunel book was not entirely straightforward. The book was not initially his idea (being suggested by David Cape) and writing in *'Landscape with Figures'* he said that he had never thought of writing a biography before – but once committed he felt it was an idea that could scarcely fail'¹¹ The process of researching and writing the 120,000-word book took him around 18 months to complete, but it was rejected by both Jonathan Cape and Collins before finally appearing under the Longmans imprint in 1957.

As a further example of how unfashionable Brunel and other Victorian engineers then were, Rolt also records that he had wrongly assumed that Brunel's name was a household word. When asked by someone what book he was working on, he replied, Brunel. 'Brunel? Who's he?' was the response. When it finally appeared reaction from reviewers and the public was generally very positive. The Rolt archive has a large collection of review cuttings whose number and breadth of publication would be the envy of writers of this genre today¹². All the major newspapers and magazines carried reviews and the collection also carries mentions in newspapers in Australia and India. Reviewing the book for the Daily Telegraph in February of that year, John Betjeman, initially comparing IKB to Leonardo Di Vinci, praised Rolt for 'making the technical problems of engineering interesting and comprehensible to the layman', his only criticism being that there were too few illustrations. Others noted that Rolt had brought the Brunel story to life, despite the amount of technical detail the book contained – the Sheffield Telegraph recorded that the reader would find 'more drama and romance than he would get from half a dozen novels'.

Not everyone was entirely positive – AJP Taylor writing in the New Statesman argued that Rolt was almost too accomplished and in love with his subject adding that the author was altogether too expert for him and that 'one could go on reading about the excitement even if one has not the vaguest idea of what the bustle is about'.

Reviewing the book in the Daily Telegraph in July 1957 Sir Arthur Elton noted that Rolt had to an extent failed to put Brunel in the perspective of his time and the book seems a little flat' while others such as Modern Transport argued that Rolt's zeal for his subject had 'tended to carry him away, and that estimable engineer though Brunel was, he was not as infallible as the book implies'. The British Transport Review (written for railway staff) characteristically and perhaps harshly complained that to reach the story of the GWR, the reader was interrupted by a 'rather dull account of Brunel's rather dull marriage'.

Following the success of Brunel, Rolt went on to write biographies of other major figures of the industrial and railway revolutions including books on Telford and the Stephensons but the Brunel book remains his most well-known and best-selling title and as already noted has gone through many editions since 1957 and it could be argued that its approach and content has to a great extent influenced the public perception of I. K. Brunel and his image within popular culture. One only has to read the reviews for the book on Amazon today to see just how much resonance the image of the heroic British engineer still has for many people.

In his introduction to the 1989 reprint of the book Buchanan noted that its publication had led to the growth of what he called 'Brunel Studies'¹³ a welcome legacy which of course has also subsequently raised questions about Rolt's approach and interpretation of the Brunel story, and it is worth therefore reviewing some of these shortcomings in the context of the book's legacy.

Buchanan called Rolt's Brunel 'a distinguished work of biographical scholarship' which of course it is, but frustratingly for the academic while sources are noted at the end of the book there are no footnotes or citations, and it is not always easy to identify where information has come from.

This is particularly relevant where Rolt used personal material he had accessed from the Brunel family particularly Sir Humphrey Noble and Lady Celia Noble. While some of this archive is now in the public domain some still remains with the family.

The fact that Rolt had access to this original material from family sources has both positive and negative implications; although some of this archive enabled new stories to be told, one wonders whether the author was to an extent compromised by the fact that he had become close to the family and as a result was perhaps less critical about Brunel's shortcomings than he might have been? In addition, it seems likely that there was still material that the family felt was too sensitive to include, a process that mirrored the completion of the 1870 biography by Brunel's son.

It could therefore be argued that part of IKB's reputation and image today has been shaped by Rolt downplaying his shortcomings, failures and the less palatable aspects of his personality in the book? This is not to say that such things are not highlighted, but by today's standards Rolt can be seen to be somewhat uncritical at times, for example in terms of the financial implications of some projects particularly the losses incurred by shareholders – in his review of the book AJP Taylor had noted that Rolt was 'a little vague' about the financing of these great undertakings. The glorious failure of his ill-fated broad gauge railway track system both in terms of its technical shortcomings and regional and national impact is also underplayed. Perhaps most striking is Rolt's account of the Atmospheric Railway debacle; Brunel is portrayed as courageous and far-sighted by Rolt, and although the cost of selling the pumping engines is noted, there is no mention of the £400,000 lost by the shareholders of the South Devon Railway.

In his original preface to the biography, Rolt argued that in the course of researching and writing it he had learned much about Brunel the man, his personality, thoughts and ambitions, and there is no doubt that this is one of the greatest strengths of the work; having so much access to personal material from the family and other sources meant that subsequent biographies of Telford and Stephenson had much less empathy. These insights were perhaps again marred slightly by the downplaying of some of the less palatable aspects of Brunel's personality which while not ignored, were certainly not at the forefront, particularly his treatment of contractors and staff.

As Buchanan, and most forcefully Adrian Vaughan have argued, it is Rolt's account of Brunel's last great work the SS Great Eastern that now seems misplaced. The author puts much of the blame for the failure of this great project, and its debilitating effect on the health of Brunel, squarely on the shoulders of the naval architect John Scott Russell. No doubted swayed by Rolt's arguments, John Betjeman in his review of Brunel argued that the engineer's death had been 'precipitated by the disgusting trickery, swindling and denigration he suffered from a megalomaniac engineer John Scott Russell'.

Rolt may well have been influenced by the view of the Brunel family (and access to Henry Brunel's notes on the construction of the ship) who blamed Scott Russell for his death and the impact of on his reputation but Rolt clearly spent much time researching the subject¹⁴ and creating a myth of what Vaughan called an 'injured genius' which has been difficult to break despite important research by George Emmerson in both his book on the ship and subsequent biography of Scott Russell¹⁵. Clearly the construction of SS Great Eastern was an incredibly complex undertaking, and with two very different (and difficult) personalities like Brunel and Russell involved, the scale and complexity of the project was a potential recipe for disaster.

Clearly some of these shortcomings can certainly be attributed to historical changes in style and approach to the subject by historians, researchers and biographers over the last 50 or so years; it is worth noting that the 'heroic' biographical approach was not confined merely to engineers but also to politicians, military figures and others, and in more recent years all but the most superficial accounts of Brunel's life and work have attempted to provide a more balanced view.

Adrian Vaughan's *Brunel: Knight Errant*, published in 1991¹⁶ was an entertaining but revisionist response to Rolt; he argued that Rolt's view of Brunellian history was distorted by an uncritical hero-worship of his subject and to support his preconceived ideas' although like Rolt's book however, Vaughan's book does not have footnotes either. Dr Angus Buchanan produced his own significant and worthy successor to Rolt in 2002 in his book *the Life & Times of Isambard Kingdom Brunel*, placing the engineer in his social, political and cultural context¹⁷. There seems to be no end of works inspired by both Brunel and Rolt's interpretation of that story.

Rolt's Brunel biography has not been modified or rewritten despite multiple reprintings and should remain as it is; besides, research has and will always provide new insights into historical narratives, although at present there seems little chance of a new and definitive Brunel biography to succeed Rolt. There seems little more that can be delivered from the extant archival sources at Kew, Bristol and other archives and museums. The surviving diaries, letterbooks and other correspondence have been extensively studied by historians over many years, and it seems unlikely that any new or undiscovered stories will emerge unless further material appears from private sources. We know that material was destroyed by the family at various times but there have been tantalising hints that some diaries and journals still survive.

As a result, Both Buchanan's book and Steven Brindle's 2005 biography¹⁸ along with the past Brunel canon can provide more than enough evidence of the 'many sided genius who built the world' although the attraction of the subject, and the possibility that there are still new stories and narratives to discover will ensure that the stream of books that continue to be written is unlikely to dry up any time soon.

Has Rolt's book contributed to public perceptions of Isambard Kingdom Brunel and his achievements? Undoubtedly. Has this view become distorted and overexaggerated? While recognising Brunel's achievements, many have argued that they have been overemphasised at the expense of contemporaries like Stephenson and Locke and his failures downplayed, and there are many arguments as to why this might be – Brunel's flamboyant personality, the extent of surviving heritage, and the documentary record.

There is little doubt that the debate will continue, but underpinning all of this will remain the legacy of LTC Rolt's biography of the great engineer; flawed yes, but still elegantly written and a truly worthy record of one of the most significant engineers of the nineteenth century.

¹Rolt, L.T.C *Isambard Kingdom Brunel* London: Longman, 1957

² For example: Rolt, L.T.C *Thomas Telford* London: Longman 1958. For a full catalogue of Rolt's work see: Rolt, T & Baldwin, M (Eds.) *L.T.C Rolt: A Bibliography*: Rolt Books 2012

³ Rolt, L.T.C *Isambard Kingdom Brunel* London, Penguin, 1989

⁴ This letter and much other correspondence relating to Rolt's Brunel biography and other publications are housed in the Rolt Archive at Ironbridge Gorge Museum. The full catalogue can be accessed at: <https://www.ironbridge.org.uk/media/390993/rolt-collection-complete-catalogue-final-14-august-2023.pdf>. In particular see: ROLT 04/50/03 for correspondence regarding later editions of the book.

⁵ McLeod, C. 'The Nineteenth Century Engineer as Cultural Hero' in: Kelly, A & Kelly M (Ed) '*Brunel: In Love with the Impossible*' Bristol: BCDP, 2006 pp 61-79

⁶ Shepherd, C.J (Ed) Smiles, S. *Lives of the Engineers* London: Folio Society 2006 xv

⁷ Brunel Institute BRSGB 2021.0002

⁸ Brunel, I. *The Life of Isambard Kingdom Brunel Engineer* Newton Abbot: David & Charles 1971(reprint)

⁹ Noble, C *The Brunels: Father and Son* London: Cobden-Sanderson, 1938

¹⁰ Gladwyn, C *The Isambard Brunels* A paper read at the 182nd Ordinary Meeting of the Société des Ingénieurs Civils de France (British Section) 28 October 1970

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- ¹¹ Rolt, L.T.C *Landscape with Figures* Stroud: Sutton Publishing, 1994 p142
- ¹² The Rolt archive contains more than 90 reviews of his Brunel biography.
- ¹³ Buchanan, R.A. Introduction in: Rolt, L.T.C *Isambard Kingdom Brunel* London: Penguin, 1989 p.xvii
- ¹⁴ There are copious notes about Scott Russell in Rolt's surviving research notes for the book. See: Rolt Archive: ROLT 04/50/24
- ¹⁵ Emmerson, G. *The Great Eastern* Newton Abbot: David & Charles, 1987
- ¹⁶ Vaughan, A *Isambard Kingdom Brunel: Knight-Errant* London: John Murray, 1991
- ¹⁷ Buchanan, R.A. *Brunel: the Life & Times of Isambard Kingdom Brunel* London: Hambledon & London, 2002
- ¹⁸ Brindle, S *Brunel: The Man Who Built the World* London: Weidenfeld & Nicholson, 2005