

## VISITOR IMPACT / VISITOR MANAGEMENT

**Benfield, Richard W.** 'Good things come to those who wait': sustainable tourism and timed entry at Sissinghurst Castle Gardens, Kent. *Tourism Geographies* 3, 2/May (2001), pp. 207–217.

For the last ten years tourism literature has been dominated by the use of the concept of sustainability as a means by which tourism growth might be examined, evaluated and managed. However, there has been little work produced on the limits of use that this concept must, by definition, set. It is the purpose of this paper to present a case study from Sissinghurst Castle Garden in Kent, England, where the management has set limits of visitation based on an intuitive knowledge of what is sustainable both physically and perceptually. A recent visitor survey shows that the limits to visitation have a beneficial effect on the long-term marketing and, thus, the commercial viability of the garden. It concludes that, in this case, some form of control was more effective than management by self-regulation.

**Drdácký, Miloš; Galova, Maria.** Management of visitors in world heritage sites. *4th European Commission Conference on Research for Protection, Conservation and Enhancement of Cultural Heritage: Opportunities for European Enterprises. Strasbourg 22–24 November 2000.* Brandt–Grau, Astrid; Perez–Vitoria, Silvia; Chapuis, Michel and Leissner, Johanna, Editors. European Commission, Luxembourg (2002), pp. 161–164.  
[ftp://ftp.cordis.europa.eu/pub/eesd/docs/ka4\\_protection\\_conservation\\_enhancement.pdf](ftp://ftp.cordis.europa.eu/pub/eesd/docs/ka4_protection_conservation_enhancement.pdf)

Paper analyses in relation of mass tourism to cultural heritage stability based on knowledge taken from Central European experience. It presents a sample of the situation in one of the World Heritage Cities – Telc. There are studied impacts and risks generated by a high attendance of visitors to cultural monuments as well as risks to visitors and their mitigation possibilities. The contribution also deals with the role of cultural tourism in social and economic stability of cultural heritage sites and the needs of tourism concerning development planning. Conclusion contains some recommendations for the creation of a tourism management policy. (Author abstract)

**Drdácký, Miloš; Drdácký, Tomáš and Creighton, David** *Impacts and risks generated by large visitor numbers draft 1* PICTURE: pro-active management of the impact of cultural tourism on the urban resources and economies. European Commission Sixth framework Programme of Research, (2005), 35 p. [http://www.culture-routes.lu/picture/IMG/pdf/222\\_long\\_en.pdf](http://www.culture-routes.lu/picture/IMG/pdf/222_long_en.pdf)

This report summarizes impact of tourism and large number of visitors on cultural heritage objects and areas. The first version is intended to be amended and modified by the other partners as well as to be shortened after completed discussion. (Summary from report)

**Ellis, B. R.** The influence of crowd size on floor vibrations induced by walking. *Structural Engineer* 81, 6 (2003), pp. 20–27.

This paper considers the dynamic response of floors to crowd loads including the influence of crowd size and the co-ordination of the walkers. Experiments were undertaken on two concrete floors utilising groups of up to 32 people walking across the floors at different pacing rates. In each case there was a definite trend for the peak accelerations to increase with increasing group size. However, the increase is not linear and the maximum accelerations were no more than double those generated by an individual. The paper also considers the calculation of floor response. It extends a previously published method for determining the acceleration generated by an individual walking to cover groups. It evaluates response in terms of Vibration Dose Values for use in serviceability assessments to BS 6472. (SCOPUS)

**English Heritage** *Practical conservation guidelines for successful hospitality events in historic houses*. English Heritage, UK. (2004)  
[http://www.english-heritage.org.uk/upload/pdf/6939\\_EHSuccessfulHosp.pdf](http://www.english-heritage.org.uk/upload/pdf/6939_EHSuccessfulHosp.pdf)

In seeking to make historic houses economically sustainable, many owners and managers are now using them to stage commercial hospitality events. The pressures of such events on fragile historic interiors can be enormous. English Heritage, which exists to promote the care and understanding of the historic environment, has produced this publication to give practical guidance on the management of such events. In offering a historic house as a hospitality venue, loans, insurance and any statutory responsibilities should be considered at the outset. The following guidelines are set out as a checklist and are intended to help prevent damage to historic interiors and collections during the course of such events. (From report)

**European Commission Sixth framework Programme of Research PICTURE: pro-active management of the impact of cultural tourism on the urban resources and economies.**  
<http://www.picture-project.com>

PICTURE (Pro-active management of the impact of cultural tourism upon urban resources and economies) aims to develop a strategic urban governance framework for the sustainable management of cultural tourism within small and medium-sized European cities. This framework will help to establish, evaluate and benchmark integrated tourism policies at the local level with a view to maximising the benefits of tourism upon the conservation and enhancement of built heritage diversity and urban quality of life. To accomplish this goal, the following research objectives will be pursued:

- Evaluate the dynamics of the effects of tourism, at large, upon the social, environmental and economic wealth of European small and medium-sized cities, considering the built heritage diversity and urban quality of life characterising such environments;

Identify and benchmark innovative urban governance strategies for sustainable development of cultural tourism within small and medium-sized cities;

- Provide local governments and decision makers with tools to facilitate the assessment of the impact of tourism in a locality, with particular regard to built heritage issues and relevant quality of life parameters, in order to improve their strategies, plans, and policies;
- Capitalise and disseminate existing knowledge and good practices of sustainable cultural tourism in Europe, focussing upon the effects of the sector upon the conservation and enhancement of the built heritage diversity and urban quality of life.

(From website)

**Glasson, John; Godfrey, Kerry and Goodey, Brian** *Towards visitor impact management: visitor impacts, carrying capacity, and management responses in Europe's historic towns and cities* Urban and regional planning and development. Avebury. Ashgate Pub. Co, Aldershot, Eng, Brookfield, Vt, (1995).

**Honeybone, David.** Effects of large number of visitors on historic buildings. *Conservation of building and decorative stone*. Ashurst, John; Dimes, Francis G., Editors. Butterworth-Heinemann, (1990), pp. 231–236.

Considers the effects of large numbers of visitors on historic buildings. Discusses direct contact (feet, hands and clothing); air pollution (tobacco smoke); increase of relative humidity and minor effects (vibrations, increase of carbon dioxide); effects on impervious and porous surfaces and on walls when hygroscopic salts are present. (AATA)

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**Howell, David; Brimblecombe, Peter; Lloyd, Helen; Frame, Kate and Knight, Barry.** Monitoring dust in historic houses. *Conservation Science 2002: papers from the conference held in Edinburgh, Scotland, 22–24 May 2002*. Townsend, Joyce H.; Eremin, Katherine and Adriaens, Annemie, Archetype Publications Ltd., London (2003), pp. 8–10.

A novel "in-house" dust monitoring technique has been developed in Historic Royal Palaces. A summary of the results of dust monitoring undertaken by the University of East Anglia in 2001 at four historic properties owned by English Heritage, Historic Royal Palaces, and the National Trust is also given. This indicates that visitor numbers, distance of the visitor from objects on display, and the height of the objects are all major contributory factors in dust accumulation. (A.A.)

**Lithgow, Katy; Lloyd, Helen; Brimblecombe, Peter; Yoon, Y. H. and Thickett, David.** Managing dust in historic houses: a visitor/conservator interface. *14th triennial meeting, The Hague, 12–16 September 2005: preprints (ICOM Committee for Conservation)*. Verger, Isabelle, James & James (Science Publishers) Ltd., London (2005), pp. 662–669.

Reports on the outcomes of a project examining the role of dust in irreversible soiling and to find ways to minimize this risk. The work explores not only conservation concern for the interaction of dust with historic surfaces and their presentation to visitors, but also visitor attitudes to dust and their response to historic interiors. The work takes account of the need to provide access as well as long-term preservation and provides an assessment of the costs and benefits of an effective dust management strategy that is designed to prolong objects' existence and enhance visitors' experience. (A.A.)

**Lloyd, Helen.** Opening historic houses. *The National Trust manual of housekeeping. The care of collections in historic houses open to the public*. Elsevier, Amsterdam, Boston (2006), pp. 671–685.

**Lloyd, Helen.** Strategies for visitor management at National Trust properties. *4th European Commission Conference on Research for Protection, Conservation and Enhancement of Cultural Heritage: Opportunities for European Enterprises. Strasbourg 22–24 November 2000*. Brandt–Grau, Astrid; Perez–Vitoria, Silvia; Chapuis, Michel and Leissner, Johanna, Editors. European Commission, Luxembourg (2002), pp. 165–171.

The National Trust is responsible for both conservation and access to its historic buildings and their settings. Visitor pressure now threatens to destroy the spirit of each place, risks damage to collections, and may overload vulnerable building structures. Curators, conservators and house staff work together to develop cleaning regimes and protective measures based on museum conservation standards and historic housekeeping methods. These measures enable collections to withstand the risks associated with public access yet respect the 'spirit of place'. Strategies for visitor management are flexible and

adapted to suit each collection. The sustainable capacity of each property is defined, and wear–tear, light damage and soiling are minimised. Opening arrangements are modified to provide access at times when it is most popular, and traditional housekeeping techniques and conservation science are explained to visitors. (Author’s abstract)

**Lloyd, Helen; Lithgow, Katy; Brimblecombe, Peter; Yoon, Young Hun; Frame, Kate and Knight, Barry.** The effects of visitor activity on dust in historic collections. *The conservator* 26 (2002), pp. 72–84.

Dust poses a risk to objects on open display, spoiling their appearance and necessitating cleaning. Over time, deposits become more difficult to remove, risking damage to vulnerable substrates. An understanding of the sources and distribution of dust is needed to determine housekeeping resources and optimum intervals for cleaning. Dust particles were collected and analyzed in four historic properties with a range of access arrangements. Results indicated that coarse particles at floor level rarely rose above 30 cm. Most of the dust on surfaces between waist and shoulder height consisted of fibers from visitors’ clothing. The rate of coverage halved with every 50 cm distance between visitors and objects. Human activity produced higher levels of dust—for example, visitor routes with multiple turns and staff and interpreters in proximity to objects. To reduce deposition, fragile objects can be positioned farther from visitors or given traditional covers. Thanks to a grant from the Leverhulme Trust, the mechanisms that attach dust to surfaces are now being studied, together with staff and visitor perceptions of dustiness. (A.A.)

**Lloyd, Helen; Mullany, Tim.** The impact of overvisiting: methods of assessing the sustainable capacity of historic houses. *Preventive conservation practice, theory and research summaries of the posters at the Ottawa Congress, 12–16 September 1994*. International Institute for Conservation of Historic and Artistic Works, London (1994), pp. 132–138.

As the numbers of visitors to historic houses rise, the damage to the structure, fabric and contents increases. Broadly, this can be classified as abrasion and accidents to surfaces and contents, loosening and cracking of floor surface materials, and damage resulting from structural movement. The wide variety of historic buildings and collections makes it difficult to formulate an overall assessment of damage and to compare the effectiveness of preventive measures. This paper examines both qualitative and quantitative methods of assessing visitor damage. These include visual estimation of desirable visitor capacity; a wear and tear questionnaire to record abrasive and accidental damage; and scientific measurement of dynamic response to visitor loads, to relate movement within the building to loosening surface materials and structural damage. Together these methods give a comprehensive picture of visitor–related damage and provide a way of calculating the sustainable capacity of historic houses. (AATA)

**Pachi, A.; Ji, T.** Frequency and velocity of people walking. *Structural Engineer* 83, 3 (2005), pp. 36–40.

This paper investigates the stepping frequency and velocity of people walking. It considers 800 measurements on two footbridges and two shopping floors. During the measurements, the participants were not aware that they were being observed and walked naturally. The measurements of walking frequency, velocity and step-length were processed using statistical methods and the stepping frequency and velocity of the walking determined. It is found that (a) on shopping floors the people walk with an average frequency of 2.0Hz and a velocity of 1.4m/s, but on the footbridges they walk with an average frequency of 1.8Hz and a velocity of 1.3m/s; (b) the step-length on the shopping floors and the footbridges are almost the same with average values of 0.7.5m for men and 0.67m for women; (c) the men walk with a higher velocity than the women, while the women walk with higher frequency than the men; and (d) there is a linear relationship between walking velocity and frequency which is different for men women. The results are compared with obtained approximately 20 years ago. © Aikaterini Pachi & Tianjian Ji. (SCOPUS)

**Pedersen, Arthur** *Managing tourism at World Heritage Sites: a practical manual for site managers.* World Heritage Manuals. UNESCO World Heritage Centre, Paris (2002).  
[http://whc.unesco.org/documents/publi\\_wh\\_papers\\_01\\_en.pdf](http://whc.unesco.org/documents/publi_wh_papers_01_en.pdf)

**The Attingham Trust** *Opening doors: learning in the historic environment.* (2004)  
<http://www.openingdoorsreport.org.uk/contents.php>

Popular interest in the historic environment, in history and in archaeology, is extremely high, as demonstrated by visitor figures, publications and television programmes. The historic environment has the potential to stimulate people of all ages, from all socio-cultural groups, to develop their creative, rational and imaginative powers, to participate more fully in society as citizens and as equal partners, and to deepen their understanding of their local, natural, regional, national and global environments. While public, voluntary and private bodies spend many millions each year on conserving the historic environment, proportionately small sums are dedicated to helping people enjoy and understand these buildings and sites. (From publication)

**Thomas, Paul; Seeley, Nigel and O'Sullivan, Patrick.** The process of visitor impact assessment. *Journal of Architectural Conservation* 3, No 1 (1997), pp. 67–84.

The National Trust has the responsibility both to preserve historic properties together with their contents and to make them accessible to the public. Opening historic properties inevitably contributes to their deterioration, and it is the aim, therefore, to maximize the life of these non-renewable resources with the minimum adverse effect on

visitor access and enjoyment. The impact of the visiting public on the contents, fixtures and fittings of historic properties has long been recognized and appropriate precautions taken, and this policy is now being extended to include the building fabric itself. Research was initiated as a doctorate thesis at the Bartlett School of Graduate Studies, University College London. The aim of these studies was to establish whether visitor-induced vibrations accelerated the ageing of surface and structural elements in proportion to their frequency and intensity when considering the durations for which they are experienced. From these investigations, and on the premise that opening a building to the visiting public constitutes a change in a way it is used, a framework has been designed to help management teams identify vulnerable elements without preconceptions. It is concluded that the data collected will enable the nature the relationships between visitor access and conservation to be accurately addressed by either algorithmic or graphical representation. Such processes provide a framework that will ensure a collaborative understanding of the factors that affect the operation of these buildings. (Author's abstract)

**Whitworth, Alan** Visitors welcome! Tourism and places of worship.

<http://www.buildingconservation.com/articles/visitors/visitors.htm>