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Heritage Impact 2005

Proceedings of the first international symposium on the socio-economic impact of cultural heritage

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Proceedings of the first international symposium on the socio-economic impact of cultural heritage

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Excellence in Processing Open Cultural Heritage

Edited by

Jim McLoughlin, Jaime Kaminski and Babak Sodagar

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Foreword

The cultural heritage sector is facing important challenges in pursuing and sustaining its fundamental mission of protecting and preserving historic and culturally important buildings, monuments, and museums. There is an almost universal scarcity of funds for investing in cultural heritage sites. Major funding sources, such as public-sector funding bodies, have many competing demands on their budgets. In the public sector, funding bodies constantly question why extra funds should be directed at cultural heritage instead of additional funds for 'vote-winning' sectors such as education or health. There is a perception that heritage is a luxury compared to dealing with issues such as education, health, employment and defence.

Heritage is often highly valued in cultural and social terms but policy makers increasingly seek justification for allocating incremental funds on the basis of perceived socio-economic benefits. Here lies a fundamental problem for heritage – the costs of heritage are highly visible in the budgets of government funding, but the benefits are less visible, often intangible and difficult to capture in conventional terms. In the policy-making arena, where decisions concerning the allocation of funds take place, cultural heritage organisations are often ill-equipped to forward a socio-economic case for investment. Cultural heritage could be considered as an emerging, and potentially significant, industry in its own right, but attempts to evaluate and measure its socio-economic contribution are relatively under-developed.

Most cultural heritage sites have not systematically developed tried-and-tested techniques or processes to evaluate their socio-economic contribution. Such sites often find themselves receiving excellent rhetorical support from policy makers and public bodies for their vital role in preservation and protection, but still struggle to attract incremental financial support that would ensure the sustainability of many cultural heritage sites. There is little doubt that the profile of heritage as a potentially important driver of socio-economic benefits to communities has been increasing but the tools, methodologies, and capabilities for evaluating the socio-economic contribution are in their relative infancy.

It is apparent that cultural heritage can have an impact at many levels, including economic, social, cultural, educational, and environmental. These different impacts require different methodologies and capabilities for evaluation. Priority impact evaluation areas may vary from site to site, depending on a number of factors such as stakeholder expectations, policy and funding contexts, and the underlying mission of the site.

The proceedings for *Heritage Impact 2005* are part of a resource for the heritage community supported by the EPOCH Network of Excellence, the CUBIST Research Group and Brighton Business School. The proceedings provide examples and case studies of how heritage can be used to increase positive impact. Methodologies used to assess impact at heritage sites will be reviewed, and contextual frameworks will be considered. It is hoped that the multi-disciplinary approaches considered in the Symposium will stimulate discussion and produce interesting exchanges of learning and hopefully a mutual appreciation of the contribution made by different disciplines to the development of the cultural heritage sector.

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1 Economic valuation methodologies and their application to cultural heritage

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The following paper provides a review of valuation techniques from the field of economics that can be applied to cultural heritage impact studies. The actual methods chosen for any particular study will depend on the objectives of the impact analysis, the data availability, the resources supporting such a study and judgements concerning the suitability of the methodologies of the particular project in question.

1.1 Introduction

In the last decade there has been a significant increase in the number of publications devoted to economics in the cultural heritage field. The field itself is not a new one. Since 1973, the International Association for Cultural Economics has published the Journal of Cultural Economics. Most of the members come from the economics arena – until recently few in the cultural heritage field have been actively involved in the organisation. What is significant about the last decade is the increasingly interdisciplinary nature of studies, on cultural economics and the increasing awareness that is being generated within the field of cultural heritage. Mason (1999: 3) argues for the value of economic analysis in the heritage sector:

> "Economic thinking and concepts make indispensable contributions to our understanding of conservation's role in society. As social science, economics sheds light on individual behaviour as well as the character of society, and thus shares a great deal with anthropology, art history, and other disciplines whose work has traditionally had a close relation to the field of conservation."

A point taken further by Bluestone (quoted in Mason 1999: 5):

> "If we are unable to articulate the values of heritage in the broadest sense – economic as well as cultural – the movement begins to crumble at the centre".

Nevertheless, there are a number of challenges associated with developing appropriate economic impact studies that are applicable to the cultural heritage sector. It is essential to be clear about the limits of economics in capturing the full impact of a site, as well as the potential positive benefits that might arise from such economic impact studies. Economists are accused of knowing the price of everything and value of nothing. Some in the cultural heritage field have been understandably suspicious of the economists because of the apparent obsession of reducing all activities down to a measurable market price. Burke (2004) recently reinforced this concern:

> "It is the vanity of economists to believe all choices can be boiled down to calculations of monetary value."

There are, of course, many economists are equally sceptical of the limits of the market price as a measure of value in society. Economic impact studies cannot effectively measure, for example, the beauty or aesthetic values of a site. It is important that economic impact studies identify the limitations of their findings while recognising that they can potentially play an important role in helping to develop and sustain some sites where empirical evidence of economic development is important to a funding decision for a cultural heritage site, which is increasingly the case.

Accepting that economic impacts will normally involve measurement (with some aspects being more easily captured than others), the existence of market failures and 'externality effects' in the cultural heritage sector suggests that the real challenge is to try to capture the

non-market benefits and costs of heritage, and to present the findings in some meaningful economic impact statement on a case-by-case basis.

The relative lack of such studies is clear; and limited evaluation of their contribution to the sector is equally limited. Economic impact studies in the environmental sector are well established, and seem to provide a rich area for possible transfer to the cultural heritage sphere. Pearce *et al*. (2002: 267) express support for drawing from this field:

> "While the valuation of cultural heritage is certainly challenging, it is no more challenging, or fundamentally different from, the valuation of an environmental good that has a significant non-use component … We expect non-market valuation techniques to perform equally well for cultural heritage goods as they have for environmental goods, where literally thousands of studies have been conducted."

One should also be cautious of uncritically transferring a methodology from one domain to another. Where important distinctions exist, they should be highlighted. For example, cultural identity impact issues figure much more strongly in the cultural heritage sector than in environmental impact studies.

There is also the issue of process versus outcomes, as stated by Avrami (quoted in Mason 1999: 3):

> "In economics, the outcome is valued over the process. Theoretically, we recognize that conservation is a process, but we have not really come to grips with how we value the process versus how we value the outcome."

There is, therefore, a need to identify some of the key conceptual issues in order to create firmer foundations for credible and robust economic impact studies and to clearly signal the potential positive contribution and limitations of such studies in the cultural heritage sector. This has encouraged considerable philosophical and methodological debate devoted to the methodologies used to assess value in the field. This is an indication of the increasing maturity and sophistication in the field of cultural heritage economics, although there is still enormous scope for growth in this study.

It is apparent that the methodologies chosen for impact analysis may differ depending on the nature of the project and the objectives and mission of the site. There may not be a single generic methodology that will work for all heritage sites. It is important to explore a range of techniques and decide on their applicability to the cultural heritage sector.

It is possible to apply two types of analysis to cultural heritage sites – market and non-market. Market analyses are the traditional analyses carried out by economists which identify direct and indirect expenditure effects. While these techniques can determine the more easily measurable economic impacts of a cultural heritage site, they do not reveal the full range of values produced by a site. Non-market analyses try to capture the values and benefits that are not picked up by the market valuations. Non-market valuations can be separated into two techniques: revealed and stated preference.

- Revealed preference techniques are based on an individual's actual purchasing decisions
- Stated preference techniques are based on how people say they would react to changes in the market.

There are a number of issues with the application of revealed preference methodologies to cultural heritage assets (Bennett 2000):

- Revealed preference techniques are retrospective. They rely on future changes being extensions of the past and therefore do not work well if the future scenarios are significantly different to the past.
- Marketed goods may not always neatly relate to cultural heritage (i.e. existence benefits). It is unlikely that these benefits will be adequately determined using revealed preference techniques.

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These kinds of limitations have led to the development of stated preference techniques. Stated preference techniques are a relatively recent innovation. Stated preference techniques can be applied to a wide range of circumstances where no marketed goods exist. However, the techniques and methodologies for measurement are not equally well developed in the different areas. Traditional economic analysis has a long history, but the measurement of indirect user benefits and societal benefits are less well developed.

It is hoped that multi-disciplinary approaches might produce interesting exchanges of learning, and that a mutual appreciation of the contribution can be made from each discipline to the development of the cultural heritage sector. Some innovative economic techniques may throw light on capturing use value and non-use value of cultural heritage sites. A number of economic impact assessment methodologies have already been employed in a limited number of cases in the heritage sector to date. Here, economic methods have been used to identify values that are also of mutual interest to cultural heritage professionals – notably bequest value, altruistic value, option value, and existence values. These are typically associated with the contingent valuation methodology examined later in this chapter.

1.2 Conventional economic and financial analyses

Some examples of conventional market-based approaches to impact analysis include:

1.2.1 Financial analyses

Economists have long-established methodologies for determining the financial implications of a project. These techniques include:

- *The business plan/profit and loss analysis*: Here the potential measured effects are direct costs and revenues based on purely financial/commercial criteria, even allowing for any subsidies, grants, etc. While this might be a relevant basis for evaluating the financial sustainability of a project, particularly one that must satisfy break-even objectives this method fails to capture the real worth or impact to a local economy or society.
- *Cash flow forecasting*: This technique is used to create a model of the way in which cash circulates within a project or organisation. Where cash streams exist, forecasting is used to show the viability of a particular project. It can be used to assess if the predicted income will cover the operating costs, and whether the profitability of the project will be sufficient to justify the effort expended on it. As with the business plan methodology, this technique is purely financial and does not capture the real worth or impact to a local economy or society.
- *Investment appraisal techniques*: A specific project may be evaluated in commercial terms to arrive at a rate of return measure. The investment appraisal technique can be adapted to calculate a social rate of return using non-market valuation techniques. There are a number of established methods of investment appraisal. These are:
    - *The payback method*: This is used to determine how long it will take for the future income from the project to cover the initial cost of the project. This establishes the payback period of the project. Shorter payback periods are considered better than longer ones.
    - *Return on Investment (ROI)*: Also called the Accounting Rate of Return (ARR) or the Return on Capital Employed (ROCE). This is used to establish a project's rate of return. Most sectors have different ways of ascertaining the rate of return.
    - *Discounted Cash Flow (DCF)*: There are two principal appraisal methods in the DCF field. These are Net Present Value (NPV) and Internal Rate of Return (IRR). These methods take into account the effect of time on the value of money. Future income is expressed in terms of what it is worth now when money is expended.

1.2.2 Economic modelling

A number of economic modelling methodologies have been developed to assess various expenditure flows through economies. These techniques include:

- *Local macro-economic impact analysis*: Here economic modelling is used to attempt to assess the total income, output, and employment effects on the local economy. The aim here is to capture the indirect, as well as the direct, effects on the local economy (i.e. multiplier effects are important to capture here). Typical methods used here are:
    - *Income/expenditure models*: These capture local multiplier effects (more practically this includes expenditure in the area that results indirectly from visitors to a heritage site, such as on local hotels, restaurants, transport, etc). This method still measures actual expenditure flows.
    - *Input/output models*: These capture the inter-relationships between different sectors in the local economy via a matrix analysis.

It is normally possible to derive approximations of employment effects (direct and indirect) from the above methods.

- *Satellite accounting methods*: These are normally conducted at a macro or regional level, using national input/output data extracted to examine the sectoral impact from many sub-sectors. It has been used by World Travel and Tourism Council (WTTC 2004) and World Tourism Organisation (WTO 2000, 2002) to isolate the impact of tourism on an economy. However, it is difficult to apply to a single site given the lack of disaggregation of the data, but this might be relevant at a regional macro level or national level.

1.2.3 Cost-benefit analysis

This method takes the analysis beyond direct and indirect expenditure effects mentioned above in order to attempt to encapsulate the social costs and benefits of the project as a whole. Cost-Benefit Analysis (CBA sometimes referred to as Benefit Cost Analysis) is widely used in the business and public world for planning, product, and proposal evaluation, and other purposes. It has also been used to evaluate the impact of heritage-related projects such as the Glasgow Canal Project (Button and Pearce 1989). It is a methodology which summarises the positive and negative implications of a project or potential purchase. The positive and negative impacts are then weighed and compared. The key advantage of cost-benefit analysis is that it can take into account externalities and non-monetary costs and benefits.

The method attributes monetary values (using various valuation techniques) to positive and negative externality factors in order to discover whether a project represents a net social benefit to society, however the latter is defined. The costs include direct costs such as the purchase cost of the project to the institution. External costs can be considered. These could include the negative impact on other institutions and businesses in the area. Non-monetary costs can also be considered. This could include increased visitor numbers causing inconvenience to local residents.

In reality cost-benefit analysis is an umbrella term for a number of different types of analysis that range from the purely financial to economic and socio-economic – some of these have greater relevance for the cultural heritage sector than others (ICOMOS 1993). It should be noted that the nomenclature used for these variants within the cost-benefit analysis family can vary across sectors. The range of methodologies includes:

- *Financial Analysis and Social Financial Analysis*: Financial Analysis (FA) studies the financial implications for the owner of the site or the instigator of the project being studied. Social Financial analysis (SFA) differs from financial analysis because the financial implications are considered for other parities directly involved such as consumers.

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- *Cost Revenue Analysis*: Cost Revenue Analysis (CRA) studies the financial implications for government (this could include local, regional, or national government). The method looks at the taxes that would need to be raised in order to support a cultural heritage site or project (such as conservation) and also considers the revenues that would be generated by that expenditure. This could consider a single government organisation (CRA) or a number of government organisations (Social CRA).
- *Cost Benefit and Social Cost Benefit Analysis*: Technically, the term cost-benefit analysis (CBA) refers to the study of the use of resources in the economy only by the cultural heritage site in question or also by other institutions who are affected (SCBA).
- *Community Impact Analysis*: Community Impact Analysis (CIA) considers the cost and benefit implications for all sectors of the community who are affected by a cultural heritage site or project.

It is evident that there is a considerable diversity in the criteria that can be adopted for inclusion in cost-benefit analysis. An overview of the principal differences between the methodologies is shown below. However, it should be noted that there is no cross-sectoral definition of the various cost-benefit analyses, so the exact methods used are not standardised, (often studies require a combination of different perspectives, which just come under the broad umbrella term cost-benefit analysis).

		Financial			Economic		Socio-economic
		FA	SFA	CRA	CBA	SCBA	CIA
Site	On	✓	✓	✓	✓	✓	✓
	Off			✓	✓	✓	✓
Sector	Promoter	✓	✓	✓	✓	✓	✓
	On site		✓	✓		✓	✓
	Off site			✓		✓	✓
	All relevant						✓
Costs and benefits	Direct	✓	✓	✓	✓	✓	✓
	Some indirect			✓		✓	✓
	Community						✓

Figure 1: The different tools available to analyse costs and benefits (ICOMOS 1993: 24)

The types of benefits received include the direct monetary benefits such as the revenues derived from users of a product. Private non-monetary benefits include consumer surplus, which are the benefits that users receive beyond what they pay to enter. External benefits include those benefits received by non-users of the project, such as an increased number of visitors spending their money in nearby businesses (e.g. restaurants and shops). These values are then weighed and compared. If the positive benefits outweigh the negative costs, then the project is likely to be considered viable. Naturally, valuing some of the 'externalities' poses methodological problems, but at least cost benefit analysis tries to capture all relevant social costs and benefits to arrive at some view of net social benefit.

Advantages

- *Integrates market and non-market costs*: All the costs and benefits of a project are identified and quantified. In addition, to the monetary values this includes externalities

and non-monetary costs and benefits. This is much more effective than methodologies that assess purely monetary values.

- *Widely used*: The methodology is widely used and has been extensively tested across many different sectors.

Disadvantages

- *Assigning values*: In order to add the costs and benefits up a financial value is often assigned to each. However, attempting to assign monetary values to externalities such as aesthetic values, quality of life, etc can be problematic.
- *Consistent methodology*: Although it is a widely-used technique, most sectors, industries, and institutions have subtly different ways of approaching the analysis and calculation. Different methods are used to calculate non-financial values. If cost-benefit analysis were used for assessing the impact of ICT in the cultural heritage sector, it would be necessary to reach agreement on a consistent methodology in order for the analysis to allow inter-site comparison.

Application to ICT at cultural heritage sites

The cost-benefit analysis technique is extensively used in the ICT and business sectors to evaluate the impact of information technology projects. Furthermore, because the methodology can be used to attempt to capture all relevant social costs and benefits, it can arrive at an estimation of the net social benefit of a project.

Cost-benefit analysis should be seen as an umbrella methodology which can encompass a variety of separate evaluation methods. It could therefore act an evaluation framework for an analysis of the benefit of ICT in cultural heritage sites.

1.3 Revealed preference techniques

These methodologies rely on actual consumer behaviour to determine values and benefits[1].

1.3.1 Hedonic pricing

The hedonic pricing method has been used in the field of environmental economics to provide an estimate of the value of environmental amenities and urban goods that affect prices of marketed goods such as housing. Hedonic price analysis was first used by Andrew Court in 1939, although the technique gained widespread popularity with the work of Zvi Griliches in the early 1960s (Goodman 1998). Although the technique is not widely used to determine values for cultural heritage sites, it has been applied to cultural heritage in both the United States and Australia.

In the United States the creation of historic preservation districts has been used as a means of regenerating urban areas (Kilpatrick 2000). These districts encompass both residential and commercial properties. The hedonic price method has been used to evaluate the value and benefits of the creation of historical preservation districts in Sacramento, California. The results suggest that the districts have a positive impact on residential property prices in four out of the six districts surveyed (Clark and Herrin 1997). In Australia, a hedonic price study of historic properties in Sydney's upper north shore determined that heritage-listed houses were found to command a price premium over unlisted houses. This was considered to be an indication of the combined value of the heritage character of properties and their listing status. The historical significance of the heritage properties was considered to have had a beneficial influence on price (Deodhar 2004).

[1] An authortative review of revealed preference methodologies related to the environmental arena can be found at www.ecosystemvaluation.org

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Residential house prices are the most common vehicle for estimating the value of environmental amenities, although other vehicles such as wages can be used (e.g. Smith 1983). Hedonic valuations assume that individuals place a value on the attributes of a good, as opposed to the good itself. In this way the price will be a surrogate for the value of a set of characteristics, including cultural heritage characteristics that individuals feel are important at the time of purchase of the good.

The rationale of hedonic property price analysis is that property prices are determined not only by the characteristics of the property, but by the environmental attributes of the locality such as the neighbourhood and community, and the local cultural heritage. In this scenario, if the factors not related to cultural heritage are controlled for, then the remaining price differences can be ascribed to differences in the quality and value of cultural heritage. The higher price will be a reflection of the perceived value of cultural heritage to people who buy houses in the area (King and Mazzotta 2005).

Advantages

- *Market-based*: The hedonic pricing method is relatively straightforward and uncontroversial to apply, because it is based on actual market prices and fairly easily measured data.
- *Good value indicators*: Property markets, the most common vehicle for hedonic studies, are reasonably efficient in responding to environmental changes, and so can be good indicators of value.
- *Data availability*: Data regarding residential property sales and the characteristics of those properties can be obtained from a number of sources. This can make the technique relatively inexpensive to apply.

Limitations

- *Proximity to markets*: Many heritage sites do not have a large number of residential properties near them. In these cases the number of sale transactions would be too small to be statistically viable.
- *Non-use values*: The hedonic price method cannot be used to measure non-use values or off-site values. Any benefits that could be inferred or measured are constrained to goods that are related to the property or similar markets. Non-use values can be a significant feature of cultural heritage sites (Bennett 2000: 38).
- *Externalities*: The housing market can be complex and may be affected by externalities such as interest rates, taxes, or other elements. Hedonic pricing assumes that individuals have the opportunity to select the features that they want, within the constraints of their income (Kerry Turner *et. al.* 1994, Wilpenny 1991: 55).
- *Model specifications*: Different specifications of the model can significantly alter the results (Wilpenny 1991: 54)
- *Statistical requirements*: Large amounts of data are needed; the study of this data requires significant statistical knowledge (Kerry Turner *et. al.* 1994, Winpenny 1991: 54).
- *Data availability*: If the data is readily accessible then the survey can be done quickly, but the property price information is not always accessible. If data must be gathered and compiled, the cost of an application can increase substantially (King and Mazzotta 2005).
- *Assumed linearity of price and characteristics*: The relationship between price and characteristics of the property may not be linear – prices may increase at an increasing or decreasing rate when characteristics change (King and Mazzotta 2005).
- *Retrospective*: Revealed preference techniques are also retrospective they are only applicable if the future changes being studied are related to the past (Bennett 2000).

Application to ICT at cultural heritage sites

Although the hedonic pricing method has been applied to a limited number of cultural heritage sites, it seems unlikely that the technique could be used to determine the impact of ICT at such sites. The method is limited by its relationship to the property, or similar markets.

1.3.2 Travel cost

The historical origins of the Travel Cost Method can be traced back as far as 1947 when Harold Hotelling wrote a letter to the director of the US National Park Service suggesting a methodology in which the travel expenses visitors incurred could be used to measure the benefits provided by recreation sites (Hanemann 1992: 15). Although Hotelling's methodology was not used by the National Park Service at the time it was used and developed in the late 1950s by other researchers such as Marion Clawson and Jack Knetsch (Clawson and Knetsch 1966). Travel Cost Analysis is now widely used in the field of 'Environmental Economics' to provide non-market valuations of recreation sites, etc (Ready and Navrud 2002: 15).

The underlying assumption of the travel cost methodology is that the amount individuals are prepared to pay to travel to a cultural heritage site is a reflection of the value of the goods and services provided by that heritage site. Using this framework, the expenses that individuals incur in order to visit a site, in terms of time and travel costs, are a proxy for the 'price' of admission to the site. This data can be used to estimate willingness to pay.

Because travel costs increase with distance, the further away people live from a site, the less often they will visit. The number of visits to a site can be affected by other factors. The greater the choice of alternative sites, the fewer visits will be made to a site. Higher income earners will on average make more trips. Personal interest will also impact on the number of visitors. Statistical modelling should try to take these factors into account (King and Mazzotta 2005).

Travel Cost Methodology includes three different sub-methods: zonal travel cost, individual travel cost, and Random Utility Models (RUM). The earliest applications of Travel Cost Method revolved around a zonal model, in which zones at different distances from the site are defined. The number of visits from different distances from the site, and the travel cost from each zone is determined. This is used to create an aggregate demand curve for visits to the site. The demand curve is used to determine how many visits individuals would make at various travel cost prices. This can then be used to provide an estimate of willingness to pay for site visitors. This applies if they are charged an admission fee or not. The zonal travel cost method has fallen out of favour, because of the issues of aggregating the travel costs of large numbers of visitors into zones. It has however been used to value heritage sites (i.e. Bedate *et al*. 2004, Poor and Smith 2004). More recent applications of the method revolve around the treatment of travel costs of each individual as separate entities. Multiple sites are evaluated using random utility models. The most controversial aspects of the travel cost method include accounting for the opportunity cost of travel time, how to incorporate multi-purpose and multi-destination trips.

As with the hedonic price methodology, Travel Cost analysis has not been widely applied to the valuation of cultural heritage sites. In a seminal study, Martin (1994) used the zonal travel cost method to assess the use value for the Museum of Civilisation in Quebec (he used the contingent valuation method to determine the non-use value). Martin calculated a consumer surplus of $5.148 million for Quebec, giving an average $8.39 consumer surplus per visitor. When added to the entry fees and other net revenues a total use value of $6.002 million was determined (1994: 259). A decade later Bedate *et al*. (2004) used the zonal Travel Cost Method to estimate the demand curve for three different cultural heritage sites in the Castilla y León region of Spain. These included the historic village of Uruena, the Museum of Burgos in the provincial capital, and the historic Cathedral of Palencia. The Iberian Organ Festival was also studied. Poor and Smith (2004) also undertook a zonal Travel Cost Analysis of St. Mary's City in southern Maryland, USA. This heritage city was the British Colonial capital of

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the State of Maryland in the seventeenth century. Three years of sample visitor data were compared using three functional forms of visitor demand. It was found that, depending on which of the functional forms were used, the annual average individual consumer surplus ranged from $8.00 to $19.26.

Advantages

- *Actual behaviour*: Because the methodology is a revealed preference technique, it uses data derived from actual behaviour, rather than individuals' responses to hypothetical scenarios.
- *Accepted economic techniques*: The travel cost method is based on widely accepted economic techniques for measuring value based on market prices.
- *Easy interpretation*: Travel cost results are usually easy to interpret, even for non-economists.
- *Data acquisition*: Because the method is non-controversial, visitors tend to be willing and interested in contributing, making data acquisition less problematic than many stated preference techniques (King and Mazzotta 2005).

Limitations

- *Multi-purpose trips*: The simplest travel cost models assume that individuals will make a trip for the express purpose of visiting the cultural heritage site being studied. However, it is often the case that individuals undertake a variety of activities during a single trip. In these cases it can be difficult to allocate the correct proportion of the travel costs to the site being studied (Kerry Turner *et. al*. 1994, Ready and Navrud 2002: 19).
- *Opportunity costs*: The definition and measurement of the value of time spent travelling is highly contentious (Kerry Turner *et. al.* 1994). The time spent travelling is considered to be an 'opportunity cost' because the time could have been used for other purposes. This opportunity cost needs to be added to the travel costs. There is considerable debate as to the measure to use: is it the individual's wage rate, or some defined fraction of their wage rate? Usually this is between a quarter and a half of the wage rate – this value will have a significant impact on the final benefit estimate. Randall (1994: 90) considers the definition and measurement of the time spent travelling to be an "empirical mystery".
- *Utility from the journey*: The travel cost model assumes that the journey results in no utility or disutility. If the journey was pleasurable or the respondent enjoys traveling then the travel cost for the site can be over-estimated (Freeman 2003: 422, Winpenny 1991: 57).
- *Substitute sites*: If a traveller has a number of potential sites that could be visited, but chooses the study site out of preference, then this implies a higher value than an individual who travels with the express intention of visiting the study site. The complexity of the model has to be increased in order to account for this scenario (Kerry Turner *et. al.* 1994, King and Mazzotta 2005).
- *Selection of residential location*: Some individuals may choose to live close to a cultural heritage site or sites because they have a high value for the site and the services or amenities that it provides. These individual's travel costs will be low, but their value for the sites will be high. These high values will not be captured using the travel cost methodology (Parsons 1991).
- *Local origin zones*: Estimations of demand functions require sufficient differences between the distances travelled to alter travel costs and for these differences to influence the number of trips made. Sites near or in major cities may not be assessable by this method because many individuals may come from closely situated 'origin zones' (Kerry Turner *et. al.* 1994, King and Mazzotta 2005).

- *Non-use values*: Travel cost cannot be used to measure non-use values or off-site values. These can be a significant feature of cultural heritage sites.
- *Model specifications*: Different specifications of the model (such as the functional form or estimating method) can significantly alter the results (e.g. Poor and Smith 2004).
- *Retrospective*: As with all revealed preference techniques Travel Cost Method is retrospective and as such is only applicable if the future changes being studied are related to the past (Bennett 2000).

Application to ICT at cultural heritage sites

The travel cost methodology has not yet been widely applied to cultural heritage sites, although there does appear to be a recent renewed interest in its use. As with the hedonic pricing method, it seems unlikely that the simple zonal or individual travel cost methods have the flexibility to determine the impact of ICT at cultural heritage sites. However, it is conceivable that in some cases these methods could be used to determine the value of a specific IT-oriented exhibition or event. It is possible that TCM Random Utility Models could be a more effective tool for valuing changes to sites such as the deployment of ICT.

1.4 Stated preference techniques

Most cultural heritage goods and services are not traded in traditional markets; furthermore, they are often not closely related to any marketed goods. In these cases it is impossible for economic analysts to use an individual's market purchases to determine their willingness to pay for cultural heritage goods. Furthermore, the retrospective nature of revealed preference techniques makes it problematic to predict future activity. These limitations go some way to explaining why revealed preference techniques are not widely used in the cultural heritage arena (Hansen *et al*. 1998). In this field stated preference surveys using hypothetical scenarios have been widely used to ask people directly what they are willing to pay for a good or service[2].

1.4.1 Contingent valuation

The contingent valuation method (CVM) is a non-market valuation technique based on stated preference, which tries to extract an estimation of the 'willingness to pay' (WTP) for a good or service from users and non-users. It is designed to capture the value of a cultural heritage site or the value of some potential investment in a site.

Ready and Navrud (2002a: 6) explain willingness to pay as:

> "the value that a person gets from being able to enjoy a cultural heritage good is defined as the largest amount of money that that person would willingly pay to have that opportunity."

Contingent valuation is the principal method for determining a financial value for non-use values in cultural heritage. Because, these 'passive use' values do not involve a market and may not even involve direct participation, they are extremely difficult to quantify. They include amongst others option, existence, and bequest benefits. In the current climate of diminishing funds for the cultural heritage sector, there is increasing urgency in assigning a financial value to non-use and passive use at cultural heritage sites. Individuals are obviously willing to pay for non-use, or passive use, but traditional economic analyses tend to treat these benefits as zero. Since people do not reveal their willingness to pay for them through their purchases or by their behaviour, the only option for estimating a value is by asking them questions. The most widely used stated preference technique is the contingent valuation method (King and Mazzotta 2005).

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[2] An authoritative review of stated preference methodologies related to the environmental arena can be found at www.ecosystemvaluation.org

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The contingent valuation method was first proposed in 1947 and applied in a Harvard Ph.D. dissertation on the economic value of recreation in woodlands in Maine. Numerous applications of the method to various public goods and studies of its methodological properties were conducted from the 1970s onwards. A review of the use of contingent valuation by Carson *et al*. (2000) found more than 2,000 academic and other papers on the subject. These studies are mainly from the environmental arena but also cover the fields of transport, health, education, and the arts, from across the globe.

The issues associated with developing a financial estimate of economic value based on how individuals respond to questions about hypothetical market scenarios, as opposed to observing their actual behaviour, is a source of enormous controversy and debate. But, considerable endorsement was given to the methodology in 1993, when the US National Oceanic and Atmospheric Administration (NOAA) published its report of the findings of its expert panel on the subject. The panel included a number of eminent social scientists, and was co-chaired by two Nobel laureates, Kenneth Arrow and Robert Solow.

The panel was charged with reviewing if contingent valuation measures of non-use value could be used to determine liability issues in the aftermath of the 1989 Exxon Valdez oil spill. The panel concluded that provided that contingent valuation studies are carried out following a number of stringent conditions that gave due consideration to the biases affecting the methodology, the technique "can produce estimates reliable enough to be the starting point of a judicial process of damage assessment, including lost passive-use values" (Arrow *et al.* 1993: 43). However, the panel did also note that "there will always be controversy where intangible losses have to be evaluated in monetary terms." (Arrow *et al*. 1993: 45). Despite strenuous debate (which still continues i.e. Harrison 2002), further endorsement was given by Carson *et al*. (1996). There are indications that the contingent valuation method is gaining mainstream acceptance in Europe. The UK government recently commissioned a major CVM survey with 11,000 respondents designed to value the environmental costs and benefits of active quarries (London Economics 1999).

The contingent valuation method requires respondents to provide values based on hypothetical scenarios. Contingent valuations' reliance on what respondents say they will do, rather than their actions, is paradoxically one of the method's greatest attributes, and its most controversial feature (King and Mazzotta 2005).

Advantages

- *Widely-tested*: Contingent valuation has been extensively used in the field of environmental economics (Carson *et al*. 2000) and is increasingly used in the arts and cultural field (Noonan 2002), and cultural heritage studies (Pearce *et al*. 2002). A considerable body of research has been undertaken and is being conducted to improve the methodology, make results more valid and reliable, and better understand its strengths and limitations.
- *Flexibility*: Contingent valuation is extremely flexible. Contingent valuation is the most widely-accepted method for estimating total economic value in cultural heritage sites (i.e. see Navrud and Ready 2002). Its flexibility allows it to be used to provide values of all types of non-use, or 'passive use'. It can also estimate use values, as well as existence values, option values, and bequest values.
- *Accessible results*: Even for non-economists the outputs of contingent valuation studies are not difficult to comprehend. Financial values can be presented as a mean or median value per person, per household, or as an aggregate value for the population being studied.

Limitations

- *Resource intensive*: Contingent valuation is highly resource intensive. A properly-conducted contingent valuation survey is both time-consuming and expensive because it requires the use of focus groups, a pilot survey (pre-testing), 250-500 interviews for open-ended surveys and 500-1000 interviews for closed-ended surveys, and a detailed statistical

analysis of the data (Bateman *et al*. 2002: 110, Bennett 2000: 40). Unless conducted by academics, such a survey would require outside consultancy and would be beyond the financial means of most cultural heritage institutions.

- *Hypothetical versus real markets*: There is considerable debate as to whether a hypothetical market can be compared to real economic markets. The hypothetical context could affect respondent's answers. Individuals may give a higher willingness to pay response if they feel that the scenario is hypothetical and that they will not have to pay.
- *Experience and information*: Contingent valuation assumes that individuals are aware of the numerous values that heritage encapsulates. Individuals have much more experience in making choices with market goods, so their purchasing decisions in markets are likely to reflect their true willingness to pay. Contingent valuation assumes that people understand the good in question. Unfortunately, most individuals are unfamiliar with placing values on cultural heritage goods and services. If individuals are forced to value attributes with which they have moderate or no experience such as cultural heritage, then this can affect the results of a WTP survey. In these instances, the type and amount of information presented to respondents could affect their answers. A number of methodological studies have been conducted in the field of cultural heritage in order to determine the importance of information provision in contingent valuation surveys and the impact this has on respondents WTP (Riganti 1997, Riganti and Willis 2002).
- *Strategic response bias*: Individuals can give false responses during a survey in order to increase their personal net benefit. This can take the form of 'free riding' where individuals underbid because they feel others will pay more and they will still secure the good (Kerry Turner *et. al.* 1994, Ready and Navrud 2002b: 20). Alternatively, individuals may overbid in order to receive more of the good if they believe they will not have to pay.
- *Income-dependent*: WTP has a dependency on income. Individuals with a high disposable income can pay more for a non-market benefit. The preferences of higher income individuals may marginalise those of the less-well-off. Of course, this does mirror actual market conditions.
- *WTP and WTA*: Two different methodologies exist for determining the payment question. The most common is to ask individuals what they would be willing to pay (WTP) in order to preserve or retain the current level of goods and services at a cultural heritage site. Less commonly, individuals may be asked what they are willing to accept (WTA) as compensation for the loss of the goods and services provided by a cultural heritage site. Studies have shown that the two methodologies yield different results – WTA exceeds WTP (Bateman *et. al*. 2002, Winpenny 1991: 60). This has been seen by some as an indication that individuals' responses are an expression of what they would like to happen, not real valuations.
- *Interview bias*: It is possible that a respondent may overstate their willingness to pay in order to please the interviewer. With cultural heritage sites, respondents may feel it is 'the right thing to do' even if they do not value the good in question highly (Ready and Navrud 2002b: 20).
- *Question bias*: Related to interview bias a respondent may reveal their values about the act of giving for a social good (sometimes called the 'warm glow' effect) even though they believe that the specific good being surveyed is unimportant in itself.
- *Payment vehicle biases*: Research has shown that the willingness to pay amounts provided by individuals can be influenced by the payment vehicle used (sometimes referred to as instrument bias). A common form of questioning uses taxes as a payment vehicle, however, some users may feel strongly about increased taxes and their responses may be a protest against this rather than their actual value for the good. It is essential that "the payment vehicle must not in itself be objectionable to the respondents" (Ready and Navrud 2002b: 22)

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- *Starting point biases*: An early contingent valuation methodology was Sequential Bid. Individuals were given a starting bid, which was then increased or decreased based upon whether the respondent was willing or refused to pay the amount in question. Research has shown that the choice of starting bid has a strong influence on the outcome of willingness to pay (Kerry Turner *et. al.* 1994, King and Mazzotta 2005, Winpenny 1991: 60).
- *Strategic bias*: Strategic bias arises when an individual deliberately biases their answers in order to attempt to influence a particular outcome (Winpenny 1991: 60).
- *Non-response bias*: When sampling respondents the bias inherent in non-response is problematic, because individuals who do not respond are usually likely to have different values to the individuals who do respond.
- *External validation*: External validation of non-use values can be difficult.
- *Acceptance*: Despite the wide use and extensive research into the technique in the last two decades, there are still many authorities who do not accept the results of contingent valuation. There is considerable debate in the research community over whether it adequately measures people's willingness to pay for a cultural heritage good or service. A number of economists, psychologists, and sociologists question the financial estimates that result from contingent valuation (King and Mazzotta 2005).

This apparently long list of disadvantages associated with contingent valuation methodologies is a function of the widespread and extensive study of the technique in the environmental and now the cultural heritage arenas. Contingent valuation should be part of a wider decision-making process and not a stand-alone tool. The known methodological biases of contingent valuation should be avoided as far as possible and the results treated with reasonable caution.

Application to ICT at cultural heritage sites

Stated preference methodologies such as contingent valuation have been widely applied to the cultural heritage sector. Although contingent valuation is not without its limitations, if applied properly it could be used to determine willingness to pay for some customer-facing IT applications at cultural heritage sites. No such studies have been undertaken so far.

1.4.2 Choice modelling

Choice modelling (sometimes called conjoint analysis) encompasses a family of related stated preference techniques that includes:

- *Choice experiments*: Choice experiments present individuals with a number of alternatives and the respondents are asked to choose their preferred alternative.
- *Contingent ranking*: Requires individuals to compare and rank alternative hypothetical options. Each alternative is made up of different attributes. These different attributes are provided at different levels across the available alternatives. Individuals are asked to rank the alternatives in order of preference.
- *Paired comparison*: In this type of survey respondents are given two alternatives and asked about the strength of their preference for the choices. Their preferences can be rated using a numeric or semantic scale.
- *Contingent rating*: Individuals are given a number of scenarios one after the other. They are then asked to rate each one numerically or semantically according to their preferences. This methodology differs from the others described above because there is no actual comparison of the choices.

Choice modelling was originally developed for marketing research and transport to measure preferences for different characteristics or attributes of a multi-attribute choice (Bateman *et al*. 2002). Choice modelling is a stated preference technique similar to contingent valuation, in that it can be used to estimate both economic and non-use values for cultural heritage sites. It

requires individuals to make choices based on a hypothetical scenario. Unlike contingent valuation, it does not directly ask respondents to state their values in financial terms. The methodology infers values from the hypothetical choices that the respondents make. Contingent choice can be used to rank options as well as estimate financial values.

The contingent choice methodology has started to be applied to cultural heritage in recent years. Research by Maddison and Foster (2001) used a choice experiment at the British Museum (UK) to determine the WTP to reduce congestion in the museum. This was followed by a study conducted at the Galleria Borghese Museum (Italy), which combined a contingent valuation survey with a choice experiment. This was used to determine the WTP for entry to the Galleria, and the provision of additional (multimedia) services, and exhibitions (Mazzanti 2003a, 2003b).

Advantages

- *Benefit transfer potential*: Contingent choice usually provides a much greater number of valuation estimates per survey than contingent valuation. This is because the method produces a functional relationship between attributes, respondent characteristics, and values. The greater number of values produced makes the technique more cost-effective than contingent valuation and increases the possibility of the values being used for benefit-transfer (Bennett 2000).
- *Better experience*: Individuals rarely have significant experience in determining financial values for cultural heritage products. People are often better able to rank choices. Contingent choice also provides an opportunity to check for consistency of responses.
- *Qualitative ranking*: Individuals are usually more inclined and better able to provide qualitative rankings or ratings that include prices, rather than attempt an actual financial valuation of cultural heritage goods.
- *Relative values*: Contingent choice can be used to estimate relative values. Although the estimation of absolute financial values may not be as precise as those obtained through contingent valuation, the relative rankings can be used as the basis for policy decisions.
- *Fewer biases*: Many of the potential biases that have been associated with contingent valuation, such as protest bids, are significantly reduced using contingent choice (King and Mazzotta 2005).

Limitations

- *Difficult to evaluate tradeoffs*: As with contingent valuation, some individuals may find some tradeoffs difficult to evaluate, because they are unfamiliar with the area of study.
- *Respondent's behaviour*: Because contingent choice is a more recent innovation to the field of cultural heritage compared to contingent valuation less research has been devoted to the understanding of respondents' behaviour. It is unclear if individuals resort to simplified decision rules if the contingent choices become too complicated. This could be a source of bias in the statistical analysis (King and Mazzotta 2005).
- *Complexity*: As the number of attributes increases, the respondent is forced to make a greater number of comparisons. It has been found that individuals can become fatigued with a large number of choices and may lose interest or take short cuts in answering the questions (Bateman *et al*. 2002). Providing too many attributed may be detrimental to a survey. Alternatively, providing individuals with a limited number of hypothetical options could channel respondents into making choices that they would not usually make.
- *Complex statistics*: In order to estimate willingness to pay values from choice modelling surveys considerably more complex statistical techniques need to be applied compared to contingent valuation.

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Application to ICT at cultural heritage sites

It is becoming apparent that of the stated preference methodologies the contingent choice family of techniques could have a direct application to the study of ICT at cultural heritage sites. Contingent choice is being increasingly used for the study of cultural heritage assets including ICT at those sites. Although contingent choice has had less methodological study compared to contingent valuation it does seem to be a strong contender for the study of ICT.

1.5 Benefit transfer

Conducting primary valuation studies such as stated or revealed preference surveys can be both time-consuming and costly. The benefit transfer methodology uses estimates of value derived from existing studies ('source' research) of similar sites and applies these values to a new study ('target' research) for which a monetary valuation is required. Hence the valuations are 'transferred' from one study to another. If appropriate adjustments are made, then the results of a previous study can be used to approximate the value of an impact. Benefit transfer has been widely used in the field of environmental economics where a large number of applicable studies can be used for transfer[1]. A number of different approaches are used in the application of benefit transfer (Bateman 2000 *et al*.). These include *value transfer* and *function transfer*:

- *Value transfer*: is the transfer of a single value estimate or the average of a number of benefit estimates which can be either unadjusted or adjusted to the characteristics of the target site.
- *Function transfer*: is the transfer of a demand function or benefit from a study site, or a meta-analysis which is a regression function derived from a number of source sites. These functions are then adapted to fit the different characteristics of the target site.

1.5.1 Unit value transfer

Unadjusted unit value transfer

The simplest methodology for benefit transfer is to assume that data can simply be transferred directly from one site and applied to another. Rosenberger and Loomis (2001: 9-11) identify two methods used in unadjusted unit value transfer:

- *Single point value transfer*: where values derived from a single source study (or ranges of value estimates from a number of studies) are transferred in an unadjusted form.
- *Average value transfer*: where a measure of central tendency (mean) of all or subsets of relevant and applicable studies are transferred to the target site.

This relies on the supposition that individuals at different sites have similar perceptions and values. Obviously the transfer of mean unit values is methodologically weak, because individuals at one site may very well have different values compared to those at another. Differences in location, education, income, ethnic group, religion, or other socio-economic factors can all contribute to these.

Adjusted unit value transfer

The application of adjustments can increase the sophistication of the benefit transfer methodology. It is apparent that there are two principal areas of weakness with the unadjusted unit value transfer methodology: the quality of the analysis of the original dataset, and the differences between conditions at the data source and the new site. There have been continuous advances in the quality of revealed and stated preference methodologies which has

[1] For example, the EVRI (Environmental Valuation Reference Inventory) is an international database of economic studies of environmental benefits and health impacts. It has been specially developed in order to allow policy analysts to use the benefits transfer technique as an alternative to doing original valuation research (www.evri.ca).

sophisticated methodology can be achieved through the application of meta-analysis. This technique analyses a number of original studies as a combined dataset allowing the user to analyse the characteristics of the resource, the types of samples used in the previous analyses, and the modelling assumptions. Regression equations can be used to explain variations in unit values and data can be collected to determine the independent variables on the new site. The application of both these techniques will allow for the creation of an adjusted unit value.

Advantages

- *Cost effective*: Benefit transfer is a cost-effective methodology. Its application will usually cost considerably less than conducting an original valuation study.
- *Rapid*: The methodology allows economic benefits to be estimated much more rapidly than when than conducting an original valuation study.

Limitations

- *Accuracy*: If the source and target sites do not share site, location, and user characteristics then the Benefit transfer methodology may not be a precise mechanism for transferring values. This has led Pearce *et al*. (2002: 268) to suggest that in the cultural heritage field they "do not anticipate that there will ever be a catalogue of values from which decision makers can select an appropriate number for the new policy issue they face."
- *Original study availability*: Benefit transfer is dependent on the availability of high quality original studies for the issue in question. The relatively recent development of cultural heritage evaluation methods means that such studies are not yet available in statistically viable numbers. A recent review of the available non-market valuations of historical buildings, monuments and artefacts by Pearce *et al*. (2002) revealed only 27 such studies worldwide. Obviously, the number of valuations is increasing year by year, but compared to the 2000+ studies in the field of environmental economics there is more work to be done yet. For more specialist studies such as the value of ICT at cultural heritage sites the available dataset is much lower.
- *Original study publication*: Even if relevant studies have been undertaken, they may prove difficult to locate, because many are not published. For example, many studies are funded by local government or even private companies. These consultancy reports often do not have a wide circulation and do not tend to reach an academic audience.
- *Publication limitations*: Many publications are by necessity devoted to the analysis of the results and contain far less information about the criteria or questionnaires used. This will cause difficulty in making the needed adjustments. In many cases it will be necessary to contact the original authors for further information, if this is possible. Publication can make the adequacy of existing studies difficult to assess, because the results of benefit transfers are only as accurate as the initial value estimate (King and Mazzotta 2005).
- *Extrapolation issues*: The further that a new study is extrapolated beyond the range of characteristics of the original study, the lower the quality of the results is likely to be.
- *Rapid obsolescence*: The value estimates used in original studies can become obsolete very quickly. At the very least it will be necessary to account for inflation, but this alone may not be sufficient to account for cultural changes over time.

Application to ICT at cultural heritage sites

Theoretically, benefit transfer could be applied to cultural heritage sites, however, the lack of a sufficiently large dataset of relevant studies in the field and issues of accuracy make the method untenable for the study of either cultural heritage or the impact of ICT in cultural heritage.

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	Hedonic price method	Travel cost method	Contingent valuation	Contingent choice	Benefit transfer
Market or non-market	Non-market	Non-market	Non-market	Non-market	N/A
Ease	Moderate	Moderate	Difficult	Difficult	Simple
Cost	Moderate	Moderate	Expensive	Expensive	Low
Time	Long	Moderate	Long	Long	Short
Accuracy	Good	Good	Good	Good	Low
Ease of comprehension	Good	Good	Good	Good	Good
Outside help required?	Yes	Yes	Yes	Yes	Possibly
Used in cultural heritage?	Limited	Limited	Extensive	Limited	No
Application to ICT?	No	No	Yes	Yes	No

Figure 2: An overview of some non-market evaluation methodologies

1.6 Qualitative approaches to impact studies

There are aspects of impact analyses that the above quantitative approaches do not capture very well. Sometimes impact on a society is better evaluated by, for example:

- Case studies of experiences from beneficiaries (e.g. from schools, heritage societies, local governments).
- Employee and visitor (by segment) satisfaction surveys.
- Perception measures – for example using questionnaires (or some other method) to assess the perceived contribution of a project to local or wider society.

1.7 Conclusions

It is apparent from the above review that there are a considerable number of techniques that can be applied to cultural heritage impact studies from the field of economics. The actual methods chosen or any particular study will depend on the objectives of the impact analysis, the data availability (currently or potentially), the resources supporting such a study and judgements concerning the suitability of the methodologies of the particular project in question.

Some methodologies such as cost-benefit analysis (specifically Community Impact Analysis) could be directly applied to determining impact at cultural heritage sites in a holistic manner. The methodology could act as a broad framework in which other techniques (such as revealed preference and stated preference, etc) could be incorporated to value particular attributes.

Other methodologies such as travel cost or the hedonic price method could be used within the framework of a cost-benefit analysis. Most importantly, the range of stated preference methodologies that have been adapted from the field of environmental economics could provide a means to value the non-market impacts of a site. It is notable, that the only study to

date that has attempted to value multimedia services at a cultural heritage site has used contingent choice to value the attribute (Mazzanti 2003a, 2003b).

References

Arrow, K. J., Solow, R., Portney P. R., Leamer, E. E., Radner, R. and Schuman, H. (1993) Report of the NOAA panel on contingent valuation. *Federal register* 58(10), 4601-4614.

Bedate, A., Herrero, L. C., Sanz, J. Á. (2004) Economic valuation of the cultural heritage: application to four case studies in Spain. *Journal of cultural heritage* 5(1), 101-111.

Bennett, J. (2000) Natural heritage valuation methods: applications to cultural heritage, in *Heritage economics: challenges for heritage conservation and sustainable development in the 21st century*. Australian National University: Canberra, 35-43.

Burke, T. (2004) This is neither scepticism nor science – just nonsense, *The Guardian* 23rd October 2004.

Button, K. J. and Pearce, D. W. (1989) Infrastructure restoration as a tool for stimulating urban renewal – the Glasgow Canal. *Urban studies* 26, 559-571.

Carson, R. T., Hanemann, W. M., Kopp, R. J., Krosnick, J. A., Mitchell, R. C., Presser, S., Ruud, P. A., and Smith V. K. (1996) Was the NOAA panel correct about contingent valuation? *Resources for the future*, Discussion Paper 96-20, Washington DC.

Carson, R. T., Wright, J., Carson, N., Alberini, A., and Flores N. (2000) *A bibliography of contingent valuation studies and papers*. Natural Resource Damage Assessment: La Jolla.

Clark, D. E. and Herrin, W. E. (1997) Historical preservation districts and home sale prices: evidence from the Sacramento housing market, *Review of regional studies* 27(1), 29-48.

Clawson, M and Knetsch, J. L. (1966) *Economics of outdoor recreation*. Resources for the future: Washington, DC.

Deodhar, V. (2004) Does the housing market value heritage? Some empirical evidence, *Macquarie economics research papers* 3: http://www.econ.mq.edu.au/research/rdp2004.htm.

Freeman, A. M. (2003) *The measurement of environmental and resource values: theory and methods*. Resources for the future: Washington, DC.

Goodman, A. C. (1998) Andrew Court and the invention of hedonic price analysis, *Journal of urban economics* 44(2), 291-98.

Harrison, G. W. (2002) *Contingent valuation meets the experts: a critique of the NOAA panel report*: http://www.bus.ucf.edu/gharrison/wp/Contingent%20Valuation%20Meets%20the%20Experts%20--%20A%20Critique%20of%20the%20NOAA%20Panel%20Report.pdf

Hanemann, W. M. (1991) Willingness to pay and willingness to accept: how much can they differ?, *American economic review* 81(3), 635-47.

Hanemann, W. M. (1992) Preface, in Navrud, S. (ed.) *Pricing the European environment*. Scandinavian University Press: Oslo.

Hansen, T., Christoffersen, H. and Wanhill, S. (1998) The economic evaluation of cultural and heritage projects: conflicting methodologies, *Tourism, culture and communications* 1, 27-48.

ICOMOS (1993) *Conservation economics: cost benefit analysis for the cultural built heritage*. International Scientific Symposium: Sri Lanka.

Kerry Turner, R., Pearce, D. and Bateman, I. (1994) *Environmental economics: an elementary introduction*, Harvester: London.

Kilpatrick, J. (2000) *Historic districts are good for your pocket book: the impact of local historic districts on house prices in South Carolina*. South Carolina Department of Archives and History: Columbia

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King, D. M. and Mazzotta, M. (2005) *Ecosystem valuation*, www.ecosystemvaluation.org.

London Economics (1999) *Environmental costs and benefits of the supply of aggregates (phase 2)*. London Economics: London.

Maddison, D. and Foster, T. (2001) *Valuing congestion costs in the British Museum*. Seventh draft: http://www.cserge.ucl.ac.uk/British_Museum.pdf

Martin, F. (1994) Determining the size of museum subsidies. *Journal of cultural economics* 18, 255-70.

Mason, R. (1999) *Economics and heritage conservation: concepts, values and agendas for research*. Getty Conservation Institute: Los Angeles.

Mazzanti, M. (2003a) Discrete choice models and valuation experiments, *Journal of economic studies* 30(6), 584-604.

Mazzanti, M. (2003b) Valuing cultural heritage in a multi-attribute framework: microeconomic perspectives and policy implications. *Journal of socio-economics* 32, 549–569.

Noonan, D. (2002) Contingent valuation studies in the arts and culture: an annotated bibliography, *Cultural Policy Centre working paper*. University of Chicago: Chicago.

Parsons, G. R. (1991) A note on the choice of residential location in travel cost demand models. *Land economics* 67(3), 360-364.

Pearce, D., Mourato, S., Navrud, S., and Ready, R. C. (2002) Review of existing studies, their policy use and future research needs, in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 257-270.

Poor, J. P. and Smith, J. M. (2004) Travel cost analysis of a cultural heritage site: the case of historic St. Mary's City of Maryland. *Journal of cultural economics* 28(3), 217-229.

Randall, A. (1994) A difficulty with the travel cost model. *Land economics* 75(4), 88-96.

Ready, R. C. and Navrud, S. (2002a) Why value cultural heritage? in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 3-9.

Ready, R. C. and Navrud, S. (2002b) Methods for valuing cultural heritage, in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 10-30.

Riganti, P. (1997) Valuing cultural heritage: a contingent valuation study of the archaeological park at Campri Flegri. *Discussion papers in urban and regional economics* 9, University of Reading: Reading.

Riganti, P. and Willis, K. G. (2002) Component and temporal value reliability in cultural goods: the case of Roman imperial remains near Naples, in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 142-158.

Smith, K. V. (1983) The role of site and job characteristics in hedonic wage models, *Journal of urban economics* 13(3), 296-321.

Winpenny, J. T. (1991) Values for the environment: a guide to economic appraisal, HMSO: London.

WTO (2000) *Tourism satellite accounts: a strategic project for the WTO*: http://www.worldtourism.org/statistics/tsa_project/tsa_strategic_project.pdf

WTO (2002) *TSA in depth: analysing tourism as an economic activity*: http://www.world-tourism.org/statistics/tsa_project/tsa_in_depth/index.htm

WTTC (2004) *Travel and tourism forging ahead: 2004 travel and tourism economic research*: http://www.wttc.org

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2 Non-market analyses of cultural heritage sites in Europe

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The following literature review looks at non-market economic studies of cultural heritage sites that have been conducted in Europe. The most widely used non-market valuation technique in the cultural heritage sector is contingent valuation. The methodology has been widely used in the field of environmental economics since the 1960s. The adoption of the technique in the cultural heritage field has been much more recent.

2.1 Introduction

The earliest application of non-market analysis in the 'cultural' field was the contingent valuation study undertaken in Australia to determine the value of support for the Australian arts, using increased taxes as a payment vehicle. The success of this early study was an impetuous to the use of contingent valuation techniques in the cultural arena. The technique was used increasingly for other cultural valuation studies throughout the 1980s, including a referendum on a Swiss municipal theatre, the value of performing arts and culture in Ontario, cultural attractions in Britain, and the purchase of two Picasso paintings by a Swiss city (Noonan 2002).

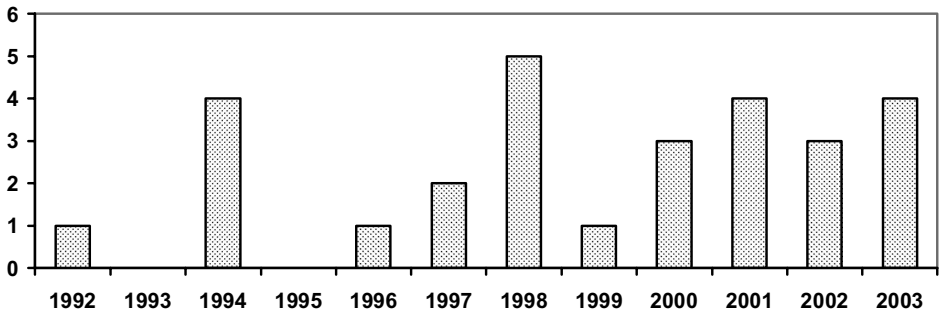

Figure 1: The publication *of contingent valuation surveys conducted on cultural heritage sites in Europe*

However, it was not until the early 1990s that non-market analyses began to be applied to cultural heritage sites. The earliest published study was a contingent valuation survey undertaken at Nidaros Cathedral, Norway (Navrud 1992, and Navrud and Strand 2002). This was followed by a blossoming of site valuations in 1994, including a valuation of the damage caused by air pollution at Durham Cathedral, UK (Willis 1994), the value of maintaining 16 historic buildings in Neuchatel, Switzerland (Grosclaude and Soguel 1994), and a valuation of three historic sites in Italy.

1996 saw studies of the renovation of buildings in Grainger Town, Newcastle, UK (Garrod *et al*. 1996), and the WTP to gain entry to Warkworth Castle, UK (Powe and Willis 1996). It also saw the first publication of what was to become an extensive and sophisticated series of reports on the Royal Theatre in Copenhagen (1996).

The first valuation of an archaeological site was conducted in 1997, with the study of the archaeological complex at Campi Flegrei in Naples, Italy (Riganti 1997). The nineties closed with an evaluation of alternative road options for Stonehenge, UK (Mourato and Maddison 1999, Maddison and Mourato 2002).

Recently, contingent valuation has been used to determine WTP values for cleaning Lincoln Cathedral, UK (Pollicino and Maddison 2001), and retaining cultural services at various Italian museums (Bravi *et al*. 2002). The value of Italian heritage assets was assessed at Napoli Musei Aperti, Naples, Italy (Santagata and Signorello 2000, 2002), the baroque city of Noto, the Bosco di Capodimonte, and museum services in the Galleria Borghese museum, in Rome. Museums and archives have also been intensively studied, including the Surrey History Centre, UK (Özdemiroğlu and Mourato 2002), congestion at the British Museum (Maddison and Foster 2001), and the National Museum of sculpture in Valladolid, Spain (Sanz *et al*. 2003).

It is apparent that most types of cultural heritage asset have been valued using non-market valuation methods. These include:

2.1.1 Cathedrals

Some of the earliest applications of contingent valuation in the cultural heritage sector were carried out at cathedrals.

Nidaros Cathedral (Norway)

The first evaluation of a cultural heritage site using the contingent valuation method took place at Nidaros Cathedral, Trondheim, Norway (Navrud 1992, and Navrud and Strand 2002). Nidaros Cathedral is the oldest surviving medieval building in Scandinavia. Navrud (1992) used contingent valuation to estimate visitor's WTP values for reducing the deterioration of the building caused by air pollution. This was achieved using two different lines of questioning:

Individuals were asked exactly how much they would be willing to pay to reduce air pollution. As this was the cause of the degradation of the cathedral this method would solve the issue at its root. Individuals were also asked how much they would be willing to pay to restore the damage caused by air pollution to the cathedral.

Face-to-face interviews were conducted with individuals outside the cathedral between June and August 1991. An open-ended question format was used, and the payment vehicle was a one-off payment.

It was found that respondent's willingness to pay for the reduction of air pollution was 318 NOK, but the WTP for the repair of pollution damage to the cathedral was 278 NOK. It was noted that 65% of the respondents felt that the original structure of the cathedral had a greater meaning to them than a restored structure.

In order to test for whole-part bias, the study compared the WTP for reducing damage to all Norwegian cultural heritage sites with the willingness to pay for reduced damages to Nidaros Cathedral.

Using the cathedral's 165,000 visitors in 1991 as a base, the aggregated benefits of these results were calculated. Applying the mean WTP values provided estimations for visitors of 52.5 million NOK for preservation and 48.9 million NOK for restoration and repair. Approximately, 41,000 foreigners visited the cathedral in 1991, providing an average WTP attributed to foreigners of 238 NOK and 174 NOK respectively. The value of preserving and restoring the cathedral was 10 million and 7 million NOK (Navrud and Strand 2002: 38-9).

It has been suggested by Pollicino and Maddison (1999: 4) that because the study samples only the views of the cathedral's visitors rather than all Norwegians, it represents an underestimate of the willingness to pay. They also note it is unclear if the respondents were valuing other benefits deriving from the reduction of air pollution in addition to the decrease in damage to the Cathedral.

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Durham Cathedral (UK)

This study by Willis (1994) was used to determine WTP for access to Durham Cathedral in the UK. The survey was undertaken ascertain if visitors could be charged an entrance fee in order to obtain revenue for building restoration. The analysis was used to determine what the change in visitor numbers would be at different price levels. The survey was also used to find out about visitor motivations (for example, 71% of those surveyed were engaged in sightseeing). At the time of the survey, Durham Cathedral had free access, although donation boxes with a picture of a one pound coin were located near all entrances and exits. Ninety-two visitors were questioned when leaving the cathedral. The individuals were asked if they had already given a donation voluntarily. It was found that 51% of respondents had made no contribution, and only 12% had contributed more than the suggested amount of a pound.

A payment-card format was used to determine the WTP for access to the cathedral. When asked for a maximum WTP, 31% suggested that they would give more than the suggested donation. Furthermore, 49% said that they were willing to pay over £0.76. The optimum access fee calculated by Willis was £0.875. It was therefore evident that the maximum annual revenue that could be achieved from entrance fees was slightly lower that the revenue then obtained from annual donations. The reason that an entry charge would not raise significantly more than the donations was because many of the visitors who contributed less than the entrance charge would either cease to visit or visit less frequently. It should be noted that in this context, the benefit most visitors to the cathedral gain exceeds the revenue from donations. Therefore, a consumer surplus accrues to most visitors.

Lincoln Cathedral (UK)

This contingent valuation study by Pollicino and Maddison (2001, 2002) was used to determine a WTP valuation for a masonry cleaning program at Lincoln Cathedral. Air pollution had caused much soiling on the cathedral's stonework. The mechanism used was a

Site	Study	Publications	Survey type	Survey date	Number surveyed	Breakdown	Survey method
(Italy)	additional services		experiment	2000		(users)	
British Library (UK)	WTP for current services at the library	Pung *et al.* (2004)	Contingent valuation	August-October 2003	2,359	Reading room users and UK residents	Telephone (users), face-to-face (public)

Figure 3: Values derived from European studies[4]

Site	Study	Currency	Mean WTP	Mean WTP (Euro equivalent)[5]	WTP	Method	Payment vehicle
Nidaros Cathedral (Norway)	WTP for preventing or repairing air pollution damage to Nidaros Cathedral	Norwegian Kroner (NOK)	318 NOK (preservation) 278 NOK (restoration)	39.64 ECU (preservation) 34.66 ECU (restoration)	Individual	Open-ended question	Tax, donation to fund
Durham Cathedral (UK)	WTP for entry to Durham Cathedral	Pounds Sterling (£)	£0.77	0.99 ECU	Individual	Open-ended question	Entry fee
Royal Theatre, Copenhagen (Denmark)	WTP for current services at the Royal Theatre	Danish Kroners (DKK)	DKK 104	13.74 ECU	Individual	Open-ended question	Tax
Neuchatel (Switzerland)	Damages caused by air pollution to 16 buildings in Neuchatel	Swiss Francs (SFr)	108 SFr for 6 buildings	59.55 ECU	Individual	Open-ended question	Donation to fund
Warkworth Castle (UK)	WTP for entry to Warkworth Castle	Pounds Sterling (£)	£2.53 (entry) £1.41 (preservation)	3.27 ECU (entry) 1.82 ECU (preservation)	Individual	Open-ended question	Entry fee
Grainger Town, Newcastle (UK)	WTP for restoration of buildings at Grainger Town, Newcastle	Pounds Sterling (£)	£13.76	16.80 ECU	Household	Open-ended question	Tax
Campi Flegrei (Italy)	WTP for the conservation of the archaeological park	Italian Lire (L)	n.a.	n.a.	Individual	Single bounded dichotomous choice + double bounded dichotomous choice	Donation to fund
Napoli Musei Aperti (Italy)	WTP for the preservation of the Napoli Musei Aperti	Italian Lire (L)	n.a.	n.a.	Household	Single bounded dichotomous choice + open ended question	Donation to fund
Museum of Central Finland	WTP for current services at the museum	Finnish Markkas (FIM)	FIM 103	18.24 ECU	Individual		Tax
Stonehenge	WTP for routing	Pounds	£12.80 for the	18.92 ECU for	Household	Payment card	Tax,

[4] A tabular frmat is not the ideal mechanism for displaying the results of such non-maket analayses. By neccessity the data has to be simplified, it is strongly recommened that the original sources are consulted in all cases.

[5] The Euro equivalent exchange rate has been calculated using the average annual exchange rate (Interbank rate) for the year of the *survey*. The ECU rate has been used between 1991 and 1998, and the Euro rate from January 1, 1999 to the present.

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Site	Study	Currency	Mean WTP	Mean WTP (Euro equivalent)[5]	WTP	Method	Payment vehicle
(UK)	nearby roads through a tunnel or retaining the *status quo*.	Sterling (£)	tunnel £4.80 for the current road	the tunnel 7.10 ECU for the current road		/ conjoint analysis	entry fee for non-UK nationals
Lincoln Cathedral (UK)	WTP for cleaning air pollution damage to Lincoln Cathedral	Pounds Sterling (£)	£49.77 Lincoln residents £26.77 Lincolnshire residents outside Lincoln	€ 73.58 Lincoln residents € 39.57 Lincolnshire residents outside Lincoln	Household	Double-bounded dichotomous choice	Tax
Surrey History Centre (UK)	WTP to prevent the closure of the Surrey History Centre	Pounds Sterling (£)	£34 for loss of collections (users) £24 for loss of access (users) £13 both scenarios (non-users)	€ 55.85 for loss of collections (users) € 25.64 for loss of access (users) € 21.35 both scenarios	Individual	Payment card	Tax
British Museum (UK)	WTP to reduce congestion in the museum	Pounds Sterling (£)	£5.99 congestion cost imposed by the marginal visitor	€ 9.84 congestion cost imposed by the marginal visitor	Individual	Conjoint analysis	Entry fee
National Museum of Sculpture, Valladolid (Spain)	WTP for current services at the museum	Euros (€)	€ 25-40 (direct use) € 27-36 (passive use)	€ 25-40 (direct use) € 27-36 (passive use)	Individual	Double bounded dichotomous choice + open ended question	Donation to fund
Galleria Borghese Museum (Italy)	WTP for entry to the Galleria (CV), and additional services (CE)	Euros (€)	€ 1.47-4.03 (conservation) € 0.46-0.75 (multimedia) € 1.14-2.55 (multimedia + exhibition) Total € 8.7	€ 1.47-4.03 (conservation) € 0.46-0.75 (multimedia) € 1.14-2.55 (multimedia + exhibition) Total € 8.7	Individual	Payment ladder, choice experiment	Entry fee
British Library (UK)	WTP for current services at the library	Pounds Sterling (£)	£116 for reading room users £6.30 UK residents	€ 167.75 for reading room users € 9.11 UK residents	Individual	Open-ended question	Donation

References

Bedate, A., Herrero, L. C. and Sanz, J. Á. (2004) Economic valuation of the cultural heritage: application to four case studies in Spain. *Journal of cultural heritage* 5(1), 101-111.

Bille, T. (1996) *The Danish population's valuation of the Royal Theatre in Copenhagen.* AKF: Institute for Local Government Studies, Denmark: http://www.akf.dk/eng/kgl.htm

Bille, T. (1997) The willingness to pay for the Royal Theatre in Copenhagen as a public good. *Journal of cultural economics* 21(1), 1-28.

Bille, T. (2002) A contingent valuation study of the Royal Theatre in Copenhagen, in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 200-237.

Bravi, M., Scarpa, R. and Sirchia, G. (2002) Valuing cultural services in Italian museums: a contingent valuation study, in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage:*

applying environmental valuation techniques to historic building, monuments and artefacts. Edward Elgar: Cheltenham, 184-199.

Clark, D. E. and Herrin, W. E. (1997) Historical preservation districts and home sale prices: evidence from the Sacramento housing market, *Review of regional studies* 27(1), 29-48.

Deodhar, V. (2004) Does the housing market value heritage? Some empirical evidence, *Macquarie economics research papers* 3: http://www.econ.mq.edu.au/research/rdp2004.htm.

Garrod, G. D., Willis, K. G., Bjarnadottir, H. and Cockbain, P. (1996) The non-priced benefits of renovating historic buildings: a case study of Newcastle's Grainger Town. *Cities* 13(6), 423-430.

Garrod, G. D. and Willis, K. G. (2002) Northumbria: castles, cathedrals and towns, in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 40-52.

Grosclaude, P. and Soguel, N. C. (1993) *Contingent valuation of damages to historic buildings: a case study of road traffic externalities*. CSERGE working paper GEC-1993-03, University of East Anglia: Norwich.

Maddison, D. and Mourato, S. (2002) Valuing different road options for Stonehenge, in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 87-104.

Martin, F. (1994) Determining the size of museum subsidies. *Journal of cultural economics* 18, 255-70.

Mazzanti, M. (2003a) Discrete choice models and valuation experiments, *Journal of economic studies* 30(6), 584-604.

Mazzanti, M. (2003b) Valuing cultural heritage in a multi-attribute framework: microeconomic perspectives and policy implications. *Journal of socio-economics* 32, 549–569.

Mourato, S. and Maddison, D. (1999) *Valuing different road options for the A303: a contingent ranking analysis*, CSERGE working paper, University of East Anglia: Norwich.

Navrud, S. and Strand, J. (2002) Social costs and benefits of preserving and restoring the Nidaros Cathedral, in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 31-39.

Noonan, D. (2002) Contingent valuation studies in the arts and culture: an annotated bibliography, *Cultural Policy Centre working paper*. University of Chicago: Chicago.

Özdemiroğlu, E. and Mourato, S. (2001) *Valuing our recorded heritage*, CCEM working paper, http://www.uni-hamburg.de/Wiss/FB/15/Sustainability/CCEMpaper.pdf

Pollicino, M. and Maddison, D. (1999) *Valuing the impacts of air pollution on Lincoln Cathedral*, CSERGE Working Paper GEC 99-03, University of East Anglia: Norwich.

Pollicino, M. and Maddison, D. (2001) Valuing the benefits of cleaning Lincoln Cathedral. *Journal of cultural economics* 25(2), 131-148.

Pollicino, M. and Maddison, D. (2002) Valuing the impacts of air pollution on Lincoln Cathedral, in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 53-67.

Poor, J. P. and Smith, J. M. (2004) Travel cost analysis of a cultural heritage site: the case of historic St. Mary's City of Maryland. *Journal of cultural economics* 28(3), 217-229.

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Pollicino, M. and Maddison, D. (2002) Valuing the impacts of air pollution on Lincoln Cathedral, in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 53-67.

Powe, N. A. and Willis K. G. (1996) Benefits received by visitors to heritage sites: a case study of Warkworth Castle. *Leisure studies* 15: 259-275.

Pung, C., Clarke, A., and Patten, L. (2004) Measuring the economic impact of the British Library, *New review of academic librarianship* 10(1), 79-102.

Riganti, P. (1997) Valuing cultural heritage: a contingent valuation study of the archaeological park at Campri Flegri. *Discussion papers in urban and regional economics* 9, University of Reading: Reading.

Riganti, P. and Willis, K. G. (2002) Component and temporal value reliability in cultural goods: the case of Roman imperial remains near Naples, in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 142-158.

Santagata, W. and Signorello, G. (2000) Contingent valuation of a cultural public good and policy design: the case of Napoli Musei Aperti. *Journal of cultural economics* 24(3), 181-204.

Santagata, W. and Signorello, G. (2002) Individual preferences and allocation mechanisms for a cultural public good: 'Napoli Musei Aperti', in Navrud, S. and Ready, R. C. (eds.) *Valuing cultural heritage: applying environmental valuation techniques to historic building, monuments and artefacts*. Edward Elgar: Cheltenham, 238-256.

Sanz, J. A., Herrero, L. C. and Bedate, A. M. (2003) Contingent valuation and semiparametric methods: a case study of the National Museum of Sculpture in Valladolid, Spain, *Journal of cultural economics* 27, 241-257.

Tohmo, T. (2004) Economic value of a local museum: factors of willingness to pay, *Journal of socio-economics* 33, 229–240.

Willis, K. G. (1994) Paying for heritage: what price for Durham Cathedral? *Journal of environmental planning and management* 37(3), 267-278.

3 Dynamic socio-economic impact: a holistic analytical framework for cultural heritage sites

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A growing number of socio-economic studies of cultural heritage sites have been undertaken in recent years, normally focusing on specific impact dimensions. This paper offers a holistic framework for analysing socio-economic impact of heritage sites. It presents impact as a dynamic concept and provides a typological basis for analysing impacts. Such a holistic approach will provide a useful basis from which heritage managers can conceptualise socio-economic impact.

3.1 Introduction

The cultural heritage sector is facing important challenges in pursuing and sustaining its fundamental missions of protecting and preserving historic and culturally important buildings, monuments and museum collections, and engaging and education the public.

There is almost a universal scarcity of funds for investing in cultural heritage sites. Major funding sources, such as public sector funding bodies, have many competing demands on their budgets. Heritage is often highly valued in cultural and social terms but policy makers increasingly seek justification for allocating incremental funds on the basis of perceived socio-economic benefits. Here lies a fundamental problem for heritage – the costs of heritage are visibly included in the budgets of government funding but the benefits are less visible, often intangible and difficult to capture in conventional terms. To compound this there is an underlying sense that the benefits associated with heritage tend not to be seen as necessities in the same way as education, health or defence.

In the policy making arena where hard decisions concerning where to allocate funds take place, cultural heritage organizations are often ill-equipped to argue the socio-economic case for investment. Cultural heritage could be considered as an emerging, and potentially significant, industry in its own right but, despite a growing number of impact studies in recent years, attempts to evaluate and measure its socio-economic contribution are still relatively underdeveloped in the sector.

Valuing cultural heritage is a complex, multi-faceted area which remains ill defined. However the importance of capturing various impacts was succinctly stated in the London Declaration of the recent European Commission Conference on Sustaining Europe's Cultural Heritage (2004):

> "…Cultural heritage plays an essential role in the global position of Europe, and in enhancing the integration process of new enlarged Europe with its complex diversity and that it has considerable impact in many areas of economic and regional development, sustainable tourism, job creation, improving skills through technological innovation, environment, social identity, education and construction…"

3.2 A holistic analytical impact framework for cultural heritage sites

This paper does not set out to be an exhaustive account of all the influences that affect impact at heritage sites but a thematic overview of such influences. Socio-economic impact embraces many possible impact dimensions (e.g. economic, individual, social, environmental, etc). Within each dimension (e.g. economic) there are a number of possible methodologies which can be employed to identify impact, each method having advantages and disadvantages.

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Most impact studies undertaken to-date have usually focused on a single impact dimension at one moment in time. This paper aims to take a broader view of impact by offering a holistic analytical framework (see Figure 1) that attempts to capture the complex, multi-dimensional nature of impact, the multiple influences on impact, and offer a guide to which impacts should be examined, given the specific circumstances of a cultural heritage site.

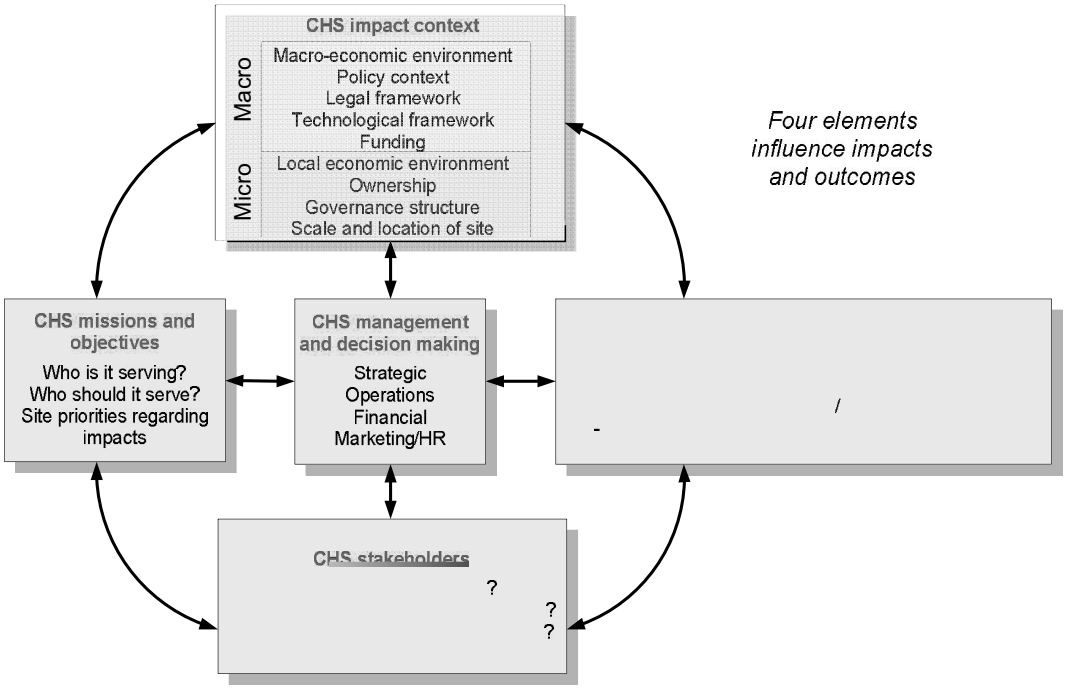

Figure 1: A dynamic holistic impact framework

The holistic impact framework consists of five elements: the cultural heritage site (CHS) impact context, the site mission and objectives, the site stakeholders, and the site management and decision making context, which all influence and contribute to the potential socio-economic impacts of a heritage site. The different elements of the holistic framework model and its relationship to impact evaluation are examined below.

3.2.1 The impact context

The impact context is interpreted broadly as the specific macro-contextual influences and micro-contextual (such as organisational) influences on a cultural heritage site. Macro contextual influences can include:

- Macro-economic environment
- Policy context
- Legal framework
- Cultural context and values
- Technological context

The micro-contextual influences can include[6]:

- Local economic environment

[6] Of course, some elements within the impact context (such as policy, funding and legal frameworks) can straddle the border between macro and micro influences.

- Funding
- Ownership
- Governance structure
- Scale and location of the heritage site.

For heritage managers the impact context creates opportunities and threats for their organisations and can impose constraints on decision making. Most of these factors are beyond the direct control of cultural heritage managers, but nevertheless affect heritage site strategies and final impacts and outcomes. Furthermore, many of the factors are inter-related and so for example, local economy could affect heritage site funding or the policy context could affect the legal framework.

The macro context

Each site operates in a macro-national context (and wider European and global context). A number of influences from this context affect heritage sites, these include:

- *Macro-economy*: The macro-economy (regional, national and international) affects, for instance, tax revenues, disposable income, and policy funding priorities. The macro-economy has a major influence on the heritage sector.
- *Policy context*: The macro-policy context is another important determinant for potential outcomes and impacts at heritage sites. Policy is fundamental to understanding impact; it influences heritage sites at multiple levels. It determines what gains funding and what does not, what is conserved and what it is not, it influences local authority policy, and it can also affect national legal structures which influence the heritage sector, etc. For an extensive commentary on the role of policy and regulation in the heritage sector see Rizzo and Mignosa (this volume), and Mignosa and Rizzo (2004).
- *Cultural context and values*: Perhaps of more importance will be the 'cultural context' and values of a society in supporting heritage, which in turn will affect practical policy and funding priorities. For example, the cultural context helps define heritage. As Ashworth and Howard (1999: 11) note "Heritage is whatever people want to conserve, preserve, protect, or collect". As such, definitions of what should be preserved can differ between countries (i.e. market squares in Germany, country houses in the UK, or heritage coastlines in France). Furthermore, the definition of what constitutes 'heritage' is not static but dynamic. In the developed world the definition of heritage has broadened considerably in the later half of the twentieth century[7]. It is important to acknowledge that as time passes the definition of heritage will continue to change according to different political aspirations, and the increasing input of communities and groups outside of the traditional field of 'experts'.
- *Technological context*: It is important to consider technological developments and how these might affect the visitor experience (e.g. in the last fifteen years websites, and virtual reality reconstructions of heritage sites have become an integral part of heritage marketing and presentation, this has only become possible through the global advances in ICT).

[7] Early definitions of cultural heritage that encompassed the monumental remnants of cultures were gradually extended to include new elements from non-artistic sectors of activity such as industrial heritage, or from specific contexts such as the underwater heritage. Today, the notion of heritage is much more open, and is used to reflect living culture rather than just our past. UNESCO now includes in its' definition of cultural heritage historic cities, cultural landscapes, natural sacred sites, underwater cultural heritage, museums, movable cultural heritage, handicrafts, documentary and digital heritage, cinematographic heritage, oral traditions, languages, festive events, rites and beliefs, music and song, the performing arts, traditional medicine, literature, traditional sports and games, and culinary traditions.

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In a dynamic model such as this some allowance must be given to the ability of a heritage site to influence the impact context. However, much of the macro context is beyond the sphere of influence of cultural heritage sites. Such sites are unable to exert any influence on the regional, national and international economies.

Individual sites are also unlikely to exert any significant influence on national policy decisions although groups of heritage sites can work together for the purposes of lobbying. For example, in the UK the Museums and Libraries Association (MLA)[8] acts as a voice for the sector to try to influence change at policy level, as well as providing advice and assistance to its members. As a general rule, this sort of concerted and unified effort between individual sites is rare.

Similarly, the development of technology such as ICT takes place outside of the cultural heritage sphere (usually in the commercial or military sectors) and gradually migrates to the heritage sphere.

The micro context

Micro factors would include the local economy and local policy and political context. For example, numerous local authorities and governments have developed strategies, with accompanying funding, targeting heritage as a key element in regeneration programmes (e.g. Woolwich Arsenal, Hadrian's Wall, and the Brighton Cultural Quarter).

In heritage sites with a strong orientation towards tourism, a principal element of a site's economic impact will depend on the total visitor experience which itself is dependent on numerous off-site factors (e.g. coordinated local tourism strategy, the presence of other visitor attractions, quality of facilities such as transport, restaurants, hotels, etc). It is rare for a heritage site to be immune to these factors.

Competition or complementarity: The degree of competition or complementarity with other attractions can also influence impact. For example, a heritage site within a historic urban centre (such as Rome, Venice or Paris) could face competition from alternative heritage attractions; however, having a large number of heritage sites within a single town can act as a stimulus to attract visitors. In such cases the visitors would be more likely to be interested in heritage tourism. Such situations have been given the label 'co-opetition'. Of course, the competition is not limited to other heritage sites, any attraction which could divert tourist money away from heritage represents potential competition, but the creation of a diverse tourist product offering is likely to be beneficial for attracting a more diverse range of visitors.

Organisational context is central to understanding impact. The impact of any site is heavily dependent on its location, quality, significance and the scale of the heritage site itself. As sites vary in their local, regional, national and global significance then so will their relative impacts. Some factors to consider include:

Ownership: The ownership of heritage sites is a principal determinant of the impact that a site will have. Ownership influences funding sources, governance structures, objectives, etc. However, ownership of heritage sites is not static. For example, because cultural heritage sites can have high maintenance costs – especially in countries with strictly enforced legislation regarding the upkeep of such sites. There is a tendency in such countries to see the movement of ownership from private to public hands. (Although, there are limits to the size of the public purse and without sustainability it is questionable as to how long the transfer of assets from private to public hands can take place).

Corporate governance: Heritage sites can have a wide range of governance structures ranging from private and public, to not-for-profit and charities. Each of these will influence the impacts and outcomes of a heritage site. While it would be simplistic to assume that all sites

[8] The Museums, Libraries and Archives Council (MLA) was launched in April 2000 and is the UK's strategic body representing museums, archives, and libraries (www.mla.gov.uk).

under private ownership have a greater profit motivation than sites in public ownership there is a trend towards this scenario that cannot be ignored.

Location: Location is paramount for the impact of a cultural heritage site. The location determines factors such as accessibility to transport networks, proximity to population centres links with other potential attractions. Surprisingly, location can be a dynamic entity. Although cultural heritage sites are fixed entities within the landscape or urban fabric the significance of the surrounding locality can change over time. A rundown part of an urban centre can become a popular tourist zone increasing the potential of the heritage sites within that area (such as the Gothic quarter – Barri Gòtic – in Barcelona, preserved through neglect and now one of the principal tourist magnets in the city). Alternatively, the creation of new transport links such as low cost airline routes, or motorway and train-links can radically change the accessibility of a heritage site.

Quality: The quality of a heritage site or experience can be determined by a number of factors such as the level of preservation, which lies outside the scope of the heritage site, however, site maintenance, level of restoration and visitor facilities tend to fall within the potential control of a site, finance depending, as can the actual or perceived authenticity of the site.

Significance: The significance and importance of a site is a difficult entity to define. Sites have significance at multiple levels such as local, aesthetic, regional, and national. Of course, as with so many elements of the dynamic impact context the significance of cultural heritage sites is not a static element, it can change over time. It can change because of changes in the political system, technology, etc. Even at a single point in time a site may hold alternative significance to different elements of the population – this can determine who visits a particular site. For example, in Wales the World Heritage site at Caernarfon Castle is seen by many as a well preserved example of a castle from the reign of Edward I, but is dismissed by many Welsh as a symbol of English oppression. The post-World War II cultural heritage from Eastern Europe is seen by many from the old Communist Bloc countries as symbols of Communist oppression and is being rapidly destroyed and erased from the cultural landscape. To many academics especially, this rapidly vanishing heritage is an important historical resource that requires preservation.

Scale: Scale can act as a guide to the potential impact of a cultural heritage site (although, no more than a guide). Larger sites have the potential to induce a greater impact than smaller sites, because of their ability to support a greater throughput of visitors, sustain larger potential capital costs, higher staff requirements and other running costs. Of course, concentrations of smaller heritage sites can have a similar effect.

These factors have a strong influence on the site – and feed into the management decision-making context. Furthermore, it is argued that contextual factors are immensely important determinants of the socio-economic impact of heritage sites. Placing a heritage site in context will guide what impacts that should be evaluated. For instance, there would be little point in doing a full, and often costly, economic impact analysis of a small museum based in a large city that was designed to serve the local community and foster local cultural identity. In such a context impact assessment should be aimed at issues of community integration and social inclusion, etc.

In the dynamic model there is the potential for sites at the micro-contextual level to have some influence over the 'impact context'. Cultural heritage sites have a greater potential to influence and have an impact on the micro context compared to the macro context. Some heritage sites can make a (sometimes significant) contribution to the local economy through increased visitor numbers, capital expenditures, or brand value.

3.2.2 Mission and objectives

The mission can be thought of as a heritage site's overriding purpose. It is an expression of its *raison d'etre*. This can include:

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- What is the site there for?
- Whom is it serving?
- Who should it serve?
- Why is it being funded?

All heritage sites have a sense of their mission, either explicitly or implicitly, which partly reflect the impact context (the culture, the national system, and corporate governance and legal system) and also the power and interest of the stakeholders. As a process, not least to guide an impact evaluation, it is useful to know who decides the mission and how it is decided.

Objectives maybe seen as more of a heritage management tool, being statements of specific outcomes to be achieved which may or may not be measurable. For example, in the UK there is a national benchmarking process for museums which offers comparisons against certain prescribed criteria. There are also performance indicators being employed by various museums. Despite the growing targets/objectives culture in the public sector of the UK there is a need to be sceptical of their role and aware of the potentially distorting effects in delivering a service.

One role of a socio-economic impact analysis would be to evaluate the extent to which the mission and objectives are being achieved. Are the intended outcomes being delivered? Should the mission and objectives be revised? Which impacts should be evaluated?

3.2.3 Management decision making

The quality of the heritage management decision making will have a strong influence on final impacts. Many impacts studies either ignore this or treat it as a black box. The principal elements in the management decision making element include:

- Strategic
- Operations
- Financial
- Marketing
- Human resources

Strategic: Strategic decision making and effective implementation drives a heritage organisation to achieve its mission and objectives and its desired impacts. The drive and determination of heritage site managers is crucial to the long-term success of sites. With funding being such an issue in the sector, financial incentives for high-end managers are poor and considerable reliance is placed on the dedication, and devotion of managers in the sector.

Operations: Operations management considers how resources such as capital, people, information and materials are converted into outputs such as services, and information (products). Cultural heritage site operations management is made more complex by the lack of funds.

Financial: The cultural heritage sector is perennially short of funds. Increasing competition for central funds, increasing operational costs, and an increasing number of heritage sites makes this situation unlikely to change. The management of financial resources within heritage sites is crucial.

Human resources: The effective management, training and motivation of personnel within heritage sites are other factors that can influence impact. Human resource management issues also exist beyond the level of the site. For example, the decline in skilled crafts persons capable of maintaining and preserving heritage sites could have long-term implications for the sustainability of some sites.

Marketing: The marketing strategy will influence the number and type of visitors which determines key final economic impacts. With often limited marketing budgets, a key marketing strategy will be the extent that sites can leverage advertising and promotion by combining with other interested partners in joint marketing campaigns.

The increasing number of undergraduate and post-graduate courses, and academic books devoted to heritage marketing suggests that there is a growing awareness of the critical nature of marketing in the cultural heritage sector. Furthermore, the growing number of heritage special interest groups in the marketing sector further reinforces this trend.

This raises the need for regular impact reports based on efficient accumulation of relevant data to feed back into strategic decision making and influencing future investment decisions. For example, *few sites have a detailed breakdown of their visitor profile*. Not only is this useful impact data but it can enable more targeted marketing strategies to take place – further enhancing desired impact. This presents socio-economic impact as a dynamic rather than static notion.

3.2.4 Stakeholders

The holistic framework places stakeholders as a separate dimension of impact because they are a key consideration for all the other components of the model as they either directly or indirectly influence final impacts[9].

Many heritage sites are publicly financed and are required to be accountable to a range of stakeholders. When difficult strategic or investment decision are being considered it can be useful to map stakeholders in terms of their power and interest in the outcomes of a decision to aid the political process of the decision making. Stakeholder analysis can take on a variety of forms and different stakeholders will vary in power and interest depending on a decision to be taken. Relevant issues here would be;

- Who and how do they influence the impact context (e.g. corporate governance)?
- Who and how do they influence the mission and objectives?
- Who and how do they influence management decision making?

Perhaps a more novel use of stakeholder analysis would be to use it directly for generating preliminary impact findings in their own right. The authors tested this approach on Brighton's Royal Pavilion heritage site. Various stakeholders were interviewed to identify the key impacts that they perceived from the heritage site and they supplied relative weightings to their stated impacts. This approach helps to identify priority impacts for evaluation. Initial results showed that a number of different impacts were revealed that would not have been captured in a conventional impact study. From an economic perspective it also showed that standard economic measures driven by visitor figures/average spend failed to capture the significance of the full economic impact. It also posed new challenges in terms of measuring impact, such as how to measure a site that is an iconic brand for a city.

3.2.5 Socio-economic impacts

Having identified from the holistic framework several influences on the socio-economic impact of cultural heritage sites, we will turn to the various possible impacts themselves and the process of undertaking and framing an impact evaluation. The impact component of the holistic framework is further developed in Figure 2 below.

Although it is beyond the scope of this paper to evaluate different impact methodologies each impact category (e.g. economic, social, environmental, etc) poses complex methodological problems in capturing and measuring impact. For example, with economic impact one can

[9] Of course stakeholders are not separate entities they are integral to all the components of the framework from management decision making, mission and objectives, to impact context.

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choose from a wide menu of methodologies including conventional visitor expenditure analysis, econometric modelling (to capture indirect and multiplier effects), cost-benefit analysis, contingent valuation techniques (CVM), contingent choice, hedonic pricing, travel cost methods, and benefit transfer. Naturally each methodology has strengths and weaknesses and very different resource implications for heritage sites as well as requiring different levels of expertise to carry out the impact analysis. As this problem applies to all impact dimensions (i.e. social, educational, etc) it is important that a heritage site manager is clear on impact measurement priorities and the purpose of the study. If the primary purpose of a heritage site is to deliver educational benefits and community learning it is unlikely that a full economic impact study would be needed. The mission and objectives of the heritage site and the priorities of relevant stakeholders (e.g. criteria for releasing finance from funding bodies) would be main pointers for the appropriate type of impact evaluation to be undertaken.

Current market conditions now dictate that few decisions are taken in the field of cultural heritage without considering economic questions. This has caused unease with many in the cultural heritage field. Many commentators in the cultural heritage field have expressed concern that the increasing use of economics as the *lingua franca* of heritage conservation could undermine the 'cultural' rationales for conservation in favour of purely economic arguments. There has been a call from many in the cultural heritage field for a better balance between "economic, cultural and other values" (de la Torre and Mason 1999: 3). A framework such as the one shown below has the advantage of allowing all potential impacts of a cultural heritage site to be expressed.

The study of economics revolves around the concept of value. According to socio-economic theory, cultural heritage is a consumable good. It is also a public good or quasi-public good. Public goods are defined using the following two characteristics:

- *Non-exclusive*: These are goods where a user cannot be stopped from 'consuming' that good.
- *Non-rival*: Goods where the quality of consumption by one user is not reduced by other users enjoying it simultaneously.

There is a traditional tendency to undersupply this type of good, because the benefits are not captured through conventional market mechanisms.

In reality, many cultural heritage sites are *quasi-public* goods, because access to some heritage buildings and museums is restricted. Furthermore, cultural heritage sites are non-rival to varying degrees. For example, some cultural heritage buildings and sites can become overcrowded and congested, thereby reducing the user satisfaction of visitors (i.e. Maddison and Foster 2001).

It is immediately clear, when assessing the sector that a wide range of values can be attributed to cultural heritage sites. These can be precise values, such as the cost of admission to a site, or the cost of a book in the gift shop. These sorts of values are easily accessible to traditional economic modelling techniques. There is also a class of more amorphous values (non-market or non-monetary values), such as the 'satisfaction' derived from visiting a cultural heritage site, or the aesthetic value of a cultural heritage site to a local community.

Because cultural heritage goods and services are not usually traded in conventional markets, the benefits derived from these goods and services are 'external' to the market. The economic valuation of non-market cultural heritage goods and services attempts to 'measure' individual's preferences for non-market goods and services. If monetary estimates are made of an individual's preferences for such goods and services, these can be integrated into an economic format comparable to conventional economic costs and benefits. This will enable impacts generated in the sector to be accounted for in policy and decision making processes.

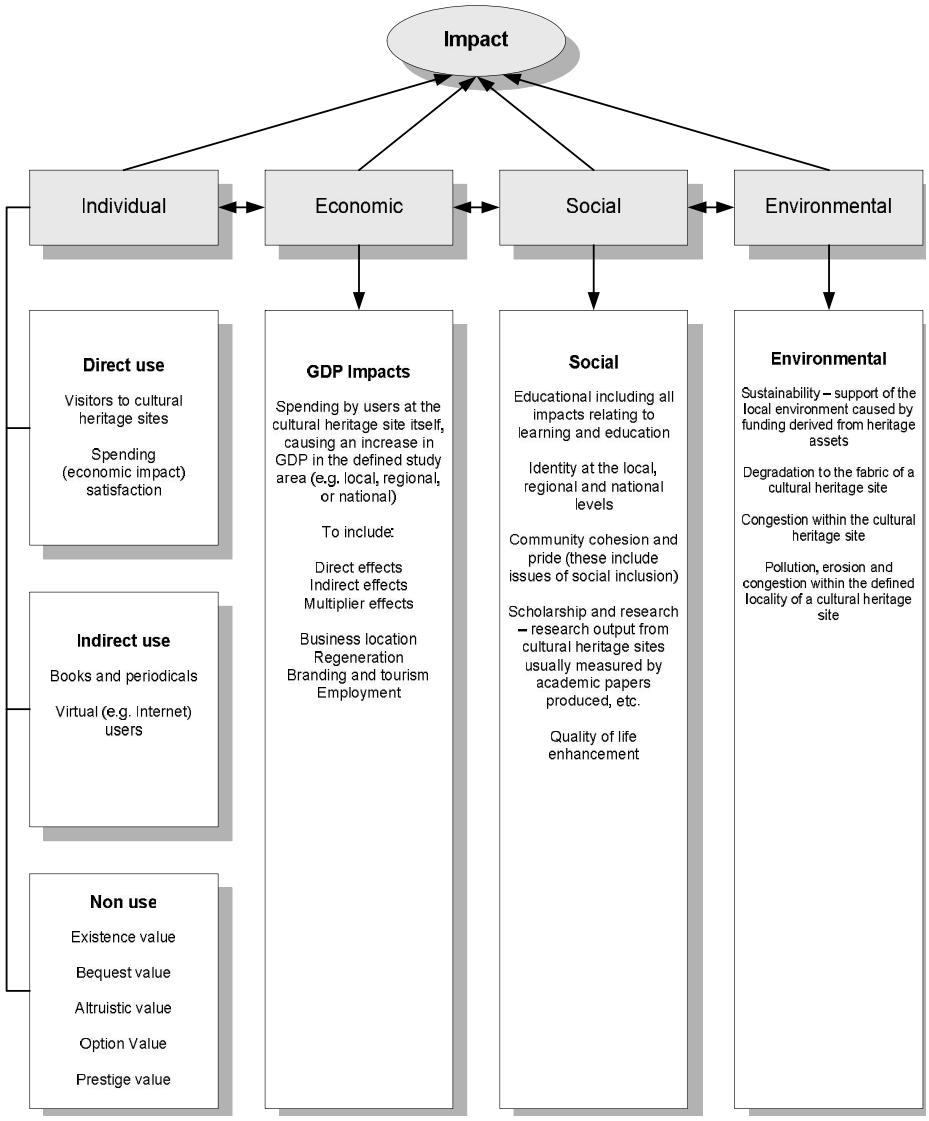

Figure 2: A socio-economic benefit and impact framework (modified from The Outspan Group 1999: 7)

Because these values are not captured in traditional economic markets, and individuals do not pay money to acquire them, they are considerably more difficult to define and quantify, but they are part of the overall value of a cultural heritage site. The challenge of quantifying the socio-economic impact of cultural heritage sites emanates from the need to incorporate all these quantitative and qualitative values in its results.

3.3 A socio-economic impact framework

It is clear that, despite advances in the use of non-market valuation techniques in the last two decades, there is still a lack of coordination regarding how to classify the benefits of cultural heritage sites. There is increasing agreement on the types of values associated with cultural heritage sites, but there is no widely-used typology or classification system that can be applied to these impacts.

In Canada, considerable work has been devoted to developing just such a framework – one that can integrate the various forms of economic and social values derived from cultural heritage sites (The Outspan Group 1999). Using this work as a basis, the following simplified socio-economic framework can be applied to the cultural heritage sector. The framework allocates the impacts of cultural heritage sites to four different groups. These groups are the

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individual stakeholders, businesses, society in general, and the environment. The framework includes traditional economic impact analyses which cover consumption and investment expenditure and the multiplier effects, and direct user benefits (e.g. existence benefits), and societal benefits (e.g. cultural identity and educational benefits). Because of this, almost all of the impacts associated with cultural heritage sites can be inserted within one of the categories. This type of framework has been widely applied to various cultural goods in North America (The Outspan Group 1996, 1998a, and 1998b).

However, the framework was developed to be applied broadly to the arts and culture sector. The authors note that "while the concepts presented in the benefits framework can apply to the entire sector, there is also a recognition that individual sub-sectors will require more detailed specification of the framework or its adaptation in order for it to function effectively" (The Outspan Group 1999: 11). The following application of the framework has been modified specifically for the cultural heritage sector.

3.3.1 Individual impacts and benefits

The individual stakeholders have an impact on the cultural heritage sites through their use of the site.

Use value

These use benefits and impacts can be direct, indirect, and future use.

- *Direct use impacts*: Are those created by individuals using cultural heritage sites (these would be called 'consumers' in traditional economic theory). A visit to the Parthenon, in Athens, would be an example of a direct use of a cultural heritage site. Such direct use values may be accessible to market analyses such as visitor numbers or ticket sales. Direct impacts in the technological field could include interaction with technology at a site such, as touch-screen displays and other audio-visual technology.
- *Indirect use impacts*: Are those derived from individuals making an indirect use of a cultural heritage site. As such these impacts do not require an individual to physically visit a site. Reading a book about the Parthenon would be an example of indirect use. Indirect impacts in the technological field could include viewing Web sites for cultural heritage sites.
- *Future use impacts*: Are derived from individuals who know that they will be visiting cultural heritage sites in the future. These values have different implications depending on the perspective. An individual may gain a degree of satisfaction from the knowledge that they will visit a site, but the sites themselves will also gain future visitors, or future use. These sorts of values can only be determined through surveying a population.

The differences between direct and indirect impacts are not always clear-cut, and are often dependent on the perspective taken. For example, reading a book about the Parthenon could be an indirect use of the cultural heritage site, but could be a direct use of a heritage publishing house, or a cultural heritage industry. This could lead to double counting of duplicated direct and indirect benefits. This has led many to ignore these indirect values in summary frameworks (The Outspan Group 1999).

Non-use value

Non-use values refer to benefits to a person who has not visited a site but still values its preservation. Frey and Pommerehne (1989) identified a number of non-use values that individuals may attach to cultural heritage. These include option, existence, bequest, prestige, education, and altruistic benefits.

- *Existence value*: Is valuing the site for preservation even if no one visits it. Existence benefits are derived from individuals who are content that cultural heritage sites are available for others to enjoy.

- *Bequest value*: Benefits are derived from individuals who gain value from the fact that cultural heritage sites will continue to exist for future generations to appreciate.
- *Altruistic value*: Closely related to existence and bequest values, Ready and Navrud (2002a: 7) add another value called altruistic value, where an individual or group gains value from a site in knowing others can enjoy it.
- *Option value*: Option benefits are derived by individuals who gain value from the fact that cultural heritage sites are available for potential future use.
- *Prestige value*: Refers to the prestige a community derives from the site.

3.3.2 Economic impacts and benefits

Economic assessment of business benefits has been the traditional method used to support the need for funding cultural heritage institutions. These benefits are the result of spending within the cultural heritage environment which would not have occurred had the site not been there.

These are the changes in a defined community that are caused by spending attributed to a cultural heritage site or event. In the defined study economy the value of imported goods and services, and payments which do not remain within the defined economy are removed. Net economic impacts tend to result in smaller 'multiplier' values. This value is the actual value added that is kept by the defined economy. The net economic impacts derived from expenditure impacts:

- Spending by visitors or users, who are not from the study area, in the cultural heritage site.
- Spending by the cultural heritage site that uses funds which originated outside the study area.

The increased business benefits can include:

- Numbers of visitors and tourists
- More guest house and hotel rooms occupied
- Retail sales
- Restaurant use
- Use of public transport
- Employment.

These business benefits can be captured using surveys of users, visitors, etc, in conjunction with financial data about funding and expenditure at the site. The type of economic impact model deployed will be crucial for the determination of net impacts. Various economic impact models calculate different impacts – it is important to consider the methodology used and its comparability with other economic models. For example, while most consider direct and indirect impacts, some also consider induced impacts.

3.3.3 Social impacts and benefits

There is considerable debate as to whether the benefits to society can and should be quantified in monetary terms. Commentators such as de la Torre and Mason (1999: 2) have expressed concern that "by focusing narrowly on money, price and financial returns on investment, we lose sight of a whole universe of values that should be important to us, as members of society and as individuals." This sense of unease is shared by Smith (2002: 16) who wonders "Can we put a price or assign a number to memory, identity, a sense of place, or cohesive communities?" The benefits of cultural heritage sites to society are considerable, but not all of these benefits have associated methodologies for their measurement.

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Impacts	Advantages	Limitations
Educational	Users can learn about their own past and the heritage of other communities.	Some users feel excluded by perceptions of elitism. Museums have traditionally fallen into this category, although much has changed in this sector in the last decade (Stott 1998).
Identity	Cultural heritage sites are frequently viewed as a source of identity, at an individual, local regional and national level.	However, most European countries have cultural heritage sites that do not unify but repel elements of the community. The site of the battle of Culloden, in Scotland or the Auschwitz-Berkenau concentration camps fall into the category of 'dissonant heritage' (Tunbridge and Ashworth 1996).
Business location decisions	Businesses have been known to locate premises in the vicinity of cultural heritage sites in order to gain advantage from the users of that heritage.	
Skill retention	Cultural heritage sites help preserve specialist skill sets. The need for specialist stone masons to repair and maintain cathedrals and other heritage sites across Europe that have been damaged by air pollution is helping maintain a skill that is rapidly declining.	
Heritage revitalisation	The location of many cultural heritage sites in the downtown core has in many cases led to heritage revitalisation.	The gentrification of some regions has increased property prices, forcing out poorer members of the community and preventing all but the wealthy from moving in.
Quality of life	Cultural heritage sites can increase the quality of life by providing cultural venues for the population.	Increased quality of life could indirectly lead to the gentrification issues seen above.
Industry benefits	Cultural heritage sites are widely used as sets for the film and television industry, as well as for photographic backgrounds for the magazine and media industries. Many companies use cultural heritage sites to organise PR events, receptions, conferences, and weddings. Cultural industries include film, broadcasting, music, written media, and new media.	
Employment	The cultural heritage sector is highly labour-intensive. This is because it is both a service sector, and contains infrastructure that often requires regular maintenance, unlike many industrial sectors which can increase output with reduced workforce.	

Figure 3: Advantages and disadvantages of various impacts

3.3.4 Environmental impacts and benefits

Few such frameworks have tried to include environmental impacts in the assessment. A point brought home by Klamer and Zuidhof (1999: 33) who note that:

> "studies tend to overestimate the economic impact, since they usually leave out the negative effects of cultural projects (traffic congestion, the loss of economic value due to regulation) …"

Environmental impacts are an important area to study for any impact analysis even though many of these impacts are potentially negative. Environmental impacts can be evident either within a cultural heritage site (intra-site impacts) or in its immediate locality (inter-site impacts). These include:

Personal Values and impacts	Definition	Measurements
Direct use value	Personal visits to the institution for education, leisure, or research.	Visitor numbers. Visitor demographics. Visitor spending. Visitor consumer surplus. Visitor satisfaction.
Indirect use value	Use and enjoyment of the site not achieved through visiting. This includes use of Web sites, reading books, watching television programmes about the site, and 'consuming' site merchandise.	User numbers. User characteristics. User spending. Indirect user consumer surplus.
Existence value	Personal satisfaction in the value of maintaining the existence of a site or institution.	Number of users who derive this value. Estimations of this personal value.
Bequest value	Personal satisfaction in the value of maintaining the existence of a site or institution for future generations.	Number of users who derive this value. Estimations of this personal value.
Option value	Personal satisfaction in the value of maintaining the existence of a site or institution for potential future use.	Number of users who derive this value. Estimations of this personal value.
Economic **Values and impacts**	**Definition**	**Measurements**
GDP impacts	Spending by users and the site itself causing an increase in GDP within the study area.	User spending (direct spending effects) attributable to the site (e.g. travel costs). Institutional spending: capital expenditures, operations, maintenance and repairs. Indirect spending associated with a visit. Multiplier effects.
Social **Values and impacts**	**Definition**	**Measurements**
Community pride and cohesion	Cultural heritage sites can provide a backdrop to common interests and identities.	
Business location value	Value derived from businesses deciding to locate in an area because of the presence of cultural heritage sites.	Numbers of businesses. Reasons for business location. The importance of cultural heritage sites for location decisions.
Identity	Benefits associated with sites enhancing feelings of identity. These can be locally, regionally, nationally, culturally, ethnically, etc).	Studies on the impact of heritage sites on peoples perceptions of community and society. Studies of how sites can promote individual, local, regional, and national identity.
Social inclusion	Benefits associated with cultural heritage acting as a glue to include disparate groups within society.	
Educational	All the impacts associated with educational impacts (school curricula related impacts).	
Scholarship and research	Scholastic and research outputs including academic papers, new technologies and methodologies.	Output of academic papers. Output of new technologies and methodologies.
Environmental **Values and impacts**	**Definition**	**Measurements**
Pollution	Increases in visitors to a site can cause increased pollution because of the greater volume of traffic needed to bring the visitors to the site.	Studies of air quality.
Site degradation	Increased visitor numbers can cause stress on the very fabric of the cultural heritage site itself.	Site monitoring and assessment.
Congestion	Increased visitor numbers can cause congestion within a cultural heritage site.	Site monitoring and assessment

Figure 4: A socio-economic benefit/impact framework (adapted from the Outspan Group 1999)

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Intra-site impacts

- *Site degradation*: Too many visitors can cause physical damage to the fabric of a site because of erosion through excessive foot traffic or changes to humidity caused by visitor's breath (e.g. the prehistoric caves at Lascaux, France and Altaof a site

because of erosion through excessive foot traffic or changes to humidity caused by visitor's breath (e.g. the prehistoric caves at Lascaux, France and Altaof a site
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negatively heritage programs preventing the realisation of the economic and social scopes, if not the realisation of the same conservation of heritage. Vertical fragmentation may reduce the potential advantages deriving from devolution. Devolution increases the accountability of government, and this theoretical argument seems, in the heritage field, even stronger because of the close connections between heritage and the local communities.

Italy offers a good example of how relevant the above issues are. In comparison to other European Union countries, Italy shows a greater involvement of central government in heritage matters, and a lower degree of non-public (private, non-profit) financing.[37] Although the devolution issue is very much to the fore in Italy nowadays, in the light of the recently enacted constitutional federalist reform, it has not been fully implemented in the cultural field. In fact, management competencies have been devolved to regional and local governments (the effects of such a reform are not yet fully put in practice), but central government retains the protection function (i.e. the regulatory power of identifying what is heritage, what should be protected and how). At the same time heritage is widely dispersed[38] and, as a consequence, local authorities, even the small ones, are necessarily interested in the heritage conservation issues[39]. This can cause vertical fragmentation problems: the fact that local governments' competencies are limited and that the coordination with higher levels of government is not guaranteed, in fact may reduce their chances to pursue local public interests ranging from the preservation of cultural values to the transformation of cultural goods in "economic resources".[40]

A further, though different, example[41] comes from Pompeii. The *Soprintendenza*[42] of Pompeii has been granted a special autonomous 'status' by law (i.e. a branch of central government is experimenting a more autonomous managerial scheme although the hierarchy is poorly defined and competencies overlap). Such an autonomy 'scores' good results in term of quality of the services supplied, but the activity of the *Soprintendenza* is limited because, for instance, it has no freedom in strategic matters such as the hiring of personnel, which remains within the Ministry authority.

These examples make it immediately apparent that the problems related to vertical co-operation among administrative levels can reduce the potential economic impact of heritage policies. This is because national policies (e.g. regulation, taxation, spending) set the framework for regional and local policies and might conflict with local policy objectives which cannot be disregarded when such policies are designed.

4.3.6 Horizontal fragmentation of competencies

Vertical fragmentation is not the only problem. Horizontal fragmentation can also reduce the economic potentialities of the actions undertaken in the heritage field, when policy aims contradict each other. This can be relevant to heritage because different competencies might be drawn in. Even when heritage decisions are taken at local level, coordination with other competencies is needed (e.g. those pertaining to transport and infrastructures, housing, tourism, education, local development, etc.). Moreover, not only public, but also private sector decisions are relevant. There might be serious difficulties in integrating public and private sector responsibilities, capacities, funding, etc, in the implementation process of heritage policies, especially if private investors' demands are not met and policy design gives

[37] Research by Martini (2001) reveals that in Italy 462 museums are directly managed and funded by the State as opposed to 34 in France, 22 in Spain, and 19 in the UK.
[38] According to the 'Heritage Risk Map', defined by the Ministry of Heritage, 51% of Italian monuments are located in 6,470 small towns (with less than 15,000 inhabitants).
[39] Further evidence is offered in Rizzo (2004).
[40] The share of regional and local expenditure is increasing, though with marked differences between regions.
[41] In such a case the vertical fragmentation occurs within the national administration responsible for heritage.
[42] *Soprintendenza* is the name for the Italian heritage authority, entitled of heritage conservation, which is the decentralized branch of central government.

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low priority to profit-generation.[43] Horizontal fragmentation may also occur when heritage is privately owned (individuals, non-profit and for profit organisations).

If coordination does not exist, it is difficult to guarantee a coordinated heritage supply for tourist purposes. For instance, this is what happens in Sicily, where a huge share of heritage is owned by the Church. The opening hours of churches and ecclesiastic museums are set according to Church authorities priorities, without a preliminary, though necessary, coordination with local authorities. This means that the heritage supply cannot be planned at the local level, and visitor demand might be left unsatisfied.

In a different context, the lack of coordination may arise whenever heritage is used as input for the economic development; for instance, the restoration of heritage, as well as the organization of an exhibition requires adequately-qualified human capital, as well as a wide range of specific professional services. Coordination is needed with the education and training supply, otherwise the demand, rather than being satisfied locally, will be met from outside, and benefits will not accrue to the interested area.

The occurrence of the above fragmentation issues varies according to the specific type of heritage, its spatial dimension – whether it has international or only local relevance – the characteristics of intervention – whether simple preservation or renovation for a new use – and, also the number of stakeholders involved. Fragmentation of responsibilities is a major problem for the design of coherent heritage policies and for their implementation, so that all their potentialities can be fully exploited. These problems are extremely severe in some cases, for instance in the actions undertaken on historical centres.

4.3.7 The case of historical centres

An example that clearly illustrates the effects of vertical and horizontal fragmentation and their consequent problems is the conservation of historic centres. Most of the issues raised before apply to this case, and are crucial in affecting the overall impact of heritage policies. Several buildings and public spaces, closely related because of their historic and/or artistic features, are involved. Many actors – public as well as private – with different objectives can play a role. Heritage authorities are entitled to set up prescriptions and, therefore, the combination of preservation and adaptation interventions to be carried out. As a consequence, they will impinge on local governments – interested in enhancing local identity and promoting economic development – and upon private investors – interested in using restored buildings for many purposes – with the risk of crowding out their intervention.

Regulation and other forms of public intervention (e.g. information, tax reduction, etc.) may not only influence the future impact of any intervention on heritage, but also people's appraisal of heritage (Greffe 2004). This is fundamental when the conservation of historical buildings drives a process of urban rehabilitation, based on a widespread appreciation of heritage by the community, which includes different types of social actors. The inflow of medium to high income residents and business interests, using the buildings for commercial purposes or as company headquarters, might allow the self-sustainability of the conservation process in the long-term. The rehabilitation of historic heritage can be finalized also to host the production of cultural events.

However, projects implying the regeneration of historic centres imply the risk of gentrification; hence, the effect may be positive on one part of the population (the newcomers) but negative for another (the poorest people, who are compelled to leave the area). The danger of losing traditional craftsmanship and workshops should not be undervalued either.

It is crucial to take this risk into account, or heritage projects risk becoming a source of social conflicts and exclusion, in contrast with the idea that heritage is a source of economic development and social cohesion. Equity issues would suggest some forms of public regulation in order to protect the right of the previous residents to stay after the renovation. In fact, horizontal coordination is needed, for instance with the authorities responsible for

[43] This is the likely outcome of a conservationist stance.

housing and social services policies. Once again, the proper definition of the decision-making process is crucial to attain the social and economic benefits that may be connected to heritage projects.

4.4 Conclusions

This paper has focused on the identification of some features of the decision-making process which can affect the potential social and economic impact of heritage projects. The conservation of heritage is a critical issue in many countries today and accountable institutional structures are crucial to address such a problem. The appropriate combination of policy instruments, the efficient allocation of functions between levels of government, and private sector participation are all matters that are influenced by good institutional design of the decision-making process. We have argued that the decision-making process plays an important role in affecting positively (or negatively) the potential social and economic impact of heritage projects, and this role should be taken into consideration in impact studies.

References

Benhamou, F. (1996) Is increased public spending for the conservation of historic monuments inevitable? The French case, *Journal of cultural economics* 20(2), 115-131.

Benhamou, F. (2003) Heritage, in Towse, R. (ed.) *A handbook of cultural economics*, Edward Elgar: Cheltenham, 255-292.

Casey, B., Dunlop, R., and Selwood, S. (1996) Culture as community? *The economics of the arts and built heritage in the UK*, Policy Studies Institute: London.

Council of Europe, (2001) *Cultural policies in Europe: a compendium of basic facts and trends*, www.culturalpolicies.net

Delgado, E. (2001) *Towards urban and community cultural indicators*, Paper presented at Convergence, creative industries and civil society – the new cultural policy conference held in Nottingham, 26-29 September 2001.

Greffe, X. (2004) Is heritage an asset or a liability? *Journal of cultural heritage* 5, 301-309.

Guerzoni, G. (1997) Cultural heritage and preservation policies: notes on the history of the Italian case, in Hutter, M. and Rizzo, R. (eds.) *Economic perspectives on cultural heritage*, MacMillan: Basingstoke, 107-132.

Herrero Prieto, L. C., Sanz Lara, J. A. and Devesa Fernádez, M. (2004) Economic impact of cultural macrofestivals using input-output multipliers, Paper presented at the XXIX Simposio de Análisis Económico, Pamplona 16-18 December.

Johnson, P. and Thomas, B. (2000) *The economic impact of museums – a critique*, University of Durham Business School: Mimeo.

Klamer, A. and Zuidhof, P. W. (1999) The values of cultural heritage: merging economic and cultural appraisals, in *Economics and heritage conservation*: *report on a meeting organized by the Getty Conservation Institute, December 1998*, The Getty Conservation Institute: Los Angeles.

Madden, C. (2001) Using 'economic' impact studies in arts and cultural advocacy: a cautionary note, Media International Australia incorporating Culture and Policy, 98, February, 161-178, www.fuel4arts.com/content/files/ACF5A4E.pdf.

Martini, A. (2001), *Musei autonomi contro le mostre acchiappaturisti*, Il giornale dell'arte.com.

Mignosa, A. and Rizzo, R. (2004) Heritage and information, in Cain, K., Chrysanthou, Y., Niccolucci, F., Pletinckx and Silberman, N. (eds.) *Interdisciplinarity or the best of both worlds*

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– *the grand challenge for cultural heritage informatics in the 21st century*, Selected papers from VAST 2004, Archaeoligua: Budapest.

Myerscough, J. (1998) *The economic importance of the arts in Great Britain*, Policy Studies Institute: London.

Netzer, D. (1998) International aspects of heritage policies, in Peacock A. (ed.), *Does the past have a future? The political economy of heritage*, IEA, 135-154.

Peacock, A. (1997) A future for the past: the political economy of heritage, in Towse, R. (ed.), *Cultural economics: the arts, the heritage and the media industries* 1, Edward Elgar: Cheltenham, 189-243.

Pignataro, G. and Rizzo, I. (1997) The political economy of rehabilitation: the case of the Benedettini monastery, in Hutter, M. and Rizzo, R. (eds.), *Economic perspectives of cultural heritage*, MacMillan: Basingstoke, 91-106.

Reeves, M. (2002) *Measuring the economic and social impact of the arts: a review*, Arts Council of England.

Rizzo, I. (2002) Heritage Conservation: the Role of Heritage Authorities, in Rizzo, I. and Towse, R. (eds.) The economics of the heritage: a study in the political economy of culture in Sicily, Elgar, 31-47.

Rizzo, R. (2004) The Relationship between Regional and National Policies in the Arts, in Ginsburgh, V. (ed.), Economics of the arts and culture. Invited Papers of the 12th Biennial Conference, North-Holland, 203-219.

Seaman, B. (1997) Arts impact studies: a fashionable excess, in Towse, R. (ed.), *Cultural economics: the arts, the heritage and the media industries*, Edward Elgar, Cheltenham.

Seaman, B. (2003) Economic impact of the arts, in Towse, R. (ed.) *A handbook of cultural economics*, Edward Elgar, Cheltenham, 224-231.

Throsby, D. (1994) The production and consumption of the arts: a view of cultural economics, *Journal of economic literature* 32, 1-29.

Throsby, D. (1997) Seven questions in the economics of cultural heritage, in Hutter, M. and Rizzo, R. (eds.), *Economic perspectives of cultural heritage*, MacMillan: Basingstoke, 13-30.

UNESCO (1972) Convention for the protection of the world cultural and natural heritage.

World Bank (1994) *Cultural heritage in environmental assessment*, EA sourcebook update, No. 8. http://siteresources.worldbank.org/INTSAFEPOL/1142947-1116497775013/20507410/Update8CulturalHeritageInEASeptember1994.pdf

Yuksel, F., Bramwell, B. and Yuksell, A. (1999) Stakeholder interviews and tourism planning at Pamukkale, Turkey, *Tourism management* 20, 351-360.

5 Socio-cultural aspects of cultural tourism

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One of the challenges for public investment in cultural heritage is to provide evidence of value for money: an aspect of the notion of public accountability and transparency. This is relatively straightforward for major infrastructure projects such as roads and bridges, but much more difficult when dealing with intangibles such as the improvement to general wellbeing, quality-of-life and social cohesion. Such ephemera cannot be measured by input-output models. This paper forwards some tentative suggestions for methodologies that could be used to evaluate the social impact of cultural heritage sites.

5.1 Social identities, globalization and the cultural politics of tourism

The potent mix of politics, culture, and questions of social identity raises important issues for cultural heritage and its growing significance within the shifting patterns of an increasingly mobile Europe. If we accept the premise that tourism is a form of mobility framed by sets of cultural, economic, and political phenomena, its meanings and applications loaded with ambiguities and uncertainties (Franklin and Crang 2001), then we also have to accept that the rapid growth of the Internet, multi-media and digital interpretation has exposed tourists and host communities to a bewildering array of images, interpretations, and histories.

Such matters cannot be simply dismissed in neo-Marxist fashion as the manipulative determinacy of the market produced by those in power. It would be a caricature to imagine the co-presence of place, space, tourists, and residents being occupied only by passive consumers and a congenial, compliant local population. Cultural heritage is simply too important and valuable to be dismissed in this manner. As a multi-layered, complex global phenomenon, tourism deserves a more nuanced analysis than the familiar binary divisions ('left-right', 'good-bad', 'right-wrong', and indeed 'hosts-guests') can provide.

However, while a plethora of social scientists have spent decades dealing with social issues of tourism, there is very little evidence to suggest that cultural sustainability in the form of harmonious relationships between host communities, especially in poorer regions, tourists, and the supplying tourism business sectors has gained the same level of importance as the physical environment.

Within this context, underpinned by the fact that leisure mobility and cultural consumption does not simply 'impact' upon ossified local cultural heritage but interweaves them into the changing global situation, four themes emerge that could frame the discussion on the critical issues of tourism and cultural heritage (see Figure 1).

The four aspects shown in Figure 1 represent a focus for thinking about the broad range of issues to be dealt with in analyzing the relationship between cultural heritage and tourism. Just by way of a further introduction, Figure 2 shows a scenario for the way in which culture, mobility, and business might come together to form a new paradigm for tourism. In this paradigm tourism acts as a mediator between cultural heritage and 'cultural industries' coming together as an expression of co-presence and mobilities which contribute (somewhat tentatively) towards an emerging 'experience economy' (Pine and Gilmore 1999) as a new form of tourism. At the juncture of tourism and culture (Figure 2, left) constituents blend together to act as a reminder as to the components of cultural heritage. On the right hand side, a variety of commercial media, events, and experiences form the 'cultural industries' – in this case being defined as 'those institutions' (profit and non-profit) being 'directly involved in the production of social meaning' (Hesmondhalgh 2002: 11).

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Element	Description	Substantive implications
Cultural politics	Where culture becomes political as increased competition among travel firms forces them to seek more undiscovered destinations, or to reinvent existing destinations (Hall 1998) and their populations according to the latest market intelligence reports on consumer trends.	• Representation of local cultures is a political act. • Localization and globalization are inseparable. • The cultural narratives of destinations are ambivalent and cannot exist without reference to tourism. • Multiple relationships mean multiple narratives. Inevitably some will be stronger than others.
Social identities	Perceptions of race, nation, and ethnicity can engender a simplistic view of 'Other' (Said 1978) creating a global problem of new forms of discrimination, racism, and exclusion when juxtaposed with the commercially constructed identities used in the travel industry, and the social realities of local peoples at the destination.	• Social identity is a global 'project' that has some parallel to appropriation of 'Other'. • Difference is synchronously emphasized (as toured 'Other') and homogenized (as local culture is drawn into networks of global social behaviours and consumption patterns). • Tourism can be expressed as a series of superficial encounters resulting from a desire on the tourists' side for self-actualization and for economic opportunity on the receiving side.
Contested cultures	As the private and local, backstage space sought after by tourists in their search for the authentic is violated by their presence (Boissevain 1996). And, contested in the sense that local people may comprise groups or minorities who disagree with tourism or feel excluded from the identity on display (Richter 2001).	• There is a collision between local realities (expressed through social and economic ambitions) and globally-driven capitalism. • The collusion between the state and the tourism sector can construct social identities that exclude minorities considered inappropriate to the image of tourism at particular destinations. • Histories of sending and receiving populations become intertwined and fused.
Mediated culture	Culture becomes mediated as locals, academics, planners, and managers seek solutions to some of these problems especially in the context of transforming political economies and post-modern and post-colonial conditions cultures (Higgins-Desbiolles 2003).	• The mediation of culture need not necessarily lead to homogenization (the 'end of history' approach) but rather hybridization (whereby cultures learn and adapt from each other). • Tourism can be read as a historically produced discourse. • The challenge of mediating culture for global tourism lies in finding appropriate responses to the shift away from state capitalist structures (seen in many developing countries) to an ambivalent, borderless culture of corporate capitalism.

Figure 1: Critical issues for analysing cultural heritage

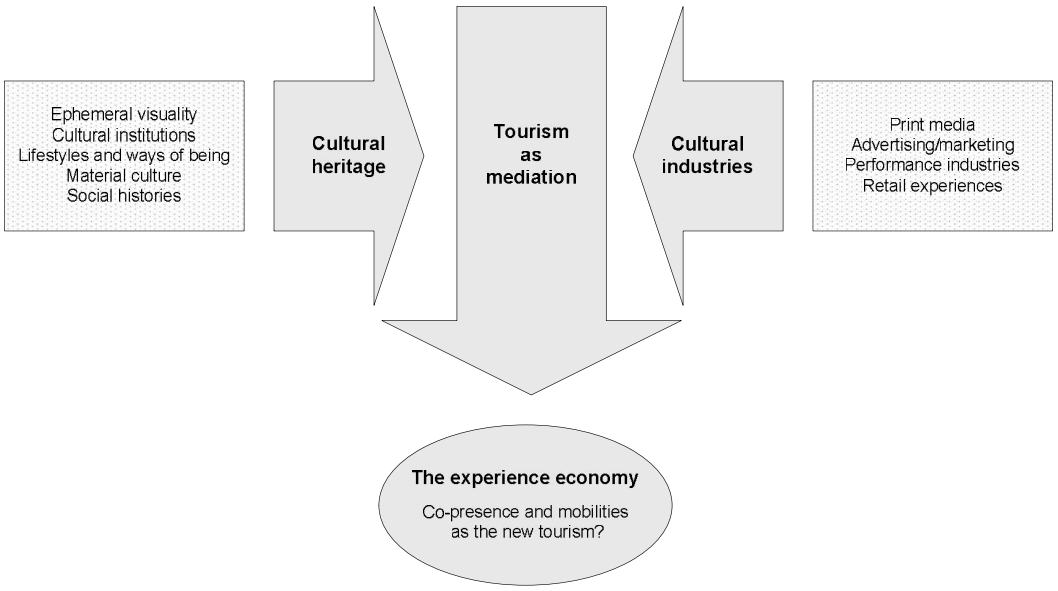

Figure 2: The future shape for tourism?

5.1.1 Four elements in summary

Cultural politics: framing the narratives

Cultural politics happen at the intersection between culture, heritage, and power, the space where civil society meets the body politic. Culture, heritage, power, and politics are not simply inseparable, but are elements of the same amorphous whole that form societies and identities. For societies with contested or multiple identities, cultural politics will also refer to the ways in which power relations and systems of production frame and maintain the various layers of culture. This approach suggests that it is possible to examine tourism not as a true 'object' that science progressively uncovers, but as an historically produced discourse (Torgovnick 1990) present as the global meshes with and locks into the local, the local-global nexus as Burns (2001), among others, has termed it.

Social identities: *moments of tourism*

The idea of building a social identity in a post-modern world of co-presence and fluid mobility without 'abutting it against the identity of others' (Lanfant *et al*. 1995: 7) is an impossibility. Issues of representation and commoditization create fundamental problems for tourism. Representation (in a metaphoric sense) without consultation is a phrase normally associated with politics, but for tourism there are an vast number of cases where representation (in the literal, visual sense) of the 'Other', as harmless, decorative background material to visual travelogues or advertisements (Dann 1988) can take place as a sort of cultural appropriation without reciprocal benefit or understanding (Crick 1996, Franklin 2003). The role of commoditization and social identity in tourism has been extensively discussed (Franklin 2003 and Greenwood 1989) and many commentators agree that cultural reproduction at a local level for global markets emphasizes shallow and fleeting 'moments of tourism', where exchange is based on money for vulgarized culture. However, such negative interpretations have to be balanced against the possibility for the nexus of culture and tourism as a form of identity boosterism that can lead people to rediscover or reinforce identity through engagement with tourism and cultural heritage (Stanton 1989, Bricker 2001).

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Contested cultures: collision, collusion, and the fusing of histories

If it is argued that culture (and nostalgia) can be appropriated as a resource by the tourism sector, tourism needs to be understood in terms of contested cultures, created by:

- the collision of local realities and globally-driven commercialism, and
- the collusion between state and the tourism sector to construct social identities and to fuse (and perhaps, muddle) histories.

For a prime example of this we need look no further than Jerusalem where culture has been contested by three major religions (Christian, Jewish, and Islam) that have engaged in violent resistance and contestation for the past millennia. This example is not as extreme as might at first be thought. In modern times, each of the faiths has blurred the distinction between religious pilgrim and secular tourist to create a tourist infrastructure that, in effect, seeks to legitimate their respective moral authority over the Holy City. Tourists become pawns in a cultural-political chess game (Aziz 1995, Wahab 1996). What remains within the contested cultural borders of social identities, which are central to the notion of the cultural politics of tourism, is the question of how local identity is compromised in the face of tourism promotion (whether from inside or outside of national boundaries); a question that leaves us with a major paradox: the assumption that minority (or poor) cultural groups are vulnerable, a generalization that does not always stand up to close examination.

Mediated culture: the local-global nexus?

Dean MacCannell has argued that the 'empty meeting grounds' of tourism (1992) have not only supplied new conditions for the appropriation and conversion of tangible objects and intangible elements of culture into commodities, but that tourism is a post-modern, organic system that provides no alternative to itself. It almost becomes a synonym for Fukuyama's 'End of History' (1992) as cultures come together forming a bland, homogenized whole. But in a sense, this does not account for the ways in which culture is mediated by diverse agencies including the individual. The resulting mediated culture and meanings inform, but are constantly changing and reconfiguring. Thus, far from the claims of the end of culture that can be inferred from the writings of Greenwood (1989), MacCannell (1992), and Selwyn (1996), Wood's (1993) analysis of culture and tourism, which relies on identifying and understanding systems, argues that:

> "The central questions to be asked are about process, and about the complex ways tourism enters and becomes part of an already on-going process of symbolic meaning and appropriation" (Wood 1993: 66).

5.1.2 Critical issues: substantive implications

The present contribution has attempted to strike a balance between the anti-globalization, anti-change perspective and the other side of that particular coin which seems to view unfettered markets as a particular salvation.

The critical issues arising then can all be found in the overarching problem: the approach to research on this topic. There is still a rift between academics (in the field of social sciences) who still tend to view tourism with suspicion and the industry (and academics in marketing, management, and economics) who see tourism either simply as business or as panacea. We can perhaps even add museum curators who are being pressured to produce viable business models whilst maintaining cultural integrity of the communities they represent. Both sides, from time to time get in wrong on local cultures, either from a patronizing 'stop the world' perspective or from a simplistic 'markets rule' point of view that fails to allow for the complexities and the need to develop beneficial relationships to underpin socially responsible attitudes towards commerce.

Any analysis of tourism must take account of the structures that frame the relationships between nation-states and global markets. Susan Strange (1988), in the context of her work on the International Political Economy, identified these structures as: security; production, finance, and knowledge. In all of this, the key question is, as Strange asks, *cui bono*? – who benefits? Balaam and Veseth (1996: 101) describe why this seemingly simple question is fundamental:

> "Asking this question forces us to go beyond description to analysis. To identify not only the structure and how it works, but [also] its relationship to other structures and their role in the international political economy [an understanding which] therefore becomes a matter of holding in your mind a set of complex relationships and considering their collective implications."

The idea of 'collective implications' is one that holds great resonance for tourism and is one to be borne in mind when considering the cultural politics of tourism taking into account tourism's role in development and in fostering the rights and aspirations of the local communities. Tourism has a role in the legitimization and affirmation of cultures through principles of beneficial relationships, autonomy, and self-determination. Tourism strategies can positively contribute to civic pride and positive social identities by helping develop decision-making capacity, creativity, solidarity, pride in their traditions, and rightful attachment to their place, space, and identity.

5.1.3 Tourism, culture and the local-global nexus

While presentations of cultural heritage must necessarily dwell on past histories, they should also articulate a vision of both the present and a possible future based on inclusive ('collective' being a little far-fetched) aspirations.

Cultural heritage is both fragmented and ephemeral. This paper has forwarded a view of co-presence and leisure mobilities as a complex construction constituting of a mediation between cultural heritage and societies. Despite their precariousness, the confluences between cultural politics, social identities, contested culture and mediated culture constitute an alternative analytical framework for discussions on the future sustainability of tourism and cultural heritage in the broadest context.

The approach to tourism analysis from the perspective of cultural heritage constructions in a locality can be seen in terms of the defence of local modes of production and traditions as articulated by many social scientists. From the perspective of government institutions, there is room and the need for creative thinking and policy-making alternatives that create frameworks for beneficial interaction with the 'rest of the world.' From the tourism industry perspective, it is time for them to take on the challenge of working with a far greater range of social actors at the destinations they do business with, from social movements to progressive academics and international/local NGOs.

While the gap between academic and industry remains, the spaces of encounter and debate are increasing and ways for academics, business-people, NGOs, local people, and their representatives in government to reflect on, and support alternative frameworks for tourism development that are emerging rather than wait for a universal theoretical solution (a meta-narrative) to the problems arising from the cultural politics of tourism that clearly acknowledge the need to stop thinking about and indeed interpreting cultural heritage as though it were stuck in time and space.

Having set out some of the theoretical ideas underpinning the relationships between cultural heritage and tourism, the next section attempts to assess the problem areas (see Figure 3) so as to set the stage for the overview of a range of investigative methodologies.

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5.2 Scoping/problematising the issues

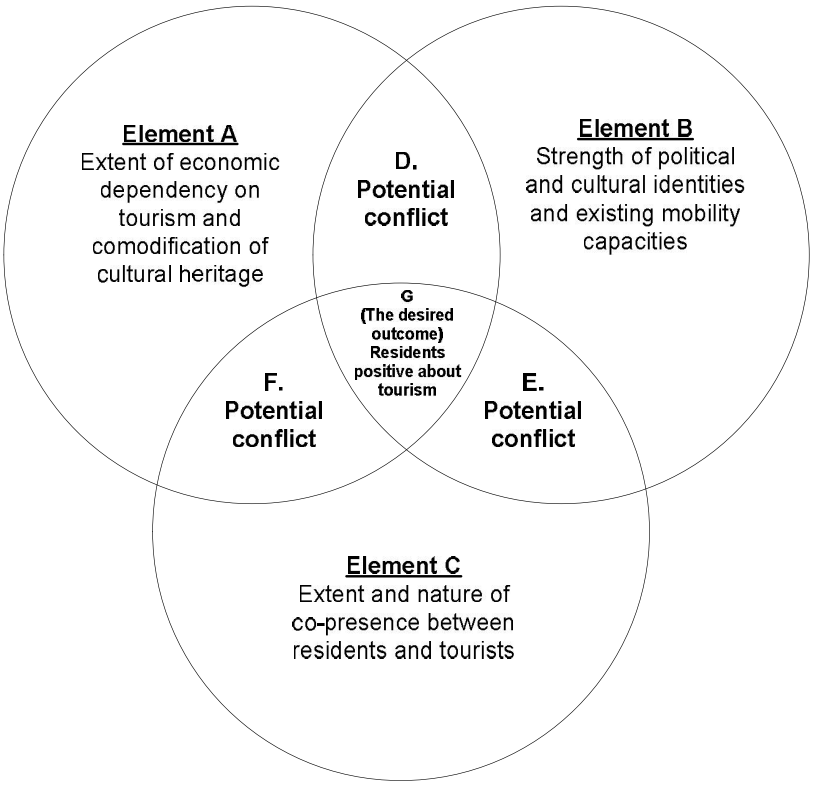

Figure 3: Cultural heritage, co-presence and potential conflict

Figure 3 is comprised of three principal elements:

- *Element A*: The extent of economic and employment dependency on tourism in a locale and the extent to which this dependency 'forces' reliance on the 'packaging' of culture and history for tourists. The opposite situation is a relatively wealthy population choosing freely to present elements of their past as a kind of public information/education act.
- *Element B*: The overall strength and belief in political and cultural identities (especially conservative versus liberal views and knowledge of tourism), the existing extent of population mobility including tourist experiences.
- *Element C*: Extent of and attitudes towards co-presence whereby residents sharing space with tourists may lead to potential competition for leisure resources and the extent to which people have virtual exposure to other worlds, attitudes, and ideas.

Where the three main elements overlap (parts 'D', 'E', and 'F') potential for conflict exists. These potential conflicts are not inevitable and simply highlight the areas to focus on when considering the socio-cultural impacts of the commercial exploitation of cultural heritage. If the areas noted above are properly addressed and managed then desired outcome 'G' (*the residents are positive about tourism*) is reached. Note the use of the word 'positive' rather than its alternative 'accept', which does not imply a positive socio-cultural environment and could indicate passive resentment.

With the background material on the relationship between cultural heritage and tourism being contextualised and problematised by the foregoing, we now turn to an overview of possible methodologies that could be used on site (fieldwork) for examining the socio-cultural impacts of the commercial exploitation of cultural heritage.

Tourism and community analysis: the questions

Using the general model shown in Figure 3 as a starting point, this section briefly overviews some of the pertinent questions that may be asked of a community regarding the interaction or relationship between itself and cultural heritage. However, before starting this task some caveats are in order:

- Each community, its power structures and relationships are unique – which is why the theoretical underpinnings must be understood.
- The notion of community carries all sorts of connotations and myths the most powerful one being that 'communities' are homogenous entities that can easily be identified and interrogated.
- The research outcomes can be prejudiced by poorly produced questions – especially (as is stated elsewhere in this paper) where the questions arise, decontextualised, from the researcher rather than from the context of the range of community concerns.

Do you generally support the presence of tourists?*[44]
Has your quality of life been made better by tourism presence?
Are the numbers of tourists visiting [here] about right?
Do you see a difference between you and the type of tourists visiting?
Have job opportunities increased?
Have your language skills increased?
Do you have a better understanding of the world outside [of here]?
Has your standard of living improved?
Has transport and other infrastructure improved?
Does the presence of tourists present opportunities for meeting new people?
Has your understanding of your cultural heritage improved through the attention given to it by tourists?
Have local/regional facilities improved because of tourists?
Have property prices changes because of tourists?
Has your cultural identity changed because of tourism?*
Are historic sites and buildings better cared for because of tourism?*
Has public safety and security changed?
Have societal 'morals' changed?*
Have you materially gained because of tourism?*
Is there greater mutual confidence among people?*

Figure 4: Potential questions to provide benchmarking and baseline data

With these caveats in mind, the following list is an attempt to describe the type of questions that could be asked of a community regarding the socio-cultural impacts of specific types of cultural heritage tourism:

- Size, nature and demographic profile of the host population
- The extent of mobility within various sectors of that population, and
- Emic descriptions of tourism and cultural heritage (self-perceptions to some extent).

[44] Clearly none of the above questions are in their finished format and especially those marked with an asterisk.

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A questionnaire (to provide baseline, benchmarking data) would have the basic questions about the perceptions of tourism seen in Figure 4 but would have to be thoroughly contextualised at each site with questions that exactly match expressed concerns of residents.

5.3 Potential methodologies: an overview

5.3.1 Group/grid method

Given the relational complexities between the eclectic modes of mobility that characterises tourism and the societies/communities in which it takes place the need for constantly testing novel approaches to analysing these impacts and relationships is self evident. One approach, developed by the British anthropologist Mary Douglas (1987), is grid/group analysis. Originally designed to help fieldwork in non-industrialised societies, it is now most closely associated with organisational culture. The model is simple to understand, seems to be intuitive and yet is sophisticated enough to allow for the idea that 'communities' are not necessarily homogenous and that there will be conflicting interests. The model also allows for multiple empirical sources.

The model explained

The model attempts to particularise relational modalities of individual behaviours, attitudes, perceptions, and belief systems that are informed, shaped, and controlled by regulating factors that can be framed by a matrix with horizontal and vertical coordinates, 'group commitment', and 'grid control'.

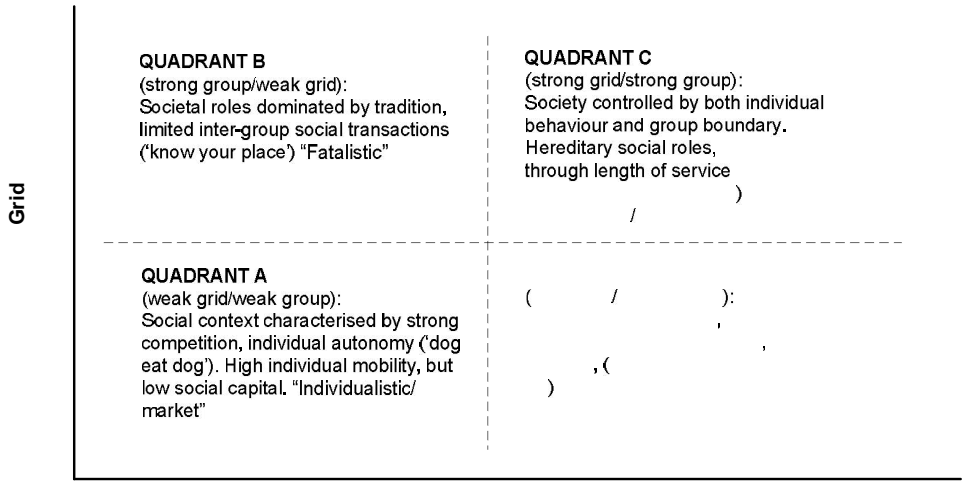

Figure 5: Group/Grid Model

- *Group*: All societies, to different extents, have their lives driven by or restricted by their commitment to a social unit larger than the individual. If people attach great importance to interacting with other members of their unit and consider it 'right' and important, then such a situation can be described as *high group strength* (e.g. academics belonging to a virtual network, or the social interactions in a traditional tribal village in a non-industrial society). Conversely, an emphasis on 'freedom' and 'individual rights' may indicate that interaction (networking) becomes optional, rather than the norm. Organisational anthropologist Gerry Mars (*pers. comm.*) cites four aspects of group strength. These are; frequency, degree of mutuality, and scope of interpersonal interactions, and the group's boundary tightness (inclusion/exclusion). A situation where people negotiate their own

predetermined end state and the contemporary goals of the process can be multiple and variable. Thus heritage can further development: but don't count on it.

	Preservation	Heritage
Goals	Preserving the preservable	Contemporary uses
Selection criteria	Intrinsic	Extrinsic
Resources	Limited and exhaustible	Infinite and ubiquitous
Determined by	Experts	Users

Figure 1: Some elements of the preservation and heritage paradigms (modified from Ashworth 1997).

6.3 The even better news

It is worth labouring the implications of this difference in paradigm if only because heritage development is frequently confronted by objections and misgivings based upon a preservation approach that just has no point of logical contact with a heritage approach. The result is discussion and argument that cannot be resolved because they cannot connect with each other. All this is good news for those seeking to exploit heritage as a development strategy whether in itself or in support of other elements. In fact the implications of this argument promise even better news.

If heritage is a demand-derived set of contemporary uses constructed as required then the resources of which it is composed have no limits other than the limits of the human imagination. There can be no question of resource shortage or depletion: the resource is ubiquitous and can be created according to the demand for it. Over-use, let alone resource exhaustion, can only be a temporary consequence of bad management capable of being solved by good practice.

Equally if there is no immutable resource endowment then no particular policy is inevitable and no place is locked into any particular pre-set heritage. Heritage development is thus an option that can be pursued or rejected; it is not compulsory, whereas preservation contains external imperatives, some concepts of eternal and universal value, which cannot be rejected. Similarly the authenticity of the object is a central shibboleth in preservation but has no sensible meaning in heritage. In heritage the only authenticity is that of the user experience. The latter unlike the former is a highly manageable condition. The flexibility of heritage resources is thus quite remarkable allowing almost any heritage product to be created or differentiated at any time for any purpose.

Take the well-known Venice crisis. The lagoon city of Venice has long struggled with a perceived mismatch of what is regarded as a limited supply of heritage tourism sites and space and increasing demands for these. That this mismatch is to a large extent unreal, as much of the supply remains unused much of the time and is anyway capable of considerable extension, is not the point. The managers of Venice have for some time been reacting to this perceived over-use by controlling demand, rendered a practical possibility by the limited access to the lagoon city (Van der Borg 1998, Graham *et al*. 2000). Users are routinely prioritised on the grounds of the moral worth of their use ('real' art connoisseurs above mere curious tourists) or their economic return (those staying in hotels in the lagoon as opposed to day excursionists). The alternative strategy based on a heritage paradigm would be to expand the product by developing 'new Venices' using either the largely unused areas in the existing lagoon islands, some of which are almost empty or duplicating the Venice product in the numerous sites around the Adriatic.

6.4 The less good news

Given the list of inherent characteristics of heritage beneficial to development as argued above, the discussion could terminate here with the simple idea that heritage is an ideal development option whose benefits, of whatever sort, will accrue more or less inevitably and the only determining variable is management. However, and there is always a 'however', don't count on it. It is not so simple and there are a number of intrinsic elements and conditions of heritage that at the very least complicate its use as a development option.

6.4.1 Multiuse

The first stems from the very multifaceted nature of heritage itself. Because it can serve many purposes, it generally does. It is therefore unlikely that the utilisation of heritage for local development is the only, or even the major, use of any given set of heritage resources. The almost inevitable consequence is the multi-use of the same resources, even at the same location; the multi-consumption of diverse heritages by different consumers for different purposes; and the polyvocality of the messages being conveyed and received. The reason why this matters is that the development claim upon heritage is likely to have to compete with other claims. Potential conflicts are usually managed by the responsible agencies through prioritisation. Not only can it not be assumed that development will be accorded priority, it is most likely, given the preservationist approach and political purpose of most national government agencies, that aesthetic, cultural and political claims will be placed higher in priority, with development being a marginal addition, tolerated for so far as it does not impinge upon other, more valued, uses. In addition not only will development options be disadvantaged, it is frequently assumed, for reasons rarely stated, that the local community should be given priority over 'outsiders'. There are strong arguments that the heritage of residents and that of tourists is likely to be different. This being the case, conflicts about which of these heritages should be stressed will almost always be decided in favour of the local, usually on grounds of spurious authenticity, depth or quality of meaning. Heritage development for a tourism market will be scrutinised for any perceived damage to, or crowding out of, the local with consequent application of restrictions on tourism if this appears to be the case.

Take the well-known and documented case of Stonehenge (Chippendale 1990). Its unusual structure, its spectacular setting, its unknown and thus creatively imagined purposes, its associations with mystic mythologies, together with such more mundane factors such as its location in South East England and easy road accessibility, all render it one of the potentially most profitable commodifiable prehistoric artefacts in the world. However to release these values it needs better product presentation and packaging, including replacing fallen and missing stones; the addition of tourism catering, accommodation and other service facilities; available imaginative mass interpretation media of various types; a general product enhancement with numerous profitable peripherals; and probably selective duplication of part or all of the monument to upgrade its capacity. None of these quite sensible and largely routine methods of utilising the resource for tourism has occurred. To the contrary, visitors are either denied these possibilities altogether or are allowed only a modicum of facilities within severe restrictions. Even the experience of the site is bound by numerous regulations, exhortations and prohibitions. This heritage clearly does not belong to the barely tolerated visitor nor is intended to aid the development of tourism. English Heritage, the managers of the site, assume responsibility for the prioritisation of quite different purposes with a strong preservation approach, educational purpose and bequest motive (although who it is being preserved for, who should be educated in what or who it should be bequeathed to is understated). Equally although this is a World Heritage Site and thus of 'outstanding universal value to all mankind', it is a national government and its agencies that has assumed responsibility which it exercises with all the power of national law enforcement. Others who claim that it is their heritage, (whether latter day druids, new age travellers, witches, Venutians, Rosicrucians, or just individuals who feel that) are summarily dispossessed or

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grudgingly tolerated within defined limits. Stonehenge, as any heritage site, has numerous purposes, claimants, owners, and users and someone, on some bases, will make choices about what and who is permitted and tourism will rarely be assigned priority.

6.5 Costs and benefits

The second piece of unwelcome news is that the use of heritage in local development generally costs more and delivers less than might be expected. The paradox is that heritage has many of the characteristics of a zero-price freely accessible public good. In many ways it is. For the tourist visiting the morphological forms of the city or the resident consuming the historic commemorations and associations of public history, the resource is consumed without direct cost. However, heritage from the position of the producer, or indeed the place, is not free. To the costs of selection, maintenance, accommodating collections, promotion, interpretation, marketing and consumer site-management, must be added the opportunity costs of development options foregone. Heritage may be an instrument for some types of development but it also inevitably imposes restrictions, reflected in costs, upon many other types of development. Self-conscious heritage places are high-cost locations for many essential if mundane services, and prohibitive to many other development possibilities. Such costs will be paid at least in part by local communities, whether or not they are the beneficiaries of the heritage development.

Equally the demand side is likely to deliver lower local benefits than might be expected. This is partly that benefits and costs are likely to be unevenly distributed between sectors and spatial scales: the benefits accruing to often non-local tourism enterprises while the costs are frequently specifically local and accrue often to those with no direct benefit. It is also partly that the benefits can be collective, immeasurable and vague being composed of such notions as self-esteem, local pride and consciousness, beneficial demonstration effects and the like. However even those measurable economic returns to heritage tourism suffer from two notable characteristics of heritage tourism consumption.

6.6 Consumption

First, consumption is highly selective. Tourists make use of a small part of the available heritage, in a limited number of places, leaving most heritage unconsumed. The large, unusual, spectacular, renowned, recognisable and accessible, will be favoured: the rest ignored. Even worse news than the high degree of selectivity, is that the selection is driven by changing trends and fickle fashions. The idea that heritage is the expression of timeless, universal, immutable value is a comforting error. All culture tends to be fashion driven and heritage is no exception. Thus what is today selected may be ignored tomorrow and *vice versa*. The response to this is rapid product line differentiation: in other words the heritage place needs to be constantly extending and changing its heritage product line.

Secondly tourists consume heritage very rapidly. Almost all heritage tourism sites experience short visitor stays as does most urban or place specific tourism. A large multifunctional city, with a thousand years of historical associations and cultural productivity and with a global show-case cultural function, may detain the visitor for two or three days. A single heritage site is unlikely to detain the visitor for more than a few hours at most and often no more than a few minutes (NHTV 1993). Stays can be extended by providing more heritage products and experiences or more ancillary tourism support facilities. Additional museums, heritage trails, demonstrations and events as well as more refreshment and tourist shopping possibilities may delay tourist departure but a saturation point for visitor time, spending and appetite is rapidly reached. Extending the visitor stay by diversifying the tourism product, may be for reasons already argued, likely to be difficult and may be opposed by the preservation lobby. Only overnight accommodation can effectively extend the tourist stay and this is generally lacking in small towns and may even be considered an undesirable disturbance to the historic atmosphere in heritage cities.

In addition the more unique and dramatic the heritage experience the less likely is the tourist to return. Much heritage tourism is collecting: to visit the Taj Mahal more than once does not extend the visitor's collection. The more unique the site the more difficult it will be to renew the product experience sufficiently to attract repeat visits.

Consider what could be called 'The Guggenheim effect', that is the deliberate use of a spectacular cultural signature structure to stimulate a wider economic effect through the creation of a broad-based cultural renaissance. Bilbao (since the building of Gehry's Guggenheim Museum) is the archetype but is now only one of thousands of such initiatives. The dramatic building and widespread publicity have led to an equally dramatic increase in foreign tourism visits and global name recognition: a situation which is likely to quickly peak and as quickly decline. However there is no evidence that a brief foreign tourism visit to a single cultural attraction has had any significant impact on local cultural networks or services or indeed upon the deep-seated economic malaise in heavy industry which was the origin of the problem that culture and heritage development was widely intended to solve.

The consequence of these intrinsic characteristics of the heritage tourism product is that historic sites and towns are rarely profitable tourism enterprises in themselves. Such tourism is profitable only as an ancillary contribution to other urban tourism or non-tourism activities or as one part of a wider heritage tourism experience. Networking, in some form or another, whereby packages are constructed and marketed which include different tourist services and different tourist experiences, usually in different spatial locations, is generally essential. The large multifunctional place with a wide variety of possible heritage products is likely to benefit more than the small mono-functional tourist-historic city; although the latter may have both a greater economic need and fewer development options.

6.7 Synergies

Heritage development is rarely effective unless embedded in many other local contexts. It will depend upon a positive synergetic relationship to the local economy, which has the capacity and capability of responding to the possibilities, as well as aspects of local society and governance which are preferably favourable but at least do not hinder the development. The designation of urban conservation areas has often been the trigger for a series of related heritage developments but don't count on it.

St. John's, Newfoundland, is one of the oldest cities in North America, with a history of settlement of about 400 years, many historical associations stemming from its gateway function between Britain and the New World and a notable compact unitary architectural style resulting from its rebuilding after fire in 1897. It is no surprise that the whole of the waterfront and central area became the first and largest conservation area designated in Canada in 1982. Much needed development, stemming in part from heritage tourism and in part from a renewed local consciousness of the unique role of St. John's in North American history, seemed bound to follow, powered by anticipated increases in property values, a socially and economically reinvigorated downtown, and new tourist commercial enterprises. This did not occur. A local authority, short of funds, failed to maintain or enhance the public realm, and short of local economic initiatives too readily accepted exogenous investment projects which breached the design guidelines for the waterfront. Local residents proved unwilling or unable to invest in the maintenance of their properties and consistently breached the conservation requirements on maintenance, in this case especially the installation of plastic rather than traditional wooden sidings, the building of external 'decks' and the failure to replace wooden shingles. It became clear that the conservation area was disregarded by both residents and municipality, the anticipated developments had just not occurred and it was effectively abandoned as policy in 1995 (Ashworth 2002).

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6.8 The really bad news

6.8.1 Heritage is dissonant

By definition all heritage disinherits and all heritage is dissonant to someone. That is it can evoke feelings ranging from vague disquiet through distress to a complete cognitive alienation and rejection (Ashworth and Tunbridge 1996). Generally this is of little consequence and may be regarded as merely an unfortunate and ignorable penumbra from a past that can easily be forgotten or glossed over. The lapse of time may blunt previous violence and horror and render it quaint and even romantic. The medieval castle is now marketed and experienced by most visitors in its nineteenth century Walter Scott and Viollet-le-Duc chivalrous reinvention. However, much heritage tourism interpretation is 'dark'. Dark or 'thanatourism' (Lennon and Foley 2000, Seaton 1996; 1999) recognises and tries to understand the attractions of horror, tragedy and suffering to people and thus its consumption for pleasure in heritage tourism. Violence and suffering are attractive characteristics of tourism products and heritage can only reflect humanity's sad history of continuous conflict, oppression and general unpleasantness. Many heritage structures and artefacts are attractive not in spite of their dark associations but because of them. The producers of the heritage tourism product may react by denial and claim they do no more than relate 'the facts of history' or display the architectural or technical ingenuity of previous ages. They may even claim to be fulfilling an educational role, using an imperfect past to teach various commendable lessons for a perfect future through 'edutainment'. Both reactions are usually spurious, as witness the countless 'chambers of horrors', 'tours through the dungeons', 'murder trails' and the like. We are all, as Dann (2005) has recently reminded us, 'children of the dark'.

Do we need reminding that more heritage is ignored, concealed or destroyed than is recognised, preserved and promoted? This is simply because all heritage is offensive to someone. The deliberate destruction of the Buddha's of Bamyan by the Taliban was greeted by shocked howls of cultural cleansing by the self-appointed custodians of world heritage (Ashworth and van der Aa, 2003). We, in the civilised caring west, deliberately destroyed, for precisely the same ideological reasons, two-thirds of all our pre-reformation art and relics in the sixteenth century. In my lifetime we have systematically obliterated the heritage of National Socialist Germany and its leaders, the churches and graveyards of Moslems, Catholics and Orthodox in disintegrating Yugoslavia, the archaeological record of non-Zionist settlement in Palestine, the mosque at Ayodhya and much besides, merely because someone found it contrary to their current moral or political stances. Wartime 'collateral damage', economic greed and just indifference have made a smaller contribution.

The point is just that heritage is not a universal public benefit that automatically accrues to everyone and anyone. Any use of heritage opens up a potential Pandora's Box of particular and often unanticipated reactions, all of which require recognition and sensitive management.

6.8.2 Individual and collective

All heritage is essentially individual. Each individual creates their known heritage for their own self-identification and positioning. Collective memory does not exist as a psychological condition. No one has two memories, one labelled individual and the other collective; we have only individual personal memories and thus heritages. This statement may seem in fundamental contradiction with the actual management of heritage, let alone the whole purpose of this argument, which is assuming the creation of collective heritages for development purposes. It is not. Collective memory like collective heritage is a metaphor for attempts outside the individual to add to or modify the individual's identification with ideas, places or other people.

The relevance here of this fundamental point is simple. You cannot sell your heritage to anyone else: it is just irrelevant to them. This seems to negate the whole enterprise of heritage tourism, which is demonstrably flourishing. What is actually happening is that people are

consuming their own heritage, in practice the new heritage experiences that can be incorporated into their already existing personal psychological constructs. That which can be incorporated is consumed; that which cannot will be ignored. Therefore in constructing the heritage package for sale on tourism markets the relevant question will always be not, 'what of our wonderful heritage can be sold to someone somehow' but, 'whose existing heritage can incorporate what we have to offer?'.

6.9 Competition

The good news mentioned at the beginning of this argument is so attractive that it has not gone unnoticed. If every place on earth has a history and every people a culture then heritage resources are in theory ubiquitous. Anywhere could attempt development through heritage. In addition start-up costs are generally low, at least compared with many other industrial enterprises and little specialist knowledge is required. It is not surprising therefore that many places resort to development strategies based upon heritage. It is also not surprising that most of them fail.

The demand for heritage products and experiences is arguably rising; so also however, and less arguably, is the supply of places providing them. The competition in this field will be fierce. In addition heritage is often a last resort development, attempted when all other options are impossible or have already failed. Desperation, and proven weakness, are not auspicious conditions. Finally, as argued earlier, heritage is a highly fashion driven activity. It will not be enough to succeed with some initiative against all the competition and capture a specific market. The demands of a rapidly changing market must constantly be met, trends correctly anticipated and products differentiated, if success is to be maintained.

Consider some among the many places that have made the strategic decision to base future development upon some aspect of their heritage, broadly defined. Economic crisis provokes the need. Oberammergau, Bavaria, faced the long-term decline in its climatically marginal agriculture and possible abandonment; Chemainus, British Columbia was confronted in the 1980s with the abandonment of the lumber industry for which the town was founded: Stratford, Ontario faced the closure of the CNR locomotive repair depot, its largest employer, in 1953. Heritage as the basis of a cultural industry as replacement leading sector was the only possibility in all three cases. Oberammergau publicised internationally its traditional and since 1633 entirely local 'passion play'. Chemainus commissioned between 1982 and 1991 a series of enormous wall murals depicting the town's history and people. Stratford traded upon a name association with Stratford England and initiated a Shakespeare festival in 1953. All have been spectacularly successful and all are now major cultural tourism destinations and have tourism as their leading economic sector. Oberammergau is probably the best-known Alpine village in the world with over 100 wood carvers centred on the Pilatenhaus craft centre. Chemainus is firmly on the touring circuit of Vancouver Island. Stratford now hosts the largest Shakespeare festival in North America (with 670,000 visitors in 2002) and the second largest in the world after its English namesake.

If success came so completely and seemingly easily then others follow the same path. Many have and almost all have failed. The characteristics of success seem to be a community determination based upon a serious crisis and a lack of any other alternative solution to it; very skilful local initiatives often relating to a few talented individuals; and, the probably critical factor, extreme luck in the time and place of the initiative. In all cases the moment was propitious, the location was correct and the development was the first in the field. There are numerous Alpine villages, abandoned lumber towns and towns struggling with the consequences of factory closure: none are likely to succeed by being the second to offer a passion play, a town of murals or a Shakespeare festival.

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6.10 Don't shoot the messenger

The original assertion of this essay, that heritage can be, and has been, used as an instrument of local economic development, is correct and not in dispute here. What is questioned is the idea that this will necessarily occur or is even on balance likely to occur. It is not: there is no windfall gain to be reaped. There are many success stories that are widely publicised: there are even more failures and these, for obvious reasons, are not. There is no universal model for the attainment of success or the avoidance of failure. Too much depends upon the specific conditions of time and place. There are lessons to be learned from passed practice but they are not the lesson of imitation.

It can be done but don't count on it.

References

Ashworth, G. J. (1997) Conservation as preservation or as heritage: two paradigms and two answers. *Built environment* 23(2), 92-102.

Ashworth, G. J. (2002a) Conservation designation and the revaluation of property: the risk of heritage innovation. *International journal of heritage studies* 8(1), 9-23.

Ashworth, G. J. (2002b) Heritage in economic regeneration: the case of Nieuwschans, In Phelps. A., Ashworth, G. J., and Johansson, B. O. H. (eds.) *The construction of built heritage* Ashgate: Aldershot, 163-74.

Ashworth, G. J. and Tunbridge, J. E. (2000) *The tourist-historic city: retrospect and prospect of managing the heritage city*. Pergamon/Elsevier: London.

Ashworth, G. J. and van der Aa, B. (2003) Bamyan: whose heritage was it and what should we do about it? *Current issues in tourism* 5(5), 447-57.

Chippendale, C. (1990) *Who owns Stonehenge?* Batsford: London.

Dann, G. (2005) Children of the dark, in Ashworth, G. J. and Hartmann, R. (eds.) *Horror and human tragedy revisited*. Cognizant: New York.

Graham, B. J, Ashworth, G. J. and Tunbridge, J. E. (2000) *Geography of heritage: power, culture and economy*. Arnold: London.

Lennon, J. J. and Foley, M. (2000) *Dark tourism: in the footsteps of death and disaster*. Cassell: London.

NHTV (1993) Bezoekersonderzoek: Naarden vanuit toeristisch perspectief Breda.

Seaton, A. V. (1996) Guided by the dark: from thanatopsis to thanatourism. *International journal of heritage studies* 2(4), 234-44.

Seaton, A. V. (1999) War and Thanatourism: Waterloo 1815-1914, *Annals of tourism research* 26(1), 130-59.

Tunbridge J. E. and Ashworth, G. J. (1996) *Dissonant heritage: the management of the past as a resource in conflict*. Wiley: Chichester.

Van der Borg, J. (1998) Tourism management in Venice, or how to deal with success. In Tyler, D. Guerrier, Y. and Robertson, M. (eds.) *Managing tourism in cities*. Wiley: Chichester, 125-36.

7 Measuring the educational benefits of ICT-mediated cultural heritage experiences

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This paper presents a set of evaluation methods aimed at measuring the didactical impact and educational benefits of ICT-mediated cultural heritage experiences. The experience that will form the basis of this paper is a research project called Learning@Europe (L@E), developed by the Hypermedia Open Center of the Politecnico di Milano.

7.1 Introduction

Learning@Europe is an educational project for European schools, aimed at fostering the understanding of national identities as a way to develop a 'European identity' among the new generations of European students. Its educational approach is novel in a number of respects. It uses technology-enhanced eLearning to enable a cross-cultural experience based on stimulating content, coupled with engaging 'games' and a cultural competition among European students of different nationalities. The design of Learning@Europe is based on the experience of an earlier project (SEE – Shrine Educational Experience) developed in cooperation with the Israel Museum in Jerusalem, which used the Dead Sea Scrolls as its main subject (Di Blas *et al*. 2003, 2003a, 2004, 2005).

A massive field evaluation of SEE, involving 72 classes and nearly 1,500 students in Europe and Israel between November 2002 and May 2004, proved the educational effectiveness of the overall educational approach. Comments and impressions were collected from teachers and students, who gave very positive feedback. Teachers found SEE educationally effective, both in stimulating curiosity-driven research on controversial issues, and in motivating disaffected students; they appreciated the quality and depth of the contents, and the project's spur on students to responsibly organize group work. Students enjoyed the playful and competitive elements, developing strong team spirit with their remote partners. Games were a powerful motivator to study, together with the most appreciated aspect of all; meeting peers of different countries, interacting and collaborating with them.

In spite of all the positive remarks, we were not able to quantify the actual educational impact of the project. The qualitative data collected were extremely useful to widen and deepen the range of (often unexpected) educational benefits achieved by SEE; however, they did not allow a precise assessment of the actual didactic impact produced on participants. Through a critical analysis of the work made with SEE, we planned Learning@Europe evaluation focusing on a larger set of monitoring tools, and we tuned them in order to obtain both qualitative and quantitative data. We modified the surveys and integrated them with videos recording class interaction, analysis of chat transcripts, analysis of forum posts and evaluation of all the materials produced by students during the project.

After briefly introducing the Learning@Europe experience and its educational approach, the paper will present its educational benefits, the monitoring tools and some preliminary results. The conclusions present some lessons learned about the process of designing, implementing and evaluating a learning experience, from the definition of the educational goals, to their implementation in the project's features, to the evaluation, analysis and reporting of the results. We hope to offer an interesting example of evaluation of a complex educational program, whose measuring is by nature more qualitative than quantitative, showing methods which allowed us to corroborate a generic positive impression with data-supported scientific motivations.

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7.2 How the educational experience works

L@E is structured around a 6-7 week experience. Four classes of students aged 15 to 19, from different European countries, take part in a cultural competition (two classes against two). The students meet four times in a shared online 3D environment that is accessible over the Internet. Four cooperative sessions distributed across about two months, each session lasting about one hour. Two students per class are represented in the 3D world by 'avatars' (graphical representations of human users in the virtual environment, see Figures 1-3). The environment is implemented through WebTalk, a platform developed by Politecnico di Milano (Barbieri *et al*. 2001), whose advanced features foster interaction and cooperation among students. Meetings are devoted to cooperative activities, such as discussions (Figures 1-2) and games (Figure 3). Students meet their peers from different geographical areas, discuss relevant cultural matters with them, and can play with them in the virtual world, divided in two teams. All games are based on cultural riddles which require an accurate knowledge of the subject matter for their solution. Competition is a powerful motivator, adding excitement to the experience. Furthermore, students are encouraged to work together with their remote team-members, strengthening ties with them.

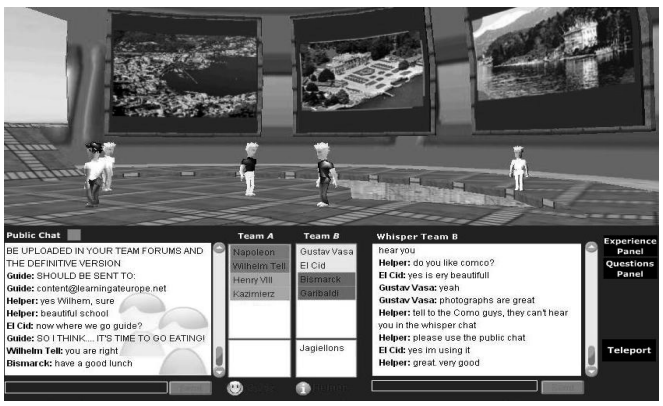

Figure 1: Avatars presenting their countries

Figure 2: A virtual discussion

Figure 3: A virtual game

To achieve in-depth comprehension of the cultural themes proposed, further educational activities are performed in the intervals between a session in the virtual world and the

In Session 3, a specific European issue is dealt with in depth, such as the role of religion or of languages in the formation of nation states. Again, discussion and games take place. Afterwards, students still have a couple of weeks to complete their homework, researching in archives, museums and local cultural institutions, and collaborating with their team members using e-mail and on a team forum. One week before the last session, the students submit their homework and read the work produced by the other schools.

Finally, in Session 4 students present their homework, comparing their ideas and discuss these with their peers. They often get deeply involved in the discussion, passionately defending their point of view and analyzing the work of the others. This moment is the most culturally intense of the whole experience.

7.3 The educational approach

The core subject of L@E is national identities in Europe. This encompasses all the complex social, political, economic, religious, and cultural factors that have led to the creation of the modern nation states as we know them today in Europe. Each modern European state has developed its own identity from a common melting pot. Understanding how this national identity developed can be crucial in increasing mutual acceptance and in understanding how a new melting pot (a politically united Europe) may grow from the current situation. Although we can expect each student in Europe to have a basic understanding of how his/her country became a modern 'nation', we can hardly expect them to know how the process occurred in other countries. Certainly, the variety of processes that lead to the development of the different European identities (including 'anomalies' leading to tiny states, multi-lingual states and federal solutions) is likely to be little understood by most European students. Understanding local identities, and where they come from, is a way to encourage the development of a new common identity.

The educational content of L@E is based on a set of interviews conducted with historical experts and scholars of different countries. These scholars often come from different disciplines and may have different cultural approaches. The interviews do not provide an organic, all-encompassing picture of the historical topic. Such a task would be impossible, given the complexity and wide scope of the issues involved. They rather present a variety of (often contrasting) points of view and opinions, with the educational aim of raising questions, provoking investigation and discussion, and stimulating a critical analysis of the differences among cultures and traditions. Students are then encouraged to undertake research on evidence of historical events in their locality. Thus every country brings its documents and cultural heritage as a meaningful contribution to the common discussion.

Learning activities in L@E include traditional study (of interviews and auxiliary material), online discussions in real-time, an online forum, production of a research homework, etc. The core of an L@E experience is the cooperative sessions. Participants from different countries meet in a multi-user 3D virtual environment under the coordination of a guide. The shared virtual world provides a strong effect of 'presence' (Di Blas *et al*. 2005), a sense of 'being there' together with other students. This leads to engagement and psychological involvement, for example students 'walk around', find objects, interact, chat, 'fly', and play games. Similar experiences (Presence, 2004) have proven that proper use of virtual environments for educational purposes can produce engagement among the students and mutual interest for their countries.

In addition, games (e.g. 'treasure hunt', 'Olympic games', etc.) capture the students' attention, while at the same time requiring cultural preparation in order to be able to answer quizzes and solve riddles. Discussions through chat during the course of the program are used both to clarify difficult aspects in the contents and also to stimulate the expression of similarities and differences among different European regions – which students are encouraged to investigate in the intervals between sessions. A final homework project provides each class with the opportunity to investigate the history of its own locality, researching evidence of its past

(through monuments, documents, artworks, street names) and presenting them to the other students. Online forums allow the students to keep in touch, continue their discussions, cooperate for the homework, exchange documents, etc. A public online discussion space, the 'Meeting the experts' forum, offers all the students and teachers involved the opportunity to ask questions about the interviews directly to the scholars interviewed.

7.3.1 Educational benefits

L@E was designed to achieve a number of educational benefits, related both to the contents (interviews and auxiliary materials), and to the overall educational format, from the 3D world's features (the chat, the online cooperation), to the class organization (group work, research activities, etc.). Results depend both on the overall design of the experience, defined by L@E staff, and on the work of the teachers with their students.

The educational benefits are related to the features of the learning experience, in that every benefit can be achieved thanks to one or more features, and every feature helps achieving one or more benefits. For example, the forum enhances the development of higher order learning skills (e.g. comparing and criticizing different hypotheses; learning how to argue, defend, or criticize ideas) as well as fostering a better understanding of the use of advanced information and communication technologies for educational purposes. The capacity for criticizing ideas or comparing different information sources is also developed by online discussions and by the preparation of homework.

The educational benefits can be classified in terms of knowledge, skills and attitudes. Knowledge-based educational benefits (those related to the content). These include the understanding of:

- the historical dynamics of the students' own country (national identity)
- the historical dynamics of other nations (foreign national identities)
- a specific historical phenomenon (e.g. the Nation State) in a regional dimension
- a specific historical phenomenon (e.g. the Nation State) in a European dimension, and
- through all of the above, understanding students' own local identity (including its symbolic values), and other local identities, in a European perspective.

Skills-based educational benefits (related to the educational format), including:

- developing interpersonal skills for working in groups (conflict management, leadership skills, individual accountability, etc.)
- developing higher order meta-cognitive skills (e.g. searching and selecting resources, comparing and criticizing different hypotheses, learning how to defend or criticize ideas)
- using advanced Information and Communication Technologies for education, and
- in non-English-speaking regions the program allows students to practice English as a second language in an authentic context.

Attitudinal educational benefits (related to the educational format), including:

- enhancing the understanding and the management of relational aspects (within the class, with the teacher, with other classes, with the project staff, etc.)
- enhancing critical thinking
- fostering cultural 'curiosity'
- arousing interest in the specific subject (history, intended in a very broad sense)
- increasing motivation and active participation

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- engaging problematic/introverted/disaffected students and getting them involved
- improving discipline and mutual respect
- strengthening social ties within the class, and
- developing team spirit among participants.

While L@E educational goals may appear ambitious, this list of benefits was devised based on the feedback of teachers participating in our previous project, SEE. The results reported by teachers persuaded us to extend the preliminary list of expected benefits with the evidence, although largely anecdotal, that our educational approach is somehow able to achieve, at least for some participants, all of the above mentioned goals. The design of L@E focused on refining the experience's features in view of these educational benefits, and a detailed evaluation plan was designed in order to collect systematic data assessing the achievement of each goal.

Educational interventions are extremely complex phenomena, involving a large number of variables – many of which relate to the 'human factor', and so are very difficult to measure. These issues are further compounded by differences in computer-literacy, race, gender, parental attitudes, socio-economic background, etc. Other elements play a significant role in learning processes, but are much more difficult to assess such as students' goals, attitudes, motivations, previous knowledge and experiences, and cognitive learning styles (Squire 2005).

In order to take account of this complexity, of an extensive quantity of qualitative and quantitative data is collected from different sources and using different methodologies. This allows the results to be corroborated through triangulation of findings, i.e. integration of different data sources (Hedberg and Reeves 2003), and to offer quantitative, systematic evidence of the results, whose interpretation is supported by extensive qualitative data.

7.3.2 Monitoring tools

The educational impact of L@E has been evaluated before, during and after the running of the project through a wide-spectrum set of data collection methods. Data also evaluate the level of 'customer satisfaction' and the organization's effectiveness. Moreover, they help understand how the project was run in schools (from the teachers' perspective) and what benefits the internal organization helped achieve ('best practices'). The methods are as follows:

- Surveys to evaluate the workflow, the running of the project, the experience's management, and the customer satisfaction (about the experience, the organization, the educational impact). All teachers involved in a L@E experience have been asked to complete five online surveys (one before the first session and one after each of the four sessions), whereas students completed two surveys (one before the beginning and one after the conclusion of the project).
- Focus groups and personal interviews with teachers, helped in the interpretation of survey data and in the investigation of causal relations between features and educational impact.
- The sessions were monitored by online tutors, to detect organizational and technical problems, evaluate the educational impact and the participants' engagement. Immediately after every session, the guide and the helper registered all the notable events in a written debriefing and completed an online questionnaire evaluating the session according to interaction, cultural quality, technical and organizational problems. In addition, about 12 hours of online sessions were video-taped from the monitor using Camtasia.
- The chat transcripts were analysed to evaluate educational impact, organizational issues, and customer satisfaction. The chat logs of every session have been recorded and are analyzed using coding techniques. The students' contributions are classified according to what they indicate: engagement and enthusiasm, cultural preparation, cultural curiosity

and critical thinking, evidence of technical, organizational or discipline problems, collaboration and team spirit.

- Observation in the school, to evaluate practical issues and organization (plus educational impact and customer satisfaction). About seven hours of class interaction during cooperative sessions have been videotaped, and notable observations have been integrated in the guide's debriefing.
- The 'forum' posts are analysed in order to evaluate the educational impact of the project and the cooperative activities. From the beginning of the project, a brief summary of the discussion threads has been prepared every two weeks, recording the progressively increasing numbers of threads and posts. In addition, the forum moderators (i.e. the 'guides') have periodically evaluated the quality and quantity of their forums according to seven parameters (socialization, collaboration, contents discussion, discussion on the project, discussion on other subjects, moderator, and problems.). An independent, more detailed analysis is also being performed.
- The homework was analysed, to estimate the educational impact (knowledge and comprehension of contents, their application to different contexts, level of critical analysis, and research skills). Homework consists of an HTML presentation from each class, a HTML representation chosen by the two classes from each team, and an MS Word document plus an HTML presentation of the history research project elaborated together by the two classes of each team. The grading criteria of the homework are related to the sought-after educational benefits.
- Expert reviews are used to provide independent evaluations of the educational effectiveness of L@E. In addition to the Scientific Committee of history scholars who review and criticize the contents, leading international experts of interactive educational technologies (Thomas Reeves, University of Georgia, USA) and of online communities (Jennifer Preece, University of Maryland, USA) provide independent reviews of the project.
- The teachers provide a final report to estimate the educational impact (causal relations between features and educational benefits), practical issues and organization, customer satisfaction. The report is provided on a volunteer basis – about the overall experience including; success stories, problems, their reflections on the educational impact achieved and its causes.
- Personal communications with staff, to assess organizational issues, customer satisfaction, and the educational impact. The data analysis takes into account also all the relevant messages sent to the staff by teachers, students, school authorities, etc.

In order to organize the data analysis, it is useful to define, for each research question (about educational impact, organization, etc.) the sources most suitable to offer data supporting answers. The matrix below (Hedberg and Reeves, 2003) shows how evidence of each educational benefit is sought from different data sources. While qualitative data such as forum posts, chat-logs and students' work are direct, more reliable sources, a detailed, comprehensive analysis of such a huge amount of data is a long and difficult process. Our strategy for obtaining short-term results is to start from the synthetic, aggregated data offered by online surveys and guides' reports, and seek evidence (such as examples and anecdotes) for specific issues in the extensive qualitative data.

Analogous matrixes have been prepared for questions related to the organization of the project and other issues.

A large quantity of data has been collected from all the above-mentioned sources between February and June 2005. Preliminary analysis has been carried on during the running of the project, and interim reports allowed making adjustments 'on the run' of technical, organizational and educational aspects.

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	Methods						
Expected benefits	Online surveys	Guides' reports	Forums	Chat-logs	Videos	Student work	*Focus groups*
National identity	✓	✓	✓	✓		✓	✓
Foreign identities	✓	✓	✓	✓		✓	✓
Complexity of history	✓	✓	✓	✓		✓	✓
Skills for group work	✓		✓	✓	✓		✓
Use of technologies	✓	✓				✓	✓
Use of English	✓		✓	✓		✓	✓
New learning methods	✓					✓	✓
Motivation/engagement	✓	✓	✓	✓	✓		✓
Proficiency	✓					✓	✓
Cultural curiosity	✓	✓		✓		✓	✓

Table 1: research questions – data sources matrix

Outcomes are subject to change as more data becomes available. Two workshops were held in June 2005. One had a sample of 15 teachers, from five out of the six countries involved, and one was for the experts of the scientific committee. After the two workshops, a new round of full-scope detailed analysis was undertaken.

Preliminary results from the teachers' surveys – corroborated by guides' reports and comments of students in forums, chats and surveys – are already available, and will be presented in the next section.

7.4 Preliminary results

The initial implementation of Learning@Europe took place between March and May 2005. Starting from an initial agreement with 64 classes, due to scheduling challenges we were able to group only 60 of them in 'experiences', each one involving four classes, paired in two teams, in a collaborative learning process. Of the 15 experiences that started, only 12 have been completed during this school year. Six classes dropped out for organizational, technical and, in one case, personal reasons. In addition, a further six classes were eliminated because they could not be matched appropriately with other classes (we did not want to have, in each experience, more than two classes from the same country).

Each experience lasted 6-7 weeks, requiring students to study documents (the interviews with experts), to participate in four online sessions, to contribute to online forums, and to complete challenging homework assignments such as the interpretation of historical events from a cross-cultural perspective. During online sessions in the 3D Multi-User Virtual Environment classes were involved in working, discussing, chatting, and playing with their counterparts from the other classes, under the supervision of a guide and a helper from the staff. Teachers organized the work of their students between the sessions according to their style and preferences.

Overall, over 50 teachers and 1,000 students have been involved. We believe that the 12 experiences implemented in this cycle represent a significant accomplishment, and provide enough information in order to understand the potential of the approach and gather evidence of its potential benefits.

Preliminary results (mainly based on the surveys completed after the end of the project by 49 teachers and 392 students) are presented below in relation to the educational benefits listed in the previous section. Teachers participating in L@E reported significant educational benefits for their students with respect to knowledge, skills, and attitudes.

7.4.1 Knowledge acquisition

- Of the teachers surveyed 65% estimated that their students had improved their understanding of their national history and of the history of other countries well above average (30% was average). The opinion of the teachers is also substantiated by the quality of some homework and some of the 'chat logs'. Heated discussions took place among students, generated by the conceptual questions and by the component of the homework where student groups from two different countries were asked to analyze the history of their own national identity and compare that to what happened in the other country.
- Furthermore, 67% of the teachers estimated that their students had improved their understanding of the complexity of modern states and of historical processes well above average (and 26% is average). To corroborate this opinion, we can use the 'guides' report, where it was estimated than in 66% of cases students were able not only to answer many questions correctly, but also to justify their answers.

In terms of knowledge, 25-30% of the improvement was similar to other experiences, and about 65% was well above it.

7.4.2 General skills

- Use of English as foreign language: 42% of the teachers rated the improvement among their students as well above average, 33% above average and the remainder average.
- Use of technologies for learning processes: 42% of the teachers rated the improvements well above average, 47% above average and 12% average.
- Learning how to work in a group: 35% of the teachers rated the improvements well above average, 60% above average and 5% average. This opinion is also corroborated by the quality of the cooperation exhibited during the sessions, while doing team presentations and homework, in the forums, etc.
- Learning in a non-traditional fashion: 51% of teachers reported their students improving in the use of new learning methods well above average, 37% above average and 12% average.
- Use of forums: Over 60% of teachers rated the forum good or very good. This opinion is also corroborated by our own analysis of the forum logs, although our analysis of the degree of satisfaction is slightly lower.

In term of skills, improvements were substantially much better than what could be obtained with other activities.

7.4.3 Attitudes

- Of the teachers surveyed 50% detected an overall improvement of proficiency above average, and 48% average (interestingly, initial expectations of the teachers were very low in this respect). Over 57% of the students declare that they actually got better marks.
- Over 80% of the teachers rated engagement in learning activities and overall motivation of the students as above average. This opinion is also strongly corroborated by the videos, where most of the participating students (even the ones not sitting in front of a computer) show a high degree of involvement. Interestingly, no teacher reported a degree of engagement lower than average.
- Almost 80% of the teachers detected increased curiosity and tolerance towards other cultures above average. This opinion can be corroborated by the logs of the chats (during the sessions) and by the forums.

In term of influencing students' attitudes, the improvements were quite positive.

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Clearly the results from the teachers' viewpoint are quite positive. It is important to point out that educational benefits should be viewed in terms of the 'improvement' of the students not in any absolute sense, but with respect to their previous levels of achievement. In other words we are striving to understand the difference that can be uniquely attributed to L@E compared to other possible activities. The academic level reached by the students is not a satisfactory method of determining impact. After all, starting with very good students, it would be very easy to show enhanced benefits.

7.5 Conclusions

Educational interventions always involve a considerable number of variables, which are often very difficult to measure, because they relate to the complex processes of human learning.

For this reason, effective evaluations should involve collection of both qualitative and quantitative data from different sources, and the use of different methods of analysis, in order to ensure triangulation of findings, and to reinforce and integrate perceptions from different perspectives. On one hand this allows general impressions to be supported with solid numerical evidence, on the other hand it helps the interpretation of quantitative data through comments and anecdotes providing concrete examples and insights in the participants' profound motivations.

To measure the effectiveness of our program, we decided to rely mainly on the teachers' opinions (after all, this is how students are normally evaluated in schools), compared to our online tutors' perceptions and to the results of the analysis on student-produced artefacts. In addition, rather than evaluating 'absolute' outcomes, we try to measure if and how L@E has enhanced the students' previous knowledge, skills and attitudes. This is why we ask teachers about the improvements of the students on different fronts, rather than simply evaluating the quality of their contributions. Excellent students would produce excellent outcomes even without the help of L@E, whereas we got the most enthusiastic feedback from teachers whose less motivated students had started to take an interest in studying and to get involved in learning activities thanks to the excitement of interaction and the spur of the games.

In fact, one risk in evaluating ICT-based learning experiences is to reduce the educational effectiveness of the program to 'customer satisfaction'. This would fail to distinguish the users' degree of enjoyment or frustration from the actual educational impact, and fail to clearly identify the different educational benefits obtained by students – whose range is often much broader than in traditional classroom-based lessons. Use of technologies as cognitive tools, collaboration and problem-solving skills, increase of responsibility and motivation, which often accompany ICT-based learning, should not be considered less valuable than knowledge-related results, also considering that they can be reused in different disciplines.

It is therefore important to identify learning benefits one intends to achieve early on, and to define design features and educational strategy in accordance. In addition, a comprehensive evaluation plan must be accurately planned in advance, including data collection from different data sources and different methods of data analysis. When the evaluation is implemented during the actual educational experience, not only after its end, it is also easier to refine and assess monitoring tools in order to collect also evidence of unexpected benefits or problems, detected 'on the way'.

Ongoing evaluation has been crucial the assessment of the programs. We started collecting data even before the beginning of the L@E experiences, to be able to compare expectations with final results, and continued through all the course of the project, collecting data in 'real-time'. We wanted to record 'fresh' impressions immediately after every session, and monitor the variations in the students' engagement, in their cultural preparation, the teachers' ways of organizing school work (which often improved over the course of the project). A large quantity of useful information would have been lost, had teachers been asked only a final overall evaluation of the whole experience. In addition, continuous monitoring and interim

evaluation reports allowed us to immediately fix problems (such as small interface bugs) and to refine the learning experience according to the emerging needs of participants.

A second risk is to evaluate the success of an ICT-mediated Cultural Heritage experience according to the smoothness of its technology, focusing on technical issues and missing the impact of the overall educational experience. However, even severe technological impasses do not necessarily jeopardize the achievement of educational goals. This was confirmed by participants in L@E, who, even in the (few) cases of technical failures, focused their attention on different issues than technology, (e.g. on interaction, or in 55% of cases found alternative solutions to overcome technical obstacles and demonstrate their preparation in the cultural competition). Technical breakdowns have never really compromised the effectiveness of the educational experience; rather they challenged the students' resourcefulness, stimulating them to find alternative solutions. For example, when the students were unable to use the chat facility to answer a cultural question, they answered in real time using e-mail, or decided to move the discussion to the forum.

An additional risk, when – as in our case – the evaluation is conducted by members of the development team, is to remain too focused on the 'internal' perspective on the project, collecting and presenting data in terms that might be intelligible to the staff, but not to external stakeholders. Developers tend to focus mainly on organizational and design issues, on that that may help them to improve the service, rather than concentrating on what really makes the learning experience valuable to external audiences, such as its' educational effectiveness.

In our experience, the help of external reviewers was invaluable, not only in providing an independent, objective evaluation of the program, but also in helping us to rethink our data in terms of the 'stories' we intended to tell to our different audiences – the teachers, the schools, and the educational authorities. The information needs of the principal stakeholders, and not internal research questions guided the data investigation.

In fact, the evaluation of an educational program is always aimed at offering information to one or more audiences, who bear different motivations and different interests regarding the program – the learners, the instructors, the people responsible at various levels of its adoption, the sponsors, and the development staff. Data must be analyzed and reported in order to tell every stakeholder a different story, according to his or her information needs.

In the case of L@E, our primary audiences include the teachers, who have to decide whether to enrol in the project, and the schools, who may decide to allow, encourage, or even endorse participation in L@E. We focused therefore on the educational benefits offered by L@E that may be most appealing to each audience. From the perspective of teachers, the results can be described in terms of educational benefits; for the students, professional development for the teachers themselves and magnification of their role in the learning process. From the schools' perspectives, L@E offers opportunities to enrich the curriculum with the so-called twenty-first Century skills, to improve the teachers' professional abilities, to effectively exploit their technological infrastructure for experimenting innovative teaching-learning techniques, and to engage in substantial collaboration with international schools. Not only the reporting, but also the evaluation planning, collection and analysis of results should revolve around the information needs of the primary audiences.

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References

Barbieri, T. (2000) Networked virtual environments for the Web: the WebTalk-I and WebTalk-II architectures. In *IEEE for Computer Multimedia and Expo 2000*, ICME: New York.

Barbieri, T., Garzotto, F., Beltrame, G., Ceresoli, L., Gritti, M. and Misani, D. (2001) From Dust to StarDust: a collaborative virtual computer science museum. In *Proceedings of ICHIM 2001*, ICHIM: Milan, Italy.

Barbieri, T. and Paolini, P. (2000) Cooperative visits to WWW museum sites a year later: evaluating the effect. In Bearman, D. and Trant, J. (eds.) *Museums and the Web 2000: selected papers from an international conference*, Archives and Museum Informatics: Pittsburgh. 173-178.

Di Blas, N., Paolini, P., and Gobbo, E. (2005) 3D worlds and cultural heritage: realism versus virtual presence, in Trant, J. and Bearman, D. (eds.) *Proceedings of museums and the Web 2005*, Archives and Museum Informatics: Toronto.

Di Blas, N., Paolini, P. and Hazan, S. (2003) Edutainment in 3D virtual worlds: the SEE experience, in Trant, J. and Bearman, D. (eds.) *Proceedings of museums and the Web 2003*, Archives and Museum Informatics: Toronto.

Di Blas, N., Paolini, P. and Poggi, C. (2003a) SEE (Shrine Educational Experience): an online cooperative 3D environment supporting innovative educational activities, in *Proceedings of ED-MEDIA 2003*, AACE: Norfolk, U.S.A.

Di Blas, N., Paolini, P. and Poggi, C. (2003b) Shared 3D Internet environments for education: usability, educational, psychological and cognitive issues, in *Proceedings of HCI 2003*, Lawrence Erlbaum Associates: Mahwah, New Jersey.

Di Blas, N., Paolini, P. and Poggi, C. (2004) Learning by playing: an edutainment 3D environment for schools. In *Proceedings of ED-MEDIA 2004*, AACE: Norfolk, USA.

PRESENCE (2004) *Proceedings PRESENCE: the seventh annual international workshop on presence*, Technical University of Valencia: Valencia.

Reeves, T. C. and Hedberg, J. G. (2003) *Interactive learning systems evaluation*. Educational Technology Press: Englewood Cliffs, New Jersey.

Squire, K. (2005) Resuscitating research in educational technology: using game-based learning research as a lens for looking at design-based research. *Educational technology* 45:1, 8-14.

8 Community heritage at Ename, Belgium: a study of best practices

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The Belgian town of Ename in Flanders has its origins in the tenth century as a fortified settlement on the borders of the Holy Roman Empire. The strategic significance of the town rapidly decreased after its capture by the Counts of Flanders and an abbey was constructed; this was destroyed in the sixteenth century (iconoclastic fury); the final destruction of the abbey took place at the end of the eighteenth century in the French Revolution... This paper will consider how the town of Ename has exploited its archaeological and historical resources, and what effect this has had on the town. Consideration will be given to the role of technology at the cultural heritage sites in Ename.

8.1 Introduction

The village of Ename is situated in East-Flanders[46], part of the Dutch-speaking region of Belgium. The village lies about 30 km south of Ghent and 50 km west of Brussels on the eastern bank of the River Scheldt, one of Belgium's three principal rivers. Geographically, the village is part of the Flemish Ardennes, a hilly region in south-western Flanders. Today Ename is one of thirteen boroughs within the municipality of the City of Oudenaarde[47].

8.2 Historical background

The village of Ename exists because its location on the east bank of the River Scheldt. From A.D. 925 the river formed the boundary between the Kingdom of France and the Holy Roman Empire. The French side of the river was occupied by the militaristic Counts of Flanders, vassals of the Frankish Kingdom. On the Ottonian side of the river was the territory of Lorraine, stretching from the north of the Netherlands to the Swiss Alps. The Ename region fell under the control of the Ardennes-Verdun family, a dynasty who showed immense loyalty to the German emperor.

In order to thwart French ambitions of gaining territory on the east bank the Ottonian Emperor Otto II (A.D. 973-983) instigated a program of frontier defence building around A.D. 974. Three fortresses were constructed in the Scheldt valley at Antwerp, Ename, and Valenciennes. Each fortress was the administrative centre for its own territory (*margravate*). The fortress at Ename was the largest of the three frontier-works, located on a small rise and protected on three sides by a meander in the river. There was probably little more than a few homesteads clustered next to the fertile grounds close to the Scheldt before Ename became the military centre of the margravate (Van Strydonck and De Mulder 2000: 92-96).

[46] East Flanders is a province of Flanders, one of the three regions, and ten provinces of Belgium. Its capital is Ghent. The province covers 2982 km^2, comprising 22% of Flanders, and is divided into six administrative districts (Aalst, Dendermonde, Eeklo, Ghent, Oudenaarde, and Sint-Niklaas), containing in total 65 municipalities. The Oudenaarde District covers 419 km^2 and supports 114,345 inhabitants, giving a population density of 273 inhabitants/km^2. This is considerably lower than the average of 456 inhabitants/km^2 found in East Flanders, which has one of the highest population densities in Europe.

[47] The other boroughs are Bevere, Edelare, Eine, Heurne, Leupegem, Mater, Melden, Mullem, Nederename, Ooike (which is divided between Oudenaarde and Wortegem-Petegem), Volkegem, and Welden.

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The fortress contained two substantial stone buildings. A massive stone keep (one of the oldest stone keeps in Europe) with walls approximately 3m thick and between 25 to 30m high, and a palace where the administration of the margravate was conducted. A small chapel was also present in the palace. These structures were surrounded by a rampart, probably topped with a timber palisade. This massive building project was probably one of the most significant in the empire at the time.

The margravate of Ename appears to have commanded special status. In 1005 the text of the *Auctarium Affligemense* describes Ename as the "most eminent throne of Lorraine". Certainly, its key strategic location on the western border of the Ottonian Empire was crucial for the maintenance of political stability (Van Der Meiren, *et al* 2004: 20).

Ename grew rapidly with a harbour (*portus*), river toll station and trade settlement following soon after. The establishment of two churches dedicated to Saint Salvator and Saint Lawrence suggests a settlement of considerable wealth. The church of Saint Salvator was a comparatively simple construction, with a hall and apse all surrounded by a ditch. The church of Saint Lawrence (Saint Laurentius) was a much more substantial and elaborate construction. It was commissioned by Herman van Verdun around AD 1000. The very design of the church was an expression of loyalty to the Emperor. Architecturally the basilical plan with both east and west choirs was similar to the massive state churches from the Holy Roman Empire. Another indication of the importance of this church was the use of wall paintings, probably produced by craftsmen from the far reaches of the empire. A number of the murals from this early phase in Ename's and Saint Laurentius's history have survived including the Majestas Domini (A.D. 1010-1020) which has Byzantine stylistic attributes (Callebaut and Van der Donckt 2004: 87).

For over half a century Ename became more than just an imperial frontier post on the western border of the Ottonian Empire, it was a major settlement with international trade and political connections. Its position on the river Scheldt provided links with northern Europe while the social and political links with the Holy Roman Empire connected the site to the south and east of Europe and beyond. During this period Ename began to develop a distinctly proto-urban character.

This situation changed suddenly in 1033 when Baudouin IV, Count of Flanders captured the fortress at Ename through an act of treachery. The site was rapidly demilitarised, the trade settlement destroyed, the fortress was made militarily unusable, and the frontier was moved east. Ename's three religious establishments (the fortress chapel, and the churches of Saint Salvator and Saint Lawrence) survived the destruction.

In 1047, his son Baudouin V took permanent possession of Ename. The most important act of pacification came with the foundation of a Benedictine Monastery dedicated to Saint Salvator on the site in 1063. Monks from the French abbey of Saint Vaast in Arras initially occupied the fortress site while an abbey complex was constructed around the Church of Saint Salvator. The complex took probably seven years to build. While the church of Saint Salvator became the focus of the abbey, the fortress chapel fell into decline and the Church of Saint Lawrence became the main church for the village. In the twelfth century, Ename Abbey was massively enlarged.

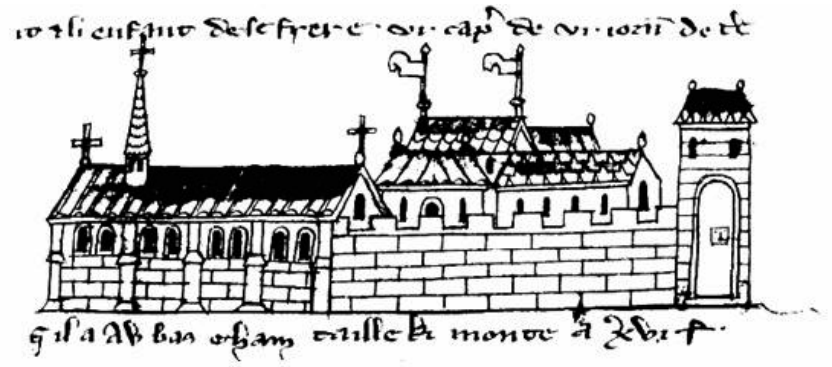

Figure 1: The earliest surviving depiction (c.1275) of the abbey at Ename before 1139 (Koninklijke Bibliotheek Albert I, Brussel, Ms 1175/F8 – Callebaut 1992: 18)

During the Middle Ages the Abbey of Saint Salvator flourished at Ename. The nearby woodlands at Bos t'Ename were managed by the Abbey, fish were farmed and beer was brewed. A community of people in the village provided services for the abbey. The oldest recorded act of forestry is found in abbey texts dated 1290.

The religious wars of the later half of the sixteenth century were a difficult time for the abbey. The building was badly damaged during the iconoclastic fury (1566) and the protestant uprising (1578-1582) during which time the monks fled to Oudenaarde where they took refuge in a property that they had purchased in 1507. At the beginning of the seventeenth century the abbey was rebuilt and expanded creating an institution of great splendour. It continued to function as the centre of the town until its abolition by the occupying French Revolutionary troops in 1795. Once the site was closed a Parisian company, Paulee, was brought in to dismantle much of the abbey and to sell the building materials. Only a few buildings survived the demolition. The abbey court and prison was converted into a country house by the prominent van Hoobrouck de Fiennes family. The abbey's west wing was converted into a stable block. With the destruction of the abbey the village church of Saint Laurentius then became the principal religious establishment in Ename.

Supported by a booming agricultural economy the population of Ename began to rise in the early nineteenth century. This expansion was short-lived and was suddenly curtailed when a series of outbreaks of plague and cholera swept through south-east Flanders between 1845 and 1850. This, in conjunction with the collapse in the cottage farming industry caused massive depopulation in the Flanders countryside. The poverty in the countryside was a major feature of the second half of the nineteenth century. The then Mayor, Edmond Beaucarne initiated a project to convert the old Abbey woodlands (Bos t'Ename) to agricultural land to alleviate Ename's poverty. By 1875 the old woodlands were almost completely gone.

By the close of the 19th century, the last remnants of the abbey; the van Hoobrouck de Fiennes house and the stable block had fallen into disrepair and had to be demolished. Only a small garden pavilion remained on the banks of the Scheldt to indicate that the abbey had occupied the site for over seven hundred years.

During the twentieth century the village of Ename survived the devastation that was wrought on the nearby town of Oudenaarde during the First and Second World Wars. Eventually Ename was absorbed by the expanding urban centre of Oudenaarde, becoming one of the thirteen boroughs of the municipality of Oudenaarde.

Year	Event
925	The River Scheldt becomes the border between the Frankish Empire and the Holy Roman Empire
974	Ename becomes the principal fortress on the western border of the Ottonian Empire, a trade settlement and harbour/wharf soon develop

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1033	Baudouin IV, Count of Flanders captures the fortress at Ename
1047	Baudouin V, takes permanent possession of Ename
1063	Foundation of a Benedictine Monastery around the Church of St Salvator by Baudouin V
1139	Ename Abbey was enlarged by Abbot Snellaert who destroyed the old village church and built a new and larger one)
1578-82	The Abbey was badly damaged during the Religious Wars
1794	The abbey was abolished by occupying French Revolutionary troops
1845-50	Plague and cholera depopulates south-east Flanders including Ename
1868	A regular rail service begins between Ename and Brussels

Figure 2: The historical timeline of Ename, Belgium.

8.3 Ename's contemporary heritage assets

The first recorded archaeological excavations took place in Ename under the direction of Professor A. L. J. Vande Walle between 1941 and 1946. The excavations revealed parts of the Saint Salvator Church, abbey and the palace. After the completion of the excavations, the site was backfilled and returned to agricultural use. Archaeological work did not resume at the site until 1978 when archaeological research was conducted by Dirk Callebaut of the Belgian National Service for Excavations. In 1982 the National Excavation Service conducted rescue excavations in advance of the planned renovation of a nearby railway line, once again. Despite the excavations that had been conducted during the 1940s and 1970s there was little clue as to the magnitude of the site when rescue excavation started. It rapidly became apparent that there were well preserved remains from the tenth to nineteenth centuries. The excavations revealed the Ottonian fortification and palace complex, including one of the oldest stone keeps in Europe. These discoveries led to a major investigation by the Institute for the Archaeological Patrimony of the Flemish Community of Belgium (IAP), in collaboration with the Municipality of Oudenaarde and the Province of East-Flanders. These excavations would eventually lead to Ename becoming a major heritage and tourist site.

Extensive excavations in the industrial area of the medieval and post-medieval abbey of Ename took place throughout the 1980s and 1990s. These investigations uncovered a bakery, brewery, slaughterhouse, and other workshops.

The richness of archaeological data that was revealed during the excavations encouraged Jean-Pierre Van Der Meiren, a historian and deputy of the province of East Flanders, to work towards the transformation of the site into an archaeological park. In 1988 a major Ename landowner and local businessman Mr. De Boever donated eight hectares of land of the archaeological site on a long lease to the City of Oudenaarde. This allowed the site to be developed into an open-air archaeological park, in addition a museum was opened (1998), the 10th-century Saint Laurentius Church was restored to its Ottonian state (2002), and the nearby Bos t'Ename forest preserve were made accessible to the public (1992). The Ename 974 project, which began in 1995, has its origins in the archaeological park.

Year	Event
1941-1946	Initial archaeological research by Professor Vande Walle on the palace and Saint Salvator church
1978	Preliminary archaeological investigation by Dirk Callebaut of the National Excavation Service
1982	Rescue excavations in advance of building a new bridge over the river Scheldt reveal the Ottonian keep
1982-2005	Major excavations of the abbey and medieval trade settlement begin
1985	The archaeological park is created
1987	The archaeological site becomes a legally protected historical site

1988	Eight hectares of land at the archaeological site was donated by Mr. De Boever a local businessman in order to further develop the archaeological park
1988	The first open air theatre takes place with a performance of Mariken Van Nieumeghen
1990	The second open air theatre takes place with a performance of Beatrijs
1990	Discovery that Saint-Laurentius church is a standing building from the Ottonian period, followed by discovery of the wall paintings
1992	Third open air theatre takes place with a performance of Don Quichot
1994	Dirk Callebaut attends Getty workshop on archaeological parks, where the idea of a VR system for non-destructive site presentation is born
1995	The Ename 974 Project was initiated
1997	Opening of the first TimeScope at the archaeological site
1998	Opening of the museum, the TimeScope was awarded the Flemish Monument Award, and the Dutch Golden Scarab Award, Ename Center task force established
1999	Excavation and restoration of the Saint-Laurentius church begins, the second TimeScope is initiated
2000	The Ename Expertise Center created as non-profit organisation
2002	First prototype of TimeScope 3 in Saint Laurentius church
2004	Second version of second TimeScope, as an info kiosk in the village

Figure 3: Heritage resource development at Ename

The village of Ename now has four principal cultural heritage assets all within a short walk of each other.

8.3.1 The archaeological site

This eight hectare archaeological site is located on the eastern banks of the River Scheldt. The site contains the excavated remains of the trading settlement, and the Benedictine abbey of Saint Salvator. The area became a legally protected historical site in 1987. The site now shows the consolidated foundations of the Abbey of Saint Salvator. Information panels in Flemish explain the archaeological significance of the site.

Despite efforts to make the site accessible and understandable to the public, the complex history of Ename as a military fortress, church and Benedictine Abbey makes the use of static methods of heritage presentation problematic. With a range of interpretations to share with visitors and significant portion of the site unexcavated, the Ename Team decided that the best way to present the site, given the complexity, was through the use of technology.

In 1997, the Ename 974 Team installed the first prototype of a non-intrusive, heritage interpretation system, called TimeFrame at the Ename site. This system used the foundations of the abbey church as the basis for virtual reconstruction of the site foundations through the technique of augmented reality (Pletinckx *et al*. 2000). After some modifications, the system was called TimeScope 1.

Computer technology has been a considerable asset in the transformation of the site into an open-air museum. The use of IT technologies to communicate the project's findings led the Ename 974 Project team to establish the Ename Center for Public Archaeology and Heritage Presentation in 1998 at the archaeological site.

8.3.2 The Museum

The Provincial Archaeological Museum (pam Ename) or the Museum t'Ename is located in the historic Beernaert House 30m north-east of the Saint Laurentius Church. The fortunes of the house had declined in the twentieth century and it had been converted to industrial use. It was purchased by the Province of East Flanders to house the museum, which was opened to the public in September 1998.

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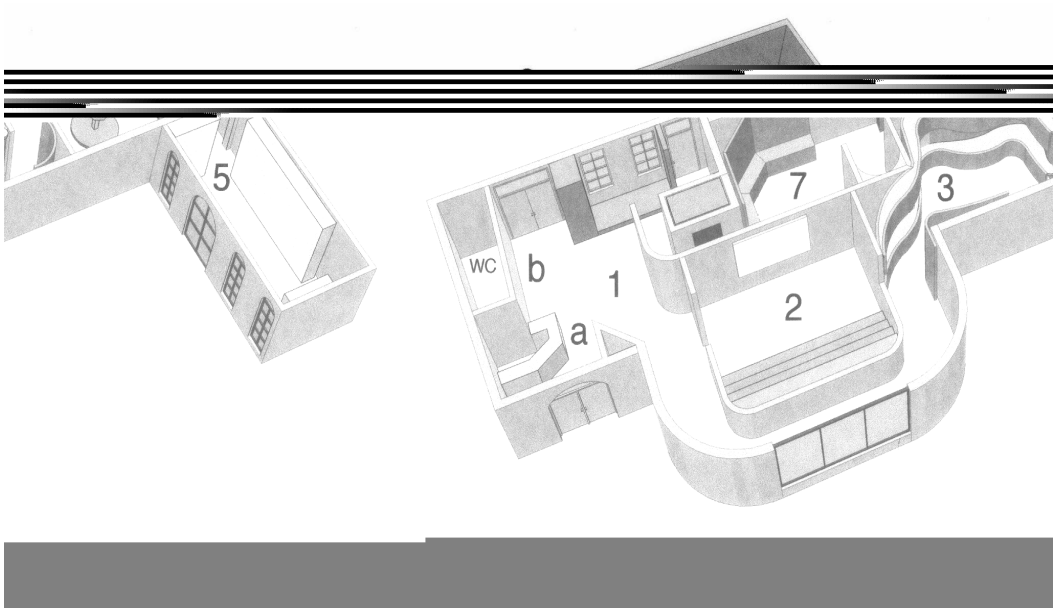

Figure 4: The floor plan of the Provincial Archaeological Museum at Ename

Designed by the British designer John Sunderland, the archaeological museum is notable for its small footprint and the intensity of different experiences that are contained within this small area.

The museum displays artefacts found at the archaeological site and presents the life of members of the Ename community from the Middle Ages to the present. Pam Ename contains a Movie Theatre (Figure 4-2) which runs a 15 minute film entitled 'Ename a village in time', which features scenes shot in the village, with an accompanying narrative about the essence of time, and Ename as an average, Flemish village. Visitors can leave the theatre and progress to the TimeLine exhibition (Figure 4-3). This holds a number of display boxes of excavated archaeological artefacts displayed in chronological order, while a screen shows a projection of virtual reality reconstructions of the site. The timeline system can be used to place the objects in the displays in a virtual representation of their original find-spot and chronological period. Beyond the Timeline room is the 'Feast of a Thousand Years' (Figure 4-4). A large room containing mannequins of twenty-four historical figures from Ename's past seated around a large feast table. A plastic domed display case with archaeological artefacts rests in the middle of the room with a series of buttons that visitors can press along the rim of the display case for more information. Pressing a button illuminates an object in the display case and its associated character at the feast table. On the large video screen above the feast table, both the object and character are dated and identified and a brief video showing the character in period costume is played. The feast table aims to humanize and contextualise archaeological objects allowing museum visitors to engage more effectively with the artefacts.

Beyond the Feast Table, visitors pass through a hallway with a representation of a stratified archaeological profile on the wall, at the end of the hallway they come to the 'Archaeolab'. The 'Archeolab' gives visitors the opportunity to spend time gaining a deeper understanding of the various disciplines that comprise archaeology such as: archaeobotany, archaeozoology, soil analysis, material analysis, dating methods, and historical study. The visitors can handle and examine material appropriate such as bones, seeds, actual potsherds, reference books and reproductions of archival texts. A computer terminal provides information and multiple choice questions on the process of archaeological exploration and gives interactive access to the sources that have been used to make the virtual reconstructions.

8.3.3 The Church of Saint Laurentius

Before the development of Ename's heritage assets the church of Saint Laurentius was seen as little more than a village church. In 1990 subsidence in the tower initiated a major investigation of the building's structure. This was the turning point in the history of the church as a heritage asset. After removal of the organ on the east side of the church, an arcade with Ottonian wall paintings was discovered. One of the most important murals from this early phase in Saint Laurentius's history is the Majestas Domini (A.D. 1010-1020) which has Byzantine stylistic attributes (Callebaut and Van der Donckt 2004: 87). The clear Italian and Byzantine influence seen in these wall paintings, suggests that foreign artisans were brought to Ename to undertake the project under imperial patronage. These are now one of the earliest examples of preserved wall paintings in Flanders.

The church has a unique double nave that gave homage to both Christ and to the site's founder, Emperor Otto II. Interestingly, the east choir apparently had two altars above each other, similar to the example in the Pfalzkapelle in the Carolingian capital of Aachen. The presence of two choirs, a distinctive architectural form and many preserved examples of original decoration, makes Saint Laurentius unique among Flemish churches. Again, this is architecturally similar to other Holy Roman religious buildings such as Ravenna, the residence of the Ottonian emperors in Italy (*op cit*.).

The site is now known to be one of the best preserved examples of an early-Romanesque church in Belgium. Furthermore, it is the only standing monument from the Ottonian period (A.D. 974-1047) at Ename. The combination of the church's excellent preservation in conjunction with its distinctive plan gives the site particular historical and architectural importance. In 1995 it was recognised by the European Commission as a monument of significant architectural interest to Europe and its restoration has been supported in part by European funding.

A major program of restoration began in 1999. At the same time, a complete architectural-historical and archaeological investigation was conducted. The tower was stabilised and the inside of the church was restored to the way it would have looked in the Ottonian period.

8.3.4 Bos t'Ename

To the south of Ename square lies the Bos t'Ename (Woods of Ename) nature reserve. This is the final component of the cultural heritage offering at Ename. During the Middle Ages the woodlands had strong links with the abbey and the trading settlement before. Today the woodlands cover over 200 hectares and have both historical and ecological importance.

In 1977 the woodland at Bos t'Ename was designated as a nature and forest area on the Oudenaarde regional plan. Since 1981 Bos t'Ename has been given legal protection as a landscape (Ministerial Order 02.04.1981), and in 1996 the site officially became a nature reserve (Ministerial Order 20.03.1996). The acquisition of land for the reserve is a process that still continues today, in 2005 the reserve acquired a further 34 hectares of land for protection (Jean De Lafonteyne *pers. com*.). The current activities are partially funded by European Commission through the LIFE project, approved in 2001. In 2002, Bos t'Ename received the Flemish Monuments and Landscapes Award, making Ename the only site in Flanders to receive the prestigious award twice.

Many organisations contribute to the maintenance of the woodlands including the vzw De Wielewaal, the Natuurpunt organisation, and the Flemish Community (Callebaut and Van der Donckt 2004: 89). In 1992 the 'Bos t'Ename task force' was created to research and help manage the woods (www.werkgroep-bos-t-ename.org). This task force consists of an association of inhabitants of Ename and other interested parties who work towards the preservation of the forest of Ename. The members come mainly from the villages surrounding the woods (Nederename, Mater, Volkegem), although others come from further a field. In 2004 the task force consisted of more than 250 members. The group organises working days

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for cutting the wood, cleaning the forest, etc. The group only uses 'traditional' methods when working in the woods, such as the use of horses to move the cut timber, etc. This reduces the impact of woodland management and has allowed the wood to be gradually restored to a more 'natural' state. Several medieval forestry techniques are brought into practice such as coppicing and pollarding.

Figure 5: The Bos t'Ename Study Group at work

Today visitor numbers to the reserve are actively controlled to reduce human impact on the site:

- The site is not heavily promoted outside of the village
- Visitors may only visit the reserve with a trained guide
- Visitors are required to stay on wooden pathways raised above the woodland floor.

Interestingly, research by Shaffer (2002: 15) revealed that as many as half of the visitors to Ename 974 came to the complex to tour Bos t'Ename, despite the lack of promotional material about the reserve.

An important message that the woods convey is that such woodlands are inextricably linked with human activity. Visitors to the woodland trails can see five prehistoric sites, a mound used during the Middle Ages for raising rabbits (pillow mound), and a sunken road that runs from the hills into the valley. Archaeological research suggests that this trackway connected a Roman road and military camps on the hilltops with a prehistoric trackway that followed the River Scheldt[48]. These archaeological features in the woodlands are used to teach visitors to 'read' a landscape and understand the way in which history, archaeology and ecology interact. There are also a number of displays about the effects of human use of local resources, such as intensive grazing, exploitation of wood resources for cooking and heating, and early methods for protecting new woodland growth.

[48] This interpretation is subject to some interpretation. Research by Van Strydonck and De Mulder (2000: 73-74) highlights the difficulty of recognising prehistoric and even Roman features in the archaeological record.

8.4 Heritage interpretation using virtual reality

Two interwoven stories are central to the presentation of Ename's history. On the one hand, there is the history of the local community, which is similar to that of many rural villages throughout Europe, and indeed the world. On the other hand, there is a unique period of 75 years when Ename was an imperial frontier outpost on the River Scheldt and played an important role in Europe's political and military affairs. Thus the local and international aspects of Ename's history are the two points of view on which the presentation of its archaeological and historical monuments is based.

The overall project was named Ename 974 to commemorate the foundation of the medieval fortress at Ename. Its principal aim is to communicate new insights about archaeology, history, and conservation to the general public with great attention to scholarly accuracy and by means of multimedia technologies. Among the most important of these technologies are on-site virtual reconstructions, museum multimedia and educational projects, and innovative heritage presentation methods.

8.4.1 The archaeological site

Most archaeological remains are rarely recognizable as specific structures (such as houses, churches, or forts). The interpretation of archaeological remains is a complex process even for archaeologists, never mind the general public who have little background in the field and limited time to understand the site. Standard interpretation using information panels can fail to capture the imagination of many visitors.

At Ename, visitors can see the exposed and consolidated foundations and wall footings of the Benedictine abbey that dominated the village from 1063 to 1794. But, because the early-medieval trade settlement (A.D. 974-1047) was constructed mainly of wood and thatch it is not visible. Archaeologically this settlement was reduced to a series of soil layers, and it is this stratigraphy that was removed during the process of excavation. Today's visitor would see no evidence of their presence in the exposed archaeology.

Rather than attempt to create a physical reconstruction of the site or elements of the site the Ename 974 Project has developed the use of Virtual Reality heritage presentation on the excavation site itself. This avoids the interpretive and ethical problems of physical reconstruction by offering visitors a vivid picture of ancient life at Ename than can be rapidly adapted as archaeological investigations progress.

TimeScope 1

A first prototype system of this new VR technology (originally called TimeFrame), was opened to the public at the archaeological site in September, 1997. The TimeScope 1 system, superimposes a 3D model of the abbey church over a real-time video shot of the exposed foundations (augmented reality). This allows visitors to see the church in situ as it appeared in its original state. An accompanying multimedia presentation offers additional information about the site and the people who lived there (Pletinckx *et al*., 2000).

The current state of the art allows other technical solutions to be used to provide augmented reality presentations at an archaeological site (Pletinckx 2005). Based on these new solutions, a next generation presentation systems is being developed by the Ename Center for the Ename site.

8.4.2 The Saint Laurentius Church

Immediately after the inauguration of the first TimeScope, the Ename 974 team was brainstorming about the presentation of the restoration and excavation of the Saint Laurentius Church. From the beginning, it was recognised that the approach was completely different from TimeScope 1, so a new concept was made based upon "open archaeology" where camera

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images from the interior and results from the excavation and the restoration process were made public within weeks through interactive kiosks and on the Internet. This approach was based entirely upon Internet technology, to allow for efficient updating of the news flashes, and allowed the local inhabitants, the museum visitors and interested people to follow closely the ongoing restoration and research.

TimeScope 2

Two years later in September, 1999, a new system, called TimeScope 2 was inaugurated. This TimeScope system, as a kiosk in the museum garden close to the entrance of the church, was used initially to provide information about the early Romanesque Saint Laurentius Church, while it was undergoing an extensive program of excavation and interior restoration. The TimeScope system allowed visitors to monitor the progress of the excavations and restoration work. An accompanying multimedia presentation highlighted the historical importance of the church and provided information about the various stages of the restoration project through a frequently updated section called 'News from the Past' (Pletinckx *et al.*, 2002c). The virtual reality reconstructions and multimedia presentation were visible on the TimeScope system installed outside the church, as well as on a mirror system inside the museum and on the Internet, in formats targeted for different audiences (such as schoolchildren, adults, and scholars).

TimeScope 3

Since the discovery of the genuine nature of the Saint Laurentius Church as a pre-romanesque Ottonian building with outstanding historical and archaeological importance, much research has been devoted to this building, and a second restoration phase for the mural paintings was completed recently. When the Ename Center team started the design of the TimeScope 3 system in 2001, it rapidly became apparent that this mountain of information had to be presented to the public in the completely new way. The Ename Center developed a story-based system, where the user can influence the course of the story based upon interest and exploration. In this way, this interactive storytelling system adapts to the interest and attention span of the user, providing that subset of the information that fits best with the user's profile.

In the Saint Laurentius church, the TimeScope 3 interactive storytelling system helps to interpret the historical importance of this unique thousand-year old monument for the general public as well as providing up-to-date information about the excavations and restoration work. A first prototype of the system was installed in the church in September 2002 and the system was inaugurated in June 2004. The system is freely accessible in the church, without disturbing the religious nature of the building (Pletinckx *et al*., 2003a).

Another design goal was to make this interactive storytelling system open and sustainable: archaeologists, historians and other content providers need to be able to design, fill and maintain the system without the involvement of technical staff (Pletinckx *et al*., 2003b). TimeScope 3 was successfully made by an archaeologist and a historian, even so several other systems that have been made with the software in the period 2003-2005.

8.4.3 The village

When the excavations and restoration work were finalised in 2003, it was decided to turn TimeScope 2 into an information system on the history and evolution of the Ename village, called TimeScope 2b. In this way, a general information point was created that shows and explains the historical elements that are encountered while walking through the village.

TimeScope 2b

In 2004, completely new content was made available through a central interactive storytelling system that allows users to explore the village in a virtual way, learn about its historical development and hear the testimonies of inhabitants of the village. This approach allowed the

investment to be reduced to one fixed system, furthermore it also to respects the rural character of the village (Pletinckx *et al*., 2004).

8.4.4 The Museum

The Provincial Museum at Ename is exceptional among local museums of its size in the extent of its interactivity and in its use of computer-controlled DVD, multimedia, and virtual reality technologies, in addition to traditional presentation techniques. One of its most innovative systems is the TimeLine which uses 3D reconstructions of an area measuring 3 by 3 km over a time span of 1000 years. This interactive installation is operated by a touch screen and offers panoramic viewing of the selected era. Archaeological artefacts and historical objects exhibited in the museum are visually linked to the TimeLine reconstructions, providing visitors with precise information on the context in which the artefacts were found (Pletinckx 2002d). This was obtained in close cooperation with the university of Leuven, Belgium, through the use of image-based rendering[49] (Vergauwen 2004).

The Ename 974 Project has also established a website (www.ename974.org) for purposes of publicity, public information, and scientific updates. It is used to encourage visitors to come to the museum and archaeological park of Ename; to communicate the project achievements to interested parties who are unable to visit the site in person; and to provide regular announcements about events, new technologies and archaeological findings of the project.

At Ename the use of information technology has complemented heritage interpretation rather than subsumed it. Since its inauguration in September 1997, the Ename TimeScope 1 system has received two awards including the Golden Scarab for the best archaeological presentation in Benelux and the Award for the Best Monument in Flanders 1998. This was the first time that an archaeological site in Belgium was considered to be a monument. The use of innovative technology was the key factor to cross this traditional boundary between monuments and archaeology.

In 2004, the TimeScope 3 system received the ICT Innovation Award from the VGI (Institute for History and Informatics).

8.4.5 Bos t'Ename

Bos t'Ename is not using technology for the moment. Along the walking trail, information panels provide more insight on the historical and natural aspects of the area. On the Ename website, panoramic views and photographs are available from the nature reserve area that has restricted access.

The walking trail is quite popular but there is no way to precisely quantify the number of people that use the trail.

8.4.6 The Ename Heritage Centre

In September 2005, the construction of a heritage centre started. This centre will contain spaces for permanent and temporary exhibitions, plus offices, auditoria and labs. It is expected that this centre will give another boost to the visibility of Ename.

8.5 Outcomes and impacts

Any assessment of the impact of a heritage site or sites needs to consider the differences between outcomes and impacts. Outcomes, or effects, are causal events such as visiting a site. Impacts are a consequence of these effects; this could include changes produced by visitors such as increased revenues for the site, or greater levels of employment. Impacts have been

[49] Developed as partof the fifth framework INVIEW project.

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called ‘effects of effects’ (Ost and Van Droogenbroeck 1998: 50). Because impacts are one step removed from effects, they are more difficult to quantify than effects.

This section provides an overview of the principal outcomes and impacts. It does not attempt to quantify these.

8.5.1 Awareness

An important ‘outcome’ of the heritage presentation at Ename is the generation of awareness through various media and branding. This creates an impact in the form of increased visitor numbers at the site, enhanced appreciation of heritage, etc.

Printed media

Ename’s heritage has gained considerable coverage in the national, and regional/local printed media. In this context the definition of printed media encompasses newspapers and magazines, not produced by the Ename heritage site. The analysis has been based on research conducted on the press cutting libraries at the archaeological site and the museum.

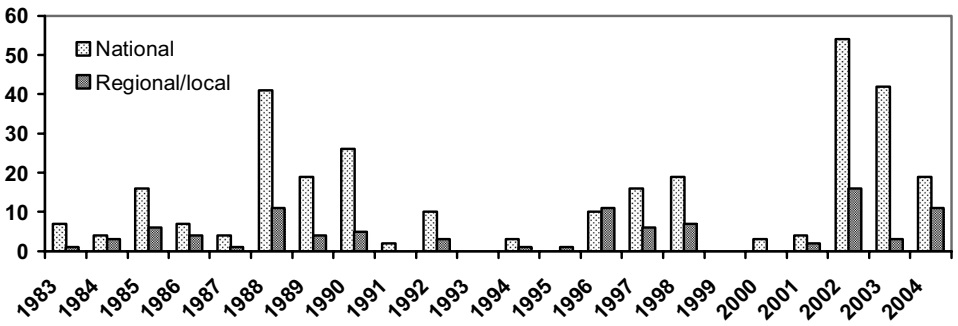

Figure 6: The representation of Ename’s cultural heritage assets in Belgium’s national and regional/local printed media 1983-2004

An assessment of the period between 1983 and 2004 has revealed 410 articles in the printed media relating to the heritage assets at Ename. Very approximately this equates to 65 full pages of coverage in the national press, and 29 full pages of coverage in the local and regional press.

Such an assessment of media coverage will always underestimate the actual coverage. By definition the primary goal of the heritage institutions is to maintain and protect the heritage assets. Maintaining a library of media cuttings is a secondary marketing activity; therefore the collection of material can be highly variable, depending on factors such as resource availability, interest, and awareness. This goes some way to explaining the poor availability of material between 1991-1996 and 1999-2001.

Despite the above data being only a guide, it is immediately apparent that the heritage sites at Ename have gained considerable coverage in the national press, more so than the regional press. This is all the more significant considering that there is no official media plan at Ename.

The principal impact of such media coverage is increased awareness of the site outside of the immediate locality of Oudenaarde. This is very close to being free advertising – obviously some resources have to be devoted to the provision of information to journalists, but these are not significant.

Attempts at putting a value on the increased coverage in the printed media are fraught with difficulty. Any attempt to link increased media coverage with increased visitor numbers

would be difficult, although, market research at the Ename museum by Shaffer (2002) revealed that 11% of visitors first heard about Ename through printed media sources.

It is of course possible to put a direct value on the number of pages of media coverage by using the average cost of advertising space in the national and regional press for the years studied. This can be a complicated calculation.

Other media

The heritage sites at Ename have a good profile in other media such as radio and television. Market research at the Ename museum by Shaffer (2002) revealed that 15% of visitors first heard about Ename museum through television, and 1.4% heard about it through radio. Unfortunately radio and television coverage is much more difficult to quantify compared to printed media. No records exist for television and radio programs that have mentioned the heritage sites at Ename.

Academic coverage

In addition to the popular press the heritage assets at Ename have gained considerable coverage in academic publications and conferences. The creation of the Ename Centre had a considerable effect on these outcomes. In addition, the Ename Center has organised several national and international conferences that have enhanced the visibility of Ename.

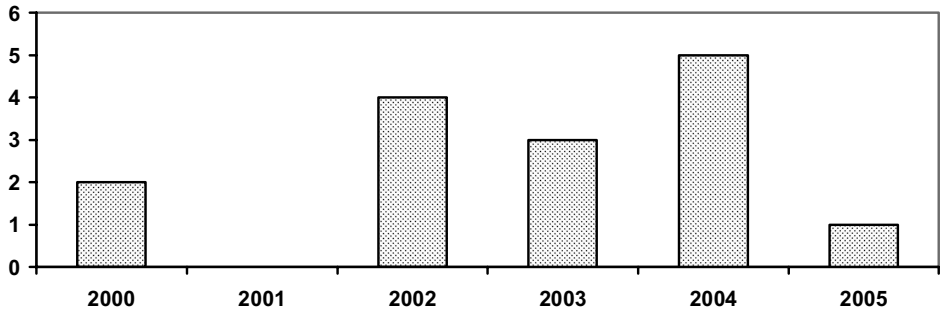

Figure 7: The publication of academic papers relating to Ename's cultural heritage assets between 2000-2005[50]

The Website

The Website was officially opened in December 1998 by Queen Paola of Belgium. During the first months interest in the website increased: 10% of the visitors came from the Netherlands; each month 200 non-Dutch speaking visitors visited the site. The real breakthrough of the site came with the launch of the second TimeScope on Open Monuments Day in September 1999. The design of the site was modernized, and it became a part of the TimeScope with the section 'News from the Past'. The new system which considered the history and restoration of the church comprised three elements: the kiosk in the museum garden, a system inside the museum and the previous mentioned section on the internet. In the meantime the content of TimeScope 2 changed: now it tells about the village. In 2001 the website had about 2500-3000 visitors a month. A quarter came from outside Belgium.

[50] These are Callebaut (2000), Pletinckx *et al*. (2000), Pletinckx *et al*. (2002, 2002a, b, c), Callebaut *et al*. (2003), Pletinckx *et al*. (2003a, b), Callebaut and Killebrew (2004), Callebaut and Van der Donkt (2004), Pletinckx *et al*. (2004a, b).

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Branding

The Ename974 Project has been instrumental in developing a brand image for the village. This branding has been crucial as a method of indirectly raising awareness of the historical assets. The first examples of branding occurred in 1990 with the creation of Ename Dubbel (brown) and Tripel (blond) bottled beers. In Belgium 'Abbey Beer' (Abdijbier) is an important marketing concept. In order to become officially recognised as an abbey beer the beverage needs to have established a link to an actual abbey site. Although, unlike the 'Trappist' beers it does not have to be brewed by monks. The archaeological and virtual resurrection of Ename Abbey has provided an opportunity to link a brand to the site.

Following the success of the branding of Ename beer an Ename Cheese was launched at the end of October 1991, with production starting at the beginning of 1992. This is a half-hard cheese. In 1997 an Ename Blond bottled beer was created to compliment the success of the Ename Dubbel and Tripel beers. In order to mark the opening of the museum in 1998 an Ename-branded ham was created. Since 2002 the 'Ename 974' beer has been brewed. This is a typical Winterbeer and is only available in the winter season. Finally, in 2005 an Ename Abbey liquor was distilled.

The branding of Ename 974 products is conducted sympathetically, with deep awareness of the heritage of the site. As a result, the Ename branded items are typical products of the Low Countries that also have a close link with the abbey. For example, there are literary references to the Benedictines brewing beer in the Abbey dating as far back as the thirteenth century (Tack, Ervynck and van Bost 1999: 165).

1990	Ename Dubbel (brown) and Tripel (blond) bottled beers brewed by the Roman brewery
1992	Ename Cheese is produced by Belgomilk
1997	An Ename Blond bottled beer is brewed by the Roman brewery
1998	An Ename branded ham is produced by Van Hoe Products
2002	An Ename 974 Winterbeer is brewed by the Roman brewery
2005	Ename Abbey liquor is produced by Jochen Vander Stuyft

Figure 8: The branding of 'Ename' 974 products

In reconstituting 'the Abbey' archaeologically – nothing more than foundations exist today – the Ename 974 team have used the site's heritage to increase the brand awareness of the village from almost zero to a notable market presence. The Ename 'abbey' beers are probably the biggest branding mechanism that the village has, generating awareness across Belgium, parts of France and the Netherlands, which even extends across Europe and internationally (such as North America).

8.6 Community involvement in heritage

Ename974 has been strongly integrated with the community from the outset. For example, a newsletter about the archaeological investigations at Ename has been published since April 1996. 'Ename 974' is published every four months and 17,000 copies are distributed free to the residents of the Oudenaarde region, libraries and cultural centres, plus interested individuals and organisations. This way the activities of the archaeological park are disseminated to the municipality, events can be advertised and locals can enter competitions to win Ename branded products.

Three open-air plays were performed among the consolidated ruins of the abbey between 1988 and 1992. These plays attracted large audiences. The earliest and smallest production, in 1988 was of 'Mariken Van Nieumeghen' (16-18 September). This was followed in 1990 by a much more substantial production of 'Beatrijs' (7-9 and 14-16 September), and in 1992 'Don Quichot' was performed (27-30 August, 2-6 and 9-13 September). The later two performances each attracted 15,000–20,000 people from the Oudenaarde region and beyond.

Figure 9: The performance of the play 'Beatrijs' among the consolidated ruins of Ename Abbey in September 1990

In November 2002 the play 'Mademoiselle Jaïre' was performed in Saint Laurentius church by the Theatre STAM. Fourteen performances took place between 14-24 November. The play was used to mark the opening of the church after its three year closure for restoration and excavation (Saint Laurentius was re-consecrated on December 22, 2002). The church is now a regular venue for musical concerts.

During the three years when the church was being restored a wooden chapel was built on the site to house the congregation. After the consecration of the church at the close of 2002 the temporary wooden building was donated to the local school for use as gym and sports hall.

The visit of Queen Paola in December 1998 and the visit of Prince Philippe and Princess Mathilde in 2002 have also created a special link with the local community.

These types of activity have helped to make the archaeological and historical research at Ename part of community life. A direct result of this community involvement is the re-establishment of the famous Ename horse market since August 2000. This horse market has been in existence since the Middle Ages but disappeared in the 1960s. Local inhabitants took the initiative to organise it in the context of the annual "Feeste t'Ename", and it has been very successful from the start.

8.7 Socio-economic impact

Ename provides a direct example of how the exploitation of heritage assets can have an impact on a town and its surrounding region. Before 1982 the heritage of Ename was not exploited in any way. The only indication that the village had any major heritage assets was as a result of the limited scale excavations carried out during the Second World War.

Ename provides an ideal case study to look at the socio-economic impact of cultural heritage on a site, because:

- The study of the site's cultural heritage has been extremely well documented.

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- There is a clearly defined moment after which the heritage assets were discovered and exploited. There is time-depth with data before, during and after the archaeological work began on the site.
- There are a number of other semi-rural villages that surround Oudenaarde that do not have heritage suitable for the tourist arena. These sites can act as a control for the results of Ename.

It is apparent that the metamorphosis of Ename from an agricultural community on the periphery of Oudenaarde to a local heritage centre has had wide ranging socio-economic impacts. These outcomes and impacts relate not only to the village itself but the wider region, with many benefits falling to the local centre at Oudenaarde.

Economic

The population of the village is currently about 2700. There is little economic activity in the town, a couple of shops and a pub/café on the main square and nearby streets. The inhabitants are either employed in agriculture locally or commute into Oudenaarde to work in the industrial centres around its periphery.

Economically, the most important outcome has been the increase of visitor numbers. Before 1982 there was no tourist industry in Ename. It was still an agricultural community. As excavations started and they became known in the media visitor numbers started to increase. In the early period of excavations (after the open air theatre) it is estimated that c.10,000 visitors per annum attended the excavations. After the implementation of the first TimeScope in 1997 visitor figures rose to c.30,000. Although there is apparently a link between the implementation of technology and the increase in visitors it cannot wholly be attributed to the implementation of technology. The technology began to be featured increasingly in the national and regional media (newspapers, TV and radio).

Visitors to Ename have an impact on the economy of the local town of Oudenaarde. The relationship between the town of Oudenaarde and the outlying village of Ename is symbiotic. Ename provides an additional reason to attract visitors to Oudenaarde. 30,000 visitors combine their trip to Ename with a visit to the town of Oudenaarde and *vice versa*.

This allows the centre at Oudenaarde to benefit from the increased trade in food and leisure provision, bed nights, etc from Ename visitors. Research by Oudenaarde Tourist Authority has shown that visitors in the town spend, on average, €12.50 in the town.

Ename has retained its village atmosphere and not developed the infrastructure to exploit significant numbers of tourists. It has no hotels or guest houses, however, the number of pubs and restaurants has increased to six and more specifically the number of pubs which now serve food has increased to two, and there is a restaurant. Although it is difficult to prove this can be attributed to the project, the timing of this increased offering coincides with the opening of the museum and the raise in tourist numbers associated with that (see above). It is expected that the Heritage Centre, which will open in 2007, will have a supplementary impact on the local tourist infrastructure.

Heritage is now one of the biggest employers in the village (the archaeological site, the Ename Centre, and the museum). The extra employment in the village has a knock-on effect in helping to support the pubs/cafes in the village.

Community cohesion

The most significant impact that can be associated with the Ename heritage sites is the increase in community cohesion that has resulted from the development of heritage on the site.

Environmental

Despite the considerable increase in visitor numbers to Ename in the last quarter century, the negative environmental impacts have been negligible. In fact, the presence of the Ename heritage sites has generated many positive environmental benefits. The following impacts and outcomes can be considered:

- Bos t'Ename is preserved for future generations – altruistic value.
- Woodlands are available for current population and the size of the woodland reserve is expanding.
- The preservation of traditional woodland crafts and management techniques has been maintained through the management of Bos t'Ename.
- The deliberate management of visitor numbers to the woodlands reduces the potential impact on the ecology.

Outside of the Bos t'Ename, the negative impact of substantial numbers of visitors has been reduced:

- The widespread use of coach transport to get over half of the visitors to Ename reduces the environmental impact of the increase in visitor numbers.
- The creation of cycling routes encourages many visitors to visit Ename by bike, further reducing the environmental impact of visitors.

8.8 Conclusions

The development of Ename's heritage assets has caused a number of impacts in the region. The three principal benefits and impacts are:

- Economic benefits for the local town at Oudenaarde and to a limited extent Ename
- Increased community cohesion at Ename
- Environmental benefits for Ename and the surrounding villages.

The benefits for such a small village are considerable. However, such benefits require work.

- It takes investment – financial resources are necessary to initiate such projects. They can become self-sustaining.
- Political backing is useful – it takes a farsighted approach to see that heritage can benefit a community.
- Slow process – the development of heritage assets can be a slow process.
- Involve the community – if it is possible to involve the community in such projects from the beginning the social impact can be considerable.

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References

Callebaut, D. (2000) The experiences of the Ename 974 Project with new media: where and how do virtual reality and interactivity fit in? *Proceedings of the 2000 VAST Euroconference*, Arezzo

Callebaut, D., Van der Donckt, M., Silberman, N. A., and Pletinckx, D. (2003) Archaeological parks in Belgium: techniques of heritage presentation to the public at Ename, *The world of cultural heritage* 10, Kokusai Kogyo: Tokyo, 6-8.

Callebaut, D., and Killebrew, A. (eds.) (2004) *Interpreting the Past I: an international symposium*. Flemish Heritage Institute: Brussels.

Callebaut D., and Van der Donkt, M. (2004) Heritage preservation and presentation in a living environment: the Ename 974 project as a case study, in Callebaut, D., and Killebrew, A. (eds.) *Interpreting the past: presenting archaeological sites to the public*, Flemish Heritage Institute: Brussels.

Callebaut, L. (1992) Beatrijs. Verantwoordelijke uitgever: Stadsbestuur Oudenaarde.

Ost, C. and Van Droogenbroeck, N. (1998) *Report on the economics of conservation: an appraisal of theories, principles and methods*. ICOMOS: Brussels.

Pletinckx, D., Callebaut, D., Killebrew, A., and Silberman, N. (2000) Virtual-reality heritage presentation at Ename. *IEEE Multimedia* 7.2, 45-48.

Pletinckx, D., Silberman, N. A., and Callebaut, D. (2002a) Computer aided cultural routes, Proceedings of the 3D Virtual Heritage Workshop, Geneva: University of Geneva.

Pletinckx, D., Silberman, N. A., and Callebaut, D. (2002b) Why multimedia matter in cultural heritage: the use of new technologies in the Ename 974 Project, in Niccolucci, F. and Hermon, S. (eds.) *Multimedia communication for cultural heritage*. Archaeolingua: Budapest, 65-72.

Pletinckx, D., Silberman, N. A., and Callebaut, D. (2002c) Presenting a monument in restoration: the Saint Laurentius church in Ename and its role in the Francia Media heritage initiative, *VAST 2001 Proceedings: Virtual Reality, Archaeology and Cultural Heritage* ACM Siggraph: New York, 197-204.

Pletinckx, D., Van der Donckt, M., and Callebaut, D. (2002d) Projekt Ename 974: neue technologien in der erbgutpräsentation, archäologie virtuell: in Projecte, Entwicklungen Tendenzen seit 1995, Schriften zur Bodendenkmalpflege in Nordrhein-Westfalen, Habelt: Bonn, 50-56.

Pletinckx, D., Silberman, N. A., and Callebaut, D. (2003a) Heritage presentation in monuments through interactive storytelling, *Proceedings of the VSMM2003 Conference*, VSMM: Montreal, 104-112.

Pletinckx D., Silberman N. A., and Callebaut D. (2003b) Heritage presentation through interactive storytelling: a new multimedia database approach, *Journal of Visualization and Computer Animation* 14, 1–7.

Pletinckx, D., Callebaut, D., Van der Donckt, M. and Silberman, N. A. (2003c) Fenêtre du temps, *Magazine Continuité* 99, Conseil des monuments et sites du Québec: Quebec.

Pletinckx, D., De Jaegher, L., Helsen, T., Langen, I., Silberman, N., Van der Donckt, M., and Stobbe, J. (2004) Telling the local story: an interactive presentation system for community and

regional settings. *VAST 2004: The 5th International Symposium on Virtual Reality, Archaeology and Cultural Heritage*, Eurographics: Switzerland.

Pletinckx D. (2005) Visualisation and communication in cultural heritage, *Rendering Techniques 2005, Proceedings of the Eurographics Symposium on Rendering, Konstanz 2005*, 9–10.

Shaffer, K. M. (2002) *Ename 974*. Unpublished research paper, University of Maryland.

Tack, G., Ervynck, A., and Van Bost, G. (1999) *Abt De Loose in zijn abdij 't Ename*, Davidsfonds: Leuven.

Toebosch T. (2005), Projecties uit het verleden, *Natuur, Wetenschap & Techniek, April 2005,* 74-77

Van der Meiren, J., Rogge, M., Braeckman, K., Van der Plaetsen, P., De Mulder, G., Souffreau, G., Van der Donkt, M., Callebaut, D., De Vos, D., Silberman, N. (2004) *The Provincial Archaeological Museum at Ename and Velzeke*, Wouters: Antwerp.

Van Strydonck, M and De Mulder G. (2000) *De Schelde: Verhaal van een rivier*, Davidsfonds: Leuven.

Vergauwen, M., Pletinckx, D., Willems, G., Verbiest, F., Van Gool, L., Helsen, T. (2004) As time flies by: mixed image and model-based rendering of an historical landscape from helicopter images, *Proceedings. of the VAST2004 Conference, Brussels,* 241-250.

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9 Economic impact research at English Heritage

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In recent years economic studies have been increasingly used as a tool to measure value, benefit and impact at cultural heritage sites. This paper considers this phenomenon and looks at how English Heritage has studied economic impact and benefit.

9.1 Introduction

English Heritage[51] has a sizeable research programme, of the order of £10m each year. Most of this research is concerned with archaeology, history, interpretation and characterisation. One pertinent example for where we are now is a project concerned with the architecture and social history of seaside towns. But there is a small, though growing part of this research programme that is concerned with economic and social issues. You may think it odd that English Heritage should be concerned with such issues. But increasingly we find that the government's policy agenda enjoins us (and by us I mean not just English Heritage, but also the wider public and private heritage sector) to demonstrate the contribution the sector makes to issues such as diversity and access, regeneration, social capital and social inclusion, tourism and the enhancement of the natural and built environment. One example is the Public Service Agreement (PSA) target that English Heritage has to deliver on behalf of the wider heritage sector. This target is concerned with participation in heritage by specified ethnic and social groups. Another example is the crucial role that heritage projects can play in the regeneration of city centres and market towns. We need tools to demonstrate this contribution, and the research programme is a means of developing those tools. Of course we do not ignore the intrinsic value of heritage and our research programme also encompasses that aspect. But that intrinsic value has to be articulated in ways that can be read across to wider policy agendas.

To put our work in context the following extract from a recent essay by Tessa Jowell the UK Cabinet Minister with responsibility for heritage policy is relevant:

> "The historic environment contributes to a wide range of Government ambitions to cut crime, promote inclusion, improve educational achievement, but is worth supporting in itself, for the way it can encourage people better to understand and engage with their history and their community, and help slay that poverty of aspiration which holds so many people back from fulfilling their potential."

9.2 English Heritage research and the UK Historic Environment Research Group

English Heritage will shortly be issuing a consultation document concerned with the organisation's research strategy. The working title of the document is 'Discovering the Past, Shaping the Future', and will cover all aspects of the organisation's research activities. The strategy is designed to support the overall English Heritage strategy for "making our past part of our future" and to create a virtuous cycle of understanding, valuing, caring for and enjoying the historic environment with six strategic aims. These are to:

- help more people better understand the historic environment
- get the historic environment on other people's agendas
- enable and promote sustainable change to the historic environment

[51] www.english-heritage.org.uk/

- help local communities care for their historic environment
- stimulate and harness enthusiasm for the historic environment, and
- make the most effective use of the assets in our care.

Each of the strategic aims is reinforced by a set of key priorities for action during the plan period. The research strategy supports all the strategic aims and their key priorities. There are seven main research themes:

- discovering, studying and defining historic assets and their significance
- studying and establishing the socio-economic and other values and needs of the historic environment and of those concerned with it
- engaging and developing diverse audiences
- studying and assessing the risks to and devising responses for historic assets
- studying historic assets and improving their presentation and interpretation
- studying and developing information management, and
- supporting other corporate priorities, especially studying and devising ways to make English Heritage and the sector more effective.

The research strategy also recognises the wider priorities of the sector as articulated by meetings and workshops held by the UK Historic Environment Research Group (UKHERG). UKHERG is hosted by the Heritage Lottery Fund and established with English Heritage's help to share research plans and information focused on socio-economic and policy interests in the historic environment. The members of UKHERG represent cultural and environmental agencies and non-departmental public bodies and sectoral interests.

9.3 'Heritage Counts'

The flagship publication covering social and economic issues for the heritage sector in England is 'Heritage Counts'. This is an annual publication produced by the Historic Environment Review Executive Committee (HEREC). HEREC represents a number of organisations in the public, voluntary and private sector with significant heritage interests. Heritage Counts sets out information on the extent of England's historic assets, the pressures facing them and the different ways in which heritage contributes to people's lives. The content is a mixture of regular features such as indicators and statistics that are relevant to the sector, reports of recently completed or on-going research, and highlighting particular themes – last year's report described the effects of ten years of funding by the Heritage Lottery Fund, and this years report will highlight rural heritage issues and research. Heritage Counts also contains a suite of regional reports produced by the Historic Environment Forums in each of the nine English regions.

9.4 The 'Heritage Dividend'

We use the term Heritage Dividend to describe the spin-off effects of heritage projects and programmes. There have been three Heritage Divided reports so far. In 1999 a report was published evaluating the social and economic contribution that English Heritage area-based grant programmes (Conservation Area Partnership Schemes and later Heritage Economic Regeneration Schemes) made to area regeneration. The report became known as the 'Heritage Dividend', capturing the specific 'pay back' to local communities from investment in the historic environment. In 2002, there was a new edition of the Heritage Dividend (which included an evaluation of a project in Brighton to do with the St James's Street and St George's Street shopping area), and in 2003, a further report was produced in partnership with

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the Heritage Lottery Fund and East of England Development Agency which looked specifically at projects in the East of England region.

When I joined English Heritage I was interested in the methodology used in the Heritage Dividend reports, and in particular the extent to which it was similar to mainstream regeneration projects that I was familiar with. Reporting of outputs and outcomes in the heritage and related sectors is a growth area; see for example reports to do with the National Museums, British Waterways, English cathedrals and expenditure by the Heritage Lottery Fund. In addition there have been a number of recent advice and guidance notes on evaluating the outputs and outcomes of public sector projects. For example HM Treasury, The Green Book: Appraisal and Evaluation in Central Government; DCMS, The White Book - DCMS Guidance on Appraisal and Evaluation of Projects; Programmes and Policies; ODPM, Assessing the impacts of spatial intervention: The 3Rs guidance; English Partnerships, Additionality Guide: A standard approach to assessing the additional impact of projects.

In order to maintain and enhance the value of Heritage Dividend methodology it was important that its outputs should be as consistent as possible with this new guidance. English Heritage therefore asked 'Urban Practitioners' to review the Heritage Dividend methodology and put forward a revised methodology that took account of recent developments, but was also practically possible given the scale and scope of most heritage projects. Urban Practitioners have completed the project and at the Urban Summit in February we circulated Urban Practitioner's report. Subsequently we have received some very helpful comments and a revised report will be issued shortly.

In summary Urban Practitioners note that the original Heritage Dividend reports were produced for a particular purpose and timescale and provided information that had not been made available before. At the time, and subsequently, the reports have proved to be very successful advocacy tools and developed a brand image quoted in this country and abroad. However the original Heritage Dividend reports were not primarily intended to be evaluation tools and evaluation of wider outputs and outcomes was not a task that was routinely undertaken. In this sense evaluation is not just about providing information for advocacy purposes but also about learning lessons for the selection, appraisal and management of future projects. Also the Heritage Dividend reports used a relatively limited range of quantitative indicators, but there is also interest in the impact of heritage projects on some of the less tangible but less easily measured aspects of modern life. The intention of the new guidance, including recommended reporting format, is that all projects should collect at least some information and report some outputs and outcomes, but with the level of reporting determined by the scale of the project. We recognise that it would be inappropriate for small projects to undertake a comprehensive evaluation of wider impacts – such evaluation might well exceed the cost of the project. However we believe that there is scope for larger projects or samples or combinations of smaller projects to be analysed using more sophisticated techniques that are common in the regeneration literature and guidance. This would include looking at the baseline (i.e. what would have happened in the absence of the project or programme, supply chain impacts, retail, tourism and visitor impacts, inward investment impacts, extent to which impacts are genuinely additional or merely at the expense of other activities, geography of impacts, impacts of social capital and the use of surveys to elicit more qualitative information. The report from Urban Practioners contains advice on how to deal with these aspects of evaluation.

In addition to the methodology report there is a general English Heritage guidance note on heritage regeneration, Regeneration and the Historic Environment and other research to do with best practice for developers when drawing up plans for the rehabilitation of historic commercial buildings in city centres. English Heritage is also involved with proposals to develop a study of the impact of World Heritage Sites being led by ICOMOS UK.

9.5 The heritage economy

Heritage Counts reports a limited amount of data about employment and expenditure in some parts of the heritage sector. Unfortunately the industrial and employment classifications used by the Office of National Statistics do not enable us to easily extract data for what would normally be defined as heritage or the historic environment. Thus for example employment data covers museums as well as heritage services. There have been some surveys covering particular activities, for example employment in archaeology. English Heritage together with the Institute of Field Archaeologists, the Landscape Institute and the Institute of Historic Building Conservation is developing a methodology to collect data about employment in the professions and expenditure on activities related to these professional activities in both the public and private sector. This data will form the basis for future reporting of the scale and nature of the heritage economy.

9.6 Free sites

Information about the number of visits to heritage sites (and by implication the economic and social impacts of such visits on the local area) is patchy. The survey conducted by Visit Britain of visitor attractions is the basis of data about visits to heritage sites contained in Heritage Counts. The survey of English Cathedrals, also reported in Heritage Counts contains estimates of visitor numbers and economic and social impacts. However the 'VisitBritain' survey has a number of gaps, in particular sites that do not make an entry charge or have no form of controlled entry. English Heritage itself has about 250 sites that do not charge for entry. In the past broad estimates have been made of the possible use of these sites but there has been no comprehensive or consistent estimates. The requirement to make more soundly-based estimates of number of visits and local impacts arises from the need to make a more informed case for expenditure by English Heritage and in applications for grants from others at such sites to improves interpretation, presentation and access and generally raise the profile of such sites. In a parallel exercise English Heritage is in the process of publishing a series of booklets about the history and interpretation of each of our free sites in different areas of the country.

In order to obtain better information about its sites, English Heritage has engaged the consultants MEW to advise on an appropriate methodology to collect visit data and make inferences about local impacts of such visits. The methodology will have to address a number of issues, including definition of visit – for example, visitors to the site specifically for the heritage experience, dog walkers, joggers, passers through the site, passers-by; categorisation of sites; use of existing information to target survey activity; lay-out of sites, including number of entrances, practicality of counting and interviewing. A methodology report due to be completed in July and will then be used as a basis for decisions about carrying out surveys and interviews. Depending on the recommended methodology used it is likely to take up to a year to complete the work. The methodology may well be applicable to other heritage and other sites that have similar characteristics to those managed by English Heritage.

9.7 Valuation project

English Heritage in partnership with the Heritage Lottery Fund, Department for Culture, Media and Sport and the Department for Transport have sponsored a research project from eftec consultants to review the available evidence of heritage valuation studies, to consider the scope for transferring values from existing studies to other situations and to make recommendations for future work. The research is intended to update an earlier publication, *The Value of Conservation* (1996), and to take account of developments in valuation methodology and studies carried out since the earlier report was published. A particular concern of the current project is the extent to which values can be used to support the appraisal of expenditure or actions concerned with marginal change in the appearance, character, access, or environment of heritage features rather than their existence. It is generally speaking

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expenditure on marginal, but important changes, that is discretionary and therefore an appropriate subject for appraisals that can be informed by the results of valuation studies. The report of this research will be issued in the next few months and related conference events are being planned.

9.8 Listed offices

In 2001 English Heritage, in conjunction with the Royal Institute of Chartered Surveyors issued a report of research carried out by the Investment Property Databank concerned with the investment performance of office buildings that are listed, and compared this performance with non-listed offices. The results suggested that the returns to owners of listed offices compared well with returns from non-listed offices buildings. The report also considers returns in London and the rest of the UK. This research is being repeated in 2005 and a report will be issued later this year.

9.9 Funding of research

You will not be surprised to learn that the available funds for social and economic research in English Heritage are small. Therefore we must work hard to make the best use of these limited funds. We do this in a number of ways, including:

- co-funding with other organisations in areas of mutual interest
- contributing to the funding of marginal increments of existing studies run by others
- making the best use of existing studies
- making bids for funds through the research councils and other grant-making bodies, and
- funding from programmes related to heritage, for example 'Objective One'.

9.10 Conclusions

Social and economic research to do with the historic environment is increasing in importance as a contributor to the debate about the value and meanLMQsFmIelm

- *Intrinsic values*: Of course nothing has intrinsic value – but we do ascribe values to heritage assets. Understanding these values is often a first step in assessing impact or deciding what to do, yet they are often overlooked in valuation literature. This model gives these values a place in thinking. These values are usually captured during conservation management planning or other value-led planning models, through some form of consultation or participation.
- *Instrumental values*: These are the values or benefits that accrue when intervention takes place, be it a grant award, or a decision to alter something. They may be social, economic or environmental. They may have no relationship to how people say they value an asset (e.g. I like my local park, but house prices may rise if a park is improved), or they may be closely related (as a result of intervention my park is safer; the heritage qualities are better, etc). These values can be measured through conventional social and economic impact surveys or through scientific studies (e.g. on embodied energy).
- *Institutional values*: These are about how an organisation behaves. Heritage organisations act on behalf of the public to distribute funding or enforce legislation. Often their advice is the basis for things being protected. It is therefore vital that heritage organisations are trusted by the public. Yet this is something that is rarely, if ever measured. Public value requires organisations to look at this kind of issue, and these values can be measured through opinion surveys or deliberative research.

10.5 Conclusions

The public value triangle gets us out of the old heritage dilemma of the relationship between significance and benefits. It also creates a formal role for the question of trust – something that is vital to heritage practice but often avoided by heritage organisations. It is nothing new, but like all good ideas, it simply articulates something that we were probably all thinking.

We are currently using the model in the Heritage Lottery Fund to assemble evidence about what we do. We have been testing parts of it with members of the public as part of some deliberative research we are doing into the benefits of our funding. And we are also beginning to discuss it with other partners in the sector.

Heritage impact is a fascinating and important concept. Yes, we do need to borrow from other disciplines – economics, social sciences, environmental thinking. But I am also convinced that the very nature of heritage – what it is that people value – gives us a *locus* to contribute something to the valuation debate in our own right.

I would like to see thinking about what people value and why at the centre of decision-making well beyond heritage – in spatial planning, and in public services. In a world dominated by the need to do something new it may not be sexy, but if we are serious about sustainable development, it is essential.

Public value may be the emperor's new clothes – or it may just be the framework that helps is to link what we do with wider political and policy imperatives. And that, if nothing else, is the biggest challenge that heritage faces.

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Glossary

ARR

Accounting Rate of Return. See *ROI*.

Adaptive re-use

The recycling of an older building, or structure, often for a new function. This can involve extensive restoration or rehabilitation of both the interior and exterior.

Altruistic value

In economics this is a non-use value where an individual is willing to pay a sum in order to enhance the wellbeing of others.

Analogue data

Data represented by a physical quantity that is considered to be continuously variable and whose magnitude is made directly proportional to the data or to a suitable function of the data.

Anchoring bias

In the determination of WTP values anchoring bias is the process where the values respondent give are influenced by the starting values or succeeding values provided in the survey instrument.

Avatar

A representation of a human user in a computer-generated virtual environment. The word avatar comes from the Sanskrit for 'descent'. The first avatars were developed for the computing environment in 1985.

Benefit transfer

A secondary economic analysis methodology that uses the results from previous valuation studies and applies those results, with or without modification, to the same or similar good in a different context.

Bequest value

In economics this is a non-use value in which individuals place a value on the preservation of a resource for others in the future.

Capital equipment

These are goods that an institution does not consume during everyday use and provide operating benefits over time (such as touch-screen displays, projectors and audio-visual equipment, etc.). This type of equipment is considered an asset or capital asset of the institution.

Capital expenditure

Financial expenditure on capital assets rather than on operating expenses. These expenditures will contribute to the property and equipment of an institution thereby enhancing its value.

Conservation

All the processes devoted to the preservation of cultural heritage for the future. Conservation activities include examination, documentation, treatment, and preventive care, supported by research and education.

Closed ended contingent valuation

A contingent valuation methodology in which individuals are given a single value, they only have the option of responding 'yes' or 'no' to this value. The value is varied across the sample, and is used to determine averages.

Coercive payment vehicles

Payment vehicles in that involve some degree of compulsion, such as rates, taxes, or fees. This contrasts to non-coercive payment vehicles such as donations.

Cultural sector

The cultural sector comprises four elements; heritage, arts, cultural industries, and libraries and archives.

Cultural industries

These include the film and video industry, broadcasting, sound and music recording, book and periodical publishing, theatre, and new media (including multi- and interactive media).

Consumer surplus

The net difference between the actual cost of a good or service to a consumer and the price that they would be willing to pay for that same good or service. This is the net benefit an individual receives from the consumption of a particular commodity. For non-market goods, the WTP is equivalent to the consumer surplus.

Contingent choice

A stated preference methodology similar to contingent valuation. Like contingent valuation it requires individuals to make rank choices based on a hypothetical scenario. Unlike contingent valuation it does not directly ask respondents to state their values in financial terms. These values are inferred from the hypothetical choices (or tradeoffs) that people make.

Contingent valuation method

A stated preference technique in which a hypothetical market is constructed and individuals are questioned as to how much they would be willing to pay to conserve the non-market benefits or their willingness to accept compensation for the loss of those goods. This preference can then be used to infer the value that individuals place on the non-market benefits in the scenario; this can then be used to estimate the value of these goods to society.

COO

Cost Of Ownership. See *TCO*.

Cost-benefit analysis

An economic valuation method that tries to assess all of the major economic impacts associated with an investment decision, including non-market impacts. The techniques can be used to determine if a project represents a net social benefit to society.

Council of Europe

Founded in 1949, the Council of Europe was set up to defend human rights, parliamentary democracy and the rule of law, in addition to standardising member countries' social and legal practices, and the promotion of a European identity based on shared values.

Cultural heritage

Things and places associated with the heritage of human activity. This includes everything from monuments, buildings, relics, towns, landscapes, and movable items.

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Culture

The distinctive spiritual, material, intellectual and emotional features that characterise a society or social group. This includes everything from the arts, to modes of life, value systems, traditions, and beliefs.

Cultural landscapes

These can include natural environments that have been exploited using a particular means of agricultural or pastoral activity. They can be aesthetically-pleasing areas such as gardens and parks, or apparently natural regions that have associated religious, artistic or cultural meanings.

CV

See *Contingent valuation.*

CVM

Contingent Valuation Method. See *Contingent valuation*.

Digital data

Data represented by discrete values (i.e., '0' or '1'), as opposed to analogue data.

Direct use

The actual on-site use and consumption of the resources of a cultural heritage site.

Direct valuation method

Methodologies that use data collected through surveys to determine values.

Disposable income

The income individuals retain after they have paid their tax. Individuals can spend this money however they wish.

DOCOMOMO

International Working Party for Documentation and Conservation of Building Sites and Neighbourhoods of the Modern Movement. Founded in 1988 DOCOMOMO is an international non-profit organization dedicated to the conservation and recording of modern movement buildings (www.docomomo.com).

Economic impact

In the context of cultural heritage these are changes in a defined economy that result from spending attributed to a cultural heritage site or event.

Economic value

The maximum amount an individual is willing to pay in order to retain a good or service, or the minimum that an individual is willing to accept as compensation to sell a good or service.

Educational value

A value that encompasses all the benefits the site offers in terms of learning.

English Heritage

Officially known as the Historic Buildings and Monuments Commission for England, Founded in 1984, English Heritage is an executive non-departmental public body sponsored by the Department for Culture, Media and Sport (DCMS). English Heritage has responsibility for all aspects of the protection and promotion of the historic environment (www.english-heritage.org.uk).

EVRI

Environmental Valuation Reference Inventory. Developed in Canada, EVRI is an international database of economic studies of environmental benefits and health impacts.

It has been specially developed in order to allow policy analysts to use the benefits transfer technique as an alternative to doing original valuation research (www.evri.ca).

Existence value

A non-use value in which individuals place a value on the protection of the existence of the actual resource.

Free riding

In the context of group performance, where all the group members receive equal reward (such as access to a service or pay) and it is difficult to ascertain the actual contribution of individuals to the performance of the group, then it is rational for group members who can get away with it let other individuals do most the work, or free ride.

FTE

Full Time Equivalent employees. Statistics for total employment often include part-tine workers; these can be converted to FTEs in order to enable effective comparisons.

GDP

Gross Domestic Product. A measure of the total output produced in a given period. GDP is equivalent to total income and total expenditure.

Hedonic pricing method

A revealed preference methodology that uses a parallel market (usually the property market) to determine the value of non-market benefits. The technique is based on the hypothesis that the value of property is related to the non-market benefits in the locality.

Hedonic property value method

HPV is a specific application of the hedonic pricing method. Because property is the principal parallel market used in hedonic pricing studies the term is usually used synonymously with the hedonic pricing method.

ICA

International Council on Archives. Founded in Paris in 1948 the mission of the ICA is to promote the preservation and use of archives around the world. The ICA works for "the protection and enhancement of the memory of the world and to improve communication while respecting cultural diversity" (www.ica.org).

ICBS

International Committee of the Blue Shield. A joint initiative of the ICA, ICOM, ICOMOS, and the IFLA. Started in 1996 to provide authorities with expertise in the event of conflict affecting cultural heritage sites (www.ifla.org/blueshield.htm).

ICCROM

The International Centre for the Study of the Preservation and Restoration of Cultural Property. ICCROM is an intergovernmental organization, established in Rome in 1959 to improve the quality of conservation practice as well as raising awareness about the importance of preserving cultural heritage. The ICCROM acronym refers to the International Centre for Conservation in ROMe (www.iccrom.org).

ICOM

International Council On Museums. Created in 1946, ICOM is an international organisation of museums and museum professionals which is committed to the conservation and communication to society of the world's natural and cultural heritage. It is a non-governmental organisation maintaining formal relations with UNESCO and having a consultative status with the United Nations' Economic and Social Council (www.icom.museum).

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ICOMOS

International Council On Monuments and Sites. Founded in 1965, ICOMOS is an international, non-governmental organization dedicated to the conservation of the world's historic monuments and sites. ICOMOS is UNESCO's principal advisor in matters concerning the conservation and protection of monuments and sites (www.icomos.org).

IFLA

International Federation of Library Associations and Institutions. Founded in 1927, in Edinburgh, Scotland, the IFLA is the principal international body representing the interests of library and information services and their users (www.ifla.org).

IMLS

Institute of Museum and Library Services. Created in 1996 by the 'Museum and Library Services Act', the IMLS is an independent US federal agency that fosters leadership, innovation, and lifelong learning through support of the nation's museums and libraries (www.imls.gov).

Indirect valuation methods

Methodologies that are based on the observation of behaviour in order to determine the willingness to pay for non-market goods or services.

Intangible heritage

The traditional forms of expression of many societies. These can include; languages, music and song, rites and beliefs, the performing arts, oral traditions, festive events, and even culinary traditions. Many of these are threatened by a trend towards cultural uniformity in contemporary society.

Market

A context where goods and services are purchased and sold.

MARS

Monuments At Risk Survey. Commissioned by English Heritage, in the UK and originally published in 1995, the survey catalogued threats to ancient monuments in the UK.

MCN

Museum Computer Network. Based in the US, the MCN is a non-profit organisation of professionals devoted to supporting the cultural aims of museums through the use of computer technologies (www.mcn.edu).

MLA

The Museums, Libraries and Archives Council. The MLA was launched in April 2000 and is the UK's strategic body representing museums, archives, and libraries. The new institution replaces the Museums and Galleries Commission and the Library and Information Commission (www.mla.gov.uk).

Moveable cultural heritage

A vast range of non-fixed cultural heritage items such as paintings, sculptures, ancient jewellery, grave-goods, sacred art, sculpted stone, and all kinds of works of ancient art.

Multiplier

The knock-on effects of an expenditure injection into an economy.

Museum

An institution that is open to the public, which acquires, conserves, communicates, researches, and exhibits, for purposes of study, education and enjoyment, material

evidence of people and their environment. Museum collections now constitute a significant part of the cultural heritage.

National Archives

The National Archives of the United Kingdom was formed in April 2003 with the amalgamation of the Public Record Office and the Historical Manuscripts Commission. Its primary responsibilities are the records of central government and the courts of law (www.nationalarchives.gov.uk).

National Trust

Founded in the UK by three Victorian philanthropists in 1895 to protect places of historic interest and natural beauty for the nation. The National Trust is now the largest conservation charity in Europe (www.nationaltrust.org.uk).

NEMO

Network of European Museum Organisations. This is an independent network representing the European museum community. NEMO provides information to museums on relevant European Union initiatives, key legislative policy and funding concerning cultural heritage (www.ne-mo.org).

NOAA

National Oceanic and Atmospheric Administration. A US federal agency under the Department of Commerce responsible for weather monitoring and warnings (www.noaa.gov).

Non-exclusive

These are goods where a user cannot be stopped from 'consuming' that good. Public goods fall into the category of being both non-exclusive and non-rival.

Non-market goods

Goods which have no market and no market price. Sometimes called non-monetary goods.

Non-market values

Benefits obtained by individuals without paying money to acquire them. These are often personal values that are not captured in traditional economic markets. Their value is usually estimated through survey techniques such as contingent valuation and choice.

Non-rival

Goods where the quality of consumption by one user is not reduced by other users enjoying it simultaneously. Public goods fall into the category of being both non-rival and non-exclusive.

Non-use value

The value placed on a site by individuals that do not use the site or intend to use the site in the future. Non-use values include existence, bequest, prestige, and altruistic values. Also known as passive-use value.

Open ended contingent valuation

A contingent valuation technique where individuals are asked how much they would pay for a particular cultural good.

Opportunity cost

The theoretical sacrifice that is made when resources are allocated to one specific project and so cannot be used for other projects.

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Option value

A non-use value related to the value an individual attaches to keeping open the option of using a resource in the future.

Passive use values

See *Non-use value*.

Prestige value

A non-use value based on the prestige a community derives from cultural heritage.

Profit

The net earnings or income of a company or institution.

Public goods

These are goods that are non-excludable and non-rival. They are available to all, without excluding anyone, and a number of people can enjoy the good simultaneously without interfering with each other's satisfaction.

Restoration

This is the process by which the fabric of a structure is returned to a specified earlier state, by reassembling the material from that site. This differs from reconstruction in that no new material is used.

Reconstruction

The use of digital technology to reproduce the exact form and details of all or part of existing or vanished structures as they were at a specific period in time. Alternatively, in the physical world, this is the process by which the fabric of a structure is returned to a specified earlier state, by reassembling the material from that site and incorporating new material.

Recreation

This is the creation of a structure or building using surviving evidence to extrapolate the nature of a presumed earlier state using new material.

ROCE

Return on capital employed. See *ROI*.

Revealed preference

These methodologies rely on actual consumer behaviour to determine values and benefits.

Return On Investment

The profit (or return) that an institution gets from spending capital. ROI is widely used to evaluate IT investments and provides an approximation on the return of a project without the use of more sophisticated economic analyses.

ROI

See *Return on investment*.

Sequential bid

A type of Contingent Valuation methodology where individuals are presented with a number of financial amounts that are increased until the respondent is no longer willing to pay.

Socio-economics

Socio-economic research analyzes economic phenomena by studying variables both inside and outside the economy. It is based on the premise that politics, culture, and history provide a context in which contemporary economics function.

SPAB

The Society for the Protection of Ancient Buildings. Founded by William Morris in 1877 to address the destructive 'restoration' of medieval buildings in the UK. Today it is the oldest national pressure group fighting to save old buildings from decay, demolition, and damage (www.spab.org.uk).

Stakeholder analysis

The process through which the groups and individuals (stakeholders) who may be affected by a change are identified, and their gains and losses are quantified.

Starting point bias

The issue in valuation studies when an individual's stated value is influenced by the starting bid.

Stated preference

A number of demand theory methodologies that are based on how consumers say they would react to changes in price.

SWOT analysis

This is an analysis of the internal and external environment of an organisation for strategic planning purposes. Internal factors are classified as strengths (S) and weaknesses (W), while factors external to the organisation are classified as opportunities (O) and threats (T). The SWOT matrix created can be used as the basis for strategy formulation.

TCM

See *Travel cost method.*

TCO

See *Total cost of ownership*.

TEV

See *Total economic value*.

TICCIH

The International Committee for the Conservation of the Industrial Heritage. An organisation dedicated to the promotion, preservation, conservation, investigation, documentation, research, and interpretation of the world's industrial heritage (www.mnactec.com/TICCIH).

Total Cost of Ownership

This is the sum of all the costs associated with an item over its lifecycle. These costs include acquisition, installation, licensing, running costs, maintenance and sometimes even disposal. TCO is widely used in the business world for expensive capital items. TCO is sometimes referred to as Cost Of Ownership (COO).

Total Economic Value

The total of direct and indirect use values, option values, and existence values.

Travel Cost Method

A revealed preference valuation methodology that is based on the hypothesis that the travel costs an individual incurs in order to visit a cultural heritage site are related to the value of the non-market benefits of the site.

Urban heritage

The heritage of urban areas and its accumulation over time, including the history of its buildings, streets, districts, and residents.

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Underwater heritage

This includes wrecks, such as ships, boats, aircraft, other vehicles and their cargo, in addition to other traces of human existence such as submerged cities, lake settlements, and associated human objects. This heritage can be found in lakes, rivers, seas, and oceans.

UNEP

United Nations Environment Programme. A UN programme designed to provide leadership and encourage partnership in caring for the environment by supporting nations and peoples to improve their quality of life without compromising that of future generations (www.unep.org).

UNESCO

United Nations Educational, Scientific and Cultural Organisation. Created in 1946 as an agency of the United Nations, whose remit was to promote world peace through its work in the areas of culture and communication, education, natural sciences, and social and human sciences (www.unesco.org).

Use value

The value placed on a site and resources by users of the site. Use value includes direct use, indirect use, and option values.

Value

The intrinsic worth of a commodity.

WHIN

World Heritage Information Network. An information network about the natural and cultural heritage sites on the World Heritage List (www.wcmc.org.uk/whin).

Willingness to accept

The willingness of an individual, group or society to accept compensation for the loss of a good or service.

Willingness to pay

The willingness of an individual, group or society to pay for a good or service. In a conventional market, individuals who express a WTP equal to or higher than the market price for a good will purchase the good in question, while those with a WTP lower than the market price will not purchase the good.

World Heritage Convention

Officially known as the 'Convention concerning the Protection of the World Cultural and Natural Heritage', although more commonly known as the World Heritage Convention. It was first proposed by the United States in 1972 and adopted by UNESCO in 1975 in order to protect the world's natural and cultural heritage.

World Heritage Fund

The World Heritage Fund was established by UNESCO to provide international assistance to protect the world's heritage. It is sustained by fees derived from member states, and voluntary contributions from countries, private organisations and individuals.

World heritage list

The UNESCO list of World Heritage sites. Cultural and natural heritage sites outstanding universal significance defined according to the World Heritage Convention.

World heritage site

A site designated by UNESCO as being of outstanding universal value from the point of view of history, art, or science.

WTA

See *Willingness to accept*.

WTO

World Tourism Organisation. The WTO was founded in 1974 out of the International Union of Official Travel Organisations (IUOTO). In 1976, WTO became an executing agency of the United Nations Development Programme (UNDP) and in 1977 a formal cooperation agreement was signed with the United Nations itself. The WTO is now a specialised agency of the United Nations (www.world-tourism.org).

WTP

See *Willingness to pay*.

WTTC

World Travel and Tourism Council. Represents the private sector in all parts of the world travel and tourism industry. The mission of the WTTC is to raise awareness of the full economic impact of travel and tourism (www.wttc.org).

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EPOCH

EPOCH (Excellence in Processing Open Cultural Heritage) is a Network of Excellence supported under the European Commission's Framework 6 (IST-2002-507382). The network joins academic, research and cultural institutions to improve the quality and effectiveness of the use of IT for Cultural Heritage. EPOCH brings together expertise on monuments sites and museums and seeks to enhance the economic impact of these potential tourist venues. An explicit part of EPOCH is to identify the economic impact of the sites on their regions and report on good practice in technological investment to enhance that impact. The objective is to address issues such as sustainability, return on investment, effective deployment of technology and multipurpose data capture.

The University of Brighton is the coordinator of EPOCH, and contributed in several areas of the Joint Program of Activities. The University has experience in the modelling of cultural heritage sites and the real-time rendering of visitor experiences; in multi-lingual systems; in modelling of economic impact of commercial operations on regional economies; in sustainable tourism (particularly eco-tourism); and in stimulation of SME clusters. These contributions are provided by the Faculty of Management and Information Sciences (including Computing, Maths and Information Sciences, Brighton Business School and the School of Service Management). For more information on EPOCH visit http://www.epoch-net.org/