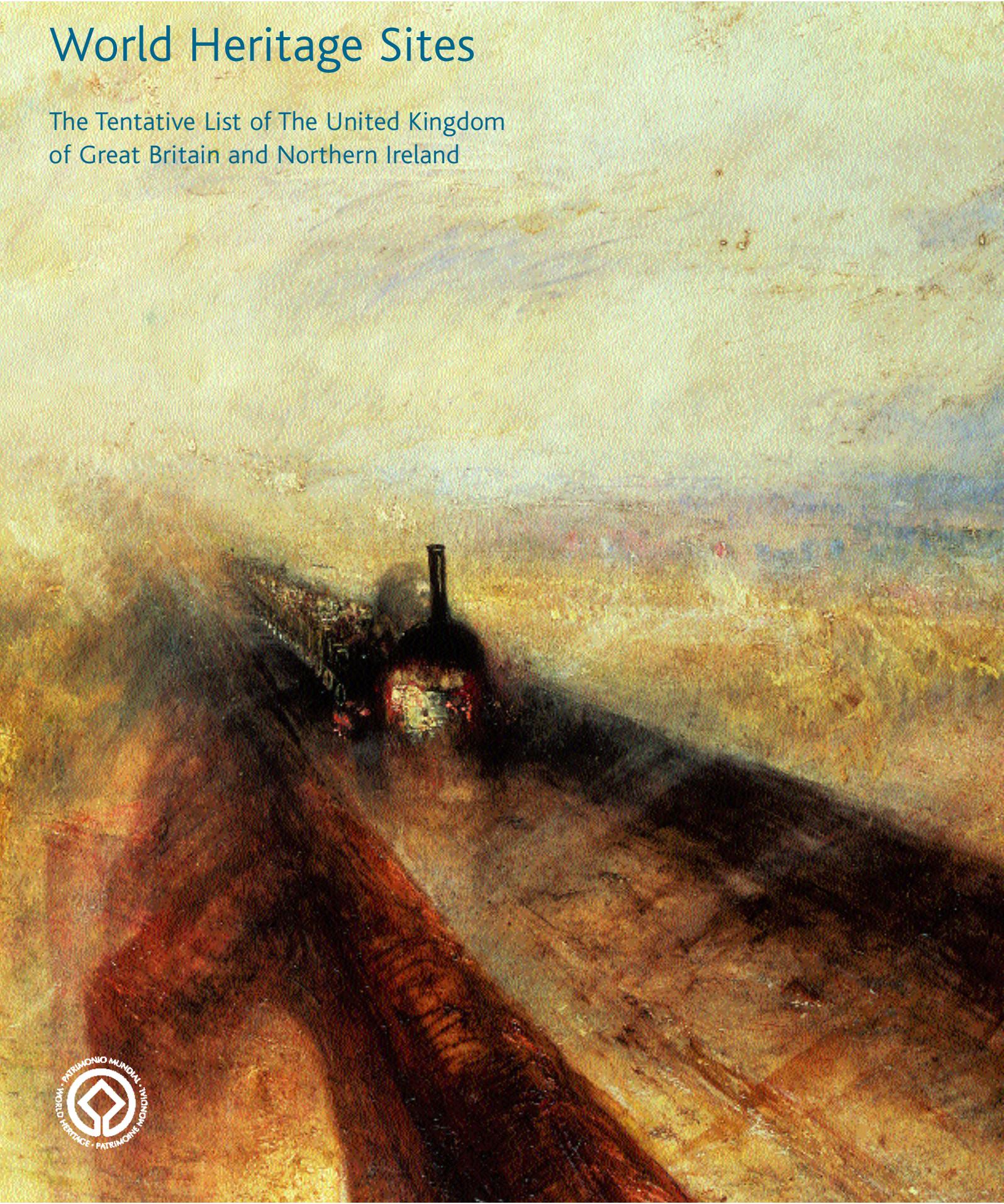


# World Heritage Sites

The Tentative List of The United Kingdom  
of Great Britain and Northern Ireland



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# Preface

by the Rt. Hon. Chris Smith MP, Secretary of State for Culture, Media and Sport.



It is well over a decade since the United Kingdom last submitted to the World Heritage Committee a Tentative List, the essential first step in the nomination of World Heritage Sites. Many things have changed since 1986, and the new Tentative List looks very different from the last one. There are several reasons for this. Seventeen of the sites on that first list are now inscribed as World Heritage Sites as are many similar sites, mainly monumental, throughout Western Europe. The World Heritage Committee, the international body responsible for the World Heritage Convention, has signalled that it is looking to widen the range of sites included in the List, particularly into the areas of industrial archaeology and cultural landscapes. It has also indicated that some types of European sites are already well represented on the World Heritage List.

In preparing the United Kingdom's new Tentative List, we have taken these factors into account and looked for the gaps that need filling. In doing so, we have produced proposals which we believe represent values and places that are truly of universal significance and which we hope will help advance the concept of World Heritage beyond the monumental and architectural into areas of relevance to all humanity. These include the impact of mankind on the landscape as a whole and our interaction with nature, as well as the inception and process of industrialisation which has changed and moulded the way in which all the peoples of the world now live. That process began here in Britain and it is right that it should be marked more prominently in the World Heritage List.

Because this Tentative List marks the renewed interest of the UK in UNESCO, following this government's move to rejoin in 1997, and in the concept of World Heritage, I intend that this document should be widely available to help explain to all those concerned the processes we have gone through and the values we are trying to mark. Part Two sets out the sites on the Tentative List in the format prescribed by the World Heritage Committee. In Part One, we have taken the opportunity to explain the logical process of evaluation and consultation by which we have reached the conclusions embodied in the Tentative List, and to summarise the range of sites we have selected.

That process has involved both specialists and the public at large. Over the 18 months since I first announced my intention of reviewing the List, it has engaged seven government departments, a number of specialist agencies, and many local authorities. Once initial proposals had been put forward, my colleagues and I consulted widely on these and considered the responses very carefully. The end result is the 25 sites included on the new Tentative List, which I announced on 6th April.

I would like to thank all those involved in the preparation of the Tentative List, including my colleagues in government and their staff, the Local Authority World Heritage Forum, ICOMOS UK, IUCN-UK and the more than 400 individuals and organisations who responded to the public consultation on the proposals.

My special thanks go to the various experts who produced and evaluated proposals, and also to English Heritage who led the Committee which produced initial proposals for England and have led the drafting of the List itself. I am grateful to all those who contributed to this publication in English Heritage, Historic Scotland, CADW, the Northern Ireland Environmental and Heritage Service, English Nature, The Scottish Office, Dorset and Devon County Councils, the Lake District National Park, the New Forest Committee, Stratford District Council, the Shakespeare Birthplace Trust, and in the government and heritage bodies of Anguilla, Bermuda and Gibraltar.

I believe that the List sets a firm working agenda for future nominations for the United Kingdom and the government looks forward to submitting the first sites from it in the near future.



**Chris Smith**

Secretary of State for Culture, Media and Sport  
June 1999

## Part one: The Preparation of the Tentative List

World Heritage Sites are places or buildings of outstanding universal value recognised as constituting a world heritage 'for whose protection it is the duty of the international community as a whole to co-operate'.

The concept of World Heritage is at the core of the World Heritage Convention, adopted by UNESCO in 1972, to which 156 nations have now adhered. The Convention established the World Heritage List as a means of recognising that some places, both natural and cultural, are of sufficient importance to be the responsibility of the international community as a whole, and as a tool for conservation. By joining the Convention, nation states are pledged to care for the World Heritage Sites in their territory as part of protecting their national heritage.

The Convention is overseen by the World Heritage Committee. It is serviced by UNESCO's World Heritage Centre in Paris. The Centre (established in 1992) also advises States Parties on the preparation of site nominations, organises technical assistance on request, and co-ordinates reporting on the condition of sites and on emergency action to protect threatened sites. It administers the World Heritage Fund.

The Centre and the Committee are advised by three non-governmental international bodies - ICOMOS (International Council on Monuments and Sites) on cultural sites, IUCN (World Conservation Union) on natural sites, and ICCROM (International Centre for the Study of the Preservation and Restorations of Cultural Property), which provides expert advice and training on conservation of cultural sites. ICOMOS and IUCN have national committees in the United Kingdom and some other countries.

The Committee publishes **Operational Guidelines for the Implementation of the World Heritage Convention**. In particular, the guidelines detail criteria for the judgement of 'outstanding universal value' and provide guidance on the submission of nominations. Essentially the thrust of both the Convention and the Guidelines is that the process for nominating and inscribing World Heritage Sites has to be very selective.

Currently there are 582 World Heritage Sites, of which 445 are cultural, 117 natural and 20 mixed. The Committee has been concerned for some years about the imbalance between cultural and natural sites and the under-representation of some parts of the world in the list in comparison, in particular, to Western Europe and North America.

World Heritage Sites are nominated by the appropriate nation state. They are then evaluated by either ICOMOS and/or IUCN. The final decision is taken by the World Heritage Committee. In recent years the Committee has emphasised the need for appropriate management arrangements to be in place before nomination and now insists on the preparation of a management plan before a site is inscribed on the World Heritage List. The Committee has also stressed the need to consider buffer zones around World Heritage Sites.

The Committee requires each nation state to submit a Tentative List of proposals likely to be put forward over a five to ten year period. Tentative Lists enable the Committee to evaluate within the widest possible context the ‘outstanding universal value’ of each property nominated, and are regarded by the Committee as an essential precursor to further nominations, particularly of cultural sites.

### The United Kingdom and the Convention

The United Kingdom (UK) ratified the World Heritage Convention in 1984 and submitted its first Tentative List in 1986. 17 sites have now been inscribed on the World Heritage List. These are listed below. Unless otherwise stated, all sites are cultural.

**1986** Giant’s Causeway (Natural)  
 Ironbridge Gorge  
 Stonehenge, Avebury and associated sites  
 Durham Castle and Cathedral  
 Studley Royal Park and Fountains Abbey  
 Castles and Town Walls of King Edward in Gwynedd  
 St. Kilda (Natural)

**1987** Blenheim Palace  
 City of Bath  
 Hadrian’s Wall  
 Westminster Palace, Westminster Abbey and St Margaret’s Church

**1988** Henderson Island (Natural)  
 (Pitcairn Group)  
 Tower of London  
 Canterbury Cathedral,  
 St Augustine’s Abbey  
 and St Martin’s Church

**1995** Edinburgh Old and New Towns  
 Gough Island Wildlife Reserve  
 (Natural) (St. Helena Group)

**1997** Maritime Greenwich

Prehistoric Orkney was nominated in 1998 and a decision on it is awaited.

The UK Government’s responsibilities for the Convention are exercised by the Secretary of State for Culture, Media and Sport. Individual nominations for Scotland, Wales and Northern Ireland will be made by their respective First Ministers. Nominations for Overseas Territories will be made by the Foreign Secretary and for Crown Dependencies by the Home Secretary.

### The Tentative List Review

The Secretary of State for Culture, Media and Sport, the Rt. Hon. Chris Smith MP, announced the review of the UK’s Tentative List in October 1997. He particularly mentioned the need to consider further natural and industrial sites. He was advised on English sites, and those from the Overseas Territories and Crown Dependencies, by a group of experts set up at his request by English Heritage, the government’s principal adviser within England on the built and archaeological environment. His colleagues

in Scotland, Wales and Northern Ireland made their own arrangements for consultation. There was close liaison between all the involved Departments to produce integrated proposals for the UK as a whole.

These were the subject of widespread public consultation in the latter part of 1998. Following consideration of the responses, in April 1999 the Secretary of State announced the names of 25 sites within the UK and its Overseas Territories which would form the new Tentative List.

Various constraints influenced the development of this List. First, it has been kept to 25 sites only so that it can be the basis of a realistic programme of nominations over the next 10 years. Second, the proposals follow the advice of the World Heritage Committee which seeks to reduce the rate of cultural nominations and also to redress the balance between existing inscriptions and Tentative Lists in Western Europe and North America and the rest of the world. As far as possible, the proposals have been set within at least a wider European context. Obviously any sites put forward must be truly outstanding in international terms and the whole process is, of necessity, extremely selective. Sites proposed for inclusion in the new Tentative List have been selected to represent themes and topics in which the UK, in whole or in part, has made outstanding contributions to the world's heritage.

The proposals are practical and appropriate for the next decade. This has influenced the selection of the themes from which nominations

will be made. There are other areas of interest from which nominations have been made in the past (eg Gothic cathedrals, historic towns) which should be reconsidered in the future.

**The sites selected are those necessary to ensure a balanced representation of Britain's contribution to the world's heritage at this time, having taken into account what is already on the List, which includes examples of many types of sites traditionally regarded as pre-eminent.**

A further consideration was the practical and resource implications first of nomination and then of inscription. With increasing recognition of the need for positive management and co-ordination to achieve the appropriate balance between conservation, access, the interests of the local community and economic benefit, it is essential in every case that there is either a body able and willing to take on the necessary work or a realistic prospect that such a body will emerge over the next few years.

### **Review of Existing Inscriptions**

The development of the new List began with a review of existing inscriptions. Of the existing natural inscriptions, the two overseas sites lie in very different biological provinces to the UK, while the Giant's Causeway was inscribed for its geological significance and its natural beauty, and St. Kilda for its natural beauty and its habitats, themselves in part the consequence of the interaction of man and nature.

The 13 UK cultural inscriptions and the one current nomination (Prehistoric Orkney) can be classified under a number of themes with

some sites falling into more than one category. The themes of the existing inscriptions can be summarised as follows:

- (1) **Prehistoric ceremonial monuments:** the remarkable monuments built for ceremonial expression in the second and third millennium BC, which are part of a world-wide phenomenon.
- (2) **Impact of the Roman Empire:** the impact of the first major trans-European state on the native peoples of Britain and the development of a hybrid culture in response to this.
- (3) **Origins of Christianity and the development and transmission of medieval culture:** the conversion of the British Isles was part of a trans-European phenomenon and of the foundation on which a sense of European identity has developed.
- (4) **Gothic ecclesiastical architecture:** one of the great expressions of medieval European culture and faith.
- (5) **Development of Medieval Fortification:** the development of fortifications is one of the ways in which the identity and integrity of the medieval and modern state has developed.
- (6) **Urban Planning and Development:** towns demonstrating the effects of urban planning and historic development.
- (7) **Public Buildings:** the physical expression of national, religious and civic pride, organisation and administration.
- (8) **Great Houses:** evidence of a trans-European lifestyle from the 16th century onward.
- (9) **Planned landscapes and gardens:** the development of parks and gardens associated generally with great houses is a characteristic and highly influential feature of the British landscape.
- (10) **Industrial Revolution:** Britain was the birth-place of industrialisation which has shaped the modern world.
- (11) **Britain's Global Influence:** as an imperial and trading power, Britain was in a near-unique position to influence the rest of the world through trade and other means, and to be open itself to cultural influences from elsewhere.

The extent to which these themes are represented on the World Heritage List by sites in the UK or elsewhere was examined, and the extent to which representation should be increased over the next decade by further examples from the UK was considered. Considerations were influenced by the selectivity of the process, the advice of the Guidelines on cultural nominations and regional imbalance, and by the fact that the Tentative List in effect represents a programme to be achieved over a fixed period, with the opportunity for future review.

Given that Orkney has been nominated this year, it is considered that no further prehistoric ceremonial monuments of the second and third millennia BC should be put forward.

Of those themes in which the UK's contribution is essentially part of European culture - the impact of the Roman Empire, Gothic ecclesiastical architecture, medieval fortifications, urban planning and development, and great country houses - are already well represented by examples from the whole of Western Europe. These areas should be re-examined when the Tentative List is next reviewed, but no candidates from them have been put forward on this occasion.

The remaining cultural categories - Christian origins and the development and transfer of learning and culture, planned landscapes and gardens, the industrial revolution, and British influence on the rest of the world - required further consideration, as did, on the natural side, geological sites. Cultural landscapes needed special consideration for their demonstrations of the interaction of humanity and nature. Some additional themes through which Britain has made, or makes, outstanding contributions have also been developed and are described below.

## Themes for a New Tentative List

### (i) Natural Sites

The Operational Guidelines require that natural sites meet high standards of natural integrity. In practice this is hard to achieve within much of the UK, except perhaps in estuaries and cliff areas and for some geological sites, as nearly all other environments have been heavily modified by humanity over many

centuries. The scope for including a few estuarine and coastal sites on the Tentative List has been carefully examined, since Britain's position on the north-west corner of Europe with a mild, wet, oceanic climate is of high significance, reflected particularly in estuarine habitats. Bog habitats in northern Scotland were also considered.

### *Estuarine Habitats*

Viewed worldwide, estuaries are a scarce natural resource. The UK is fortunate in having a large number and variety of types, particularly when compared with the rest of temperate and Mediterranean Europe. Some of these estuaries demonstrate relatively intact coastal processes, although even here water quality and quantity is highly influenced by human activity. Many estuaries are of international importance for migrating wildfowl and waders.

Of the possible candidates in this category, the **Wash and North Norfolk Coast** is considered to be the most significant, both for its bird population and for the striking natural beauty of both the landscape and the bird life. It is probably the UK's most significant contribution to global biodiversity in its role as a crossroads, refuelling and stopping off point on the major migratory routes of wildfowl and waders which use the coastal wetlands and estuarine habitats for feeding, roosting and breeding in both summer and winter.

### *Geological Sites*

Britain's complex geology and contribution to geological science is also of great significance, particularly since many of the type-sites for the

development of geology as a science are to be found here. Of the wide variety of rich geological sites, the strongest candidate at present is the **Dorset and East Devon Coast**. This stretch of coast, from Orcombe Point in Devon to Old Harry Rocks near Swanage, reveals a superb and almost unbroken series of exposures of sedimentary rocks from the Triassic through to the Cretaceous, laid down over a period of 180 million years. These deposits are exceptionally rich in fossils and the whole stretch of coast was one of the type sites for the development of geology as a science in the 19th century and is still heavily used for research.

**The Cairngorm Mountains** form the largest continuous area of high ground above 100m in Britain, with most of the highest peaks in Scotland. These high and distinctive glacially sculptured mountain massifs are surrounded by open moorland and glens. The climate reflects a unique combination of oceanic and continental influences. A diversity of landforms and associated deposits provide invaluable insights into processes of mountain landscape evolution in a maritime, mid-latitude setting, and illustrate evolution and environmental change. Relicts of geomorphological processes which have survived and effects of glaciation are exceptional for their scale of development. Landforms and deposits associated with the melting of the ice sheet add to the landscape history and geomorphological diversity. Climate change and vegetation development are recorded in sediments, with plant remains and pollen grains preserved in loch basins and peat bogs allowing detailed reconstructions of palaeoenvironmental conditions.

### ***Bog Habitats***

The fourth natural site in the Tentative List is the Flow Country in north-east Scotland. This is one of the largest and most intact known areas of blanket bog (a globally rare ecosystem type) in the world. It demonstrates the development of unusually diverse systems of patterned surfaces on blanket bog, whereas elsewhere in the world, though analogous patterns occur, they are on different forms of mire. The floristic composition of the vegetation is unique in the world and represents a highly Atlantic influence on plant distribution and vegetation development. The area supports a tundra-type breeding bird assemblage showing general similarity to, but specific differences from, that occurring on arctic-sub-arctic tundras. Significant proportions of the total breeding populations of certain bird species in Europe occur here. In essence, the outstanding importance of these peatlands lies in their total extent, continuity and diversity as mire forms and vegetation complexes, and in the total size and range of species composition of their bird populations.

## **(ii) Cultural Sites**

### ***Cultural Landscapes***

A major British contribution to biodiversity, natural beauty and the survival of a wide range of species, is those areas where traditional management practices have produced highly valued habitats such as oakwoods and moorlands. Such areas tend also to have very high levels of archaeological survival. In terms of their cultural significance, these landscapes are representative remains of the farming and settlement systems that extended over the British countryside.

The World Heritage Committee's special consideration of Cultural Landscapes (Operational Guidelines paragraphs 35-42) arose largely from their previous consideration of the Lake District as a candidate for inscription. Britain as a whole contains a large number of areas of high importance falling into the categories identified by the Operational Guidelines - planned gardens and parkland, organically evolved landscapes both relict (eg Bodmin Moor) and ongoing (eg the Laxton field system), and cultural landscapes such as the Lake District which are both organically evolving and associative. A number of possibilities were considered but further work is needed before a representative selection could be made. Such an evaluation will be put in hand before the Tentative List is next reviewed, based on the various initiatives now underway or recently completed.

Despite this need for further work, there are two candidates of such outstanding value that they are included now. These are the **Lake District** and the **New Forest**. Both contain habitats now rare elsewhere but highly significant. Both are of high scenic beauty - the Lake District as a spectacular landscape of hills, lakes and valleys, while the New Forest presents a softer and more lowland character dominated by woods and open heathland. Both, because of their past and present management, have exceptionally well preserved archaeology and historic landscapes. The continuity of management practices over very long periods, in the case of the New Forest documented for some 900 years, has combined with the natural landform and vegetation to produce cultural landscapes of exceptional importance. The Lake District in particular can also be considered as an associative cultural landscape

by virtue of its association with some of England's most important writers, as well as its influence on conservation (the birthplace of the National Trust and of the United Kingdom's National Parks movement).

### *The Origins of Christianity*

The most significant and outstanding contribution not yet recognised was the insular contribution in the 7th and 8th centuries to the transition from Antiquity to the Middle Ages. This is the period in which the shadows of modern European nations began to appear and medieval culture took shape out of the ruins of the classical world. Right across Europe sites of the period are rare, and standing buildings north of the Alps almost unknown. A crucial British role in this period was to draw in the remains of classical and Roman culture, and preserve it and work with it, particularly at a number of monasteries. Almost uniquely, there are structural remains of this period at **Monkwearmouth and Jarrow**, the two monasteries founded by Benedict Biscop and built by him in conscious imitation of Italian models. The twin monasteries were also home to Bede, one of the giants of early medieval scholarship. The very rare survival of buildings of this period and Bede's association with them justifies inclusion of Monkwearmouth and Jarrow in the Tentative List.

### *Industrialisation*

Industrialisation is one of Britain's major contributions to the world. Selections for this Tentative List have concentrated on outstanding sites representative of the industrialisation of processing and manufacture, developments in inland transport, prowess in generating and using power, and virtuosity in

civil engineering, all fundamental to the development of modern society. These themes complement and develop the facets of industrialisation represented at Ironbridge, inscribed in 1986.

A very large number of sites were considered. The following are included in the Tentative List:

Derwent Valley Mills, Derbyshire

The Great Western Railway:  
Paddington-Bristol (selected parts)

Manchester (Ancoats, Castlefield  
and Worsley)

Blaenavon Industrial Landscape

Cornish Mining Industry

Forth Rail Bridge

New Lanark

Pont-Cysyllte Aqueduct

Saltaire

These sites are all of outstanding quality and significance as examples of industrialisation. They complement the existing inscription of Ironbridge in representing the full span of early industrialisation in Britain.

The River Derwent, from its source in the Peak District to its confluence with the River Trent south of Derby, powered successive generations of pioneer textile mills through the 18th century. The first was the water-powered silk mill established in Derby in 1704. The next advance was some 50 years later when in 1771 Richard Arkwright built a water-powered

cotton mill at Cromford, precursor of such mills throughout the Country. In the **Derwent Valley** alone, within the next two decades, a further 20 mills were built.

The cotton mills and village founded at **New Lanark** by Richard Arkwright and David Dale in the 1780s, represent the most complete surviving example of an industrial complex of that date and embody physical testimony to the social philosophy of Dale's son-in-law, Robert Owen.

**Saltaire**, developed from 1850, is the culmination of the process begun in the Derwent Valley a century earlier. Here the Factory System reached its apogee as regards the integration of processes and transport, the utilisation of steam power, and the provision of housing and social amenities, all dignified by unified architectural treatment.

The Ancoats, Castlefield and Worsley areas of **Manchester and Salford** witnessed two key events in the history of transport in Britain - the opening of the Bridgewater Canal in 1765 and the opening of the Liverpool to Manchester Railway in 1830, as well as significant developments in the technology and organisation of industrial production. The first steam-powered textile mills were in the Ancoats district of Manchester, and around them developed the first industrial suburbs. Cotton textiles were the most important factor in the economic success of Britain in the 19th century, and this site can be said to symbolise the importance of all these factors.

**Pont-Cysyllte Aqueduct** is one of the heroic monuments that symbolises the world's Industrial Revolution and its transformation of technology. The structure was a pioneer of cast-iron construction and the highest navigable aqueduct ever built. Designed by the leading civil engineers Thomas Telford and William Jessop as part of Britain's dense industrial canal network, it developed an outstanding construction team responsible for many important engineering projects.

Britain was also the country which developed railways, the next great advance in transport after the canals.

**The Great Western Railway: Paddington-Bristol** is regarded as the most complete early railway in the world. The line was built in the late 1830s in accordance with Stephenson's concept of a level line achieved by driving deep cuttings and tunnels. It is one of the major achievements of the great engineer, Isambard Kingdom Brunel.

**The Forth Rail Bridge**, opened in 1890, is an internationally recognised symbol of the achievements of late 19th century civil engineering. Its robust and original design took account of the lessons on the effect of wind on exposed bridges learned from the Tay Bridge disaster of 1879. It was the first cantilever bridge in the world, and the first major steel bridge. It is certainly the best known railway bridge in the world, and one of the most renowned civil engineering achievements of all time.

Fundamental, too, to the Industrial Revolution was the development of deep mining technology and of the integrated exploitation of coal and iron which underpinned much of the rest of industrial development.

**Blaenavon Industrial Landscape** is one of the finest surviving examples in the world of a landscape created by coalmining and ironmaking in the late 18th and 19th centuries. The parallel development of these industries was one of the key dynamic forces of the Industrial Revolution, and South Wales was among its leading centres. Blaenavon Ironworks was established in 1789 to put into practice the latest methods of the Industrial Revolution on a new site with extensive mineral property. The remains of the ironworks are the best preserved of their period and type in the world, and the Site includes the publicly accessible preserved coal mine at Big Pit and an impressive associated landscape of mineral working, water management, transport and settlement.

Miners in Cornwall developed distinctive techniques of deep mining which subsequently spread to much of the world. Seven areas of **Cornish Mining** have been identified which contain not only the distinctive engine houses for pumping, winding and stamping, but also the associated villages, chapels, miners' institutes and associated buildings. The area around Camborne, for example, witnessed some of the most intensive exploitation of metal ores anywhere in the Country, and also saw the introduction of Cornwall's first railway.

### *Britain's Global Influence*

This theme has been approached through the evidence for Britain's naval power, world trade and cultural influence.

Britain's naval power is exemplified at home by the remains of the three great naval bases at Chatham, Portsmouth and Devonport. All centred on a dockyard around which were ancillary features. All three places were increasingly heavily defended against enemy attack. None has survived totally intact. The best overall survivor is **Chatham** and the naval base, including its defences and the associated headquarters of the Royal Engineers, has been included on the Tentative List.

Overseas the massive **fortress and dockyard of Gibraltar**, with a history of occupation going back to the Palaeolithic, is a type-site for the development of fortifications, since the 18th century providing the Navy with a secure base at the western entrance to the Mediterranean.

Of the great commercial ports, **Liverpool** is by far the most pre-eminent. It was one of the greatest ports of Europe and one that carried most of the trans-Atlantic trade during the 19th century. Earlier associated with the slave trade it was later the great emigration port for much of Northern Europe. The waterfront and commercial centre still epitomise Liverpool's importance and prosperity as a great imperial port, while the Albert Dock is the showpiece of a remarkable collection of docks along the Mersey estuary.

A different but equally significant town is the **Town of St. George, Bermuda**. Founded in 1612, it is the Western Hemisphere's oldest English speaking community with well preserved plan and buildings. As such it is evidence of the early spread of British influence to the western hemisphere.

A number of sites were considered as evidence of Britain's cultural influence and also the way in which overseas contact enriched Britain's cultural and scientific life. Three sites are recommended for the Tentative List.

**Stratford** was the birthplace and home of Shakespeare, one of the greatest writers known to the world. In addition to the survival of buildings directly associated with him and of a town plan little altered since his day, Stratford is also one of the earliest examples of the development of tourism associated with a cultural figure and is important for this reason also.

Charles Darwin was a towering genius of the 19th century and is still regarded world-wide as of exceptional importance for his scientific work. His work place and home from 1842 until his death in 1882 was **Down House** in Kent. Here he studied, thought and wrote his great influential works including *The Origin of Species*, much of which was based on his observations in the Galapagos Islands, themselves a World Heritage Site. The estate includes the Sand Walk, Darwin's "thinking path", a circular route around a slip of woodland, and the kitchen garden and glasshouses he used for his plant experiments. It was therefore an integral part of his work, and is of outstanding universal importance for

this reason, together with the surrounding and largely unchanged countryside which was also vital to his work.

**Kew** is of immense importance both as the home of introduced plants which have then become used in Britain and also as a reservoir of plant-types and a gene-bank for the rest of the world. The uniqueness of its collections is a direct product of Britain's role as a trading and imperial power in the 18th and 19th centuries. The botanic garden was founded in 1759 by Princess Augusta, Dowager Princess of Wales. In 1841 the gardens were made into a public research institute. The importance of Kew lies not only in the survival of a unique assemblage of 18th and 19th century garden buildings but in its supreme collection of living plants, over 50,000 taxa collected from all the world. This collection is a world focus for botanical research and education with extensive herbarium, library and teaching facilities.

#### *Planned Landscapes and Gardens*

One of the main British contributions to developments in the rest of the world is the landscaped garden, copied widely elsewhere. UK gardens and parks already on the World Heritage List are Blenheim, Studley Royal and part of Maritime Greenwich. The Tentative List includes one further garden, **Mount Stewart** in Northern Ireland, primarily an example of British garden design of this century. This is Ireland's premier garden, rightly renowned throughout the world for its remarkable plant collections and unique design. It was created within an old demesne on the

shores of Strangford Lough, whose fine parkland trees and shelter belts were established for the house of the 1780s. The present garden was begun in 1921 by Edith, Lady Londonderry, who, taking advice from the foremost plantsmen of the day, including Gertrude Jekyll, created a garden of extraordinarily diverse design and planting held together by a web of family and historical imagery.

#### *Other Sites*

Lastly, the Tentative List includes one site outside the main themes described above. This is **Fountain Cavern** on Anguilla. The native Amerindian culture of the Caribbean did not survive the arrival of the Europeans in the 16th century. There are at present no Amerindian sites on the World Heritage List. Fountain Cavern is a well-preserved cave site, used by the Amerindian people. It has good surviving archaeological deposits and petro-glyphs.

#### **The Format of the Tentative List**

Part two contains the individual entries for sites on the UK's Tentative List set out in the format established in the Operational Guidelines of the World Heritage Committee. Each entry is accompanied by a map giving *indicative* boundaries for each site. These will be subject to further consideration as each nomination is put forward. The issue of buffer zones will also be considered at the nomination stage and proposals have not been included on the maps at this stage.

## Part two: The Tentative List (Natural and Cultural)

**State Party:** The United Kingdom of Great Britain and Northern Ireland.

**Prepared by:** Department for Culture, Media and Sport, Government of the UK.

**Date:** June 1999

Site Name	Type of Site	UNESCO Criteria (see pages 98 and 99)
<b>ENGLAND</b>		
1 Chatham Naval Dockyard	C	C (ii) (iii) (iv)
2 Cornish Mining Industry	C	C (ii) (iii) (iv) (v)
3 Darwin's Home & Workplace: Down House & Environs	C	C (iii) (vi)
4 Derwent Valley Mills, Derbyshire	C	C (ii) (iii) (iv)
5 The Dorset & East Devon Coast	N	N (i) (iii)
6 Royal Botanic Gardens, Kew	C	C (iii) (iv) (vi)
7 The Lake District	C*	C (v) (vi); N (i) (iii) (iv)
8 Liverpool Commercial Centre and Waterfront	C	C (ii) (iii) (iv)
9 Manchester and Salford (Ancoats Castlefield and Worsley)	C	C (ii) (iii) (iv)
10 Monkwearmouth & Jarrow Monastic Sites	C	C (iii) (iv) (vi)
11 The New Forest	C*	C (iii) (v); N (iii) (iv)
12 The Great Western Railway: Paddington-Bristol (selected parts)	C	C (i) (ii) (iv) (vi)
13 Saltaire	C	C (ii) (iii) (iv)
14 Shakespeare's Stratford	C	C (iii) (vi)
15 The Wash and North Norfolk Coast	N	N (ii) (iv)
<b>SCOTLAND</b>		
16 The Cairngorm Mountains	N	N (i) (iii)
17 The Flow Country	N	N (ii) (iv)
18 The Forth Rail Bridge	C	C (i) (ii) (iv)
19 New Lanark	C	C (ii) (iv) (vi)
<b>WALES</b>		
20 Blaenavon Industrial Landscape	C	C (ii) (iii) (iv) (v)
21 Pont-Cysyllte Aqueduct	C	C (i) (ii) (iv)
<b>NORTHERN IRELAND</b>		
22 Mount Stewart Gardens	C	C (ii) (iv)
<b>OVERSEAS TERRITORIES</b>		
23 Fountain Cavern, Anguilla	C	C (i) (ii) (iii)
24 The Historic Town of St. George and Related Fortifications, Bermuda	C	C (iv)
25 The Fortress of Gibraltar	C	C (i) (ii) (iii) (iv)

\* to be submitted as cultural landscapes

Beyond the selection of two candidates for 1999 (Blaenavon and the Town of St. George, Bermuda) and two potential candidates for 2000 (New Lanark and the Dorset and East Devon Coast) no decisions have yet been taken on the order or dates of nomination.

Name of Property:

# Chatham Naval Dockyard

Geographical Location:

## Kent, England

### Description

Chatham Dockyard is the supreme example of a Royal dockyard largely unaltered from the age of sail, at a period when the Royal Navy was instrumental in Britain's global influence and when, before the full impact of the Industrial Revolution, dockyards were the largest industrial centres in Europe. The dockyard contained all the facilities necessary to build, repair, maintain and equip ships of the fleet, and was supplemented by facilities for the Ordnance Board, responsible for the supply of guns, ammunition and powder to the navy and army. Nearby were barracks for the army and marines, and around these and the dockyard grew up the village of Brompton, serving this major concentration of military personnel.

Installations such as dockyards were considered vulnerable to attack by land or sea. Hence at various periods Chatham was provided with permanent fortifications. On the high ground east of the dockyard continuous artillery fortifications were provided in the mid 18th century, called the Brompton Lines, with a concentration of guns and troops at Fort Amherst, overlooking the town of Chatham and controlling access to the military zone of the dockyard, barracks and ordnance wharf.

The proposed World Heritage Site focuses on the 18th and early 19th century dockyard and excludes the later 19th century extension for the steam navy. It includes the site of the Ordnance Board wharf, of which some buildings remain, and, as an outlier, Upnor Castle, built in 1559-67 to defend the dockyard and used in the 18th century as the main powder magazine at Chatham. It also includes the site of the Infantry Barracks (now known as Kitchener Barracks) of c 1750-80 and the site of the Royal Marines Barracks of c 1780. The most

significant surviving barracks at Chatham are, however, those built by the Ordnance Board as the Brompton Artillery Barracks, completed on a grand scale by 1806, and now forming the Royal Engineers HQ as the School of Military Engineering. The village of Brompton served the barracks and is included in the proposed World Heritage Site for its fine 18th century houses and other historic buildings serving a social function for the large number of military personnel. All these sites, with the exception of Upnor, were defended by the Brompton Lines, construction of which was commenced c 1756 by the Royal Engineers, first as earth fortifications and later revetted in brick. These continued to develop into the 19th century until the 1870s when a perimeter ring of forts was built to replace them. The proposed World Heritage Site includes not just the Lines themselves but also the former open fields of fire to the east, known as the Great Lines. The northern end of the Lines has been eroded by the construction of the 19th century extension to the dockyard but they are continuous through Brompton Barracks and extend south to rejoin the river Medway at the site of the former ordnance wharf. This southern end is collectively known as Fort Amherst, a major complex of gun positions, magazines, barracks and tunnels that controlled access into the military zone by means of guarded gates at bridges over a deep barrier ditch.

### Boundaries

The western boundary follows the west bank of the river Medway opposite the dockyard proper. It then follows the line of the now lost 18th century dockyard wall on a line dividing the early dockyard from the mid 19th century extension of St Mary's Island. The boundary then takes in HMS Pembroke (early 20th



Longitude	Latitude
000°31'80"E	51°23'53"N
--- Boundaries	

century naval barracks) before joining the northern end of the Brompton Lines. It then runs roughly due south following the division between the urbanised area and the open land that represents the field of fire of the defences. At the Medway Hospital the boundary turns north west running along the edge of the open space of the Great Lines as it overlooks Chatham proper, and including the naval war memorial. It then takes in Town Hall Gardens and crosses Military Road to embrace the largely open space adjacent to the former Ordnance Yard at the southern end of the Brompton Lines. The boundary then rejoins the river.

This boundary reflects the historic extent of the military presence at Chatham as enclosed by the Brompton Lines. The majority of the land so encompassed is taken up with sites directly related to the presence of the dockyard but also includes significant areas of redevelopment, such as the Lloyds Headquarters, and modern housing, such as that surrounding the historic core of Brompton. The areas of new development are not of themselves deserving of World Heritage Site status and are included solely for completeness.

At Upnor the boundary is drawn to include the castle proper and the barracks block of 1719 but not the remainder of the historic village. It follows the boundary of the scheduled monument.

### Justification of Outstanding Universal Value

Criteria met: Cultural Criteria (ii), (iii) and (iv)

### Assurances of authenticity or integrity

The historic components of the proposed World Heritage Site are all well documented. This is sufficient to establish the location and importance of sites associated with the dockyard proper, even though these have been subject to a great deal of recent change. The major components, namely the dockyard itself, Brompton Barracks and the Brompton Lines, survive to a high degree of completeness. The dockyard was not redeveloped in the 19th century and was spared heavy bombing in 1939-45. Since its closure as a naval base in 1984 it has been under the control of a trust formed specifically to preserve it as a major historic monument. The Brompton Lines and Brompton Barracks have benefitted from

continued ownership by the Ministry of Defence, which has prevented large scale re-development. The southern end of the Lines is owned by the Fort Amherst and Lines Trust, a body formed for the preservation of the fortifications. Upnor Castle is part of the Crown Estate, in the care of the Secretary of State, and is managed by Medway Council, after a programme of conservation by English Heritage. The major individual components of the proposed World Heritage Site are either listed as historic buildings and/or scheduled as ancient monuments and have been for a considerable period of years. In addition the dockyard, Brompton Village, Pembroke and parts of the Brompton Lines are designated as conservation areas. One part of the dockyard is registered as a historic garden on the non statutory register of historic parks and gardens, compiled by English Heritage.

### Comparison with other similar properties

Britain's naval power is exemplified at home by three great Royal dockyards - Chatham, Portsmouth and Devonport. Chatham is now the most complete example of a home dockyard from the age of the sail powered navy, which reached its zenith in the 18th and early 19th centuries. It is this completeness that sets it apart from either Portsmouth or Devonport.

The importance of the dockyard is enhanced by its close association with contemporary military establishments, notably the Brompton

Lines and Brompton Barracks. This combination of a substantially intact 18th century dockyard with its contemporary massive landward defences is unique. The importance of Chatham is further enhanced by earlier associated structures like Upnor Castle, that functioned as part of the 18th century military presence in the Medway.

Internationally only the existing World Heritage Site of Karlskrona, Sweden, is comparable to Chatham for its surviving dockyard buildings and associated fortifications. Of the dockyards belonging to the other major 18th century naval powers very little has survived the subsequent centuries or the ravages of war. The best preserved French dockyard is Rochefort but here survival is partial. The dockyard of the Arsenal of Venice retains many structures but, as with Dutch historic naval installations, was on a comparatively small scale. The German navy was essentially a creation of the 20th century and hence there are no comparable dockyards to Chatham. Overseas the British created a string of dockyards and supply bases to keep the fleet operable anywhere within the expanding empire. These, however, were never intended to build ships in the same way as the home dockyards and are not comparable in terms of scale or complexity. Many suffered war time destruction. Alongside Karlskrona, Chatham is outstanding amongst the surviving historic dockyards.

Name of Property:

# Cornish Mining Industry

Geographical Location:

## Cornwall and Devon, England

### Description

The proposed World Heritage Site is a cluster of seven detached areas which collectively represent the many facets of metal mining in the south western peninsula of England and have a significance far beyond Britain itself. For substantial periods over the last 4,000 years this area was the principal source of tin and copper in the western world, while during the 18th and 19th century it was, for a time, the world's greatest producer of tin and copper. Whilst the mining area of the Cornubian orefield covers West Devon, the major technical innovations and the overwhelming preponderance of mines were in Cornwall. The proposal is therefore termed 'Cornish Mining'. This term would have been well understood throughout the mining world in the 19th century.

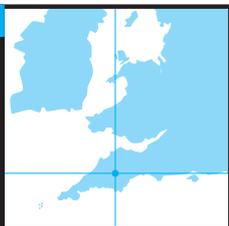
The proposed Site includes all those mine sites and relict mining landscapes where there is exceptional survival of the physical remains. These are largely late 18th century, 19th century and, in a few instances, pre-1914 mining remains. The relict mining landscapes defined do not include those widespread areas of tin streaming that survive in Cornwall and West Devon, associated with a pre-Industrial Revolution technology and therefore not considered representative of the 19th century boom years.

In the 150 years after 1750, the economy and society in the region developed from being largely agricultural to that of (between 1800-1850) complete dominance of the hard rock mining world. By 1900, and more definitively, by the First World War, the shattered remains of this truly massive industry lay almost totally abandoned. The mining economy virtually

ceased to exist, and a substantial percentage of the mining population (perhaps two thirds) emigrated to all corners of the mining world. The twin disadvantages of peripherality from national centres of population and the geological based nature of the mineral resource, helped ensure that no significant industry replaced mining and its related industries in Cornwall and West Devon. The physical remains of the mining boom are therefore largely with us today.

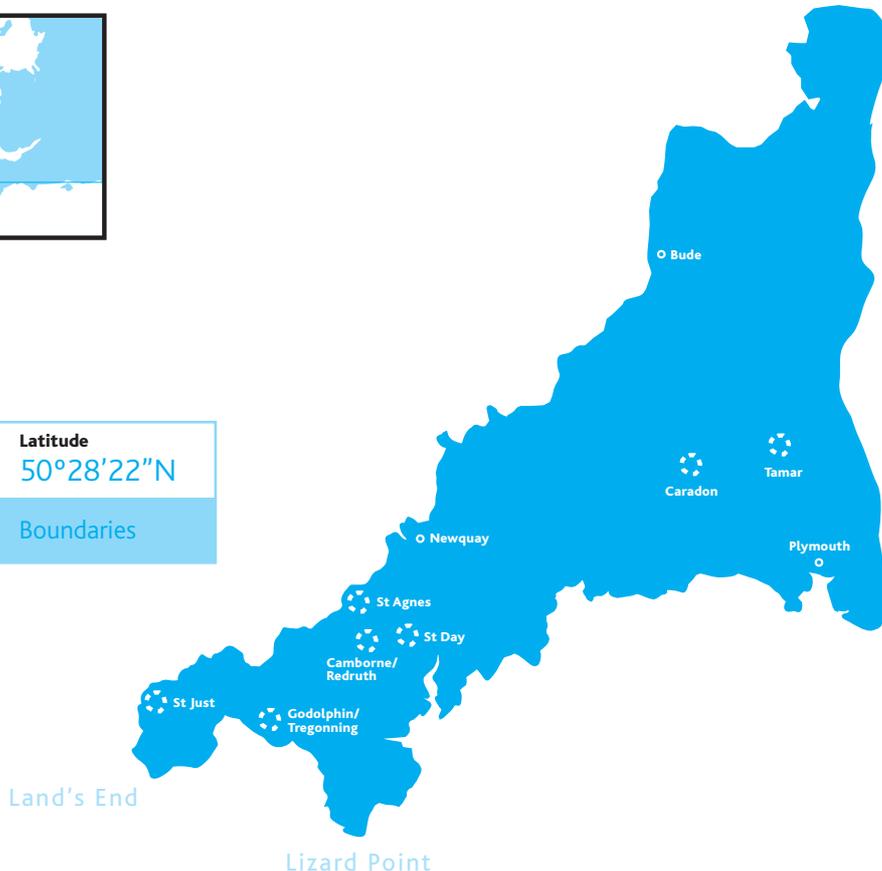
The case for World Heritage Site status is based upon five characteristics:

- The extraordinary suite of minerals in the Cornubian orefield, with 440 species out of a worldwide total of some 3300.
- The crucial part played by Cornish miners, adventurers, and Cornish engineers between 1800 and 1860 in the development of steam technology and mining technology throughout the world, including Trevithick's steam engines, the use of coal gas for lighting, Davy's safety lamp and Bickford's mining safety fuse.
- The outstanding survival of the mining landscape and its associated industrial concerns, urban development, rural settlements and miners' smallholdings, great houses, parks and gardens, mineral railways and mineral ports.
- The comprehensive character of the statutory protection, conservation and long term management measures covering this wider historic mining landscape now in place or presently in progress.



**Longitude** 004°43'21"W  
**Latitude** 50°28'22"N

--- Boundaries



- The existence still, of a well documented Cornish mining diaspora of mining sites (physically so similar to mine sites in the region) and Cornish people. This is particularly well represented today in South Australia, and the United States of America. In addition there are particularly well preserved mining sites in Mexico, the Virgin Islands and Spain.

Throughout the mining districts of Cornwall and West Devon there are large pre-Industrial Revolution relict landscapes of tin streaming works, and 19th century mine sites with the ruined engine houses, arsenic works and associated buildings. The mining towns and villages with their characteristic terraced miners' houses, mining institutes, technical schools and Methodist chapels are a reminder of past activity. Significant remains of closely associated and related industries such as tin and copper smelters, foundries, drill manufacturers, gunpowder, explosives, and fuseworks, ropewalks, candle factories and brickworks survive today. Almost all the mineral ports, and the mineral railways and tramways that served them, can be seen today. Of great significance is the good survival of the great

houses, parks and gardens of the great mining and industrial families of Cornwall and Devon, as well as the widespread pattern of miners' agricultural smallholdings taken out of moorland in the first half of the 19th century.

Mining was reflected in the shaping of a distinctive social and cultural identity in Cornwall of which Methodism was a central element. The spread of nonconformist religion and the creation of an international Cornish identity were both results of the mass emigrations in the 19th century. The history of a region at the forefront of the Industrial Revolution, known throughout the mining world, has left a permanent cultural legacy in the hearts and minds of Cornish people.

### Boundaries

Seven areas have been identified as best representing the many different facets of Cornish Mining. The areas differ greatly from one another in character but each has a core area that is quite distinct and complements the other core areas.

### Camborne/Redruth

Focused on the Great Flat Lode and its adjacent settlements, this is the archetypal Cornish landscape of engine houses and mine complexes served by urban settlements of terraced houses, with chapels, mining exchanges, engineering works, fuse factories etc. The Ordnance Survey maps of 1907 define the historic topography which is essentially 19th century. The area includes several preserved steam engines and the core area of the Mineral Tramway Project.

### Caradon

This south east corner of Bodmin Moor is the most impressive upland mining landscape in the region. Centred on the settlement of Minions and bounded to the south and east by the road from Crows Nest to Upton Cross, it contains the remains of the Phoenix Mines to the north, the Marke Valley mines to the east and the Caradon Hill mines to the south.

### Godolphin/Tregonning

This area, encompassing Tregonning and Godolphin Hills and Wheal Vor, represents the earliest phase of the Cornish Mining technological spectrum. The Godolphin estate benefitted greatly from mining revenues in the 16th and 17th centuries and the area, notably Wheal Vor, pioneered the introduction of steam pumping in the 18th century. It is possible that the first mining use of a Newcomen engine occurred in this area circa 1710, and certainly there were several such engines in use by the end of the century. It is probable that the overgrown area of disused mine workings around Carleen contains the foundations of these engine houses and is therefore of great

significance archaeologically. Godolphin House and its parkland represent an important cultural element of Cornish Mining landscape as, in common with other grand houses in the region, it is founded on the fortunes made out of mining.

### St Agnes

This area of coastal mining stretches from Porthtowan in the south to Cligga in the north. It encompasses both dramatic headlands and steep sided valleys each with their very different type of mining remains.

### St Day/Gwennap

This area complements the Camborne/Redruth area. Its dispersed settlements are much less urban, while minehead complexes such as Great Wheal Busy are amongst the finest in the region.

### St Just

The stretch of coastline from Cape Cornwall to St Ives contains some of the most dramatic mining landscapes in the world, especially in the St Just area. The St Just mines such as Bottallack, Levant and Geevor pioneered mining below the sea bed and several are now managed as tourist attractions. The stretch of coast from Morvah to St Ives was less intensively mined but its surviving engine houses are linked by the Coast Path and by National Trust ownership.

## Tamar

The Tamar Valley, for long an outlet for the tin mines of east Cornwall and west Devon served by river ports such as Calstock, Gunnislake and Morwellham, in the 19th century witnessed the most intensive mining of copper in England. For a time it was Europe's principal source of copper and arsenic causing the further development of the ports and the construction of smelt works and arsenic calciners at places such as Weir Quay and Gawton. The tin mines around Kit Hill and Callington have fine surviving remains, while the restored George and Charlotte Copper Mine has public access via a tramway from Morwellham. The river ports, and especially Morwellham with its restored quays, are amongst the finest examples of mineral ports in the country.

## Justification of Outstanding Universal Value

Criteria met: Cultural Criteria (ii), (iii), (iv) and (v)

### Assurances of authenticity or integrity

Extant remains of former mining, including shafts, engine houses and contemporary field patterns are strong surviving features of the Cornish landscape, accompanied by the distinctive settlement topography of mining communities. Metalliferous surface features support characteristic natural species, the

protection of which has contributed to the survival and archaeological integrity of these landscapes. The many engine houses included in the nominated areas display varying degrees of condition but most have been consolidated rather than restored or converted for alternative uses. Listed buildings retain their architectural quality while the form, planning and character of mining settlements survive even where some detail has been lost in the course of adaptation to meet present day expectations for the region's housing stock.

The comprehensive framework of statutory and planning designations, coupled with active research into, and management of, mining remains has ensured a high degree of archaeological survival for this well preserved landscape.

### Comparison with other similar properties

Cornish Mining has been the parent to similar mining landscapes in many other countries and these therefore enhance the value of the Cornish examples. The mineralogical richness of the Cornubian orefield and the technological developments pioneered in Cornwall in the period concerned ensure that it has no rival.

Name of Property:

## Darwin's Home and Workplace: Down House and Environs

Geographical Location:

### Greater London, England

#### Description

Down House was Charles Darwin's home from 1842 until his death in 1882. Here he studied, thought and wrote his great influential works including *The Origin of Species*. The grounds and surrounding landscape provided much of the inspiration for his revolutionary insights of the natural world, ecology and bio-diversity, which continue to have significant influence today.

Down House, in the London Borough of Bromley, is situated on the North Downs, 16 miles (26km) south east of central London. The area is characterised by dry chalk valleys, country lanes, a rich tapestry of wildlife habitats, small villages and working farms. Despite its close proximity to London, it has remained secluded, retaining the rural charm that first attracted Charles and Emma Darwin.

At Down House, a Grade I listed building, Charles Darwin successfully combined scientific discoveries with family life. Located just south of Downe village, the house and grounds survive largely unaltered. A conservation and display project completed by English Heritage in 1998 has preserved the fabric of Darwin's home, recreating the interior and the atmosphere in which he worked. The grounds, laid out by Darwin and his wife, retain the characteristic layout of a Victorian villa garden.

The compact estate consists of gardens, lawns, orchards and meadows, and a strip of woodland containing the "Sand-walk", Darwin's famous "thinking path". The estate, and surrounding landscape, played a major role in Darwin's

work, which has great universal importance in the history of the way in which we think about life on earth. The estate is included in the English Heritage Register of Parks and Gardens and much of it is included in a Site of Nature Conservation Interest (SNCI) designated by Bromley Council.

English Heritage has restored the traditional management regime of the meadow, which still contains many species noted by Darwin. Most of Darwin's observations of earthworms and bees, his experimental cultivations, studies of insect pollination and cross breeding of pigeons were carried out in his own gardens, grounds and environs. The remaining evidence of his work, such as the Worm Stone, greenhouses and Sand-walk, strengthen the authenticity of a landscape within which ground breaking ideas and changes to man's universal understanding of the natural world, global ecology and bio-diversity were developed.

The surrounding countryside inspired Darwin and has changed little since he knew it. It contains a variety of cultivated and natural habitats which Darwin explored in his daily walks and rides observing plants, birds and animals. Downe Bank, an area of chalk grassland and woodland on the side of a dry valley, now a Site of Special Scientific Interest (SSSI), still resembles the "entangled bank" Darwin describes in the final paragraph of *The Origin of Species*. The High Elms estate, former home of Lord Avebury, an associate of Darwin and sponsor of the Open Spaces Act and the first Ancient Monument Act, consists of 400 acres of ancient woodlands, orchid-rich

grasslands, a nature centre and golf course, and is an SSSI owned by Bromley Council. Keston and Hayes Commons are examples of open common land habitats which have become rare in Greater London. Of particular note are the acres of heathland and valley mire and, in conjunction with the adjoining Ravensbourne meadows, the gradation from dry acid grassland to wet neutral grassland. West Kent Golf Club comprises a mosaic of first class calcareous grassland and ancient woodland, providing rich habitats for a variety of plants and animals and is an SNCI managed by the London Wildlife Trust. The Holwood estate is a mosaic of woods, scrub, unimproved grassland, lake and ponds, part of which is an SNCI. Holwood House is listed (Grade I) and the grounds are on English Heritage's Register of Historic Parks and Gardens; the Iron Age fort, known as "Caesar's Camp" is a Scheduled Ancient Monument.

The historic villages of Cudham, Downe and Keston, all Conservation Areas, contain many buildings of the 18th and 19th centuries, and are characteristic of the historic rural landscape that made up Darwin's neighbourhood.

## **Justification of Outstanding Universal Value**

Criteria met: Cultural Criteria (iii) and (vi)

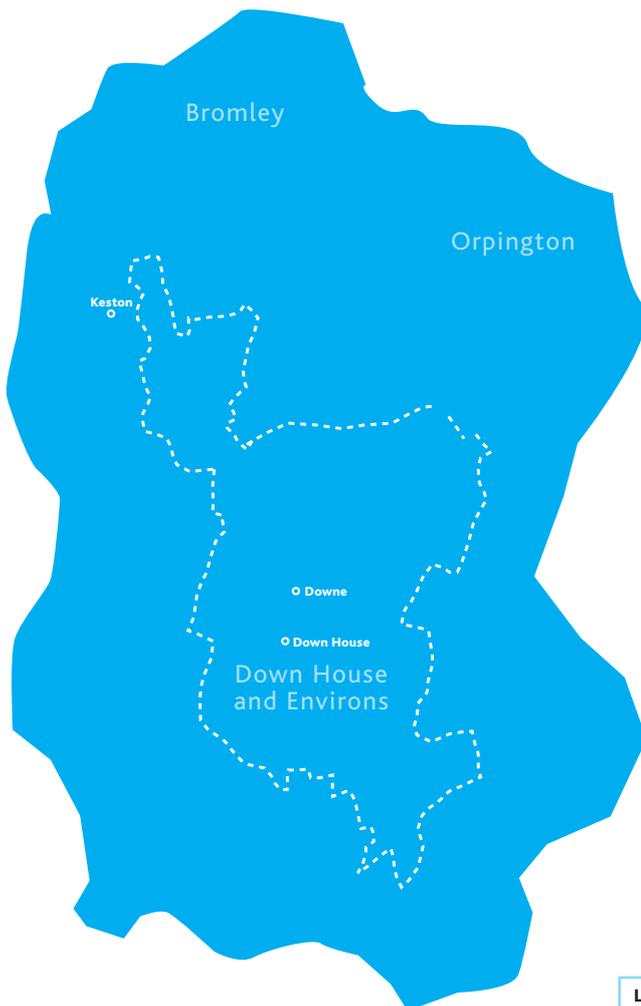
### **Assurances of authenticity or integrity**

Exceptionally full records survive of Darwin's life and work at Down House. The house and the main rooms have been restored with their original contents as they were in Darwin's time. The study in which he wrote all his greatest works is uniquely well preserved with his working library and apparatus. The grounds are almost unaltered and many of the flora, fauna and mycota which he observed can still be seen and studied there today. The villages, countryside and key natural habitats for Darwin's most important observations are much as they were in his time.

The future continuity of authenticity and integrity of both house and grounds, as well as their environs, can be assured as a result of the roles of English Heritage, Bromley Council and English Nature in the management of the area.

### Comparison with other similar properties

The site is unique, and closely linked with the Galapagos World Heritage Site. Darwin drew insights into certain aspects of evolution and bio-diversity from his Galapagos visit and developed the full theory of evolution during 40 years of work at Down. The two sites represent the initial insight and deep study needed to achieve an understanding of natural phenomena which form the basis of our current understanding of ecological systems and evolution. The quantum leap from creationism to evolution through natural selection promulgated by Darwin, revolutionised the way in which the vast majority of people think about life on earth. Few properties and their environs can claim to have been as central to the life and work of one person as Down House.



Longitude	Latitude
000°03'35"E	51°20'10"N
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Name of Property:

## Derwent Valley Mills

Geographical Location:

### Derbyshire, England

#### Description

The proposed World Heritage Site is a narrow 15 mile (24 km) stretch of the lower Derwent Valley embracing the historic textile areas of Cromford, Belper, Milford, Darley Abbey and Derby, and focusing on the theme of the pioneer development of the textile factory system. This phenomenon witnessed innovations in the harnessing of power, the marshalling and housing of the labour force and, above all, in the scale and structure of manufacturing buildings. Over the following century it was to transform economies and landscapes far beyond the Derwent Valley itself.

The River Derwent, from its source in the Peak District to its confluence with the River Trent south of Derby, has powered successive generations of pioneer textile mills through the 18th and 19th centuries creating a cultural landscape of international significance. The lower valley from Cromford to Derby witnessed the two seminal events in British textile history - the introduction of water powered silk throwing and the application of water power to cotton spinning. These events, and the subsequent experiments in the fire-proofing of mill buildings and provision of industrial housing, gave rise to the factory system that was to mature around Cromford, Belper and Derby, and was recognised by contemporaries as the model English Mill system. This was exported not only throughout the country but around the world.

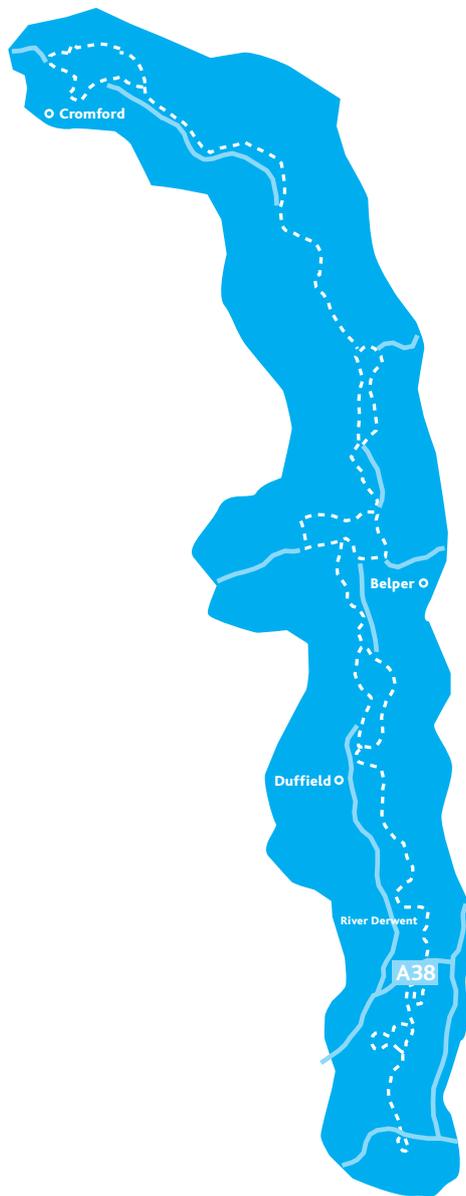
At Cromford, most of Richard Arkwright's 18th century mills survive on his original site in Mill Lane, powered by an intricate network of small watercourses contrasting vividly with his nearby Masson Mill where 12 years later he

had the confidence to harness the River Derwent itself. Founded to serve the mills is Arkwright's village of workers housing, hotel, market, corn mill, canal wharf, his manager's and his own house and, at some remove, Willersley Castle, his second much grander house.

At Belper, scene of Jedediah and William Strutt's pioneer developments of harnessing water-power, fire-resistant structures and social housing, the Horseshoe Weir, the 1804 fire-proof North Mill with its defensive overbridge, the streets of distinctive workers dwellings, a chapel, the Market Square relocated by the Strutts, and the innovatory farmsteads supplying the settlement constitute an unique socio-industrial landscape. In 1839, the North Midland Railway bisected the settlement with a dramatic cutting occasioning curved retaining walls and graceful overbridges.

Downstream at Milford further elements of the Strutts' enterprise survive, including two weirs, terraces of industrial housing and fire-proof mill and farm buildings, while at Darley Abbey, heartland of the Evans family cotton empire, there is an impressive complex of mills displaying further advances in fire-proof construction along with squares and terraces of associated housing, the Church of St Matthew (1819), an 1826 school and the Evans's emparked estate.

In Derby, where water-powered silk throwing was first introduced to England by Thomas Cotchett in 1704, and spectacularly developed by Thomas Lombe from 1718 onwards, the original watercourse arches survive of the eminent engineer George Sorcold's power



Derby

Longitude	Latitude
001°29'59"W	51°01'13"N
----- Boundaries	

system. The Strutt family was also very much involved in Derby. Although their mills have gone, the magnificent Grade I Listed St Helen's House, built in 1767 to designs by Joseph Pickford and purchased in 1803 by William Strutt, survives.

For two centuries the textile industry developed throughout the valleys of the River Derwent and its tributaries, with a final flourish in the early 20th century, generating, as it did so, canals, early railways and engineered turnpike roads, as well as planned industrial settlements. The valley as a whole, therefore, exhibits all the characteristics of both pioneer and maturing industrialisation.

### Boundaries

The extreme northern end of the proposed Site is the existing Cromford Conservation Area which is closely focused on the Arkwright mills, contemporary industrial housing, the owners' houses, and associated buildings and water-courses. The boundary then follows the eastern bank of the River Derwent and the Cromford Canal to the west, broadening at the wharf of the High Peak Junction, until the Wigwell Aqueduct over the River Derwent where a short spur follows the branch canal to Lea Bridge Mills to take in the wharf, mills and Nightingale's terraces of housing.

South of the aqueduct the proposed Site is bounded by the western bank of the river and the eastern bank of the canal south to Whatstandwell, where only the river itself is included until Ambergate where the Site broadens to embrace the Stephenson railway bridges over the main highway and the river.

The railway and the river, which criss-cross, provide the boundary until the Belper Conservation Area is reached. The boundary of the Conservation Area to the mills at Bridgefoot and as far south as the Park appropriately includes the Strutt property holdings and buildings, and the townscape which the Strutts moulded so significantly for over a century. The Strutt Dalley and Crossroads farms with their innovative model farmsteads, are included in a westwards extension all of which was originally Strutt owned land.

The River Derwent itself resumes the proposed Site from its junction with the mill stream, south to the Milford Conservation Area where it includes the whole central area with, to the east, the Hopping Hill Terraces and as far south as Makeney where the farm and Hall have Strutt connections. To the west of the river it includes the area encompassing the terraces of Banks Buildings, the northern portal of the Milford Tunnel, the nucleus of the village and the weirs and mill lades either side of Milford Bridge and south to Moscow farm, another Strutt model farm.

Southwards it follows the river banks to Darley Abbey Conservation Area, where it includes the mills to the west of the river and the eastern part of the Area south to Poplar Row and the

Hill, and westwards up New Road to include the early terraced housing at Brick Row, Lavender Row and Mile Ash Lane. The river then forms the eastern boundary with the Evans' landscaped Park to the west and at the southern end of the Park. The Derwent itself continues the proposed Site into Derby where it broadens to include Silk Mill Island and terminates immediately south of the Silk Mill. St Helen's House is included as a separate outlier to the north west.

## **Justification of Outstanding Universal Value**

Criteria met: Cultural Criteria (ii), (iii) and (iv)

### **Assurances of authenticity or integrity**

The mills and early housing at Cromford display a remarkable degree of completeness in terms of their 18th century form and planning. The main structures at the Cromford Mills and Cromford Wharf date to the last three decades of the century, while 1783 Masson Mill is substantially as built. The residential and commercial properties, though renovated to modern standards, retain their original external 18th, or in some cases, early 19th century, appearance. The mills at Lea Bridge have been in continuous production since 1783 and demonstrate developments over most of that period while the housing is substantially late 18th century.

At Bridge Foot, Belper, the 1804 North Mill and its defensive overbridge are original. The Horseshoe Weir was altered in the nineteenth century while the massive East Mill dates to 1912 and the fine offices are of a similar date. The associated Strutt housing, farms, workshops and chapel are extant

components of the associated landscape retaining their original form and much of their historic character. At Milford the early weirs and watercourses survive as do several little altered terraces of late 18th century workers cottages. Nearby, George Stephenson's early railway tunnel with its striking portal is authentically 1839.

At Darley Abbey, the Boars Head Mill buildings mostly date from 1788-1830 and retain much of their original form and detailing while some of the contemporary housing, which exemplifies the urban layout and overall character, has been adapted to suit present day requirements. In Derby the original block of St Helen's House is unaltered externally and retains most of its fine internal appointments, while the arched building platform and iron gates survive of Lombe's Silk Mill of 1721; the fabric of the present mill on this original platform is early 20th century.

### Comparison with other similar properties

The application of water power firstly to silk throwing at Derby and then, more importantly, to cotton spinning at Cromford, had enormous repercussions. The manufacturing system and structural innovations developed by Arkwright and his partners in the Derwent Valley were soon adopted in partnership or under licence in numerous locations in northern England and in central and southern Scotland before being exported, somewhat later, throughout the industrialising world. Thus comparable sites, such as Stanley Mills and New Lanark in Scotland, can be regarded as detached extensions of the Derwent system. Indeed, there is a strong case for linking David Dale's late 18th century mills and housing and Robert

Owen's early 19th century institutional buildings at New Lanark with their pioneer precursors at Cromford and Belper. Almost a century later many of these elements were to be combined spectacularly at Saltaire in Yorkshire. Titus Salt's mills and model settlement at Saltaire may be regarded as the apogee of the system developed in the Derwent Valley and, as such, complement their precursors.

Elsewhere, mills and settlements such as Kromford, Ratingen, Germany and Slater's Mill, Pawtucket, USA can be seen as copies which flatter rather than compete with the original Derwent Valley models. As regards innovations in fire-proofing of buildings, the developments in the lower Derwent Valley (now principally represented at Belper and to a lesser extent at Darley Abbey) are crucial elements in a typology which started in Derby and Belper in the early 1790s with mill buildings that have now gone, was developed further in flax mill buildings at Shrewsbury in 1797 and in Leeds 1803 (now gone) and perfected in 1804 with North Mill, Belper. The seminal articles on cotton manufacture and water power in *Ree's Cyclopaedia* (1802 -19) chose Belper for its exemplars of the English Mill system.

Name of Property:

## The Dorset and East Devon Coast

Geographical Location:

### Dorset and East Devon, England

#### Description

The proposed Site comprises approximately 140km of coastline between Orcombe Point near Exmouth in the county of Devon to Old Harry Rocks in the county of Dorset. The property includes all of the significant coastal geological exposures and sites of geomorphological importance between these points. It excludes the urban areas of Budleigh Salterton, Sidmouth, Seaton, Lyme Regis, West Bay, Weymouth and Swanage, and stretches of coast which do not exhibit important geology or geomorphic features.

The cliffs of the Dorset and East Devon Coast expose continuous rock sections which provide the evidence of past geographies, climate changes and evolutionary changes that span an unbroken 200 million years. Ancient deserts with sand-dunes, flash-flood deposits, playa lakes and salt lagoons, strata rich in ammonites and marine reptiles which have been long extinct, and the deposits of clear, subtropical seas are all exposed in the cliffs and foreshores. The variety of rock types and their distribution along the coast is due to the gentle tilt of the rocks which dip towards the east. As a result, older rocks are found in the cliffs of East Devon while successively younger rocks dip down to form the cliffs of Dorset. This is one of the finest sequences of Triassic, Jurassic and Cretaceous rocks to be seen anywhere in the world.

The coast has long been a source of scientifically important fossils which have played a very important part in the development of palaeontology and the understanding of the evolution of life on earth. Despite over 200 years of study, fossils new to science continue

to be found as the cliffs naturally erode.

Regular collection ensures that many significant fossils are not lost to science.

High erosion rates ensure a sustainable supply of fossils along many of the coast sections.

The following aspects are highlighted:

- The Triassic Otter Sandstone between the River Otter and Ladram Bay is an important source of Mid Triassic reptiles.
- The West Dorset coast is internationally famous as a source of Jurassic fossils, especially marine reptiles, many of which are the finest specimens available to science. The first recorded plesiosaur, many perfect ichthyosaurs, one of the oldest pterosaurs, the oldest representative of armoured dinosaurs, fish, insects, exceptional soft part preservation and a complex ammonite zonation make this one of the most important Lower Jurassic sites in the world.
- The place of Lyme Regis in the history of palaeontological studies is unique.
- The Isle of Portland, the Kimmeridge Bay area and Furzy Cliff near Weymouth are internationally important Upper Jurassic reptile sites.
- An extensive fossil forest and associated soils is an exceptional feature in the late Jurassic rocks of Purbeck and Portland.

- Durlston Bay near Swanage has yielded a globally important Late Jurassic - Early Cretaceous terrestrial fauna and is particularly famous for its insect, fish, reptile and mammal remains. It is one of the finest early lizard sites in the world while the turtle and crocodylian fauna include several genera unique to Durlston Bay.

The Dorset coast has been regarded, since the earliest days of geological study, as providing one of the finest known marine sequences of Jurassic rocks. Many of the founding scientists of the subject developed their understanding and geological knowledge by detailed collection and study of these sections. Those involved read like a catalogue for the development of the earth sciences: Mary Anning, an exceptional early collector; William Buckland the catastrophist; William Coneybeare who described the first plesiosaur; Henry de la Beche, founder of the Geological Survey of England and Wales. They include pioneers who debated with Darwin, Cuvier and Lyell, as science sought to reconcile the principles of uniformitarianism, evolution and the origin of species with the deeply held beliefs of the Church and the catastrophist view of natural science. Today, scientific interest in the property continues unabated: the levels of documentation and accessibility to the Site are exceptional.

The geological structure of the area dominates the form and evolution of the landscape and provides a textbook example of coastal geomorphology. Land slipping on the East Devon and West Dorset coast is spectacular and very well studied. The Axmouth-Lyme Regis Undercliff National Nature Reserve in Devon is the only landslide Nature Reserve

in the world and contains the famous Bindon landslide of Christmas Eve 1839. The vast shingle bank of Chesil Beach with its extraordinary evolution and pebble size grading, together with the organic deposits preserved in the Fleet are unique features of great scientific value. The Purbeck coast must rank as the best example in Britain of structurally controlled landforms. Lulworth Cove and Durdle Door are renowned for the perfection of their forms and are the foremost educational sites for the study of geological structure and the formation of bays and headlands.

The geology and geomorphology of this property have created a coastline of exceptional natural beauty. Associated with the intrinsic importance of the site, they provide a variety of sea-cliff, lagoon and shingle habitats of recognised international importance. They also underpin an important associated cultural landscape, with the Isle of Portland particularly notable as an outstanding source of internationally famous building stone, used throughout the world.

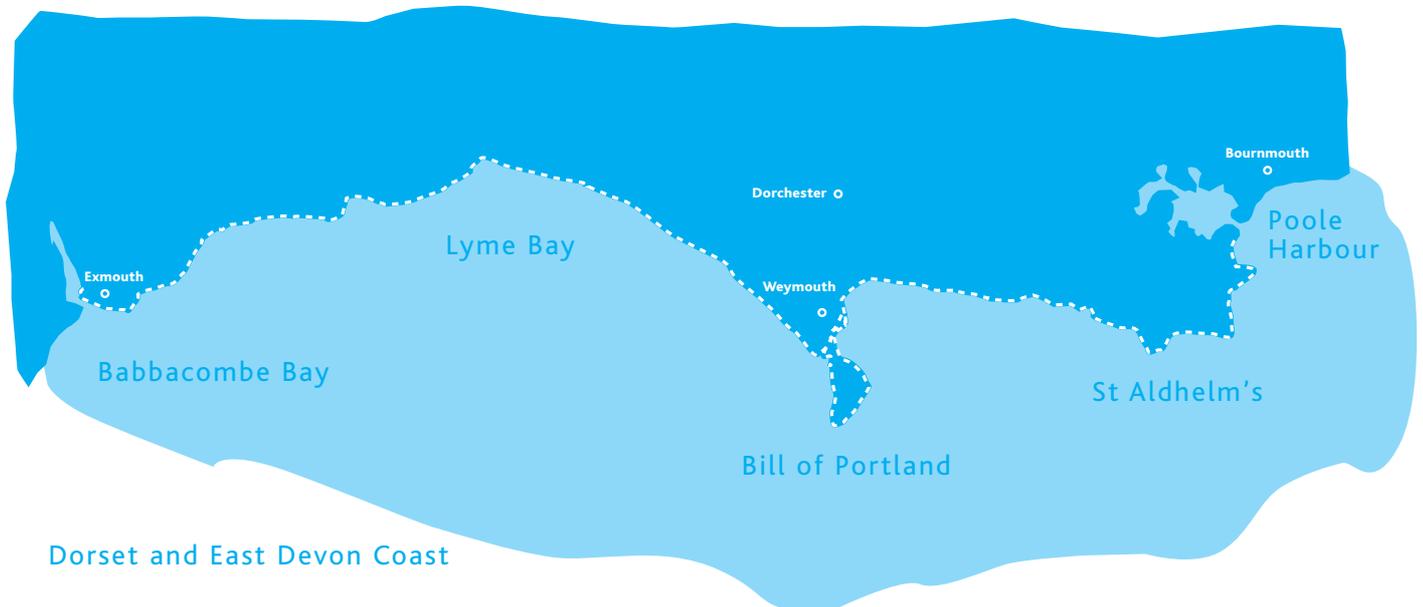
### Boundaries

The core interest of the proposed World Heritage Site lies in the continuous exposure of Triassic, Jurassic and Cretaceous geology within the coastal cliffs, and the landward extent of coastal geomorphological features including beaches, lagoons, landslides, bays and stacks. It is the intention to tie the boundaries of the proposed World Heritage Site tightly to these defined interests.



Longitude 002°36'07"W Latitude 50°38'84"N

--- Boundaries



Dorset and East Devon Coast

The coast proposed for nomination is highly dynamic. The profile of cliffs and beaches is constantly changing, and in places the rates of change can be rapid. It is proposed, therefore, that boundaries are adopted which accommodate the natural processes of coastal evolution. The Site comprises eight distinct stretches of coastline:

1. Orcombe Point to Chit Rocks, Sidmouth
2. River Sid to Seaton Hole
3. River Axe to Monmouth Beach, Lyme Regis
4. Church Cliffs, Lyme Regis to West Bay
5. Chesil, the Fleet and Portland
6. Portland Harbour Shore
7. Bowleaze Cove to Peveril Point
8. New Swanage to Old Harry Rocks

The following boundaries are proposed:

#### Landward

- On cliffed coastline, the boundary will be the break in slope at the top of the most landward cliff-scarp.
- On coastline with no cliffs, the boundary will be the back of the beach.
- The Site will include the Fleet lagoon and the boundary will be top of the low cliffs which lie on its northern shore.

The extent of the Site will be restricted to those areas designated for their geology or geomorphology as Sites of Special Scientific Interest, and/or which lie within an existing Area of Outstanding Natural Beauty. This boundary matches the approach which has been taken to the setting of the boundaries of coastal Sites of Special Scientific Interest, which provide the main statutory conservation protection for the Site.

## Seaward

The proposed seaward boundary of the Site will be Mean Low Water Mark, as defined by the Ordnance Survey. This is the legal limit to the extent of SSSIs, and of the statutory planning responsibilities of local authorities under the UK's Town and Country Planning Acts.

## Justification of Outstanding Natural Value

Criteria met: Natural Criteria (i) and (iii)

### Assurances of authenticity or integrity

The geology and geomorphology of the whole Site are of superlative quality, and are extremely well exposed. The Site is recognised for its extremely high scientific and environmental importance by being specifically designated under a number of Acts of Parliament. With the exception of three small stretches to the west of Sidmouth, all areas are designated as Sites of Special Scientific Interest (SSSI) notified for their geological importance under the Wildlife and Countryside Act 1981, and receive statutory protection from damaging activities under UK law. Most of the Site, including the three non-SSSI stretches is protected by Area of Outstanding Natural Beauty (AONB) designation under the National Parks and Access to the Countryside Act 1949. The historic and active quarrying industry on Portland, which is not designated as AONB, operates within the controls of a statutory Minerals and Waste Plan, and modern policies are now demanding full consideration be given to conservation and restoration.

Wider protection and management within and surrounding the Site is provided through established countryside management services which operate within three defined Heritage Coasts: East Devon, West Dorset and Purbeck, and on the Isle of Portland. Fossil collecting from the most important areas is undertaken within an agreed local code of practice.

### Comparison with other similar properties

The Site is unique in that it contains an almost unbroken sequence of Jurassic marine-shelf deposits that have been little affected by tectonic disturbance, and which show minimal effects of burial diagenesis. As a result the sedimentary structures and fossils are preserved in remarkable detail, and the sections continue to yield new data that is of universal geological value. The Cretaceous sections are similarly in undisturbed shallow-marine facies. Whilst not unique in themselves, they provide the best unbroken run of shallow-marine Cretaceous rocks in Europe. The Triassic sequence is almost entirely terrestrial: it, too, is undisturbed and the best of its kind in Europe.

The early Triassic to late Cretaceous sections together are unique in providing an unbroken, highly accessible record in undistorted sections. The Triassic reptile fauna from sites in Devon contains unique taxa and provides links with similar age deposits in North America and Russia. The marine reptile faunas of the Lower Lias and Kimmeridgian are particularly important. Parts of the Lower Lias sequence are uniquely productive and fill gaps in the handful of world-wide sites principally in Canada and Germany. Comparable Kimmeridgian sites are known otherwise only in France and Wyoming, North America.

The Purbeck fauna of Dorset is becoming one of the richest mid-Mesozoic tetrapod assemblages known, comparable to those of North America and Mongolia. The ammonite, fish and insect fauna are also very rich. The property is distinguished from other sites because of the combined importance of its long history of palaeontological study, the numerous discoveries which continue to be made, and the action of natural erosion which continually refreshes the sections, revealing new fauna.

The geological sections are also important for international correlation of the earth's history. Eight stages of the Jurassic have at one time or another had their proposed stratotypes on the Dorset Coast. The Kimmeridgian remains an international stratotype, and the coast as a whole retains an international stratigraphic and research importance due to the accessibility of exposures, and the combination of so many complete sections in the same geographical area. The geological sections in the proposed Site are better documented than any similar sections anywhere in the world.

The geomorphology of the coast is also important at the global level. There is a complete spectrum of every combination of the landslide forming rocks of the Triassic, Jurassic and Cretaceous, which together provide an extraordinary teaching laboratory, comparable to similarly important landslide areas such as the Black Sea and New Zealand. The Bindon land slides and other slides of the Axmouth-Lyme Regis National Nature Reserve, are almost certainly the first to be completely described in a scientific memoir. Only Rossberg in Switzerland received similar attention at so early a date.

The Chesil Beach and the Fleet are unique landforms. Whilst there are larger barrier beach systems in the world, Chesil represents the evolution of the coast as the rising sea transgressed over the seafloor of the English Channel. The Fleet contains deposits of the entire climatic and sea level history for at least the Holocene and probably back to the last interglacial period. The Purbeck Coast provides a text book exemplar, where all of the important features of the relationship of rocks of different durability and marine processes can be studied in a very small distance.

In summary, the property is unique in the world and internationally significant, due to the combination of many different aspects of scientific importance, together with its continuity, integrity, accessibility, exceptional history of study and continuing value for research. Its importance is heightened because of its setting within an inspiring heritage coast landscape of outstanding natural beauty.

Name of Property:

## Royal Botanic Gardens, Kew

Geographical Location:

### Greater London, England

#### Description

The Royal Botanic Gardens, Kew (Kew Gardens) are of international pre-eminence, founded 1759 by Princess Augusta, and eventually incorporating two 18th century gardens and other areas, now totalling 121 ha. in area.

The Botanic Garden at Kew was begun in 1759 with a small area of about 0.4 ha. (approximately to the south of Sir William Chambers' Orangery of 1757) devoted to botanic collections. The surrounding areas were Royal pleasure and kitchen gardens dating from 1729: those to the south were first designed for Queen Caroline by Charles Bridgeman, and then redesigned by Lancelot 'Capability' Brown for King George III in 1764; at the northern end, the grounds were landscaped by Sir William Chambers for Princess Augusta, Dowager Princess of Wales. The two estates were merged when Princess Augusta died in 1772. While the Botanic Garden was enlarged, many new exotics were brought to the gardens through Sir Joseph Banks, President of the Royal Society and botanical advisor to King George III and Queen Charlotte.

In 1841, the gardens were made a public research institute; Sir William Hooker was appointed as the first Director, and the gardens were re-landscaped by William Nesfield. Their area was drastically increased to some 100 ha. Originally, they were administered by the Office of Works, and from 1910 to 1988 by the Ministry of Agriculture, Fisheries and Food. Under the National Heritage Act 1983, a Board of Trustees was appointed to manage the Gardens. Kew Palace was passed to the Office

of Works and opened to the public in 1898. Queen's Cottage and 15 ha. of land adjacent was added to the Gardens in 1898, and opened to the public in 1899.

Kew Gardens are bounded to the north-east by the backs of houses facing Kew Green, to the east by the Kew Road, to the south by the Old Deer Park and to the west, north-west and south-west by the Thames. Fine views and formal vistas extend westwards towards Syon House. The ground within the Gardens is virtually level, with slight undulations, some of them artificial and the result of landscaping. The lake in the south-western part of the Gardens was excavated in 1845 (and later enlarged), the spoil providing material for mounds and embankments. The pond in front of The Palm House is likewise artificial (1847). The 18th century landscaping of the Gardens was largely overlaid or altered by the work of William Andrew Nesfield in the late 1840s, whose 'Walks' or 'Vistas' still form the main avenues or sight-lines through the Gardens.

The Gardens contain many buildings of special architectural or historic interest. Key buildings include Kew Palace (or the Dutch House) at the north end of the Garden, built in 1634 on the site of a 16th century building; the Queen's Cottage in the south-west corner of the Gardens of c. 1772, built for Queen Charlotte, possibly to her own design; Aroid House (by John Nash, one of two pavilions flanking the garden front of Buckingham Palace) re-constructed at the north east corner of the gardens in 1836; and Avenue Lodge, close to the eastern edge of the Gardens (1866 by W A Nesfield, a very early example of the domestic Queen Anne Revival that flourished in the 1870s and beyond). Several important garden

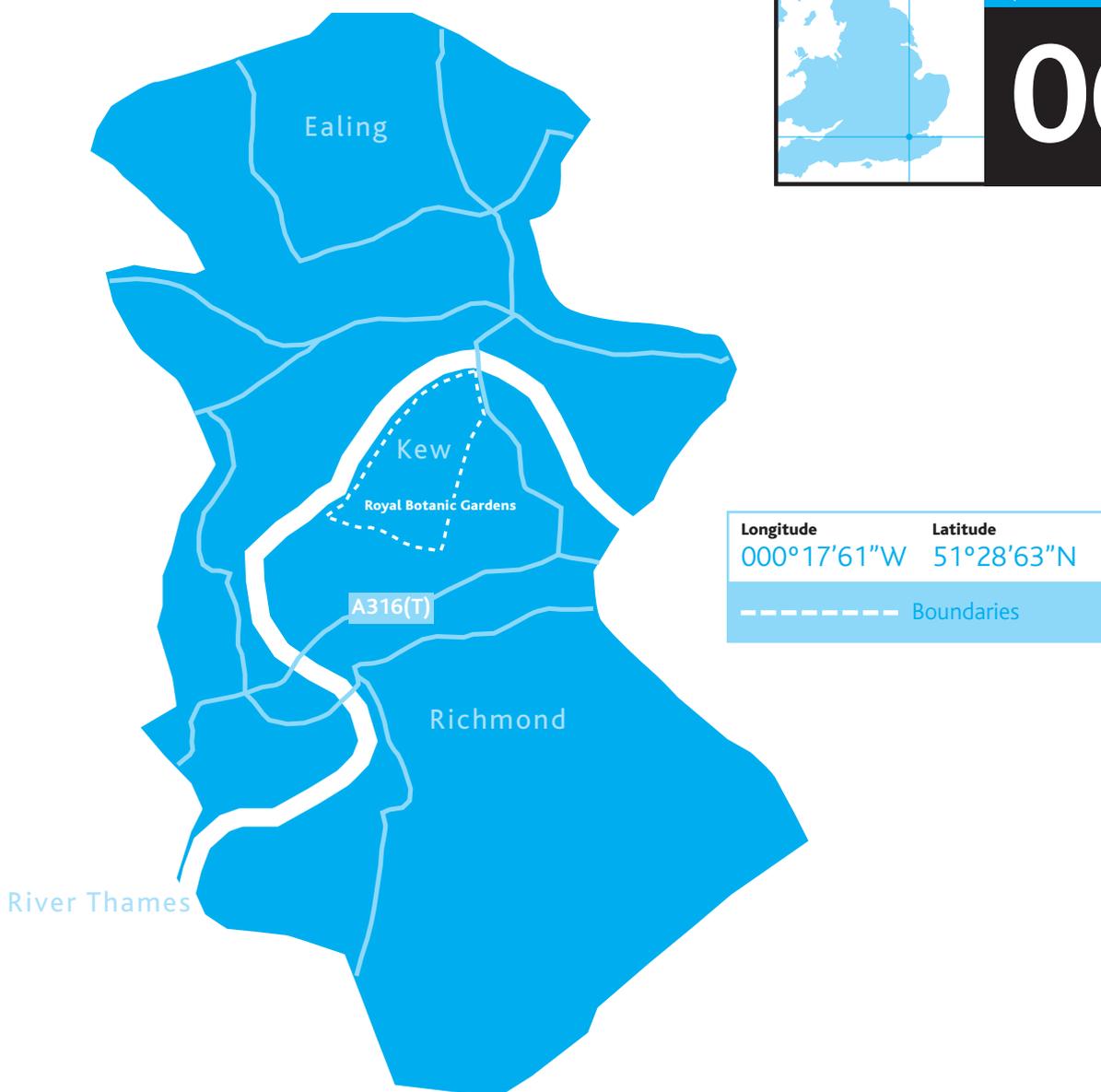
buildings by Sir William Chambers survive, built for Princess Augusta: the Orangery, built 1757 (though dated 1761), in the north centre part of the gardens; Temple of Aeolus (c. 1760, rebuilt 1845 by Decimus Burton); Temple of Arethusa (1758) and the Temple of Bellona (1760) close to the eastern boundary of the gardens; the Ruined Arch (1759-60) further to the south; and the 163 feet high, ten-stage, Pagoda (1761) in the south-east corner of the Gardens. In addition, the King William's Temple (1837) by Sir Jeffry Wyatville, roughly midway between The Palm House and The Temperate House, is of particular interest.

Decimus Burton designed the main entrance gates from Kew Green (1845-46); the Palm House (with Richard Turner, 1844-48), Temperate House (1859-62, extended in 1898-99), and the small Water Lily House, north of the Palm House, also with Turner (1852).

Other buildings and structures of architectural or historic interest within the gardens include the Marianne North Gallery, close to the eastern boundary of the Gardens, by James Ferguson (1881-1882), housing the botanical paintings of Marianne North; the series of four gates to the Gardens from the Kew Road (the Cumberland Gate, the Lion Gate, the Unicorn Gate and the Victoria Gate); the Isleworth Ferry Gate and drawbridge, from the riverside walk; and the Japanese Gateway, erected in 1911, as a 5/6 scale replica of the 16th century Chokushi-Mon (Gate of the Imperial Messenger) in Kyoto, now the centrepiece of the Japanese Garden created in 1997-98.

New buildings of particular distinction in quality and sensitivity of design erected over recent years include the Princess of Wales Conservatory of 1985-87 by Property Services Agency Architects, the largest botanical glasshouse in the world, and the Sir Joseph Banks Centre for Economic Botany of 1988-90, by Manning Clamp and Partners.

Apart from its significance as a great garden landscape, Kew is also of pre-eminent international importance as a botanical institution. Sir Joseph Banks initiated Kew's collecting programme in the 1770s and through the 19th century, and the first part of the 20th century, Kew played a pivotal role in the development of the natural resources of the British Empire, in the introduction of commercial crops to the colonies and in the compilation of colonial floras. Over the last 150 years Kew has established itself as the leading international scientific institution in the fields of plant taxonomy, cytogenetics, seed physiology and biochemistry - 'the botanical metropolis of the world'.



In fulfilling its role as the world's leading botanic research institution, Kew Gardens contains:

- the world's largest documented botanical collection, consisting of about 40,000 plant taxa representing about 25,000 species, which is 10% of the total number of the world's species of seed plants and ferns. The total number of accessions grown at Kew and Wakehurst Place is over 90,000 species;
- the world's largest seed bank containing more than 4,000 species;
- a herbarium, comprising the world's biggest collection, with some 6,000,000 specimens and over 700,000 specimens of fungi. Included in this collection are 270,000 type-specimens, representing a quarter of the world's named plants;
- economic plant collections, comprising some 80,000 items including plant products, associated implements and artefacts;
- a library, comprising one of the world's most important botanical collections with more than 750,000 items; and
- a world renowned school of horticulture.

## Boundaries

The boundary of the proposed World Heritage Site aligns with the present administrative boundary of the Royal Botanic Gardens, Kew.

Only the Gardens are proposed as a World Heritage Site. There are, however, important views and vistas into and out of the Gardens, the broader Thames-side and parkland setting of the Gardens, and significant and inextricable links between the complex history and development of the Gardens and those of the adjacent areas. Special consideration will therefore need to be given to the River Thames between Richmond Railway Bridge and Kew Bridge; Syon Park, directly opposite Kew Gardens, on the Middlesex bank of the Thames; The Old Deer Park, directly adjacent to Kew Gardens, to the south; and Kew Green, directly adjacent to the Gardens, to the north-east, in order to provide the Gardens with full and effective protection.

## Justification of Outstanding Universal Value

Criteria met: Cultural Criteria (iii), (iv) and (vi)

### Assurances of authenticity or integrity

In historic landscape terms, the importance of the Royal Botanic Gardens, Kew is not only reflected by its designation at Grade I in English Heritage's Register of Parks and Gardens of Special Historic Interest, but also by the inclusion of no less than 39 buildings and structures within its boundaries on the Secretary of State's Statutory List of Buildings of Special Architectural or Historic interest (including 5 at Grade I and 5 at Grade II\*).

It has effectively been in one continuous management since its creation and has been maintained for its original purpose as a botanical garden and as a centre of study and learning. A number of the major buildings have been conserved in recent years.

## Comparison with other similar properties

Kew's significance is summarised appropriately by Pevsner:

*'... Kew Gardens, nearly 300 acres in size, cannot be compared with any other botanic gardens in the world: the combination of botanical interest and beauty of landscape is unmatched. It is the consecutive work of two ages, the mid c. 18 and the mid c. 19'*

*(Buildings of England: London 2: South)*

In broader terms, however, its outstanding importance lies in its unique role both historically and currently as the world's leading botanical research institution, and in the effective integration of this major scientific and economic function with its accessibility as a much valued and appreciated public amenity, accessible to all.

Name of Property:

## The Lake District

Geographical Location:

### Cumbria, England

#### Description

The Lake District is outstandingly beautiful. It possesses a unique combination of spectacular mountains and rugged fells, pastoral and wooded valleys, and numerous lakes, tarns and rivers. The character of the area is inseparable from its cultural history, and the personalities, life styles and traditions of the Lake District people. Each valley has its own individuality, and the resulting diversity of the landscape contributes enormously to the quality of the area as a whole.

The imposing landforms of the fells are underlain by a variety of rock types, and have been shaped by successive glaciations. Geological processes provided the materials for neolithic stone axe productions, and once thriving mineral extraction industries. Local building materials, amongst which the slates predominate, link the traditional vernacular architecture of farm buildings to the more formal villas and terraces of the Victorian period.

The landforms are overlain by the evidence of man's activities, particularly the patterns of fields and farmsteads. A wealth of prehistoric and medieval field systems and settlements can be traced. The extensive upland grasslands include large areas of unfenced common land which are still grazed communally. There are also impressive Bronze Age stone circles, Roman forts, and a rich legacy of remains associated with mines, quarries and woodland industries and the use of water power. The farm buildings represent a strong vernacular architecture, which contrasts with the more formal and imposing villas and terraces of the

Victorian period. Numerous hamlets, villages and small towns have developed in response to social and economic changes.

The varied geology, climate and land-use history, coupled with the range of altitude and oceanic climate have created a diverse range of habitats. The rock scree and heath of the fells, extensive semi-natural woodlands, the lakes, tarns, rivers and wetlands, coastal dunes, limestone pavements and meadows, support a remarkable diversity of plants and animals, including rare and uncommon species. The lakes and estuaries provide important habitat for wintering wildfowl. 17% of the area is designed as of either national or international importance for nature conservation.

The Lake District has long been recognised as a place to find spiritual refreshment and opportunities for quiet countryside recreation. In the 18th century it played a significant part in the revolution in landscape tastes which saw mountains, previously portrayed as nature's 'shames and ills', become 'temples of nature' built by the Almighty. Writers, poets and artists developed a high regard for the picturesque (literally beauty which would be effective in a picture), and subsequently a romantic view of the landscape which glorified the rural scene and rural traditions. In the 19th century it was a focus for those wishing to secure public access to the countryside, and to protect it from inappropriate developments. As a result the Lake District played a formative role in landscape perception and design, the development of the national park movement in Britain, and the establishment of bodies such as the National Trust. It continues to provide a

focus for the development of approaches to countryside management and research in freshwater ecology.

The strong association of the Lake District with Wordsworth and the other Lake poets, and influential figures such as Ruskin, Rawnsley and Beatrix Potter, is reflected in the preservation of properties associated with them, and celebrations of their work and achievements in local collections.

### **Boundaries**

The proposed boundary of the property is that of the Lake District National Park which was designated in 1951.

### **Justification for Outstanding Universal Value**

Criteria met: Cultural landscapes category (ii) and (iii); Cultural Criteria (v) and (vi); Natural Criteria (i), (iii) and (iv)

### **Assurances of authenticity or integrity**

The Lake District demonstrates a continuity of agricultural practices over a period of some 900 years, with evidence of occupation extending back for more than 6000 years. The archaeological and historic resource has been recognised by national designations, and recorded in a local Sites and Monuments Record, which has been expanded significantly in recent years. Evidence combining field and archive work by a number of bodies including the National Trust continue to reveal the long history behind the landscape's current qualities.

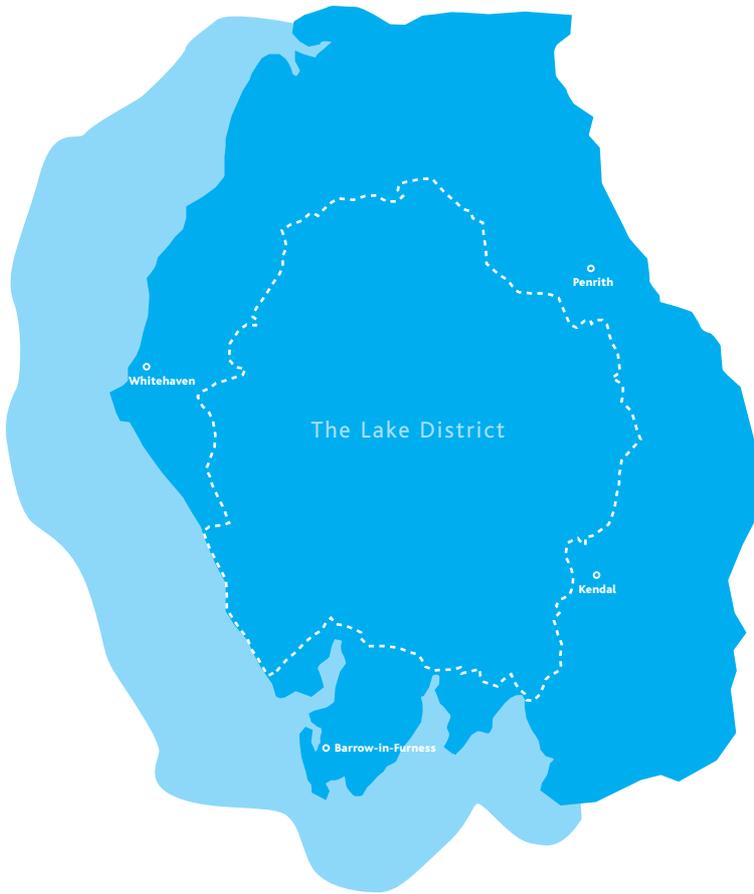
The protection and management of the built environment is guided by English Heritage. The Roman Fort at Ravenglass is part of the Hadrian's Wall World Heritage Site. There are 210 Scheduled Ancient Monuments and 1731 entries on the Statutory List of Buildings of Architectural or Historic Interest. Eighteen settlements are designated as Conservation Areas to help preserve and enhance their special character.

Rock outcrops, mines and quarries, and glacial and post-glacial landforms and deposits, provide significant evidence of the natural evolution of the area and the interactions between the population and climatic changes.

As a result of the long history of occupation none of the vegetation can be described as entirely natural, but because of the physical character and the way it has been managed the Lake District has a great variety of wildlife habitats of international and national importance for nature conservation.

Significant areas are protected by national and international nature conservation designations all of which are the subject of protection and management measures administered by English Nature, the Government's advisers on nature conservation, under the Wildlife and Countryside Act 1981 and the Conservation (Natural Habitats & C.) Regulations 1994.

The area contains 129 Sites of Special Scientific Interest, 8 National Nature Reserves, 2 sites classified under the EC Birds Directive as Special Protection Areas, 3 sites designated under the Wetland Convention as Ramsar sites, and 14 candidate Special Areas of Conservation under the EC Habitat Directive.



Longitude	Latitude
003°14'14"W	55°01'09"N
----- Boundaries	

The management of the Lake District provides a significant challenge. The rate of change has accelerated in the last 50 years in response to changing economic and social circumstances. Legislation and measures to encourage appropriate management and resist damaging changes are in place, and extensive areas are under protective ownership by conservation bodies. The Lake District National Park Authority is the unitary authority for the area and is also required by statute to produce a management plan to pursue national park purposes. The preparation and implementation of this plan engages other agencies, local authorities, organisations and local communities in the conservation and enhancement of the Lake District.

### Comparison with other similar properties

The Lake District is a very special place. It is inhabited by over 40,000 people and attracts millions of visitors every year. A wealth of monuments are recognised and protected, and it retains outstanding features of natural interest and value. The combination of natural and cultural elements of the landscape, and its association with literary and artistic achievements, have earned it an international profile. Earlier consideration of the Lake District as a World Heritage Site was instrumental in prompting UNESCO to review the need for a Cultural Landscape category in the List of World Heritage Sites.

Name of Property:

# Liverpool Commercial Centre and Waterfront

Geographical Location:

## Merseyside, England

### Description

Liverpool is the supreme example of a commercial port developed at the time of Britain's greatest global influence - from the late 18th century through to World War I. Throughout the 19th century it was the greatest Trans-Atlantic port in Europe and by the end of the century some 120 ha. of wet docks were enclosed by 10km of fortress-like dock walls. These served a commercial district with offices and exchanges unrivalled outside London, with the three buildings of Pier Head as its showpiece.

The proposed World Heritage Site focuses on the earlier surviving docks, with the magnificent Albert Dock and Pier Head at their centre, and the immediate commercial hinterland comprising the western part of the Castle Street Conservation Area and the area to the east and south east to include the historic town warehouses around Duke Street and Hanover Street. It encompasses sections of the waterfront from Salisbury Dock (1848) in the north to Wapping Dock (1855) in the south.

The development of commercial wet docks was pioneered at Liverpool with a 1.4 ha. dock in operation by 1715 and a further five docks in use by the end of the century. These early docks were very much associated with the slave trade but little of their fabric survived the great 19th century remodelling of the docks when they became Britain's Atlantic gateway and the great emigration port for much of northern Europe. The earliest structure, the brick section of 1821 Dock Wall, is post-Abolition and is attributed to John Foster while the grandest, historic structures are the work of Jesse Hartley who was Dock Engineer from

1824 to his death in 1860. Hartley designed the great fire-proof warehouses at Albert, Stanley and Wapping Docks, and fanciful hydraulic towers and pumphouses, and enclosed the dock system by impressive granite walls with turreted gate entrances. His work was continued by the Lysters - father and son - who were Dock Engineers until 1897 and 1913 respectively and were responsible for many of the North Docks and the remodelling of the South Docks.

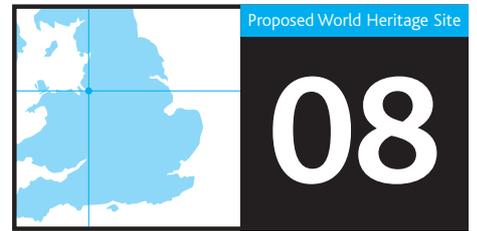
For a century before the Docks were enclosed, most of the warehouses in Liverpool were privately owned and many were located in the town close to the merchants' houses in the streets focussed on the Old Dock some distance inland from the Mersey. Some of these warehouses survive in the Duke Street area while commercial offices, banks and exchanges replaced most of the residential properties in the second half of the 19th century. These now comprise one of the finest commercial districts in Britain with massive ornate office blocks such as Tower Building and innovative buildings such as Oriel Chambers. The expression of commercial activity culminated in the magnificent trio of buildings on Pier Head - the Offices of the Mersey Docks and Harbour Board (1907), the Royal Liver Building (1910) and the Cunard Offices (1916).

### Boundaries

In the north the proposed Site starts with the proposed Stanley Dock Conservation Area. This is bounded by the River Mersey to the west and to the east it follows the Dock Wall on the west side of Regent Road. It includes Salisbury and Collingwood Docks, and at the Collingwood gate it crosses the road to

Longitude      Latitude  
 002°59'57"W    53°24'15"N

----- Boundaries



encompass the Stanley Dock (1849) complex bounded by Walter Street, the Leeds and Liverpool Canal locks and Docks on Street before returning to the Dock Wall. It then follows the Wall itself, omitting the former Sandon and Trafalgar Docks and broadens to take in the water space at Waterloo Dock and Warehouse, narrowing back to the early brick section of wall around Princes Dock until St. Nicholas Place, where it broadens back to the river and eastwards into Chapel Street where it comprises much of the western part of the Castle Street Conservation Area to Old Hall Street. The boundary then follows along behind the Dale Street properties to Crosshall Street, Victoria Street and Mathew Street. A detached section takes in the town warehouses of Hanover and Duke Street.



South of Pier Head, the proposed Site is bounded to the east by the western side of Strand Street and Wapping and to the west by the river. It encompasses Mann Island, Canning, Salthouse, Albert, Duke's and Wapping Docks.

### Justification of Outstanding Universal Value

Criteria met: Cultural Criteria (ii), (iii) and (iv)

#### Assurances of authenticity or integrity

The Docks south of Pier Head closed in 1972, having until then been little altered since World War I. Subsequent rehabilitation has retained the water spaces of Canning, Salthouse, Albert and Wapping Docks with the conversion of the warehouses to cultural, commercial and residential uses. The conversion of the Grade I Listed Albert Dock warehouses was closely controlled to respect their interior structure as well as their external appearance.

### Comparison with other similar properties

Historically and architecturally the only comparable dock system in Britain was the upper docks in London, but since the 1960s these have been so drastically redeveloped that little of their original integrity remains. The enclosed dock systems at Hull, Glasgow and Bristol were never so fully developed, hence Liverpool Docks are without rival within the UK.

Internationally, London and Liverpool were the first great ports of the industrial era, while in most countries lesser tidal ranges generally obviated the need for so highly developed impounded wet docks systems. There are therefore no ports demonstrating a comparable range of features.

Name of Property:

## **Manchester and Salford (Ancoats, Castlefield and Worsley)**

Geographical Location:

### **Greater Manchester, England**

#### **Description**

Manchester is the archetype city of the Industrial Revolution. It witnessed the creation of Britain's first industrial 'true' canal, Britain's first mainline, inter-city passenger railway and the country's first industrial suburb based on steam power; it is on these three themes that the proposed World Heritage Site designation concentrates. Thus, the city centre itself, which is arguably the finest expression of a Victorian commercial district in England, complements the present nomination but is not included within the boundary of the proposed Site.

The areas proposed for inclusion focus on these three themes and are linked to each other by the Bridgewater and Rochdale Canals. The proposed Site comprises the hillside of Worsley Delph and the western half of the Worsley Village Conservation Area focussed on the Bridgewater Canal, and then follows the canal to the Barton Swing Aqueduct in the Barton-upon-Irwell Conservation Area, before looping round Stretford to enter the Castlefield Conservation Area, much of which is included in the Site. It then follows the Rochdale Canal from Castlefield Basin to Ancoats, widening to include the two canal warehouses east of Dale Street and the south western part of Ancoats Conservation Area.

Industrial canals, as opposed to strategic canals in continental Europe, were pioneered in Britain. The Bridgewater Canal, which opened to Manchester in 1765, was the first true industrial canal cutting across country and, with an aqueduct at Barton, James Brindley, its engineer, carried it spectacularly over the area's main existing navigation, the River Irwell. The Canal's success in bringing cheap coal to fuel

the emerging industries in Manchester was widely recognised at the time, and over the next 30 years led to the development of a national network of such canals.

The Basin at Worsley Delph gave access through two entrances in the quarried face to a system of underground canals, which at their peak totalled 46 miles (74 kms) on three levels and was the most extensive such underground system in the country. The surface expression of this system is limited to the basin at Worsley and the immediate landscape above the core of the mine. Worsley is the centrepiece of the "Steam, Coal and Canal" project which seeks to create a Linear Industrial Heritage Park along the Bridgewater Canal from Leigh to Castlefield.

The Manchester terminus - the Castlefield Basin with its warehouses pierced by barge-holes for covered loading - became a model for canal basins across the country. After a period of dereliction, the area of canal arms and basins, criss-crossed by a wonderful landscape of soaring railway viaducts, has been restored under an urban regeneration programme, and with its converted warehouses has now become a focus for leisure and entertainment.

The Rochdale Canal, which connects with the Bridgewater Canal at Castlefield, was the first canal to cross the Pennines, opening throughout in 1804. Its line through Manchester was festooned with branches serving wharfs and individual cotton mills, and some of the largest of these branches served the industrial suburb of Ancoats which had developed from 1794 in expectation of the

arrival of the canal. The industrialisation of Ancoats was intense and dramatic even by Manchester's own standards, so that by 1849 it was stated that "Ancoats...is to Manchester what Manchester is to England". Some very important cotton mills, demonstrating significant advances in the use of constructional iron, survive in the Ancoats Conservation Area and they are being restored under an area regeneration partnership.

The third element in the development of Castlefield was the arrival of the Liverpool and Manchester Railway in 1830. George Stephenson's line crossed the River Irwell by an impressive skew-arched masonry bridge to the north of the canal basin and its terminus, the oldest mainline station in the world, survives in Liverpool Road backed by the impressive ranges of the earliest custom-built railway warehouses in the world. The Grade I Listed station building, with its quasi-domestic appearance, contrasts strongly with later, grander, mainline termini emphasising the pioneer nature of its design. Nevertheless, it introduced the concept of separate facilities for different classes of passenger and the internal layout of the Museum of Science and Industry in Manchester preserves the distinctions. The Liverpool and Manchester Railway was a spectacular commercial success which served as a model for railway entrepreneurs throughout Europe and in North America. Locally, it was soon followed by other lines, and many of these cross the Castlefield area on impressive metal viaducts which, when they are reflected in the canal basins below, impart a spectacular aspect to the area.

Contemporary notice of the Liverpool and Manchester Railway focussed on the structures at either end and on the Sankey Viaduct where it crossed the St Helens Canal. The termini and the Sankey Viaduct became icons for the new method of transport and thus, as much of the Liverpool end has gone, the features at the Liverpool Road Station and its approaches in Manchester, with the Sankey Viaduct, encapsulate the line.

### Boundaries

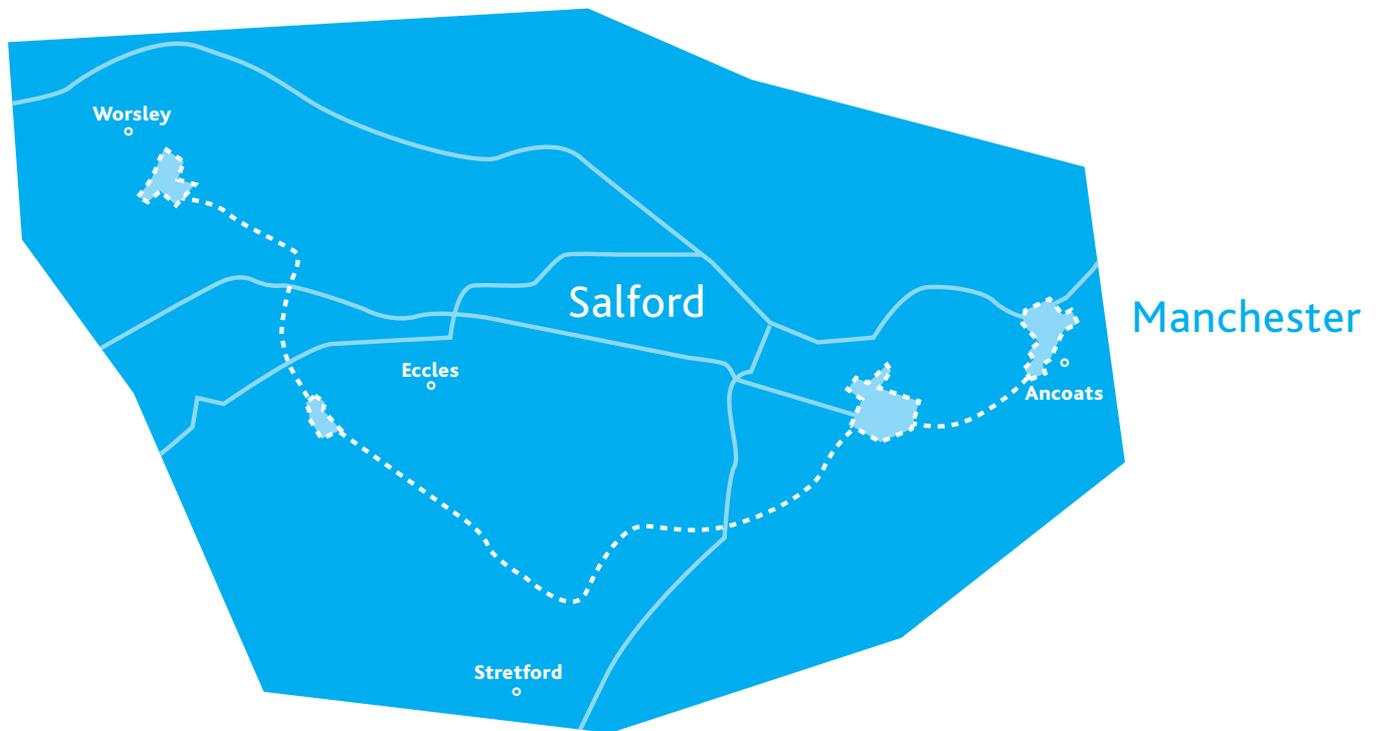
The proposed Site starts at The Delph, Worsley where the Bridgewater Canal emerges from the underground colliery canal system. It includes the southern part of the Conservation Area bounded by the southern side of Worsley Road to include the Green and its associated houses, and south to where the Canal leaves the Conservation Area. It then follows the southern bank of the Canal and its western arm to join the western boundary of the Area.

The proposed Site then comprises the Bridgewater Canal itself, broadening at Barton to include that part of the Conservation Area to the east of Barton Road containing the Swing Aqueduct with its island and swing bridge, the canal cottages south of the aqueduct and the surviving abutment of Brindley's original aqueduct, and thence on to Manchester where it enters the Castlefield Conservation Area. It broadens to include the canal arms and basins bounded by the River Medlock to the north west and Egerton Street to the west picking up the Conservation Area boundary to the east of the church and thence to Deansgate. To the north west it follows the railway viaduct, over



Longitude	Latitude
002°18'53"W	53°27'88"N

----- Boundaries



Water Street to the River Irwell, includes the railway bridges over the Irwell. The railway structures in the Castlefield area are included, but the track itself and related operational infrastructure such as signalling, cabling etc is excluded. The boundary continues along the eastern bank of the river past the canal entrance lock and the warehouses converted into an hotel to New Quay Street, back along the east side of Water Street broadening to take in the Grape Street Railway Warehouse, the 1830 Liverpool Road Warehouses and Station, continuing behind the warehouses over Lower Byrom Street, along Tonman Street to meet the Conservation Area boundary at Deansgate.

The proposed Site then continues as the Rochdale Canal to Dale Street where it widens to include the former canal basin with its two warehouses and the underground waterwheel which drove hoists in adjacent warehouses. North-east of the basin it follows the canal to the Ancoats Conservation Area where it follows the Conservation Area boundaries to include the southern two thirds of the Area terminating at a line which follows Radium Street and then south to Bengal Street.

## Justification of Outstanding Universal Value

Criteria met: Cultural Criteria (ii), (iii) and (iv)

### Assurances of authenticity or integrity

Key sites remain as extant features of early topography retaining their original form and character. Worsley Delph, the Worsley terminus of the Bridgewater Canal, is essentially as it was in the late 18th century. Liverpool Road Passenger Station became disused before significant alteration and, with major remedial works to its structure, was thus returned to very much its original layout for the present museum use, while in the recent restoration of the associated 1830 Warehouse more than 90% of the original timber internal frame was retained in situ.

The water spaces of the Castlefield Basin display much of their original configuration accompanied by the surviving warehouses which retain their scale and massing though altered internally for conversion to new uses.

The Rochdale Canal is an underlying thread of the later surrounding townscape, retaining its original alignment and engineering features. The materials and texture of the waterway make an important contribution to the character in and around Ancoats. Warehouses at the Dale Street Basin await restoration,

while the listed mills of Ancoats retain innovative features of their construction, and as a rare surviving group still display the characteristic planning and massive scale of milestone developments. An ambitious programme of restoration and conversion to new uses respects the interest of the internal structure of the mills and the historic canalside topography of the complex as a whole.

### Comparison with other similar properties

Nothing quite exists in Britain to compare to the underground canal system at Worsley feeding the Bridgewater Canal and the latter, though not greatly impressive in engineering terms when compared with later canals, had an influence beyond any other in Britain. Similarly, Liverpool Road Station does not compare with later mainline termini in the grandeur of its engineering or architecture, but its pedigree as the earliest such terminus in the world gives it outstanding significance. The cotton mills of Ancoats again may not compare architecturally with later planned complexes such as Saltaire, but are collectively the finest expression of the pioneer application of steam power to the textile industry. As such they complement pioneer waterpowered complexes such as in the Derwent Valley and at New Lanark.

Name of Property:

# Monkwearmouth and Jarrow Monastic Sites

Geographical Location:

## Tyne & Wear, England

### Description

The twin Saxon monasteries at Wearmouth and Jarrow - 'one monastery in two places' - were the creation of one man, Benedict Biscop, who had travelled abroad (to Rome and elsewhere) in the 650s and had returned determined to build a monastery 'in the Roman manner'. The historian Bede was a member of the community from the age of seven, having been entrusted to Benedict Bishop c. 680.

### Wearmouth

The church of St. Peter was founded in 674 on a site that had already been a lay burial ground. It is the earliest documented stone church in the north. It had a simple narrow chancel, possibly with narrow aisles; the western porch became the basis for the late Saxon tower, and the east end was used as a porticus where the abbots were buried. Benedict imported specialist Gaulish masons and glaziers to do the work. Fragments of the contemporary coloured window glass have been excavated at both Wearmouth and Jarrow. Excavations have shown that the buildings of the cult centre were joined by a corridor that extended south from the church and were enclosed by a wall in an orderly layout. This layout is unique in excavated monasteries in Europe and demonstrates the survival of a Roman style of layout. Some 7th and 8th century grave-markers and architectural fragments also survive.

### Jarrow

The church of St. Paul was dedicated in 685. It is built of small sandstone blocks, very much in the style of the Roman buildings in the fort at South Shields nearby and (across the River

Tyne) along Hadrian's Wall. The nave, since rebuilt, was of the same narrow dimensions as Monkwearmouth and was probably aisled. The square-ended chancel had a funerary chapel to the east, analogous to the porticus at Monkwearmouth. The standing fabric of the claustral buildings to the south is mainly of the 11th and 13th centuries but the foundations of the Saxon refectory, of a meeting room, and of other structures have been excavated, so that three ranges of buildings, including the churches, are known. The dedication stone, the oldest in England, survives, along with 7th and 8th century sculptural fragments.

### Boundaries

Monasteries of this period appear not to have had any uniform plan but seem to have been extensive, as excavations such as those at Hartlepool or at Hoddum, in Dumfriesshire, have indicated. The site at Hoddum spread over about 8 hectares (20 acres). At Jarrow and Monkwearmouth (as at Whitby) domestic buildings would probably have been sited to the north of the church, but in neither case is the full extent known. The likely core of each proposed site is included in the proposed boundaries.

### Monkwearmouth

The polygonal area delimited by St. Peter's Way and Dame Dorothy Street, centred on the church, is clearly the core of the site. The earliest Saxon buildings - including some which may have preceded the church - are known to extend for nearly 40m to the south of the building. Early cemeteries are also known to the east and north of the standing fabric, within the modern polygon, but their extent is uncertain. The ground immediately to the

north of the church is somewhat higher, having been used as a site for the dumping of ships' ballast in the late 18th and early 19th century. Saxon and medieval levels are likely to be well preserved under this overburden.

The surrounding area has been intensively developed and redeveloped and no features contemporary with the monastic buildings have been identified outside the polygon. The polygonal area is therefore recommended as this part of the proposed World Heritage Site.

### Jarrow

The area to the south of St. Paul's church contains the standing fabric of the 11th century claustral buildings, the site of a Saxon cemetery and the excavated footings of two contemporary buildings belonging to the first phase of construction on the site. Beside the River Don, excavations have revealed a series of river-walls, the earliest of which may be of middle Saxon date. Immediately to the East, Jarrow Bridge (late 18th century) appears to mark the position of the early crossing point of the river.

The low promontory to the east of the church contains the sites of the early Saxon cemetery and of workshops. Artefacts of the Roman period have also been discovered here. To the west of the church, within the present churchyard, Saxon and medieval levels survive.

Early antiquarian reports suggest that further buildings lay to the north of the church. Leyland claimed that Bede's cell lay here and,

in the 18th century, Hutchinson recorded buildings on what is now the Drewett Playing Fields. The site occupied by the elegant Jarrow Hall (a brick villa of c 1795), that stands at the northern limit of this area, is likely to have been the position chosen for the major Roman triumphal monument, probably of Hadrianic date, that is thought to have been set up hereabouts. Excavations on Saxon monastic sites broadly analogous to Jarrow demonstrate that the area of activity is likely to have extended throughout the area between the Hall and the church where domestic buildings are likely to have been sited.

The proposed boundaries would include all these areas of potential interest.

### Justification of Outstanding Universal Value

Criteria met: Cultural Criteria (iii), (iv) and (vi)

### Assurances of authenticity or integrity

At both Jarrow and Monkwearmouth the survival of the standing Anglo-Saxon fabric is exceptional. In addition, all the context for the foundation and earliest years of the twin monastery at Monkwearmouth and Jarrow is documented by Bede in his History.

**Monkwearmouth:** The tall and narrow 7th century nave and chancel (the latter rebuilt in the 14th century) are accompanied by porticus to north and south, and by a tunnel-vaulted western porch. The tower is probably of 10th century date. The 13th century north aisle was rebuilt in 1876.

**Jarrow:** The chancel is of the late 7th century and a building, probably of the 9th century (and converted to a tower in the 11th century) linked this to the western nave. Ruinous in the 18th century, the nave was rebuilt by Sir Giles Gilbert Scott in 1866. The original dedication stone - of 23 April 685 - has been reset in the east wall of the nave above the chancel arch.

Both churches and also the later historic buildings at Jarrow are listed.

### Comparison with other similar properties

Early medieval monasteries of this date played a vital role in the education and cultural vitality of the post-Roman era. At Wearmouth and Jarrow, Benedict Biscop made a conscious link with the late Roman world. This was a springboard for medieval culture in Europe, and thus for the wider world that would later be subject to European influence.

At Wearmouth and Jarrow, where the religious community survived into the second half of the 9th century, the survival of the standing fabric of the churches can be compared to no more than a handful of monastic buildings north of the Alps; other elements of the two sites have analogies in excavated material. However, the level of contemporary documentation for the two sites is unique, both specifically and contextually, throwing light on the communities and their philosophies, on the physical structures (and the associated craft work), and on the distinctions between monastic sites and contemporary secular settlements.

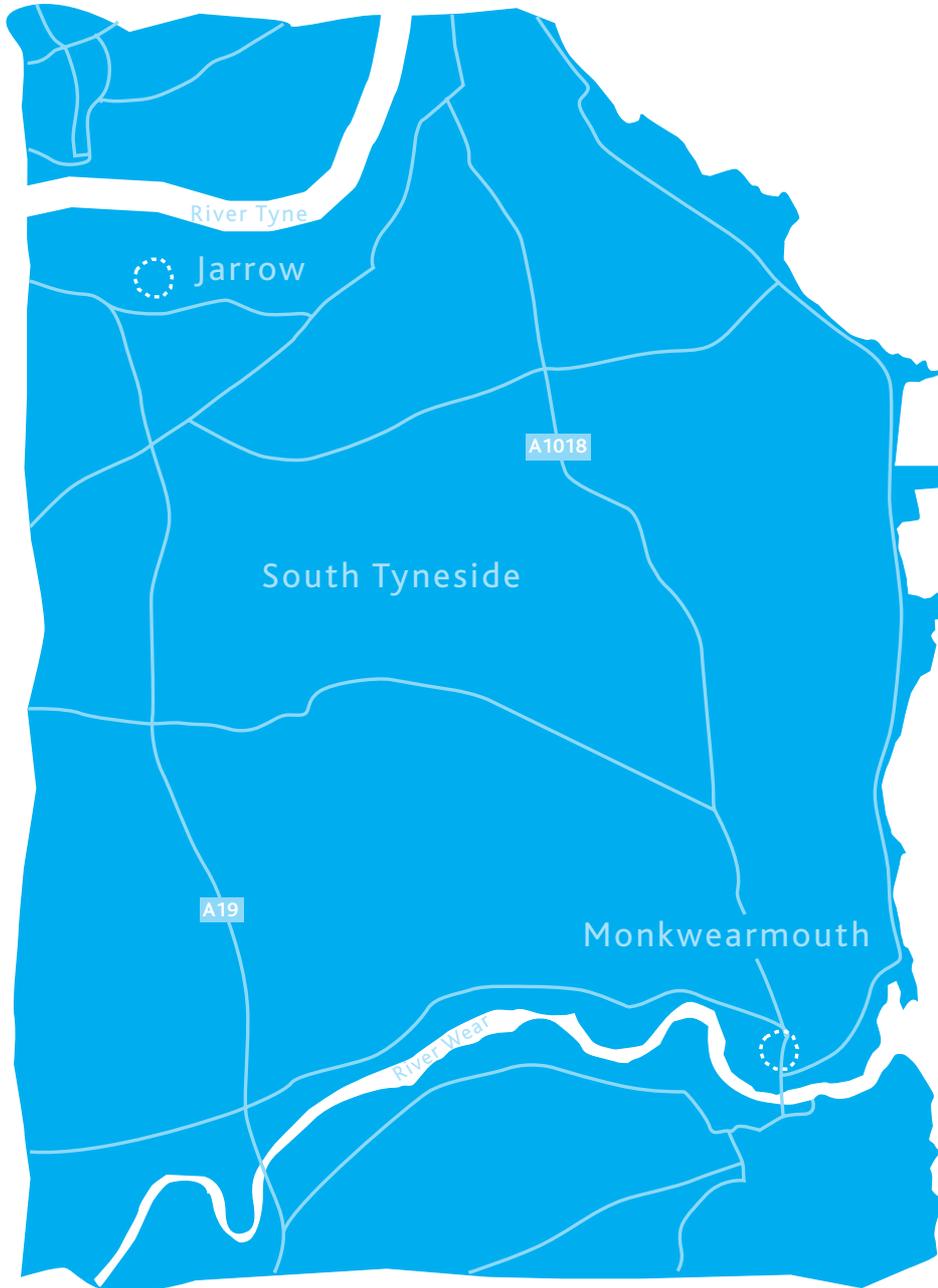
The evidence from these two twin sites, only 10km apart, is mutually complementary and supportive, providing clear insights into cultural life in the 7th and 8th centuries. This is immeasurably strengthened by the writings of Bede who was a member of the community from the age of seven. His work is of international stature, amounting to nearly 40 books; these consist mainly of theology and biography but also encompassed the natural sciences (*De Natura Rerum* 720-5). This corpus of work was immensely influential in Europe, not least in the emergence of a Christian culture based on the written word and a respect for knowledge. Bede is seen as the founder of historical studies in England. In his *Historia Ecclesiastica Gentis Anglorum* (731) he was punctilious about dates - providing for the first time an objective chronological framework - and his sources were scrupulously acknowledged.

This combination of rare early medieval standing fabric with one of the most enduring and influential figures of contemporary culture make the twin monastery of Monkwearmouth and Jarrow a site of world importance.

Jarrow

Longitude 001°28'29"W Latitude 54°58'81"N

----- Boundaries



Monkwearmouth

Longitude 001°22'37"W Latitude 54°54'79"N

----- Boundaries

Name of Property:

## The New Forest

Geographical Location:

### Hampshire and Wiltshire, England

#### Description

The New Forest is an area of outstanding wildlife and landscape interest fashioned by human intervention and use over thousands of years. It extends to about 580 square kilometres, based on the New Forest Heritage Area boundary. The human processes that have shaped the landscape over time are well demonstrated by the rich archaeological heritage, particularly from the Bronze Age and Roman period, and a documented history going back to the 11th century. An extensive dispersed pastoral system is still practised today over a large part of the area. The landscapes and habitats themselves also provide an important testimony to this interaction.

Archaeology and cultural history are still reflected in present day management practices. For thousands of years local communities situated largely in more fertile areas around the periphery have used the resources of the less fertile central area of the New Forest. Activities have included farming and grazing, fuel gathering and pottery making. In addition, the Crown has utilised the area since 1079, first as a royal hunting ground and more recently for timber production to build ships for the Navy.

The first demonstrable major impact on the Forest environment occurred in the Bronze Age when there was significant clearance of primary woodland for farming. The gradual leaching of nutrients from these sandy soils resulted in the extensive tracts of heathland characteristic of the Forest today. Other visible evidence of this important period in the Forest's history includes some 250 round barrows, and boiling mounds scattered across the area.

The archaeological, cultural and historical record for the Forest is very rich and includes more than 2000 recorded archaeological sites and findspots for the area. There are about 150 scheduled ancient monuments within the New Forest. Documentary sources from Domesday (1086) provide a significant level of information on the ownership and management of the Forest during the medieval period, along with indications of social hierarchy, land holding patterns and subsistence patterns.

The history of the Forest is documented since the 11th century when the Forest was claimed by William the Conqueror as a Royal Forest and hunting ground. This brought with it many restrictions on long established local use of the unenclosed areas. Formal common rights were established by the mid 16th century. Rights are attached to land, recorded and maintained on map bases held by the Court of Verderers. The distribution of these rights extends far beyond the current boundary of the Forest on all sides. A series of New Forest Acts charts the friction between the Crown and Commoning interests.

The quality of the habitats and landscapes, particularly of the unenclosed areas of the New Forest, is dependent on the persistence of the pastoral economy based on the exercise of common rights of grazing and mast (grazing of acorns by pigs). This pastoral economy in turn depends on the continued existence of a small community of about 400 active commoners who make up a distinct social group.

The landscape of the New Forest includes old woodlands, timber plantations of different types, extensive tracts of heathland and bog, grassy lawns, enclosed farmland, large estates, coastland, and a number of villages and small towns. The continuity between landscape types is both visual and historical in that they share a common history.

New Forest heathlands make up the largest single unit of continuous lowland heath in Europe. The New Forest also supports a significant proportion of the valley mire systems surviving in Western Europe, and the Ancient and Ornamental pasture woodland is of both national and international importance. In addition, there are important coastal areas, river systems and acid grasslands and meadows.

A large part of the New Forest has been recognised as a candidate for designation as a Special Area of Conservation, under the European Union Habitats Directive. The cSAC covers about 295 square kilometres, and represents a complex area of habitats formerly common in lowland Western Europe but now rare and fragmented. They include lowland heaths, valley mires, ancient pasture woodland, residual alluvial woods and bog woodland, as well as acid grassland. Dry heath gives way to Northern Atlantic wet heath on the poorly drained soils which often fringes the valley mires and includes a range of different plant communities. The rare southern damselfly (*Coenagrion mercuriale*) occurs in the boggy flushes. Old acidophilous oak woods with *Quercus robur* and beech forests with *Ilex* and *Taxus* (*Illici Fagion*) dominate the woodlands and the numerous ancient trees are important for epiphytic lichens and bryophytes. These trees and the dead wood also support many

uncommon invertebrates including the stag beetle (*Lucanus cervus*). The New Forest supports five breeding species and one wintering species listed on Annex 1 of the EU Directive on the Conservation of Wild Birds, the otter (*Lutra Lutra*), bats, reptiles, amphibians and fish listed on Annexes 2a and 4a of the Habitats Directive.

### Boundaries

The proposed boundary is that of the New Forest Heritage Area which has been defined and subjected to scrutiny through public consultation and the Local Plan process, since 1991. It has been identified using the following criteria:

- (a) *to incorporate the land of outstanding national importance for its natural beauty, including flora, fauna, geological and physical features, and elements arising from human influences on the landscape, including archaeological, historical, cultural, architectural and vernacular features;*
- (b) *to incorporate essential grazing land. This will include peripheral farmland which is or has recently been used as grazing land in conjunction with the New Forest, or which is part of an area which could be suitable to be utilised for grazing relating to the Forest (whether with Forest Rights or not) so as in aggregate to include a sufficient pool of land to provide an adequate supply of back-up land and the continued functioning of the historic dispersed pastoral regime relating to New Forest commoning in the long term. Convenience of access to the 'open forest' should also be considered in this context.*

The use of these criteria, tested through public consultation and Local Plan inquiries, has allowed critical evaluation of a boundary for the cultural landscape of the New Forest.

### **Justification of Outstanding Universal Value**

Criteria met: cultural landscape category (ii); Cultural Criteria (iii) and (v); Natural Criteria (iii) and (iv)

### **Assurance of authenticity and integrity**

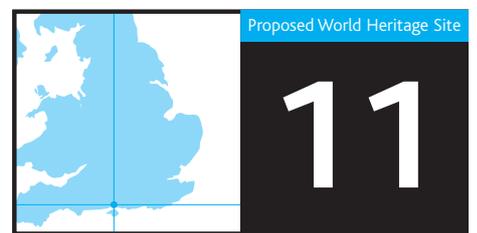
The conservation and enhancement of the New Forest Heritage Areas is co-ordinated by the voluntary involvement of all the main statutory bodies on the New Forest Committee. The New Forest Committee published 'A Strategy for the New Forest' in 1996, which provides an overall strategy for the care of the area. The New Forest Committee also maintains a public forum of more than 70 local groups including parish councils, who meet bimonthly to discuss matters of concern and provide 'grass roots' opinion on Forest management issues.

Individual statutory bodies maintain their own areas of responsibility within this umbrella of co-ordination. This includes the Verderers' maintenance of the commoning interests of the Forest under the auspices of various New Forest Acts; the Forestry Commission's management of the Crown Lands, operating under the Minister's Mandate for the New Forest; and the operation of protective planning policies by the local planning authorities.

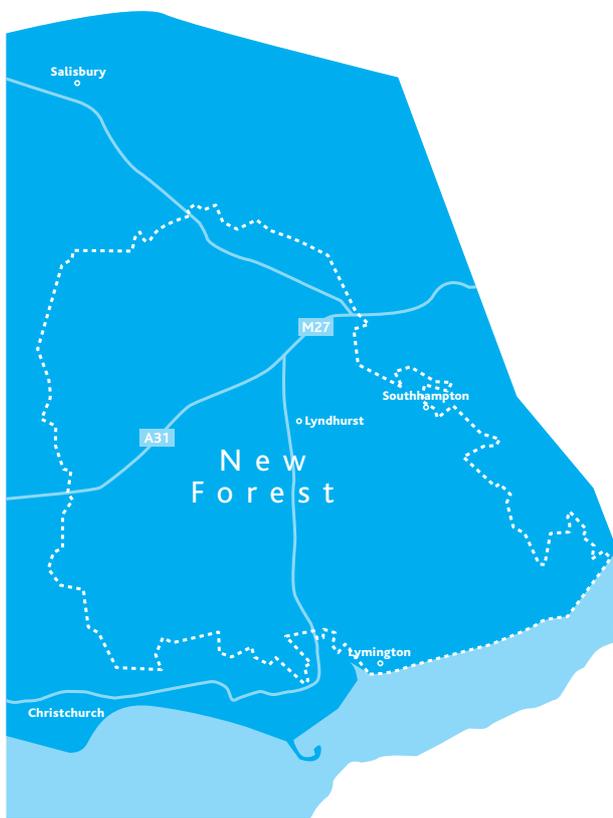
Today local people still use their common grazing rights, turning out more than 5,000 head of stock, (largely ponies and cattle) onto the unenclosed area of the Forest. This area, known as the 'Open Forest', extends to about 180 square kilometres and is largely in Crown ownership, managed by the Forestry Commission. The New Forest Court of Verderers was reconstituted in 1877, and is the legally recognised guardian body of the common rights. It is still very much a part of the every day life of the Forest, holding monthly public courts in Lyndhurst where members of the public and particularly commoners can raise concerns with the Court of 10 Verderers.

In addition, about 88 square kilometres of enclosed woodlands are managed for the Crown by the Forestry Commission as a timber resource, more recently with a wider brief to include recreation and conservation objectives. The first large-scale timber inclosures of Forest land were in 1698 and resulted from the demands for shipbuilding by the Royal Navy. At Bucklers Hard, ships were built for the Navy between 1696 and 1847, including Admiral Lord Nelson's favourite ship, the *Agamemnon*.

Farming continues to be an important land-use in the area and the tourism economy has developed since the introduction of the railway in 1847, to become the single most valuable input into the economy of the New Forest. It has been estimated that the New Forest is more heavily visited than five of the National Parks. People come to experience the landscape, wildlife and cultural heritage of the Forest, and to see the Commoners' ponies and cattle moving freely about the area.



Longitude	Latitude
001°35'61" W	50°52'43" N
----- Boundaries	



The area contains numerous national and international nature conservation designations, overseen by English Nature, the Government’s advisers on nature conservation, under the Wildlife and Countryside Act 1981 and the Conservation (Natural Habitats & C.) Regulations 1994. Some of this land is also specifically managed for nature conservation by English Nature.

Since the 1940s the New Forest has been recognised as being equivalent in quality and importance to a National Park. Currently there are protective planning policies in place in line with the Government’s statement of 1994 “that for planning purposes the New Forest Area should be treated as if it were a National Park”. In addition, the UK Government is currently considering the best mechanism to formalise the recognition of this national status and put in place enhanced management arrangements and resources. An announcement is expected shortly.

### Comparison with other similar properties

The New Forest is a recognisable piece of medieval Europe that has survived virtually intact for over 900 years, due to the persistence of a style of land ownership, management and use. The woodland pastures are a survival of an ancient form of land use (deer parks, wooded commons, forests and chases) once widespread in Europe. There are many other piecemeal survivals of royal forests in England and on the Continent, such as Epping and Fontainbleu, and many other examples of heathland across western Europe (from Norway to Portugal) show bio-diversity is the product of cultural activity going back thousands of years. But it is the scale of the survival of traditional ownership and practices, and the unparalleled bio-diversity that makes the New Forest unique. The ancient woodlands, heaths and mires are a combination that has no parallel in Europe.

The New Forest is a unique cultural landscape that has facilitated the protection of a mosaic of internationally-significant natural habitats, as well as protecting the features which map the social history of exploitation over more than 5000 years.

Name of Property:

## The Great Western Railway: Paddington - Bristol (selected parts)

Geographical Location:

### London - Bristol, England

#### Description

The Great Western Railway between London and Bristol was authorised by Parliament in 1835, and was opened in stages from both ends from 1838 onwards. The detail of its construction was entirely the conception of Isambard Kingdom Brunel and was to be, in his own words, 'the finest work in the kingdom'. It was opened throughout in 1841 with the completion of Box Tunnel, the greatest engineering feat of early railway construction. Built to Brunel's broad gauge of seven foot, its engineering works achieved a grandeur at that time unmatched elsewhere in the country and, as they were suited to high speed running, most of these structures have survived and are in daily use.

The Great Western Railway is represented by its magnificent termini at Paddington and Bristol Temple Meads, by the portals of Box and Middle Hill Tunnels, by the river bridges over the Avon in its western section and over the Thames at Maidenhead, by the Swindon Railway Works and Village, by the cutting at Sydney Gardens, Bath and by the viaduct at Hanwell. The survival of these, and many other lesser structures such as the station at Bath, combine to make the Great Western Railway the most complete railway of its date in the world. Regarded among other important early UK railways, including the Stockton and Darlington Railway, Liverpool and Manchester Railway and the London and Birmingham Railway, as best representing the primary phase of world railway development, the Great Western is the best preserved of this group.

The structures and buildings along the line were designed to reflect the character and geology of the areas through which the line passed and, at the western end of the line,

introduce the theme of the approaching city. Thus from Chippenham to Bath the architecture of the tunnel portals, viaducts and bridges is grandly classical in keeping with Bath's Georgian image, while to the west of the city the detail becomes gothicised reflecting Bristol's historic role as England's second city.

The first element of the proposed World Heritage Site is the complex of first generation buildings at Brunel's Grade 1 Listed Temple Meads Station. The offices and boardroom at Temple Meads are currently being converted into a museum, the engine shed has been turned into The Exploratory, while the train shed is exhibition space. The 1865 front block of the later station is the main reception area for the present mainline station. The original line then sweeps north over the Floating Harbour, and then east on an embankment over the Feeder canal to the River Avon which it crosses by a masonry Gothic arched bridge (Grade I Listed) where the first element concludes.

The proposed Site recommences at Bath. It enters the World Heritage city of Bath via the turreted Twerton Tunnels and a long viaduct with infilled arches. These arches, whose facades are dignified by drip moulds over the window and door openings, were originally let as dwellings in order to recoup some of the engineering expenses of this section of line. The railway approaches the station by a battlemented masonry viaduct which crosses the Avon at a very oblique angle, the original wooden spans having been replaced in brick. Bath Spa Station has lost its roof over the track and has been extended, but the handsome central section of its Jacobean facade is as designed by Brunel. The line then recrosses the Avon with a fine classically detailed three

arched masonry bridge with a central 88 feet span before proceeding to Bathwick on a masonry viaduct. The section of line to the east of Bathwick Hill through Sydney Gardens, with its swept retaining walls and cast iron and masonry bridges, is perhaps the most graceful railway townscape in the country. The proposed Site closes beyond the Warminster road bridge.

The next section comprises the portals of the two tunnels at Box where the refined classical portals of the short Middle Hill Tunnel complement the massive western portal of the 3195 yard long Box Tunnel. East of Box Tunnel the railway passes through Chippenham on a long embankment, pierced by an underbridge accommodating the former Great Western Turnpike, leading to the town itself where a impressive viaduct straddles the town centre. The station at Chippenham retains much of its original appearance and there is a handsome masonry outbuilding which, reputedly, was the engineering works office for this section of line.

At Rodbourne Road in Swindon, the proposed Site recommences and broadens to encompass the historic core of the former Railway Works and Village. Many of the industrial buildings of the Works date in part to Brunel's involvement with the Site and have been or are currently being restored for retail, heritage and office uses. The original office building with its later additions now houses the National Monuments Record Centre, Brunel's 1846 Fitting Shop is being converted into a railway heritage centre, while ranges of his wagon shops are incorporated in the Great Western Designer Outlet Centre. The Village was designed by Brunel and largely completed by 1850. In addition to the rehabilitated terraces

of masonry cottages which contain a variety of dwelling layouts, it has shops, public houses, a church and rectory, a park, a barracks block for single men (converted to a chapel and then a museum), a Drill Hall (converted to a cottage hospital and now a community centre) and an impressive Mechanics Institute. It is without doubt the finest surviving example in the country of a planned railway town. The proposed Site ceases at the station which, although a sorry remnant of its former glory, is a very historically important site in relation to the railway and the development of Swindon.

East of Swindon the gradient of the line becomes very gentle and there are fewer engineering structures other than bridges, with those over the Thames at Basildon and Goring being particularly fine. The small complex at Didcot has Listed structures and at Steventon a surprisingly grand house was built as a temporary terminus and for a short time housed the GWR boardroom. The core of the station at Reading is also of note, while Sonning cutting to the east of Reading was one of the major engineering works on the eastern half of the line and though comprised by recent development retains much of its original aspect.

The proposed Site restarts to encompass a single structure - the magnificent bridge over the Thames at Maidenhead. Opened in 1838 the twin elliptical central arches of 130ft span were the flattest brick arches built in the country up to that date.

The proposed Site recommences where the line is carried over the valley at Hanwell by the impressive Wharncliffe Viaduct which is on the section of line opened in 1838. Built in brick

by Messrs Grissel and Peto in a vaguely Egyptian style, the viaduct is 900 feet long with eight arches of 70ft span and carries the amorial bearings of Lord Wharncliffe in the centre of the southern elevation. The Viaduct was originally 30ft between parapets but was widened in the late 19th century in like style.

East of the Viaduct the proposed Site terminates as the original line becomes lost in the multiplicity of lines carrying suburban as well as mainline traffic. It re-emerges at Paddington Station with its superb trainshed roof designed by Brunel, with architectural embellishment by Sir Digby Wyatt, and the railway hotel and offices. This comprises the final element of the proposal.

### **Boundaries**

The proposed Site comprises seven outstanding individual elements and is restricted to the line of the original GWR railway and the structures associated with I K Brunel; it does not include present day track and operational infrastructure.

The first element commences in the west with Temple Meads Station including Brunel's Company Offices, Boardroom, Trainshed on the northwestern side of the present station forecourt, and his Bristol and Exeter Offices on the opposite side of the forecourt. It then follows the line of original bridges over the Floating Harbour, the Feeder and the River Avon.

The second element is within Bath (Twerton Tunnel and Viaduct and Bath Station, St James Bridge, Sydney Gardens), and the third is at

Box (Middle Hill and Box Tunnels). The fourth is within Swindon where it broadens out to include, to the north, the Railway Works bounded by Rodbourne Road, Kemble Drive and the Gloucester railway line, and to the south the area of Railway Village bounded by Rodbourne Road, Faringdon Road and East Street and along the line to the station.

East of Swindon, the fifth element of the Site is the bridge over the River Thames at Maidenhead and the sixth is the Wharncliffe Viaduct at Hanwell. The final element is Paddington Station itself.

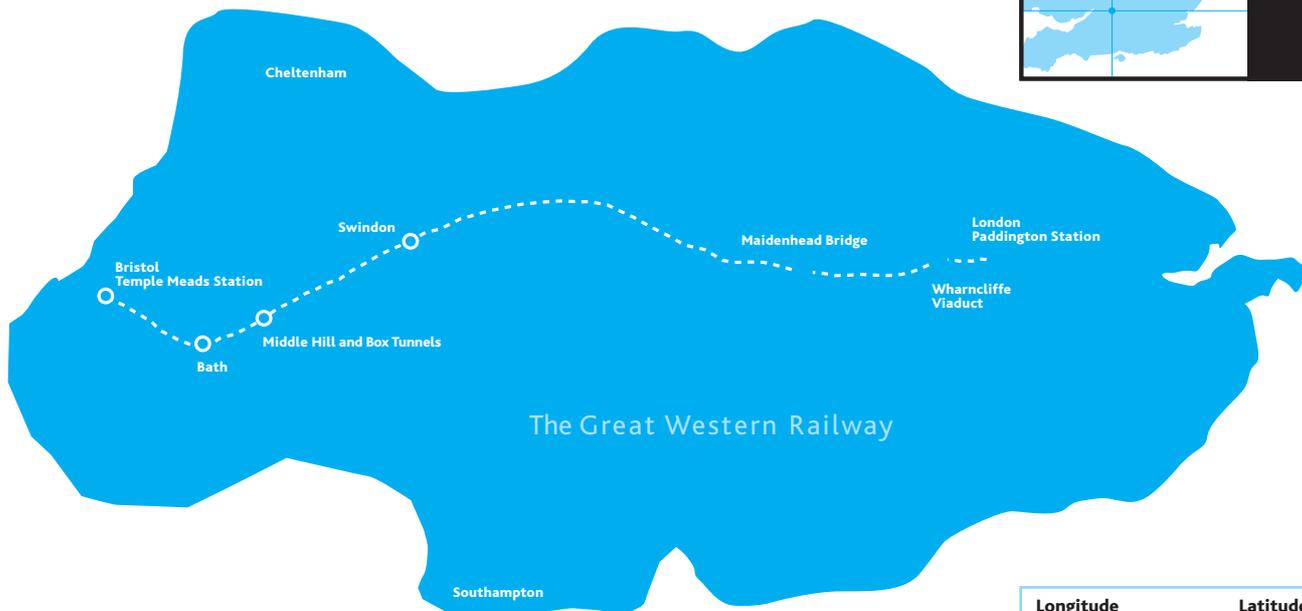
### **Justification of Outstanding Universal Value**

Criteria met: Cultural Criteria (i), (ii), (iv) and (vi)

### **Assurances of authenticity or integrity**

Despite being in operation as a railway for over 150 years, many of the buildings and structures have survived intact. Paddington and Temple Meads Stations have been sympathetically restored and converted respectively. Where there has been early doubling of the track, as at the Wharncliffe Viaduct, this has also been done in a similar style retaining one side as original, while some bridges, such as that over the Avon in Bristol, have had detached bridges built alongside to carry the increased traffic.

Railway structures are maintained to serve operational requirements and the needs of passengers, while large parts of the GWR Works at Swindon are extant, adapted for new uses which retain the scale and functional character of the complex. Housing and related



Longitude	Latitude
001°07'85"W	51°30'91"N
----- Boundaries	

buildings in Swindon's Railway Village survive as a striking group which retains the historic topography and appearance of the area.

### Comparison with other similar properties

Several factors have uniquely combined to preserve the historic integrity and appearance of the London to Bristol section of the Great Western Railway:

- the larger gauge of the GWR required greater clearances of all its overstructures and thus when high speed locomotives were introduced in the second half of the 20th century this line, unlike all other early mainlines, did not need the drastic alteration that has affected those other lines;
- the GWR, alone of all the great railway companies, comprised a single unit in the Railway Grouping of the 1920s and thus maintained its distinctive operational and engineering traditions until post-war nationalisation.

This completeness contrasts with the other early mainlines, such as the Liverpool and Manchester where only isolated elements survive (including the pioneer Liverpool Road Station which is included in the proposed Manchester and Salford World Heritage Site) and the London and Birmingham Railway which has lost its London terminus, has been greatly altered and has abandoned its original Birmingham terminus. The first public railway - the Stockton and Darlington Railway - was not a mainline passenger railway and its early section has largely been dismantled.

Name of Property:

## **Saltaire**

Geographical Location:

### **Shiplacey, West Yorkshire, England**

#### **Description**

Saltaire Mills and settlement is the finest example in England of an integrated textile mill with its associated housing and public buildings. It was the most complete model village to be built in the textile industry and has survived better than any of its peers.

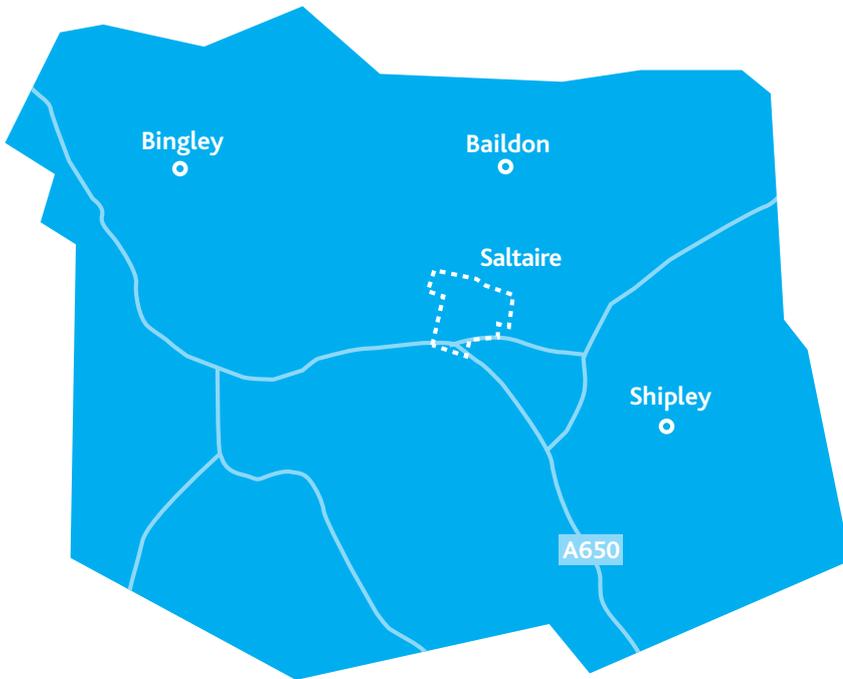
Developed from 1850 onwards, Saltaire represents the culmination of a process that began in the Derwent Valley in Derbyshire a century earlier. At Saltaire, the Factory System, based on mechanised textile production pioneered first by Lombe with his Silk Mill at Derby and greatly developed by Richard Arkwright and his associates at Cromford and numerous other sites in the Derwent Valley and elsewhere, achieves its apogee as regards the integration of processes and transport, the utilisation of steam power, the provision of housing and social amenities, all dignified by unified architectural treatment. The proposed Site comprises the area designated as the outstanding Conservation Area of Saltaire and includes the Mills, terraces of hierarchically arranged employees' dwellings, shops, almshouses, a former hospital and school, a magnificent Congregational chapel, an institute, a college and a landscaped park.

Saltaire is named after its creator, Titus Salt, and the river it is built beside - the River Aire. Salt had made a fortune through exploiting the use of alpaca and mohair in worsted manufacture, and by 1850 was Bradford's biggest employer of labour, running six mills in the city. From 1850 onwards he employed the leading local architectural practice, Lockwood and Mawson and the greatest mill engineer of the era, William Fairbairn, to build a massive

new mill on the southern slopes of the Aire valley some three miles (5 kms) north of Bradford. Its massing and the use of Italianate style was intentionally impressive as it was designed to be the perfect illustration of planned integration, comprehending not only the processes within the complex but also the relationship between the mill and its surroundings. The new settlement was part of the original plan and the mill was situated to take advantage of the river for water and the canal and railway for transport.

The mill opened in 1853 and was seen as the epitome of technological advance. The fire-proof, five-storey ranges (some 60 bays long) housed spinning, sorting and warehousing, while the two single-storey blocks housed other preparatory processes, warping and weaving. The two pairs of beam engines were designed by Fairbairn and working together were considered capable of producing 1,250 horse power. They were supplied by a rank of 10 subterranean boilers and drove the complex by a combination of underground shafting, upright shafts and belting. A range of offices was set on the western side of the complex and incorporated a private suite for Salt himself who lived some distance away. It was extended by the addition of a New Mill with campanile chimney in 1868 and dyehouses in 1871.

Once the mills had been built, construction started immediately on the settlement and amenities. By the end of the following year a large dining room had been built across the road from the mill and 163 houses and boarding houses - accommodation for about 1,000 people - was complete. By 1861 there were 447 houses, increasing to 824 houses a decade later, by when the population had risen



Longitude	Latitude
001°48'15"W	53°49'73"N
----- Boundaries	

to 4,300. Construction of the village was also the responsibility of Lockwood and Mawson and continued until 1876. Its layout was on a grid pattern with streets named after Queen Victoria and her consort, Salt's family and latterly the architects themselves. The houses, which were all built for rent, were intended for the various grades of the mill workforce, and although this was reflected in their style, size and situation, tenancies indicate that the division was not rigid. The overlookers' houses were better appointed than the workmens' houses, and in the case of some of the later large examples in Albert Street were occupied by senior executives.

Salt provided a wide range of facilities - 14 shops were ready for occupation in 1854, and the Dining Room was also used at first for religious services and as a schoolroom and public meeting hall, while a baths and wash house, incorporating a Turkish bath, was built in 1863. The magnificent Congregational Church was built in 1856-9 and a site gifted for a new Wesleyan Methodist Chapel in 1866. A new school opened in 1868 along with 45 almshouses and a small hospital and dispensary.

An Institute which included a reading room, library, games rooms, lecture halls for 800 and 200 people, a school of art, a drill room, gymnasium and armoury, was built in 1869. Saltaire Park north of the river was provided for recreation and games in 1870.

Titus Salt died in 1876, his vision of a utopian mill settlement largely complete but restrictions on trade to America, imposed by the McKinley tariff, caused the Company to be wound up in 1892. Under new ownership the mills were in full production by 1895 with further sheds being built to the east, while another change in ownership in 1918 saw more expansion and the provision of additional recreational facilities. The Depression of 1929, however, was followed by the sale of the village severing the close social link between mill and settlement. Textile production finally ceased in 1986 and the following year the freehold of the mill was purchased by the entrepreneurial business developer, Jonathan Silver. Under Silver's vision, Saltaire Mill became a flagship regeneration project, combining in the main mills a mix of art galleries, restaurants and retail shopping with micro electronic

production. The success of this venture encouraged rehabilitation of the derelict mills north of the canal for offices and apartments. The settlement, under a town scheme established in 1989, has also preserved its character and now the village and its public buildings, like the mill, are experiencing levels of interest comparable to that experienced as a model mill and village under Titus Salt.

### **Boundaries**

The proposed Site comprises the existing Conservation Area which encompasses the mills, ancillary and public buildings, Robert Park, and successive phases of planned housing, all within a tightly delineated area in the valley of the River Aire.

### **Justification of Outstanding Universal Value**

Criteria met: Cultural Criteria (ii), (iii) and (iv)

### **Assurances of authenticity or integrity**

The mills and the settlement at Saltaire have retained their character to a remarkable degree. The relatively short interval between textile production vacating the main mills, and new beneficial uses being found, ensured that there was no significant deterioration in the fabric.

Similarly the village benefited from almost a century of single ownership, then in recent times from its status as an Outstanding Conservation Area with a vigilant local conservation society. Most buildings are protected by listing. Those few buildings that have changed from their original uses have, for the most part, been sympathetically converted.

### **Comparison with other similar properties**

Saltaire is the finest surviving example of a model textile mill village in the country. It represents the culmination of the process of providing housing and social facilities first pioneered in the 18th century textile communities in the Derwent Valley. This process was taken a step further by Robert Owen at New Lanark in the early 19th century with the provision of a range of institutional buildings serving the existing settlement. At Saltaire this provision was planned from the outset and was dignified by an overall architectural style and thus both contrasts with, and complements, the earlier examples. The inclusion of all three textile sites on the Tentative List thus encompasses the entire spectrum of planned textile mill communities.

Name of Property:

# Shakespeare's Stratford

Geographical Location:

## Warwickshire, England

### Description

The names of Stratford and Shakespeare are synonymous throughout the world. The writer who has exerted the greatest global influence was intimately connected with the town throughout his life. Stratford was where he was born, brought up, went to school, met his wife and baptised his children; it was also the place where he invested most of his theatrical earnings, maintained his family, retired and died. Many influences of Stratford and its outlying countryside have been traced in Shakespeare's writings, and a significant number of the surviving Shakespeare documents relate to his business and family affairs in Stratford.

His earliest, mid-17th century, biographer indicates that Shakespeare regularly returned to his native town throughout his working career in London. From 1597 onwards, his family lived at New Place, the second largest house in Stratford. Several London documents concerning his activities in the city refer to him as of Stratford-upon-Avon. Many modern biographers assume that after his purchase of New Place, and for the next 15 years, before he retired, much of Shakespeare's research and writing took place at his Stratford home.

Shakespeare's fame subsequently helped to shape the character of his town. The house where he was born became the earliest literary shrine of its kind in England, and together with the other local buildings associated with him, especially the church where he is buried, made Stratford an incipient international tourist centre before the end of the 18th century.

Thanks partly to Shakespeare's reputation, which was well established in England and other European countries over 200 years ago, Stratford witnessed early efforts to safeguard its heritage and was one of the first historic towns to attract conservation initiatives, including the purchase of Shakespeare's Birthplace by public subscription in 1847. Today Stratford's significance as a major destination is undisputed.

The proposed World Heritage Site contains evidence both of the Stratford of Shakespeare's day (and the buildings associated with him) and also of Shakespeare's influence on the town through the development of the area as a focus of literary tourism from the 18th century. As such Stratford is evidence of the early development of a cultural tradition now fundamental to the way of life and economy of many parts of the world.

The Site encompasses most of the historic centre of Stratford, whose grid pattern of streets was laid out in the 13th century and remains unchanged. The Site chosen includes key buildings directly associated with Shakespeare and his family; a significant number of buildings from medieval times to the 17th century which were known to him; two later buildings where his living legacy is kept alive today - the Royal Shakespeare Theatre and the Shakespeare Centre - and buildings connected with the early development of the Shakespeare cult and industry. Also added are two places outside the town with strong Shakespearian connections - Anne Hathaway's Cottage at Shottery and Mary Arden's House at Wilmcote.

## Boundaries

In the north, the Site is bounded by Henley Street and Bridge Street. The house where Shakespeare's father (a glovemaking) and mother lived is located in Henley Street. Shakespeare not only grew up in this building but also inherited it when his father died, and bequeathed it upon his own death to his daughter, Susanna. It is one of the few surviving objects that unquestionably belonged to him. It was lived in by descendants of the Shakespeare family until the 19th century, and became a place of pilgrimage for Shakespeare admirers by the mid-18th century. Bridge Street leads to Clopton Bridge built in the late 15th century and used by Shakespeare innumerable times as he commuted regularly between Stratford and London.

Branching off the junction of Henley Street and Bridge Street is High Street, which features several fine timber-framed buildings dating from Shakespeare's time, including the house where his younger daughter, Judith, lived after her marriage, and 'Harvard House' built in 1596 by Thomas Rogers, whose grandson founded Harvard University.

High Street intersects with Sheep Street where the Town Hall stands, which was the focus of the 1769 Garrick Jubilee, the first Shakespeare festival, and was originally known as 'the Shakespeare Hall'. High Street leads into Chapel Street whose buildings include the 16th century Shakespeare Hotel, a hostelry since the mid-18th century, and Nash's House, owned by Thomas Nash who married Shakespeare's grand-daughter, which is open to the public. Adjacent is the site of Shakespeare's New Place, his family home for 19 years. Pulled down in the 18th century, some of the foundations remain, together with the whole of the original garden area that belonged to the

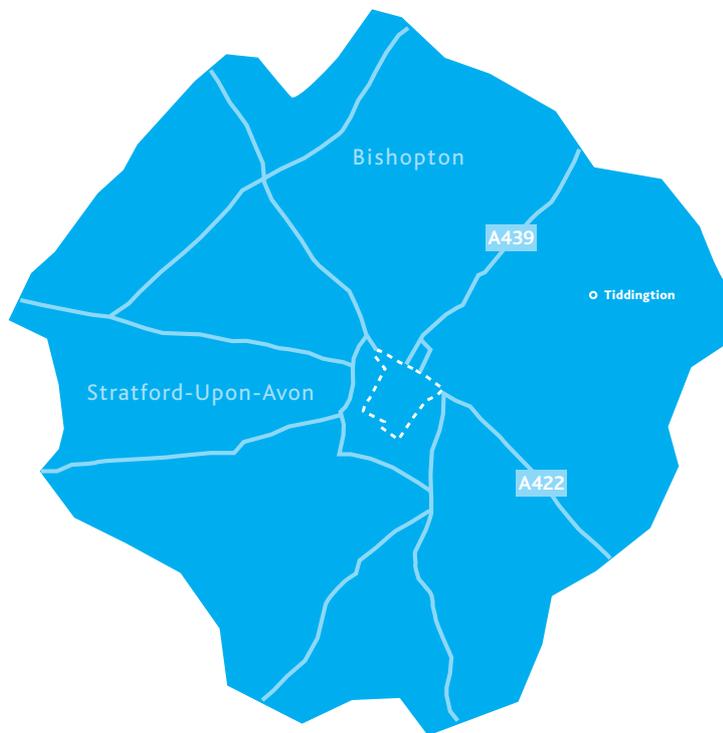
dramatist. These were bought for preservation in 1861. Opposite the site of New Place is the Falcon Hotel, a 16th century building with a continuous history as an inn/hostelry for 350 years. The Stratford Shakespeare Club, believed to be the world's oldest literary society still in existence, was founded in the Falcon in 1824 and organised Shakespeare festivals during the 19th century.

Chapel Street leads into Church Street which features the 15th century Guild Chapel, Guild Hall, Almshouses and the Grammar School which Shakespeare is believed to have attended, since his plays show a detailed knowledge of its curriculum.

The site is bounded to the south by Old Town which includes Hall's Croft, built in 1613 and identified as the home of Dr. John Hall who married Shakespeare's eldest daughter, Susanna. The boundary continues as far as Holy Trinity, the medieval parish church, where Shakespeare was baptised and buried. In the chancel is his grave and the wall monument erected by his family.

The Site is bounded by the eastern bank of the River Avon. Ben Jonson, Shakespeare's friend and rival dramatist, called him 'sweet swan of Avon.' There are views across the river from the bank nearest to the town towards the countryside which inspired Shakespeare.

The Site's eastern boundary also includes the Royal Shakespeare Theatre and the adjoining Swan Theatre, which are the headquarters of the world-famous Royal Shakespeare Company. The Swan incorporates part of Stratford's first permanent theatre, which opened in 1879.



Longitude 001°42'18"W Latitude 52°11'93" N

----- Boundaries

The history of documented Shakespeare performances in the town, mainly in a succession of temporary theatre buildings, begins in 1746.

In addition to the clearly defined historic town centre, the Site includes two isolated units with important Shakespeare connections - Anne Hathaway's Cottage in Shottery, 2km from Stratford, and Mary Arden's House at Wilmcote, 6km distant. The Cottage, built in 1463, was the home of Shakespeare's wife before her marriage. It has a documented history of occupation by Hathaways and descendants of the family from the 17th to the end of the 19th century, when it was acquired by the Shakespeare Birthplace Trust. It was attracting tourists before the end of the 18th century. The Mary Arden Site encompasses the farmhouse where Shakespeare's mother grew up.

### Justification of Outstanding Universal Value

Criteria met: Cultural Criteria (iii) and (vi)

### Assurances of authenticity or integrity

The Site encompasses an extensive number of buildings and features which were part of the town known to Shakespeare. Together they constitute the sole surviving environment which can genuinely be associated with

Shakespeare's life and work. It also includes buildings connected with Stratford's very early tourist history and with the world-wide appreciation of Shakespeare today.

Many of the buildings are Listed, and several have been regarded as historically important survivals of Shakespeare's world since the 18th century. Many of the most significant buildings are in the care of the Shakespeare Birthplace Trust, founded after the purchase of the Birthplace as a national memorial in 1847, and have been carefully conserved over a long period. Stratford bears a unique testimony to a tradition of sightseeing, and the development of its Shakespeare 'industry' over nearly 300 years is itself of considerable cultural significance.

### Comparison with other similar properties

Stratford and Shakespeare are exceptional and it is doubtful whether any comparisons exist. Very few writers, if any, have been so closely linked with their native town, and the survival of so many buildings associated with Shakespeare, despite the changes of three and a half centuries, is remarkable. Nor is there any other birthplace of a writer or artist which is so well known as Stratford and which attracts visitors in such numbers from all over the world, and has done so for so long a period.

Name of Property:

## The Wash and North Norfolk Coast

Geographical Location:

Norfolk, England

### Description

The Wash and North Norfolk Coast is an area of international nature conservation importance comprising an area of some 70,000 hectares. It is designated a Ramsar site under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention). It is also a Special Protection Area under the Council Directive on the Conservation of Wild Birds (79/409/EEC), and is a candidate Special Area of Conservation under the Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (92/43/EEC). Parts of the North Norfolk coast are also a Biosphere Reserve designated under the UNESCO Man and the Biosphere Programme (MAB).

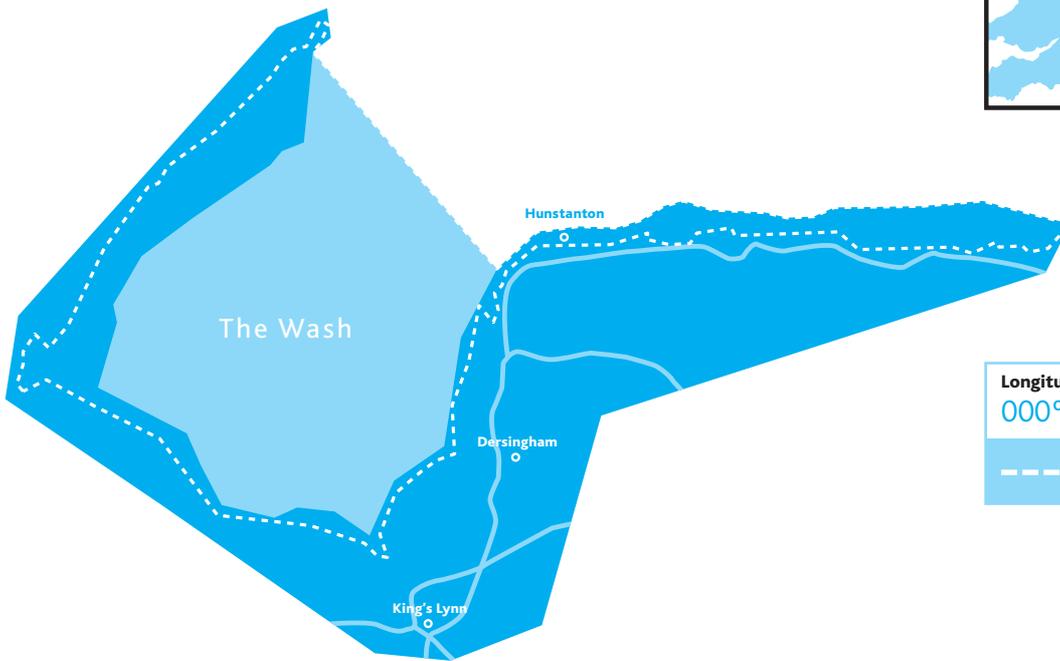
The North Norfolk coast is also recognised for its landscape importance being designated as an Area of Outstanding Natural Beauty and as a Heritage Coast. It also has high archaeological potential, with recent evidence of surviving waterlogged timber from the Bronze Age.

The Site is representative of the UK's most important and characteristic natural feature, that is inter-tidal sands and muds, shingle, sand dunes, lagoons and salt marshes. The Wash estuary with its sand, mud flats and salt marsh is a very complex and highly productive ecosystem. The North Norfolk coast is one of the finest coastlines in the British Isles and is one of the few examples of a barrier coast in Europe. At Blakeney the shingle spit is of considerable physiographic interest and forms the foundations for extensive ridges of sand dunes. Scolt Head is a barrier island with sand dunes, shingle and contains a succession of salt

marshes. Holkham contains one of the largest salt marshes in England. Scolt Head and Blakeney Point were the locations for the now classical studies of coastal accretion and plant succession. They also have important education and research value including long term monitoring, and are the sites of nationally important populations of rare or local coastal plants.

The Site is also of international importance for breeding bird populations of wildfowl and waders, particularly redshank and terns. The breeding colony of sandwich terns at Scolt Head and Blakeney Point is of international significance comprising 12% of the European breeding population. There are also important colonies of common terns with up to 1,000 pairs breeding on the Site. Among the many species of breeding birds are marsh harrier, bearded tits, bittern, avocet, little tern, oyster catcher, ringed plover, skylark and reed bunting. The geographical position of the Site and its wide range of habitat, make it especially valuable for the support of migratory birds at vulnerable stages in their life cycle. Over 200,000 waders winter at the Site, including oyster catcher, grey plover, knot, sanderling, dunlin, bar-tailed godwit, curlew, redshank and turnstone; and over 200,000 wildfowl including internationally important number of dark-bellied brent geese, pink footed geese, pintails, shelduck and widgeon, and nationally important populations of goldeneye, gadwall, garganey and white-fronted geese.

The Site also hosts a substantial populations of breeding common seal and is considered one of the best areas in the UK for the species.



Longitude	Latitude
000°13'93"E	52°56'17"N
- - - - - Boundaries	

## Boundaries

The outer part of the proposed Site comprises Gibraltar Point National Nature Reserve (NNR) and, to the east, the North Norfolk coast, including Scolt Head NNR, Holkham NNR, Blakeney NNR and Holme Dunes NNR. All of the Site is notified as being a Site of Special Scientific Interest (SSSI) under the Wildlife and Countryside Act 1981. The inner part is the Wash, identified as an area to a seaward line running from Gibraltar Point to just north of Hunstanton, which is also notified as an SSSI and includes land that is declared as a National Nature Reserve.

## Justification of Outstanding Natural Value

Criteria met: Natural Criteria (ii) and (iv)

## Assurances of authenticity or integrity

The Site comprises a large area which contains the complex range of coastal and estuarine habitats; large populations of breeding and wintering birds, and a large colony of breeding common seal. It is recognised as being of international importance in both a European

and global context as previously detailed, and as such is affordable a high degree of protection and management.

## Comparison with other similar properties

There is no comparable property in the UK. Although Morecambe Bay does have similar estuarine attributes it does not contain a barrier coast as at North Norfolk. In Europe, the Wadden Sea which falls within Denmark, the Netherlands and Germany, is a comparable and much larger site, continuing the same interests and features. There is in fact some evidence that certain bird populations are in fact shared. The area is administered as a trilateral park with which English Nature has a close working relationship.

In a global context the Wash and North Norfolk coast is comparable to the Banc d'Arguin National Park in Mauritania which is listed as a World Heritage Site. The Park comprises a large area of tidal flats and is important for migratory birds on the Eastern Atlantic flyway they share with the Wash and North Norfolk.

Name of Property:

# The Cairngorm Mountains

Geographical Location:

## The Highlands, Scotland

### Description

The Cairngorm Mountains comprise the largest continuous area of high ground above 1,000m in Britain and include most of the highest summits in Scotland. These mountains, with their distinctive plateau surfaces and glacially sculptured features, are surrounded by open moorland and glens. The climate reflects a unique combination of oceanic and continental influences, characterised by wet and windy conditions, rather than extreme cold. The diversity of landforms present in the Cairngorms provides exceptional insights into long-term processes of mountain landscape evolution and environmental change in a maritime, mid-latitude setting in the northern hemisphere. This geomorphological development spans the latter part of the Tertiary period with its warm humid climate, through the ice ages of the last 2.5 million years, to the present day.

Relict landforms which originated before the ice age are unusual for their scale of development in a glaciated mountain area; they include tors, weathered bedrock and plateau surfaces. These features stand in sharp contrast with glacial cliffs, corries and deeply dissected glens. Together they form an outstanding example of a landscape of selective glacial erosion and show how the erosional effects of the ice age glaciers were focused in particular areas and minimal in others. Such a landscape is exceptional in western Europe and

is comparable with parts of Baffin Island.

The adjacent glens support a diverse assemblage of glacial meltwater features and glacial deposits, notably channels, eskers, kames, kettle holes, terraces, lake deposits and moraines.

On the northern flanks of the Cairngorms there is evidence for active recession of the last ice sheet, while several corries contain excellent examples of moraines formed during the final glacial phase. Periglacial landforms, illustrating the effects of cold climate conditions on the bedrock and soil, are extensively developed on the high slopes and plateau surfaces and add further to the landform diversity, as do several rock slope failures, some associated with fossil rock glaciers. A variety of slope landforms, river terraces and gravel-bed rivers reveal the pattern of postglacial changes. The history of climate and change and vegetation development during the final part of the ice age and in the subsequent postglacial period is contained in the records of plant remains and pollen grains preserved in lochs and peat bogs. The montane zone is also notable for the links between geomorphological processes, soils and vegetation patterns and their sensitivity to contemporary environmental change. The occurrence of such a diverse assemblage of features in a relatively compact area is exceptional on an international level.

## Justification of Outstanding Universal Value

Criteria met: Natural Criteria (i) and (iii)

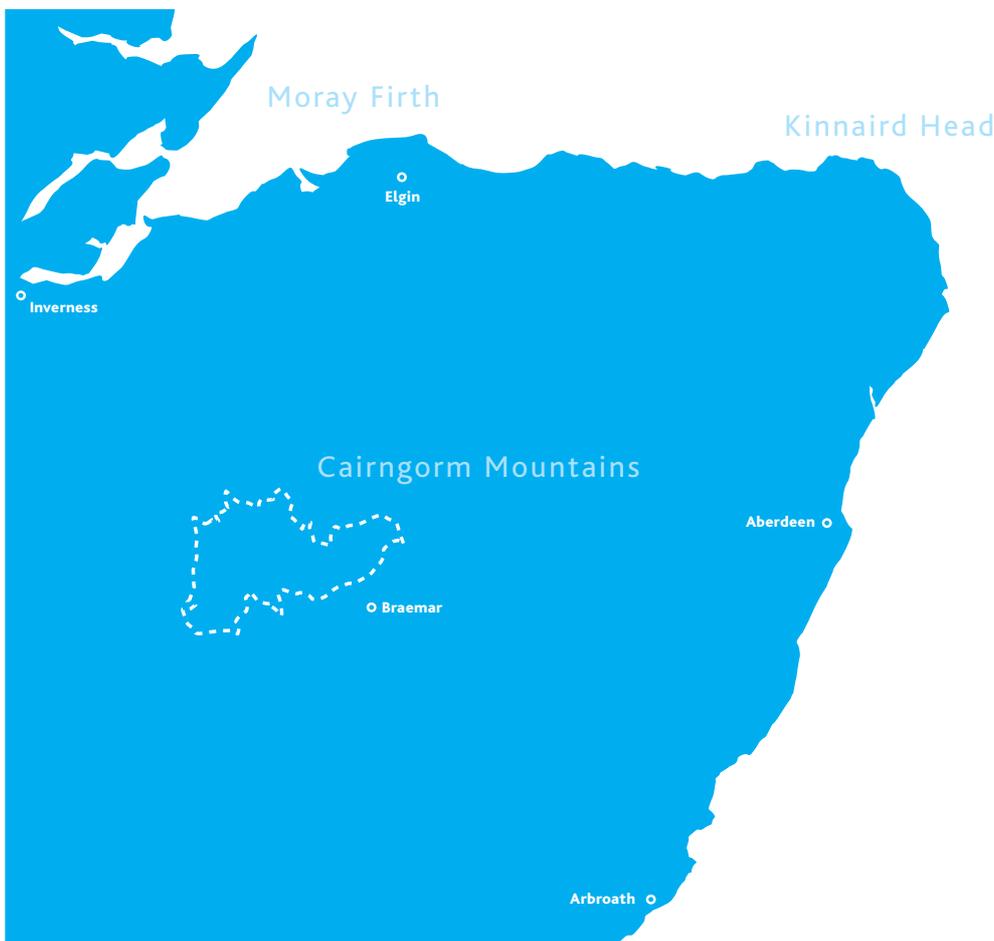
### Assurances of authenticity of integrity

The site comprises a range of pre-glacial, glacial and post-glacial features which provide insights into long-term processes of mountain landscape evolution in the maritime, mid-latitude northern hemisphere area, and is recognised as being of international importance. Management and statutory procedures are to be resolved through implementation of National Park proposals.

## Comparison with other similar properties

The Cairngorm Mountains comprise the largest continuous area of high ground above 1000m in Britain and include most of the highest summits in Scotland. The occurrence of such a diverse assemblage of features in a relatively compact area is exceptional in western Europe and is comparable with parts of Baffin Island.

Longitude	Latitude
003°38'08"W	57°06'45"N
----- Boundaries	



Name of Property:

# The Flow Country

Geographical Location:

## Scotland

### Description

These peatlands are possibly the largest single area of blanket bog in the world. Together with associated areas of moorland and open water they are of international importance for conservation both as a habitat in their own right and because they support a diverse range of rare and unusual breeding birds.

The Caithness and Sutherland Peatlands are important because of the large areas of semi-natural peatland vegetation with extensive Sphagnum carpets and hummocks. They also encompass an exceptionally wide range of vegetation and surface pattern types, including numerous intact pool systems. These features are usually rare and localised on other bog systems in the UK, but here they are widespread and a high proportion of the ground remains undisturbed. The range of mire types varies from those of the Caithness plain in the east, with their continental affinities, through to those of the much more oceanic west and include both upland and lowland areas. Extensive areas of active blanket bog, where bog moss Sphagnum and other bog species ensure continuing peat accumulation, occur in intimate association with a range of open water, wet heath, grassland and fen communities. This provides the diversity of habitats necessary to support a wide range of wetland and moorland species.

The range of habitats provided by the peatland supports a very characteristic vertebrate and invertebrate fauna. Of particular importance are the birds, the structural mosaic within the peatlands providing habitats which satisfy the breeding and feeding requirements of a range

of waders, waterfowl and raptors. Many of these are typically northern species found here at the southern limit of their range. Several of the breeding bird species occur in nationally important numbers and there are significant proportions of the breeding populations of certain species in a European context. Breeding birds occurring in nationally important numbers include red-throated diver, black-throated diver, golden plover, greenshank, wood sandpiper, hen harrier, golden eagle, merlin and short-eared owl.

Mammals of importance include the otter and the larger burns and rivers provide spawning grounds for the Atlantic Salmon. The insect fauna includes a nationally rare water beetle and several nationally scarce species including the azure hawk dragonfly. The rare and endangered freshwater pearl mussel is found in some larger burns and rivers.

### Justification of Outstanding Universal Value

Criteria met: **Natural Criteria (ii) and (iv)**

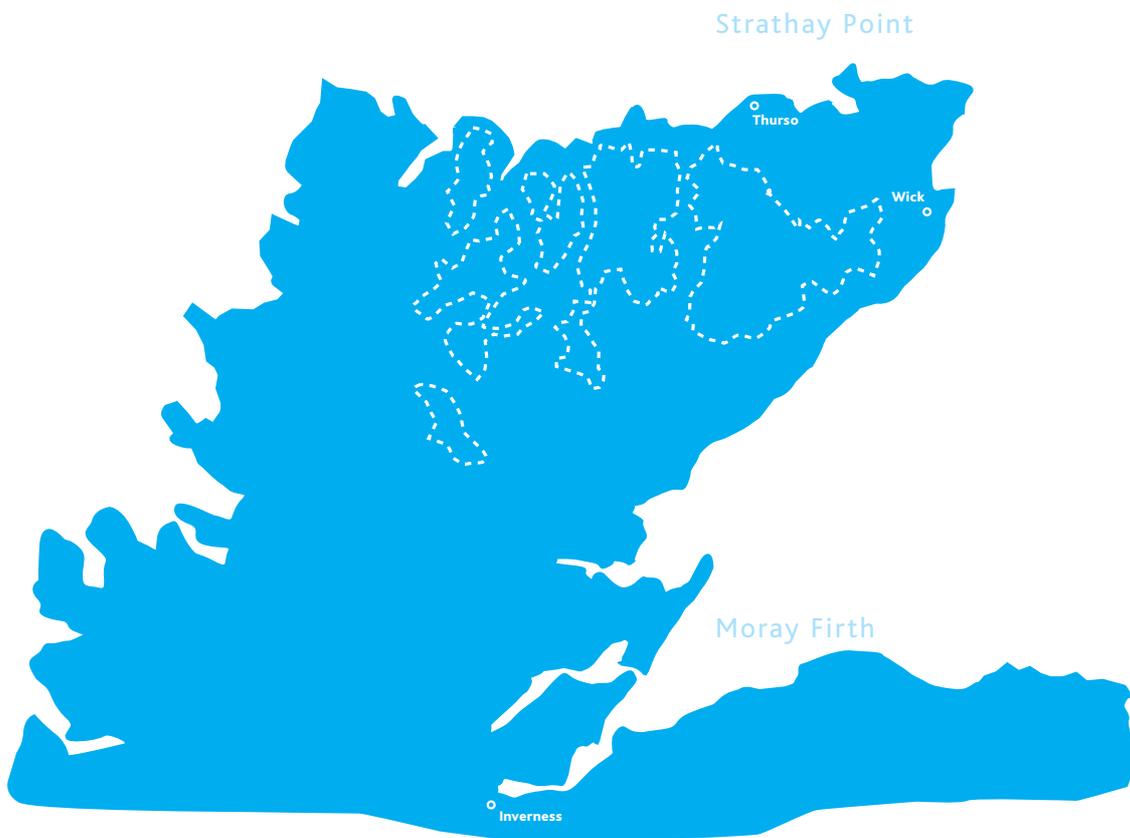
### Assurance of authenticity or integrity

The Site contains the full range of mire types from those with continental affinities in the east, through to those of the much more oceanic west, and includes both upland and lowland areas. The range of habitats provided by the peatland supports a very characteristic vertebrate and invertebrate fauna. Of particular importance are the breeding bird populations. The Site is recognised as being of world importance, and is afforded protection under European legislation.

### Comparison with other similar properties

Blanket bog is a globally scarce habitat, typically associated with the moist, cool conditions found around the ocean margins in mid-northern and southern latitudes, for example Tierra del Fuego, Kamchatka, New Zealand and the British Isles. Britain holds approximately 13% of the world resource of blanket bog, with the Caithness and Sutherland Peatlands being the largest and most intact single area. These peatlands represent the extreme northern Atlantic aspect of the range of variation.

Longitude	Latitude
003°59'93"W	58°20'53"N
-----	Boundaries



Name of Property:

## The Forth Rail Bridge

Geographical Location:

### Fife and Edinburgh, Scotland

#### Description

The Forth Rail Bridge, which was opened in 1890, is an internationally recognised symbol of the achievements of late 19th century engineering. Its robust and original design took account of the lessons on the effect of wind on exposed bridges learned from the Tay Bridge disaster of 1879. It was the first major steel bridge in Europe. It is certainly the best known Rail Bridge in the world, and one of the most renowned civil engineering feats of all time.

The Bridge provides a rail link across the River Firth between the Lothians and Fife. It is located on the site of the historic crossing point on the river between what are now the towns of South and North Queensferry. (The name Queensferry refers to Saint Margaret's crossing to the then royal capital of Dunfermline in 1070 for her marriage to King Malcolm Canmore).

Features such as ferry piers by John Rennie, related inns and leading lights, fortifications ranging in date from medieval to Second World War, batteries and coastguard stations perched around quarries in Fife, all point to the narrowing of the Firth at the point that dictated the location of the Bridge.

A road bridge has since 1964 shared the same isthmus as the Rail Bridge. Designed by Mott, Hay and Anderson, it is just longer than the Severn Bridge (1966) and remained the longest suspension bridge in the UK until the Humber Bridge opened, as the world's largest, in 1981. Long views of the Rail Bridge invariably now include the Forth Road Bridge either in front or behind it. Happily the road bridge is of a completely different form and colour, and there is no possibility of confusing the two. Indeed they make a complementary group.

#### Boundaries

The Bridge spans an isthmus on the River Forth, linking the towns of North and South Queensferry. The proposed World Heritage Site encompasses the Bridge and the Conservation Area designated in each of these towns. It is proposed that the North Queensferry Conservation Area will be enlarged to take in the Fife pier of the bridge, shore defences and the railway pier.

#### Justification of Outstanding Universal Value

Criteria met: Cultural Criteria (i), (ii) and (iv)

#### Assurance of authenticity and integrity

The Rail Bridge has been in continuous use since its completion and its continuing use provides the chief assurance of its ongoing integrity.

The Bridge is listed category A, for its international and national importance. This gives it statutory protection and any changes to the character of the Bridge, such as the temporary Millennium Clock or the fixing of floodlights, requires listed building consent.

The Bridge is subject to ongoing maintenance and recent changes in the maintenance regimes have been discussed with Historic Scotland and the planning authorities. Current very high levels of investment - £40 million to be spent between 1998 and 2002 via its owners Railtrack - will assure its future. The work being carried out on the Bridge (in recognition of its cultural as well as its transport significance) pays due attention to conservation principles.

The stages of construction of the Bridge were well documented by numerous photographs commissioned by the contractors, taken by one of the engineers responsible, E Carey, and published in a detailed account of the construction by another, William Westhofen. It is, in fact, probably the best-documented work of 19th century civil engineering. These confirm that the design, material and workmanship (excepting the paint system) are that which the Bridge has to this day. There even survives the pier of an earlier bridge started by Thomas Bouch, construction of which was abandoned after the Tay Bridge Disaster.

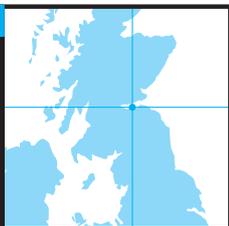
Regarding setting, the photographs show that the immediate environs of the bridge were very much affected by the construction process; quarries, temporary piers, jetties and workshops crowded the feet of the piers. Some of these survive at the Fife end, as does Rosshill Terrace, 16 houses for foremen, and Bridge House, built by Fowler for himself and staff at Dalmeny during the Bridge's construction. Track-side timber station buildings at each end are much as originally built.

The wider landscape includes the towns of North and South Queensferry. Both have continued to evolve but contain numbers of listed buildings and are protected by designation as Conservation Areas, the special character of which local authorities are committed to protect and enhance.

The Forth Estuary Forum co-ordinates organisations with interests in the ecological protection of the river mouth.

The further shoreline on the South side of the Forth, from which the Bridge is seen in elevation, is protected by inclusion of the Dalmeny and Hopetoun Estates in the Inventory of Gardens and Designed Landscapes. The North side is a projecting headland, so that the developments at Rosyth Dockyard and Dalgety Bay do not impact on the immediate setting of the Bridge, but benefit much from distant views of it. The height of the Bridge, and its neighbouring road bridge, ensures that they are landmarks even well inland. The Bridge is so awesome that developments in either town, or their hinterland, could not threaten its appearance or setting.

The Forth Bridge is unique in its scale and superlative in its application of novel technologies: steel was used here for the first time on a large-scale European construction project, thanks to the Anglo-French Siemens-Martin process. Also relevant is the consideration given to wind speeds and temperature changes, hydraulic power and the organisation of the construction effort as an exercise in site and man-management. The construction team was multi-national (eg Kaiche Watanabe of Japan and L Coiseau of Paris and Antwerp, sub-contractor for the caissons) and the experience garnered at the Forth Bridge was put to use around the world. The chief contractor, Sir William Arrol, went on to establish a world-wide practice. Gustav Eiffel was amongst the guests at the opening ceremony. The Forth Bridge therefore exerted great influence on civil engineering practice the world-over.



Longitude

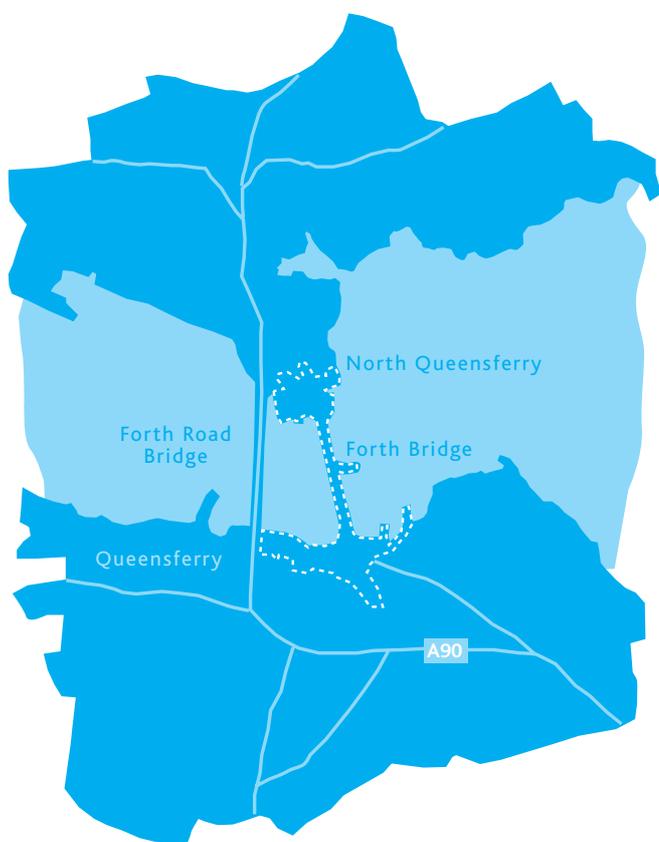
003°23'23"W

Latitude

56°00'04"N



Boundaries



The Bridge is unique in having passed into folklore; an unending task is often described as “like painting the Forth Bridge”. It has also been used for advertising purposes in countless forms. It is a true icon of Scotland.

The Forth Bridge is the archetypal symbol of the power of railways as a significant stage in human history. While it made journey times on the East Coast of Scotland a little shorter, it is the stupendous scale of the bridge that gives it, and the railways it symbolises, world cultural importance.

### Comparison with similar properties

The cantilever form of bridge is a concept that originated in China, and was tried over what were then considered long spans in Germany

(Hassfurt, 1867), Poland (Poznan, 1876), and the USA (Kentucky River 1876 and Niagara 1883). In 1889, Lansdowne Bridge in India nearly doubled the span of each of these, in a less than aesthetic manner, and for ten months held the record span for such a bridge until surpassed more than twice over by the Forth Bridge. These earlier bridges do not survive, but Connel Bridge, Scotland (1903) and Quebec Bridge, Canada (1907, completed 1917 after collapse at the hands of an engineer who had criticised the Forth Bridge as over-designed), still stand.

All are or were smaller than the Forth Bridge in terms of overall length, height and weight of material, although Quebec has a slightly longer single main span of 549 metres.

A distinguishing feature of the Forth Bridge when compared with the above is the greater size of the cantilever arms as compared to the relatively small suspended spans. Another is the small number of large tubular compressive members, and their arrangement in a Holbein's straddle (after Holbein's Portrait of Henry VIII of England). This avoids the confusion of spars found in the other bridges, and gives the impression of simplicity and solidity that was needed after the fall of the Tay Bridge on the same railway line.

Whereas most cantilever bridges are frankly ungainly, the Forth Bridge is supremely elegant. Fowler and Baker “studiously avoided any attempt at ornamentation” and yet had a view to aesthetic effect in approximating the lower chords to arched forms and in making all the elements of the structure comprehensible. In so doing they obtained both a masterpiece of human creative genius and a unique artistic achievement.

Name of Property:

## New Lanark

Geographical Location:

### South Lanarkshire, Scotland

#### Description

New Lanark has survived little changed from the period of the early Industrial Revolution in the late 18th and early 19th centuries. It comprises an outstanding natural and cultural ensemble, centred on a pioneering cotton-spinning village and surrounded by an incomparable natural and designed landscape, including the most important woodland complex in Central Scotland.

The village was founded in 1785 by the enterprising Glasgow banker, David Dale, as a new industrial settlement on the banks of the River Clyde. Built to exploit the water power offered by the Falls of Clyde, the mills were in operation from 1786 to 1968. Lying just 37 km south of Glasgow and 55 km west of Edinburgh, New Lanark has from its conception aroused, and capitalised upon, an international recognition born of its considerable architectural, technological and historic interest and the sublime majesty of its setting.

David Dale's son-in-law, Robert Owen, became manager in 1800 and under his enlightened management New Lanark was to achieve lasting international fame as a model community. Between 1800 and 1825, Owen set about improving and expanding the business, and he used the profits to finance a series of social and educational reforms to improve the quality of life for the workers. Owen believed environment to be the most important factor in the formation of human character, and that social co-operation should be the model for society rather than competition. His goal was the formation of a co-operative and harmonious

society, based on mutual dependency, supported by education and improved working conditions. These theories, widely disseminated and embodied at New Lanark, held a particularly broad appeal in the years of unrest following the Napoleonic Wars. Owen established progressive schools for the village children - including the first infant school in the world - and introduced free medical care, reduced working hours and a Village Store, which sold food and household goods at almost wholesale prices. The social and economic systems that Owen developed were considered radical in his own time but are now widely accepted in modern society.

The mill village is made up of industrial, residential and community buildings, dating predominantly from between 1786 and the 1820s. The mill buildings (originally with four 5-7 storey mills, now reduced to three) sit on the natural terrace to the east of the River Clyde in this deeply incised, wooded river valley. The complex is covered by near-blanket listing in recognition of the outstanding importance and physical form of its entirety. Elements of sophisticated early town planning are evidenced in the orchestration of the various components in the village, from the mill weir, its lade and tunnel to the south, to the channels and sluices leading off to the individual mills, the generous circulation spaces, gardens, tailored walks and viewing points realised from the start. Technology was always at the forefront in Owen's drive for efficiency and both the 3rd and 4th mills were designed to house Crompton's Mule (a new design, which improved on existing capabilities). The model housing was arranged to maximise density on the site, in its 3- and 4-storey blocks.

Owen's new Institution for the Formation of Character (1816) and the new school (1817) sit on ground which could otherwise have been given over to manufacturing.

In the wider landscape, four neighbouring estates (Bonnington, Braxfield, Corehouse and Castlebank) dictated the form of the harnessed parklands of the late 18th and early 19th centuries and ensured that the sublime natural phenomenon became a tourist attraction well punctuated by buildings, chained walkways and bridges. The extensive, dramatic scenery focused on the Falls of Clyde, the Corra Linn and Bonnington Linn waterfalls, and the series of lower waterfalls at Dundaff Linn. As early as 1708, the owners of the Bonnington estate built a mirrored view house to maximise their views of the Corra Linn. By the time Paul Sandby had sketched his views of the area in the late 1740s, the Falls of the Clyde were already part of a well-worn tourist trail for those in search of the sublime and picturesque. There followed a whole series of paintings by artists such as, Jacob Moore and J M W Turner, and the area was also visited by well-known writers and travellers such as William and Dorothy Wordsworth and Sir Walter Scott.

The natural landscape was romantically articulated by significant man-made additions, most of which are still extant, such as the artificially excavated Wallace's Cave, the Bonnington View House and Lady Mary's Walk.

The Site is in the care of the New Lanark Conservation Trust, set up in 1975 to restore

and preserve the historic village. The majority of the housing and mill buildings are now restored and in use. New Lanark continues as a thriving community where people, live, work and visit. Some 180 people live there on a permanent basis and the universal heritage value of the site is protected by a range of cultural and natural heritage designations.

### **Boundaries**

The proposed boundary follows that of the New Lanark Conservation Area. It safeguards the views from the village both up to the brow line of the gorge and up and down stream. It includes the upstream falls and takes in those parts of the designed landscapes which run up the steep riverbanks. The intention of the Conservation Area is to protect the sylvan setting of the village and its valley and the boundaries thus seek to protect the skyline of the valley too. As such, the Conservation Area effectively includes the necessary buffer zones, though further considerations will be given to whether even broader buffer zones may be justified.

### **Justification of Outstanding Universal Value**

Criteria met: Cultural Criteria (ii), (iv) and (vi)

### **Assurances of authenticity and integrity**

New Lanark has survived little changed from the period of the early Industrial Revolution in the late 18th to early 19th centuries. The village is authentic in design, material, workmanship and setting.

Visitors to the Falls of Clyde were welcomed at New Lanark and many of them recorded their experiences. Several prints from the early 19th century, when the fame of the place was at its height, attest to the small level of change experienced to date to the landscape, mills and institutional buildings.

The housing in the village dates from 1785-1800, and is the oldest multi-storied industrial housing in Britain, dictated in part by the steep slopes to which the tenements cling. While their form is recognisable to later Scottish city dwellers, they were a novelty to their first inhabitants. Reconstruction bringing them up to modern standards allowed preservation of original layouts (and in one case a box-bed) in some of the blocks.

New Lanark's Mill 1 had its share of fires and alterations over the years but retains in its narrow plan and projecting bays of Venetian Windows - the characteristics of Arkwright's system found also at Masson Mill, Cromford. The top two storeys had been removed in 1945 but were reinstated in 1996, thus restoring a key focal point at the end of the lade. Fortunately, detailed drawings made in 1945 could be relied upon to ensure that the restoration was not conjectural.

Mills 2 and 3 retain robust internal structures dating from the 1820s. Mill 2 was widened in 1902 in the same manner internally, but is clearly distinguished externally by the use of brick rather than stone.

Machinery appropriate to the earlier operation of the mill, adapted to wool rather than cotton for economic reasons, has been brought in from Selkirk in the Scottish Borders. i.e. the horizontal steam engine now in New Lanark's engine house is by the same maker as that which was originally installed there. The Boving (Sweden) turbine still works, as it has done since installation in 1931, and the tunnel and lade system is maintained accordingly.

The integrity of the site is protected by a range of nationally-based designations, including scheduling, listing, designation as a Conservation Area, proposed inclusion in the Inventory of Gardens and Designed Landscapes, and a range of natural heritage designations. Protection is further enhanced by a management plan for the Site. A Designed Management Landscape Study has recently been completed and will inform the integration of landscape strategies.

### Comparison with other similar properties

#### *Criteria (ii) and (iv)*

New Lanark combines a unique natural setting with an outstanding cultural heritage:

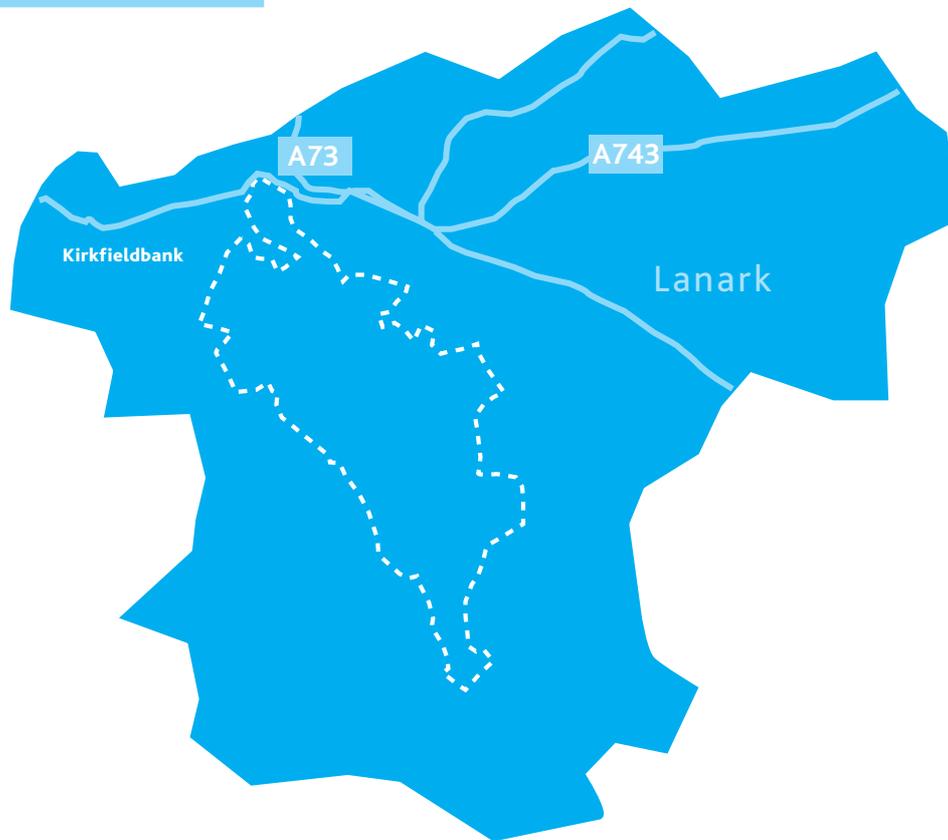
- The gorge in which it is located contains the greatest waterfalls in Britain.
- The mechanisation of cotton production led the Industrial Revolution in most countries, beginning with the UK. It therefore comprises a highly significant stage in human history. The cotton mills

at New Lanark at the turn of the 19th century formed the largest group of cotton mills in the world. Managing partners David Dale and Robert Owen were very receptive to visitors, and were unafraid of imitators.

- New Lanark needs to be seen in the context of Arkwright-type mills, the first true factory building type of the Industrial Revolution. The best preserved Arkwright-type mill anywhere is at Stanley, near Perth, and is now in the care of Historic Scotland. It forms a benchmark against which to set other mills, such as those at New Lanark and in the Derwent Valley, Derbyshire, England. At Stanley, the village is less well preserved, and is not visible from the mills.
- In Scotland the other large new settlements created to spin cotton are at Deanston, where surviving housing and mills date from the 19th and 20th centuries; and Catrine, where the mills are demolished. In England the principal groups are in Derbyshire: Cromford, Milford, Belper and Darley Abbey, which are collectively very important, but in less pristine settings as development did not stop. Styal Mill, Cheshire, is in an attractive wooded setting and retains the small community buildings that served it, but its scale is smaller.
- In 1787 there were 26 cotton mills on Arkwright principles in Scotland, 182 in England and Wales, 4 in France and 5 in Germany. Only a few of these have survived in any form. Those at New Lanark were much the largest (having 11,000 spindles each, whilst others had 1-4,000 at most).
- New Lanark also contributes to the development of modern, metal-framed architecture, forming an important interchange in developments in architecture and technology. By 1800 there were 4 mills at New Lanark: Mills 2 and 3 survive in a widened form, having fireproof iron-framed construction dating from the 1820s; Mill 3 incorporates iron roof trusses and a section of flagged floors on iron grids unique in Scotland. The arched brick construction springing from iron beams is a type then unique to the UK. There are thought to be around 40 iron-framed buildings extant in England, and four in Scotland, preceding the development in 1830 of theoretical formulae for beam design.
- Large water-powered mill complexes are the exception in Britain as steam power concentrated textile mills in urban districts. However, at the international level, New Lanark can be considered a precursor to the foundation of cities around waterfalls. Examples include Tampere, the second biggest city in Finland, which was founded by a Scot, who sited the country's first cotton mill at a waterfall there in 1828. Greater volumes of water offered potential for vast mill complexes at Lowell, Massachusetts USA (1819/1824), and Narva/Ivangorod (Estonia/Russia, 1820s onwards). Each in their own way owe something of their domestic, social and moral welfare provision, in the accompanying barracks and boarding houses, as well as the management of water to spin cotton, to New Lanark.

Longitude      Latitude  
 003°46'84"W    55°39'89"N

----- Boundaries



- In terms of town planning, it is the provision of facilities for a self-contained community that makes New Lanark stand out from the numerous other new improved settlements that were a phenomenon of the Scottish Enlightenment, many without economic success.
- The development of large, public hydro-electric power stations was pioneered in Britain on the Falls of Clyde, at two similar white concrete power stations at Bonington (1927) and Stonebyres (1928). The original Francis turbines still generate 11,000 kW and 5,500 kW respectively. These were succeeded a little later by the Galloway hydro scheme, but were only surpassed in the provision of public power by

developments in the North of Scotland after the Second World War. Hydro-electric power was not significant in England. The main comparable sites are therefore to be found in that period in Canada, USA and Scandinavia. The absence of dams on the Clyde is a distinguishing factor that has preserved the cultural and natural landscape. On a few days annually water is routed over the falls so that their full force may be appreciated.

#### *Criterion (vi)*

New Lanark is directly and tangibly associated with the Utopian Socialist ideas of Robert Owen, partner in the firm from 1799 to 1824. His book *A New View of Society* drew on his experience at New Lanark. The physical

evidence of New Lanark's role as test bed is shown by the presence today of his New Institute for the Formation of Character (1816) and School (1817). Published illustrations from the Owen period show the internal galleries extant today in these buildings.

Owen moved on to develop a Co-operative community at New Harmony, Indiana, USA. Inevitably, and lacking a manufacturing purpose, the project faltered and the community buildings surviving there are somewhat scattered amongst subsequent development. They do not possess the architectural and townscape coherence of their predecessors at New Lanark.

The Co-operative Movement also traces its origins to the principles behind the shop in New Buildings, albeit less directly than the link to the Rochdale Pioneers (whose shop stands out in a pedestrianised precinct).

Concepts of the sublime and picturesque, as a reaction to more formal aesthetic values, first developed in Britain. The greatest falls on any British River are those on the River Clyde, so, as already stated, they were a big draw to the topographic tourist of the day. The Bonnington View House is understood to be the oldest buildings in Scotland specifically sited for the enjoyment of nature. This, and several other garden houses, bridges, doocots and such like, have been noted in the Designed Landscape Management Study. There is no such concentration around other natural features in Scotland: only isolated pavilions at the Hermitage and Falls of Bruar in Perthshire.

These features all combine to make New Lanark unique in a world context.

Name of Property:

## Blaenavon Industrial Landscape

Geographical Location:

### Torfaen and Monmouthshire, Wales

#### Description

The area around Blaenavon in South Wales is one of the finest surviving examples in the world of a landscape created by coalmining and ironmaking in the late 18th and early 19th centuries. The parallel development of these industries was one of the key dynamic forces of the world's first Industrial Revolution, and South Wales was among its leading centres.

The exposed upland landscape of Blaenavon remained virtually unsettled before the 18th century and was used only for grazing and small scale iron ore mining. In 1788, three entrepreneurs from Staffordshire took a lease on a vast tract of mineral property here, and created a major new ironworks which confidently put into practice the latest industrial methods. Unlike most previous ironworks, Blaenavon was built with three blast furnaces from the beginning, and was blown from the start with steam power. It was immediately one of the largest ironworks in the world. A rapidly created industrial landscape grew up around it of extensive iron ore patches, coal mines, limestone quarries, iron forges, brickworks, tramroads, leats and reservoirs, and workers' houses, all controlled by the partners in the Blaenavon Ironworks.

Blaenavon Ironworks is one of the most complete ironworks of its type and period in the world, with remains of five blast furnaces of various evolutionary forms from the 1780s to the 1860s, a hot blast stove, cast houses, ore calcining kilns, coke ovens, a water-balance lift of 1839, a square of workers' housing, a drift mine, a foundry, rail yards, and remains of chimneys, mould drying kilns, a blowing engine house and other ancillary structures. The associated forges at Garn-Ddyrys, built

in 1816, have remains of water power systems, tramroads, and buried remains of furnaces and rolling mills. The relict mining landscape of Pwll Du, to the north of the town, contains some of the most impressive remains in Britain of primitive patching and scouring for iron ore, including extensive reservoirs and water courses, dams, and spoil heaps, ranging in date from the 16th to 19th centuries. The remains of larger coal and iron ore adits and shaft mines with their respective tips, tramroads and buildings overlay this landscape, inter-linked with an agrarian landscape of cottage sites and enclosures. Well preserved limestone quarries survive, at Tyla, Pwll Du, and the Blorenge in the north of the area, and there are quarries for building stone on Coity Mountain. Big Pit is recognised as the national coal mining museum for Wales. It preserves public access via the shaft sunk in 1860 to adit workings for coal and iron ore dating from the 1830s and later. Underground features include stables, workshops, and coal cutting and haulage machinery. The pithead has been preserved as it was when production ended in 1980, with the winding house, headframe, lamp room, pithead baths, smithies, sawmill, railway sidings and fan house.

The Blaenavon Industrial Landscape retains an important array of surviving transport features associated with the Ironworks. Routes of many early mineral trackways and tramroads can be traced throughout the area. The Hill's primitive tramroad railway is well preserved from north of the Ironworks to Llanfoist, and important surviving features of the route are the portals of the Pwll Du tunnel, impressive hillside formations at the Tumble, a water-balance lift at Pwll Du Quarry, and counter-balanced inclines down the Blorenge. The section of the Brecknock and Abergavenny Canal within

the area includes the important early iron warehouses and wharves at Llanfoist and Govilon cited in the ICOMOS list of International Canal Monuments. A section of the locomotive railway is maintained by a preservation trust. The role of the Iron Company in dictating settlement is visible in the locations of dispersed terraced housing at the Ironworks, and its mines, quarries and forges. Well preserved examples of the earliest houses survive at Stack Square, Blaenavon (1789-92) and at Forge Row, Cwmavon (1804-6). The town centre which evolved during the 1840s and 1850s remains largely intact, with shops, chapels, and terraced housing. The church built by the Company in 1804 retains iron columns, windows, font and tombstones. The works school of 1816 is a remarkable, early example of industrial educational provision. A large workmen's institute of 1894 is an impressive testimony to the later 19th century desire for social improvement in industrial communities.

### **Boundaries**

The boundaries of the proposed Site represent the full extent of the historic landscape associated with Blaenavon Ironworks. This is defined principally by the boundaries of land historically leased or purchased to provide the minerals, energy and infrastructure for the Ironworks, and by additional land used in direct association with the Ironworks or its communities. The boundary has been modified where appropriate to conform to identifiable landscape features or to exclude areas of land which have suffered loss of authentic features or were not utilised by the Ironworks. This fulfils the boundary criteria for a cultural landscape to be included on the World Heritage List, that its extent should be relative to functionality and intelligibility, and the sample should be large enough to represent

the totality of the cultural landscape that it illustrates. As this is a large landscape in which all main features can be viewed in context, no additional buffer zones are proposed.

The leasehold and freehold boundaries of the Ironworks proprietors are followed on the east of the site from Cwmavon to the Bloreng, with the addition of a narrow incursion at Carn-y-gorfydd. At the north-east the site extends to the Brecknock and Abergavenny Canal, on which the Ironworks leased two wharves for the transport of its goods, at Llanfoist and Govilon. The northern boundary follows the old road from Llanellen to Govilon, then the road from Govilon across Cwm Llanwenarth to meet the northern extent of land leased by the company at Gilwern Hill. At the west the boundary continues southwards following the historic lease boundary, then an access road to exclude Ryan's tip, which has been subject to recent re-working. From here, the boundary follows the track past the Whistle Inn which was traditionally regarded as the normal working limits of the Blaenavon enterprise. At the south-west, the boundary is the ridge-top of Coity Mountain, beyond which land leased by the company was not exploited for Blaenavon Ironworks.

### **Justification of Outstanding Universal Value**

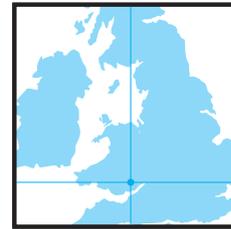
**Criteria met:** Cultural Criteria (ii), (iii), (iv) and (v); cultural landscapes category (ii)

### **Assurances of authenticity or integrity**

Blaenavon fulfils all the criteria for authenticity in relation to World Heritage Sites set out in the declaration of the conference at Nara, Japan, in 1994. The landscape represents powerfully a particular stage of human development, the large-scale industrialisation of the late 18th

Longitude      Latitude  
 003°05'23"W    51°46'45"N

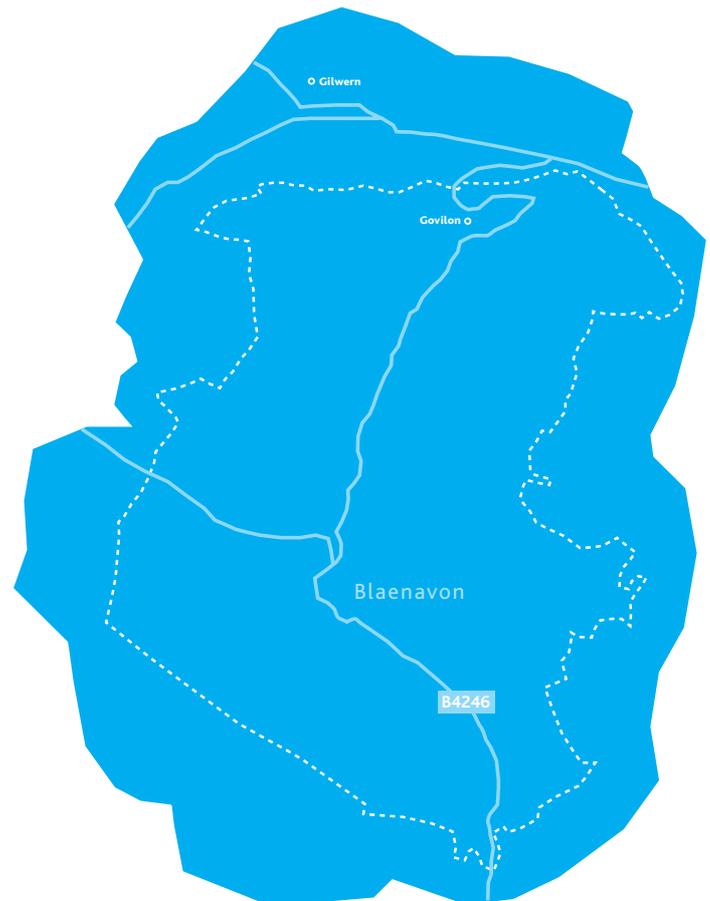
----- Boundaries



century and early 19th century, the human achievements and sufferings of that period, and the cultural values which were developed as communities evolved. All of the key components within the landscape benefit from statutory protection as Scheduled Ancient Monuments, Listed Buildings or Conservation Areas, and the area as a whole is protected by specific planning policies. Nearly half the site lies within the Brecon Beacons National Park. Blaenavon Ironworks has been in State care since 1975 and is subject to an ongoing programme of conservation to the highest standards. Big Pit has been managed by a museum trust since 1980.

### Comparison with other similar properties

In 1994 Blaenavon was one of 27 industrial archaeological sites recommended to the World Heritage Committee by the experts on the board of TICCIH. South Wales was one of the world's principal iron producing regions in the late 18th and early 19th centuries, as a result of the development of advanced ironworks built in previously uninhabited upland areas rich in minerals. Of over 70 ironworks built in South Wales in this period, Blaenavon is the most complete and the most effectively conserved and interpreted. The surrounding landscape is unparalleled in its evidence of the production of all the raw materials of iron making. Big Pit is one of the most complete and typical preserved collieries in Britain. Only three existing World Heritage Sites relate to historical ironmaking: the Ironbridge Gorge, Engelsberg and Völklingen. Each of these sites demonstrates a complementary aspect of the industry's development, and Blaenavon is distinctive in its period of development, forms of technology, and cultural traditions. The Blaenavon Industrial Landscape presents a large number of individual monuments of outstanding value within the context of a rich and continuous



relict landscape, powerfully evocative of the Industrial Revolution. It is one of the prime areas in the world where the full social, economic and technological process of industrialisation through iron and coal production can be studied and understood.

Name of Property:

# Pont-Cysyllte Aqueduct

Geographical Location:

## Denbighshire, Wales

### Description

Pont-Cysyllte Aqueduct is one of the world's most renowned and spectacular achievements of waterways engineering. Built as part of the improvement of transport to provide the arteries of industrialisation, the structure was a pioneer of cast iron construction and was the highest canal aqueduct ever built. As such, it is one of the heroic monuments which symbolise the world's first Industrial Revolution and its transformation of technology.

The aqueduct was built between 1795 and 1805 to carry the Ellesmere Canal over the Dee valley in North Wales. The approaching levels of the canal on either side required a crossing at 38m above the River Dee. An earlier plan to carry the canal lower by incorporating locks on either side of the valley was rejected as impractical in its water consumption, and the decision was taken to build an aqueduct of unprecedented height. The resident surveyor responsible was Thomas Telford, working under William Jessop, the most prolific canal engineer of the period.

The height necessitated the introduction of novel methods to replace the heavy construction of earlier aqueducts which had double skins of masonry and puddled clay fill. The spans were instead made of cast-iron plates bolted together into a trough, with cast-iron arch ribs supporting them from beneath. Altogether, 19 spans were built, comprising an overall length of 313m. The towpath was supported on iron braces above the 3.6m wide trough, allowing water to move freely as boats passed. All the iron members for the aqueduct were cast by William Hazledine, one of the leading iron founders of the Industrial

Revolution, at the nearby Plas Kynaston Ironworks, established in order to carry out the contract. The tapering masonry piers were built hollow in their upper sections to reduce their weight.

The embankment to the south is itself one of the largest canal earthworks ever constructed. Three original over-bridges, to the north and south of the aqueduct, are important examples of the composite use of cast-iron and masonry, having shallow segmental masonry arches supported by curved cast-iron ribs. To the north of the aqueduct lies Trevor Basin, where the navigable water feeder from Llangollen meets the terminus of the main line of the Ellesmere Canal as completed. The terminal basin contains a wharf for primitive railways from adjacent coal mines and the Plas Kynaston Ironworks, and there are ancillary buildings including two dry docks, a canal hotel, a former warehouse, and a lengthsman's house.

### Boundaries

The Site is defined as a continuous section of the original Ellesmere Canal extending for 1.5km with the aqueduct near its centre. The linear extent of the Site is from the top of the terminal basin at the north to the canal at the village of Froncysyllte in the south, with a further stretch of the Llangollen water feeder as far as the first over-bridge to the west. The Site is bounded by the historical land boundaries of the Ellesmere Canal. These consist of fences along the foot of the embankments at both ends of the aqueduct, walls and fences around the boatyard terminal basin to the north, and fences and hedges on either side of the canal.

Longitude	Latitude
003°10'22"W	52°57'62"N
----- Boundaries	



## Justification of Outstanding Universal Value

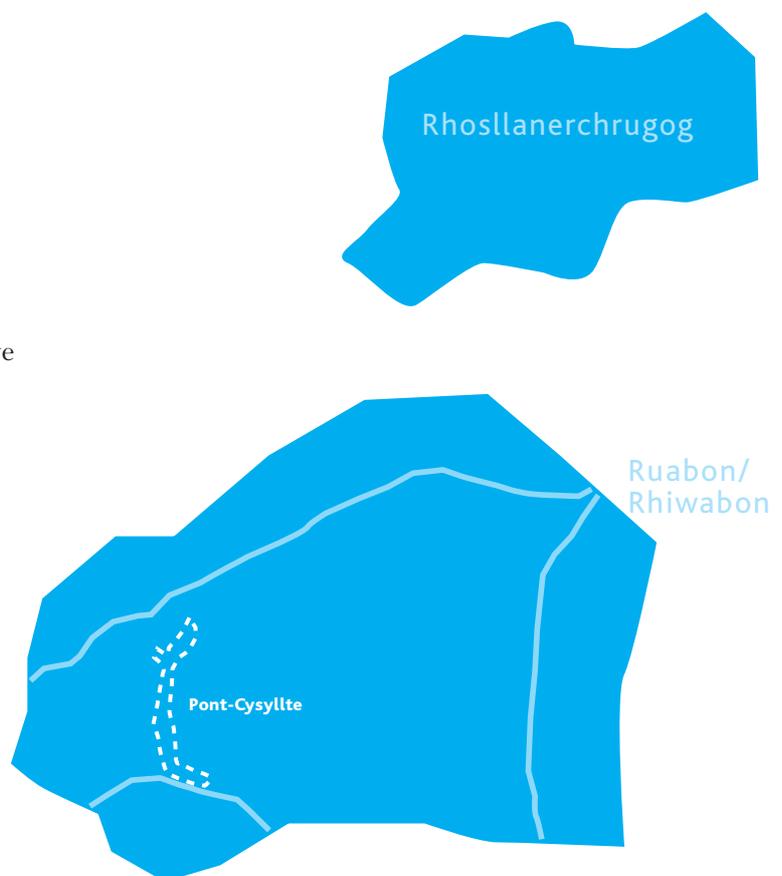
Criteria met: Cultural Criteria (i), (ii) and (iv)

### Assurances of authenticity or integrity

Pont-Cysyllte Aqueduct has benefitted from statutory protection as a Scheduled Ancient Monument since 1958 and is in the care of The British Waterways Board. It is also a Grade I Listed Building. The aqueduct and Trevor Basin form a Conservation Area. The entire fabric of the structure is as originally built, with the exception only of the towpath deck, which has been replaced. The embankments are wooded but unaltered in form. The canal over-bridges are as originally built. Ancillary buildings which are in use have been continuously adapted, but most retain their original form. The primitive railway wharves are believed to be archaeologically intact.

### Comparison with other similar properties

The TICCIH/ICOMOS International Canal Monuments List identified Pont-Cysyllte Aqueduct as one of the key waterways monuments in the world for potential inscription as a World Heritage Site. Pont-Cysyllte was the world's third iron aqueduct to be completed, but its daring and elegance made it by far the most influential. It became a symbol of technological ingenuity and contributed to the widespread acceptance of cast iron as a structural material. The project brought together an outstanding construction team which was used by Telford subsequently on other important engineering projects such as the Caledonian Canal in Scotland, and the Menai Suspension Bridge in North Wales.



Name of Property:

# Mount Stewart Gardens

Geographical Location:

## Co Down, Northern Ireland

### Description

Mount Stewart is one of the most spectacular and idiosyncratic gardens of Western Europe and universally renowned for the 'extraordinary scope of its plant collections and the originality of its features, which give it world-class status'. It was created within an old demesne on the shores of Strangford Lough, whose fine parkland trees and shelter belts were established for the 1782-83 house. A celebrated garden building, the Temple of the Winds, was added to the parkland in 1782-83 and the house was enlarged to designs of Dance in 1804, and by Morrison in the 1830s.

The main focus of the nominated area, the gardens, occupies about 80 acres to the north and west of the house. They were begun in 1921 by Edith, Lady Londonderry, and work was greatly aided by the ample labour force available after World War I. Much advice was forthcoming from such eminent plantmen as Sir John Ross and Gertrude Jekyll. The staggering range of plants she used came from nurseries throughout the British Empire and an olive was brought from the Garden of Gethsemene. Taking advantage of Mount Stewart's equable climate, Lady Londonderry sought to acquire as many rare and tender plants as possible, especially southern hemisphere species, to create a garden of extraordinary diverse design, held together by a web of family and historical imagery.

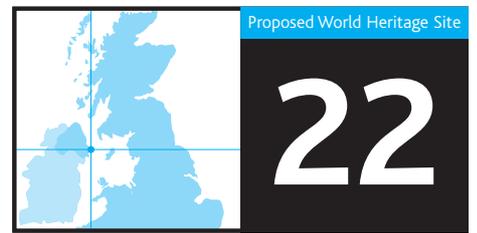
The gardens comprise both formal and informal areas, each with its own style and atmosphere. The formal gardens surrounding the house include the Sunk Garden, designed by Gertrude Jekyll, the Italian garden, based on a parterre at Dunrobin Castle, the Maiori Garden, which is a blue and white creation and the Dodo Terrace, whose statuary of creatures adds a touch of humour in that the beasts represent family

friends and political figures who belonged to the Ark Club during World War I. The Spanish Garden is noted for its loggia on axis with the house and its arches of Monterey cypress, while the Shamrock Garden incorporates much topiary.

Further afield, paths wind through shrub and woodland all elegantly and cleverly planted with an outstanding variety of materials. These include such areas as the Rhododendrum Wood (grown from seeds brought from Burma in the 1930s), the Lady's Walk, the Jubilee Avenue and the Memorial Glade. A focal point of the informal grounds is the lake, dug in the 1840s, whose perimeter was richly planted by Lady Londonderry with great masses of colourful flowering trees and shrubs. Above, on a hill facing south, stands the family burial ground, Tir Nan Og, which offers glorious views of the garden and Strangford Lough beyond.

Edith, Lady Londonderry, died in 1959, having given the gardens (in 1955) to the National Trust, which has continued to maintain them in splendid order. In 1976 the house was also acquired by the Trust, together with much of its splendid furnishings for which it is also famous. This includes the magnificent Stubbs masterpiece 'Hambletonian', perhaps the most important picture in any Irish country house. The house is also noted for its great central hall and dining room, the latter containing the chairs used by delegates to the Congress of Vienna in 1815.

Also included within the nominated site is the Temple of the Winds, which is located on a hilltop south of the house, commanding fabulous views of Strangford Lough and the Mourne Mountains beyond. Generally recognised as one of the finest Greek-revival



<b>Longitude</b>	<b>Latitude</b>
05°35'59"W	54°33'08"N
----- Boundaries	

buildings of the late 18th century, it is an octagonal banqueting house and belvedere, designed by James Athenian Stuart in 1782-83 and based on the Tower of the Winds in Athens.

**Boundaries**

The Site comprises the main garden, including McComb’s Hill, Rose Hill, Broadley’s Wood, Clark’s Hill, Mount Stewart House, Kiln House and Temple Hill. The ‘buffer zone’ comprises the wider parkland, including the Sea Plantation on the shore of Strangford Lough.

**Justification of Outstanding Universal Value**

Criteria met: Cultural Criteria (ii) and (iv)

**Assurance of authenticity or integrity**

The gardens were begun in 1921, within an 18th century traditional Irish walled demesne, and have been continuously maintained. They contain 5-6,000 species, many of them rare and mature. The gardens are highly designed and planned throughout, set out in thematic compartments and incorporating architecture,

landscaping, statuary, settings and vistas. Surveys and archives of the gardens are of good quality. Mount Stewart gardens are renowned for the ‘extraordinary scope of its plant collections and the originality of its features, which give it world-class status’ (John Sales). The site has been revered and maintained by the National Trust since 1955.

**Comparisons with other similar properties**

Great gardens are often the achievement of one outstanding creator and none is more so than Mount Stewart. It stands as a unique achievement, against which comparisons are difficult. Most of the best 20th century Irish gardens, such as at Mount Ussher, Co. Wicklow, are informal and difficult to maintain. In its formal aspects Mount Stewart gardens may be compared to Hidcote Manor, Gloucestershire, or Sissinghurst Castle, Kent. With its combination of informal and formal features, the qualities of Mount Stewart exceed such properties. The gardens are ‘generally acknowledged as one of the greatest gardens in western Europe’ with its Temple of the Winds lauded as ‘Ulster’s finest garden building’ (Reeves Smyth).

Name of Property:

# Fountain Cavern, Anguilla

Geographical Location:

## West Indies

### Description

The Fountain Cavern is one of 19 Indian sites identified by an archaeological survey in 1979. Of the 19 sites, following extensive scientific studies, the Fountain Cavern is considered to be the most important archaeological site on the island. The historical significance of the site to Anguilla and the region has led to the decision by the Government of Anguilla to develop a National Park with the Fountain Cavern as the focus. The other 18 sites will also form part of educational tours which centre around the National Park in order to provide a comprehensive overview of Amerindian culture in Anguilla and the region.

The Fountain National Park comprises 14.46 acres of land located in the north east of the island on the western side of Shoal Bay.

The Fountain Cavern is a large limestone cavern located on a ridge at about 70ft above sea level. Anguillians have known the Fountain Cavern for many years and many can recall climbing down the roots of the tree at the entrance of the cave. However, it was not until the late 1960s that it was recognised as an archaeological site. The site contains Amerindian petro-glyphs. An Indian midden was also found at the site.

Archaeologists who have visited the site have indicated that it is one of substantive regional importance.

### Justification of Outstanding Universal Value

Criteria met: Cultural Criteria (i), (ii) and (iii)

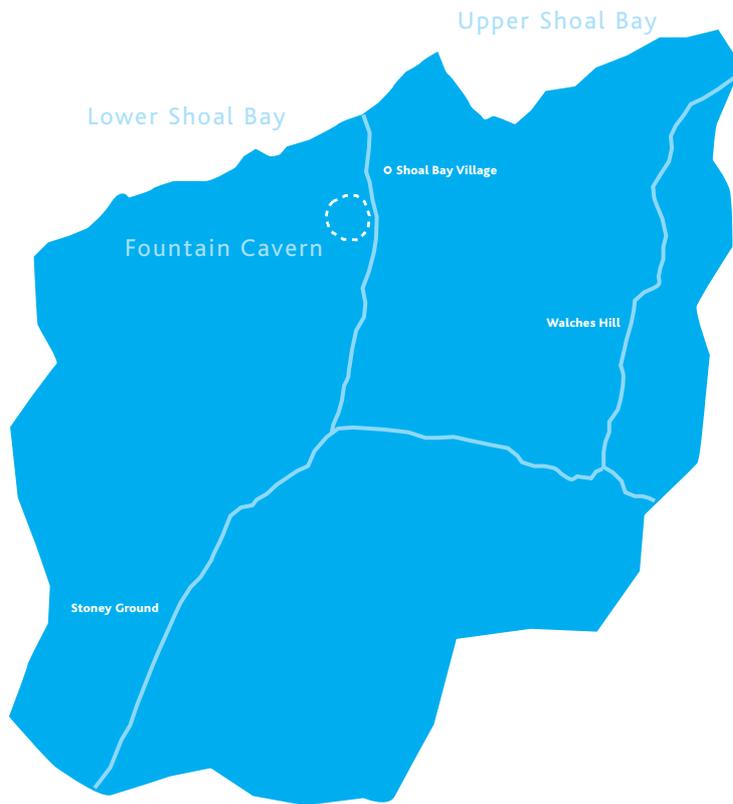
#### Assurance of authenticity or integrity

The Fountain Cavern is the most important of many aboriginal sites revealed by a preliminary study carried out in 1979 by Island Resources Foundation of the US Virgin Islands. The Fountain Cavern is described by the Foundation as a major underground discovery, which indicated that the cave was visited more than 1,000 years ago.

There is considerable documentation on the Fountain Cavern by reputable organisations and individuals. Among the findings is a petro-glyph of a human figure representing Yocabu, the supreme god in the Arawak pantheon. Experts point out the importance of the find, which is one of only two representations of the god known throughout the Antilles.

A report on the Archaeology of the Fountain Cavern by David R. Watters noted that the Site has three strengths, which form the foundation for its development. These are:

- (i) the well preserved petro-glyphs;
- (ii) the ceremonial centre theme;
- (iii) making use of the known Amerindian myths and legends of caves.



Longitude	Latitude
63°01'58"W	18°14'48"N
----- Boundaries	

Dr Watters also points out that the Fountain Cavern with its well-preserved petro-glyphs has the potential to become “a very important facility for interpreting the culture of the Amerindian peoples of the Caribbean”.

### Comparison with other similar sites

Experts who have studied the Site have mentioned similar sites in St. Martin and Guadeloupe. Henri Pettijean in his article “The petro-glyphs of Fountain Cavern: Of What Interest”, states that Guadeloupe is developing a project for the creation of a West Indian petro-glyph museum in Marie-Galante. He went on to say that the Fountain Cavern Project fits perfectly into those projects envisioned for the commemoration of the 500th anniversary of the discovery of the Americas.

The Site has similarities to Harrison’s Cave in Barbados which was studied by the National Speleological Foundation. The same foundation was requested to carry out a similar study for the Fountain Cavern following a visit to Harrison’s Cave by representatives of the Government of Anguilla.

All agree that the Fountain Cavern is an unusual archaeological site worth preserving and protecting so that visitors can experience the culture and natural history of Anguilla.

Name of Property:

## The Historic Town of St. George and Related Fortifications

Geographical Location:

### St. George, Bermuda

#### Description

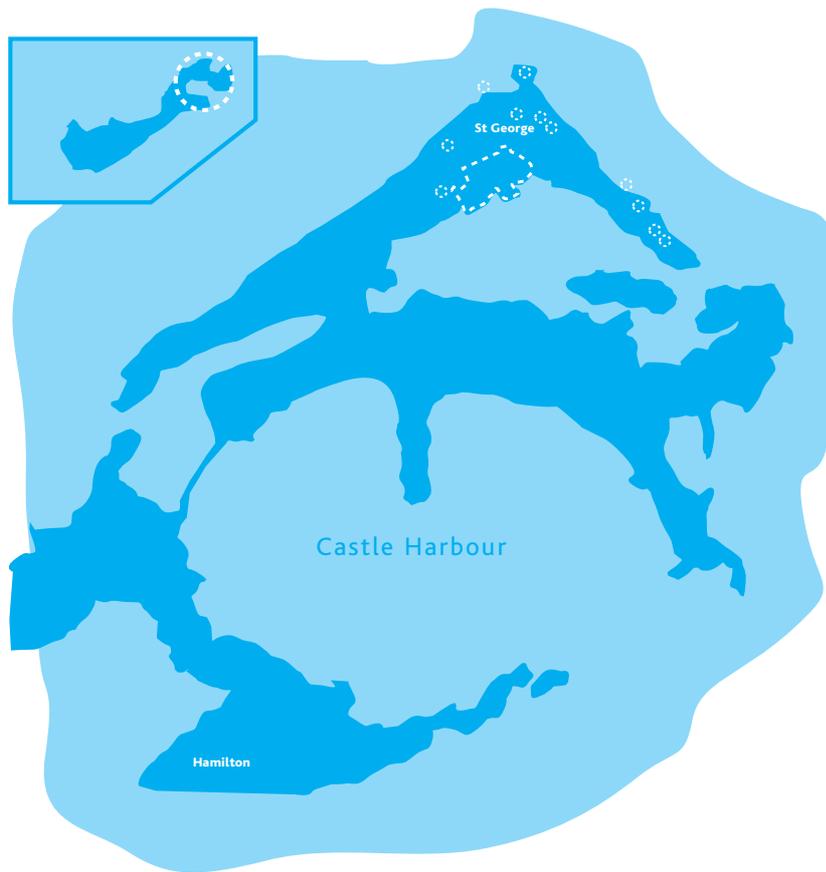
Founded in 1612, the town of St. George has the distinction of being the oldest inhabited English settlement and the second permanent town founded by English colonists in the New World. Jamestown, Virginia was the first. After nearly 400 years of continuous occupation St. George remains a “living town”. Since its founding the town has changed with the times, thriving and expanding in periods of prosperity and languishing in times of want. St. George has played many roles in its long history from colonial capital, to commercial centre, military and naval base. The St. George of today resembles a patchwork quilt of buildings, streets, parks, squares, and monuments reflecting its long and varied past and the changing role it has played in Bermuda’s history.

Bermuda’s colonisation and the beginning of St. George’s history are one and the same. Even before the arrival of the first permanent settlers, St. George’s Island was the temporary home of Sir George Somers, Sir Thomas Gates and other survivors of the *Sea Venture*, wrecked off St. Catherine’s Bay in July 1609. The permanent settlement of St. George began in August 1612 with the arrival of *the Plough* carrying Governor Richard Moore, who founded St. George, a minister and 60 settlers. It was Moore who initiated the building of several forts to guard the entrances to St. George and to Castle Harbour.

However, it was Governor Nathaniel Butler (1619-1622) who was the principal architect of the defensive fortifications on Castle Island, and who built the State House and a timber framed church on the site of St. Peter’s Church. It was during this period that a number of blacks and Indians were brought to Bermuda, who today represent the majority of the population in a multi-racial society. The Somers Island Company administered Bermuda from St. George from 1615 until dissolution in 1684 when the Crown assumed responsibility.

During the American Revolution (1776-1783) St. George was a hive of activity generated by military development and presence. The local economy boomed and St. George was to remain a strategic military location for over two centuries until the United States Naval Base closed in 1995. Although the rival town of Hamilton was created in 1793 and the capital of Bermuda moved there in 1815, St. George continued to prosper. The town became home to a considerable free black community prior to Emancipation in 1834.

By far the most prosperous and turbulent period of the town’s history occurred during the four years of the American Civil War. St. George merchants made fortunes trading with the ports of the Confederate Southern States. St. George’s rich history is reflected in a range of historic buildings and military fortifications, which stand today as testament to nearly 400 years of Bermuda’s history.



Longitude	Latitude
64°40'40"W	32°22'50"N

----- Boundaries

Principal buildings are the State House (1620), St. Peter's Church (original site 1612) built 1713, Tucker House (circa 1750), the Globe Hotel (circa 1700), the Old Rectory (1705) and the forts surrounding the town.

The juridical responsibility for the care and preservation of St. George rests with the Corporation, the Bermuda Government, the St. George Preservation Authority, and the Bermuda National Trust, not forgetting other volunteer bodies and individual home and property owners. The Corporation of St. George's has invested heavily in the last few years to maintain St. George reputation as a model Colonial town of the 17th century and beyond.

### Boundaries

The historic town of St. George is situated on the south-eastern side of St. George's Island overlooking St. George's Harbour and St. David's, Smith's, and Paget Islands. The principal roads are Duke of York Street and Water Street, which lead to King's Square and Ordnance Island, the centre of activity. St. Peter's Church is situated on the northern side of Duke of York Street, and roads in the immediate vicinity bear such unusual names as Featherbed Alley, Aunt Peggy's Lane, Needle and Thread Alley and Old Maid's Lane. Several of the fortifications in the parish of St. George are in or near the town. Others are further afield at Ferry Reach, Paget Island, and Castle Island in Castle Harbour.

## Justification of Outstanding Universal Value

Criteria met: Cultural Criterion (iv)

### Assurance of authenticity or integrity

The oldest inhabited English settlement in the New World, which has retained its image and physical structure for nearly 400 years. The local authorities and preservation groups have recognised St. George's unique status and have carefully renovated, rebuilt and restored this colonial town. It is a living and working memorial reflecting Britain's colonial past, its 17th century explorers and settlers and their legacy of buildings of architectural significance.

The Bermuda Government Archives is the depository of the historical records tracing the history of the development of St. George's. Legislation protecting the integrity of the town is covered by the Town of St. George (Protection of Buildings of Special Interest) Act 1950 and the Development and Planning Act 1974. Sections 30 and 31 of the latter Act give power to "list buildings" and designate "historic areas".

The 1950 Act established the St. George's Preservation Authority, which meets monthly. The Authority issues "Protection Orders" and has the power to refuse any proposed development in its area. The 1974 Act gives the Minister of the Environment power to designate "Historic Areas" which was done in the 1992 Bermuda Plan. 16 forts are protected by the historic area designation in St. George's Parish. In 1998 the Minister announced 791 buildings around the island would be listed of which approximately 150 are in the "Olde Towne". Another 72 in the Parish.

### Comparison with other similar properties

St. George is unique to Bermuda and the World as a colonial town reflective of Britain's expansion into the New World in the 1600s. Comparisons cannot be made in Bermuda as the capital Hamilton is now a modern city dominated by office blocks but still retaining many historic buildings. Jamestown, Virginia would be the only comparable site.

Name of Property:

# The Fortress of Gibraltar

Geographical Location:

## Gibraltar

### Description

The Rock of Gibraltar is one of the world's unique examples of a natural beacon and fortress which has been the focus, because of its geological and strategic position, of the attention of humans since the early days of prehistory. The Rock has long been the symbol of strength and stability and its singular geological makeup has permitted its use and defence by successive cultures. The Rock of Gibraltar, 6 kilometres long by 1 kilometre wide, has one of the highest densities of universal heritage in the world and for this reason it is the entire peninsula, the natural fortress, which is included in the proposed World Heritage Site.

The Site's focus is one in which the natural resources and geological position of the Rock are seen as forming the basis for its continued occupation by humans since the Middle Palaeolithic and in which the natural defences, complemented by a unique system of walls, bastions and tunnels, together form the Fortress of Gibraltar. The Site may therefore be summarised as follows:

- A massive block of Jurassic limestone rising to 426 metres above sea level creating a spectacular scenery and a unique coastal cliff vegetation which includes several endemic species. Its northern and eastern walls have provided the basis of its successful defence, having endured a total of fourteen sieges in its history. Within this karstic block, a large part of which is a natural reserve, over 140 caves have been listed and these include Gorham's Cave which has a 17 metre deep stratigraphy with occupation commencing 100,000 years ago and ending with a
- Carthaginian shrine in the 3rd century BC. This site, which is the subject of an international research project, has revealed Neanderthal occupation 31,000 years ago making it one of the last sites in which these hominids survived in the world. The entire cave system, which includes five Neanderthal and at least ten Neolithic sites, is included in the nomination.
- The medieval Islamic fortifications and buildings of the 14th century which include the Tower of Homage and southern flank walls of the Castle and Baths which are situated in the Gibraltar Museum complex. Two recently excavated sites are also included. The extant section of the 50 metre long Galley House which is the only remaining one of its kind and the remnants of the western wall of the Great Mosque of the same period. To this are added a series of 15th century Spanish fortifications, including the Wall of Charles V, which divides the peninsula from east to west, and the North and South Bastions.
- The line of defences and fortifications which encircle the western flank of Gibraltar and which, together with the limestone cliffs, formed the basis of the defence of the Rock in the 18th and 19th centuries. These defences include the King's Bastion which defended Gibraltar during the attack of the floating batteries in 1782 and which includes 18th, 19th and 20th century features, and a number of coastal defences including the recently restored Parson's Lodge Battery. To these defences are added the complex network of tunnels inside the Rock, including the Galleries which were

excavated during the 18th century for the defence of the Rock during the Great Siege of 1779–83, and the World War II tunnels which include power stations, hospitals and the brigade headquarters used by Eisenhower for “Operation Torch”- the North African landings.

- The dockyard which was built between 1894 and 1906 as part of the Royal Navy’s Mediterranean strategy and which complemented Malta for much of the first half of the 20th century. To this are added earlier naval facilities such as the well-preserved 18th century Victualling Yard and Rosia Harbour where Nelson’s body was brought after Trafalgar in 1805. The Trafalgar Cemetery and the former Admiral’s residence and grounds known as The Mount also form part of this naval heritage.
- A series of houses and civic buildings which have been built since the 15th century. These include places of worship, such as the King’s Chapel and the Convent (now the Governor’s Residence) which were built by Franciscans, The Shrine of Our Lady of Europe on the site of a medieval site of pilgrimage, and the Cathedral of St Mary the Crowned, a gothic 16th century building on the site of the Great Mosque. The 18th century Garrison Library, a number of Georgian houses, the City Hall (a 19th century mansion) and the Exchange and Commercial Library (now the House of Assembly) are among the outstanding buildings included in the proposed World Heritage Site.

## **Boundaries**

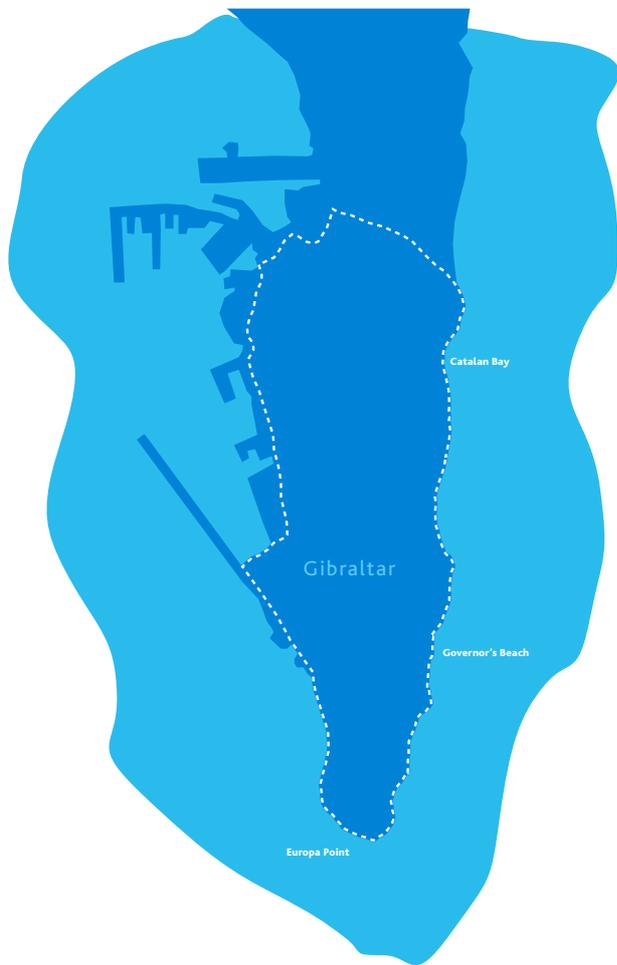
The boundaries of the proposed Site are delineated as follows. The north is delimited by the towering cliffs of Gibraltar, popularly known as the North Face. The eastern boundary is the coastline of the peninsula, backed by cliffs. The boundary starts in the north close to the old Genoese fishing village of Catalan Bay and extends south to the apex of the peninsula at Europa Point. From Europa Point northwards the Site’s western boundaries follow the coast up to and including the dry docks and then follows a straight line eastwards to South Jumper’s Bastion. From there northwards it follows the western defensive walls to the North Face.

## **Justification of Outstanding Universal Value**

**Criteria met:** Cultural Criteria (i), (ii), (iii) and (iv)

## **Assurances of authenticity or integrity**

The geological features of Gibraltar have been well documented and known since the 18th century. The study of its caves is currently the subject of a strict survey. The archaeological and palaeontological sites are part of an international research project. The Neanderthal skull found in 1848 pre-dated the Neander Valley discovery by 8 years and a second, well-documented, specimen was found at Devil’s Tower in 1926. Current research was summarised at an international conference held in Gibraltar in August 1998 in which the world’s leading specialists put the great importance of Gibraltar in focus. The Phoenician and Carthaginian Shrine at this site was partly excavated in the 1950s and is currently the subject of further research. It was used between the 9th and 3rd centuries BC. The medieval sites have been known for a considerable time and have been ascribed by historical



Longitude	Latitude
05°20'47"W	36°08'07"N
----- Boundaries	

documentation to the Merinid Dynasty. Recent urban archaeological excavations have confirmed this view and added periods of Nasrid influence. Together they form the most important Merinid complex remaining anywhere. The 18th to 20th century fortifications, dockyard and associated facilities are a significant element within the broader theme of Britain's global influence. There is a large body of archival documentation concerning the construction of the defences of Gibraltar from the 16th century onwards; this can be found in the Gibraltar Archives and the Gibraltar Museum, as well as in the Public Record Office and elsewhere. The archaeological evidence in the Gibraltar Museum and the archival documentation in the Gibraltar Government Archives form a substantial part of the material culture included in the proposed World Heritage Site.

The sites listed are protected and improved legislation is currently in preparation. Several of these sites have been open to the public as tourist heritage sites for many years, in the case

of the medieval baths as far back as 1930. As part of the development of the heritage product of Gibraltar a number of fresh schemes are currently under way.

### Comparison with other similar properties

The uniqueness of the heritage complex that is Gibraltar makes any direct comparison with other sites very difficult. The prehistoric sites are unique and, in the Iberian Peninsula, no comparable sites exist. The closest to the stratigraphical sequences found in Gorham's Cave would probably be found in some of the caves in Israel (eg Tabun, Skhul, Qafzeh). Geologically, the Rock is an island of Jurassic limestone formed by the separation of a microplate 60 million years ago. It overrides younger, Eocene, formations in the hinterland. The fortifications, showing a transition from Muslim to Spanish to British are unique and without parallel. Similarities of particular elements might be found (eg in Malta) but the entire complex is unique.

# Extracts from UNESCO's operational guidelines for the implementation of the World Heritage Convention (March 1999)

## Criteria for the inclusion of cultural properties in the World Heritage List

The criteria for the inclusion of cultural properties in the World Heritage List should always be seen in relation to one another and should be considered in the context of the definition set out in Article 1 of the Convention which is reproduced below:

*“monuments:* architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;

*groups of buildings:* groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;

*sites:* works of man or the combined works of nature and of man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological points of view.”

A monument, group of buildings or site - as defined above - which is nominated for inclusion in the World Heritage List will be considered to be of outstanding universal value for the purpose of the Convention when the Committee finds that it meets one or more of the following criteria and the test of authenticity. Each property nominated should therefore:

- (i) represent a masterpiece of human creative genius; or
- (ii) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design; or
- (iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared; or
- (iv) be an outstanding example of a type of building or architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history; or
- (v) be an outstanding example of a traditional human settlement or land-use which is representative of a culture (or cultures), especially when it has become vulnerable under the impact of irreversible change; or
- (vi) be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance (the Committee considers that this criterion should justify inclusion in the List only in exceptional circumstances and in conjunction with other criteria cultural or natural).

## Criteria for the inclusion of natural properties in the World Heritage List

In accordance with Article 2 of the Convention, the following is considered as “natural heritage”:

“*natural features* consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;

*geological and physiographical formations* and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation;

*natural sites* or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.”

A natural heritage property - as defined above - which is submitted for inclusion in the World Heritage List will be considered to be of outstanding universal value for the purposes of the Convention when the Committee finds that it meets one or more of the following criteria and fulfils the conditions of integrity set out below. Sites nominated should therefore:

- (i) be outstanding examples representing major stages of earth’s history, including the record of life, significant on-going geological processes in the development of land forms, or significant geomorphic or physiographic features; or
- (ii) be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals; or
- (iii) contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance; or
- (iv) contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.