



'Exploring in Darwin's Footsteps' event in May 2005



Children re-enacting Darwin's experiment on competition between species

Section 5

Management Issues

1. The vision for the management of the nominated Property is through maintenance of its Outstanding Universal Value to protect, conserve, enhance and promote sustainably the inspirational landscape important to Charles Darwin's scientific ideas on the understanding of the natural world and humankind's role through maintenance of its Outstanding Universal Value.

2. The following section identifies the management issues and addresses how the vision is supported, through a development of common principles, awareness of opportunities and challenges and analysis of key management issues. Section 6 develops these issues into a comprehensive set of management aims and objectives which address the threats and challenges identified in Section 5, whose implementation is itemised in Section 7.

5.a Basis of the Management Plan

3. The Management Plan follows the requirements of the Operational Guidelines for the Implementation of the World Heritage Convention (World Heritage Centre, 2008). It also takes into account the principles of the Budapest Declaration on World Heritage (World Heritage Committee, 2002). This states that in the view of the increasing challenges to our shared heritage, the World Heritage Committee will:

- Seek to ensure an appropriate and equitable balance between conservation, sustainability and development so that World Heritage properties can be protected through appropriate activities contributing to the social and economic development and the quality of life of our communities

- Jointly co-operate in the protection of heritage, recognising that to harm such heritage is to harm, at the same time, the human spirit and the world's inheritance
- Promote World Heritage through communication, education, research, training and public awareness
- Seek to ensure the active involvement of our local communities at all levels in the identification, protection and management of our World Heritage properties.

4. Consequently, the Management Plan is based on the following key issues:

- Identifying the features of the Property that are important for its World Heritage value
- Conserving and enhancing the Property's cultural and natural heritage by sustaining its Outstanding Universal Value through appropriate management
- Encouraging an understanding and appreciation of the World Heritage Property
- Raising awareness of biodiversity issues through education and information
- Promoting appropriate management of the Property through a co-ordinated approach
- Making the Property's heritage available to global audiences for the themes it represents.

5. Managing these issues is a long-term project, although the Management Plan will be reviewed every five years. Therefore, aims for the next 30 years have been identified, as have aims for the next five years which will

be supported by a series of objectives. Achievement of these aims and objectives is discussed in Section 6. Initial management of the Property is discussed in Section 7 through the Strategic Action Plan.

5.b Long term support of the vision

6. The need for management of the nominated Property is recognised in the support of the vision over the next 30 years through the following long-term aims:

- To protect, conserve and enhance the landscape that inspired Darwin in the development of his scientific ideas about the natural world through maintenance of its Outstanding Universal Value
- To promote the value of the Property to local, national and international audiences
- To realise the educational potential of the Property for people of all ages and backgrounds
- To promote and implement sustainable development within the Property provided that it does not impact adversely on the Property's Outstanding Universal Value
- To work in partnership with organisations and stakeholders involved in the nominated Property.

5.c Five-year aims and objectives

7. These long-term aims are supported by a series of short-term aims and five-year objectives discussed in Section 6. These reflect the current need for management in response to the present state of conservation and the initial impact that World Heritage status may have. These aims and objectives will be reviewed every five years in line with a review of the Management Plan and Periodic Reporting undertaken for UNESCO.

5.d Strategic Action Plan

8. The Strategic Action Plan outlines the major actions that need to be taken to achieve the five-year aims and objectives. This will be reviewed every year and the actions updated accordingly. These are outlined in Section 6. Several key short-term actions are currently being initiated in conjunction with the production of the Management Plan. Significant actions already achieved include the undertaking of Landscape and Biodiversity, Visitor Management, and Interpretation and Education Strategies.

5.e Common management principles

9. Common to all identified management issues facing the nominated Property are the notions of sustainability and the need to protect the setting of the Property.

Sustainable development

10. The fundamental aspect of any management of the Property is the protection of Outstanding Universal Value, the ability to maintain the current condition of the environment and conserve it from deterioration, whilst improving its quality by positive actions and passing it on to future generations in as good or better condition. An overarching consideration is the need to think and act in accordance with the principles of sustainable development defined as 'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.' The concept derives from international concern at the depletion of the earth's resources and the human impact on the quality of the environment.

11. The attributes of the landscape resource on which the Property's Outstanding Universal Value and which can all be seen today are:

- the geomorphology of the area, the compact 7km² valley landscape that Darwin observed and experimented in, with its two steep chalk valleys to the east and west of Down House standing on clay with flints soils between, with a promontory of sands and gravels to the north, which is a basis for the various semi-natural habitats for the range of organisms that Darwin studied;
- the range of semi-natural and managed habitats resulting from the human settlement of the area and its use for agriculture and forestry
- the many historic lanes and paths which enabled Darwin to explore the site freely, collect and experiment as he wanted;
- the garden, plant houses and grounds at Down House, which Darwin was able to use both when he needed to make close or extended investigations of plants he found elsewhere in the landscape, and when he wanted to study plants from elsewhere in the world and compare them with local and native plants in order to reach conclusions of global value;
- Down House, Darwin's private home, which he was able to use to further his investigations of plants and other organisms in the landscape, and to draw together all his findings and produce the scientific works in which he gave his ideas to the world.

- Downe Village and other buildings within the landscape that reflect the social context for his work and the people in the local community on whose help he depended.

12. Cultural assets such as these need to be highlighted and conserved to protect their Outstanding Universal Value in line with several key international publications, including the 1972 World Heritage Convention and its Operational Guidelines.

13. ‘The protection and enhancement of cultural and heritage diversity in our world should be actively promoted as an essential aspect of human development’ and ‘It is important to underline a fundamental principle of UNESCO, to the effect that the cultural heritage of each is the cultural heritage of all. Responsibility for cultural heritage belongs to the community that has generated it and subsequently to that which cares for it.’

14. The nomination of the Property, and through this Management Plan, provides an opportunity to assess current management practices and evaluate them against the Government policy background regarding sustainability and the objectives of the World Heritage bid. Through protection of the Outstanding Universal Value of the nominated Property, this will help to develop a viable sustainable approach to land management relevant to a living, working, and culturally important landscape on London’s urban fringe and contribute to current environmental thinking concerning the future sustainability of the environment, through sustainable development. This area of countryside is a diverse, dynamic and versatile environment. These qualities were evident when Darwin studied this landscape, are evident now and will also be evident for future generations. In conjunction with current management plans and planning policies, the Property’s potential to underpin sustainable development far outweighs the challenges involved.



Hangrove Wood is a habitat rich in biodiversity and was visited by Darwin on his daily walks

Setting of the Property

15. The setting and protection of the Property are key considerations in addressing the management issues and the sustaining of the Property’s Outstanding Universal Value. Like sustainability, protection of the setting is a major theme running through the Management Plan. The nominated Property’s setting contributes significantly to its character, form and significance and to appreciation of the Property’s Outstanding Universal Value. There are strong cultural linkages between the Property and its environs.

16. The setting of the Property is the environment or surroundings around the nominated Property. It includes those sites, monuments, buildings and landscape components that provide additional historical context and a physical space in which events could affect the visual appreciation of the World Heritage Property and its Outstanding Universal Value. The nominated Property and its setting need to be managed appropriately and in conjunction with one another. The relationship between the Property and its setting is an important concept in the World Heritage Convention. The UK Government has also made it clear that the concept of setting is a material consideration in cultural heritage planning policy. National guidance is contained within PPG15: Planning and the Historic Environment. This supports the concept of setting and suggests that the relevant Local Authority should formulate policies to protect the nominated Property and its setting from damaging development. It states that development proposals affecting these sites or their setting may be compatible with this objective, but should always be carefully scrutinised for their likely effect on the Property or its setting in the longer term. Bromley Council has adapted this approach in the Unitary Development Plan.

5.f Opportunities and challenges

17. Opportunities can be generated from the nominated Property’s location and distinctive nature that could be of benefit to local, national and international communities. The landscape surrounding Down House is relatively unchanged from Darwin’s time due, in part, to the many protective measures and designations that have been implemented through government and local policies and by careful management of the landscape by farmers and owners. Inscription of this Property would enhance the ability to protect, conserve and sustainably promote its Outstanding Universal Value. It is essential to safeguard the Property for future generations by giving it the recognition and status it deserves. However, its proximity to London, a world city and Europe’s largest city, means it is susceptible to change and external urban pressures, although the nominated Property is

well protected by Green Belt legislation. Such pressures pose challenges to, as well as opportunities for, the conservation and success of the area.

Opportunities

Education, interpretation and research

18. Excellent opportunities exist to promote Darwin's work at Downe to both local national and international audiences and to encourage intellectual and virtual access to the Property. Ultimately the aim is to make Darwin's work at Downe accessible to everyone in the national and international community, not just scientists, giving an improved understanding of the global importance of the area. An Interpretation and Education strategy has been produced and is now being implemented. This strategy is highlighted in section 6 and 7.

Funding

19. Opportunities relating to conservation and education require funding. It is anticipated that World Heritage status would help to lever in more funds and support in kind to continue to improve conservation, enhancement and promotion of the area.

Community benefits

20. As a World Heritage Property, the area would be appropriately managed and conserved in accordance with the community's needs subject to the need to sustain its Outstanding Universal Value. Inscription of the Property will help safeguard this area for future generations by giving it international recognition and status. It will also provide an opportunity to assess and manage visitor growth to ameliorate any existing and future adverse effects on the community. Direct benefits for the local community include:

- Encouraging more local people to engage with, and learn from the work of Darwin
- Instilling further local pride in the locality, and providing more opportunities for community involvement in the management and maintenance of the quality of the local environment
- Encouraging more public investment in the quality of the local infrastructure and services including public transport, rights-of-way and public open spaces
- Encouraging more private investment in the quality of local facilities, including retail, catering and maintenance of buildings

- Sustaining local jobs and training opportunities in heritage and land management and related services including tourism
- Encouraging increased support for land management.

Development of international links

21. The World Heritage Property provides an ideal opportunity to develop links with other sites important to Darwin's theories and biodiversity, such as the Galapagos Islands, Australia and many countries in South America. Developing such links will strengthen the Outstanding Universal Value of the Property. Another important link is with the Darwin Initiative (funded and administered by the Department of Environment Food and Rural Affairs), which aims to share Britain's biodiversity expertise with people from developing countries. It aims to assist those countries which are rich in biodiversity but have scarce financial and other resources to fulfil their obligations under the Convention on Biological Diversity – to conserve their biodiversity and use it sustainably.

The establishment of stronger links with partners, stakeholders and the local community

22. The nomination of this World Heritage Property and the adoption of this Management Plan by partners provides a real opportunity to cement the formal and common agreement of the importance of Darwin's Landscape Laboratory and its contribution to science and culture. This will be based on a co-ordinated approach to its management and conservation via the established working partnerships with the Steering Group and local communities.

Cultural heritage and distinctiveness

23. The nominated Property brings international recognition of Darwin's Landscape Laboratory, as well as recognition that Bromley's heritage inspires global understanding of the natural world and of the methodology of science. Our global understanding of biodiversity, sustainable development, and threats that face humankind originates from the years of work Darwin undertook in this small section of London's countryside. Consequently, the international community's present commitment to the global task of preserving biological diversity stems from his insight. Darwin's work at Downe is essential for the survival of humankind and can still be used today to assess the impact of such threats as global warming, and find

solutions to these problems through the implementation of sustainable management.

Challenges

Climate Change

24. Climate change is likely to have subtle, but potentially significant impacts on the biodiversity of the nominated Property. The Property is far enough away from major rivers and the sea to be not directly affected by any changes in sea level. The widely held prediction for Western Europe is for warmer and wetter winters combined with drier and hotter summers. Although this cannot be resolved at the local level, the impacts need to be managed and mitigated. Once damaged, established communities habitats such as species-rich chalk grassland, and ancient woodland cannot be easily recreated but as long as the habitats are not removed, their continuance is expected. The great diversity of these habitat types is due to their continuous presence for a long period, often for centuries. Their survival over this time is testament to their robustness to varying climate. Chalk grasslands can be found in warmer climes so are likely to persist in the nominated Property. Woodland tree species may change but the woodland again can persist as it does in warmer climes. Nevertheless, the study of the potential impacts of climate change on biodiversity provides a quintessential Darwinian research agenda for Darwin's Landscape Laboratory.

Visitor pressure

25. Public consultation revealed that the two main concerns regarding inscription are the potential increase in visitor numbers and the resultant increase in congestion. A balance must be achieved between allowing people to enjoy and appreciate the significance of the nominated Property whilst ensuring its Outstanding Universal Value is not lost and the environment and local community not harmed. A sustainable, high quality visitor experience is therefore required to ensure minimum damage to the area but maximum benefits for the local economy, the community and those visiting the nominated Property, and work has been undertaken to establish the carrying capacity of the nominated Property and measures to protect it.

Lack of appropriate management and neglect

26. Much of the nominated Property is rural and is currently well managed and constantly monitored by several organisations and private landowners, including English Heritage and Bromley Council. Without this effective maintenance and monitoring the condition of



Biggin Hill Air Show 2005

the Property's natural and human environment could significantly degrade and aspects of its Outstanding Universal Value put at risk. Continued co-ordination between these organisations is underway to ensure continued effective management and for the aims and objectives of the nominated Property to be implemented and the mechanisms to achieve this are in place.

Over preservation and 'fossilisation' of the Property

27. The proposed inscription of the nominated Property should not lead to the fossilisation of the area, nor preclude all new development. Darwin studied how and why landscapes continually change, and so preventing change would go against his ideas. The aim is therefore to protect, conserve, enhance and promote understanding through effective management encouraging sensitive and sustainable development which will respect the Outstanding Universal Value of the nominated World Heritage Property.

Development pressures

28. The nominated Property is susceptible to development pressures because of its urban fringe location, in particular housing, leisure activities and the use of agricultural land for other purposes.

29. Despite these pressures, the Property has avoided being developed in a major way since Darwin's time, partly by legal protection and Planning policy concerning Conservation Area and Green Belt designation, and by the positive action of local people and the Downe Residents' Association. The historic purpose of the Green Belt, introduced in 1938, however, is to protect the area rather than promote positive management. World Heritage inscription will assist in encouraging sustainable land management.

Pollution

30. The London Borough of Bromley has not had a history of heavy industry. In the whole of the 110 km² there are just over 100 hectares of land in industrial or warehousing use, and these areas are not located near to the nominated World Heritage Property, except for London Biggin Hill Airport. As a result, Bromley has the cleanest air in London and consequently is the only London Borough that has not needed to declare an Air Quality Management Area.

31. As there is no heavy industry in operation near to or within the nominated Property, air and noise pollution is minimal. A possible source of such pollution to the nominated Property is from London Biggin Hill Airport. The Biggin Hill Airport Airborne Aircraft Noise Contours Map (in the UDP Proposals Map), referred to above, shows an area of just less than 9 hectares in the northwest of the nominated Property. This area could experience noise levels ranging between 57dB and 63dB. As a crude comparison that is noise just greater than background music in a cafe, bar or restaurant. Controls over the hours of operation of the Airport mean that these noise levels do not occur at night and are occasional and intermittent. They are still well within government guidelines and the limits permitted under the terms of the Airport lease and the fact that the airport is surrounded by residential property means that noise levels are strictly controlled. Noise levels inevitably increase during the Biggin Hill air show, which takes place on one weekend each year, usually in June. The benefits of this national event tend to outweigh the negative effects. Pollution and noise levels are closely monitored around the nominated Property and restrictions are applied to the operation of the airport to minimise adverse environmental effects. Other aircraft do pass over the site at high level on their way to Heathrow or Gatwick airports but the noise from these are minimal. The noise of the aircraft is considerably less than the noise of aircraft in many World Heritage Properties in or near cities. There is no visual intrusion of the Airport on the nominated World Heritage Property.

32. The nominated Property contains one small disused landfill Site near Down Road. It was filled in the 1970s, landscaped and is now used for Downe Riding School therefore the visual impact of it is no longer evident. Fly tipping, is an unsightly but only an occasional problem and the London Borough of Bromley has strong policies and mechanisms in place to manage this quickly if it occurs.

Lack of funding

33. A potential risk is lack of funding which would undermine the management of the nominated Property and potentially leave it susceptible to the threats highlighted in this section. The commitment of the Steering Group is vital as, through them, other organisations and the local community can be encouraged to support and help manage the nominated Property. The appointment of a World Heritage manager and officer by the London Borough of Bromley enables support and funding to be successfully co-ordinated and demonstrates the commitment the Council is making to this bid. Over £600,000 of external funds has been levered in over the last 2 years to support management of the Property, whilst English Heritage have spent an additional £900,000 on facilities at Down House

Security

34. A number of important artefacts and collections of archive material, which document Darwin's work at Downe, are stored and displayed in Down House. Improved security has greatly reduced the possibility of theft of these valuable items.

Natural disasters

35. The only natural disaster likely to affect the area is that of storms. Predicted climate change may increase the frequency of storms in the area. The Property suffered tree loss during a hurricane in 1987, which, although affected large areas of woodland, it provided the area with an opportunity to restock the woodlands by natural regeneration, as observed by Darwin.

36. The vision, goals, aims, and objectives have been based on the issue of sustainability, formulated using a current assessment of issues and challenges that the area faces. This section (5.g to 5.l) identifies these management issues, presents an understanding of the current situation and identifies the areas where the future management of the Property and its setting can contribute to the effective protection, conservation and enhancement of the Property's Outstanding Universal Value.

37. Darwin's scientific ideas on the understanding of the natural world are inherently based on the landscape surrounding his home. The built heritage helped provide the setting for this scientific work.

38. Management issues are addressed under the following areas:

- Land management and conservation of the landscape and built environment including climate change
- Visitor management and sustainable tourism
- New Development
- Education and interpretation
- Partnership working
- Preservation

5.g Land management and Conservation of the landscape and built environment

The evolution of Darwin's Landscape Laboratory

39. Land management of the nominated Property is a product of human interaction with the natural environment over thousands of years. The natural environment is dictated by the geology, soils and hydrology of the area and is influenced by historic patterns of land use, particularly agriculture. The growth of nearby London has been the other main influence that has more recently led to land management and activities that are not directly for food production.

40. Since at least the Iron Age people have settled and moulded the local landscape, situated on the gentle dip slope of the North Downs escarpment. The presence of the Iron Age Caesar's Camp, the nearby Roman farm and Mausoleum at Warbank replaced by an Anglo-Saxon Farm, and the Roman farm near Downe clearly demonstrate active use of the land. Land management



Downe Bank is managed by the Kent Wildlife Trust



Agricultural Land at Shire Lane

may not have been continuous, the presence of Anglo-Saxon field names which indicate wood clearance are found on the site of previous Roman farmsteads.

41. By the time of Darwin's arrival in 1842, the local farmscape was well developed. Pasture was generally semi-improved by the spreading of manure (such as Darwin's Great House Meadow), although various rough, unimproved pasture areas persisted. The introduction of wealth from outside the area, particularly from London had led to the development of larger Victorian Gentry villas. These were in addition to the newly established country estates and large mansions at Holwood and High Elms, developed by the Prime Minister, Pitt the Elder and John Lubbock MP respectively.

42. Darwin drew inspiration from a living, working, farmed landscape with plentiful wildlife that has evolved with human interaction over several thousand years. The nominated Property remains predominantly rural in nature and is valued for its dry chalk valleys, compact villages and isolated farmsteads practising small scale farming, and a rich tapestry of wildlife habitats. Indeed, the habitats of the area are part of the North Downs landscape which is botanically the richest tract in the region. The extremes of acidity and alkalinity, differences in soil moisture and the impact of human activity have resulted in both a wide range of different habitats and dramatic contrast between chalk downland, heathland and arable farmland each providing a range of conditions favouring the adaptation of different species. It was this range of different habitats in such a small area that was important for Darwin in his observation and experiments with plants and invertebrates. Management of Darwin's countryside and sustaining of the Outstanding Universal Value of the nominated Property is therefore set within the context of the geological and biological factors influencing its form as well as within a policy framework pertaining to the Green Belt, nature conservation, the urban fringe and a changing rural economy.

Current Land Management Issues

Management of agriculture

43. Approximately three-quarters of the nominated Property is defined as agricultural, a similar proportion as in Darwin's time. Today, there are five farms in the nominated Property, three of which are owned by the Council and tenanted to existing local farmers. The mixed farms are of pasture and arable producing combinable crops such as wheat. They are run using modern methods of cultivation, a result of the intensification of agriculture experienced in Britain in the latter half of the twentieth century. Unlike other parts of lowland Britain, this has not resulted in the extensive removal of hedgerows and woodland, and therefore the farms still reflect the smaller landholdings established when the 19th century estates were split up.

44. Farmland within the Property is designated as Green Belt. Bromley's Unitary Development Plan states that there is a presumption against development on this land, unless very special circumstances are demonstrated. In addition, the Council through its planning role will resist the irreversible development of agricultural land or land of inherent agricultural quality. There has been a recent decline in farm incomes. Some of this farmland falls within locally designated Sites of Importance for Nature Conservation (SINCS). There has been increased environmental awareness in farming through initiatives such as the 'England Rural Development Programme' and the Environment Stewardship Scheme. The promotion of such initiatives is actively encouraged within the nominated Property to ensure that the local wildlife, as well as an economically viable industry, can enjoy a sustainable future.

45. Some types of small scale agricultural development or other works such as erection of fences, provision of hardstandings and access ways, can normally be undertaken as 'permitted development' without the need to apply to the local authority for planning permission. Where, however, the local authority considers that such developments could potential harm the character and appearance of the area it can, with the Secretary of State's approval, remove the permitted development rights by means of a direction under Article Four of the Town and Country Planning (General Permitted Development Order) 2008. Such a direction has been imposed on an area of the proposed buffer zone adjoining the nominated World Heritage Property. In this way, threats to the Outstanding Universal Value of the nominated Property arising from changes in agricultural practice can be minimised.

Management of wildlife habitats

46. The nominated Property today contains habitats and species that are typical of the North Downs landscape including a number of nationally scarce and locally important species. The diversity of habitats encompasses ancient woodland, chalk, neutral and acid grasslands, species-rich hedgerows, lowland heathland and valley mire. Given the changes in farming since Darwin's time outlined above, the survival of these features is a product of favourable stewardship by local landowners and of an emerging understanding of the importance of biodiversity. This is supported through the Governments funding of the Environmental Stewardship Scheme and the Woodland Grant Scheme. The Nominated Property is now a target area for the London region for the Environmental Stewardship Scheme. Sustaining these habitats is an important aspect of maintaining the Outstanding Universal Value of the nominated Property. The conservation of wildlife habitats is included in the Biodiversity and Landscape Strategy, which has been produced and is being implemented. This strategy is highlighted in section 6 and 7.

Woodlands

47. Woodlands are popular for walking, leisure activities and for educational purposes. Within the Property, High Elms Country Park, Blackbush Shaw and Keston Common (which is part wooded) are most popular with walkers. High Elms also runs educational events associated with woodlands and much of Darwin's 'Big Woods' are used for leisure and educational purposes by Scout groups. Some of these uses may increase with inscription. There is therefore a limited risk of erosion, compaction and damage to vegetation and disturbance to wildlife. Woodlands are generally quite robust habitats and the woodlands present today would be very familiar to Darwin.



Many fields are bordered by hedgerows such as this one in Cudham Valley

Hedgerows

48. In Darwin's time hedgerows were used to divide livestock and keep them from straying onto the arable crops. Nationally the demand for land, intensification of agriculture, high labour costs and loss of traditional skills, urbanisation and the expansion of the road network have all contributed to hedgerow loss. However, in the nominated Property whilst a few hedgerows have been lost, there remains an excellent network including long stretches adjacent to ancient rights of way and rural sunken lanes. These hedgerows provide homes, food and shelter for wildlife as well as being corridors linking habitats. Ancient hedgerows tend to support the greatest diversity of plants and animals. Without management a hedgerow becomes a line of trees, gaps are created as plants die and the interconnectivity of the hedgerow network is broken. Ideal management includes laying the hedgerow shrubs every 10-15 years and cutting no more than once every two years. Provided good hedgerow management is practised, these are robust features that help ensure the integrity of Darwin's Landscape Laboratory and to sustain its Outstanding Universal value as set out in the Biodiversity and Landscape Strategy. A survey of all the hedgerows in the nominated Property was undertaken in 2008 and analysis is now occurring.

Grasslands

49. These were the sites where Darwin studied orchids, many plants and their insect pollinators whilst exploring the concept of struggle for existence. Their continued conservation is important to sustaining the Outstanding Universal Value of the nominated Property. The nominated Property contains a diversity of semi-natural grasslands determined by the underlying geology and soils, and this was one of the reasons why Darwin choose the area for his home. Extensive areas of chalk grassland occur over the chalk along the steep slopes of the Cudham and Downe Valleys. The free draining, nutrient-poor gravels at Keston give rise to acid grassland and where loamy soils have developed along the valley floor, there are areas of species-rich neutral grassland. Semi-natural grasslands are relatively fragile and can lose their nature conservation interest through inappropriate use of fertilisers or pesticides, encroachment of scrub and woodland through lack of grazing, or over grazing which is a feature of the increase in the amount of paddocks created to graze horses.

Lowland heathland and mire

50. Lowland heathland and mire habitat can be found in the northern part of the nominated Property, in particular on Keston Common. It was here that Darwin

observed sundew and its carnivorous tendencies. Heathlands were traditionally used for extensive grazing which encouraged the growth of heather, plants and grasses, adapted to the poor nutrients available on the sandy soils. These are fragile habitats which can suffer badly from excessive trampling and encroachment of scrub. They are dependent upon specific management (ideally light grazing) to maintain their nature conservation interest. The small valley mires, fed by natural springs, are also fragile habitats which can be adversely affected by changes in local hydrology. However, they are relatively small areas and are managed effectively by manipulation of water levels and occasional removal of invasive vegetation.

Current management of the nominated Property's biodiversity

51. The habitats described above require careful management and maintenance to sustain their biodiversity and the Outstanding Universal Value of the nominated Property. Many are already protected through national and local designations and through ownership or control by nature conservation bodies. There are two Sites of Special Scientific Interest and seven Sites of Importance for Nature Conservation (Section 4). However, designation gives protection rather than ensuring positive management.

52. Monitoring and protection of biodiversity is currently undertaken through the London Biodiversity Action Plan and Bromley Biodiversity Action Plan, in conjunction with the Mayor's Biodiversity Strategy and the Biodiversity Strategy for England (2002). Launched in 1999 by a core partnership of Bromley Council, Kent and London Wildlife Trusts, English Nature and the Orpington Field Club, the Bromley Biodiversity Action Plan (BBAP) 'The Future of Darwin's Wildlife in Bromley' seeks to provide a plan of action to conserve, protect and enhance biodiversity in the London Borough of Bromley. It also satisfies key targets in Bromley's Local Agenda 21 document 'A Blueprint for a Better Bromley'. Detailed proposed action for 2006-09 and longer-term actions are presented within the BBAP which will be revised and extended to cover 2010-13. It identifies a number of general actions that may be applied to all habitats and species within the nominated Property and demonstrates the methods of conserving and increasing biodiversity in the area. These actions relate to policy, land management, advice, publicity, monitoring, education and research. Specific Habitat Action Plans and Species Action Plans provide more detailed information and proposed action, including ones for the stag beetle, butterflies, bats, glowworms and the hedgehog, doormouse, skylark and songthrush.

53. The Bromley Unitary Development Plan (UDP) also seeks to promote greater awareness of nature conservation and ecological issues. The UDP's general objectives are to accommodate new development where appropriate and to promote appropriate land-use and transport.

54. Change is inevitably present in these semi-natural habitats. In fact man has created them by halting the rate of change, for example by keeping grassland cleared of scrub and woodland. Intervention in the natural processes is essential if their appearance and inherent species are to be maintained. Darwin after all was not just interested in describing species and their habitats but was most interested in their interactions as change occurs. Climate change is likely to have subtle, but potentially significant, impacts on the biodiversity of the nominated Property. Although climate change cannot be resolved at the local level, the impacts on the nominate Property need to be monitored and appropriately managed. Once damaged, established habitats such as species-rich chalk grassland, old hedgerows and ancient woodland cannot be easily recreated. The great diversity of these habitat types is due to their continuous presence for a long period, often for centuries. Nevertheless, the study of the potential impacts of climate change on biodiversity provides a quintessential Darwinian research agenda for Darwin's Landscape Laboratory.

Current management of the nominated Property's built heritage

55. The state of conservation of the buildings and built environment within the nominated Property is good. The villages of Downe and Cudham are largely physically unchanged since Darwin's time, with limited new development evident, and the Victorian legacy and impact on the villages and their communities can still be seen today. The outward expansion of the villages has been resisted in part because they are within Conservation Areas and lie within the Green Belt. Such statutory policies have, and will continue to be, rigorously enforced. With 28 Listed Buildings and 35 Locally Listed Buildings in the nominated Property, and 9 Listed Buildings and 10 Locally Listed Buildings within the buffer zone, the external appearance of the built form remains largely protected. There is one building at risk within the nominated Property area. This is Downe Court Manor and the London Borough of Bromley are actively pursuing repair of the building in order to remove this from the Building at Risk register.

56. Design and placement of street furniture and methods of roadside maintenance are sensitively managed by the local authority to ensure that there is no conflict with the rural character or the Outstanding Universal Value of the nominated Property.

Current Ownership of land

57. The nominated Property is not owned by one single organisation. Co-ordination between the various organisations and private landowners is essential. Common objectives need to be established to ensure that the key aims of protection, conservation and enhancement of the habitats and species of significance to Darwin are achieved so that the Outstanding Universal Value of the nominated Property is maintained.

58. Through local and national statutory policy, owners are encouraged to ensure that the maintenance, repair and restoration of their built properties are carried out sympathetically and to a high standard; development and changes of use should be appropriate to the location within an outstanding cultural Property.

5.h Visitor Management and Sustainable Tourism

1. Current Status

a. Tourism Context

59. It is important to acknowledge the wider context within which this Management Plan operates. The nominated Property is located in the Greater London area, is therefore influenced by the policies of the Mayor of London and associated organisations. The London Development Agency (LDA) is a major partner in terms of visitor management and supports the Management Plan's aim of delivering sustainable visitor management. The LDA's London Tourism Vision 2006-16 and London Tourism Action Plan 2006-2009 are important documents and provide the overall London context for the Darwin's Landscape Laboratory Visitor Management Strategy. Visit London is the official organisation with responsibility for promoting London as a visitor designation and delivers a wide range of marketing campaigns. The World Heritage team and Steering Group will work with Visit London to ensure the appropriate promotion of the Property.

60. Visitors to Bromley spent £260 million in 2006. Overseas visitors contributed £120 million or 46% of the total. Tourism related jobs in Bromley account for 4.6% of the borough's total employment, which is markedly lower than that across London as a whole (5.4%). (Source: London Development Agency Local Area Tourism Impact (LATI) model, 2006 data). The gap principally reflects higher shares of tourism related employment in central London boroughs.

61. Expenditure from visitors helps to sustain employment in a range of rural businesses, including the visitor attractions, accommodation, shops, pubs, restaurants and transport. Visitor expenditure has the capacity to support facilities and services which currently are not viable as solely dependent on the local population for custom. For example at the nominated Property, visitor activity was a key element in securing Transport for London's commitment to introducing the Sunday bus service, and there may be opportunities to revisit issues such as the recent closure of the shop and Post Office in Downe village. Similarly expenditure may also generate spin-off spending and demand for other local goods and services.

62. The visitor economy is increasingly important in the wider context of decline in rural employment and can therefore widen the economic base of an area and diversify job opportunities. The nominated Property provides the opportunity to obtain advice and support on business planning from the LDA. The nominated Property may offer potential support for new business sectors, such as arts and crafts and developing Darwin-related products.

63. Tourism is an economic driver in the area and whilst these opportunities may bring benefits to local people and businesses, they must be sustainable and in particular avoid contributing to an unacceptable increase in vehicular traffic. It is therefore important to maximise visitor enjoyment and spend by maximising length of stay and spending on visitor services within agreed physical, environmental and psychological thresholds. For example identifying opportunities for visitor accommodation in reasonable proximity to the nominated Property would lengthen visitor stay periods and increase direct spend without unacceptably increasing visitor numbers and traffic problems.

64. The World Heritage Team have worked with the LDA and others in the production of a Visitor Management Strategy with the aim of maximising economic and social benefits from World Heritage status without harming the nominated Property's outstanding universal value.

b. Current visitor attractions, places of interest, and facilities

65. The attractive countryside and botanical richness of the area has remained relatively unspoilt since the days of Darwin, making this a popular area for visitors. There are a number of visitor facilities and attractions within the nominated Property, which are of a high quality and which attract people locally, nationally and internationally. These and natural attractions such as Downe Bank, High Elms and Keston Common are linked by an extensive and attractive network of quiet lanes and footpaths.

66. Attractions and places of interest bearing strong relationships to Darwin and his work include:

Down House. This is the primary visitor attraction, owned and managed by English Heritage. The House has interpretive exhibitions, gardens, a shop, café and toilets. Currently the House is open Wednesdays to Sundays with Tuesday being a dedicated day for school and educational visits.

Downe Valley with Keston Common consists of a network of protected and managed open spaces connected by a footpaths, trails and bridleways.

Cudham Valley, including both Downe Bank and High Elms Country Park, hosts several fascinating and well-preserved landscapes that allow visitors to walk in 'Darwin's footsteps'. Originally the country home of the Lubbock family, High Elms Country Park represents 250 acres of wooded chalk Downland situated 15 miles from central London. Management of the site rests with London Borough of Bromley Countryside Ranger Service, which organises a programme of walks, talks and events as well as maintaining self guided trails to enjoy.

Downe village. This is a picturesque village with many historic buildings and attractions, including St Mary the Virgin church, two popular public houses, a café, and a restaurant.

67. Other attractions within or near to the nominated World Heritage Property include:

- Christmas Tree Farm, is a privately owned farm in central Downe that appeals predominantly to families with young children on a day out, and provides an opportunity for close contact with a range of farm animals, which can be fed and stroked in their enclosures.
- Cudham is an attractive village, which is partly within the boundary of the nominated Property.

- Two golf courses located near Downe: West Kent is a private club; High Elms is a public course.
- Activity centres for Scouts, Guides and Woodcraft Folk with associated dormitories (250 permanent beds), camp sites (for more than 1,000) and resource centres for environmental studies.
- Two riding schools and various liveries.
- Biggin Hill Airport. This was an important World War II airfield. The London Borough of Bromley plans to create a heritage centre on the fringe of the airport,
- The nominated Property's close proximity to London enables strong links to be made with the Darwin related attractions of Kew Gardens and the Natural History Museum in Kensington.

68. The attractions above are supported by related facilities including three Bed and Breakfast accommodation establishments, and several restaurants and cafes throughout or adjoining the nominated Property.

c. Current audiences

69. The existing visitor base to the constituent attractions within the Darwin's Landscape Laboratory Property has been recently surveyed. This survey assessed use of the sites and aspects of visitor behaviour such as frequency of visiting, transport choices etc. English Heritage has also conducted a front-end evaluation of their upgrades to Down House interpretation.

70. The following points are drawn from the Darwin's Landscape Laboratory Visitor Survey undertaken at key sites in the nominated Property between February and August 2008:

- The majority of visitors (93%) are day trippers, largely coming from Kent, London and Surrey.
- Average group sizes differ between key sites: Christmas Tree Farm visitors typically came in groups containing relatively more children while 70% of those visiting Down House and Downe Village comprised adults only
- The vast majority of visitors to the nominated Property were visiting with family and/or friends, as part of a holiday or leisure based activity, with a high proportion repeat visitors – except at Down House where 74% were visiting for the first time.
- Most visitors to the nominated Property were encouraged to visit by prior knowledge about the site or recommendation by someone else. Down House visitors made the most extensive use of internet resources when planning their visit.

- Visitors to Down House are less likely to visit other attractions or places of interest within the nominated Property during their trip than visitors to the other attractions, particularly those to Downe Village.
- Apart from those interviewed at Down House and in Downe Village, the Darwin connections appear to have minimal influence in their decision to visit the area. More common motivations for visiting other sites within the nominated Property were to enjoy its peace and quiet, observe wildlife or go walking/enjoy other outdoor activities.

71. English Heritage undertook a quantitative and qualitative assessment of visitor motivations and experiences at Down House as part of the planning for reinterpreting the Property. Key findings include:

- Visitors from London are under-represented in the Down House audience suggesting scope to encourage more visitors to the nominated Property from the London area.
- Key motivations for visiting Down House are rooted in its Darwin connection: 65% overall report 'interest in Charles Darwin' as a reason for visiting, rising to 83% in visitors over 65.
- The majority of visitors go to Down House to see where Darwin lived, to find out more about his life's work and theories and for an enjoyable day out. The interest for many therefore appears to be strongly driven by "Darwin the man".
- Three quarters of visitors were aware before visiting that Down House was Darwin's home
- A small proportion (approximately 10%) consider themselves 'experts' having studied Darwin's theories and life extensively and there is a suggestion that Down House forms part of a "Darwin tour" incorporating a reading of his works, visits to the Natural History Museum and even sometimes the Galapagos islands.
- Outside this small group of 'experts', awareness of Darwin was widespread but knowledge was very general, i.e. awareness that he is connected with evolution.
- Repeat visitors are increasingly strongly motivated to return by an interest in the Down House garden, and it becomes the main motivation by the fourth visit to the house and grounds.

Key conclusions suggested by these surveys include:

- Existing visitors to the Darwin's Landscape Laboratory sites are polarized – the vast majority visit for typical local amenity reasons, to spend time with their families etc, and are not motivated by or aware of any Darwin connection.



Access by foot around the Site is encouraged

A much smaller group (with these forming a high proportion of those visiting Down House) are very aware of Darwin the man and are visiting for reasons connected with this.

- Even among this group, however, understanding of Darwin's importance and theories is incomplete.
- Crossover between the groups and between sites seems to be limited.

d. Promotion

72. Promotion of the nominated Property at present is delivered through a variety of channels:

- The London Borough of Bromley, provides information via the Council website, walks, talks and events, leaflets based around High Elms, and the Walk around Down leaflet.
- Kent Wildlife Trust also promotes Down Bank through a leaflet guidebook and programme of activities.
- English Heritage promotes Down House through the Member's Handbook, website, brochure and educational pack.
- Visit London, as London's official visitor marketing organisation, promote Down House in several areas of the www.visitlondon.com website, and through specific campaigns such as the "Get Out There" promotion.

e. Visitor numbers

The nature of the nominated Property and the attractions within it make it difficult to accurately assess visitor numbers. Estimates suggest there are currently:

- 26,271 visitors per annum to Down House including 1,500 schoolchildren.
- 20,000 visitors per annum to High Elms Country Park, including school children.
- 80,000+ visitors per annum to the two golf courses
- 30,000 visitors per annum staying at the five activity centres plus many more day visitors

73. In addition, the Biggin Hill Air Show attracts around 100,000 visitors over one weekend each year.

74. To these totals can be added a number of visitors who come to walk, ride and visit the two main villages including the pubs and Christmas Tree Farm. As a rough estimate, there may be a total of around 300,000 visitors per annum to the Property.

75. Visitor numbers peak in summer, particularly during school holidays and Bank Holidays, and at weekends. It is estimated that there could be around 5,000 visitors in the area on a peak day.

f. Access to and within the Property

76. A notable characteristic feature of the nominated Property is the network of rural lanes, tracks and footpaths centred around the village of Downe, which has evolved since medieval times and which is an important landscape and cultural feature.

77. Opportunities to access the area using public transport are promoted by the various partners, although usage remains low compared to the private car.

78. For walkers, there is an excellent network of public and permissive footpaths within the area as well as a number of very well presented self guided waymarked walking trails, all maintained to a high standard and offering the potential for local residents to access the countryside on their doorstep minimising the need to travel.

79. Current walking trails near to and within the nominated Property are linked with the World Heritage Property, including the London LOOP, the North Downs Way National Trail, 'Walk the Chalk' self-guided walks, and Bromley Circular Walks and Trails.

80. The nominated Property is used by cyclists throughout the year. Indeed there was a cycle shop and accommodation in Downe village 100 years ago.

81. There is also a network of bridleways to which over 3km have been added in the last 10 years to allow greater access, doubling the routes available to ride on horseback or bicycle.

5.i New Development

82. The nominated Property's urban fringe location makes it susceptible to development pressures, although this pressure is reduced to a large extent by the strength of Green Belt and other legislative protection. The process of suburbanisation is a particular issue. The desire to have a break from city life has also led to a demand for rural based leisure activities within easy reach of the city centre. The nominated Property and surrounding area provides an ideal environment for such pursuits. New development pressures need to be managed to conserve the significance of the site. It must also be ensured that this area doesn't become a static environment and is recognised as a living, working, evolving landscape.

Development pressures on the setting of 'Darwin's Landscape Laboratory'

83. Development within or around the nominated Property may have an impact on its setting and possibly on the Outstanding Universal Value of the nominated Property. The conservation of the setting and of the Property does not require a total ban on new development within the area. Any new development does, however, need to be undertaken in a manner that reflects and acknowledges the Outstanding Universal Value of the Property.

84. The likely impact of any development on the setting is controlled through the London Borough of Bromley's UDP (2002), the London Plan and National Guidance, as outlined in section 4

Biggin Hill Airport

85. London Biggin Hill Airport, formerly a RAF fighter station famous in World War 2, is beyond the ridge line and western buffer zone boundary of the nominated World Heritage Property and has existed since 1917. It cannot be seen from the nominated Property.

86. Bromley Council purchased the freehold from the Ministry of Defence in 1974 with the declared purpose of continuing to protect the environment of the area to the greatest practicable extent, compatible with the presence of a long established airport. The Airport, covering some 195 hectares mainly within the Green Belt, is operated by Biggin Hill Airport Limited under a

Lease from the London Borough of Bromley. Bromley and along with the businesses located on the Airport, makes an important contribution to the local economy. The Lease contains Operational Criteria that limit flight movements to total of 125,000 per year, limit the hours of operation and limit aircraft using the Airport to those complying with stringent noise criteria. In addition, the Operational Criteria does not permit any movements in or out of the Airport by any aircraft which the Council, as Landlord, has prescribed as being excessively noisy. There are currently 82,000 movements per year and these are a range of business and general aviation aircraft whose authorised flightpaths as set down by National Air Traffic Services are sometimes over the proposed World Heritage Property. The Airport Public Safety Zone extends into a small part of the nominated World Heritage Property and is an area of land at the end of the runway within which development is restricted in order to control the number of people on the ground at risk of death or injury in the event of an aircraft accident on take-off or landing. The area of the Airport's Public Safety Zone is determined by the Department for Transport and is subject to regular review dependent on DfT guidelines and the number of flights to and from the Airport. Airborne Aircraft Noise Contours, shown on the Council's Unitary Development Plan Proposals Map, also extend into the northern part of the nominated World Heritage Property. The contours show an area of land affected by noise levels greater than 57dB where there are restrictions on noise sensitive development.

87. The Airport benefits from permitted development rights under Part 18 'Aviation Development' of the Town and Country Planning (General Permitted Development) Order 1995. This allows the Airport to carry out, subject to consultation with the Council, relevant operational development without the need for planning permission. Parts of London Biggin Hill Airport to the west of the nominated Property, are designated in the Council's Unitary Development Plan as Major Developed Sites. These are sites within the Green Belt that already contain a significant number of buildings, comprising in this case the Airport control tower, hangars, previously used military buildings and a residential estate formerly used as RAF Married Quarters. Some infilling and redevelopment is acceptable within designated Major Developed Sites provided they comply with criteria set out in the Unitary Development Plan and Government guidance. A redevelopment of the former RAF Married Quarters adjoining the Airport that complied with these criteria was nearing completion in 2008. The development has less visual impact on the openness of the Green Belt than the previous houses. No part of the Airport or the Major Developed Sites within and adjoining the Airport are visible from the nominated World Heritage Property or its buffer zone.



West Kent Golf Course



Sheep grazing at Downe Bank

Housing and related development

88. The London Borough of Bromley's housing requirement is 11,450 additional homes provided between 1997 and 2016 (Second Deposit Draft Unitary Development Plan (UDP) and London Plan). The recent Government Planning Inspector's Report on the Second Deposit Draft UDP (February 2005) concluded that there was a shortfall in 2004 of some 1000 units in meeting this target. This has placed great pressure for new housing development throughout the Borough. The Council, however, takes a particularly strong view against new development in the Green Belt and has not agreed to release any sites for housing. Accordingly, the nominated Property and the surrounding area is unaffected by the pressure for new housing development and the strong protection given by the London Plan and the UDP will be retained.

Leisure development

89. Previously, there has been a trend of agricultural land being taken out of production for other land uses including leisure and recreation, partly because of the increase in demand for outdoor leisure activities such as golf, horse riding and paint balling. Tourism and leisure activities play an important part in the development and diversification of the rural economy, but they can also damage the landscape and heritage on which it depends. Whilst this is a living, working landscape from which Darwin took his ideas and developed them into the theory of evolution, the source of these ideas needs to be protected in order to sustain the Outstanding Universal Value of the nominated Property. Any leisure development within the nominated Property needs to reflect this.

90. Currently the formal leisure activities being undertaken within the nominated Property are horse riding, golf and angling. Management of all of these activities is required to avoid the possibility of damage to

the natural habitats and biodiversity of the area. These leisure activities provide an opportunity for participants to get close to, and enjoy, nature and appreciate the landscape resource that Darwin used. Golf courses in particular have a significant effect on the rural landscape and stringent environmental safeguards, such as control of herbicides and pesticides, are employed to safeguard the quality of the countryside. The popularity of horse riding has also given rise to a number of issues. The location, standard and intensity of buildings required in connection with equestrian activity could impact on the appearance and character of this cultural landscape. Other issues include field subdivision, untidy jumping areas, over-intensive grazing and riding on footpaths, all of which are currently discouraged through working closely with the landowners

5.j Information and Education

91. Charles Darwin's ideas have proved essential to our understanding of the natural world and humankind's place within it, and many of the observations, experiments and analyses, which made a major contribution to these ideas, were carried out in the countryside around the village of Downe. Darwin's work at Downe is particularly significant for the understanding of the survival of future generations. It is essential to promote his work in this respect and use it as a tool for increasing awareness of the threats the world faces.

92. Darwin's way of working and approach to problem solving provides a unique methodology which can be followed universally and can encourage life long learning for current and future generations at a local, national and international level. This nominated Property therefore offers unparalleled opportunities to develop, promote and establish formal as well as informal education centred on Darwin's life and ideas. For this educational resource to be of value to future generations it is essential that it is managed in a sustainable manner.

93. As a signatory to the World Heritage Convention, the UK has a responsibility to develop 'educational and informational programmes' with respect to World Heritage Properties and provide resources for lifelong learning.

- Educational programmes are defined as formal education consisting of structured programmes for those visiting in school, college, university or adult groups catering for different learning styles.
- Informational programmes involve the presentation of information and ideas through interpretation to enhance learning for audiences visiting the site in informal groups or individually.

94. Both informational and educational programmes will be specific to Darwin's work at Downe, but his place in a global context will also be encompassed. The World Heritage Property Nomination represents a unique opportunity to bring together the local information and education providers and present a clear and bold view of the significance of Darwin's Landscape Laboratory to local communities and the wider world.

Current information and educational provision

95. Current formal and informal information and education experience within the nominated Property is currently dispersed but varied:

- Information about Darwin at Down House is provided by English Heritage. Since English Heritage was entrusted with the care of Down House, it has interpreted the house by looking at Darwin the man, the eminent Victorian and Darwin the scientist. There is an interpretation centre at Down House based on Darwin's methods of working, his ideas and also the voyages he undertook that encourages enquiry-based learning and incorporates many different teaching and learning styles. To accompany this, English Heritage has produced a teachers' guide to Charles Darwin: His Life, Journeys and Discoveries linking to the National Curriculum.

96. English Heritage have been working alongside experts at The Charles Darwin Trust to develop 'Discovery Visits' for 2009. These are education programmes available to schools focusing on Darwin's Garden, Victorian Families and Darwin the Man. These will be linked into the National Curriculum focussing on Specific Key Stages. Experts will deliver the lessons, which will highlight Darwin's work around the house and surrounding area and will bring the house to life as a living museum with costumed actors helping to deliver the programme. The education programmes will also be developed for use and trialed with local Special Educational Need (SEN) Schools

- High Elms Country Park provides ranger-led Key Stage 2 and adult education classes, as well as a schools' outreach service. Although this is currently not linked to Darwin studies there is tremendous potential for increasing the scope and delivery of both formal and informal education on this specific site. The High Elms Country Park Nature Trail explores the High Elms Estate and details the history of Lubbock and Darwin. Interpretation boards detail the habitats of the nature garden and the chalk grasslands and explore biodiversity

97. The site is also home to BEECHE (Bromley Environmental Education Centre at High Elms) which is a newly-built sustainable building with a café and two large multi-functional rooms for use by community groups, local businesses and schools. The building is a single storey timber frame with a 'green' sedum roof, straw bale walls and sun pipes. BEECHE is a community facility that delivers environmental education to schools and provides visitors with information on how to live a sustainable lifestyle. It aims to build on the work of Charles Darwin and Sir John Lubbock through education and offers activities and events for schools and the public throughout the year.

98. High Elms also has a specific audio trail developed for the site as a series of trails around the nominated Property available to download onto MP3s/phones and ipods, aimed at 11-16yr olds. These were developed and trialed successfully and are now available on the website www.audiotrails.co.uk/downloads/bromley.htm The trail recounts the stories of people who have lived, worked and played on the estate over the past 60 years, and tells the story of the former resident John Lubbock, Darwin's scientific neighbour.

- The current interpretation board at the entrance to the Kent Wildlife Trust nature reserve at Downe Bank briefly outlines the importance of this Site both as a wildlife rich habitat and as part of Darwin's history.

99. In May 2005, the project 'Exploring in Darwin's Footsteps' was launched to improve the provision of Darwin related information and education facilities within the nominated Property. Run through summers of 2005 - 8, it is anticipated that this will become a permanent feature.

100. This project introduced people to the work of Charles Darwin through looking at the beauty and biodiversity of the site. It involved members of the biodiversity sub- group and promotes a co-ordinated and co-operative approach between all the group partners thereby ensuring the most effective delivery of informal Darwin related education



Learning about beetles with an expert from the Natural History Museum



Teaching local people about orchids at Downe Bank

It involved: -

- Family events introducing people to Darwin's wildlife and how he observed the living world
- The training of volunteers who were then able to record their sightings via the website 'www.darwinswildlife.co.uk'
- Project work with schools and youth groups
- Specific scientific research carried out via links to the Natural History Museum

101. In October 2008 £230K was awarded from Heritage Lottery Fund (HLF) for the project 'Discover Darwin's Origins at Downe, the work carried out will follow on and expand on previously funded HLF projects.

102. A programme of activities and events will be delivered that will follow the chapters of *The Origin of Species*. The community will be made aware through exciting workshops, training programmes and activities that reach out to the wider community. An education programme will also be developed around the chapters of *The Origin of Species*. This will link in with the important studies of Darwin that took place throughout various significant sites around Downe.

103. A Darwin Festival will draw together all members of the local and wider community to celebrate their heritage and historic landscapes.

- Activities designed to help increase learning about, and participation in the heritage.
- Training to educate the local community including schools about the local heritage
- Facilitate physical and intellectual access for the community and wider public who have limited access and experience of the site.

Value of the Property for Education and Darwin-Inspired Learning

104. Darwin-inspired learning takes Darwin's life, methods of working, ideas and the places where he worked as a source of inspiration. Authentic learning experiences can be based upon what is known about Darwin's life and times. The nominated World Heritage Property provides an opportunity to initiate education projects and develop resource materials, which encourage exploration, enquiry-based learning, and the associated skills of observation, attention to detail and analysis of evidence which were so important to Darwin's work.

105. The World Heritage Property provides an opportunity to promote the use of the nominated Property as an educational resource, exploring both the scientific and historical aspects of Darwin. It is ideal for exploring the natural world outside the classroom and promoting methods of investigation and analysis inspired by Darwin. Learning in the real natural world outside the classroom is vital, as it was for Darwin, and its virtual representation, though important, can never be a substitute for real investigation. Almost all of Darwin's investigations can be accessed remotely and repeated in the familiar surroundings of home and school. His way of working engenders curiosity about the natural world wherever the learner is.

106. This project also provides the opportunity for the successful interpretation of Darwin's work to influence behaviour by encouraging greater care for wildlife and improving understanding of the need to protect biodiversity for future generations. Conserving the landscape around Downe will add immeasurably to the potential for lifelong learning of the natural sciences at all levels now and in the future. Learning about Darwin the man will assist in understanding the influence he has had on society and our everyday lives.

Promoting access for all

107. Initial Rights of Way improvements were made to address some immediate concerns on accessibility throughout the nominated Property's footpaths and a further access audit brief was written to address the wider concerns. Also with funding from Transport for London, Trumper vehicles were purchased to enable greater use, access and enjoyment of the High Elms Country Park for disabled users through the 4x4 off road disabled vehicles. These are available free for hire to the public, and have already proved very popular.

108. An access audit has been commissioned to produce a report by February 2009 outlining an accessibility audit of the public rights of way within and to the Darwin's Landscape Laboratory proposed nominated Property. This will enable potential users of the routes and footpaths around the Property, to be able to determine whether they can use a route, and what they might expect based on the audit. This will be delivered by two means, a report and map, which will be available to download from the website. This information will act as a record of present position of routes and help inform the Borough on where best to target action to improve these routes.

109. There is a need to make the education and information experience of the nominated Property more socially and physically inclusive to ensure a broad audience is targeted. Informational programmes, like access, need to be available to all regardless of physical ability or income. Currently Down House is accessible for wheelchair users and information includes a cassette with audio presentation. However, away from the house and its garden, the hilly nature of the area makes wheelchair access impossible to some areas. Around High Elms Nature Garden wheelchair access has been improved and similar improvements may be possible in other areas. More work with schools and youth groups from less affluent parts of Bromley and south-east London is planned and remote access is also vital for allowing a wider range of people to benefit from the Property.

5.k Partnership Working

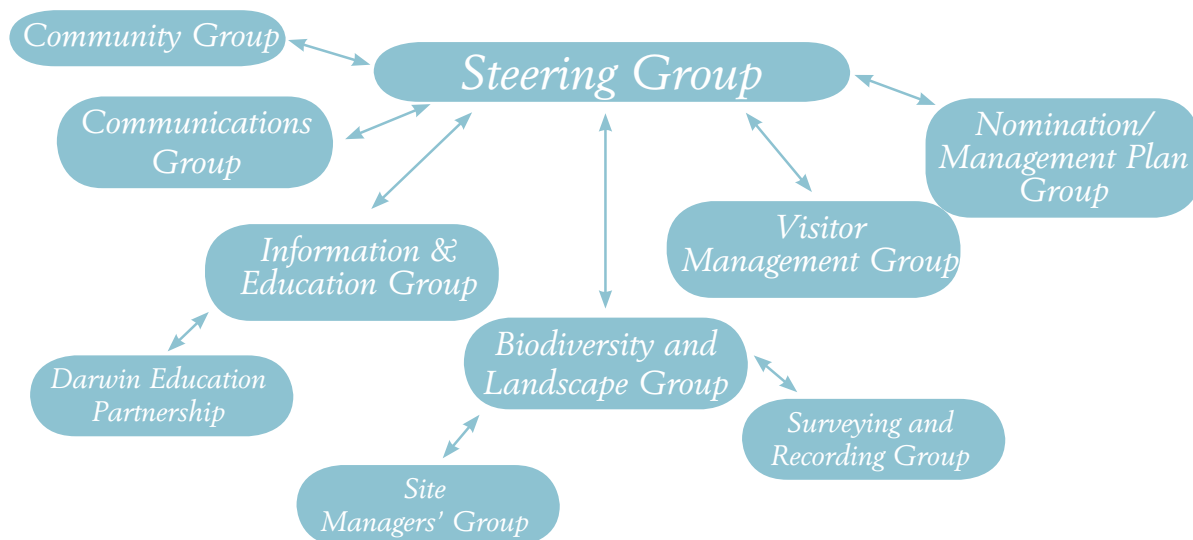
110. The nominated World Heritage Property is owned and managed by a number of organisations and individuals. These groups have a diverse range of aims, objectives and motivations. All organisations, whether occupiers, managers or owners, have the potential to affect, and be affected by, the management of the nominated Property. The London Borough of Bromley has management responsibility for the whole Property. Administrative and financial management functions are also provided by the London Borough of Bromley, which co-ordinates the activities of the World Heritage bid and related projects and employs the World Heritage Property team.

111. Conflict between the management needs of the nominated Property and the aims of the involved agencies and individuals is a possible issue. For this management plan to be effective in protecting the nominated Property through sustaining of its Outstanding Universal Value, it is necessary for those bodies on the Darwin's Landscape Laboratory Steering Group to adopt the plan as a key document for guiding strategic management of the nominated Property, and refer to its aims and objectives in the development of their own plans. These bodies include:

- Department of Culture, Media and Sport
- London Borough of Bromley
- English Heritage
- ICOMOS UK
- Natural England
- Greater London Authority
- London Development Agency
- London Wildlife Trust
- Kent Wildlife Trust
- The Charles Darwin Trust
- The Natural History Museum
- Downe Residents Association
- The Lubbock Family

112. The Steering Group has provided a catalyst for promoting co-ordinated management. Its role during the production of the Management Plan has been to:

- Give a strategic view
- Co-ordinate the World Heritage Property process
- Advise and receive information from the sub groups
- Promote the World Heritage Property proposal



113. The creation of the Steering Group has led to the development of specific sub groups, as shown in the diagram above, which have all contributed to the production of this Management Plan. The Steering Group is responsible for co-ordinating the work of the sub group and determining the direction in which these sub groups take and their life span after inscription.

114. Securing a co-ordinated and consensual approach to the future management of the nominated World Heritage Property is a critical issue and one that will be addressed by the adoption of this Management Plan. The World Heritage Property Steering Group will guide future co-ordination of the site. Its function does not cease after the decision by the World Heritage Committee is taken. A new role will be defined to ensure that the aim and purpose of the nominated Property continues to be fulfilled.

Securing funding

115. Securing funding is a key issue being addressed by the Steering Group and bids are initiated through the World Heritage Team at Bromley Council. The writing and administration of the two documents and the successful launch of 'Darwin's Landscape Laboratory' related projects require funding and resources. Implementation of the policies and actions over the next five years, as highlighted in this Management Plan, will also require investment and resources. Just as the responsibility for implementation rests with a range of organisations, funding and other resources are likely to come from a range of sources. Much of this funding will be specific to certain objectives and may come from outside funding such as the Heritage Lottery Fund or agri-environmental support.

The involvement of local communities in management decisions relating to the Property

116. The inscription of 'Darwin's Landscape Laboratory as a World Heritage Property will be an opportunity for the local community to celebrate and understand their local heritage. It will be a source of local and civic pride. As the local community is an essential part of the bid process, it is important that the community is involved in and supports the related projects, such as 'Exploring in Darwin's Footsteps'. The management of the nominated Property is a particularly crucial aspect of community involvement. Inscription may affect those living in and around the Property, stakeholders, and businesses and so gauging their needs and desires will help reduce conflict through the management of the nominated Property.

5.1 Security of Artefacts

117. There are many Darwin artefacts kept in different places not only at Down House, but in museums in London and abroad. Cambridge University library stores the majority of the Darwin manuscripts. Specimens collected by Charles Darwin are stored, and on public display, at the Natural History Museum and The Museum of Zoology at Cambridge.

118. Such valuable items are susceptible to theft and damage. The protection and safety of Darwin's artefacts is of key importance. Security and preservation of the artefacts is taken very seriously. English Heritage has undertaken a Risk Assessment for Down House. Amongst other things this looks at security and assesses the likelihood of natural and man made emergencies. The results of this risk assessment have been used to develop an Emergency/Business Continuity Plan which is kept up to date. At Cambridge University the Darwin Archive is housed in a purpose-built strong room. Both

the strong room and the entire library building are protected by fire and intruder alarms. In September 2002, the Natural History Museum opened Phase 1 of the Darwin Centre and Phase 2 was opened in 2009. This building provides world-class storage, not just for Darwin's artefacts but also for other precious collections including 22 million creatures preserved in jars of alcohol, new laboratories and behind-the-scenes access for visitors.