



# BRUNEL

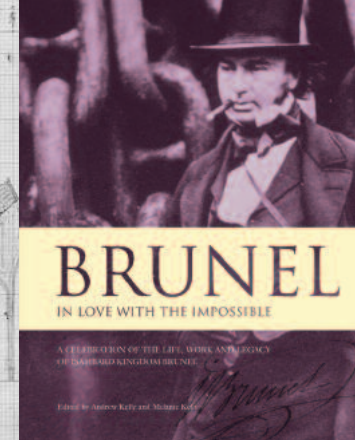
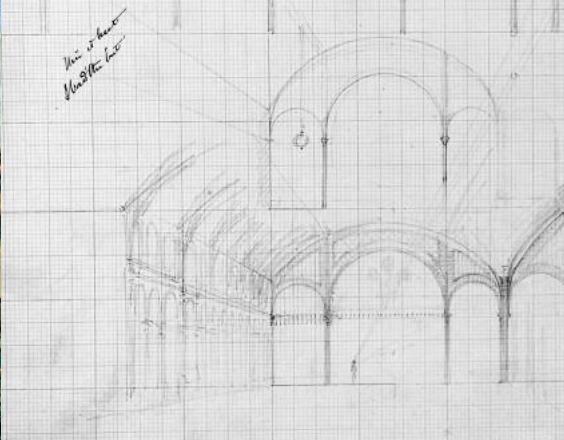
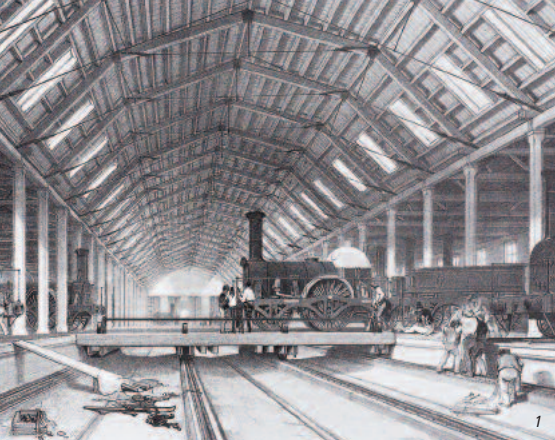
IN LOVE WITH THE IMPOSSIBLE

A collection of newly commissioned essays published as part of the Brunel 200 celebrations marking the 200th anniversary of the birth of Isambard Kingdom Brunel.

Over 460 high-quality illustrations.

[www.brunel200.com](http://www.brunel200.com)

brunel  
200



## Brunel 200

1. Brunel's engine house at Swindon, JC Bourne, 1846.
2. Opening of the Royal Albert Bridge, Saltash (Elton Collection: Ironbridge Gorge Museum Trust).
3. Gardeners at Brunel's Watcombe estate, near Torbay c 1850s (University of Bristol).
4. ss Great Eastern (Private Collection).

Brunel 200 is a celebration of the life, times and legacy of one of Britain's most audacious, versatile and inspirational engineers, Isambard Kingdom Brunel.

Brunel's bicentenary in 2006 will be marked with a year of major exhibitions, educational programmes, publications, walks and trails, arts projects, competitions, conferences, debates and talks, and much more. It is a national celebration focused upon Bristol and the South West.

Brunel 200 will celebrate the creative feats of the past and seek to inspire the Brunels of the future, ground-breaking individuals and teams dedicated to thinking in new ways about the problems and opportunities of our time.

Full details of the Brunel 200 programme can be found at [www.brunel200.com](http://www.brunel200.com).



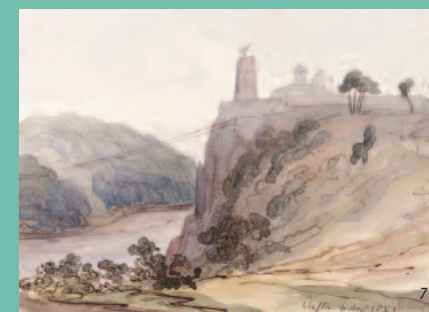
## *Brunel: in love with the impossible*

*Brunel: in love with the impossible* is an illustrated collection of newly commissioned essays published as part of the Brunel 200 celebrations.

Even though some of Brunel's projects failed – often spectacularly – and he was not to see the completion of one of his greatest achievements, the Clifton Suspension Bridge, he remains widely acknowledged as an engineering genius.

Brunel captured the public imagination like no other engineer. He challenged our sense of what was possible and, in doing so, changed the face of the world. He remains an inspiration to the people of the South West, visitors to Bristol and the region, and innovators of all kinds. The book takes its name from Kenneth Clark's *Civilisation* in which he wrote that Brunel 'remained all his life in love with the impossible'.

This collection of essays will provide a fitting tribute to Brunel, promoting his considerable achievements, assessing their impact and demonstrating why they continue to be of relevance to today.



5. Brunel's sketches of Paddington Station (University of Bristol).

6. Brunel's Chepstow Bridge (Elton Collection: Ironbridge Gorge Museum Trust).

7. View of Avon Gorge at Clifton showing tower of the unfinished Suspension Bridge, 1851 (Private Collection).



# Contents



**Introduction** by Andrew Kelly and Melanie Kelly

## Section 1: Brunel: The Life

**Isambard Kingdom Brunel** by Angus Buchanan

An outline of Brunel's early years and his preparation as engineer, offering an intriguing insight into his vision, charismatic personality, dynamism, innovative flair, and organisational and managerial skills. Brunel was outstandingly a man of his times and the author explains why Brunel has come to represent the pinnacle of British achievement of his period.



**Marc Isambard Brunel** by Andrew Nahum

A portrait of Marc Brunel, Brunel's highly original and inventive father, who played a crucial role as the educator of his son and who was equally important to the development of both civil and mechanical engineering. The author focuses upon Marc Brunel's invention of the Portsmouth block-making machinery and shows how this astonishing anticipation of the later age of mass production gained support and finance.

**The nineteenth-century engineer as cultural hero** by Christine MacLeod

An exploration of the extraordinary rise to prominence in mid-nineteenth-century Britain of the engineering professions. Engineers of the period were particularly active in securing their place in the nation's pantheon alongside the traditional heroes of the battlefield and the political arena. There was also a wide outburst of popular feeling and commemorative activity that celebrated their achievements and mourned their deaths.



1. Portrait of Isambard Kingdom Brunel by John Callcott Horsley, c 1843 (Bristol's Museums, Galleries and Archives).

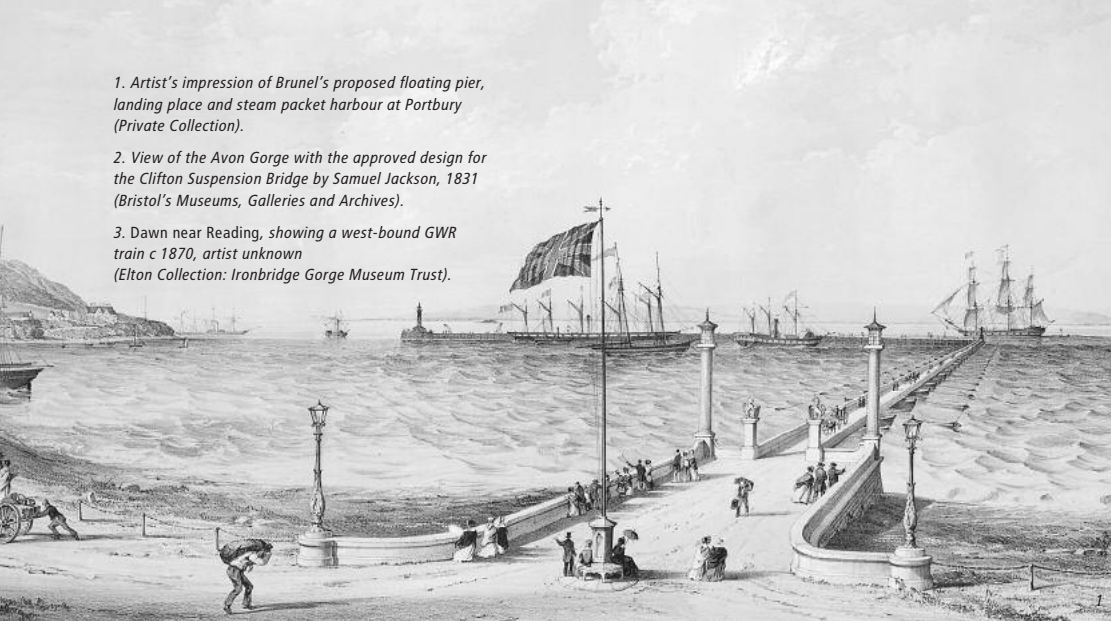
2. Portrait of Marc Brunel, c 1835 (Institution of Civil Engineers).

3. The Illustrated London News' memorial tribute to Brunel, 1859 (University of Bristol).

1. Artist's impression of Brunel's proposed floating pier, landing place and steam packet harbour at Portbury (Private Collection).

2. View of the Avon Gorge with the approved design for the Clifton Suspension Bridge by Samuel Jackson, 1831 (Bristol's Museums, Galleries and Archives).

3. Dawn near Reading, showing a west-bound GWR train c 1870, artist unknown (Elton Collection: Ironbridge Gorge Museum Trust).



## Section 2: Brunel: The Work



**'Suspensa vix via fit' – the saga of the building of the Clifton Suspension Bridge**  
by Michael Pascoe and Adrian Andrews

The enthralling story of the Clifton Suspension Bridge from its origins 250 years ago in a wine merchant's will to the celebrated national icon the bridge is today. Almost uniquely for a suspension bridge of that period, it has survived virtually unaltered into the twenty-first century having been completed by Brunel's fellow engineers after his early death.



**Brunel in Bristol docks**  
by Angus Buchanan

An enlightening look at the advice given by Brunel to the Bristol Dock Company during his engagement as its consulting engineer, examining the elements that were implemented and the consequences of those decisions. Far less iconic or romantic than Brunel's other projects in the city, this work helped to ensure the survival of Bristol as a port in the 1840s.

**The Great Western Railway**  
by Steven Brindle

An examination of Brunel's design and construction of the Great Western Railway (GWR), and his subsequent work for the company. The GWR might be said to represent the central theme of Brunel's career, continuing from his first appointment in 1834 right through to his death.

4. Brunel's Drawing Instruments (University of Bristol).

5. ss Great Britain surrounded by 'glass sea', 2005, photograph by Mandy Reynolds (ss Great Britain Trust).

**ss Great Britain**  
by Andrew Lambert

The fascinating story of how Brunel created the modern ship, and how that first prototype survived the vicissitudes and vagaries of oceanic life by accident and design to return to her birthplace over 120 years later for the start of her long-term restoration. The ss *Great Britain* opened the modern world and her descendants carry 99 per cent of all international trade.

**The Brunel Collection, Bristol University Library** by Nick Lee

A history and description of the remarkable Brunel Collection, which began with the University of Bristol's acquisition of family papers and materials from Brunel's grand-daughter, Lady Celia Noble, in 1950 and has since grown considerably through gift and purchase.





## Section 3: Brunel in Context

### Professional colleagues by Michael Bailey

A portrait of the new generation of young engineers, of whom Brunel was a part, remarkable for their innovative engineering talents, managerial and communication skills, and tenacity. This chapter explains why Brunel's contribution to the phenomenal mid-nineteenth-century railway-building programme cannot be viewed in isolation.

1. Conference of Engineers at Britannia Bridge, 1851-3 by John Lucas (Institution of Civil Engineers).

2. Contractors' drawing of Twerton Tunnel, Bath, c 1835 (Adrian Vaughan Collection).

### Who built Brunel? by Adrian Vaughan

An examination of the invaluable contribution made by hundreds of manual labourers, surveyors, contractors, resident engineers, assistants and investors whose work on site and behind the scenes ensured Brunel's visions became a reality.

3. One of Robert Dudley's illustrations of the Great Eastern during the laying of the transatlantic cable, 1865 (Institution of Civil Engineers).

4. The Pleasures of the Rail-road - Showing the Inconvenience of a Blow Up', hand-coloured etching by Hugh Hughes, published 1831 (Elton Collection: Ironbridge Gorge Trust Museum).

### Technological and social change: the impact on society of the work of Brunel and his contemporaries by Denis Smith

An insight into the dramatic social changes that followed in the wake of the railway and other nineteenth-century technical developments. Increased personal mobility, telegraphic communications, a more varied diet, improved water supply, better sanitation, a rapidly changing workplace – technological change had unprecedented consequences for British society.

### Lines, landscape and anti-modernism: understanding Victorian opposition to the railways by Marcus Waithe

A revealing exploration of Victorian opposition to the railways, looking particularly at the work of Thomas Carlyle and John Ruskin, men who expressed an ideological objection to the advent of mass transport. The author also examines how Victorian efforts to limit the incursions of industry have affected the landscape and society we see about us today.

## Publications details

**Publication date:** April 2006

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The content and format of the book may be subject to change at any time prior to publication.

**Brunel 200 is a partnership project initiated and managed by Bristol Cultural Development Partnership (BCDP).**



BCDP is working with a range of partners in the development and delivery of Brunel 200 including Culture South West, South West Tourism, Swindon Borough Council and many other interested companies and organisations.

**Brunel: in love with the impossible is supported by:**



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**Brunel 200 is funded by:**



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1. Steam!! Steam!! Steam!!! songsheet  
(Elton Collection: Ironbridge Gorge Museum Trust).

2. Anthony Gormley's Angel of the North, engineered by  
Arup (Doug Hall, I2i Photography).

### The function of ornament: the consolation of design in the Industrial Age

by Claire O'Mahony

A study of the complex relationships between art and industry in the Victorian age focusing upon the uniquely rich and neglected site of the railway station and its decoration. The author shows how the styles in which engineers dressed their monuments of this age of progress offered a means through which to cope with the challenges of modernity.

The book ends with a chapter by Andrew Kelly and Melanie Kelly on the Brunel legacy and the inspirational engineering projects of today.

Throughout the book, illustrated text boxes provide information on Brunel's family, his other projects, and the political and cultural events of the time. A detailed timeline is provided among the appendices.

# Pre-publication Order Form

Please complete this form to place a pre-publication order for copies of *Brunel: in love with the impossible*.

Orders and payments must be received by 8 April 2006 to qualify for the pre-publication price.

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