UNITED KINGDOM

Ironbridge Gorge

Brief description

Ironbridge is known throughout the world as the symbol of the Industrial Revolution. It contains all the elements of progress that contributed to the rapid development of this industrial region in the 18th century, from the mines themselves to the railway lines. Nearby, the blast furnace of Coalbrookdale, built in 1708, is a reminder of the discovery of coke. The bridge at Ironbridge, the world's first bridge constructed of iron, had a considerable influence on developments in the fields of technology and architecture.

1. Introduction

Year(s) of Inscription **1986**

Agency responsible for site management

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2. Statement of Significance

Inscription Criteria **C (i) (ii) (iv) (vi)**

Justification as provided by the State Party

The Ironbridge Gorge in general, and the five areas to which specific attention has been drawn in this report in particular, form a cultural property which has a unique place in the history of the world.

The centre of the Gorge, the Ironbridge itself, is a unique achievement, the first successful large-scale structural use of cast-iron. It is a monument to the creative genius of Thomas Farnolls Pritchard, who conceived it, and of Abraham Darby III who built it. It provided inspiration for a whole generation of artists and writers from many parts of the world who came to admire it in the late eighteenth century. It is the direct ancestor of every large metal-framed structure, of the Brooklyn Bridge, the Sydney Harbour Bridge and of the bridge which crosses the Bosphorus, as well as of every skyscraper.

The Old Furnace in Coalbrookdale is testimony to one of the most influential innovations in metallurgical science, the first successful use of mineral fuel in the smelting of iron ore, a feat of imagination which made possible the great increase in the world-wide production of iron and steel, which has helped to transform the economies of so many countries during the last two centuries.

The Hay Inclined Plane may similarly be seen as a feat of daring and imagination, which demonstrated that engineering science could effectively be used to solve the problems encountered in the construction of transport systems. It was the forerunner of such remarkable twentieth century structures as the inclined plane at Ronquiere in Belgium, and that at Krasnoyarsk on the Yenesi Navigation in the Soviet Union.

Many achievements of those who have worked in the Ironbridge Gorge have influenced the development of other countries. Steam engines, bridges and such machines as sugar rolling equipment have been supplied from the ironworks of the Gorge to many overseas countries. Iron pots cast at Coalbrookdale have been located in Hawaii, New Zealand and other parts of the Pacific. Tiles from the factories in Jackfield were used in the construction of many public buildings in the former British Dominions.

Yet the Ironbridge Gorge comprised more than a select number of monuments which are of importance in the history of technology. The whole area, its roads, its railways, its shops, its inns, its intricate networks of footpaths and flights of steps, its squatter cottages, its terraces of workers' houses, its ironmasters' mansions, its church and chapels, schools and institutes, is evidence that successful industrial innovations are not the isolated feats of outstanding individuals, but the achievements of whole communities. It is an area which as a total experience has much to teach future generations about the origins of industrial progress, and of the consequences of such progress for future development.

The monuments of the Ironbridge Gorge are located in a setting of extraordinary natural beauty, where it is possible to observe the close relationships between human settlement and achievement and the geological resources of the area, and the resources of its woodland. The Gorge is an area which people would wish to visit, even if it were not rich in industrial monuments. It is a place which has remarkable potential for educational developments.

The survival of so many monuments of the Industrial Revolution in the Ironbridge Gorge is to large extent fortuituous. Many would have been

destroyed in an area which enjoyed greater prosperity in the early twentieth century. But the current interest in the monuments of the gorge, and their current state of preservation are not matters of chance. Since 1967 the Ironbridge Gorge Museum Trust has concerned itself with the conservation for posterity of these monuments, and with their interpretation to a wide public. The Gorge is not simply a repository of sites of great historical interests of education. The attractiveness of the area to scholars from all parts of the world who wants to study industrial history, and to people from many countries who are concerned with the establishment of industrial museums, shows that its significance is internationally recognised.

The events of the eighteenth century in the Ironbridge Gorge were part of that Industrial Revolution, that wholesale reorganisation of the ways in which men and women earn their livings, which has been Britain's unique contribution to world history, the Old Furnace at Coalbrookdale, and the whole complex landscape of which they form part, are not just fragments of Britain's past, along with castles, cathedrals and stately homes, but a vital part of the history of mankind.

As provided in ICOMOS evaluation

Criterion I. The Coalbrookdale blast furnace perpetuates in situ the creative effort of Abraham Darby I who discovered coke iron in 1709. It is a masterpiece of man's creative genius in the same wav as Ironbridge, which is the first known metal bridge. It was built in 1779 by Abraham Darby III from the drawings of the architect Thomas Farnolls Pritchard.

Criterion II. The Coalbrookdale blast furnace and Ironbridge exerted great influence on the development of techniques and architecture.

Criterion IV. Ironbridge Gorge provides a fascinating summary of the development of an industrial region in modern times. Mining centres, transformation industries, manufacturing plants, workers' quarters, and transport networks are. sufficiently well preserved to make up a coherent ensemble whose educational potential is considerable.

Criterion VI. Ironbridge Gorge, which opens its doors to 300,000 visitors yearly, is a world renowned symbol of the 18th-century Industrial Revolution.

Committee Decision

The Committee made no statement.

- Statement of Significance: the State Party will discuss and agree to a revised statement of outstanding universal value for the site
- Change to UNESCO official description requested

Boundaries and Buffer Zone

- Status of boundaries of the site: inadequate
- Buffer zone: no buffer zone has been defined/further work needed before one can be defined

Status of Authenticity/Integrity

- World Heritage site values have been maintained although a gradual deterioration in some elements of the built environment has occurred

3. Protection

Legislative and Administrative Arrangements

- Severn Gorge conservation area; 250+ listed buildings; 7 scheduled ancient monuments; 2 sites of special scientific interest; article 4 direction
- The protection arrangements are considered sufficiently effective

Actions taken/proposed:

- Review of protection arrangements: It would be useful to review the effectiveness of the current protection arrangements for the World Heritage site in order to identify areas where protection could usefully be increased or changed.
- Regional and local levels of action
- Timeframe: not provided

4. Management

Use of site/property

- Visitor attraction, urban centre, rural landscape

Management /Administrative Body

- Steering group: set up in January 1995, formally established with the involvement, agreement and support of the partner organisations
- Site manager on full-time basis
- Consensual management: the Ironbridge Gorge WHS has numerous land owners and stakeholders, many having their own management responsibilities for particular aspects or areas of the WHS (Ironbridge Gorge Museum Trust, Severn Gorge Countryside Trust and the Borough of Telford & Wrekin,

English Heritage, the Environment Agency, Shropshire County Council and Bridgnorth District Council). In addition, there are other organisations, individual landowners and interest groups each with its own responsibilities. The WHS strategy group provides a forum for the principal landowners and stakeholders.
- Levels of public authority who are primarily involved with the management of the site: national and regional (Department for Culture, Media and Sport, Countryside Agency, English Heritage, Environment Agency, ICOMOS UK); local (Borough of Telford & Wrekin, Bridgnorth District Council, Shropshire County Council, The Gorge Parish Council, Madeley Parish Council, Broseley Town Council)
- The current management system is sufficiently effective

Actions proposed:
- Review of coordinating arrangements: existing co-ordination arrangements have been operational for a number of years and there is scope for improvement. Timeframe: not provided

5. Management Plan

- Management plan is being implemented
- Implementation commenced: December 2001
- The WHS Co-ordinator, working to and reporting to the strategy group, is responsible for over-seeing the implementation of the proposals in the management plan.
- Effective
- Responsibility for over-seeing the implementation of the management plan and monitoring its effectiveness: (see "management" above)

6. Financial Resources

Financial situation
- ERDF, HLF, Advantage West Midlands, English Partnerships, English Heritage, DEFRA
- Other sponsors: Heritage Lottery Fund, Advantage West Midlands, English Partnerships, European Regional Development Fund, Countryside Agency
- No funding drawn in through the World Heritage Fund
- Insufficient (Monitoring of the state of conservation of the WHS, coordinated branding and marketing of the WHS, enhanced maintenance of the public realm, improvements to visitor signage and information, character assessment of the WHS and further research into the area's carrying capacity, major land stabilization works)

7. Staffing Levels

- Number of staff: 1

Rate of access to adequate professional staff across the following disciplines:
- Good: management, promotion, interpretation, education, visitor management
- Average: conservation

Staff resources are inadequate. There is scope for a more focused use of resources in: planning, conservation and enforcement, maintenance of the public realm, publicity and promotion, Interpretation

8. Sources of Expertise and Training in Conservation and Management Techniques

- Open to the public: professional development training in conservation, heritage and environmental management techniques through: the Ironbridge Gorge Museums Trust (IGMT), the Ironbridge Institute (Joint IGMT & University of Birmingham), Green Wood Centre. (e.g.: Architectural joinery and timber framing, tile conservation for conservators, recording and researching historic buildings, etc.)
- Open to stakeholders: IGMT Ironbridge Institutes, IGMT Education, Green Wood Centre (e.g.: historic building maintenance, stonework, Woodland skills etc.)
- Training and education provided to schools relating to conservation and traditional skills are provided by both the IGMT Education Department and the Woodland Trust (Brick making, creative ceramics, printmaking, tile decoration, rural and woodland skills and crafts, coracle making)

9. Visitor Management

- Visitor statistics: 580,000 visitors in 2004. The annual trend within this decade is upward with the 2004 figure showing a 20.6% increase over the year 2002
- Visitor facilities: websites, tourist information centre, signage and interpretation panels, museum guidebooks, museum staff, volunteers and friends, trail guides, books, academic

publications, museum library/collections, TV programmes, educational resources
- Visitor facilities are inadequate
- Visitor needs: additional car parking at peak times; increase in the number and quality of public toilet facilities; improved and appropriate street furniture (seating, litterbins, signposting); improved park and ride facilities (the Gorge connect bus service only runs at weekends and bank holidays); more comprehensive and consistent Gorge-wide interpretation; re-interpretation of the Coalbrookdale area following improved access to woodland areas and the completion of the Historic Watercourses project; installation of a lift to improve accessibility at the Coalport China Museum; improved signage at all levels; website development to increase public access to documentation, archives and collections.
- There is no tourism/visitor management plan for the site

10. Scientific Studies

- There is no agreed research framework/strategy for the site
- Condition surveys, archaeological surveys, transportation studies
- Studies used for management of site: these studies have been instrumental in the development and implementation of the WHS management plan and have informed conservation, restoration and maintenance projects throughout the site.
- Other

11. Education, Information and Awareness Building

- Not enough signs referring to World Heritage site
- World Heritage Convention Emblem used on some publications
- Inadequate awareness of World Heritage among: visitors, local communities, businesses, local authorities
- There is no education strategy for the site but there is a considerable amount of educational activity undertaken within the WHS
- Ironbridge Gorge Museum Trust has its own Education Unit; the Ironbridge Institute (jointly run by IGMT and the University of Birmingham) and the 2 LEAs which cover the WHS (both of which make use of the WHS within the Curriculum). There has also been a project running for the past 2 years called the “Telford Schools World Heritage Project”, run jointly by Telford College, the Borough of Telford & Wrekin and the Ironbridge Gorge Musuems. This project links a local HE College with a number of local Junior Schools to work together on the theme of World Heritage.
- An Ironbridge Gorge WH weekend was held in September 2005
- No website available
- Local participation: not provided

12. Factors affecting the Property (State of Conservation)

Reactive monitoring reports
- N/A

Conservation interventions
- Conservation projects:

The Iron Bridge (1999/2000) – repainting, full recording and historic building survey. repair and replacement of railings.

The Iron Bridge Toll House (2002) – refurbishment for re-use as a tourist information centre and interpretive exhibition.

Bedlam Furnaces (1994) – conservation and stabilisation of iron workings

Blists Hill (4 projects: 1994, 1997)

Coalbrookdale (8 projects: 1992 & 1997, 1994, 1995, 2000, 2002, 2005)

Jackfield – (3 projects: 1997, 2001, 2004)

Coalport (5 projects: 1995, 2004, 2005)

Madeley Wood (1997) – repair and consolidation of remains of Lloyds Engine House

- Archaeological excavations:

Coalbrookdale (1995, 1996 & 1998, 1997, 2001-2004, 2003) – Upper Forge, Upper Works Pool Dam, Darby Furnace and associated structures, Upper Forge, steel furnace site, Historic Water Courses

Ironbridge Gorge and Coalbrookdale (1989 &1996)

Ladywood Bridge site (1990)

Ironbridge – Bedlam Furnaces (1994 & 1996)

The Iron Bridge (1999/2000) – repainting, full recording and Historic Building Survey.

Blists Hill (1993 & 1997, 1997,) – Shropshire and Coalport canals and Hay Inclined Plane, Blast Furnaces, Brick and Tile Works

Coalport (1999) – the John Rose Building

Madeley Wood (1997) – Lloyds Engine House

- Present state of conservation: Adequate

Threats and Risks to site

- Development pressure; natural disaster(s); visitor/tourism pressure
- The main areas of problems/threats are as follows: preservation of the special character of the WHS, access and visitor management, land instability and flooding risk, potential for a major pollution incident at Ironbridge power station
- Emergency measures taken: management plan section 5

13. Monitoring

- No formal monitoring programme
- Consideration is being given to identify key indicators relating to the OUV of the site and a system for monitoring those indicators

14. Conclusions and Recommended Actions

- Main benefits of WH status: conservation, social, economic
- Strengths of management: over the past 20 years the IGMT, has increased the range and improved the quality of museums and attractions within the WHS. It has also achieved a major programme of repair, conservation and interpretation of key monuments and buildings. The natural landscape environment has been improved, including improvements to public accessibility

  Public sector organisations have also allowed the refurbishing and strengthening the Iron Bridge, providing grant assistance for the refurbishment of historic buildings, undertaking land stabilization and flood protection works, environmental enhancements and maintenance.
- Weaknesses of management: In addition to the threats referred to above:

  1-The heavy dependence of the Museum Trust on fluctuating tourist revenues to carry the main burden of maintaining and providing public access to the key sites and monuments. Actions that damaged the tourist business of the Gorge would rapidly result in a deterioration of the conservation of the heritage.

  2- Inadequate local community engagement in the WHS

  3- Lack of core funding to enable the WHS to be maintained and managed to a standard that is appropriate to its WH status.