

# INTERPRETATION

A Journal of Heritage and Environmental Interpretation



*Carrying Capacity*

December 1996

# INTERPRETATION

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*Editor:* Marion Blockley  
Ironbridge Institute  
Ironbridge Gorge Museum  
Telford TF8 7AW  
Tel: 01952 432751  
Fax: 01952 432237  
M.R.Blockley@bham.ac.uk

*Associate Editors:* Carl Atkinson and Phil Dagnall  
Centre for Environmental Interpretation  
Manchester Metropolitan University  
Lower Chatham Street  
Manchester M15 6BY  
Tel: 0161 247 1067  
Fax: 0161 247 6390

*Production:* Marion Blockley and Carol Sampson

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THE SOCIETY  
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of BRITAIN'S  
HERITAGE



Centre for Environmental Interpretation

# CARRYING CAPACITY AND SUSTAINABILITY

December 1996

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Cover picture: Hindu wedding celebration  
on the Ganges at Varanasi -  
photo by Marion Blockley



SEASONAL WEDDINGS

# EDITORIAL

**I**m sure we are all familiar with the well rehearsed arguments surrounding the 'S' word "sustainability", "sustainable tourism", "sustainable development" in its various guises. The more cynical amongst us would say that it is a concept more regularly talked about by politicians and tourism professionals than applied or properly resourced. A recent Countryside Commission survey reported that nearly 60% of the population in England visits the countryside, whereas the figure for Scotland and Wales is 50%. Around one billion visits are made each year and these constitute one third of all leisure visits. To make matters worse, four out of ten of these visits take place at weekends.

Snowdonia National park "enjoys" 1.3 million visits a year and over half a million of these visitors tramp up the six paths to the summit of Snowdon. Clearly the physical impacts on the environment from this level of visiting are obvious. However, there is also the problem of the "quality" of the experience and the impact on the peace and tranquillity of a location whether it be a remote upland moor, a small market town or a fine cathedral city.

Interestingly, the 'S' word is merely the 1990s incarnation of the hotly debated concept of recreational carrying capacity. Carrying capacity theory assumed that the absolute numbers a particular location could support before irreversible physical damage or unacceptable levels of over crowding occurred could be predicted. Arguments raged about the efficacy and methodology of the concept during the 1960s and the 1970s in North America. In the 1980s the theory of "Limits of Acceptable Change" was developed by the US Forest Service on upland wilderness areas. Attempts have been made recently to apply this concept to the more complex cultural, social and political landscapes of the UK.

Techniques of visitor management and control are being refined in many of our historic towns and designated landscapes. In the Peak District and the Lake District there is talk of car bans on key routes. The National Trust has developed a policy encouraging its visitors to travel by bus, rail or bicycle (see Jo Mumford's article). The Trust is to be applauded in its initiative to offer discounts on entry charges to visitors for certain properties who travel by public transport. Of course, this all presupposes a government transport policy which enhances and develops our system of public transport, rather than undermining it.

One thing we as interpreters can do, however, is to inform and educate our visitors, both on-site and before they take that fateful decision to visit Dovedale on Bank Holiday Monday. In particular we can work with children, often highly influential in the choice of a family day out or short break holiday destination. Children care passionately about the environment and are capable of understanding sophisticated concepts of conservation and the quality of life. They are perceptive enough to demolish the hype of the tourism industry and its mountain of promotional leaflets. We were all brought up on Tilden's rallying cry to "provoke and inform", clearly the sustainability issue is an area where we can make a difference. Finally the principles for sustainable tourism specified by the English Tourist Board Working Party emphasise the importance of community benefit. We as interpreters can and should work with and empower our local communities to inform, educate, manage and provoke their visitors in the nicest possible way.

**Marion Blockley**  
Ironbridge



# ***SUSTAINING the UNSUSTAINABLE***

## ***DEFINITIONS OF SUSTAINABILITY***

World Conservation Union 1991  
*'Improving the quality of life while living within the carrying capacity of supporting ecosystems'*

The Red Indian Chief Seattle offered a saying which also defines sustainable development  
*'We do not inherit the world from our ancestors: we borrow it from our children'*

Brundtland Commission 1987  
*'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs'*

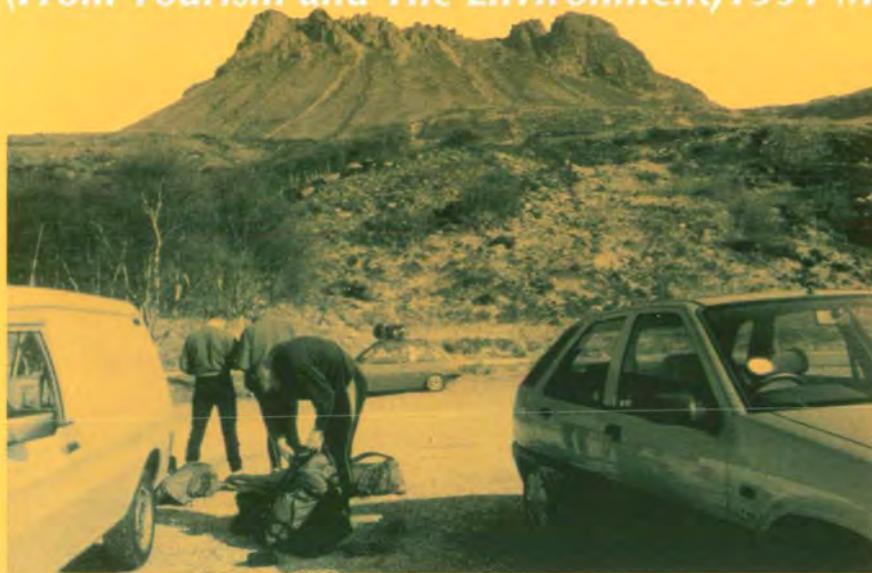
Government White Paper 1990 'This Common Inheritance'  
Sustainable development is "living on the earth's income rather than eroding its capital, it means keeping the consumption of renewable natural resources within the limits of their replenishment. It means handing down to successive generations not only man-made wealth, such as buildings, roads and railways, but also natural wealth such as clean and adequate water supplies, good arable land, and a wealth of wildlife and ample forests ... sustainable development is not sacrificing tomorrow's prospects for largely illusory gains today"

The EC's fifth environmental action programme 'Towards Sustainability' of 1992 refines the Brundtland definition  
*'Continued economic and social developments without detriment to the environment and the natural resources, on the quality of which human activity and further development depend'*

The UK Government offered a further (and perhaps more watered down) definition in its UK Strategy for Sustainable Development 1994  
*'Sustainable development does not mean having less economic development; on the contrary, a healthy economy is better able to generate the resources to meet people's needs, and new investment often go hand in hand. Nor does it mean that every aspect of the present environment should be preserved at all costs. What it requires is that decisions throughout society are taken with proper regard to their environmental impact'*

# PRINCIPLES FOR SUSTAINABLE TOURISM

*(from Tourism and The Environment, 1991 Maintaining the Balance)*



**Tourism carries the inherent danger that it can destroy the thing that generated it in the first place.**

The key to ensuring that this does not happen and that the benefits outweigh the costs - is to recognise that tourism and the environment are mutually dependent. Tourism cannot thrive in the long term without an attractive environment to sustain it. Similarly, without tourism, heritage sites, historic towns and rural communities would lose a powerful source of potential support and in many instances would ultimately suffer.

Their independence can best be illustrated as a three-way relationship between the visitor, the place and the host community. If this relationship is in harmony, then tourism can be seen as a rich source of opportunity - widening the visitor's horizons, improving the quality of life for the local community and leaving our heritage in a better condition for succeeding generations. However, the relationship is a dynamic one and does not preclude change.

- The environment has an intrinsic value which outweighs its value as a tourism asset. Its enjoyment by future generations and its long term survival must not be prejudiced by short term considerations.

- Tourism should be recognised as a positive activity with the potential to benefit the community and the place as well as the visitor.

- The relationship between tourism and the environment must be managed so that the environment is sustainable in the long term. Tourism must not be allowed to damage the resource, prejudice its future enjoyment or bring unacceptable impacts.

- Tourism activities and developments should respect the scale, nature and character of the place in which they are sited.

- In any location, harmony must be sought between the needs of the visitor, the place the host community.

- In a dynamic world some change is inevitable and change can often be beneficial. Adaptation to change, however, should not be at the expense of any of these principles.

- The tourism industry, local authorities and environmental agencies all have a duty to respect the above principles and to work together to achieve their practical realisation.

## A Selected List of Accessible Introductions to the Subject:

*English Tourist Board. 1991  
Tourism and the Environment,  
Maintaining the Balance*

also in the same series published  
in 1991

*Tourism and the Environment,  
Maintaining the Balance, Report  
of the Heritage Sites Working  
Group*

*Tourism and the Environment,  
Maintaining the Balance, Visitor  
Management Case Studies*

English Tourist Board,  
Countryside Commission, The  
Rural Development Commission.  
1991 *The Green Light, A Guide  
to Sustainable Tourism*

Countryside Commission,  
English Tourist Board,  
Department of National Heritage,  
Rural Development Commission.  
1996 *Principles of Sustainable  
Rural Tourism, opportunities for  
local action* - available from  
Countryside Commission Postal  
Sales, PO Box 124, Walgrave,  
Northampton NN6 9TL

# NOTES ON CARRYING CAPACITY

Photo: Marion Blockley



Palmyra, Syria - World Heritage Site.

Coach parties climbing the tower tombs.



Marion Blockley

Early work on recreational carrying capacity was developed in the United States of America in the 1960s. The 1960 California Outdoor Recreation Plan stated "each recreational resource type within a region has a maximum user carrying capacity, defined as the numbers of users per acre per day and season, and when used beyond this capacity the character and quality of the resource would be altered or destroyed". In 1964 Wager of the University of Seattle defined recreational carrying capacity as "the level of recreational use an area can withstand while providing a sustained quality of recreation".

Inherent in all carrying capacity theory are the two concepts of the physical and the psychological capacity of a site. Invariably the psychological capacity will be exceeded before physical deterioration such as path erosion is triggered. Whilst physical site deterioration can be predicted with a fair degree of accuracy - social and cultural factors are more difficult to quantify and specify. The views of residents and visitors are equally important as the indicators of ecological dam-

age. However, most studies of carrying capacity have neglected the views of residents and visitors alike. Further the social and cultural backgrounds of visitors to sites have a significant influence on their levels of toleration of overcrowding. Certainly, we are prepared to accept a greater restriction on personal space at a party, pop concert or cinema than we are when contemplating the scenic beauty of a landscape. Whilst travelling by crowded coach to the Taj Mahal as part of a recent conference tour I was somewhat surprised to find the tour leader perched on my lap for the duration of the journey. Clearly there was no invasion of personal space as far as he was concerned.

Interestingly, recreational carrying is derived from an agricultural model, the absolute number of livestock a particular acreage will support without serious deterioration. It could be argued that visitors like most quadrupeds are gregarious and tend to cluster rather than disperse themselves evenly over a given area.

## Selected Further Reading:

Arup Economics and Planning. 1995 *Environmental Capacity. A Methodology for Historic Cities*. Cheshire County Council, Chester City Council, English Heritage

Getz, D. 1983 *Capacity to Absorb Tourism: Concepts and Implications for Strategic Planning*. New York: Pergamon

O'Reilly, A.M. 1986 'Tourism Carrying Capacity: Concept and Issues' *Tourism Management Volume 7*



# PEOPLE, PATHS AND STONEHENGE

Philip Haysom

## Introduction

Although the long running struggle to improve visitor facilities and interpretation at Stonehenge is far from over, any solution will almost certainly involve the dispersment of visitors over a wider area, and the use of grass paths for access. With this in mind, Brian Bath, then Head of Interpretation at English Heritage, commissioned a study in 1993 measuring pedestrian flow rates in leisure situations. A synopsis of the study was presented at the SIBH/CEI Conference on evaluation "Weighed in the Balance". The resulting report prepared by Dr Paulette McManus and Mr Paul Chapman has not yet been published, so this article provides a brief overview.

## The Situation at Stonehenge

Stonehenge is an extremely important and very popular World Heritage Site. Most readers will be aware that the large numbers of visitors impose considerable strain on both the visitor facilities and the site itself. On a busy day some 7,500 people visit Stonehenge. Using the average visitor attendance figures for the twenty days of highest attendance, 990 visitors per hour need to be accommodated at peak times. Currently visitors follow a roped pathway round the actual stones, and the pressure of numbers has resulted in marked wear of the grass around this circuit, to the detriment of both the site and the visitor experience.

At the time this study was carried out (1993), the creation of an archaeological park, with a car park and visitor centre at Larkhill was under consideration. This would have incor

porated three wide grass paths up to 7.2 metres wide leading from the Visitor Centre to the monument (a distance of  $\frac{1}{2}$  -  $\frac{3}{4}$  Km). The intention was to minimise physical deterioration of the paths, and improve visitors enjoyment of the site by providing more space and a choice of routes to follow.

In order to plan these paths, information was needed on both visitor numbers at the site, and flow rates along such paths. Although much has been written and researched concerning concepts of Personal Distances and Carrying Capacity, there appears to have been no prior measurement of actual strolling rates and actual group sizes at heritage sites.

## The Concepts of Preferred Strolling Rates and Personal Distances

Although there are no specific references in the literature to strolling rates, it is likely that the pace at which people walk or stroll will be influenced by a number of factors. For instance their length of stride, or that of the smallest member of their group, the overall flow rate of others around them and their perception of their current situation and intentions. In order to calculate the optimum density of use of a path, from the visitor's point of view, it is necessary to know the speed at which people prefer to move along the path. The other information needed is the distance



which a group wishes to maintain between itself and surrounding groups of people.

Although there are studies relating to the concept of Personal Distance in social contexts, for instance by Michael Argyle and Desmond Morris, they are not directly applicable to the situation at Stonehenge as they relate to stationary people. Other studies, for instance The Wisconsin Outdoor Recreation Plan (reported in Tivy J. 1972) give guides to the density of use for paths and trails that again are not necessarily applicable to heritage sites in the UK. Therefore, this study is concerned with the empirical observation of strolling rates and personal distances in leisure situations.

**The Concept of Carrying Capacity**

The concept of the carrying capacity of recreational sites is derived from agricultural models for the carrying capacity of grazing land in terms of the number of animals per acre. The concept of a maximum carrying capacity for a recreational or heritage site, beyond which unacceptable degradation occurs, is not difficult to grasp. However, although there have been many studies of carrying capacity in relation to recreational sites, especially in the USA, it seems to be accepted that the determination of specific numeric measures is not often possible.

Carrying capacity is often sub-divided into three key areas:

- ✦ Physical Capacity - relating to the physical impact of visitors on the site
- ✦ User or Aesthetic Capacity - relating to users perception of the site, including factors such as overcrowding
- ✦ Economic Capacity - relating to financial and economic considerations

Although not easy to quantify in precise terms, the concepts of carrying capacity do provide a useful framework to guide sensitive and responsive site management.

**Objectives of the Survey**

1. To record the Actual average group size at various locations, as opposed to the data on visitor group size data that is often collected. The wear and tear on a site is determined by

- the actual groups walking over it.
- 2. To determine the size range of strolling groups at various locations.
- 3. To determine range of distances, and the average distance, between groups at various locations.
- 4. To determine the average strolling pace at a range of sites, and the average across all sites surveyed.
- 5. To suggest significant factors likely to affect group size at the locations studied.
- 6. To suggest significant factors likely to affect the distance between groups at the locations studied.
- 7. To consider the findings of this study in relation to the notion of carrying capacity.
- 8. To suggest further lines of enquiry.

**Survey Method and Sampling Technique**

A range of six sites detailed in the table below were surveyed midweek between 22/2/93 and 19/4/93. The sites were selected to include recreational leisure destinations, heritage destinations and public spaces frequented by tourists.

<p><b>Holland Park, London</b>  <i>Recreational leisure destination</i>                  (On the long walk from the Kensington High Street Gate)</p> <p><b>Kew Gardens, Surrey</b>  <i>Recreational leisure destination</i>                  (On the broad walk between the Palm House and the Orangery Restaurant)</p> <p><b>Stonehenge</b>  <i>Heritage destination</i>                  (On the path around the monument)</p> <p><b>Hampton Court Palace, Surrey</b>  <i>Heritage destination</i>                  (In the Clock Courtyard)</p> <p><b>Oxford Street, London</b>  <i>Public space</i>                  (Footpath East of main entrance of Selfridges Department Store)</p> <p><b>Westminster, London</b>  <i>Public space</i>                  (Footpath between Westminster Tube Station and the Houses of Parliament)</p>
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The study was designed by Dr Paulette McManus, and data collection and analysis was carried out by Mr Paul Chapman of English Heritage, with assistance from Fleur Mainwarring, a Heritage Diploma student from St Mary's College, Strawberry Hill.

The data collection method was tested at Holland Park. Two observers with stop watches and recording sheets were placed at each end of a measured section of path for a period of one hour. The stop watch was activated when a person passed the first



observer, and details of group size, sex, adults and/or children numbers recorded. As the individual or group passed the second observer a signal was given, the stopwatch halted and the elapsed time recorded. The next person to pass the first observer became the next subject of observation, and the time between subjects passing the first observer was also recorded.

The strolling pace of the subjects was calculated in metres per second, and the distance between groups calculated using the average stroll rate and data for time between groups. Subsequently, a single observer used a video camera to record the movement of people over a measured distance. This procedure saved time and worked well, although it limited the length of measured path that could be used.

The distances observed ranged from 5.97 metres near the Houses of Parliament to 39 metres at Holland Park, with 34.4 metres being observed at Stonehenge. The weather was dry in each case, but low temperatures at that time of year (February, March and April) may have influenced strolling rates. The paths

were tarmac surfaced, except in the case of Stonehenge, where a mixture of turf and tarmac was observed.

**Survey Findings**

**Strolling Rate:** The average strolling rate was 0.96 metres per second, and was remarkably consistent between sites.

The fast rate at Stonehenge may have been influenced by very cold weather at the time of observation, or may reflect visitors becoming bored with the circular route round the stones and walking faster in order to leave the site.

Strolling rates did vary considerably when analysed by type of group, and ranged from 0.83 metres per second for single males to 1.33 metres per second for a couple with child. This suggests that social distance theories were operating, and that the flow rate of visitors through a site is likely to be influenced by the demographic profile of visitors.



minimum distance strolling groups must maintain in order to move freely.

On the basis of these figures, an "ideal" distance between groups lies between 1.92 and 75.03 metres, but further data and analysis is needed.

**Group Size:** The average actual group size recorded was 1.9 individuals, (people walking alone were considered to be a group of one) with a range from 1 to 22 individuals. The largest group sizes were 22 on the Houses of Parliament footpath and 11 at Stonehenge. These sizes were probably influenced by overcrowding, and the individuals in the groups may not have had any association with each other.

Across all the sites an average of 87 percent of groups consisted of one or two people. However, the obvious tourist destinations of Kew Gardens, Stonehenge and Hampton Court had higher proportions of groups of two or more than the other three locations.

**Recommendations**

Further observations are needed, especially at Stonehenge. As weather conditions are likely to affect patterns of visitor behaviour at this type of outdoor site, additional studies during the summer and under a variety of weather conditions are needed.

This study only looked at the flow of people

along paths. It did not consider the spread of people across wide paths, which can affect flow rate considerably.

In addition, this study only looked at the physical, ecological aspect of carrying capacity. A visitor survey incorporating open ended questions is needed to look into visitor satisfaction and thus the aesthetic carrying capacity of Stonehenge.

**Further Reading:**

McManus, P. and Chapman, P. 1993 *The Measurement of Pedestrian Flow Rate in Leisure Situations: A Component of the Carrying Capacity of the Paths at the New Presentation of Stonehenge*. A report prepared for English Heritage

Tivy, J. 1972 *The Concept and Determination of Carrying Capacity of Recreational Land in the USA*. Countryside Commission for Scotland

*Philip Haysom is Treasurer of SIBH. He carried out an evaluation of carrying capacity theory as part of his Masters in Heritage Management.*

Site	Average Rate (Metres/Sec)
Holland Park	0.93
Kew Gardens	0.97
Oxford Street	0.83
Stonehenge	1.05
Hampton Court	0.99
Houses of Parliament	0.95
All Sites	0.96

**Distances Between Groups:** The average distance between groups at all sites was 46.1 metres, while the average distance at the three tourist destinations (Kew Gardens, Stonehenge and Hampton Court) was 75.03 metres. The survey results are summarised at the foot of the page.

It is likely that the short distances recorded at Oxford Street and the Houses of Parliament reflect the level of crowding at these sites, while the very large distances recorded at Kew Gardens and Stonehenge are probably the result of low visitor flow.

The time between groups was also recorded, and a preliminary analysis of this data for four of the sites indicated that 1.92 metres was the

Site	Average Distance (Metres)	Range (Metres)	No. of Group	No. of Individuals
Holland Park	N/A	N/A	40	56
Kew Gardens	101.54	0 - 595.88	54	110
Stonehenge	74.86	0 - 303.32	136	297
Hampton Court	48.66	0 - 204.06	57	117
Oxford Street	2.89	0 - 32.73	80	118
Houses of Parliament	6.54	0 - 35.79	61	108
All Sites	46.05	0 - 595.88	331	806

# CAPACITY COMPROMISED?

Duncan Bryden



*At informal car parks visitors often do not stray far from their cars -Photo: Duncan Bryden*

This was not generally the finding of a report commissioned by the Secretary of State for Scotland in 1991 and called a **Review of Tourism and the Scottish Environment**. The Review recognised that tourism in Scotland is a complex industry comprising of some 20,000 businesses. The majority of these are small enterprises and most have a seasonality problem. Figures for 1995 indicate almost 10 million UK residents and 1.8m overseas visitors took holidays in Scotland: the tourism industry want more visitors, but not necessarily in July and August. It would help cash flows immensely if visitors came in the spring and autumn or better still in the winter, most do not and in the summer popular places can be jumping! Is this sustainable?

For 90% of our US (our largest overseas market) visitors the scenery is the aspect they most like about Scotland. Thus environmental quality underpins much of what is good about Scotland and there is still considerable sustainable potential to use the environment for tourism purposes. Visitors tend to be attracted to sites offering the unusual and the rare. But it is precisely these sorts of sites - old buildings, wildlife, mountains and wetlands that are most susceptible to the impact of visitors. The Review did show that there were a number of hot spots where visitor pressure in time and space (often in July and August) were acute, but that these are apparently manageable. To implement the recommendations of the Review a multi organisation partnership, the Tourism and Environment Task Force was charged with piloting some of these management practices.

## Hot Spots

Where are these manageable hot spots? The residents of St Andrews are well acquainted with the concept of being full - too full some would say. Similarly, those living in the Trossachs are familiar with the feeling of being over visited. Visit Aberfoyle on a warm day during the Glasgow Fair and you will quickly get the picture. Even the remote Cairn Gorm/Ben MacDhui plateau can get very busy. Small numbers perhaps, but in such unforgiving terrain natural actions takes many years to recover from the damage caused by even a modest

number of feet. Damage here is by no means proportional to visitor numbers. When the frost comes out of the ground in the spring snow melt the soil is much more vulnerable than when it is hard and dry during the summer. Conversely, upland lichen heaths are more vulnerable during dry weather. The lichens dry out, become brittle and when trampled they snap and break off. During wet weather lichens absorb moisture become pliable and are less vulnerable to damage. Of all Scottish habitats the marine environment is probably the least altered. In 1990 there were no boats taking visitors to watch dolphins in the Moray Firth, in 1991 one boat was operating. By 1996 a further 10 boats were taking dolphin watching trips. Natural sites are particularly complex and it is only through employing multiple measures that we will ever know how best to manage effectively.

Buildings too of all ages from the prehistoric Maes Howe in Orkney, to the medieval castle

of Craigievar in Aberdeenshire and to Hillhouse, the one time home of Charles Rennie Mackintosh are suffering from the relentless tramp of the visitor on floors and stairwells that were designed with domestic use in mind.

I contend that the hotspots can and are being managed. In a crude way capacity is already being reduced, particularly at single purpose sites. By cutting the marketing, banning 'casual' coaches and introducing a booking system, reductions at these sites have already been made. However, most of the effort is towards reducing the impact on the resource rather than deliberately improving the experience for the remaining visitors, both of which are difficult to measure. On previously undisturbed sites such as Nevis Range Ski Area on Aonach Mhor a Limits of Acceptable Change system has been in operation for some years and is made easier by good baseline data, (see note on LAC below, Ed).

## Partnerships

Multi-access sites such as towns and mountains are rather more difficult. The tourism economy often has a powerful voice and impacts on the heritage are seen in some cases, in the words of the military, as acceptable collateral damage. Capacity is seen as having dangerous connotations of limits and controls. But at least there is some recognition of the impacts and when the term capacity becomes synonymous with the term quality more notice is taken. Tourism Management Programmes (TMPs) have been promoted by

the Tourism and The Environment Task Force as one approach to tackle the multifaceted issues in these hot spot destinations. There are now 14 TMPs across Scotland. Under the TMP banner, true partnerships between the public sector, private sector, private operators, communities and voluntary groups to take on these issues and improve the resource while creating balanced economic opportunities has to be the way forward.

**Cumulative Impacts**

Can it be as simple as this? Are the problems confined to these so called hot spots? Are the small cumulative impacts of visitors slowly filling the last glass a drop at a time? Until unobserved, we lose our already dilute but beloved natural and cultural single malt heritage as it trickles over the edge, unretrievable, onto the sawdust covered floor of a bar called tourism.

Between the hot spots are many other less popular but no less important sites that visitors are just beginning to use and local people wish to promote. The sort of place at which Billy Connolly will stand in front of the camera and say to seven million viewers 'there's nae-body here'. Hot spots are recognised. It is the complacency regarding the other sites that give rise to concern. Capacity measures, if they exist are rarely applied at such sites - the roadside lay-by, the quiet beach, the mountain view point, the loch shore, the crannog or castle ruin. They are the cement between the popular paying attractions. A place the visitor can stop and enjoy the local heritage at no charge. Generally, they generate no direct revenue and there is a reluctance to take the responsibility necessary to maintain or enhance them resulting in a low capacity. They can quickly reach saturation in terms of parking, litter, poor interpretation, path erosion and neglect. The Interpretive Planning Handbook shortly to be published by the Task Force and aimed at community councils and agencies is outreach material designed to tackle this type of site and set it in a wider context.

**Visitors are Everywhere**

There are very few places where visitors in some measure do not get to. Most visitors come during the summer, but other times of the year have become more popular. The deeper countryside is attracting more visitors throughout the year. Increasingly, recreationists are on, in and under water, earth and sky. Advances in technology have given rise to new activities and changed traditional ones. Modern protective clothing permits a defiance of the elements and freedom of movement in the most hostile of terrain at all times of the year. Such equipment and clothing is readily available in the high street and is relatively cheap. Pack it in the car and you can be in most places in Scotland in less than the time it used to get from Edinburgh to Pitlochry 30 years ago. Membership of Heritage Organisations has rocketed over the



*PS Waverly arriving at Tighnabruaich. Sudden influxes of visitors can cause management problems if the destination is unprepared  
-Photo: Duncan Bryden*

absorb or 'carry' before there is irreversible negative impact on the resource or on those experiencing that resource. This question of how many is at the heart of the carrying capacity concept. There have been doubts expressed about the value of the term, but it has seen a recent revival of use for example by the English Tourist Board in the report *Maintaining the Balance* (see references after 'Principles for Sustainable Tourism', Ed) and by the Scottish Office report of the Cairngorms Working Party. However, this reuse has not provided an improved definition although there is generally more information available from which capacity estimates can be made. The mistake in the past has perhaps been to expect a magic number when carrying capacity is better viewed as an adjunct to the sustainability debate by introducing the concept of limits based on objective practical decision making.

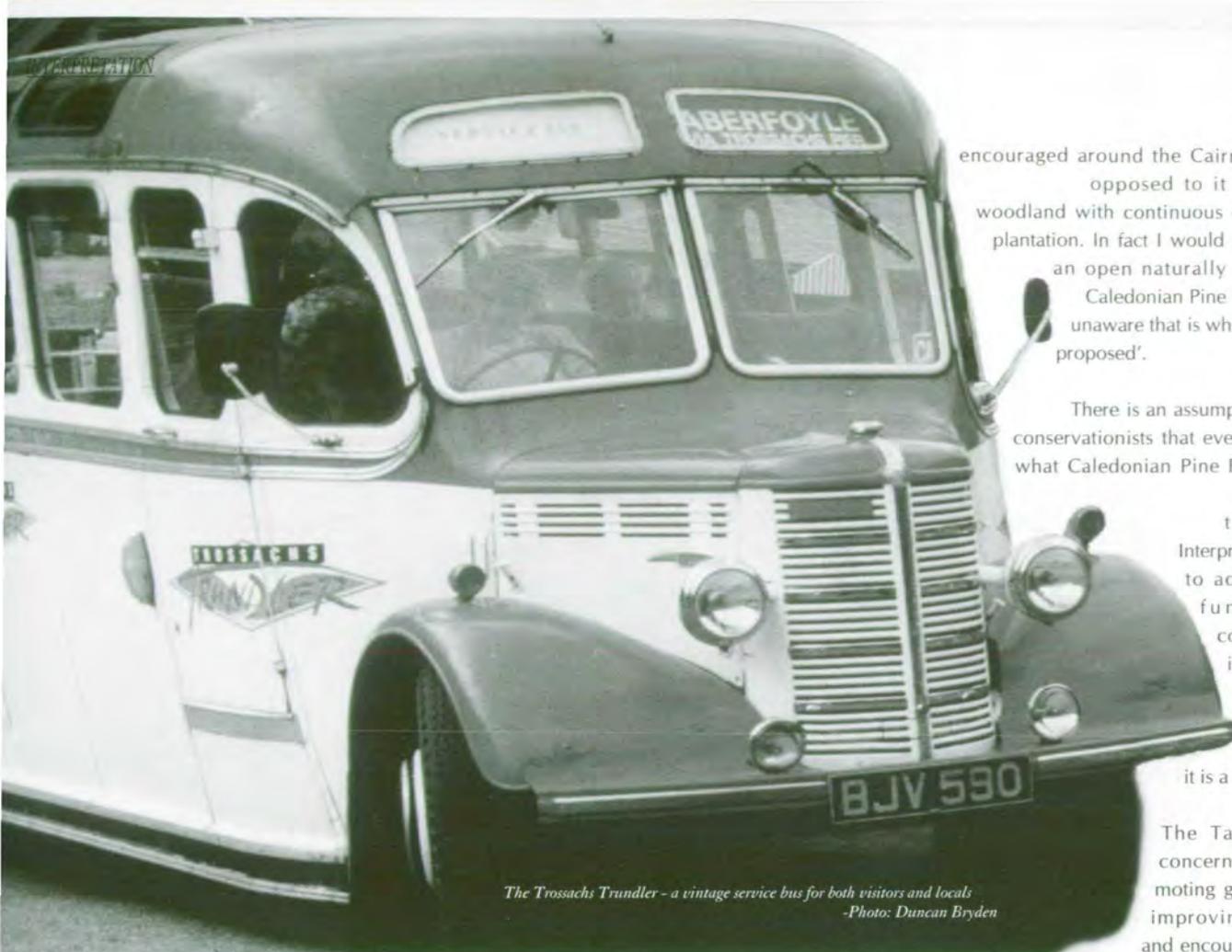
Site management is not just about physical capacity, but ecological and indeed psychological capacity. Scottish Tourist Board research suggest 48% of overseas visitors to Scotland like the 'Peace and Quiet' they find. How do we conserve that intangible attribute that people find more appealing than for example 'Good Food and Drink' - only liked by 28% of the same group. Peace and quiet is a heavily marketed commodity but what standards exist to conserve its value? Clean air, clean beaches and wildlife are similar non-economic measures valued highly by visitors. Interestingly, these are the type of measures that are emerging as sustainability indicators. In Seattle, the prosperity index of the city is increasingly a function of the number of salmon returning to local rivers and the days Mt Ranier is visible as well as the more traditional employment and income statistics. This is the route for sustainable tourism to follow.

same period and now 1 in 9 of the UK population are members of some type of heritage organisation - 400,000 in Scotland. Car ownership has trebled and although the private car improves individual mobility, traffic congestion in Scottish historic towns and cities is causing health problems and is contributing to the corrosion of buildings.

**Carrying Capacity**

Managing visitor impacts on the heritage resource is fundamental to the conservation of most heritage and recreational sites. Frequently debate on visitor impact turns to a discussion of how many people an area, a town, a building or even a single artefact can

In work that I carried out for a Masters dissertation in 1993, it was clear from a sample of 100 on the ground built and natural heritage managers in Scotland a large majority did not use the concept; 50% of those managing built heritage sites did not understand the terminology of carrying capacity. Those managing the



*The Trossachs Trundler - a vintage service bus for both visitors and locals  
-Photo: Duncan Bryden*

encouraged around the Cairngorms I am opposed to it as I equate woodland with continuous cover spruce plantation. In fact I would probably like an open naturally regenerated Caledonian Pine Forest but am unaware that is what is proposed'.

There is an assumption amongst conservationists that everyone knows what Caledonian Pine Forest is, but this is not the case. Interpretation needs to address these fundamental control beliefs if it is to contribute positively. Otherwise it is a costly failure.

The Task Force is concerned with promoting good practice, improving standards and encouraging benchmarking such as through

national awards. A recent report to the Scottish Tourism Co-ordinating Group on Visitor Attraction Development suggested that there were approximately £370 million of visitor attractions in Scotland at the appraisal stage - that is an awful lot of interpretive potential.

*Duncan Bryden is Executive Manager for the Tourism and Environment Task Force. The article is a personal view and not necessarily that of the Task Force. His dissertation on Carrying Capacity was submitted as part of the Masters in Heritage Management at the Ironbridge Institute.*

*A copy of the Tourism and the Environment report prepared by the Tourism and Environment Task Force for Scottish Tourism, January 1996 can be obtained from Duncan at the following address:*

c/o Highlands and Islands Enterprise  
Bridge House  
20 Bridge Street  
Inverness IV1 1QR  
Telephone: 01463 244435  
Fax: 01463 244241

natural heritage were more familiar with the term probably because of its roots in animal biology, where carrying capacity is a more commonly used term. Of those that did understand the concept over 75% considered some alteration in management would be necessary to cope with expected patterns of use over the next 5 years but only a small percentage advocated actual limits on visitors to their sites. At the time, 1993, 12% of managers said visitor capacity at their site was frequently more than 21 days per year - exceeded. They were more likely to be wildlife reserve type managers: 77% of built heritage managers expressed the view that capacity was never or rarely exceeded. When given a selection of 'tools' to manage capacity least favoured were legal limits and a reduction in accessibility whereas most favoured was education, more resources and ownership by heritage organisations.

#### **Voluntary Codes and Quality Assurance**

It is the intention of the Tourism and Environment Task Force to promote quality assurance schemes in the form of codes and guidelines for a range of tourism activities and facilities such as wildlife watching, activity holidays, hotels and attractions. Considerable work has already been done to set environmental criteria for accommodation providers and visitor attractions under the

Green Tourism Business Scheme. It is intended these will be externally verified and adherence to a standard will in time be a requirement for membership of Tourist Boards and for receiving financial assistance. The Dolphin Space Programme is a local example of this system in that it provides an externally verified accreditation system based on criteria including visitor facilities and boat handling in the presence of cetaceans for boat operators in the Moray Firth.

#### **Interpretation as a Tool**

Interpretation has a major role to play in the future sustainable management of sites. There is still a long way to go at many sites. There is a need to explain clearly to visitors what site managers are trying to achieve and what response they expect from the visitor. We must have a clearer understanding of visitor beliefs before we can alter their attitudes towards those beliefs.

For example a management aim might be to improve knowledge of Caledonian Pinewoods in order to support biodiversity conservation. But a visitor belief might be as follows 'I believe most woodland in Scotland is commercial spruce plantation because that is what I mostly see - I do not find such woodland attractive, although I like trees. When I hear a forest is proposed to be

# ENVIRONMENTAL INTERPRETATION and SUSTAINABLE DEVELOPMENT

Graham C Barrow

I suggest that sustainable development requires the following six actions for it to begin to succeed:

- Involvement of people
- Monitoring of the Environment
- Monitoring of the Quality of Life
- Identification of Capacities and Targets
- Decision making processes
- Communication and Education

## Involvement of People

Sustainability requires agreement. If we don't agree then whatever course of action is taken or whatever stage of the environment or economy is achieved will not last and will be challenged by sections of society that feel marginalised or inequally treated. Sustainability requires public participation both in the identification of what is valuable in the present or inherited state of the environment or economy, and what future state is being aimed at.

Public participation in land use planning, for example, requires considerable investment of professional time and expertise to find ways of involving people in understanding and making informed choices about the future physical development or conservation of areas of land. Planning without the support of the people for whom the decisions are being made is non-sustainable planning! Experience in the UK leads me to believe that community involvement works best at the local level, where people are concerned about the places

**Sustainable development like motherhood and apple pie, is an ideal it is impossible to reject.** Development and progress is inbuilt within our human psyche and all societies strive to better their social and material well being. There is also a creative and exploratory drive within society which inevitably leads to the invention of new technology and new applications of technology together with artistic invention and questioning. Thus development and "progress" are inevitable.

It has become increasingly obvious though that mankind is dependent on the finite resources of the earth and that the economy is now global. Everything is attached to everything else, the world is one large ecosystem of which mankind is an integral and potentially destructive part. Development cannot

be at the expense of the environment upon which all our futures depend.

Sustainable development is a concept which seeks to combine social, environmental, economic and political dimensions to address the major questions of how we can continue to develop society in a way that safeguards the interests of future generations. The World Commission on Environment and Development in 1987 defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". As a theoretical concept it can be applied at many different scales and in many situations from the strategic national and international scale to the planning and management of specific sites, areas or sections of an economy.

*-Photo: Duncan Bryden*



where they live, work and take recreation. We also know that for this involvement to work well it requires facilitation skills from professionals who are detached from the local politics and have no vested interest in the area. In Scotland the Scottish Office has recently launched a new grant aid programme to fund community based planning facilitators. There is increasing interest in giving increased powers to Parish and Town Councils in parallel with the move to single tier authorities. Agenda 21 is very much about bottom up community based planning.

In the Peak District CEI and the Peak Tourism Partnership have been experimenting with the preparation of local interpretation plans involving representatives of different community interests (see following article 'Peak Practice', Ed).

### Monitoring of the Environment

To make decisions concerning the environment we must know more about it, how it operates and how it is changing. Monitoring changes to the ozone layer, sea levels, atmospheric pollution, loss of natural habitats and species and the more subtle changes connected with landscape or cultural issues are required to inform us about what is happening to our global ecosystem. We also require this data at the local level to make judgements about local action in communities.

Information is power, as we all know. Who collects the data on the environment, using which methods and how this information is presented are crucial factors. Monitoring environmental change can be a very expensive business. One challenge facing us is to instigate relatively cost-effective but reliable methods of monitoring. We also have to entrust this monitoring to organisations within which we have faith. Non-governmental research organisations may have a significant

role to play in this as well as organisations funded by a number of public and private bodies and/or by international sources.

Recently I have been revisiting some ideas developed in the 1970s concerning recreational carrying capacity and how this can be applied to decision making at nature reserves and countryside sites. It is clear that monitoring environmental change will become increasingly important to inform decision makers about the state of the environment and what is considered acceptable.

### Monitoring the Quality of Life

Clearly in the short term the quality of life for many people relates to a range of factors of which the natural environment is but one. Their employment and housing conditions, their leisure opportunities and their personal and family economic circumstances are fundamental. A sense of purpose and choice ranks high as factors in the quality of life for many people. During the 1960s and 70s it was fashionable to conclude that conservation of the environment only became an acceptable goal politically when a country's economy and employment situation was sufficiently buoyant to be able to take the long term view that a conservation orientated policy required. Today this reality may still exist for many millions of people in the third world, but the concept of sustainable development begins to address the relationship between short term needs and long term survival.

As with monitoring of the environment, we require acceptable measures of the state of housing, nutrition, health, family incomes and leisure choice (for example) to provide assessments of the quality of people's lives within the areas for which sustainable development plans are being prepared.

It will normally fall upon local authorities to regularly gather this information and make the political judgements about its significance. An interesting sustainable development plan for the city of Manchester has recently been prepared by a unit at Manchester Metropolitan University. It hinges on setting targets for the state of the environment, employment, housing etc. This requires monitoring things more closely than has been the case to date.

### Identification of Capacities and Targets

Sustainable development requires the setting of capacity levels and targets. The environment is capable of accepting changes, but there are thresholds which if exceeded result in a break-down of the ecosystem or a change to a state which is considered undesirable. Very often these thresholds are not easily identified and can be crossed before it is realised.

Capacity figures can fall into three broad categories: Those concerned with physical space; those related to the continuation of natural processes and ecosystems and those which are related to public perception of what is an acceptable state of the environment, both natural and man-made. These can be termed physical, ecological and psychological capacities. For any given ecosystem, community or planning area it may be possible to generate figures for these capacities. These will not be pure science based figures but a mixture of the physical, ecological and psychological. They will be able to be changed as our decisions about what is desirable change. CEI has recently been experimenting with the fixing of recreational capacity figures for nature reserves and protected landscape areas in the UK. The work is at an experimental stage but early signs are that a methodology is emerging that is workable.

Targets are quantifiable goals and these are required to give sustainable development a driving force and momentum. Targets are often useful as political goals. These targets can be related to the carrying capacity figures thus encouraging either a restriction within defined limits or commitment to measures which increase the capacities through improved management of the environment or treatment of "pollutants" or the unwanted consequences of human activity.

## Decision Making Processes

As mentioned above, for sustainable development to be applied, we require the involvement of the public, together with reliable data on the state of the environment and the quality of life. Subjective judgement will be required because our knowledge base will be imperfect and it is necessary to reconcile different views of the value of resources and places. Decisions will be made from a local, regional, national and global stand-point. This will require the balancing of short term reality with longer term ideals. This socio-political process is the realm of politicians. Consensus building will be vital in achieving sustainable development and broad agreement about the value of the environment and the need for its protection and renewal will steadily move up the political agenda. Countries and communities will only be at ease with themselves if the democratic process is seen to be working and the broad interests of all sectors of society are represented in policy decisions.

Community level planning must grow in importance together with global agreements about capacities, targets and desirable future states of the environment and quality of life. Politics and sustainability are inseparably intertwined.

## Communication and Education

This paper is entitled "The Role of Interpretation in Sustainable Development", yet so far the term interpretation has not been used. Interpretation is the art of explaining the meaning and significance of places to the public who visit them (whether they be local residents or visitors/tourists).

Interpretive planning is the process of deciding what to communicate to the public about the environment and heritage and how, where and by whom this should be done.

For the public to become thoroughly involved in identifying what is valuable in a community and its environment, how this is to be protected and what future state they wish to see, it is necessary to increase their knowledge and involvement in the issues. The formal education system has a vital role to play and there has been much debate in recent years about the place of environmental education in the school curriculum in the UK. But education does not stop when we leave school or university. For many people the

lasting impact of seeing places and problems at first hand is a very powerful influence. Interpreters help people to understand more about the places where they live or they visit, often for recreation, and attempt to trigger their interest in an issue. The skill of the interpreter (or guide) is to make information relevant and interesting to different audiences. Interpretation uses both interpersonal communication techniques such as talks and guided walks and other forms of communication such as displays in visitor centres and museums, publications, audio-visual programmes and theatrical and artistic events.

Interpretation can be seen as a form of journalism, exposing issues and awakening the public to important places and events. So what does interpretation have to do with sustainable development? A considerable amount, especially in those countries where there is a significant leisure and tourism economy.

Interpretive planning is an excellent starting point for resolving conflict in the development and conservation debate. It brings together those concerned with economic development and those with a concern for resource conservation, to identify what is valuable in the environment and heritage of an area and what they wish to communicate about it. Interpreters have a vital role to play in public participation and community involvement programmes. CEI have carried out experimental projects with local communities in Wales and the Peak District bringing together different interests in a community to produce an interpretation plan, including a list of projects designed to increase public understanding of the value of the areas heritage and environment.

Choices about the future of an area often require clear demonstrations and interpretations of what the future may look like. This can be aided by visits to the sites in question to see what different policy options would create. The clear presentation of policy options can be aided by the skills of interpreters. In the Yorkshire Dales National Park an exercise has been conducted presenting different future states of the landscape which would result from following different policies. The public were also invited to record their preferences as well as being informed of the possible alternatives.

In many countries the development of sus-

tainable tourism is high on the agenda. How an area's culture and environment are protected and presented to visitors (and locals) is a central issue which interpretive planning addresses. The preparation of interpretation plans and their implementation have a significant role to play in the development of sustainable tourism which respects local environmental and cultural values.

Many management measures require clear explanation to the public. Why access is restricted to an area of countryside or why cars are banned from city centre streets, for example. Interpreters can help to explain these measures to the public through on-site boards, visitor centre displays and well designed publications. Many organisations responsible for managing areas of the countryside have used interpretive programmes to explain management measures to visitors using ranger services.

Increasingly our school children are being encouraged to get out of the class room and to study subjects by visiting real places. Environmental study centres in towns and in the countryside are being staffed by expert teachers who are skilled in interpretation. Since the second world war there has been a great growth in the provision of field study and urban study centres in the UK which are visited by many thousands of school children each year. Increasing the awareness and understanding of the environment and development inter-relationships amongst the future generations is surely one of the most valuable things we can do today.

## Sustainable Tourism

Some people concerned with the development of the tourist industry have been using the term "sustainable tourism" and trying to define what that means. It would appear that sustainable tourism is that form of tourism which:

- a) Minimises its impact on the environment in terms of pollution and use of non-renewable resources
- b) Protects and enhances the local environment, heritage and culture
- c) Brings local economic benefit and improves the overall quality of life

d) Sustains and enriches visitors and increases their appreciation of the place they are visiting

*Richard Denman has attempted to define sustainable tourism for Cheshire as:*

A process which ensures tourism development, management and marketing help sustain Cheshire's environment for future generations by having regard for and respecting its landscape, wildlife, cultural heritage, community fabric and existing infrastructure

Applying this definition and looking at Cheshire the policies that are put forward deal with:

**Marketing**

Making sure that the images put forward strengthen positive environmental and cultural messages and emphasise walking, cycling and local events. Sensitive and over-loaded locations should not be marketed.

**Development**

Emphasis on the right scale and location for new development and the reuse of old buildings and derelict sites

**Public Transport**

Attempting to increase the use of public transport. Providing clear information on public transport, distributing it widely and linking attractions.

**Recreation**

Again these policies are linked to transport, the proposals being to encourage walking and cycling through the development and promotion of special routes. The promotion of canal holidays is also highlighted.

**Local Economy**

Maximising the retention of visitor spending in local businesses, encouraging local crafts and events and helping small family businesses.

**Local Community**

Encouraging the involvement of local communities in tourism through involving parish and town councils in preparing plans and supporting local cultural and arts based events which benefit locals and visitors. Local people should be encouraged to "welcome" visitors through the provision of information



centres and events.

**Visitor Management**

Support for visitor management projects in the towns and the countryside. The need to be alert to pressures and their impacts and be able to respond through good site management.

**Visitor Awareness**

Increased emphasis on interpretation and education at attractions. Opportunities for the public to become involved in conservation projects or contribute to them should be sought.

**Tourism Enterprises**

Support and encouragement to enterprises that adopt sound environmental practice, such as environmental auditing, recycling and energy conservation measures.

So this is the practical application of sustainable tourism policies and it can be seen that interpretation, community involvement and locally based heritage and environmental projects form a vital central role in sustainable tourism thinking.

Interpretation is the art of explaining the meaning and significance of sites to visitors and local people whilst interpretation plan-

ning is the process of deciding how to do that. Both interpretive planning and interpretation are central to the development of sustainable tourism development and sound resource management.

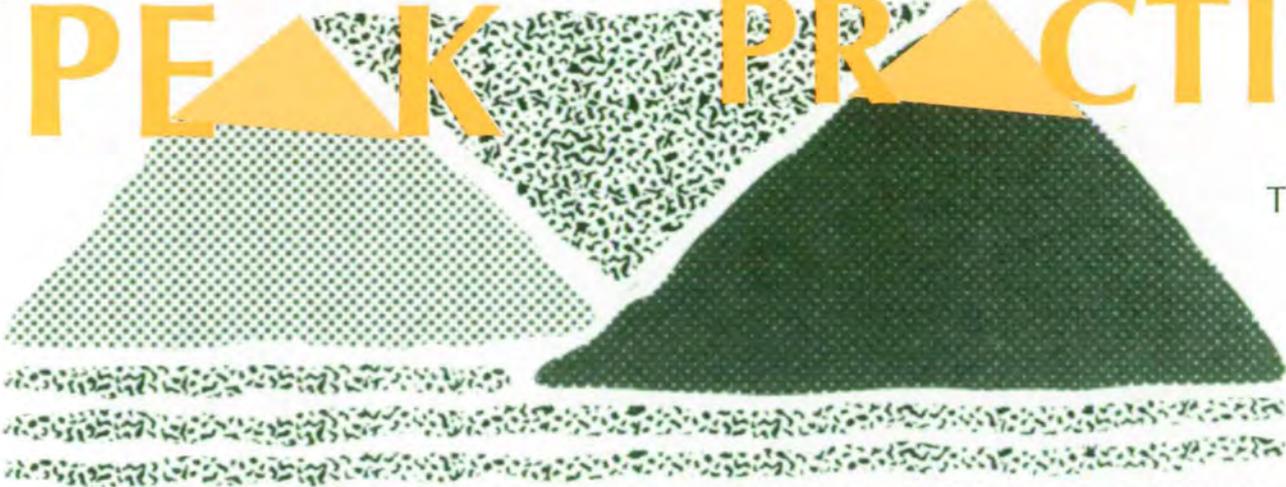
*This article comprises the text of the paper delivered by Graham at the SIBH Cropston Seminar on Sustainable Tourism and Development June 1996. A summary of the paper by Camilla Ween and Alex Youel on the National Trust's Millennium Project appeared in the August issue of Interpretation. Many thanks to Ken Jackson for organising a very successful seminar (Ed).*

**Graham Barrow was, until recently, Co-Director of the Centre for Environmental Interpretation, Manchester Metropolitan University.**

Centre for Environmental Interpretation  
Manchester Metropolitan University  
Lower Chatham Street  
Manchester M15 6BY  
Telephone: 0161 247 1067  
Fax: 0161 247 6390

# PEAK PRACTICE

The Editor



## NOTES OF A TALK GIVEN BY CHRIS LEWIS AT THE CROPSTON SEMINAR JUNE 1996

### The Place

The Peak District includes the Peak National Park and the fringe areas of countryside adjoining the surrounding urban settlements, lying within the counties of Derbyshire, Staffordshire, Cheshire, West and South Yorkshire and Greater Manchester.

The Peak is an outstanding area of countryside encompassing the dramatic moorlands of the 'Dark Peak', the craggy limestone dales of the 'White Peak' and the gentler rolling hills and valleys of the Staffordshire Moorlands.

Its blend of small villages, historic market towns and spas, high quality visitor attractions and events, together with unrivalled opportunity for outdoor recreation, has made the area a well-established visitor destination.

### The Problems

With over 30 million visits annually to the National Park alone, some parts are now under severe pressure from visitors, especially at peak periods.

90% of visitors are car borne day-trippers. These visitors create traffic congestion, parking problems, overcrowding and disruption to local residents. Elsewhere, heavy recreational use encroaches on environmentally sensitive areas, causing footpath erosion and ecological damage.

Despite contributing more to the local economy than day trippers, demand from the small proportion of staying visitors is highly seasonal. Much progress has already been made in the Peak District, but the multiplicity of agencies and the large number of dispersed private sector businesses makes co-ordination of tourism marketing and development difficult.

### The Partnership

The Peak Tourism Partnership was a three year co-ordinated partnership between the public and private sectors within the Peak District. The Local Area Initiative was established as a national pilot project in response to the recommendations of the 1991 Government Task Force Report - 'Maintaining the Balance'. The project ended in October 1995, but a charitable trust has been set up to continue its good work.

### Funding Partners

The following organisations provided partnership funding for the initiative:

- ◆ English Tourist Board
- ◆ East Midlands Tourist Board
- ◆ Heart of England Tourist Board
- ◆ Yorkshire and Humberside Tourist Board
- ◆ Peak National Park Authority
- ◆ Countryside Commission
- ◆ Rural Development Commission
- ◆ Center Parcs - Scottish and Newcastle
- ◆ Severn Trent Water
- ◆ English Nature
- ◆ Peak Tourism Forum and Conference including Derbyshire, Staffordshire and Cheshire County Councils and the local authorities of Derbyshire Dales, High Peak, Staffordshire Moorlands, Macclesfield and East Staffordshire.

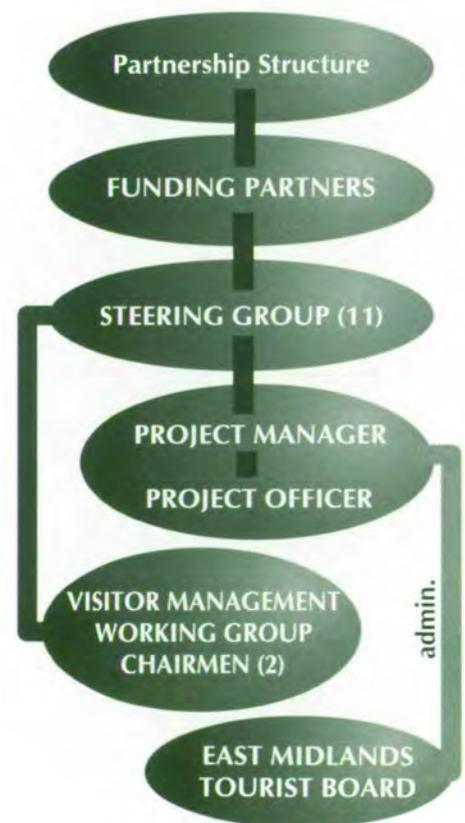
### The Policy

The Partnership was committed to developing a programme of on-going activity to ensure sustainable tourism activity and an integrated approach to visitor management throughout the Peak District.

In doing so, it gave further impetus to existing

joint working and collaboration, with increased private sector involvement. The overall cost of the project was around £100,000 per annum including seconded staff with additional funding raised for specific projects.

One of the key aims of the project was to raise the contribution tourism makes to the local economy, in balance with the need to protect the environment and to safeguard the interests of the local community.



**Programme Objectives and Outcomes**

Through an action oriented work programme the Partnership concentrated on the following areas of activity:

- ◆ Pilot visitor management projects designed to enhance the visitor experience and lessen the negative impacts created by excessive visitor pressure. Three projects focused on visitor and traffic management, interpretation and conservation. Visitor management plans were achieved for:

*Castleton/Edale/Hope and The Roaches*

- ◆ Developing mechanisms for securing funds for conservation work and visitor management measures.

- ◆ Establishing a joint private/public sector Peak District tourism organisation as an important means of developing liaison and collaboration within the tourist industry of the area.

- ◆ Developing a campaign to raise awareness and to promote the benefits of sustainable tourism, in addition to encouraging initiatives to achieve these ends.

- ◆ Developing and implementing a co-ordinated marketing strategy for the Peak District, particularly where initiatives relate to visitor management, interpretation, off-peak promotions and activity and farm holidays.

- ◆ Developing a Peak District-wide interpretation strategy which sought to increase the visitor's and local community's awareness, understanding and enjoyment of specific place and the desire to help conserve and enhance it.

The project produced a "strategic statement for Environmental Interpretation for the Peak District Area", A Green Framework for Interpretation to try and establish some guidelines. This has now been adopted by many of the local authority partners. Six Local Interpretation Plans (LIPS) were produced. Local groups produced the plans with a facilitator from The Centre for Environmental Interpretation (CEI) attached to each group. CEI then went on to write the plan in most cases on behalf of the local group. Most of the Local Interpretation Plans have been adopted by the relevant local authorities.

**A Green Framework for Interpretation**

1. The interpretation of local heritage and the natural environment should be an important part of any initiative.
2. Where appropriate, efforts should be made through interpretation to raise visitor awareness of important environmental issues, both local and global.
3. Interpretation facilities must be consistent with the concept of sustainable development (i.e., development that meets the needs of the

present without comprising the ability of future generations to meet their needs).

4. The involvement of local people should be integral in the development and implementation of interpretation projects.

5. Site management and resource protection measures should be in place before any interpretation facilities or services are developed which could significantly increase the number of visitors.

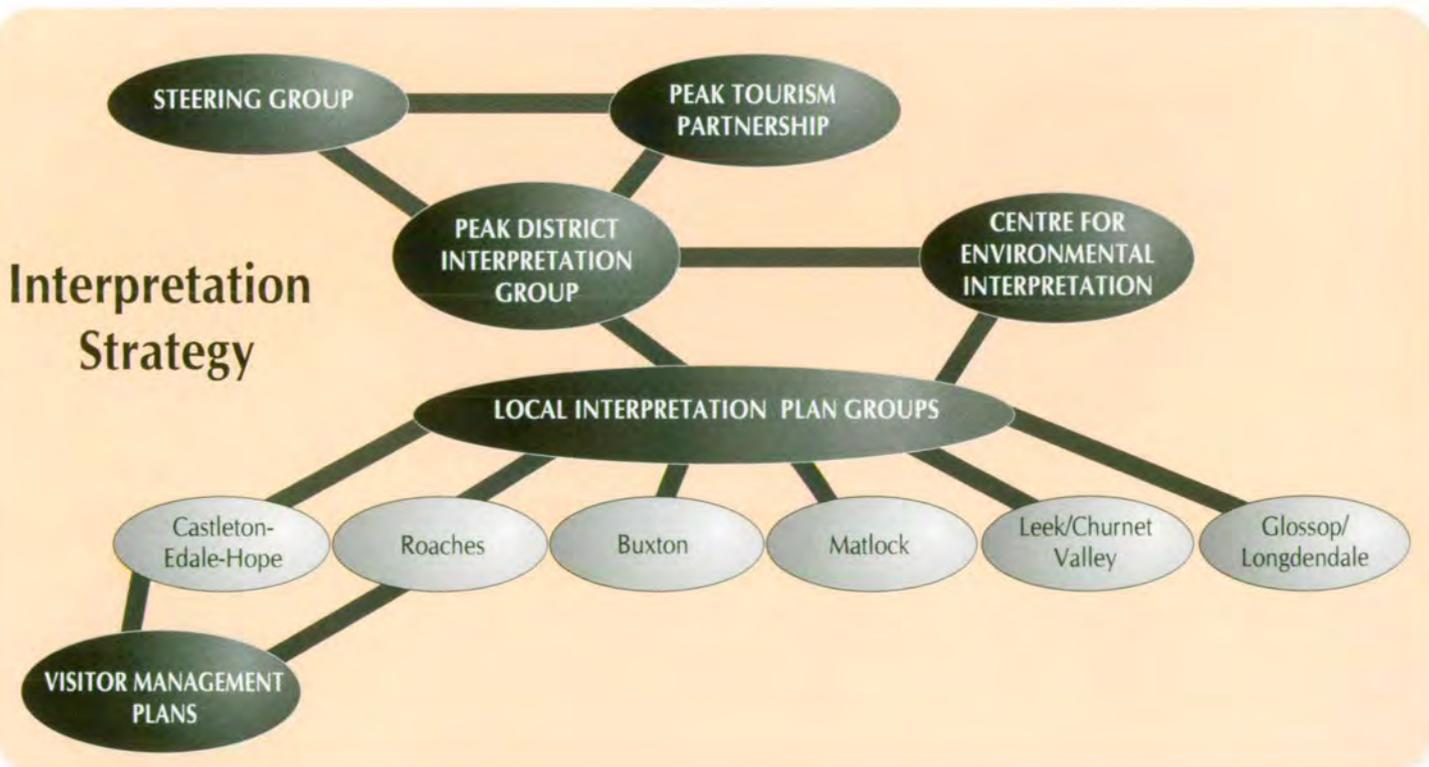
6. The development and promotion of interpretation facilities should avoid attracting more visitors to areas under pressure or where the environment is being damaged.

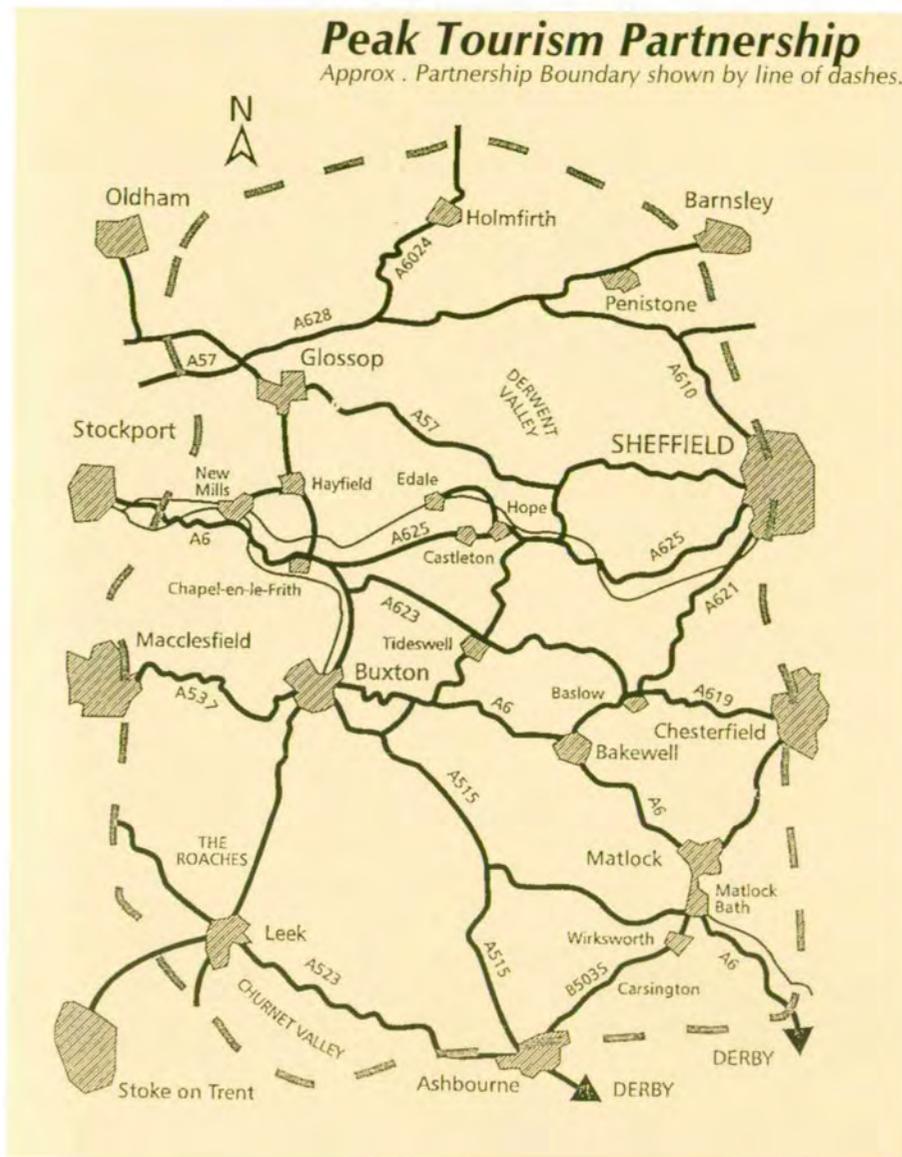
7. Interpretation facilities and services can be used to spread visitors in time and space to avoid environmental problems.

8. Interpretation facilities should encourage environmentally friendly forms of recreation rather than activities which might be detrimental to the local environment.

9. Where leisure related environmental damage can be identified, consideration should be given to the use of interpretation in managing and reducing this.

The Castleton Group produced a Teachers Pack to try to guide school group activities. In particular, alternatives to questionnaires were suggested. Chris quoted the example of a Castleton resident working in his front garden who was asked to answer five questionnaires in an hour all on the impact of tourism on local residents!





Further, the Project felt that the key problem areas were already identified".

**Q. What About Monitoring and Evaluation?**

"It is too soon to evaluate the results of the projects and initiatives set up by the Partnership. Unfortunately any monitoring carried out is likely to be very piecemeal due to the fragmented nature of the administration in the area".

**Q. What Did the Tourists' Think? What Did They Want to Know?**

"Perhaps the views of tourists should have been taken into account".

Interestingly, most local groups, although keen to be consulted and to generate ideas, did not actually want to carry out the work.

This National Pilot Project is a very worthy example of local action to apply the principles of sustainable tourism espoused by Central Government. It is sad that this project and others like it were not fully supported financially despite the five sentiments espoused in maintaining the balance.

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English Tourist Board. 1991 *Tourism and the Environment, Maintaining the Balance*. London: English Tourist Board.

English Tourist Board *Tourism and the Environment, Maintaining the Balance, Visitor Management Case Studies*. London: English Tourist Board.

**Q. What Were the Outcomes of the Project?**

"In the area of public transport, improvements have been made. Bikes are now carried on trains and bus and train timetables have been integrated. When special events or activities are organised they are linked to the train services".

**Q. What Was the Cost?**

"The budget was about £100,000 per annum, including seconded staff, plus funding raised for specific projects".

**Q. Did They Attempt to Measure Carrying Capacity?**

"Carrying capacity figures were not produced since there would have been too much work involved and therefore, too expensive in staff time.



The Roaches

# CASE STUDY

## DOVEDALE TEACHER'S RESOURCE BOOK

Dovedale is probably the best known and most "loved to death" of the Peak District Dales. Two million people visit it each year since it is within 64 Km of Manchester and 80 Km of Birmingham. The Dale has been subject to enormous recreational pressure and concerns have been voiced for over 20 years. In fact its visitor management plan produced jointly by the National Trust and the Peak National Park was agreed in 1976. Its key objectives were:

- Ease traffic congestion on narrow roads
- Stop unsightly parking on the slopes of the Bunster
- Reduce erosion on Thorpe Cloud, Bunster and the main foot path

The National Trust has recently produced a new resource book for teachers which examines sustainability and carrying capacity in Dovedale.

### Useful Ideas for Teachers

- What impact does the annual Dovedale Dash fell run (1,500 entrants) have on Dovedale? What would the consequences be if the Trust withdrew permission for the event to take place?
- Do pupils think the new all-weather surfaced footpath will detract from the natural beauty of the Dale? Will it increase levels of use?
- Which types of people will find Dovedale a more popular destination because the footpath is surfaced?
- Should the Trust take steps to limit the number of visitors to tourist honeypots like Dovedale? And if so, what form should these measures take?

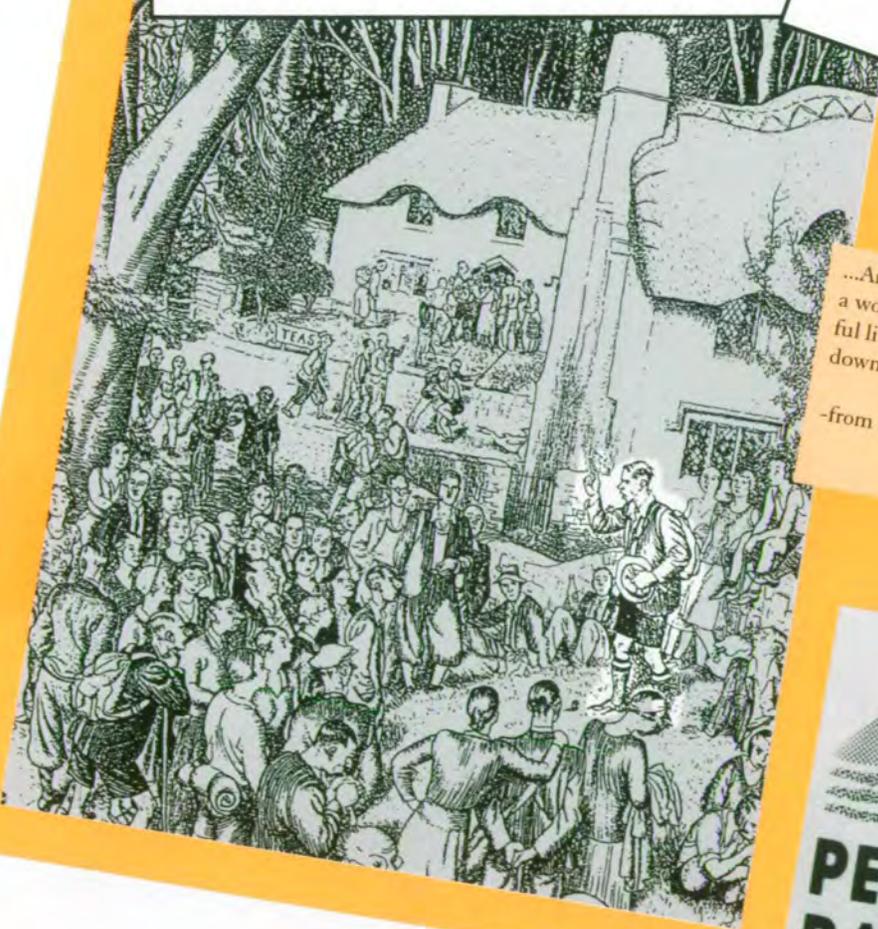
For further details contact:  
The Education Co-Ordinator  
South Peak Estate Office  
Home Farm, Ilam  
Ashbourne, Derbyshire DE6 2AZ  
Telephone and Fax: 01335 350503

....And remember, fellow hikers, not a word to anyone about this delightful little spot, or we'll have the rabble down here spoiling it all!

-from PUNCH 1932

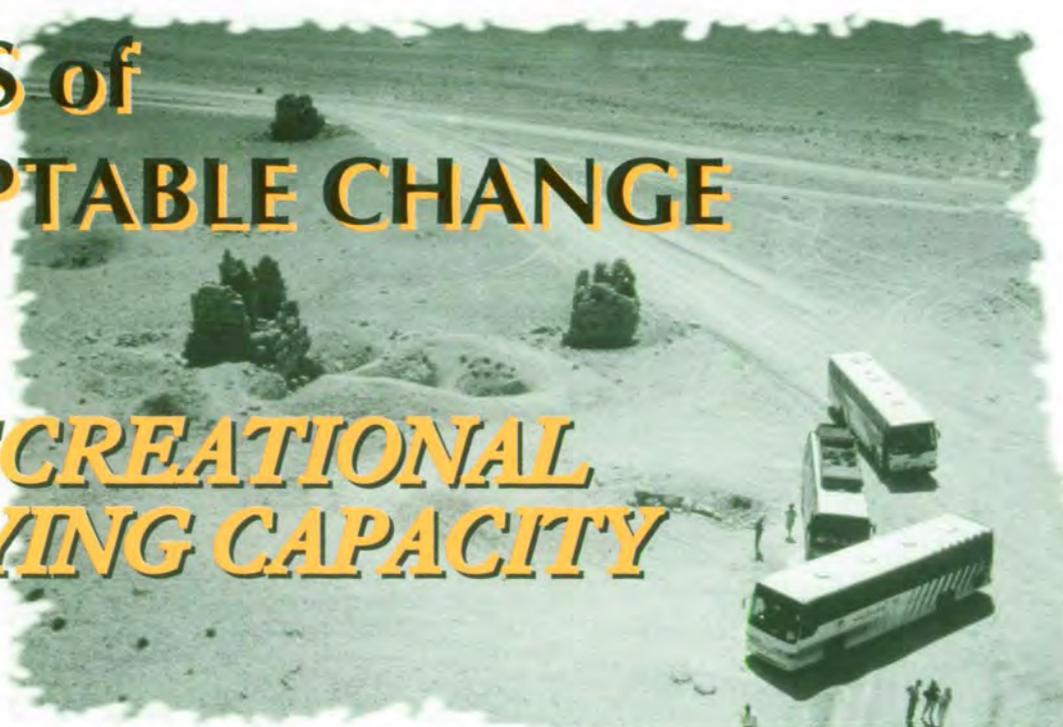


**PEAK • TOURISM  
PARTNERSHIP**



# LIMITS of ACCEPTABLE CHANGE (LAC) and RECREATIONAL CARRYING CAPACITY

The Editor



Tower tombs, Palmyra, Syria. -Photo: Marion Blockley

The "Limits of Acceptable Change" LAC approach to managing recreational access to landscapes is currently subject to much lively debate amongst planners, conservation professionals and recreation managers. For many years a contentious debate raged in North America over the concept of recreational carrying capacity. The theory of Carrying Capacity assumes that physical, psychological and ecological criteria can be measured and controlled. Many critics voiced the opinion that universal standards could not

## STAGES IN THE LAC PLANNING PROCESS

- 1: Broad review of issues in the area
- 2: Description of conditions in the area
- 3: Identification of change and indicators of change
- 4: Survey of indicators of change
- 5: Specification of quality standards
- 6: Prescription of desired conditions in each zone
- 7: Agreement of management action to maintain quality in each zone
- 8: Review of proposals for area as a whole
- 9: Implementation, monitoring and review

(Based on Stankey et.al. 1985)

be devised and that the capacity of each site would have to be calculated taking into account local circumstances. As a result there is no universally accepted methodology for defining and measuring carrying capacity.

In the mid-1980s the Limits of Acceptable Change (LAC) technique was developed by the US Forest Service as an alternative to assessing the carrying capacity of mountainous wilderness areas (Stankey et.al. 1985). This approach helps to establish, in advance of any proposed development, what environmental changes can be tolerated and what action will be taken if these "quality standards" are exceeded. What is particularly significant about this approach is that the standards are developed collectively by managers and users rather than by "experts" imposed on users.

The LAC approach is based on:

- Rational Planning
- Quality Management
- Public Involvement

A fundamental principle of LAC is the attempt to measure aspects of quality and to monitor whether this environmental quality is being maintained. Its advocates argue that it is a positive pro-active force focusing on management of quality rather than restrictive controls on use. The consultation process underpinning it helps to resolve conflicts over access, environmental impacts and land use.

## Principles of the LAC Approach

□ Managing for environmental quality in a pro-active manner, unlike carrying capacity which is a negative response.

□ The Consideration and Acceptance of Change

Ecosystems and societies change. This approach acknowledges the likelihood of change and recognises that appropriate levels of environmental improvement could be acceptable, as well as habitat conservation.

□ Definition of Quality Standards

The process of achieving standards is kept under constant review.

□ Change Monitored, and Remedial Action Agreed

This allows for rapid responses when quality standards are compromised, as action has been agreed in advance.

These principles all sound fine and worthy, like Mum and Apple Pie, few would argue against their application. However, there are a set of specific constraints in the USA where the methodology was developed that make it more achievable in those particular circumstances.

- It was developed for remote wilderness areas which had no roads
- On land wholly in public ownership and managed by a single agency
- The designated areas imposed strict limits

on recreational activities such as the use of mountain bikes

These areas were managed strictly for recreational quality, emphasising the importance of ambience and solitude, to the extent of controlling contact between individual groups

**LAC in Britain**

The Institute of Terrestrial Ecology (ITE) applied the principles of LAC during the Environmental Impact Assessment of the proposed Aonach Mhor ski development near Fort William, Scotland (Bayfield, et.al. 1988). LAC was used there as a monitoring technique in order to make an informed decision over the granting of planning permission at the Site of Special Scientific Interest (SSSI). The monitoring costs were paid for by the developer as part of the Environmental Impact Assessment Statement.

In Great Britain circumstances are rather different from the scenarios faced by the US Forest Service. The United Kingdom is highly politicised and user groups such as the Ramblers Association or local residents groups are often deeply distrustful of institutional land managers. The oft voiced concern

is that the process is overly bureaucratic with too much emphasis on simple quantitative measures. Considerable doubts are raised about the ability of this approach to measure the intangible aspects of quality. However, the consultation process has the benefit of making management issues less controversial as they become better understood. Again, consultation generates the additional benefit of drawing on local knowledge and mutual learning developed through co-operative working. Again, complex situations require public involvement to remove mistrust and uncertainty.

One of the major problems with the LAC methodology is the technical difficulties of assessing quality and establishing quantitative indicators. This process is elaborate, time consuming and therefore, expensive. (See Jim Waterson's article following). The whole issue of Quality Standards which were pioneered in the manufacturing industries and widely applied in the service sector is that they are overly bureaucratic. Quality procedures may be followed to the nth degree, using the paperclips specified, yet the outcome may still be unsatisfactory. Again, the outcome of the LAC approach will only be a

written agreement, not a legal document. It should always be linked to some form of formal access agreement, SSSI or ESA management agreement, or Countryside Stewardship Scheme in order to give it weight. However, it will only be effective if the difficult goal of consensus has been achieved, and all parties feel ownership of the agreement.

One particular problem of consultation and the consensus-building approach is the difficulty in obtaining representatives for unorganised activities such as informal recreation. Roger Sidaway describes the difficulties encountered in Holland where "technical groups" of unaccountable government officials responsible for key decisions made a significant contribution to causing rather than resolving conflicts (Sidaway and Van der Voet, 1993). In Sidaway's ideal scenario national policies are developed through consensus, refined in regional strategic plans and applied locally using LAC.

In conclusion there are a number of issues to be resolved before a variant of the LAC approach can be realistically applied in the field. There remains the difficulty of quantifying subliminal elements of environmental

**LAC STRENGTHS AND WEAKNESSES ANALYSIS**

	STRENGTHS	WEAKNESSES
LAC COMBINES: THE RATIONAL PLANNING APPROACH which focuses on desirable future conditions	Promotes a rational debate about assessing and managing change. Forces managers to be specific about objectives and standards.	The costs of specifying and collecting data on biological change and recreational use are high. May prove too elaborate a management system for simple impacts or widely dispersed activities.
QUALITY MANAGEMENT Qualities are assessed and quantitative indicators are selected and monitored.	Directs research and evaluation towards quality management. Monitoring can be selective, management can be directed to improving quality.	Qualities are difficult to define and routinely assess. Undue emphasis is given to those aspects of quality that are easily measured. There may be practical limits on the number of impacts and/or qualities that can be handled.
PUBLIC INVOLVEMENT throughout the process	Improves acceptance and support for conservation and recreation management in contentious situations.	Difficult to find accountable representatives for informal activities that are not organised. Difficult to deal with new impacts if task force is not adaptable. Difficult to sustain public involvement over time.

(Based on Sidaway 1994)



quality. All the significant human activities need to be taken into account when monitoring environmental impact. There is a danger that recreational impacts such as mountain biking or footpath erosion can be magnified out of all proportion to the more serious impact of road schemes, industrial or housing development. It is pertinent to recall that a recent survey of Offa's Dyke carried out for Cadw identified that one of the most significant factors in the erosion of the earthwork was not the impact of walkers on the National Trail but the siting of cattle feeding troughs, and farmers' vehicular access to their land. Further, the complicated pattern of land ownership in Britain makes it

difficult to arrive at a consensus over management practices and access. A combination of the rational planning approach to clarify management objectives with public involvement to remove mistrust and uncertainty may require professional mediation skills to establish and facilitate productive discussion. Experience has shown this is not easy or quick to achieve.

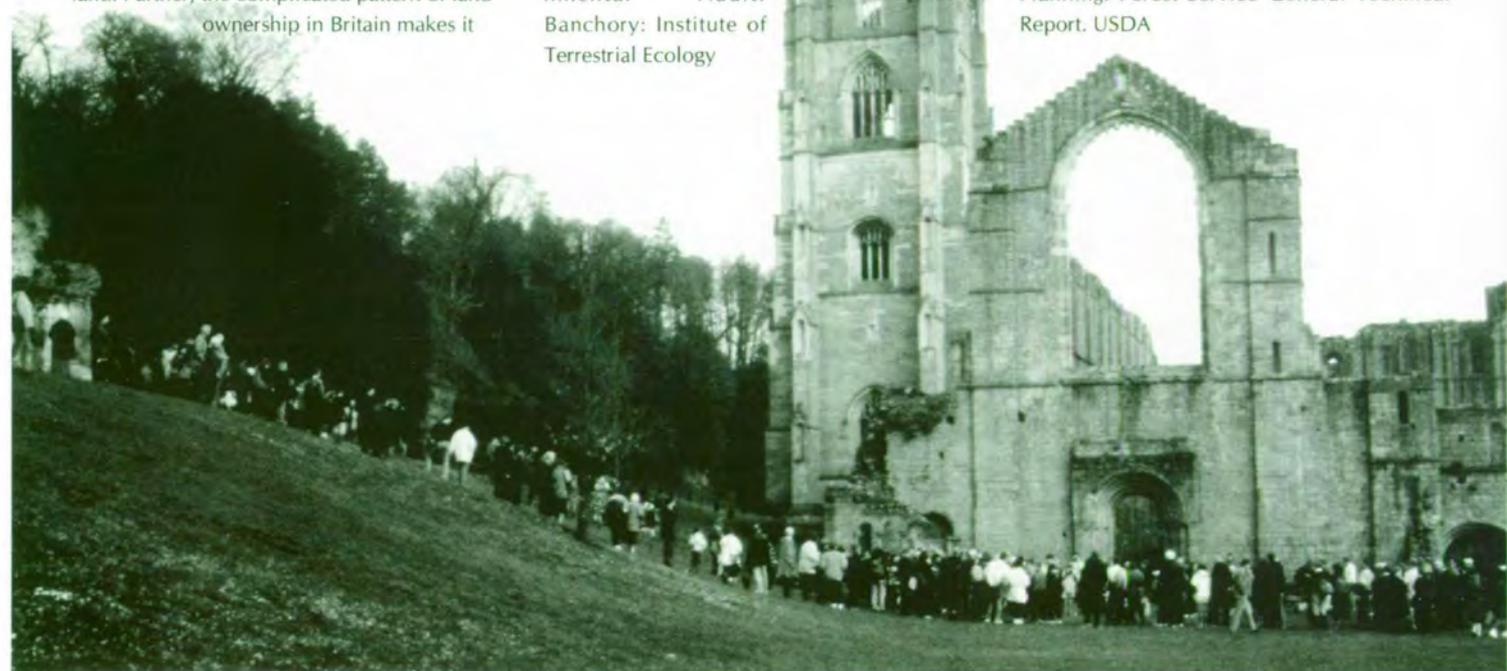
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Fountains Abbey at Studley Royal World Heritage site. -Photo: Marion Blockley

# SOME PRACTICAL REFLECTIONS

ON THE LIMITS OF ACCEPTABLE CHANGE

on

## LIMITS OF ACCEPTABLE CHANGE (LAC)

Jim Waterson

Coalbrookdale - Photo: Severn Gorge Countryside Trust

The Severn Gorge Countryside Trust is a relatively new organisation formed to manage some 270 ha. of land, most of it woodland, within and around the Ironbridge Gorge World Heritage Site. The land with which SGCT is entrusted was previously owned and managed by Telford Development Corporation, who with the Ironbridge Gorge Museum Trust (IGMT), played a major role in the development of Ironbridge and Coalbrookdale as a world-renowned heritage site.

The Trust's member organisations include county and district councils, four parish councils and a series of voluntary or charitable members including the IGMT, Green Wood Trust, Shropshire Wildlife Trust and the British Trust for Conservation Volunteers. Each member organisation nominates one or more individuals who have dual responsibilities as both trustees and directors of a limited company.

The land that the Trust holds is special and significant for several reasons. Much of it has high natural environment value, with biological and geological SSSIs, large areas of ancient semi-natural woodland and many important non-woodland habitats. The land has considerable landscape value, forming the sweeping wooded valley sides that characterise the Ironbridge Gorge and Coalbrookdale and as the setting for a built heritage of international importance. Though

the IGMT has responsibility for the principal archaeological sites, the woodlands and open spaces contain many former industrial sites with remains of structures and workings. This emphasises the inter-relatedness of the built and the natural and the dependence of early industry on the presence of minerals and raw materials won from the valley sides to fuel and feed local industry.

The woods are appreciated by the 700,000 annual visitors to the Gorge, but usually only as the passive backdrop to the Bridge or the other main built sites. Recent visitor surveys have revealed how surprised many visitors are at the scale and quality of the landscape and its overall 'green-ness.' To local people however, the woods are their own local countryside. The myriad paths and old working routes are well-used by the settlements of Broseley, Madeley, Coalport, Ironbridge, Jackfield and Coalbrookdale and the maturing 'New Town' estates of south Telford.

Early in 1994, as the Trust began to develop policy documents and its first Development Strategy, it became clear that the complex and special nature of its landholdings required careful consideration. This need was particularly acute in the areas of access, education and interpretation.

To begin the process of forming policy for the three functions, the Trust was keen to open-up dialogue with relevant agencies and

organisations. The Trust needed to be sure that the policies it would eventually develop would complement the presence and roles of the established players and avoid duplication, overlap or competition for 'customers' or resources. An informal group known as the Interpretation and Education Working Group (IEWG) was assembled at the invitation of the Trust. Its aim was to identify what sort of activities and provision were already in place through the auspices of the established organisations and secondly, to encourage exchange of information between groups that seldom met or worked together.

As this dialogue developed the SGCT decided that external consultants should be engaged to prepare a comprehensive report which would consider the main issues and develop action plans for each function. The Trust and its partners in IEWG also identified the need for an assessment of the carrying capacity of the Gorge. This would ensure that any policies or proposals were based on a sound understanding of the resource. The outline brief for the report was developed by SGCT in consultation with its partners in IEWG.

Early discussions suggested the commissioning of two separate consultancy tasks, namely an Access, Interpretation and Education Report and a separate assessment of carrying capacity. As discussion progressed, it became clear that their interdependency presumed for a single, integrated and comprehensive

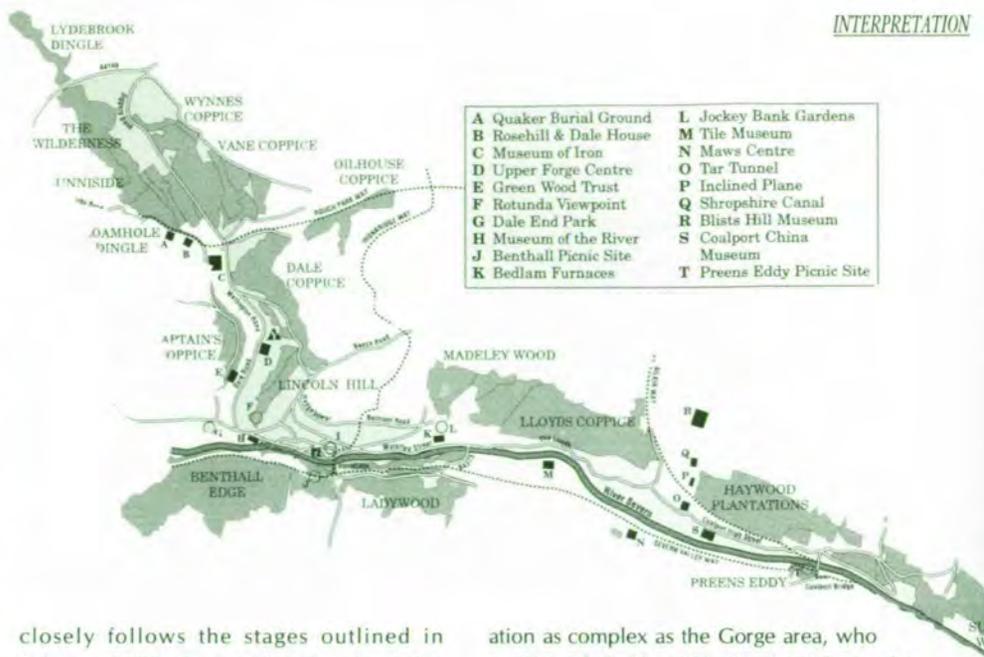
piece of work. This would be a strategic plan for Access, Interpretation and Education, whose recommendations would be underpinned and guided by an assessment of carrying capacity in the Gorge and Coalbrookdale.

At this stage the SGCT was introduced to the Limits of Acceptable Change (LAC) methodology for assessing and managing carrying capacity in natural environments. The Countryside Commission representative on IEWG suggested that an LAC approach could be highly relevant to the Gorge and provided guidance on the methodology and resources for consultant time to help work-up the brief. SGCT then prepared the brief on the basis that it was the fundamental principles of LAC which were of most relevance. This approach aimed to make clear to those preparing submissions that LAC principles were thought appropriate but kept the door open for the suggestion of alternative methodologies. This would enable a range of approaches and interpretations to be considered and evaluated.

The majority of the submissions did embrace the LAC-based approach and outlined their proposals for taking it forward within the terms of the brief. After review and evaluation of the submissions by SGCT and partners from IEWG, Parkin Heritage and Tourism Consultants were retained to carry out the work having prepared a very positive and comprehensive submission that critically examined LAC and proposed what we considered a practical and pragmatic approach to the tasks.

Over the following months the consultants worked closely with SGCT staff and partner organisations to establish facts and information and to gauge the issues involved, both locally and further afield. The consultants held meetings with many of the IEWG partners and two workshop sessions for Trustees and staff.

Though useful progress was being made under the headings of the key policy areas, Access, Interpretation and Education, it became clear that the 'thread' of LAC through the work was not developing as we had anticipated. After a series of discussions and draft reports it became obvious to the Trust that the approach followed by the consultant team would not derive a carrying capacity for the countryside in question. The final report was accepted on the basis that they could do no more than outline a process, a set of issues and a list of actions that would enable the Trust itself to take LAC forward. This process



closely follows the stages outlined in Sidaway, 1994. In accepting the report, the Trust realised that it had much to consider if it chose to continue with what was being loosely termed 'LAC'.

The Trust felt that the way forward was through a broad-based debate and it became clear that the basic principles of most relevance to the Trust were ;

- consensus building through community / stakeholder involvement
- pre-agreed actions and responses to thresholds being reached
- ongoing monitoring, review and feedback

However, there was a strong sense that the apparent complexity, time and resource requirements associated with the particular LAC process developed were unnecessarily demanding for the Trust given its relatively small size and resources. The implication seemed to be that to pursue LAC in any substantial way would basically stall most of the Trust's other management and development work.

There was a tangible discomfort with the language and jargon of LAC and several trustees were concerned at the difficulties of explaining the processes involved to partners, let alone local communities. This seemed reasonable given the amount of time and effort that was involved in building understanding and awareness in the trustees, who are a diverse cross-section of elected members and representatives of local organisations.

Many of those involved felt uneasy about the prospect of embarking on what seemed to be years of information gathering and monitoring and it became clear that to identify, make contact with and inform stakeholders would be a significant task in its own right. In a situ-

ation as complex as the Gorge area, who are the stakeholders? The local residents who use the sites informally, the visitors to the WHS who enjoy the distinctive wooded setting and views, cyclists, river-users, long-distance walkers on the Shropshire Way, educational groups, commercial interests who depend on the heritage trade, diverse environmental organisations, local authority at all its levels? There was a concern among certain trustees that SGCT could be 'collecting information for its own sake' when The Trusts first priority should be making sure that more basic objectives were being achieved - for example, ensuring that all rights of way were adequately signed and marked.

To take its own work forward from the consultants report, the Trust has chosen to embrace the fundamental principles of LAC as a methodology underpinning its policy development. It is now in the process of determining policy for the three functions of access, education and interpretation. Working groups have been set up for each function and the groups have been charged with considering the LAC implications and tasks required for their particular area.

Early indications from the groups suggest that access will need to be taken as a priority as it has overarching implications for so much of the land. Early tasks will include the development of an overview of the access network (existing routes), what form it takes, breaks or gaps, and physical problems such as pinch-points or land instability. Appropriate management can then be developed from this baseline.

During the process of assessing what LAC actually meant and entailed, trustees came to the conclusion that the nature of much of the Trusts current activities meant that we are already conducting an informal LAC process,

albeit in an ad-hoc way. Recent experience does suggest that real progress is being made through the open and informative approach to management and site work that the Trust has developed. The organic development of such an approach is hardly surprising given the multi-disciplinary make-up of the SGCT and its strong representation from local quarters. It is strengthened by adopting simple approaches to information and communication - signs to explain management work well in advance, liaison with parish councils, meetings with residents associations plus active involvement in a range of networks and forums that have developed the Trusts profile locally. None of this is revolutionary but it is well established as good practice where environmental managers seek to ensure an open and involving approach to local people at all stages of planning.

SGCT lies in its realism and its relevance to the current policy forming phase through which we are working. Grappling with the principles and predicting the potential implications of LAC has generated much healthy debate within the Trust and has focused attention on a series of priorities. It has also suggested that we may be already working in a way that provides some, if not all, of the feedback and communication that is such a major part of a 'true' LAC process. The challenge now for the Trust is to continue to build policy for the three key functions in a way that reflects the needs and values of the resource and its users in a balanced way, and to implement policy with approaches that match these needs and values.

as a start we intend to establish basic principles to underpin our management approach. We will then apply these through simple, easily monitored benchmarks for all our sites.

The main needs which have been identified are:

- an effective approach to communication with local communities
- a monitoring system which triggers direct action
- a strategic overview of the access network

In looking forward, we have still not identified the Holy Grail of the 'Carrying Capacity' of the Trusts sites and we may still come to the conclusion that it is either unnecessary to do so or that it is unattainable at any reasonable cost.

*Telford Foundry  
Coalbrookdale - Plover Island  
Gorge Countryside Trust*

Probably the most positive of these has been a recent project under the umbrella of Local Agenda 21 and was co-ordinated by SGCT at a local parish level. It involved people taking photos (or using other images, including a tea-towel produced by the Coalport Village Hall Committee!) to illustrate what matters to them about where they live - the good, the less good and things they would like to change. Through the awareness raising and communication processes involved and the running of two workshops, the project achieved its aims and created a good deal of local interest. A greater number of people came along and got involved than would attend a formal public meeting. More to the point, it gave SGCT a chance to find out at first hand, from a range of people, what they value within their local environment and what they would consider acceptable and unacceptable changes.

The process outlined above is not the application of LAC in its true sense as described in the Sidaway document. However, its value to

**The Way Forward**

The Trust now has the challenge of distilling the essential elements of LAC and turning them into a clear expression of our values and a practical management and monitoring system.

The first and most immediate benefit of the process to date has been the engagement of the whole Trust, both staff and trustees, in the development of management principles. The positive involvement of trustees or elected members is often a problem for small countryside management organisations. For SGCT, as a new and developing trust, it has enabled us to grow as a body and trustees have also gained a better understanding of management issues.

The trust has begun to develop its own thinking on how to simplify the LAC approach and

We will begin implementation of the approach through the establishment of a set of direct and monitorable management principles and on-site indicators or triggers for action. Only in two or three years time will we be in a position to judge the success of this approach and to make some assessment of its long-term benefits. However, the leap of faith we took in following the LAC approach has been rewarded with the foundations of a workable system to which we are now committed.

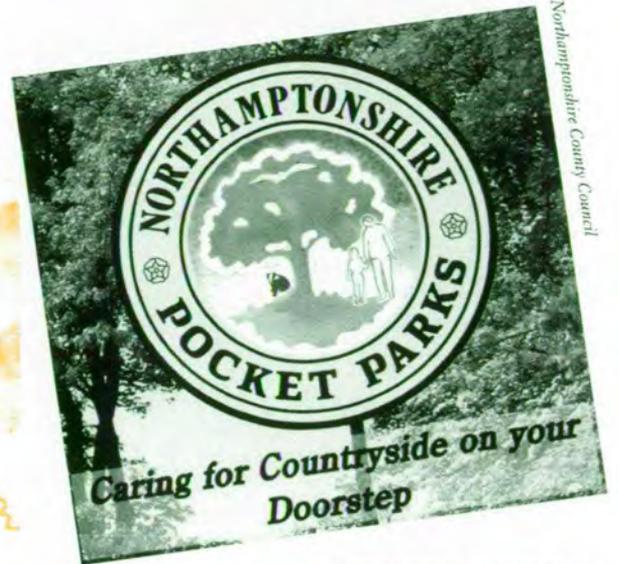
*This article was prepared by Jim Waterson, Manager of Projects for SGCT with support from Veronica Cossons, Chair SGCT and Ian Baker, Vice Chair SGCT.*

*Severn Gorge Countryside Trust  
Wesley Rooms Annexe, Jockey Bank  
Ironbridge, Telford  
Shropshire TF8 7PD  
Telephone and Fax: 01952 433880*

# URBAN CONSERVATION -

## *Positive Action for a Sustainable Countryside*

Stephen  
Rumble



Growing concern over the effects of increasing visitor numbers to the countryside has led to a determined effort on the part of countryside managers to ensure its long term survival. The current buzzword for this activity is sustainable tourism, a subject which has been widely discussed, and about which much has been written, this issue of Interpretation bearing testimony to this fact. From this current enthusiasm has come considerable practical action on the ground to minimise the impact visitors to the countryside are having on the natural environment. Such action ranges from small scale ad-hoc visitor management techniques, to detailed systems approaches of strategic planning such as the Limits of Acceptable Change model.

Discussion in these areas is certainly of value, and much good work has come as a result of it. However, whilst attending a recent SIBH conference on the subject of sustainable tourism (Cropston Visitor Centre, 20.6.96), I was struck by the reactive and negative nature of many of these responses. There appears to be a preoccupation amongst the custodians of the countryside with defending the natural environment rather than facing up

to the real cause of the problem and seeking to solve it at source. As long as this remains, current techniques being deployed to achieve a sustainable countryside can never be entirely successful.

Whilst I believe that it is vital to create a countryside that is sustainable, in order to realise this goal there must be a complete reappraisal of the techniques currently being employed. The source of the problem in the countryside can be traced to the 80% of the population who reside within urban areas and for whom the countryside has become something of a mecca resulting in frequent pilgrimages into rural Britain in an attempt to escape the realities of urban life. Attention, therefore needs to be focused on this aspect of the problem as an approach which looks solely at the symptom will not have any real success.

Much of the pressure being exerted on the countryside for leisure activities is related to our idealisation of rural Britain. It is a strange irony that despite being the first industrial society we have as a nation failed to come to terms with our urban situation. Since the

beginning of industrialisation the countryside has been idealised as a place of stability and tranquillity. This image has been, and still is, strongly perpetuated through the media, whether in paintings by Millet or Constable, advertisements which use the image of the countryside to promote its products, for example the recent campaign for Caffreys beer, or television programmes such as Emmerdale and Heartbeat. This idealisation has helped to entrench the countryside as a crucial element of our social and cultural identity resulting in a natural progression in which the countryside is seen as being the only place where escape from the pressures of urban life is possible. The resultant desire to visit or, ideally, to live in the countryside has placed it under considerable pressure.

It is my argument that the solution to the problem is to be found in the city, and that this appears to have been entirely overlooked in the discussion around sustainability. By placing facets of the countryside within an urban setting I believe that an alternative location for activities normally carried out in the countryside can be provided, thus reducing the pressure on the natural environment, whilst at the same time contributing to making the city a more acceptable and enjoyable location in which to spend time.

However, within most cities today, there is a lack of high quality open space. This is a legacy from the past as a low priority has been placed on the provision of open space. The



predominant form of open space within urban areas today takes the form of municipal parks with closely mown grass areas, borders of carefully kept flowers, and duck ponds, designed for promenading and gentle exercise, rather than as a location where escape from urban life is possible and where the natural environment can be experienced. This situation was reinforced by the post-war redevelopment of cities where the pervading culture was one of concrete structures and short grass. To gain access to natural space, people are forced to travel further, whether it is to Country Parks located on the outskirts of cities, or even further into the countryside. Evidence indicates that people want access to wildspace within their daily lives. Visitor surveys undertaken by the Milton Keynes Parks Trust illustrate a demand for wildspace, revealing that 88% of respondents found wild areas 'important' or 'every important', while unnatural elements such as shelter and the availability of refreshments were of much less importance to the parks' users. These natural areas are locations in which people are able to escape from the rigours of urban life whereas, the formal and structured nature of public parks fail to provide this by being merely an extension of the rigid formality imposed by urban space. The parks in Milton Keynes have been so successful that people are actually travelling into the city from the surrounding countryside to make use of the extensive network of parkland.

This reversal of the natural trend to flee the city in search of countryside demonstrates that where high quality wildspace is provided it will receive considerable use and be highly valued. Further to this, direct and easy access to a local landscape which is alive and vibrant is crucial to the physical and mental health of the urban population. Whilst Milton Keynes is an exception in terms of being a highly planned development which gave a high level of priority to providing a healthy living environment for its population, it shows the direction in which we should be striving to move, and clearly reveals that the provision of such open space can contribute

to achieving a sustainable countryside.

However, while some excellent role models exist, such as Milton Keynes, urban areas still have a long way to go before they begin to contribute

towards the creation of a sustainable countryside. Initially there is a need to create more sites. Every city contains a large amount of land which could be transformed into wild areas with public access. The obvious starting point for this are the existing public parks. While there is a demand and role for this type of public space, there is no reason why parts of them cannot be developed into wild areas. In some towns local groups are being formed specifically to influence the managers of their parks to achieve this objective (Baines, 1986: 87). Many other sites also exist which, with a small investment of finance and time, could be transformed into important and highly valued resources; transport routes for example, can be developed into green corridors running into the town centres; canals and disused railways provide an important wildlife habitat, and can make interesting and important wildlife sites within densely urbanised expanses; towpaths alongside canals could also make excellent commuter routes into cities for cyclists and walkers. Every city contains a large number of derelict industrial sites, some of which could be allowed to naturally regenerate, becoming wildspaces. Of course this requires careful management in generally making them safe, but following this nature can be allowed to take over with only a limited amount of interference and investment necessary to create dramatic and highly valued wildlife sites.

Funding the development of these sites need not be a problem either, for such development does not have to be expensive. Much of the work can be undertaken by enthusiastic volunteers such as urban wildlife groups (off-shoots of the County Wildlife Trusts), which can now be found in most cities, and BATCH will also undertake work in the urban environment. In addition, local community groups will often only be too pleased

to become involved in a project which will improve their living space.

There is also a variety of funding options available. For example, both the Countryside Commission and English Nature will provide grants to local authorities, whilst the National Lottery is currently targeting funding towards urban park regeneration. The Millennium Greens initiative offers further funding opportunity: A £10 million grant from the Millennium Commission has been provided for greens to be created in or on the edge of urban areas with the aim of providing 'permanent open spaces for which the communities have responsibility'. The project offers an important opportunity for organisations to pave the way in the design of urban wildlife sites. It is imperative for the creation of a sustainable countryside that this scheme is used to provide more urban wildspace, whilst avoiding the 'Victorian park' syndrome of design. It is the responsibility of organisations such as the Countryside Commission, English Nature, the National Trust, the Council for the Protection of Rural England and the National Parks Authorities to lobby the Millennium Commission to ensure that this opportunity is not wasted. Furthermore, these organisations should make an active contribution to achieving sustainable tourism by channelling some of their efforts into urban conservation.

Having established such urban wild areas there are admittedly further management problems which must be overcome. It is important to encourage a wider use of these sites, but also to ensure that this use is appropriate through sustained promotional work. However, it is also vital that management anticipate problems which may arise. It is inevitable that concerns over personal safety



Urban greenspace in Chichester. -Photo P. Cooper



# CARRYING CAPACITY

## *and VISITOR MANAGEMENT in HISTORIC CITIES*

### Introduction

Visiting a historic city when there are crowds of other 'tourists' is no one's cup of tea. Being forced onto the road with busy traffic in Bath because of groups of visitors is not a pleasurable experience. This article sets out to link the research into the carrying capacity of a historic city with visitor management methods to relieve problems which stem from the capacity threshold being breached.

There has been much concern in recent years about the damage overcrowding can inflict on historic cities, Venice and Florence immediately spring to mind. Today many historic cities are suffering from 'mass cultural tourism', with the emphasis on 'mass'.

There is the real danger that tourism will destroy the city that generated it, with the result that tourism will eventually destroy itself. Tourism needs to be sustainable so that future generations can also enjoy their heritage. The authorities in historic cities should treat the city as a 'capital resource' to use a financial analogy. The value of the resource will be diminished if it is not protected and well managed. There are elements of the resource which are 'critical' and if eroded will diminish the overall value.

In Britain it is predicted that there will be increased capacity problems for historic cities with cheaper air travel, increasing numbers of retired people and more visitors from the 'tiger' economies of the Far East. It is essential to protect the historic resource, the host community and enhance the visitor experience.

Historic cities are popular with overseas and British tourists and are also attractive places in which to live and work. Many serve as regional shopping centres, a focus for business development and as centres for higher education and local government. These different functions involve many people. However,



The Acropolis. -Photo: Patrick Cooper

Patrick Cooper

the need to conserve the historic environment prevents major changes to the city infrastructure. Historic cities were not designed for modern tourism with its cars, coach loads of visitors and accompanying litter.

A city is a more complex situation and management prospect than a single heritage site which can ultimately determine its visitor numbers and can be managed exclusively for those visitors. Visitor management in historic cities has to take a 'softer' approach as it is not easy to restrict an area of the city to people when it reaches a pre-determined capacity level.

### Introduction to Capacity Research

All historic cities have capacity thresholds beyond which damage occurs to the city, the host community and the visitor experience. It

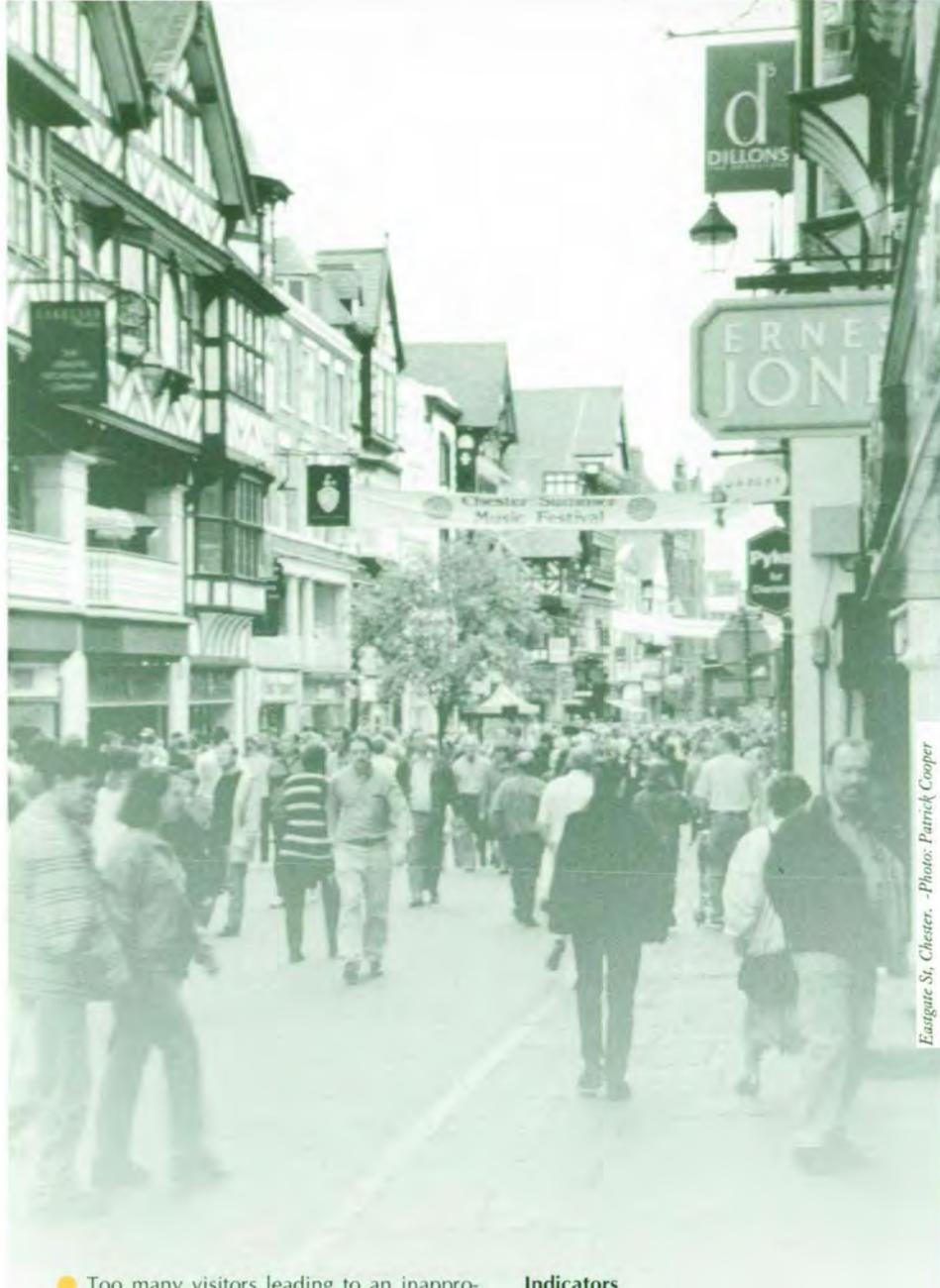
is not easy to define this level as these three factors will not necessarily be at the same state.

The capacity level needs to be based on the following considerations:

1. The effect of numbers on the historic fabric
2. The effect of numbers on the historic atmosphere
3. The effect of numbers on the residents' use/enjoyment of their city
4. The effect of numbers on the visitor experience (Getz, 1982)

The following are examples of problems experienced when a city over-reaches its carrying capacity.

- Pedestrian visitors congesting historic streets and squares



Eastgate St, Chester. -Photos: Patrick Cooper

- Too many visitors leading to an inappropriate atmosphere in the setting
- Impaired opportunity for visitors to view the site
- Crowds and queues at key attractions
- Conflict between pedestrians, vehicles and cyclists
- Antipathy shown to visitors by residents because of crowded conditions

The 'Critical Environmental Capital' of a historic city which could be affected by too many people would be those essential historic resources that are irreplaceable and where any loss or damage would result in the loss of the city's character. Included in this would be historic sites and listed buildings (Arup, 1995).

It is important to note that it is not necessarily the overall numbers in the city that will overreach the city's carrying capacity. There are usually 'honey pot' areas in cities for example 'by the cathedral' which suffer most from crowded conditions.

#### Indicators

It is important to select certain indicators to warn of potential problems. The following passage by John Julius Norwich describes capacity indicators in St Mark's Square, Venice that indicate the gradual erosion of the city's fabric.

*St. Mark's Square - together with its neighbouring Piazzetta - is being physically ground down by these remorseless throngs: 35 years ago, the sculptures surrounding the bases of the two columns by the Molo were clearly identifiable; today, used as they are from morning till night - and frequently all night - as seats, picnic tables, pillows and repositories for bursting kit bags, the carved figures have been worn almost smooth.* (Norwich, 1994, 46)

When choosing indicators in cities it is important that they meet the following criteria. They should be:

- Sensitive to changes in the environment
- Easily assessable for monitoring

- Cost-effective for data collection and monitoring
- Be able to give a clear indication of when changes are taking place
- Comparable with other locations and cities

#### Capacity Perception Studies

It is important to link people's perception of the capacity threshold with the level when the resource is damaged. By researching the thoughts of residents and visitors a level can be found that is attractive to the visitor and enables the residents to carry on their business without disturbance.

The following article in *The Independent* highlights the growing consciousness of the importance of the link between carrying capacity and the visitor experience of the city.

*Under the press of numbers, many tourist experiences are already being destroyed. Everyone gets to see the picture, the monument, the palace - but no-one gets to see it properly, and the sheer numbers put the object in jeopardy. Everyone goes to Venice, but all you can think of while you are there are the jams of people seeing it with you.* (Popham, *The Independent*, 7.11.1995, 17)

One method is to implement group discussions using a social researcher as a moderator. The following points should be the basis of the discussion:

- Changes for better or for worse in the last 5-10 years
- Acceptability of current conditions
- Photographs of pedestrian crowding and comparison with other cities
- The most important features of the city for people

#### Introduction to Visitor Management

Visitor management is the name chosen by heritage and tourism professionals to denote the management of the inter-dependent relationship between the needs of the visitor, the historic resource and the host community. The name however, emphasises the 'visitor' when it should equally emphasise all three components.

#### Organisation of Visitor Management

Ideally a Visitor Management partnership organisation should be created which has independent authority and funding. This organisation should co-ordinate visitor management between council departments, local organisations and residents. The 'Canterbury City Centre Initiative' is a good example of such an organisation.

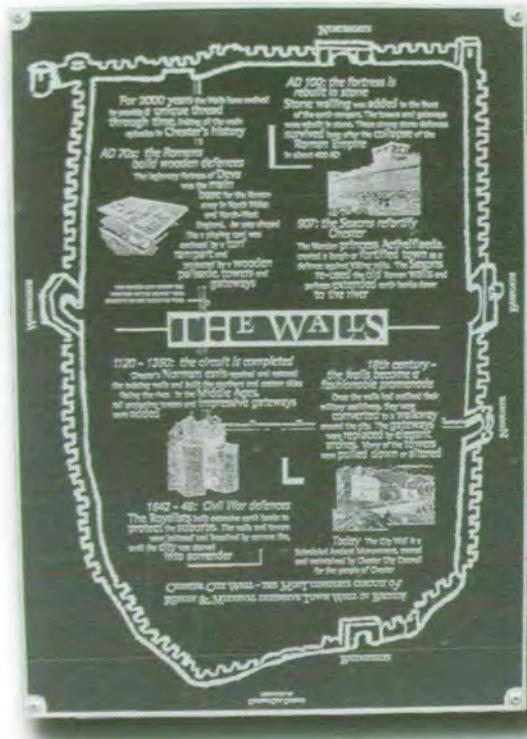


Photo: Patrick Cooper

The following roles should be part of any new Visitor Management organisation or steering group. All are linked to the setting of the carrying capacity of a city.

- Tourism Promotion
- Tourist Information Centres
- Heritage Interpretation
- Host Community Liaison
- Town Planning - Transport and Signage
- Services - Toilets and Litter Collection
- Finance and Sponsorship
- Market Research

**Visitor Management Perception Studies**

It is important to find out the ease with which visitors and residents orientate themselves and find interesting parts of the city. A review using people's perceptions could be made of marketing information, signage and other visitor management methods.

One relatively easy and cheap way to carry out some of this research is to have a visitor reply slip included with a free introductory pack to the city. A prize can be used to encourage visitors to respond. The 'Stratford-upon-Avon Action Programme' used such a method to carry out research into visitor satisfaction. (Hicks, 1995, 31)

**Spreading Visitors in Space**

The Visitor Management organisation of the city should encourage greater access to a wider area of the city. This strategy has many

advantages and does not just help to lessen pressure on the central area. Marketing, signage and interpretation can be utilised to encourage greater visitor movement so capacity is not over-reached.

Below are ways to encourage greater movement over the city:

- Information Packs that give details on accommodation and wide spread of attractions
- Visitor Patrols - uniformed patrols to assist visitors to find their way
- Joint Ticketing - to encourage people to visit more than one central attraction
- Ticket Pricing Strategy - This is being considered in Bath to limit visitor numbers to the Roman Baths by

increasing admission charges, whilst making other attractions more popular by offering discounts (Bath City Council, 1994).

- Marketing of less well known areas and attractions

- Signage - at gateway points and throughout the city
- Interpretation -

if visitors had more appreciation of the city and its history they would have a more enjoyable and constructive visit, and would also be encouraged to go to parts of the city, such as the castle and city walls, which are currently not much visited, thus lessening their impact on the central core. (Canterbury City Centre Initiative, 1996, 9)

Interpretation trails that combine good distribution of guides with co-ordinated panels and signage. It is important that the routes are well maintained and that the paths are safe to walk on.

- Live presentation, people performing is likely to attract visitors
- Guided tours can 'herd' visitors to less well known parts of the city. The guide has the advantage of having a captive audience which can be easily led to different areas. However, when these groups are too large they can cause congestion in the streets and be a focus of annoyance for residents.

- City Infrastructure and Services - in historic cities because of the numbers of visitors, there has to be more cleaning of toilets, more

litter collections and maintenance of surfaces. It is important to make sure that there is a good standard throughout the city to encourage visitor spread.

- Good spread of refreshment areas and cafes

- Pedestrianisation - according to research in Canterbury, pedestrianisation spreads visitors to wider parts of the city. (Canterbury City Council)

- Prevents conflict between pedestrians and vehicles
- Makes more room for pedestrians to explore

- Transport links to different areas of the city - Important to provide public transport system that enables visitors to reach different parts of the city and outlying areas
- Parking well spread about the city

- Shopping - city centres do not only get congested by 'sightseeing' visitors but by residents and visitors shopping

- Try and spread shops over a wider area
- Perhaps provide shopping facilities out-of-town, however such proposals are not always met sympathetically

**Spreading Visitors in Time**

It is important to spread out overall number of visitors to a city over the whole year. The following are a number of measures to help achieve this.

- Timed and pre-booked tickets to stagger visits to main attractions

- Promotion of 'off-peak' breaks and packages

- Create promotional packages to encourage visitors to stay overnight - thereby putting more money into the city. Provide an accommodation booking service in the Tourist Information Centre
- Special events at seasonal visitor troughs

**Encouraging Respect for the City in Visitors and Residents**

It is not just the numbers of people that can destroy the physical fabric and atmosphere in a city but also their behaviour. People should be encouraged not to drop their litter by signage and visitor information.

**Attraction Development**

- Attractions can be developed to:
- Spread visitors over a wider area
  - Increase revenue from tourism
  - Provide a place to go when it is cold and wet
  - Further encourage visitors to stay overnight and thus spend more money
  - Develop 'run-down' areas



However attraction development can:

- Overload capacity by making the city too popular

**De-Marketing**

An active policy of de-marketing ensures that people will not be encouraged to visit if there is an absence of marketing and the co-ordinated restriction of regional and national promotion by other groups.

**Entry Restriction**

Since May 1996 the Florentine authorities have restricted the number of coaches that can enter the city boundaries. This aims to deter some of the 50,000 visitors and 500 coaches a day that the city receives. (Richard Owen, The Times, 6.4.1996)

**Model for Carrying Capacity and Visitor Management in Historic Cities**

The following six points show a proposed model for managing the carrying capacity of a city. When set in motion this model should become circular so that the city authorities are constantly managing the carrying capacity.

**1. Carrying Capacity Technical Studies**

- Examine pedestrian flows in critical streets
- Carrying out people counts in specific locations
- Compilation of data
- Examine physical capacities
- Examine trends in pedestrian flows over

the last 5-10 years

- Examine the influence of any pedestrianisation programme over this time period
- Examine the effects of people on monuments and buildings
- Research carrying capacity work in similar cities
- Select indicators

**2. Carrying Capacity Perception Studies**

- Assess pedestrian comfort and general perceptions of conditions in the city
- Assess acceptability of existing pedestrian conditions in critical streets (using photographs as prompts)
- Assess relative acceptability of pedestrian conditions now compared to 5 years ago
- Implement perceptual indicators

**3. Visitor Management Planning**

- Creation of model showing pedestrian numbers and movement
- Decide upon desired 'Capacity Threshold'

- Audit of how visitor movement is influenced by professional research and perception studies
- Research Visitor Management methods in similar cities
- Plan strategy to reduce/maintain desired capacity threshold
- Work out funding sources, time-scales and areas of responsibility

**4. Visitor Management Implementation**

- Introduce methods to spread visitors in space and time: Marketing, signage, interpretation, attraction development etc.
- If these methods are not successful consideration of introduction of de-marketing and entry restriction

**5. Monitor and Review**

- Carry out constant monitoring and periodic reviews of carrying capacity and effects of Visitor Management initiatives

**Conclusion**

The authorities in historic cities with capacity problems need to utilise carrying capacity research and visitor management methods. If these cities do not take action we might be soon visiting soulless or replica cities.

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*Patrick Cooper carried out a study of Visitor Management in Historic Cities as part of his Ironbridge Masters Dissertation on Heritage Management submitted autumn 1996.*



# PRIOR PARK LANDSCAPE GARDEN

## - A SUSTAINABLE APPROACH

Joanne Mumford

### Introduction

**It is up to each individual to develop and encourage environmental tourism, or as it is more commonly known, sustainable tourism.** The National Trust with its green transport policy, is encouraging access to its properties by means other than the car, to the ultimate benefit of all, today and in the future.

On 18th July 1996 the National Trust opened the gates of Prior Park Landscape Garden to the public, nothing particularly unusual about this perhaps, but in opening the garden the Trust have taken the imaginative but somewhat controversial step of not providing a car park for visitors.

The National Trust has entered the Transport debate because of a growing direct threat of road-building on its land, and the adverse effects of unrestrained traffic growth on the countryside in general.

There has been a growing awareness that a more sustainable approach to tourism is necessary to ensure that fragile and beautiful places continue to prosper from tourism in the long term as well as in the short term and one of the major problem areas is the increase in car borne visitors to tourist attractions. In addition, placing car parks and approach roads so that they

are in sympathy with the environment is a growing problem for organisations like the Trust. As part of its policy it is, on the one hand, hoping to persuade visitors to leave cars behind, and, on the other hand it is trying to encourage visitors who would not normally visit their properties, particularly city dwellers without access to a car.

In response to the 1994 Royal Commission Report on Environmental Pollution the

National Trust agreed in principle with the findings that forecast growth in car traffic over the next 25 years is not environmentally sustainable.

At the National Trust AGM in December 1995 the vote was carried by members and the resolution passed by 52, 463 votes to 13,783 to cut car use to its properties from an estimated 90% to 60% by the year 2020.

The Trust, whilst emphasising that it is not anti-car, wishes to see a reduction in car use in favour of greener options for two reasons. Firstly, because of the general environmental damage caused by unrestrained growth in traffic levels and road building - damage which can mean landtake, damage to landscape features or natural habitats, restrictions on public access, threats to archaeological remains and noise and visual intrusion. Secondly, because of the adverse impact of traffic growth on visitors' enjoyment of properties, be it through road-building schemes on Trust land, poorer air quality or noise pollution.

For many years the Trust has listed public transport details for every property listed in the members and visitors handbook and has introduced several





imaginative schemes in an attempt to persuade people to use alternative transport. These include:

- ◆ Water travel, for example taking the last sea-going paddle steamer 'The Waverly' to Clevedon Court in Avon or to Arlington Court in Devon, travelling by river to Ham House in Richmond or journeying via the Bridgewater Canal to Dunham Massey in Cheshire, which has its own marina for visitors enjoying canal cruises and a river boat especially adapted for disabled users.

- ◆ Steam trains can be taken to Lanhydrock in Cornwall; by travelling on the Severn Valley Railway to 17th Century Dudmaston or by travelling on the Swanage Railway, as part of the Isle of Purbeck initiative. This scheme also includes the provision of park and ride facilities outside the village of Corfe to reduce congestion in the village and the promotion of the Purbeck Cycleway launched in June 1994. The Trust's own locomotive runs each summer in Yorkshire on the Worth Valley Line between Keighly and Howarth passing close to the Trust's property at East Riddlesden Hall.

- ◆ There are numerous examples of ticket concessions, such as reduced admission prices on production of a Wilts and Dorset Explorer bus ticket at Stourhead in Wiltshire.

- ◆ Cycle racks have been installed at many

properties and open space sites such as Badbury Rings in Dorset.

The access arrangements at Prior Park Landscape Garden are seen as part of Green Transport strategy and will no doubt be widely studied to see if lessons can be learnt and applied elsewhere.

#### **Prior Park Landscape Garden A Brief History**

Prior Park Landscape Garden is a unique Grade 1 garden listed in the English Heritage national gardens register. This magnificent eighteenth century intimate landscape garden of some 11.2 hectares (28 acres) set in a sweeping valley overlooking Bath was created by the entrepreneur and philanthropist Ralph Allen from 1734 to his death in 1764 with the help of Alexander Pope and Lancelot 'Capability' Brown.

On acquiring the gardens in 1993 the National Trust began an extensive restoration programme with the aim of restoring the gardens from a state of neglect, back to, as far as can be ascertained, Ralph Allen's taste and intention at the time of his death. Phase 1 of the restoration has been completed at a cost of nearly half a million pounds and the gardens now offer exhilarating walks with breathtaking views.

The pride of the garden is undoubtedly the stunning Palladian Bridge, one of only four in

the world. Other features include the fish-ponds, a grotto, sham bridge, rock gate, and a timber summer house together with the remains of the serpentine lake and water cascades which the Trust hopes to restore at a later stage.

In the management of the garden sustainable woodland management principles are used wherever possible. The woodland is managed to give continuous cover by developing a mixed age range of the trees. Trees are selectively thinned on a continuous cycle and all produce is either sold or used on the estate. Brushwood is chipped and used as mulch to new planting, some timber is planked and used for seats around the gardens. Quality wood such as yew is sold for furniture making whilst inferior wood is sold for firewood. Away from the footpaths wood piles are left to encourage wildlife.

#### **The Problem**

The Trust's original plans to build a car park were thwarted when an archaeological survey of the site revealed the only available space to be the remains of the Serpentine Lake, part of the wilderness area designed by Alexander Pope and an integral part of the landscape. In any case, the provision of a car park would ruin and impinge upon the very resource and atmosphere of the site visitors have come to see. Consultants were appointed to research into the provision of satisfactory parking and access arrangements to be

able to open Prior Park Landscape Garden to visitors without causing inconvenience to neighbours. However, other possible locations were found to be too far away or on land protected by the National Trust as part of the Bath City Skyline, designated for everyone to enjoy as a rural and wooded countryside - not a car park. Of paramount importance was the need to balance the needs of the garden, the visitor and the local community, who in this case have a very real concern over the impact of visitors to the Garden in the form of car traffic clogging up roads, and using this primarily residential area as an unofficial National Trust car park.

It was clear that a far sighted alternative and environmentally responsible approach was needed in order to give access to the estimated 40,000 visitors per year. Although representatives of the National Trust admit that green transport issues had been forced on the site they rose to the challenge and began to see the opening of the gardens as a unique opportunity to promote green transport and show how it can work by example.

The long running debate between the National Trust, Bath City Council and the local residents association finally came to a head on 6th February 1996 when the city councillors agreed to grant temporary planning consent to the Trust allowing them to open the garden for a two and a half year trial period during which time the Trust has to prove that the Green Transport strategy would work. The decision to allow opening was seen as a breakthrough in the new policy of encouraging alternative uses of transport. On receiving the temporary planning consent David Bett, Regional Director of the National Trust, Wessex Region said 'Prior Park is a unique grade I listed garden of national importance and although we very much hope to be able to share it permanently with local people and visitors to the World Heritage City of Bath, we accept the challenge of opening the garden for an initial period of two years'.

#### The Solution

A comprehensive package of transport measures was put forward which included:

- ◆ The provision by the National Trust of a dedicated bus service to the garden on Sundays and Bank Holidays when there would otherwise have been no service.
- ◆ The National Trust agreed to pay for double yellow lines on particularly sensitive roads close to the gardens.

- ◆ Half a million leaflets, at a cost of £18,000 were distributed to hotels, tourist information centres, rail and bus stations and other attractions across the region setting out details of public transport using bus, train, coach or taxi and of course, by bicycle and on foot. The City's already established Park and Ride system was also publicised.

- ◆ A discount voucher scheme was introduced as an incentive to use public transport whereby non National Trust members

received a £1 reduction in entry fees on production of a bus or train ticket, whilst National Trust members received a voucher offering reductions on cream teas at Sally Lunn's in Bath or in the neighbouring National Trust property, Dyrham Park, or purchases in the National Trust shop or off the Prior Park Landscape Garden guide book.

- ◆ Free garden passes were offered to over 2,500 of the Park's neighbours. David Bett said "the pass will help neighbours to enjoy





and value the treasure on their doorstep. By offering passes we can show our appreciation to the local residents who have given us vital support in restoring and opening Prior Park Landscape Garden".

- ◆ Provision of 3 disabled parking spaces
- ◆ Provision of cycle racks
- ◆ Ongoing advertising and PR campaign targeting local papers, specialist walking and cycling publications, tourism brochures and all National Trust Literature including the Members newsletter, handbook and magazine).

A representative of the Local Friends of the Earth Group praised the National Trust's attempts to keep cars away from the gardens - 'Encouraging visitors to walk, cycle or use public transport to get to tourist attractions is an excellent idea in terms of getting people used to doing without cars where alternative, non-or less polluting means are available - The National Trust initiative deserves support'.

#### Results So Far

I am currently in the process of conducting a visitor survey on visitor attitudes to the green transport policy and the lack of car parking space at the gardens and it is clear that whilst appearing to be largely positive, opinions are varied. The results have yet to be analysed in detail but an analysis of how visitors are getting to the gardens indicate that the access policy is being accepted by a large percentage of visitors, of whom there were to be an estimated 7,000 in the first month of opening. It would seem that some 82% of visitors have cho-

sen alternative greener transport methods to reach Prior Park. It has been estimated that up to 90% of National Trust visitors reach properties by car. Even whilst accepting that the site is in close proximity to the city centre this does show a considerable reversal in the trend.

#### Conclusion

It is clear that for any substantial reduction in car use much will depend on a change of government policy, the attitudes of those providing the transport service, which must be convenient and cost effective for people to use, and the attitudes of visitors. Whilst the National Trust should be congratulated on its policy to encourage alternative and more environmentally sustainable means of access to Prior Park Landscape Garden, and its other attractions, it must take

care that in doing so it does not push the problem of traffic into other areas, particularly in the case of Bath, which is already a congested city. However, in the first few weeks of opening a high proportion of visitors have risen to the challenge of using 'greener transport', walking or cycling as a means of access.

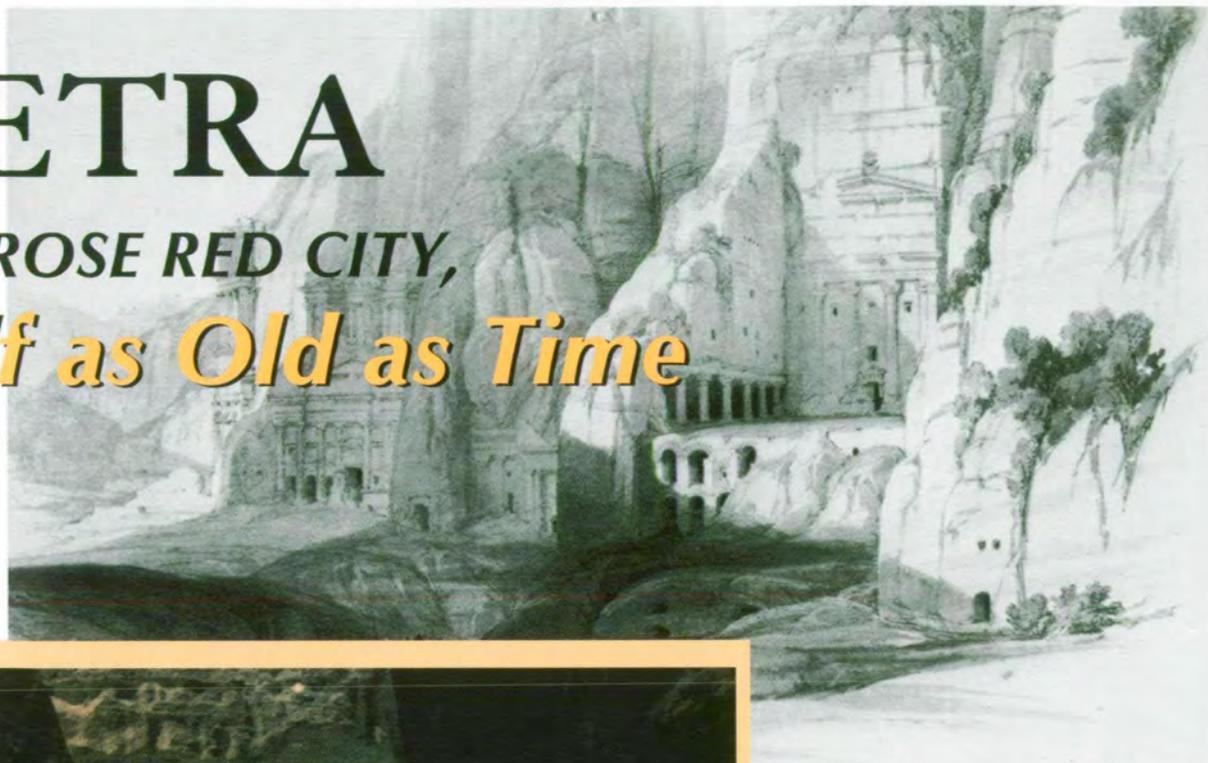
If the opening of the garden is to continue to be a success, it is essential that the Trust continue to promote non-car use and protect the interests of the neighbouring community - balancing the needs of the visitor, the site and the surrounding environment.

*Jo Mumford worked for the Wessex Region of the National Trust during the summer of 1996 as her six week work placement requirement for the Ironbridge Masters in Heritage Management.*

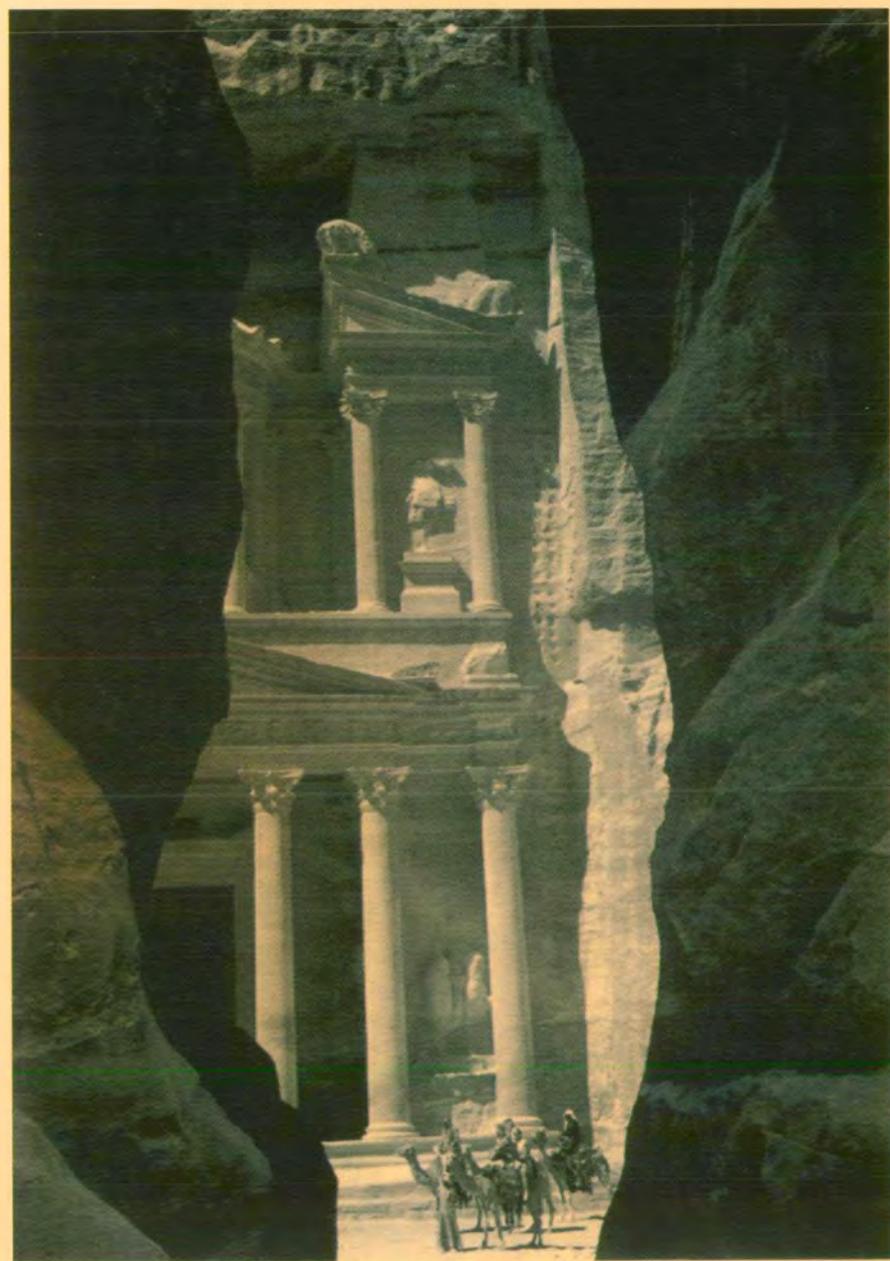


# PETRA

*THE ROSE RED CITY,  
Half as Old as Time*



Marion Blockley



**Petra in Jordan is the ruined capital of the Nabataeans, Arabs who dominated the Trans-Jordan area in pre-Roman times. It is one of the cultural treasures of the world, and was designated a World Heritage Site in 1984.**

Much of Petra's fascination comes from its setting on the edge of Wadi Araba. The sheer and rugged sandstone hills form a deep canyon easily protected from all directions. The easiest access is through the Siq, a narrow winding cleft in the rock. Until recently it was an arduous journey from the capital Amman to Petra. Now Petra is connected to Amman by the bitumen covered desert highway and can be reached by coach in 3 hours. Tourism in Jordan is expanding dramatically and there has been a 15% growth per annum in visitors to Petra 1985-92. It is predicted there will be around 245,000 paying visitors to the site by the year 2000.

This increase in visitors to this remote and fragile place is cause for concern. UNESCO has funded the creation of a management plan for the Petra National Park, and as part of this, attempted to measure the carrying capacity of the site.



### The Problem

There are great numbers of visitors entering Petra on holidays, particularly Fridays, especially during the peak months of April and May and at specific rush hours. At these times the site's carrying capacity at honeypots like the Treasury (of Indiana Jones fame) is exceeded dramatically and is a major cause of dissatisfaction amongst visitors. The problem is exacerbated by the use of too many horses to transport people moving in both directions through the very narrow entrance gorge, the Siq. Dust and faeces are creating unsanitary conditions in the Siq and contributing to its degradation.

On a peak Friday 3,900 visitors plus horses were measured entering the Siq. 1,500 fee paying visitors entered the Treasury during the three hours from 8.30-11.30 am. This amounts to 500 visitors per hour or 250 visitors per half hour which is twice the calculated carrying capacity of the

Treasury area. 550 visitors were recorded in half an hour around 11.00 am.

Friday 15th April 1994 (Peak Holiday)

- ✦ More than 4,000 paying visitors and 1,200 horses or donkeys entered the Siq between 6.00 am and 6.00 pm.

- ✦ Over 12 hours 7,600 people (including students) and 2,300 horses or donkeys passed through the Siq.

- ✦ Between the peak hours of 9.30 am and 4.30 pm, 5,100 people and 1,500 horses passed through the Siq in both directions.

- ✦ During the peak month of April (1994) 23,104 paying visitors entered the Siq.

- ✦ By contrast, the previous day, Thursday 14th April, is typical of an ordinary weekday with 196 visitors entering between 9.00-10.00 am and 311 visitors between 8.00-9.00 am.

### The Solution?

In order to adjust the number of visitors to the carrying capacity of the site measures are urgently needed, such as restrictions on the frequency of holidays, and the introduction of a one-way circulation system through the Siq. The latter will require the improvement of alternative routes back from the site, which in themselves should not damage the archaeology and ecology of the site. In the longer term the development of alternative circuits to spread the load away from the honeypot sites on the short tourist route is needed. These could include middle and long-range foot, horse, camel and donkey trails within the Petra National Park as a whole. Interestingly, the principles of the LAC approach have been applied to the management plan for the Petra National Park.

## SITUATIONS VACANT

MEMBERSHIP CO-ORDINATOR  
**HELP!!!**

Alison Maddock, after many years of sterling work, has for some time been keen to relinquish this post. We are urgently seeking someone to take on this fundamental administrative role. Payment is available - contact our Treasurer, Phil Haysom or Carolyn Lloyd-Brown (Membership Secretary) if you can, or know a (wo)man, who can or might be encouraged to take on this important job. Since space is tight at Alison's, the Ironbridge Institute have agreed to provide a temporary home and mailing address for correspondence. Although space is restricted at Ironbridge too, we probably could still offer a home to the Society's filing cabinet. Could you be the person to take on the job? We have an heroic volunteer to hold the fort for the next two-three months, but really need an individual who can take on the job on a more permanent basis.

**CAN YOU HELP?** Contact Carolyn, Phil or Brian Bath with offers of help (Telephone numbers on the inside back cover of the Journal)

## ADVERTISING CO-ORDINATOR

Despite various half-hearted offers we have failed to find an individual willing to pursue potential advertisers for the Journal. We need the income, and I do not have time to pursue advertisers. Could you be the active, committed individual who could help out the Society? If so, please contact the Editor at Ironbridge.

**YOUR SOCIETY NEEDS YOU**  
WE NEED ACTIVE MEMBERS WHO CAN  
TAKE RESPONSIBILITY FOR  
SPECIFIC JOBS TO SPREAD THE LOAD

## REQUESTS FOR ARTICLES

The next two issues are planned to cover Interpreting Historic Houses (due March 1997, copy deadline 30th January 1997) and Public Art Installations (due July 1997, copy deadline 30th May 1997). If you would like to contribute a case study or a more considered article please send a copy of your idea(s) to the Editor.

## Issue Dates

- 1) March (copy deadline end of January)
- 2) July (copy deadline end of May)
- 3) November (copy deadline end of September)

# 1996

# INTERPRET BRITAIN AWARD WINNERS

*This year's successful entries in the Interpret Britain Awards are:*

### Award Winners

Ardnamurchan Natural History Centre, Glenmore, Argyll  
Barnwell Country Park, Countryside Experience, Northamptonshire  
'Let's Dance' Exhibition, Stevenage Museum  
Museum of Hartlepool  
Occupation Tapestry Gallery, St Helier, Jersey  
Park Level Mine, Killhope  
Soho House Museum, Birmingham  
'Time Quest' - The Barbour Archaeological Resource Centre, Arbeia Roman Fort

### Commendations

An Tairbeart Heritage Centre, Argyll  
Cornwall Celtic Village, Chacewater  
Dover Underground Hospital (in the Secret Wartime Tunnels), English Heritage  
'Lifeboat!', The Royal National Lifeboat Collection, Chatham Historic Dockyard  
Narrowboat Living History Project, British Waterways, Bilston  
Rousse Tower, Fortress Guernsey  
'Simply Shires', The Bass Museum, Burton-on-Trent  
Swansea's Egyptian Mummy, Swansea Museum  
The Tamworth Story Exhibition, Tamworth Castle, Staffordshire  
The 'Wands' at Bath, Roman Baths Museum - Museum of Costume  
Trees to Treske Visitor Centre, Thirsk, North Yorkshire

*In the Interpret Ireland Awards scheme, successful entries were:*

### Award Winners

Mission Awareness Centre, St Columbans, Navan, Co. Meath  
Kilmainham Gaol and Museum, Dublin  
The Story of Banking, Bank of Ireland, Dublin

### Commendation

The Navan Centre at Emain Macha, Navan at Armagh

*In both competitions there was a strong field of high quality entries.*

On the Award Presentation days, a Special Judges' Award will be announced and given to the best entry from amongst the Award Winners.

The Presentations for 1996 will take place in early 1997. For details of the occasions, and their accompanying day conferences, please contact:

**John Iddon Awards Secretary**  
**The Society for the Interpretation of Britain's Heritage**  
**St Mary's University College**  
**Waldegrave Road**  
**Strawberry Hill**  
**Twickenham TW1 4SX**  
**Telephone: 0181 240 4078**  
**Fax: 0181 240 4255**

# AIM 20th ANNIVERSARY CONFERENCE

## AIM 20th ANNIVERSARY CONFERENCE 'SPIRIT OF TIME AND PLACE' IRONBRIDGE, UK : 16-18TH MAY 1997

The Association of Independent Museums will be celebrating its 20th Anniversary in 1997. Joint hosts for this special anniversary conference will be the Ironbridge Gorge Museum Trust and the Ironbridge Institute, a fitting venue for this year's theme of 'Spirit of Time and Place'.

The seminar programme will be extended this year to include a focus on current management initiatives at UK World Heritage Sites (the Ironbridge Gorge being one of

UNESCO's designated World Heritage Sites) and to look at new provisions for training heritage managers. The conference will include the 'behind the scenes' study tours and social programme expected from the annual AIM conference. In keeping with the AIM tradition of holding the Annual Conference Dinner in unusual places, this year we will be wined and dined on the Severn Valley Steam Railway as we travel down the valley from Bridgnorth to Kidderminster. The grand finale will be a visit to Hawkstone Park to experience the recently restored eighteenth century landscape walks, designed to challenge the senses!

### Main Conference Themes:

- ▲ Response to 'Treasures in Trust' - UK government strategy for museums
- ▲ The interpretation of collections in context
- ▲ Designation of regional, national and international importance
- ▲ Cultural landscapes
- ▲ The politics of cultural tourism
- ▲ World Heritage Sites - Designation and management
- ▲ Training heritage managers

## PROGRAMME

### DAY 1: FRIDAY 16th MAY 1997

#### SESSION ONE MUSEUMS IN CONTEXT

*Chair:* Jonathan Bryant, Director of River and Rowing Museum Foundation Chairman of AIM

*Speakers:* Tim Mason, Museums and Galleries Commission DNH (TBC)  
Patrick Greene, Director, Museum of Science and Industry, Manchester  
Geoff Ward, Curator, Eyam Museum  
Glen Lawes, Chief Executive, Ironbridge Gorge Museum Trust

#### SESSION TWO SPIRIT OF PLACE

*Chair:* Chris Zeuner, Director Weald and Downland Open Air Museum

*Speakers:* Professor Peter Fowler, University of Newcastle  
John Hume, Chief Inspector of Historic Buildings, Historic Scotland  
Professor Alan Day, University of Bath  
Jane Brantom, Hadrian's Wall Tourism Partnership

*Evening:* 20th Anniversary Conference Dinner on the Severn Valley Steam Railway

*Including:* After Dinner Speech by Sir Neil Cossons and visit to Kidderminster Railway Museum

### DAY 2: SATURDAY 17TH MAY 1997

#### SESSION THREE WORLD HERITAGE SITES

*Venue:* Ironbridge Institute, Coalbrookdale

*Chair:* Marion Blockley, Programme Director, Ironbridge Institute ICOMOS (UK) World Heritage Sites Committee

*Speakers:* Christopher Young, Director for Hadrian's Wall World Heritage Site  
Phil Davies, Chair, Local Authorities Forum on World Heritage Sites  
Philip Whitbourn, ICOMOS (UK)  
Nick Balaam, Head of Special Projects, English Heritage  
Professor Peter Fowler, University of Newcastle  
Representative of the National Trust (TBC)

#### SESSION FOUR TRAINING TO MEET NEW CHALLENGES

*Chair:* Michael Lowe, Chairman Ironbridge Gorge Museum Trust. Chairman, Shropshire TEC

*Speakers:* Marion Blockley, Programme Director, Ironbridge Institute  
Richard Harrison, SIBH Education Committee. Freelance Museums and Heritage Consultant  
Victor Middleton, Visiting Professor at Oxford Brookes University, ICOMOS (UK) Cultural Tourism Committee  
Rob Shorland-Ball, Former Hon. Secretary of

AIM, Freelance Museums Consultant  
*Evening:* Civic Reception hosted by Wrekin District Council. Launch of the Museums and Heritage Strategy for the new unitary authority

### OPTIONAL STUDY TOURS

#### DAY 2: SATURDAY 17TH MAY 1997

##### BEHIND THE SCENES AT IGMT

##### AM STUDY TOUR 1

Study visits of Ironbridge Gorge Museum Trust sites:  
Broseley Pipeworks Museum  
William de Morgan Exhibition at Jackfield Tile Museum  
Coalport China Museum

##### PM STUDY TOUR 2

Visit to refurbished Museum of Iron at Coalbrookdale and the large object store

Visit to Blists Hill Open Air Museum

*Evening:* Civic Reception hosted by Wrekin District Council. Launch of the Museums and Heritage strategy for the new unitary authority

# AIM CONFERENCE

## SOCIAL PROGRAMME

**DAY 1: SUNDAY 18TH MAY 1997**

### VISIT TO HAWKSTONE PARK

A social outing to Hawkstone Historic Park and Follies to celebrate the 'Spirit of Time and Place' theme of this anniversary conference.

Hawkstone, a Grade One listed Eighteenth century landscape, is a celebrated romantic

landscape complete with follies, caves, tunnels, a castle, and the 'awful precipice'. Delegates will be able to experience the recently restored landscape walks of Hawkstone, designed to challenge the senses! The day will include a guided tour of the Red Castle, a 'romantic ruin' not usually accessible to visitors.

A picnic lunch and hermit will be provided.

#### **Guide Price:**

**£55 per day for non AIM members £44 per day for AIM members**

**Trips : Around £20 per day**

*Ian Parkin, former chairman of the SIBH, is practicing as a freelance, independent heritage and tourism consultant specialising in interpretive planning and the feasibility, concept development, design, implementation and management of interpretive facilities.*

He can be contacted at:

The White House  
Norton Lindsay  
Warwick  
CV35 8JA

Tel/Fax: 01926 843680

## TOURING EXHIBITIONS

Edited by *Mike Sixsmith*

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Touring exhibitions and temporary exhibitions have the great virtue of representing up-to-date information, they can present the latest thinking in a particular field whether it be the results of an archaeological excavation or the local implications of global events. They can be used to explain the processes of conservation taking place in an historic property or designated landscape. Whilst they are necessarily ephemeral they must also be strong and hard wearing. The costs of producing a well designed professional exhibition can be defrayed if the exhibition is produced and toured in collaboration with other institutions or visitor centres. Indeed if one is trying to communicate a campaigning conservation message, this can be achieved more effectively through a travelling rather than a static exhibition.

If you have ever surveyed with dismay the fading photographs, peeling velcro or damaged foam board of your temporary exhibitions then this is the book for you. It was produced as a practical brand book to accompany the Standards for Touring Exhibitions published by the Museums and Galleries Commission. The manual provides practical guidance on how to achieve the professional standards specified by the Museums and

Galleries Commission. For those of you with your feet firmly planted on the mud-stained floors of a country park visitor centre do please read on. This manual is not just for the immaculate environmentally controlled galleries of the fine and decorative arts and has a wealth of sound practical advice for all those involved in producing temporary or travelling exhibitions. Topics covered include budgets; hire agreements; lighting; display cases; audio visual media; insurance; publicity; publishing; reproduction; copyright; handling; installation; transport and many more valuable sections. I particularly welcomed the all too brief section on insect pests by Bob Childs, having viewed with alarm the impact of slugs and woodlice on an exhibition I produced many years ago.

The manual has achieved comprehensive coverage and an authoritative voice resulting from the combined experience of more than fifty practitioners. In fact, we even have a brief contribution on Interpretation by our member, Sally Rousham. The various sections have been cross-referenced by the Editor to provide a useful check-list of recommendations. Although the strength of the book lies in the wide range of its contributors, this may also be its weakness. As will all multiple author compilations there is a degree of repetition and overlap between some of the sections. Many of the brief contributions are reduced to a series of bullet points. Notably 'Scheduling' by Rosalie Cass, 'Advance Information' by Valmai Ward, and 'Facilities Reports' by David McNeff which are quite literally check lists. Other sections, such as that on 'Condition Reporting' by Jaqueline Ridge provide useful proforma for copying.

## BOOK REVIEW

All the contributions are practical, however, they are brief and it would have been helpful to have more guidance on further reading. There is a section on sources of information for those wishing to circulate exhibitions and another on sources of grant aid, but nothing specifically on further technical advice. Individual contributors have referred to further sources of information (for example the excellent Guide to Insect Pests in Museums by David Pinniger), but the coverage is patchy and there is no overall bibliography.

This invaluable paperback deserves to have a wide currency beyond the museums and galleries profession, and at £35 represents good value.

The Touring Exhibitions Group

The Touring Exhibitions Group (TEG) is a membership body open to anyone who is concerned with providing, assisting or using the touring exhibition as a medium for interpreting and promoting historical or contemporary culture. Its aim is to improve the status provision and standards of exhibitions touring locally and nationally. It works to improve the exchange of information about exhibitions available for other showings; it campaigns for better resources from public and private sources; and it promotes the highest standards in all aspects of touring. TEG arranges seminars and publishes information on exhibition-related topics of which the present manual is its most important project so far.

Marion Blockley

**Interpret Britain** (which is the short title of the Society for the Interpretation of Britain's Heritage) was formed in 1975 to:

► provide a forum for discussion and exchange of ideas on the Interpretation of Britain's Heritage, both urban and rural;

► disseminate knowledge of interpretive philosophy, principles and techniques;

► promote the role of interpretation and its value among those involved with recreation management, conservation, education, tourism and public relations in national and local government, charitable bodies and private organisations.

Interpretation is the process of communicating to people the significance of a place or object so that they enjoy it more, understand their heritage and environment better, and develop a positive attitude to conservation.

The opinions expressed by authors in *INTERPRETATION* are not necessarily those of the committee of SIBH.

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### Further details from

the MEMBERSHIP CO-ORDINATOR:

The Ironbridge Institute  
Ironbridge Gorge Museum  
Telford TF8 7AW  
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## The Committee of the Society

### CHAIR

Brian Bath  
The Visual Connection  
1 Rostrevor Mews  
London SW6 5AZ

### SECRETARY

Lesley Hehir  
12 The Grove, Benton  
Newcastle upon Tyne NE12 9PE  
Tel:(H) 0191 266 5804

### TREASURER

Philip Haysom  
11 Chelwood Road  
Reading, Berkshire  
RG6 2QG

### EVENTS SECRETARY

Gillian Taylor  
Dartmoor National Park Authority  
Parke, Haytor Road, Bovey Tracey  
Devon TQ13 9JQ  
Tel: 01626 832093  
Fax: 01626 834684

### AWARDS SECRETARY

John Iddon  
St Mary's College, Strawberry Hill  
Twickenham TW1 4SW  
Tel: (W) 0181 892 0051

### EDITOR

Marion Blockley  
The Ironbridge Institute  
Ironbridge Gorge Museum  
Telford TF8 7AW  
Tel: 01952 432751

### COMMITTEE MEMBERS

#### **Graham Black**

2 Thorncliffe Rise, Mapperly Park  
Nottingham NG3 5BS  
Tel: 01602 609342

#### **Alice Bondi**

Low Blackburn Bank,  
Leadgate, Alston  
Cumbria CA9 3BU  
Tel: 01434 381504

#### **Carolyn Lloyd-Brown**

PLB Design  
The Maltings, Castlegate  
Malton YO17 0DP  
Tel: 01653 698309

#### **Zoe Hall**

Studio Z, 97B West Bow  
Edinburgh EH1 2JP  
Tel: 0131 225 3808

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representing CEI  
The Manchester Metropolitan  
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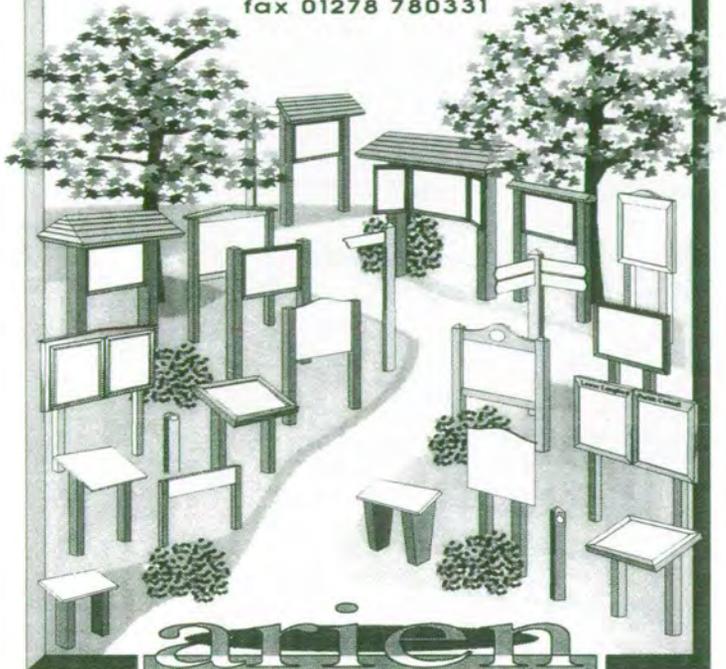
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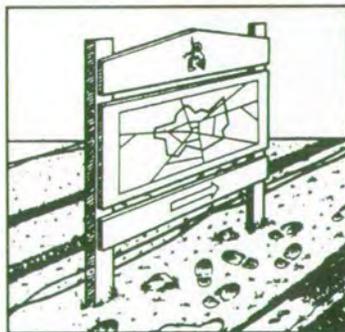
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