

An aerial photograph of a village nestled in a lush, green valley. A river flows through the left side of the image. In the center, there is a church with a prominent spire. To the right, a long, multi-story industrial building with a dark roof is visible. The surrounding area is densely wooded with green trees. In the background, there are rolling hills and some distant structures under a clear sky.

SECTION 4

IDENTIFICATION AND EVALUATION OF KEY MANAGEMENT ISSUES

Jackfield

This section describes the eight key issues that form the basis of this Management Plan together with a range of related objectives.

4. IDENTIFICATION AND EVALUATION OF KEY MANAGEMENT ISSUES

4.1 Identification of issues

4.1.1 In an area as complex and significant as the Ironbridge Gorge WHS, there are many needs and interests to be reconciled and issues to be addressed. In producing the Management Plan, partners have considered the ways in which the WHS could be vulnerable to irreversible change and have identified four key issues for the preservation of the significance of the Site. These issues, listed below, formed the basis of the Ironbridge Initiative public consultation in 1997. The responses to that consultation confirmed the view that these four issues should be central to the future management of the WHS.

- 1. Preservation of the special character of the WHS*
- 2. Access and visitor management*
- 3. Land instability*
- 4. Management of the river and banks*

4.1.2 In addition to the above four previously identified key issues, there are a further four issues which the Management Plan seeks to address, namely:

- 5. WHS management structures*
- 6. Information management*
- 7. Planning and policy framework*
- 8. Research into the history and management of the WHS*

Each of the above issues is described in greater detail below together with a range of objectives and actions which seeks to address them.

4.1.3 An important theme which relates closely to a number of the above issues is that of **risk preparedness**. Guidance produced by the International Centre for the Study of the Preservation and restoration of Cultural Property (ICCROM) recognises that WHSs can be at risk of damage from a variety of sources ranging from normal wear and tear to major natural or man-made disasters which could have a potentially catastrophic impact on a WHS. The Management Plan does identify and address the principal risks facing the WHS, namely land instability, river flooding and wear and tear through visitor usage. Another potential risk is that of fire, which could affect both the built and natural elements of the WHS.

4.1.4 There are already in existence Major Incident Response Plans for the area. However, further work is required to produce, within the context of those plans, an Emergency Plan for the WHS. This will identify clear responsibilities and actions for responding to major incidents within the WHS, taking into account the historic importance of the WHS.

4.2 Issue 1: Preservation of the special character of the WHS

4.2.1 The special character of the Ironbridge Gorge is susceptible to erosion and change both through the forces of nature and the impact of the activities of people. The area's character is strongly rooted in its industrial past,

with frequent adaptations of buildings but little large-scale renewal, resulting in the survival of a large number of original structures. However, there has been extensive renovation and restoration of dwellings and historic structures in the Gorge, and the area today has a vitality that was lacking thirty years ago. The distinctive character of the WHS comprises a range of varied urban townscapes and rural landscapes, and maintaining a balance between these urban and rural elements is important.

4.2.2 Another important aspect of the area's character is the fact that the WHS is a living and working community. It is an attractive and popular place to live and work – it has a population of approximately 4,000 and provides employment for about 1,500 people. The WHS also supports a wide range of community facilities and services including a school, doctors' surgery, chemist, churches, post office, and community halls. Retaining such facilities and employment opportunities are vital if the Management Plan's objectives of maintaining the vibrant communities and economic vitality of the WHS are to be achieved.

4.2.3 Despite statutory protection, there is continued pressure for change within the WHS through small-scale alterations and inappropriate modernisation and development. Also, there are still important historic sites at the heart of the WHS that remain semi-derelict. Whilst there is only one Grade I or II* listed building within the WHS (Workshops at Jackfield Tile Museum) on the English Heritage *Buildings at Risk* register, there are numerous other Grade II listed buildings and structures at risk or in need of significant repairs. In the case of the larger industrial buildings, their long-term survival must rely on adaptation and re-use. Considerable success has already been achieved in adapting historic industrial buildings of the Gorge. For example, the old china factory at Coalport is now used as a museum, workshops, hostel and teaching rooms, whilst retaining much of the character of the factory. Projects such as these show how it is possible to avoid an over-managed or tidying up approach and to bring buildings back to life without changing the character of the area.

4.2.4 Another important aspect of protecting the special character of the WHS is the day-to-day maintenance of the area's roads

and footpaths, public spaces and street furniture. The maintenance standards applied must reflect the area's significance as a WHS and as a major visitor attraction.

4.2.5 The existing boundaries of the WHS have remained unchanged since the area's inscription. An unsuccessful request was made to the Department for Culture, Media and Sport in 1998 for it to recommend the extension of the WHS boundary to incorporate Broseley. It is considered by partner organisations that it may be appropriate to reconsider the boundary again at some stage and this has been included in the Action Plan.

4.2.6 An important aspect of protecting the character of the WHS is the need to control carefully any developments outside the WHS which could, because of their scale or nature, adversely affect its character. One possible mechanism for achieving this is the creation of a 'Buffer Zone' around the WHS, an approach which is suggested in UNESCO's guidance for WHSs. Such Buffer Zones can also afford additional protection to areas of archaeological or historic interest outside but close to the WHS. It is important to ensure that this work relates closely to current and ongoing work on reviewing the Statutory Development Plans for the area.

4.2.7 The protection of the special character of the WHS can be assisted by ensuring that people, both locally and further afield, are aware of its significance. There is also benefit in developing links with other WHSs which, though they may be very different to the Ironbridge Gorge, do raise similar issues and challenges in terms of site management. Sharing experience and good practice can help to improve management of WHSs and therefore the protection of their character.

4.2.8 Significant work has been undertaken to research and document the historic and current landscape character of the WHS, but further work is still required to extend our understanding of the continuous processes of change therein.

Issue 1 - Objectives

- 1.1 To ensure that the unique character and setting of the WHS are protected and, where appropriate, enhanced*
- 1.2 To maintain and strengthen the community and economic life of the WHS including the safeguarding of the area's services, facilities and skills*
- 1.3 To ensure that standards of environmental maintenance in the area reflect its importance as a WHS and major visitor attraction*
- 1.4 To raise local, regional, national and international awareness of the significance of the WHS*
- 1.5 To ensure the sustainability of all uses, activities and developments within the WHS*

4.3 Issue 2: Visitor management and access

4.3.1 'The most extraordinary district in the world' By the late eighteenth century the Ironbridge Gorge had become a magnet for visitors coming to see the Iron Bridge itself as well as the world famous companies of the Gorge. A severe decline set in during the first half of the twentieth century, but by the late 1970s the restoration of the Bridge, repair of monuments, regeneration of the settlements of the Gorge and the rapid growth of the museums resulted in the Gorge becoming the single largest tourist attraction in the county and significant on a national scale. By 1988, an estimated three quarters of a million visitors were coming to the Gorge each year, half of

them visiting museum sites and most of them stopping to see the Iron Bridge. The repair of paths, establishment of car parks and the flourishing of businesses catering for the tourist trade added to the attractions of the valley and enhanced its amenity value for the populations of Telford and neighbouring towns. This helped reverse the decline of Ironbridge as a residential and shopping centre and contributed to its increasing desirability as a place to live and work.

4.3.2 The Ironbridge Gorge had long been nationally and internationally recognised as a key site in the story of Britain's industrial heritage with significant monuments and remains set in a romantic river valley. The Museum Trust set out to bring the history of the area alive and pioneered a new approach to the heritage, creating a linked network of museums across the landscape, restoring whole factories, showing the objects made in them and telling the stories of the people who made them. It also launched an ambitious project to regenerate whole historic manufacturing processes – iron-founding, iron rolling, china and tile manufacture – at the Blists Hill, Coalport and Jackfield sites. In parallel with this work, the Telford Development Corporation and latterly the Severn Gorge Countryside Trust brought the slopes, woodlands, pastures and paths of the valley under effective management. Other activities flourished such as the Green Wood Trust and numerous craft manufacturers established themselves in old workshops, some within museums.

4.3.3 The resultant concentration of attractions and activities in the Gorge raises issues for future management in four key areas; intellectual access to and enjoyment of the heritage; education; the economic implications of this; and issues of physical access and visitor management.

4.3.4 Access and Enjoyment - Market research among visitors, both inside museums and more generally in the WHS, consistently identifies the major motivation to visit as an interest in the historic importance of the area. This interest is catered for in nine different museums (Blists Hill, Coalport Tar Tunnel, Jackfield, Broseley Clay Tobacco Pipe Museum, Ironbridge Tollhouse, Museum of the Gorge, Museum of Iron and Ironmasters' houses)

which are spread throughout the valley and relate to most of the major settlements. Their nationally recognised strength is in showing collections of objects in the factories where they were made and with much supporting material on the people who lived and worked there. The museum demonstrates manufacturing processes and regularly operates historic machines in context, including steam mine winding gear and a range of steam powered machines and workshops.

4.3.5 An additional dimension of interpretation is added by manufacturing tenants and staff who demonstrate to visitors the production of fine decorative tiles in the Jackfield Tile Works, china at Coalport, decorative ironwork at Blists Hill and clay smoking pipes at Broseley. The objective of the Museum Trust has been to complement the display of museum objects in context with a high level of demonstration of historic processes and of interaction between the museum staff and the visitors. Blists Hill, in particular, has been among the pioneering demonstration museums which aim to make the past of a specific area accessible to visitors, to respond immediately to visitors' interests and enquiries, and to follow a philosophy that 'to experience is to understand'.



Blists Hill Victorian Town: casting at the foundry

4.3.6 A new means of interpretation, additional to physical visits, and to publication and audio visual presentation, is the opportunity

opened up by the spread of the Internet. There are a number of web sites which feature the historic and natural resources of the Ironbridge Gorge, and the Museum Trust has a major project underway to record images of historic objects, monuments and buildings and to make these easily accessible on the Internet. This resource will eventually be supported with sufficient detail to permit serious academic research; at the same time it should be generally accessible to those with any level of interest and offer a resource for school children as much as those engaged in education at any stage in their lives. Experience in other museums and galleries which have pioneered access to their collections in this way suggests that this in no way diminishes the wish or need for visits to see the actual objects and places but adds a further depth of interest.

4.3.7. An important aspect of the heritage of the WHS is the survival of a long sequence of early industrial remains and their supporting settlements in a dramatic landscape. Ironbridge town, and car parks at Coalbrookdale, Coalport, Jackfield and Madeley already provide stepping-off points for visitors to follow many interesting footpaths and tracks through the wooded valleys of the Gorge. Many of these routes follow old plateways and railways, skirt the historic water-power systems of Coalbrookdale, cross the mining remains that dot aspects of the Gorge, track canals, incline planes and wharves and penetrate diverse woodlands. These include ancient semi-natural woodlands on the steeper slopes, wooded former pitmounds and spoil tips and developing woodlands from late twentieth century plantings. Two of the principal woodlands are designated SSSIs and many rare and interesting species flourish on areas that have been naturally re-colonised from the industrial spoil of the last three hundred years.

4.3.8. Access to the heritage of the Gorge will, therefore, include not only the intense and focused interpretive experiences of the museum sites and publications but also the wider enjoyment of the landscape and the settlements within it. Exciting opportunities exist to improve the co-ordination between these various aspects of interpretation, for example to include more about the broader landscape in the museum's exhibitions and to way-mark and provide more information within the landscape,

around the monuments and in the settlements themselves. Much can be achieved with simple technology by the use of sympathetic and high quality signage and information points. Developing technology offers additional possibilities such as direct broadcasting to visitors through a geographically precise system giving background explanations at every point in the Gorge. Fundamental to improved access is the continuation of efforts to research and publish, in whatever form, easily understood information and interpretation about the area to meet and anticipate the demands from those in formal education as well as pursuing their interests at any stage in life. Traditional exhibitions, focusing on recent research and insights and developing collections, will continue to be an important instrument of interpretation.

4.3.9. Education - The WHS and its museums are used as an educational resource by schools from around the country and from abroad. Around 60,000 schoolchildren in organised groups visit the museums each year mostly studying units of the National Curriculum; about 15,000 of these stay in the local youth hostels. Studies include the geography, geology and natural history of the area as well as history. The museum's Education Department contributes to initiatives in numeracy and literacy as well as to a wide range of other studies. Other participatory activities in the Gorge include china and tile decorating classes, archive research and woodcrafts. The Ironbridge Institute caters for formal education with its successful post-graduate courses in heritage management and industrial heritage run jointly with the University of Birmingham. Aspects of informal



A school party at Blists Hill Victorian Town

and lifelong education are covered by courses at the Green Wood Trust Woodland College and through the activities of local history groups. Involvement of volunteers with organised agencies is a vital aspect of these activities and has resulted in many publications about the local history and landscape; a recent example of success is the local heritage initiative to rediscover the historic Sabbath Walks in Coalbrookdale.

4.3.10 The WHS is thus extraordinarily well equipped to support many aspects of educational activity with its youth hostels (Coalbrookdale and Coalport), its teaching rooms (in many museum sites, at the Green Wood Trust and Youth Hostels and in parish rooms) and with the powerful Library and Archive resources (at Coalbrookdale, Madeley local library and in the Records and Research Centre in Shrewsbury). Fundamental to educational provision are the monuments and collections held in the Gorge which are of national significance. All of the above resources will be made progressively more accessible through the creation of internet sites. Other database systems are being developed by local history groups.

4.3.11 The issues for future management are to protect and enhance the rich educational offering that has been built up, mostly by non-government funded bodies and volunteers, and to attract the resources needed to achieve excellence in future.

4.3.12 Economic Implications - The Ironbridge Gorge is the most important single tourist attraction in the County and has been the subject of regular tourism surveys over the last fifteen years. After a surge of day visiting in the late 1980s, the tourist pattern has settled back to a more regular flow with a high average spend per visitor (over £37) contributing considerably to the local economy. The Gorge contributes over £15m directly to tourism earnings in the Telford & Wrekin area.

4.3.13 Private and public agencies concerned with tourism have worked together for many years through an effective marketing partnership which involves local bed and breakfast accommodation as well as the large hotels of the area and the various visitor attractions. The objectives of the partnership

have generally been to develop a high quality tourist business, progressively increasing the proportion of visitors who are staying in the area, while recognising that the bulk of the tourism earnings are from day visitors and that this will always be a vital part of the local economy. The aim is a virtuous cycle of investment to ensure that all visitors, whether on a day trip, an educational visit or a longer stay holiday, can enjoy a range of high quality accommodation, catering and other services as well as excellently presented attractions.

4.3.14 The local authorities have worked in partnership to improve the presentation of the settlements within the Gorge and to make the necessary strategic investment particularly in roads, car parking spaces, footpaths, pavements, litter bins and other street furniture; this has in many cases been matched by high quality restoration and repair work by private owners to improve the presentation of the small towns of the Gorge. A continuing issue is the need for reinvestment by all stakeholders in the fabric and environment of the Gorge to achieve and maintain the high standards expected of the site by residents and visitors alike.

4.3.15 Physical Access and Visitor Management – Ensuring that there is satisfactory access to and within the WHS is of importance both to local residents and to visitors. The historic road pattern of the Ironbridge Gorge, with its narrow roads and steep hills, was not designed with the needs of today's motorists in mind. Increasing volumes of locally-generated traffic and visitor traffic, resulting in conflict between the quality of life of residents, the expectations of visitors and the historic fabric of the area, make it essential to undertake a comprehensive review of highway issues within the WHS.

4.3.16 The current level of visitors to the WHS has been estimated at about 600,000 a year of whom about half enter a museum. Around 85% of these visitors arrive by car and most of the remainder by hired coach. The main visitor season is between Easter and the end of October and is increasingly evenly spread over the months, partly in response to the marketing strategies of the Museum Trust. The 1990s saw a steady growth in visitors taking short breaks in the area, often with cultural tourism as the main objective. The main holiday family visit has,

however, declined or stagnated in line with the national trend. This is also reflected in the increased proportion of visitors who are over fifty and in the concomitant need to improve physical access for those with physical impairment. Visitors in schools and other educational parties have remained steady at around 20% of total museum visitors – schools benefit from a low cost concessionary entry scheme. Analysis of visitors to the museums shows a consistent pattern of over 50% staying away from home on their visit.

4.3.17 All social groups are well represented (and much less skewed towards the A and B groups than, for instance, visitors to stately homes and National Trust properties); overseas visitors make up about 8% of the total. Local enjoyment and appreciation of the landscape and amenity value of the WHS is evident in the use of footpaths, cycleways and short-journey local users who consistently visit the Gorge at weekends and holidays. There is much scope to improve existing footpath and cycleway links and to work towards providing the 'missing links' in a network that would enable easier, safer and more rewarding routes between the principal attractions for residents and visitors.

4.3.18 The Tourist Information Centre in central Ironbridge deals with about 50,000 enquiries a year and visits to the ironbridge.org.uk web site are currently running at 300,000 a year. The museum's librarian and curators also deal with many thousand professional enquiries and visits by researchers, students, authors, film and media companies and local historians.

4.3.19 The physical impact of visitors on the historic environment has been the subject of a number of studies. The Iron Bridge itself was closed to vehicular traffic in the 1930s and has been carefully repaired, resurfaced and maintained in recent years. Other key historic monuments are maintained under conservation plans, which include strategies for protecting vulnerable parts of the structures. Overall, the impact on the historic environment of current visitor numbers is not significant. Of greater significance is the impact of the passage of time and of the weather. Also, there is little evidence that footpaths and trackways are coming under excessive pressure from overuse. The condition of paths is carefully monitored by the

Countryside Trust. In addition to normal repairs and maintenance, the main issues are controlling the encroachment of undergrowth and maintaining drainage systems.

4.3.20 The influx of visitors' motor traffic caused occasional congestion in the 1980s and led to a number of investments – the Ironbridge by-pass, interception car parks, traffic calming in Ironbridge and elsewhere and a limited park and ride system. This and the falling back of visitor numbers in the early 1990s reduced the pressure points. However, other forms of motor traffic through the Gorge have continued to grow along with national trends; local traffic management remains an important issue for local inhabitants and visitors alike. Local car ownership has also grown, creating pressures for additional residents' parking.

4.3.21 Research is needed into all aspects of traffic flows and management through the WHS to inform future policies to ensure adequate access for all and an acceptable environment. Scope exists to improve interception parking and to implement a park and ride system that will benefit all users of the Gorge. Long-term issues that also have bearing are the development of personal transport to provide vehicles that are less polluting and intrusive, and the development of cycle and walking paths. The (still functioning) railway connection to the Buildwas Power Station could conceivably offer another long-term route into the Gorge.

4.3.22 An essential aid to assisting traffic and visitor movement within the WHS is the provision of clear directional signing. Existing signing to and within the WHS has been erected and added to over many years. As a result, there are numerous different types and styles of signs, many in poor condition, which leads to confusion for motorists and visitors and contributes to unnecessary clutter within the environment. There is need for a complete re-signing programme for the WHS which includes advance directional signing from the motorway and principal road network, boundary signing to mark the WHS and signing within the WHS, including museum sites and principal attractions such as the Iron Bridge.

4.3.23 An important part of helping visitors to plan and enjoy their visits is to provide good pre-visit information in promotional literature, on the internet and at key interception points within the WHS. Most of this function is carried out by the Museum Trust using its sites and at the Tourist Information Centre which it operates on behalf of Telford & Wrekin Council in central Ironbridge. Additional ways are needed to provide clear and concise information throughout the WHS in ways which respect the environment.

4.3.24 Other aspects of visitor management include the provision and fostering of sufficient high quality services such as public toilets, litter removal, catering and refreshment facilities, and to do this with proper regard for accessibility by those that are physically impaired. There is also an increasing need to provide up to date information in other languages, taking advantage of advances in the electronic media.

4.3.25 The issue for the key agencies and private property owners is to find ways of resourcing the investment needed and to carry out the resultant works to the high quality demanded by the importance of the sites and the expectations of visitors from all over the world. Fundamental to this is the commercial vitality of central Ironbridge and Madeley which implies good physical access, adequate parking and well maintained environs. Recent market research among visitors shows that there is ground to be made up here. The problems are exacerbated by the recent flooding history of the River Severn which has severely damaged parts of central Ironbridge and Coalport. Ease of access for visitors and locals alike is also essential if these areas are to support the shops, restaurants, hotels and public houses, and many small businesses that thrive in the Gorge.

Issue 2 – Objectives

- 2.1 To support activities designed to bring alive the important heritage of the WHS and to make it accessible to the widest public, while conserving it for future generations.*
- 2.2 To aim at the highest standards of presentation and interpretation of the historic monuments, factories, buildings, settlements and collections within the WHS. To this end to support a flourishing high quality tourist industry in the area.*
- 2.3 To prepare and implement well researched policies on visitor and traffic management to ensure ease of access and an acceptable local environment for all with proper consideration for those with restricted mobility or sensory impairment.*
- 2.4 To enhance the interpretation of the WHS by providing appropriate and clear information, including that in other languages, in a way that is sympathetic to the built and natural environment.*

4.4 Issue 3: Land Instability

4.4.1 Land instability in the Ironbridge Gorge WHS is an ever-present problem. Geologically, the Gorge is “young” and as a result is still evolving. Past mining activity has also led to land instability. There are, in fact, a complex set of inter-related natural and man-influenced factors which contribute to the area’s

instability and which can be summarised as:

- Underlying ground conditions (geology, hydrology)
- Past extractive activities (quarrying, underground mining of coal, limestone and clay and associated tipping)
- Natural physical landform (steep slopes, adjacent river flow)
- Land use and vegetation (human intervention)
- Trigger events (erosion, excavation, changes in groundwater regime)

There are several specific areas of recognised instability within the WHS.

4.4.2 Land instability resulting from the above factors has the following negative effects on the WHS:

- Damage to highways and drainage leading to increased maintenance or complete replacement
- Damage to structures and buildings (both public and private)
- Damage to the archaeological heritage of the area
- Disruption to people and services due to ground movement or related construction and repair works.



Subsidence – Jackfield

4.4.3 A number of areas within the WHS are affected by ongoing landslide movement. This movement is currently relatively slow and generally occurs in sparsely developed areas. The most significant movement occurs in the following areas:

- **Salthouse Road, Jackfield:** Significant on-going movement of the road severely affects the vertical and horizontal alignment of approximately 250m of public highway and adjacent water supply and sewer pumping mains. This road is the only vehicular access to the residences and businesses at the eastern end of Jackfield, The Maws Craft Centre and The Tuckies. A desk study of this area was completed in November 2000 and further investigation and monitoring work is now required.
- **Lloyds Head, Jackfield:** This road suffers on-going movement from erosion of the underlying tile waste by the adjacent River Severn. A stability study was completed in September 2000 which recommends various options for investigation and stabilisation. A private access road to The Calcutts immediately downstream of Lloyds Head suffered severely in the November 2000 floods, being partially removed by erosion of the tile bank.
- **Jiggers Bank, Coalbrookdale:** Slippage has occurred immediately adjacent to Jiggers Bank (road) and is in danger of undermining the carriageway. A stability study is in progress.
- **The Lloyds, Coalport:** Slow but significant on-going ground movement affects the vertical and horizontal alignment of this road, which is an important route for local and tourist traffic.

4.4.4 Disused limestone workings exist within the WHS at Lincoln Hill. Treatment works were carried out between 1986 and 1988 beneath the public highway and buildings. It is known that cavities still exist beneath undeveloped land which could become unstable in the future.

Issue 3 – Objectives

- 3.1 To ensure that all reasonable steps are taken to investigate and monitor land instability within the WHS*
- 3.2 To identify and undertake appropriate measures to deal with existing damage caused by land instability and to minimise potential dangers and inconvenience from future movement*
- 3.3 To ensure that appropriate arrangements are in place to respond to major incidents of land movement within the WHS*

4.5 Issue 4: Management of the river and banks

4.5.1 Within the WHS, the River Severn and its tributaries are a valuable amenity and an important part of the attractive character of the area. They played a significant role in the area's history as the birthplace of industrialisation, providing a source of power and also the means of transporting raw materials and finished products. However, navigation along the River Severn was always seasonal with low water levels and floods causing problems. Recent proposals to restore navigation along the river from Shrewsbury should be considered very carefully as they could exacerbate bank instability, damage ancient fish weirs and permanently change the natural environment.

4.5.2 Whilst the importance of watercourses within the WHS for power generation and transportation has long disappeared, they remain very important for amenity, recreational, archaeological, ecological and wildlife reasons. Fishing and canoeing are now popular sporting activities on the Severn. Remnants of past industrial activity

along the river banks do remain, but much has been lost or lies hidden. There are traces of the former water powered activities at Calcutts and Benthall and a project is being co-ordinated by Telford & Wrekin Council to repair, manage and interpret watercourses in Coalbrookdale to highlight their importance to the industrial development of the area.

4.5.3 The River Severn is the subject of the Environment Agency's Middle Severn Action Plan (LEAP) which identifies actions to safeguard the quality and ecology of the river. Issues which will need to be addressed include erosion of the riverbanks and the provision of access points to the river.

4.5.4 Flooding of the River Severn and its tributaries within the WHS is a significant problem which appears to be occurring with increasing frequency and severity. Not only does the flooding cause great inconvenience for residents and businesses, it also has a potentially detrimental affect on the stability of riverbanks, footpaths, structures and bridges, including the Iron Bridge itself. The Environment Agency provides an early warning system which has enabled property owners to take measures to reduce the damage caused by floods. However, further work is required to identify possible flood prevention measures and also ways of reducing the damage and impact caused by flooding. It is of paramount importance that any flood prevention measures that may be considered upstream of the WHS do not increase flooding risk or damage the heritage and amenity within it. Clearly, any flood prevention work would need to take full account of the historic importance of the area.

4.5.5 Water safety is also an important aspect of the management of the river. In 1998, The Royal Society for the Prevention of Accidents (RoSPA) was commissioned to carry out an assessment of the risks associated with the River Severn and made a number of recommendations to comply with health and safety legislation, many of which have yet to be implemented. The study did not, however, take account of the activities of the canoe club, the rowing club or the visitor boat operations, and these should also be assessed.

Issue 4 - Objectives

- 4.1 To ensure that appropriate measures for the prevention and alleviation of flooding within the WHS are identified and implemented*
- 4.2 To ensure that appropriate measures are undertaken to maximise water safety, in the light of the RoSPA report*
- 4.3 To ensure that the ecological, environmental, historical, amenity and recreational value of the main watercourses in the WHS are protected and, where necessary, enhanced*

4.6 Issue 5: World Heritage Site management structures

4.6.1 The preparation of the Management Plan has been led by the *Ironbridge Gorge World Heritage Site Strategy Group*. Established in 1995, the Strategy Group grew out of the former Ironbridge Gorge Inter-Agency Group set up by Telford Development Corporation in the early 1980s. The Strategy Group forms part of an existing management structure for the WHS comprising the following groups, some of which no longer meet regularly:

- *Ironbridge Gorge World Heritage Site Strategy Group* comprises elected or board members of the major land holders and those organisations with statutory responsibilities within the WHS or functions under the World Heritage Convention
- *Ironbridge Gorge Inter-Agency Group* comprises officers of many of the agencies and organisations involved in the care of the WHS and its environment.

- *Thematic Task Groups* were established to assist the process of producing the Management Plan, focusing upon specific issues within the Plan including archaeology and historical development; planning and transport policy; woodland and countryside management; ecology; tourism and land instability.
- A *Parish Liaison Group* was established to involve local representatives of the Parish Councils within the WHS in the development of the plan and its objectives, and to facilitate communication with the local community.

4.6.2 The existing management arrangements are currently under review in order to identify the most effective and appropriate structures to take forward the implementation and monitoring of the Management Plan. It is essential that the management structures that are put in place involve all key organisations and interests within the WHS and are effective in implementing the actions contained within the Management Plan.

4.6.3 A key element of the new management structures has been the recent appointment of a Co-ordinator for the WHS, a role similar to that existing in a number of other UK World Heritage Sites. The primary aims of the Co-ordinator, who will work under the general oversight of the Strategy Group, are:

- To assist key organisations and the local community to work together to implement the WHS Management Plan
- To establish, support and facilitate a network of groups to direct and guide the work of the various organisations and agencies within the WHS
- To prepare and implement annual work programmes, in consultation with relevant partners, to translate the Plan's objectives into practical action on the ground
- To work with partners, within and outside the WHS, to promote the significance of the WHS locally, regionally, nationally and internationally
- To work with partners to review and update the Management Plan and the proposed actions contained in it

- To work with partner organisations to identify potential sources of funding for projects in the Action Plan and to co-ordinate the development and submission of bids

4.6.4 It is essential that the preparation of the Plan is not viewed as an end in itself but rather as a means to an end, namely, to guide the ongoing and sustainable management of the WHS. To be effective, the Plan must be subject to regular monitoring and review so that it can be updated and modified to reflect changing circumstances and priorities. However, it is essential that one factor in particular remains unchanged, namely, that the Plan's primary objective is to protect and enhance the special character of the WHS. The WHS management structures must assist and facilitate this process.

4.6.5 The proposed new management structures for the WHS provide an opportunity to develop greater co-ordination in identifying and accessing sources of external funding. Some partner organisations, notably the Ironbridge Gorge Museum Trust and the local authorities, have already succeeded in securing significant amounts of funding for projects within the WHS. It is likely that a more integrated approach by partner organisations could result in even greater success in attracting funding to the area which will greatly assist the implementation of the Management Plan's objectives.

Issue 5 - Objectives

- 5.1 *To ensure that the management arrangements for the WHS are effective and appropriate for the implementation and monitoring of the WHS Management Plan*
- 5.2 *To encourage active community involvement in the management of the WHS*
- 5.3 *To develop arrangements for securing greater co-ordination in identifying and accessing external funds*

4.7 Issue 6: Information management

4.7.1 The WHS is complex and diverse. There is within it a range of different and sometimes conflicting interests and it is subject to a variety of pressures and threats. The effective management of this complex area requires accessible, accurate and relevant information. At present, this information is held in many and varied locations and formats. Subjects covered include the archaeology and historic landscape and ecology of the WHS; details of services and infrastructure; land uses and activities within the WHS; planning records; and data on visitor numbers and patterns.



The Iron Bridge: repainted and surveyed 1999-2000

4.7.2 There is scope to manage this information more efficiently in order to improve its usefulness to organisations and agencies involved in managing the WHS and to individuals wishing to research the history of the area. One way to achieve this would be to establish an integrated database within a computerised Geographic Information System. Such a system would enable spatial information to be collected, stored and analysed and also assist the process of monitoring changes within the WHS.

Issue 6 - Objectives

6.1 To ensure that the gathering, recording, analysis and management of information about the WHS is undertaken in a way which assists the implementation of the Management Plan and to encourage data sharing amongst partner organisations and the development of compatible databases

4.8 Issue 7: Planning and policy framework

4.8.1 The statutory planning system is the primary means of ensuring that new developments within or near the WHS are consistent with the area's historical significance. To do this effectively, it is essential that policies contained in the Development Plans for the area are relevant, comprehensive and robust. Within the Wrekin Local Plan 1995-2006, the significance of the WHS is recognised in the range of policies relating specifically to the WHS. The effectiveness of these policies should be assessed and any amendments required can be incorporated in the next review of the Local Plan. The current review of the Bridgnorth District Local Plan will consider appropriate planning policies for that part of the WHS within Bridgnorth District.

4.8.2 Government Planning Policy Guidance Notes (PPGs) and Regional Planning Guidance set the national and regional planning policy context for the Wrekin and Bridgnorth District Local Plans. PPG15 (Planning and the Historic Environment) and PPG16 (Planning and Archaeology) are particularly relevant to the WHS. PPGs are periodically revised and the Regional Planning Guidance for the West Midlands is currently under review.

4.8.3 The planning system has the potential to make a significant, positive contribution to protecting and enhancing the character and

appearance of the WHS. By using their planning powers imaginatively, proactively and constructively, the local planning authorities within the WHS can ensure that all new developments are of a high quality and enhance the character of the WHS. For example, key development sites within the WHS can be identified and development briefs prepared for them, and supplementary planning guidance can be produced on a range of topics, such as alterations and extensions to existing buildings, shopfronts and advertisements. Implementation of the guidance within PPG16 requires a Sites and Monuments Record, or similar database, and associated archaeological expertise, in order to provide advice to developers, local authorities and the general public.

4.8.4 Whilst the statutory planning system does have considerable control over developments and activities within the WHS, there are also numerous activities that can occur which fall outside the scope of planning legislation and yet which could have an adverse impact on the WHS. Some of these other activities will fall within the scope of other regulations, policies or strategies and it is important to ensure that they also reflect the need to protect the character of the WHS.

4.8.5 In addition to the planning policies referred to above, there are also a range of other policies and strategies that are relevant to this Management Plan and these include:-

- West Midlands Regional Economic Strategy
- West Midlands Regional Cultural Strategy
- Local Cultural Strategies (proposed)



Restoration of Dale House, Coalbrookdale in the late 1980's

Issue 7 - Objectives

- 7.1 To ensure that the statutory Development Plans for the area contain relevant, consistent, comprehensive and robust policies for the protection of the WHS and that policies and practices reflect the guidance contained within PPGs 15 and 16*
- 7.2 To ensure that new development within the area is of high quality and reflects the area's significance as a WHS*
- 7.3 To identify issues that could usefully be covered by Supplementary Planning Guidance and to produce such Guidance*
- 7.4 To encourage all organisations with responsibilities within the WHS to ensure that their policies and strategies are consistent with the objectives of the Management Plan*

4.9 Issue 8: Research

The effective management of a WHS can only be based on appropriate and continuing research.

4.9.1 Background – For more than a century the Ironbridge Gorge in general and the Coalbrookdale ironworks in particular has been well-served by its historians and archaeologists (e.g. Randall 1862, 1879, 1880; Raistrick 1953; Trinder 2000; Cossons & Trinder 1979; Muter 1979; Alfrey & Clark 1993; Thomas 1999; Hayman, Horton & White, 2000). However, managing the WHS will require further research in other areas including the ecology and geology of the area; tourism, popular culture, traffic management, and property management.

4.9.2 Current Resources – Consideration of a Research Strategy for the Ironbridge Gorge WHS must begin with assessments of the current state of understanding in several disciplines and of the resources for research activity.

(i) The Ironbridge Gorge Museum Trust –

The Museum is the principal custodian of artefacts, iron products, pottery, tiles, tobacco pipes, tools, machines, geological specimens and archaeological finds relating to the Gorge. The collections are professionally curated, and all of them are rated of national significance. The quality of their care is recognised in the IGMT's achievement of the highest level of registration and national designation with DCMS. The Museum's extensive library includes manuscripts from the Coalbrookdale Company, the Lilleshall Company and the Darby family. The library holds the collections of the Association for Industrial Archaeology and several other learned societies, and as a result of a series of direct and indirect benefactions its range of printed books on industrial archaeology and related disciplines published in the United Kingdom and overseas is unequalled. The Elton Collection of works of art relating to industry between the eighteenth century and the twentieth century is held by the Museum on behalf of the nation. A substantial collection of oral history recordings of people who lived in the Ironbridge Gorge and other parts of the Coalbrookdale Coalfield, all indexed and readily available is also held in the library. An archaeology unit also forms part of the museum and holds records relating to archaeological investigations carried out in the Gorge since 1981.

(ii) The Ironbridge Institute

The Institute is a joint venture of the Ironbridge Gorge Museum and the University of Birmingham which currently teaches postgraduate programmes in Heritage Management and Industrial Archaeology based in the Long Warehouse, Coalbrookdale. The Institute has been involved in the past in consultancy work on a variety of topics relating to Heritage Management and Industrial Archaeology. Reports on such work together with dissertations written by postgraduate students, some of which are on topics relating to

the Ironbridge Gorge, are held in the Ironbridge library.

(iii) Repositories of documents

Substantial manuscript collections relating to the Ironbridge Gorge are held by Shropshire Records & Research in a modern archives centre in Shrewsbury. These comprise principally the official records of the County of which Telford & Wrekin formed part until 1998, records of smaller local authorities, and private collections, principally from landowners and solicitors, together with files of County newspapers. Other manuscripts relating to the Ironbridge Gorge are located in record offices throughout the United Kingdom. The two volumes of the *Victoria History of Shropshire* that relate to the Gorge identify all the principal manuscript collections, including those in the principal national repository, the Public Record Office.

4.9.3 Future strategy: maintaining current activities

– It is not feasible to frame a plan that will cover every aspect of future research on the Ironbridge Gorge. Much will depend on the unpredictable inclinations of individuals, the policies of university departments and the decisions of funding bodies. Nevertheless schemes of management can be devised that will ensure that current good practice is continued, that links with the latest thinking both in British universities and internationally are maintained, and that appropriate data will be collected and managed. The following are general objectives that can be achieved without additional resources:

(i) The Ironbridge Gorge Museum should continue to build up and curate its collections including its library, maintaining links with other museums and with private collectors in appropriate subject areas.

(ii) The Ironbridge Institute, as a part of the University of Birmingham, should continue to be an important channel through which links are maintained with current academic thinking in all appropriate disciplines.

(iii) The Severn Gorge Countryside Trust should continue to take the principal responsibility for initiating and co-ordinating research into the ecology and geology of the WHS.

(iv) English Heritage, Telford & Wrekin Council, Shropshire County Council and Bridgnorth District Council should continue to monitor the appropriateness of legislative protection of sites in the Ironbridge Gorge in the light of advancing research.

4.9.4 Future strategy: new ventures – The following developments would be of substantial benefit to the effective management of the WHS, and would require only relatively modest new resources, which might be obtained through regional or national government funding, European Community funding, or by research grants from appropriate trusts. Research needs can be identified in the following areas:

(i) Historical research

The main priority for the next five to ten years should be the integration through information technology of as many as possible of the sources relating to the Gorge over the period 1660-1860, including probate records, company accounts, parish registers, maps that list individuals, the records of the Borough of Wenlock, the Gloucester Port Books, litigation and other court records, and property deeds. This will provide the foundation for new interpretations of the social and economic history of the classic period of the Industrial Revolution, as well as providing data from which the queries of private enquirers can be answered, and data that can be integrated with the proposed enhanced Natural and Historic Environment Record. Such a project will require investment in expertise for the design of suitable systems, and in hardware, software and inputting time.

(ii) Archaeological evaluation and investigation

There are numerous sensitive archaeological areas which are not scheduled, where it is possible that public utilities or developers might wish to undertake works involving ground disturbance. If such works were to be permitted by the planning authorities, it is essential that archaeological evaluation should take place in advance (PPG16), and that adequate funding should be secured from developers for appropriate excavation, monitoring of work and publication of findings.

Other relatively large-scale archaeological investigations would be appropriate in advance of restoration programmes for monuments like the Benthall Edge limekilns and the Craven Dunhill tileworks.

The partners are aware of the potential for large-scale research excavations on some of the principal sites in the Ironbridge Gorge. Much might be learned from excavation of such sites as the Old Furnace and the Upper Forge area at Coalbrookdale; the Bedlam Furnaces; the boat-building yard and lead smelter at Bower Yard; riverside wharves at Dale End, Ladywood and possibly Jackfield; and Lloyd's Coppice, because of its significance in the Shropshire (or long wall) system of coalmining. Excavation of these and other sites might reveal structures that could be displayed to the public. Such programmes would be costly, and it is not proposed that any should be undertaken within the foreseeable future. Most of the sites concerned are Scheduled Ancient Monuments and any excavation would require Scheduled Monument Consent.

(iii) Archaeological data management

Effective management of both the natural and the historic environment is dependent on high quality, and readily accessible, data. Shropshire County Council's Natural and Historic Environment Record requires considerable enhancement before it can deliver such a service. Existing data (for instance, at the Ironbridge Gorge Museum Trust) needs inputting, new surveys commissioning (for instance, of the extent, character, survival, or vulnerability of the archaeological resource), and improved access to the data provided within the WHS. Such enhancements are likely to involve partnership working.

(iv) Heritage Management

There is also a need for research relevant to the management of the WHS, drawing on such disciplines as business studies, accounting, media studies, museum studies, sociology and traffic management. Short-term objectives for such studies might be:

- Comprehensive survey of vehicle movements into, within and out of the WHS, including residents' commuting

patterns, through traffic, patterns of circulation, HGV routes to and from the Ironbridge Power Station and The Coalbrookdale Works.

- Comprehensive visitor management survey (patterns, numbers, behaviour, motivation).
- A study of the current population of the WHS, indicating numbers and destinations of commuters, second homes, families who have lived in the area for more than two generations etc.

Issue 8 – Objectives

8.1 To promote and encourage appropriate research to improve understanding of the archaeological, historical and environmental value of the WHS and to assist the implementation of the Management Plan

8.2 To ensure that the efforts of organisations and individuals involved in research into the WHS are co-ordinated and that the results are disseminated in a manner that is comprehensible to and usable by both academic and popular audiences