

In: Sir Alan Peacock (ed.)  
Does the Past Have a Future?:  
The Political Economy of Heritage  
The Institute of Economic Affairs,iea,  
Readings 47, London, 1998: 27-53

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PUBLIC CHOICE, COST-BENEFIT  
ANALYSIS, AND THE EVALUATION OF  
CULTURAL HERITAGE

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## 1. Introduction

EVERYONE AGREES THAT WE SHOULD PROTECT OUR CULTURAL HERITAGE. Monuments, groups of buildings and moveable cultural property such as paintings, drawings and antiquities are generally taken to be worth preserving if they 'represent a unique artistic achievement' and 'meet the test of authenticity'.<sup>1</sup> While principles such as the ones stated in the World Heritage Convention form a convenient basis for noble speeches of all sorts, they do not provide much guidance for practical public policy decisions on the preservation of our cultural heritage. Governments and public administrators face three difficult questions when making such policy decisions: When should governments intervene in real estate and art markets in order to 'correct' market

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\* The financial support of the Swiss National Fund (project 12-42480.94) is gratefully acknowledged.

<sup>1</sup> UNESCO, *Convention Concerning the Protection of the World Cultural Heritage*, Paris: UNESCO, 1972.

outcomes? What portion of the overall budget should be allocated to the conservation of our cultural heritage? And, given limited financial means, which among the many monuments, buildings and paintings should be preserved?

The answers to all three questions depend on the social value of preservation efforts. Maintaining the stock of cultural objects creates opportunity costs because the resources involved (labour, material inputs and, especially in the case of monuments, valuable land) could be used for alternative purposes. These costs have to be compared with the benefits that accrue to society if the cultural heritage is protected and preserved. Given the nature of the problem, cost-benefit analysis provides a useful framework which allows policy-makers to analyse systematically the effects of conservation programmes. The British Department of National Heritage and many other public administrations thus employ cost-benefit analysis (and cost-utility analysis for smaller projects) to evaluate all proposals for expenditure.<sup>2</sup>

Assessing the cost side of conservation efforts is a straightforward exercise. Most of the inputs are traded in fairly competitive markets. Market prices thus reflect the social value of these resources. In contrast, it is much more difficult to compute the benefits of conservation since these typically include intangible values. Economic theory offers a wide range of approaches and techniques that may help to compute the benefits of financial support for the arts and historic preservation. The goal is to assess how much value individuals derive from these policies. Their willingness-to-pay is, therefore, investigated.

Section 2 of this chapter discusses various methods designed to estimate the benefits of public conservation policies. More specifically, we will analyse the strengths and weaknesses of the contingent valuation method which many analysts now employ. Section 3

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<sup>2</sup> S. Creigh-Tyte, P. Daffern, M. Davies and G. Siddorn, *Option Appraisal of Expenditure Decisions: A Guide for the Department of National Heritage and Its Non-Departmental Public Bodies*, London: Department of National Heritage, 1996; N. Lichfield, *Economics in Urban Conservation*, Cambridge: Cambridge University Press: 1988, pp. 240-48.

Cost utility analyses relate budgetary cost to several benefit measures. This type of analysis, originally developed to evaluate health policies, is mostly used to assess the relative advantages of some projects over others. In most cases, cost-utility analyses consider only budgetary costs and fail to consider all social costs. See K. Gerard, 'Cost-Utility in Practice: A Policy Maker's Guide to the State of the Art', *Health Policy*, Vol. 21(3), 1992, pp. 249-79.

presents an alternative policy approach which fundamentally differs from the social welfare considerations underlying the willingness-to-pay studies. It is based on constitutional choice and proposes to integrate the evaluation and the decision on historic preservation programmes by using direct democratic institutions. Section 4 compares this alternative approach to the likely outcomes under expert-based decision-making procedures. Section 5 offers conclusions.

## 2. Evaluation Procedures

Many cities seek to revive their centres and attract new businesses, residents and tourists by conducting urban renewal programmes. The restoration and conservation of historic monuments and groups of buildings as well as the opening and refurbishing of art institutions (museums, concert halls) is an important part of these policies.<sup>3</sup> As the threshold of historical significance creeps forward and urban renewal policies gain in momentum, the number of listed buildings and monuments steadily increases. In the UK alone, half-a-million buildings are currently listed. More than 8,000 conservation areas are protected by law.<sup>4</sup>

Everyone agrees that the restoration of historic buildings represents an important part of urban renewal strategies. But there is little systematic knowledge about the tastes and preferences of the prospective residents and tourists these policy initiatives are designed to attract. Some studies indicate that familiarity with historic townscapes plays a decisive rôle: people prefer what they know.<sup>5</sup> Other researchers, however, observe that buildings are found attractive if they are moderately novel, and that both very familiar and very progressive projects fail to find much acclaim.<sup>6</sup> In general, there is little evidence that people view architecture as

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<sup>3</sup> G. J. Ashworth and J. E. Tunbridge, *The Tourist-Historic City*, London: Belhaven, 1990.

<sup>4</sup> P. Hubbard, 'The Value of Conservation: A Critical Review of Behavioural Research', *Town Planning Review*, Vol. 64(4), 1993, pp. 359-73.

<sup>5</sup> J. L. Nasar, 'The Influence of Familiarity on Responses to Visual Quality of Neighborhoods', *Perceptual and Motor Skills*, Vol. 51(2), 1980, pp. 635-42.

<sup>6</sup> T. R. Herzog, R. Kaplan and S. Kaplan, 'The Prediction of Preference for Familiar Urban Places', *Environment and Behaviour*, Vol. 8(4), 1976, pp. 627-41.

historic documents and wish to maintain buildings just because they are old.<sup>7</sup>

With no general theory at hand, policy-makers and cost-benefit analysts have to rely on case studies to determine the size of the benefits associated with programmes that support the arts and historic preservation.<sup>8</sup> To compute these benefits represents a formidable challenge because investments in art and good architecture, it is argued, produce positive externalities.<sup>9</sup> Good architecture is not only enjoyed by the owner of a well-preserved house, but also by passers-by. However, the latter do not pay for the pleasure of strolling in an historically interesting townscape. Similarly, our cultural heritage creates a sense of belonging and group identity which many people value.<sup>10</sup> For example, no fewer than 14 local pressure groups sought to prevent the demolition of three 19th-century buildings in the Rittenhouse Square of Philadelphia, not so much because they were interested in the historic value of these buildings but because the groups felt that they were defending their way of life.<sup>11</sup> However, as is the case with good architecture, everyone may reap the benefits of such group activities which foster identity, irrespective of their own (costly) contributions. Consequently, individuals have a powerful incentive to free-ride, and market prices do not reflect the full social value of art and historic buildings. As a result, society underinvests in these

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<sup>7</sup> For a review of these issues, see P. Hubbard, 'The Value of Conservation: A Critical Review of Behavioural Research', *Town Planning Review*, Vol. 64(4), 1993, pp. 359-73.

<sup>8</sup> Examples of such case studies include the economic appraisal of the Horniman Museum in S. Creigh-Tyte, P. Daffern, M. Davics and G. Siddorn, *Option Appraisal of Expenditure Decisions: A Guide for the Department of National Heritage and Its Non-Departmental Public Bodies*, *op.cit.*, 1996, pp. 56-70. Lichfield also presents a number of cases: N. Lichfield, *Economics in Urban Conservation*, *op. cit.*, Ch. 16, pp. 289-314.

<sup>9</sup> B. S. Frey and W. W. Pommerehne, *Muses and Markets: Explorations in the Economics of Art*, Oxford: Blackwell, 1990; G. Allison, S. Ball, P. Cheshire, A. Evans and M. Stabler, *The Value of Conservation: A Literature Review of the Economic and Social Value of the Cultural Built Heritage*, London: The Department of National Heritage, English Heritage, and The Royal Institution of Chartered Surveyors, 1996.

<sup>10</sup> S. M. Taylor and V. A. Konrad, 'Scaling Dispositions to the Past', *Environment and Behaviour*, Vol. 12(3), 1980, pp. 283-307.

<sup>11</sup> S. C. Bourassa, *The Aesthetics of Landscape*, London: Belhaven Press, 1991.

goods, and government programmes to correct this market failure may be warranted.

The assessment of tangible and intangible benefits in cost-benefit analyses is thus essential: if positive externalities exist, government interventions can be justified. Otherwise, the conservation of our cultural heritage should be left to the market. Where government intervenes to preserve historic buildings or subsidise art institutions, cost-benefit analyses produce a systematic ranking of possible projects according to the size of their net present value. There are at least three well-established methods to assess the individual willingness-to-pay for non-market goods:<sup>12</sup> (i) the hedonic pricing approach; (ii) the travel cost method; and (iii) contingent valuation. We will discuss these in turn and analyse to what extent they may be suitable for a cost-benefit analysis of historic conservation efforts.

### (i) Hedonic Pricing

The hedonic pricing method analyses how specific attributes of goods are valued.<sup>13</sup> For example, the analyst compares the prices of houses which differ in their characteristics (age, number of bedrooms, distance from city centre). Using regression analysis, it is possible to determine how house prices vary with changes in each of these characteristics. The characteristics may include amenities and 'house properties' that are not directly traded in markets, such as clean air, noise from an airport or the distance to a landfill. For example, Nelson *et al.* (1992) have shown that, keeping all other characteristics constant, house prices decline by 6 per cent if homes are located within a mile of a landfill in Minnesota.<sup>14</sup>

Using the hedonic pricing method, a number of studies have attempted to determine the price effects of architectural styles, historic conservation and listing on property values. In their

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<sup>12</sup> W. W. Pommerehne, *Präferenzen für öffentliche Güter: Ansätze zu ihrer Erfassung*, Tübingen: Mohr (Siebeck), 1987; E. M. Gramlich, *A Guide to Benefit-Cost Analysis*, Englewood Cliffs, N.J.: Prentice Hall, 1990.

<sup>13</sup> K. Lancaster, *Consumer Demand: A New Approach*, New York: Columbia University Press, 1971; S. Rosen, 'Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition', *Journal of Political Economy*, Vol. 82(1), 1974, pp. 34-55.

<sup>14</sup> A. C. Nelson, J. Genereux and M. Genereux, 'Price Effects of Landfills on House Values', *Land Economics*, Vol. 68(4), 1992, pp. 359-65.

analysis of 19th-century row houses (called terraced houses in Britain) in Boston, Moorhouse and Smith (1994) show that architectural styles systematically influence the willingness-to-pay for these homes.<sup>15</sup> Compared to the dominant Italianate style, home-owners are prepared to pay a premium for Neo-Grec homes. In contrast, Renaissance Revival and Victorian Gothic homes trade at a discount. The results of the study generally suggest a high willingness-to-pay for architectural features such as elaborate ornamentation or quoins which distinguish the row house from other buildings in its vicinity. Similarly, Hough and Kratz (1983) report that a considerable premium is paid for office buildings of good architecture in Chicago.<sup>16</sup> This finding, however, applies only to new office buildings that were awarded prizes for architectural excellence, not for older buildings listed as national or Chicago landmarks. The authors attribute this finding to the fact that owners of listed buildings partially lose their property rights. Once a building is listed, it becomes more difficult to renovate and upgrade the building.

Schaeffer and Millerick (1991) confirm this interpretation. Looking at house prices in an historic residential district, they find that property values increased by almost 30 per cent after the area was listed in the National Register of Historic Places.<sup>17</sup> In contrast, the houses in two smaller zones declined in value after they were designated as Chicago Historic Districts. Again, they conclude that the more restrictive Chicago regulations were responsible for this negative effect.

These hedonic pricing studies are valuable because they shed some light on the effects of listing and the nature of individual preferences for architecture. But they fail to capture the full benefits of historic preservation as is necessary to determine whether government intervention is warranted. And they do not produce unbiased estimates of the net present value of conservation

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<sup>15</sup> J. C. Moorhouse and M. S. Smith, 'The Market for Residential Architecture: 19th Century Row Houses in Boston's South End', *Journal of Urban Economics*, Vol. 35, 1994, pp. 267-77.

<sup>16</sup> D. E. Hough and C. G. Kratz, 'Can "Good" Architecture Meet the Market Test?', *Journal of Urban Economics*, Vol. 14, 1983, pp. 40-54.

<sup>17</sup> P. V. Schaeffer and C. A. Millerick, 'The Impact of Historic District Designation on Property Values: An Empirical Study', *Economic Development Quarterly*, Vol. 5(4), 1991, pp. 301-12.

efforts. On the demand side, hedonic pricing does not capture the value of the public good characteristics of good architecture. Since a building's appeal is not only available to the owners or the tenants, but also to neighbours and tourists, hedonic pricing estimates are biased downwards. On the supply side, owners may value the fact that they rent out a building of historic value. Where this is the case, they earn not only a financial but also a psychic return. However, in market equilibrium, the sum of these returns will not exceed the market return. Therefore, rents such as the ones studied by Hough and Kratz (1983) understate the true social value of good architecture.

### (ii) Travel Cost Method

The travel cost approach is based on the clever insight that individuals reveal their willingness-to-pay to see a monument or visit a museum if they bear the cost of travelling to the site.<sup>18</sup> The analyst thus surveys visitors in order to determine where they came from, how much they had to spend to travel to the site of interest, and how often they plan to visit it. This information can be used to estimate a demand curve and the related social surplus associated with the monument.<sup>19</sup> As the implied value is measured by the (travel) cost individuals are prepared to incur to visit a particular cultural site, this method gives a lower bound estimate; it is quite possible that a visit yields much higher benefits than the cost incurred. Moreover, the travel cost method suffers from three other difficulties.

For most trips, travelling time makes up a significant portion of the overall travel cost. Most economic studies have used the going market wage as a proxy for the value of time. However, the relationship between market wages and the value of time is ambiguous.<sup>20</sup> If individuals experience some disutility from job

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<sup>18</sup> The method is attributed to H. Hotelling, 'Letter': *An Economic Study of the Monetary Evaluation of Recreation in the National Parks*, Washington, DC: National Park Service, 1949.

<sup>19</sup> For the evaluation of specific characteristics of a site, see G. Brown and R. Mendelsohn, 'The Hedonic Travel Cost Model', *Review of Economics and Statistics*, Vol. 66(3), 1984, pp. 427-33.

<sup>20</sup> J. R. McKean, D. M. Johnson and R. G. Walsh, 'Valuing Time in Travel Cost Demand Analysis: An Empirical Investigation', *Land Economics*, Vol. 71(1), 1995, pp. 96-105.

activities, their market wage does not only represent a compensation for the value of time. Therefore, the value of time should be lower than going market wages. On the other hand, some individuals enjoy working (they have a substantial intrinsic work motivation), which should be reflected in a value of time higher than the going wage rate. In fact, revealed-preference studies sometimes suggest that individuals attach higher values to leisure than is implied by their market wages.<sup>21</sup> The issue gets even more complicated if one recognises that, under certain circumstances, the trip itself may yield pleasure. In this case, the monetary travel costs overestimate the true willingness-to-pay. As a consequence, it is not at all clear how one should value one of the major cost components of any travel cost study.

Multipurpose trips represent a further difficulty. Individuals will typically not be able to tell the analyst what portion of the overall travel cost they bear because they wanted to see the Colosseum, and what fraction they spent to walk on the Forum Romanum. For isolated sites, it may be possible to identify individuals who had several reasons to visit a site. In the case of cities, however, this method would lead to the exclusion of virtually all the visitors.

A further difficulty of the travel cost method relates to substitutes for the sites in question. To produce reliable estimates of the social surplus, the price of substitutes needs to be included in the econometric estimates.<sup>22</sup> However, as individual tastes are not known, it will generally not be possible to determine what monuments, groups of historic buildings or art objects tourists regard as substitutes. Are the Uffizi a relevant substitute for the Louvre, or is it the gardens of Versailles? Finally, it may well be that the travel cost variable itself is endogenous to the choice of residence. People may prefer to live in the city because of the vicinity to museums. If this is the case, the number of visits to these museums and the price of the trips are determined simultaneously. Therefore, the travel cost equation cannot be identified and the travel cost variable may not be independent of the error term, leading to biased and inconsistent estimates.

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<sup>21</sup> R. T. Deacon and J. Sonstelle, 'Rationing by Waiting and the Value of Time: Results from a Natural Experiment', *Journal of Political Economy*, Vol. 93(4), 1985, pp. 627-47.

<sup>22</sup> V. K. Smith and Y. Kaoru, 'Signals or Noise? Explaining the Variation in Recreation Benefit Estimates', *American Journal of Agricultural Economics*, May 1990, pp. 419-33.

### (iii) Contingent Valuation

In a contingent valuation (CV) study, individuals are asked to state their maximum willingness-to-pay to preserve an art object or an historic monument. Alternatively, respondents are sometimes given a fixed price that secures the conservation of a monument. They can then decide whether they are willing to pay the suggested price. This latter method is known as the dichotomous choice approach or the referendum format. In both cases, CV researchers use the individual answers to construct an aggregate demand curve and to compute the social surplus of conserving a monument.

CV studies are superior to hedonic pricing and travel cost estimates in that they are able to capture the 'non-use values' of the art institutions and historic monuments.<sup>23</sup> These non-use values consist of existence, option and bequest values. By taking non-use values into account, analysts recognise that some individuals derive benefits from the mere knowledge that a place exists or that they or their children may be able to visit it at some time in the future. The CV method is now widely used by economists. A recent study sponsored by the Royal Institution of Chartered Surveyors, English Heritage, and the Department of National Heritage concludes that, 'in an urban context, systematic Contingent Valuation Method research ... would be the most useful' of the valuation approaches currently available.<sup>24</sup>

Over the years, considerable experience with CV studies has been gained. In their bibliography, Carson *et al.* (1994) list almost 1,700 studies in over 40 countries.<sup>25</sup> Early examples include evaluations of a reduction in household soiling and cleaning,<sup>26</sup> the right to hunt waterfowl,<sup>27</sup> reduced congestion in wilderness areas,<sup>28</sup> and improved

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<sup>23</sup> P. R. Portney, 'The Contingent Valuation Debate: Why Economists Should Care', *Journal of Economic Perspectives*. Vol. 8(4), 1994, pp. 3-17.

<sup>24</sup> G. Allison, S. Ball, P. Cheshire, A. Evans and M. Stabler, *op. cit.*, p.21.

<sup>25</sup> R. Carson *et al.*, *A Bibliography of Contingent Valuation Studies and Papers*, La Jolla, California: Natural Resources Damage Assessment, Inc., 1994.

<sup>26</sup> R. Ridker, *The Economic Cost of Air Pollution*, New York: Praeger, 1967.

<sup>27</sup> J. Hammack and G. Brown, *Waterfowl and Wetlands: Toward Bioeconomic Analysis*, Amsterdam: North Holland, 1974.

<sup>28</sup> C. J. Cicchetti and V. K. Smith, 'Congestion, Quality Deterioration, and Optimal Use:

air visibility.<sup>29</sup> Most CV studies evaluate objects in the natural environment. But there are other applications, such as the reduced risk of dying from heart attack,<sup>30</sup> reduced risk of respiratory disease,<sup>31</sup> and even improved information about grocery store prices.<sup>32</sup>

Although the method is now widely used, many economists remain sceptical because surveys do not rely on observed choices (revealed preferences), but on hypothetical answers.<sup>33</sup> Consequently, it is costless for individuals to distort their preferences and give strategic answers. This concern became especially important in a recent application which attempted to measure the environmental damage caused by the supertanker *Exxon Valdez* which ran aground in Prince William Sound, Alaska, spilling 11 million gallons of crude oil into the sea.<sup>34</sup> The enormous sums of money involved in the litigation connected with the Alaskan oil spill has further drawn the attention of the economics community to the contingent valuation method. Well-known economists have been employed as advisers by public authorities, environmental interest groups, and by the oil company. As a consequence, the contingent valuation method has come under careful scrutiny.

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Wilderness Recreation in the Spanish Peaks Primitive Area', *Social Science Research*, Vol. 2, 1973, pp. 15-30.

<sup>29</sup> A. Randall, B. C. Ives, and C. Eastman, 'Bidding Games for Valuation of Aesthetic Environmental Improvements', *Journal of Environmental Economics and Management*, Vol. 1, 1974, pp. 132-49.

<sup>30</sup> J. Acton, *Evaluating Public Progress to Save Lives: The Case of Heart Attacks*, RAND Research Report R-73-02, Santa Monica: RAND Corporation, 1973.

<sup>31</sup> A. Krupnick and M. Cropper, 'The Effect of Information on Health Risk Valuation', *Journal of Risk and Uncertainty*, Vol. 2, 1992, pp. 29-48.

<sup>32</sup> D. G. Devine and B. Marion, 'The Influence of Consumer Price Information on Retail Pricing and Consumer Behaviour', *American Journal of Agricultural Economics*, Vol. 61 (May), 1979, pp. 228-37.

<sup>33</sup> P. A. Diamond and J. A. Hausman, 'Contingent Valuation: Is Some Number Better than No Number?', *Journal of Economic Perspectives*, Vol. 8(4), 1994, pp. 45-64.

<sup>34</sup> R. Carson *et al.*, *A Contingent Valuation Study of Lost Passive Use Values Resulting From the Exxon Valdez Oil Spill*, Report to the Attorney General of the State of Alaska prepared by Natural Resource Damage Assessment, Inc., La Jolla, California, 1992.

The United States National Oceanic and Atmospheric Administration (NOAA) hired two Nobel prize winners (Professors Kenneth Arrow and Robert Solow) to co-chair a panel (including Edward Leamer, Roy Radner, Paul Portney and Howard Schuman, a professor of sociology and survey research expert) with the task of assessing the CV method. The bottom line of the panel report concludes that 'CV studies can produce estimates reliable enough to be the starting point of a judicial process of damage assessment, including lost passive-use values'.<sup>35</sup> The term 'passive-use values' refers to the non-use values of the environment mentioned above. While the report generally endorsed the use of CV methods, it also stated a large number of stringent requirements for that conclusion to hold. The most important are:

- personal interviews rather than telephone surveys should be conducted;
- an accurate description of the expected effects of the programme under consideration must be given;
- the budget constraint must be well specified; and
- the respondents must be reminded of the substitutes for the commodity in question.

However, even in cases where these requirements are all met, CV estimates appear to produce results that are inconsistent with market choices. In a recent experiment, only one-half of respondents who had indicated earlier that they would be willing to purchase a juicer (the CV question) were later willing actually to purchase the appliance when given this choice.<sup>36</sup> The referendum format used in this experiment is certainly preferable to maximum willingness-to-pay questions because consumers are much more familiar with dichotomous choices. However, even these formats do not appear always to produce reliable estimates.

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<sup>35</sup> K. J. Arrow, R. S. Solow, E. Leamer, P. Portney, R. Radner and H. Schuman, 'Report of the NOAA-Panel on Contingent Valuation', *Federal Register*, Vol. 58(10), 1993, pp. 4,601-14.

<sup>36</sup> R. G. Cummings, G. W. Harrison and E. E. Rutström, 'Homegrown Values and Hypothetical Surveys: Is the Dichotomous Choice Approach Incentive-Compatible?', *American Economic Review*, Vol. 85(1), 1995, pp. 260-66.

Recently, Sen presented an additional, and even more fundamental, critique that questions the way CV results are to be interpreted.<sup>37</sup> In particular, he raises some issues concerning the social choice assumptions that underlie the CV approach. The CV method imitates the purchase and consumption of a private good. It thus presumes that the benefits from the project in question can be achieved single-handedly. In the case of the Alaskan oil spill, for example, a respondent is asked how much she would pay to save the birds that perished. If she answers £32, this answer is interpreted to mean that this individual is prepared to make a payment of £32 in order to wipe out *all the losses* from the perished birds. Sen argues that 'it is hard to imagine that this question and answer can be taken seriously, since the state of affairs the person is asked to imagine could not possibly be true'. On the contrary, if the person actually believed that a single payment of £32 could clear up all the damage, this would constitute an extreme form of irrationality. But if people were irrational, the whole approach of asking individuals to evaluate a good would be mistaken.

As our example makes clear, the contingent valuation procedure only makes sense when it is constructed to reach a policy goal by a joint effort. An individual's payment is a contribution to that end. If one interprets the question about one's willingness-to-pay as a contribution to a joint effort, a new problem arises because a respondent's stated sum now depends on how much she expects others to contribute. There are two opposing effects at work. If a respondent is willing to contribute provided that others also join the effort, the incentive structure of an assurance game results.<sup>38</sup> In contrast, if the respondent feels less pressed to contribute if the others already do, free-riding is the outcome, and the respondents all refuse to state any willingness-to-pay. Depending on whether the scenario favoured the assurance game or the free-riding interpretation, the stated sums differ widely. In any case, the individual as well as the aggregate willingness-to-pay are difficult to interpret.

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<sup>37</sup> A. K. Sen, 'Environmental Evaluation and Social Choice: Contingent Valuation and the Market Analogy', *The Japanese Economic Review*, Vol. 46(1), 1995, pp. 23-37.

<sup>38</sup> A. K. Sen, 'Isolation, Assurance and the Social Rate of Discount', *Quarterly Journal of Economics*, Vol. 81, 1967, pp. 112-24.

These problems and limitations of the contingent valuation method also apply to studies that attempt to measure the value of our cultural heritage. There are but a few studies using the contingent valuation procedure on issues of culture. Some have attempted to measure the broad support for the arts and the level of desired government expenditures.<sup>39</sup> Bille Hansen (1995) uses the CV method to value the Royal Danish Opera in Copenhagen,<sup>40</sup> and Martin (1994) evaluates the justification of subsidies for the Musée de la Civilisation in Quebec.<sup>41</sup>

### *Contingent Valuation and Cultural Heritage*

In the following, we address two additional problems which are of special importance when contingent valuation is applied to cultural heritage.

(i) *Marginal vs. total changes*: CV studies typically confront the respondents with an 'all-or-none' choice, or with an indivisible good. Either the villa or the gallery is preserved *in toto*, or not at all. Bille Hansen (1995) explicitly states, for example, that the Royal Danish Theatre is to be run at the *present* activity level. Clearly, it is always possible to vary the level – though that option is routinely and fervently rejected by the suppliers. One possibility would be to give up the ballet section, or the opera section, and the respondents could then be asked their willingness-to-pay for these different activity levels. Even a villa or a gallery could only be partly preserved, without completely destroying the respective historical value. Constructing such a demand curve for various sizes or qualities of the cultural good is, in principle, possible but would involve much additional work.

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<sup>39</sup> D. C. Throsby and G. A. Withers, 'Measuring the Demand for the Arts as a Public Good: Theory and Empirical Results', in W. S. Hendon and J. L. Shanahan (eds.), *Economics of Cultural Decisions*, Cambridge, MA.: Abt, 1983, pp. 177-91; W. G. Morrison and E. G. West, 'Subsidies for the Performing Arts: Evidence on Voter Preferences', *Journal of Behavioural Economics*, Vol. 15 (Fall), 1986, pp. 57-72.

<sup>40</sup> B. Hansen, 'A CV Study of Willingness-to-Pay for the Royal Theatre in Copenhagen', *Mimeo*, AKF; Institute of Local Government Studies, Copenhagen, 1995.

<sup>41</sup> F. Martin, 'Determining the Size of Museum Subsidies', *Journal of Cultural Economics*, Vol. 18, 1994, pp. 255-70.

ii) *Suboptimal supply*: This second issue is closely connected to the first, but is not identical. The contingent valuation method does not include an optimising algorithm, that is, the historic object is presented to the respondents as it is. It is (implicitly) assumed that supply is already efficient. *First*, this means that the art institutions are so perfectly run that no improvement is possible without having to give up some other goal (X-efficiency). This assumption is heroic, to say the least. It is known from the economics of art that large opportunities for improvements in technical efficiency exist.<sup>42</sup> *Second*, CV studies also assume efficiency in the sense that the consumers' preferences are met. Again, art economists provide overwhelming evidence to the contrary. In particular, the directors of theatres, museums but also of historic sites exploit the discretionary room accorded to them to follow their own preferences which systematically and significantly deviate from what the average citizens – who are relevant in willingness-to-pay studies – desire.

We conclude that CV studies promise to yield worthwhile results because they force the researchers to undertake a determined, and extensive, analysis of the art object in question. The questionnaire has to meet stringent requirements to be useful at all. Even more importantly, the representative survey approach addresses both visitors and non-visitors, and it has the potential to capture non-use values. However, it is not clear under what conditions CV estimates can be accepted as reliable estimates for the true willingness-to-pay of individuals. Moreover, the results of CV studies are difficult to interpret if joint efforts are required to produce the public good in question.

### **Cost-Benefit Analyses**

As the previous discussion has shown, all three major methods available for the assessment of our cultural heritage are beset with problems. But even if the value of conservation efforts were known, a number of serious difficulties arise in conducting a cost-benefit analysis to compare the benefits of historic conservation with its cost. We address three important issues, namely,

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<sup>42</sup> B. S. Frey and W. W. Pommerehne, *op. cit.*; D. C. Throsby, 'The Production and Consumption of the Arts: A View of Cultural Economics', *Journal of Economic Literature*, Vol. 33, 1994, pp. 1-29.

discounting, the distribution of costs and benefits, and theoretical inconsistencies.

The benefits of historic conservation extend far into the future while most of the costs are borne by today's taxpayers and parts of the population that are negatively affected by these programmes. This poses two problems. *First*, benefits (and costs) need to be discounted. *Second*, both benefits (and costs) are to some extent uncertain because they extend into the future. As always, economists refer to individual preferences as the yardstick of all valuation. The individual marginal rate of time preference is the appropriate discount rate and option values represent the correct certainty equivalents to uncertain prospects.<sup>43</sup>

However, what is the appropriate discount rate if we observe that the same individuals save at interest rates below 4 per cent and, at one and the same time, accumulate credit card debts on which they pay interest well above 15 per cent?<sup>44</sup> To complicate matters further, theory requires the analyst to convert forgone investment to changes in consumption (by applying the shadow price of capital) before discounting.<sup>45</sup> This approach is sensible because a pound of investment (which creates further consumption possibilities in the future) is more valuable than a pound of consumption. However, as the source of specific budgetary outlays is generally not known, standard practice ignores the distinction between changes in consumption and changes in investment.<sup>46</sup> Similarly, the difference between option prices and expected surplus is generally neglected due to the formidable difficulties in obtaining the necessary data. Given these difficulties, it may not be surprising that a recent survey of 90 large US municipalities found that less than half of them use any discounting procedures at all. And even at the federal level

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<sup>43</sup> D. A. Graham, 'Cost-Benefit Analysis under Uncertainty', *American Economic Review*, Vol. 71(4), 1981, pp. 715-25.

<sup>44</sup> Reasons for further intertemporal inconsistencies are discussed by G. Loewenstein and D. Prelec, 'Anomalies in Intertemporal Choice: Evidence and an Interpretation', *Quarterly Journal of Economics*, Vol. 107(2), 1992, pp. 573-97.

<sup>45</sup> D. F. Bradford, 'Constraint on Government Investment Opportunities and the Choice of Discount Rate', *American Economic Review*, Vol. 65(5), 1975, pp. 887-99.

<sup>46</sup> A. E. Boardman, D. H. Greenberg, A. R. Vining and D. L. Weimer, *Cost Benefit Analysis: Concepts and Practice*, Upper Saddle River, NJ: Prentice Hall, 1996.

where there are presumably many economists engaged in the respective studies, different US agencies use widely differing discounting approaches.<sup>47</sup> 'One thousand points of light seeking a number,' is how the director of the Congressional Budget Office, Robert W. Hartman, aptly described the search for the appropriate discount rate.<sup>48</sup>

The distribution of costs and benefits which results from historic preservation programmes is arguably even more important than questions of discounting. Large-scale efforts of city renewal often lead to the gentrification of the targeted areas and displace low-income groups. In addition, many residents fear the 'museumisation' which conservation areas often produce, killing the life in these neighbourhoods and destroying the original social fabric. Therefore, targeted areas frequently resist ambitious plans for restoration. The French system of *secteurs sauvegardés*, introduced by the 1962 Malraux Act, provides a good example for the social tensions conservation efforts can produce. The French law, which served as a model for the Italian urban conservation system and the British 1967 Civic Amenities act, concentrated public expenditure on small areas that were to be thoroughly conserved. For example, the planners intended to return the Marais in Paris to the exact form shown on the Turgot plan of 1739. All 19th-century 'accretions' were to be stripped away. However, local councils blocked the approval for this particular and many other plans. For most safeguarded zones it took more than a decade to win local approval and the majority of plans is still blocked.<sup>49</sup> From this point of view, the Malraux Act must be judged a failure because it did not consider the distributional consequences of historic conservation.

The distributional consequences of preservation programmes are clearly very important. However, cost-benefit and cost-utility

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<sup>47</sup> R. M. Lyon, 'Federal Discount Rate Policy, the Shadow Price of Capital, and Challenges for Reforms', *Journal of Environmental Economics and Management*, Vol. 18(2), 1990, pp. S29-S50.

<sup>48</sup> R. W. Hartman, 'One Thousand Points of Light Seeking a Number: A Case Study of CBO's Search for a Discount Policy', *Journal of Environmental Economics and Management*, Vol. 18(2), 1990, pp. S3-S7.

<sup>49</sup> R. Kain, 'Europe's Model and Exemplar Still? The French Approach to Urban Conservation, 1962-1981', *Town Planning Review*, Vol. 53, 1982, pp. 403-22.

analyses have nothing to say about the distribution of costs and benefits. Policies can be ranked according to the size of their net present values, indicating the gains in overall resources to society. The distribution of these resources, however, is beyond the realm of cost-benefit analysis. In fact, policies that make the urban poor even poorer are perfectly compatible with the Kaldor/Hicks compensation principle<sup>50</sup> by which cost-benefit analysts judge subsidies for the arts and conservation efforts. It has been suggested that this shortcoming of cost-benefit analysis could be remedied by weighting the losses to the poor more heavily than the gains to the middle classes and the rich.<sup>51</sup> To the extent that increases in income yield diminishing marginal benefits or if citizens have a preference for a more equal distribution of wealth, the use of distributional weights is compatible with economic theory.<sup>52</sup> However, both variables are not directly observable and neither economic theory nor legal stipulations offers any guidance with regard to the numerical values that should be placed on such weights.<sup>53</sup> Therefore, distributional issues remain neglected in practical cost-benefit analyses.

Finally, under certain circumstances, cost-benefit analysis may make contradictory recommendations because the method is unable to rank different Pareto-superior states.<sup>54</sup> In these cases, the cost-benefit analyst recommends undertaking the proposed historic preservation and compensating the losers, and he also recommends not having the programme and compensating the groups that would have gained from preserving our cultural heritage. Both policies represent net improvements in overall welfare and the logic of cost-benefit analysis implies that both programmes should be undertaken – which is not possible as the recommendations are contradictory.

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<sup>50</sup> The principle that a policy should be undertaken if the winners *could* compensate the losers and still remain better off.

<sup>51</sup> A. C. Harberger, 'On the Use of Distributional Weights in Social Cost-Benefit Analysis', *Journal of Political Economy*, Vol. 86(2), 1978, pp. 87-120.

<sup>52</sup> M. S. Feldstein, 'Distributional Equity and the Optimal Structure of Public Prices', *American Economic Review*, Vol. 62(1), 1972, pp. 32-36.

<sup>53</sup> N. Lichfield, *Community Impact Evaluation*. London: University College London, 1996, pp. 260-71.

<sup>54</sup> States in which at least one player has become better off without anyone becoming worse off.

### **3. Combining Evaluation and Decision by Referenda**

The evaluation methods currently available, and cost-benefit analyses as a conceptual framework, are of limited use for public policy purposes. They do not provide a coherent framework which could serve as the basis for rational public conservation decisions. Moreover, the cost-benefit approach fails to take distributive aspects of these policies into account. The last aspect is of particular importance because these conservation decisions are taken in the realm of politics where distributive effects are more important than allocative efficiency. Thus, the major problem with willingness-to-pay studies which are based on social welfare considerations is that they are divorced from political decisions. These methods are of little importance in the political process because they exclusively (attempt to) relate to social welfare and ignore political exigencies. Some actors may under some circumstances use the results of cost-benefit studies to bolster their arguments – provided they suit their interests.

To overcome the problems discussed in Section 2, we propose to reveal the individual willingness-to-pay for the conservation of our cultural heritage by holding popular referenda on questions of preservation and allowing initiatives. As the NOAA panel had pointed out, a well-designed contingent valuation study seeks to imitate a popular referendum – why, then, should it not be employed? As a decision mechanism, referenda have many advantages over representative and administrative forms of decision-making. In particular, referenda evade the principal-agent problem and constitute an effective barrier against the '*classe politique*'. Both aspects are of particular importance with respect to cultural decisions because the politicians and bureaucrats tend to have a larger discretionary room in this area than elsewhere.

We consider the following three forms of public participation in conservation planning and public policies related to our cultural heritage:

- Citizens should be granted the right to vote on the size of the overall budget for the arts and for historic preservation (budget referenda).
- Citizens also have the right to approve or reject large projects such as the construction of a new museum (project referenda).

- Citizens may propose new laws with regard to the arts or introduce new conservation projects (initiatives).

These three forms of public participation are designed to bring heritage policies as close to individual preferences as possible. However, it is also important to recognise the gains in efficiency that result from the division of labour between politicians, preservation experts and the public at large. Therefore, we propose to leave the traditional budget process unchanged. Administrators and politicians know best how to work out the intricate details of a public budget and it is their mandate to propose policies that further the public interest. But, once the budget planning process is concluded, the public should have the right to challenge the proposed budget in a referendum. The mere possibility of challenging the budget in a referendum changes the incentives for all those involved in its preparation. Administrators and politicians now have to anticipate the public's reaction to different proposals and consider the distributional aspects of the proposed policies. The same considerations also hold for project proposals that are subject to public approval.

Most states which use popular referenda require that a fixed number of voters demand a referendum within a few months after the publication of the budget or the project proposal. The hurdle for starting a referendum should neither be set too low nor too high. If too high, the referendum obviously fails to produce the set of incentives that requires administrators and politicians to act in the interests of their constituencies. But it should also not be too easy to start a referendum. Citizens must have the opportunity to collect and process the information on the issues at hand. This is only possible if the number of topics that citizens vote on remains comparatively small. Thus it would be impractical if citizens had to decide on the renovation of every facade in their town. If politicians and administrators correctly anticipate the public's sentiments, we would not expect to see a large number of referenda taking place. The fact that public policy decisions have to take individual preferences into account (without voting actually taking place) represents by far the most important effect of this form of public involvement.

Budget and project referenda reduce the principal-agent problem, but they do not eliminate the agenda-setting power of politicians.

Public policy will become even more efficient if there is increased competition for new ideas. Initiatives which allow citizens to propose and vote on new ideas and projects serve this very purpose. Initiatives open up the political process and let insiders (elected officials and administrators) compete with outsiders (new political entrepreneurs and under-represented groups). Again, one has to think carefully about the requirements for starting an initiative as it is not feasible that citizens be required to vote on every issue.

*Arguments against Popular Referenda*

Two arguments are often raised against the use of popular referenda for cultural policy.

(i) *Incapable citizens*: Voters are charged with being both uninformed and unintelligent with respect to cultural affairs. Therefore, they cannot be trusted to take 'good' decisions. The criticism concerning the lack of information is mistaken. When citizens are given the power to decide, they will inform themselves. Today, they do not acquire much information as they cannot decide anything. The state of information is not given, but is endogenous to the political process. The discussion process induced by the referendum produces the necessary information. With respect to the lack of intelligence in matters of historic conservation, referenda rely on the same value-judgement as all other willingness-to-pay methods. In all cases, individual preferences – and not the (supposedly) superior insights of a cultural/political élite – are to count.

(ii) *Superficial citizens*: Voters are charged with not taking referendum decisions seriously. It is quite true that these decisions are of the 'low-cost' type because a single vote is never decisive. Consequently, the opportunity cost of misrepresenting one's preferences at the polls is low.<sup>55</sup> This charge applies equally to CV procedures, but not to the travel cost method or hedonic pricing which examine revealed behaviour. One may even argue that individuals take a response to a survey more lightly than voting

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<sup>55</sup> H. Kliemt, 'The Veil of Insignificance', *European Journal of Political Economy*, Vol. 2/3, 1986, pp. 333-44; G. Kirchgässner and W. W. Pommerehne, 'Low-cost decisions as a challenge to public choice', *Public Choice*, Vol. 77 (September), 1993, pp. 107-15.

decisions because the situation is purely hypothetical. Even more importantly, issues put to a referendum are often publicly debated.<sup>56</sup> In these discussions, having an opinion may be of considerable value.<sup>57</sup> Quite often, individuals are looked down upon by their peers if they are not in a position to debate an issue. Such social pressures generate additional incentives to gather and process information on the issue at hand.

#### 4. Democratic Heritage Policies

When discussing public choice aspects of conservation policies, we asserted that decisions taken in the political realm closely mirror their distributional consequences. This applies to our proposal as well. This section compares the referendum approach to the likely outcomes under expert-based decision-making procedures that characterise much of today's arts and preservation policies. By identifying the losers and the winners of the expected changes we hope to gain some insight into the likelihood of political change.

Figure 1 sketches the demand for the public good aspects of historic preservation. This (non-market) demand side is characterised by a bimodal distribution of preference intensities: one group of people treasures the arts and historic conservation and exhibits a high willingness-to-pay for these public goods. A much larger group values our cultural heritage, but is not willing to spend much on its preservation. To simplify the diagrammatic exposition, the demand schedules of only three individuals are shown: one art-lover and two citizens with a smaller willingness-to-pay for the arts. We further simplify the situation by assuming that they all face the same tax prices.

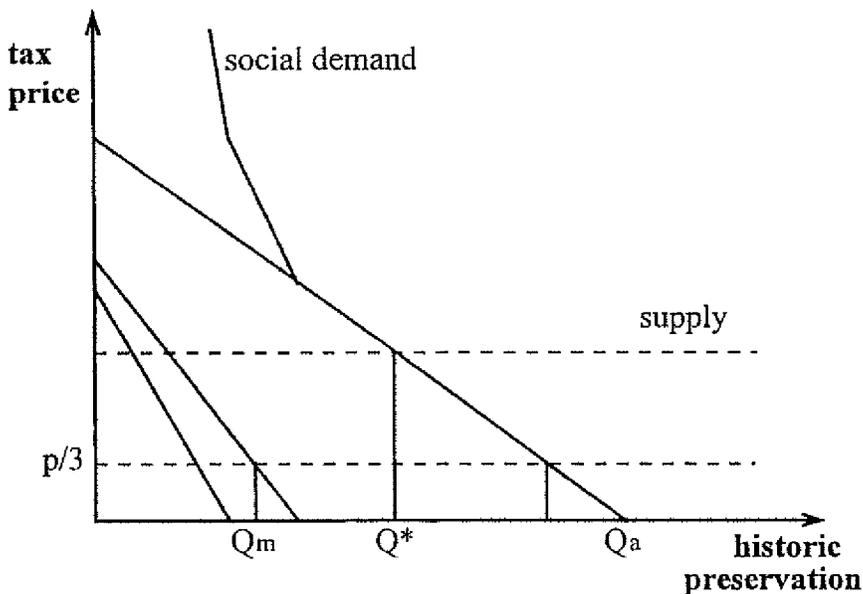
A benevolent dictator would choose the provision of public goods equal to  $Q^*$  where the vertical sum of the demand for historic conservation is equal to the social costs denoted by the supply curve. This is the point cost-benefit analysts seek to determine if they attempt to measure the individual willingness-to-pay for the arts. In contrast, the median voter is decisive for the outcome in a referendum on historic preservation. Therefore, referendum-

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<sup>56</sup> B. S. Frey, 'Direct Democracy: Politico-Economic Lessons from Swiss Experience', *American Economic Review*, Vol. 84 (May), 1994, pp. 338-48.

<sup>57</sup> A. O. Hirschman, 'Having Opinions - One of the Elements of Well-Being?', *American Economic Review*, Vol. 79(2), 1989, pp. 75-79.

**Figure 1: The Demand for the Public Good Aspects of Historic Preservation**



determined supply is equal to  $Q_m$ . Compared to the socially optimal provision of art subsidies and historic preservation, referendum processes could lead to an underprovision of public goods. However, this analysis is incomplete. The benevolent social dictator does not exist and one has to compare the outcome of a referendum with decisions made by public administrators.

It is not difficult to foresee who the experts are in a system which gives much weight to expert-driven decisions. Individuals who truly love the arts and have much interest in historic preservation study these subjects and are thus more likely to end up in positions where they can influence public policy. The likely outcome of expert-driven systems is thus in the vicinity of  $Q_a$ . Public policies reflect the tastes of the expert community and an overprovision of public goods is likely to result.

Past conservation programmes offer ample evidence for the fact that conservation experts often wish to go further than a balance of

marginal costs and benefits would indicate. As mentioned above, in the 1960s and the early 1970s, French and Italian preservation efforts were concentrated on a few small areas. The goal was to restore a small number of zones to perfection.<sup>58</sup> However, if conservation efforts exhibit increasing marginal costs and decreasing marginal benefits, the funds could have been used with greater effect if more zones had been restored in a less-than-perfect manner.

Similarly, many conservation experts continue to criticise the 'facadist' approach taken by commercial developers and several cities. Instead of restoring houses to historic purity, these development programmes often restore only the facades of buildings. One disputed case is the city of Bristol's decision to replace two Victorian warehouses by early 18th-century Georgian facsimiles, thereby increasing the visual coherence of Queen Square, but removing important historical traces. Predictably, this decision has drawn much criticism from conservation officers and experts.<sup>59</sup> The debate on facadism clearly shows the differences between the economic approach to historic conservation and the standards of the expert community. If the facades of buildings produce the positive externalities associated with good architecture, economic theory recommends restoring the facades only. Historic conservation is not seen as an end in itself, but rather as a means to convey pleasure. If this goal can be reached without restoring historic buildings in their entirety, the facadist approach is more efficient. In addition, the lack of a premium for older historic office buildings in Chicago and the negative effects of listing on house prices if the regulations are very strict, both indicate that restrictions on changes to the interior are costly. From the economic point of view, the facadist approach thus offers the best of two worlds. Restored facades capture most of the positive externalities without placing a heavy burden on the use of historic buildings.

The comparison between representative decision-making and the constitutional approach that we champion yields the following result: expert-based decision-making tends to lead to the

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<sup>58</sup> R. Kain (1982), *op.cit.*

<sup>59</sup> J. V. Punter, 'The Long-term Conservation Programme in Central Bristol 1977-1990', *Town Planning Review*, Vol. 62(3), 1991, pp. 341-64.

overprovision of historic conservation and art subsidies. Most likely, the expenditures will be more heavily concentrated, producing fewer but more prestigious projects. In contrast, decision-making by referenda may lead to an underprovision of public goods because art-lovers are not able to express the intensity of their preferences at the polls.<sup>60</sup>

### *Lessening Negative Impacts of Referenda*

The choice of political institutions thus entails a trade-off between the advantages and disadvantages of expert-based representative and direct-democratic procedures. We believe that the following four mechanisms serve to lessen the negative impacts of referenda and initiatives on conservation policies.

- Not all citizens will vote in a referendum on, say, the conservation budget of a city. Those who do not care about conservation are less likely to participate in the referendum. Moreover, conservation budgets are generally too small to stir major fiscal debates. Consequently, the electorate will consist of disproportionately many 'art-lovers'. Changes in turn-out rates capture preference intensities to some extent. In the cases studied here, they will increase the budget for historic conservation and the arts.
- In referenda, the interest groups and parties seek to affect the vote by newspaper, radio and television campaigns. But an open society admits propaganda from all sides, and it is therefore not *a priori* clear what the effect is. Normally, the cultural interests are well organised and motivated, emanating from the highly subsidised cultural institutions such as museums, theatres, orchestras and other arts organisations. The individuals uninterested or opposed to art belong on average to the less-educated classes of low-income and low political participation, are rarely organised, so that their propaganda influence is weak. Art lovers should therefore not be afraid of the propaganda activity with referenda.

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<sup>60</sup> Economic theory offers various mechanisms such as Clarke or Lindahl taxes to alleviate the problem that voters cannot express preference intensities. However, these methods require more information than is commonly available and none of these approaches can easily be incorporated in actual political processes.

- Judged by the size of historic conservation societies or by the number of visitors to art museums, it may seem that only a minuscule number of voters is prepared to support public investments in historic conservation programmes or the arts. This view is biased because non-use values represent a significant portion of the overall social value of preserving our cultural heritage. Many individuals value historic monuments and pieces of art but they never express this evaluation by visiting museums. In a referendum, these non-use values will be captured. For example, many citizens of Basle never visit the city's art museum and they have no intention of so doing. Nonetheless, these people frequently voted in favour of purchasing two Picasso paintings.<sup>61</sup> As an analysis of the Quebec museum has shown, the non-use values are at least as important as the use-values we commonly observe.<sup>62</sup> Therefore, the arts probably have many hidden supporters who we will only detect in budget or project referenda.
- Anomalies of choice will likely bias voting decisions in favour of historical conservation. The most important effect in this respect is the endowment effect.<sup>63</sup> Due to this effect, individuals asymmetrically weigh losses and gains. To lose an object one possesses is judged to be worse than to gain the same object. Imagine France losing the Mona Lisa, Rome the Colosseum, or the Uffici being destroyed. It is safe to predict that individuals would value such losses highly and be prepared to make considerable sacrifices to prevent losing them. Now, imagine a situation where none of these historic treasures was ever in the possession of these countries. Does Rome really need the Colosseum? (It has the whole Forum Romanum with its spectacular arches of triumph.) Does the Louvre really need the Mona Lisa? (It has hundreds of other masterpieces.) If

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<sup>61</sup> B. S. Frey and W. W. Pommerehne, *op. cit.*, Ch. 10.

<sup>62</sup> F. Martin, 'Determining the Size of Museum Subsidies', *Journal of Cultural Economics*, Vol. 18, 1994, pp. 255-70.

<sup>63</sup> D. Kahneman and A. Tversky, 'Intuitive predictions: Biases and corrective procedures', in S. Makridakis and S.C. Wheelwright (eds.), 'Forecasting, TIMS', *Studies in Management Science*, Vol. 12, 1979, pp. 313-27; J. L. Knetsch, 'The Endowment Effect and Evidence of Nonreversible Indifference Curves', *American Economic Review*, Vol. 79, 1989, pp. 263-91.

endowment effects are present, people would have a very low willingness-to-pay to acquire yet another masterpiece, yet another Roman monument. Comparing the valuation of monuments over time, it is possible to observe the endowment effect at work. We mention just two examples: both the Eiffel Tower in Paris and the Rotunda in central Birmingham were not liked at all at the time of their construction. Today, few people can imagine losing these landmarks. By definition, historic preservation programmes are designed to restore and preserve what we already possess. Thus, the endowment effect works in favour of old buildings and historic monuments.

## **6. Conclusions**

In view of tighter budget constraints and past public controversies, administrators have turned to cost-benefit analysis as a framework to evaluate and select historic conservation programmes. These analyses are valuable because they enumerate the gains and losses to society and allow the analyst to rank different projects according to their net present value. However, the methods that are currently used to measure the benefits of art institutions and historic conservation efforts are not without considerable flaws and require many, and sometimes quite arbitrary, assumptions. We have argued that, as a result of these deficiencies, public administrations will tend to 'err on the safe side', the safe side in this case being an overprovision of the public good which is in the interest of the public administrators and their relevant reference group, the arts community.

In our view, this bias can be corrected by reforming the political institutions. Citizens should be granted the right to vote on historic preservation budgets and major art projects. As we have pointed out, these new institutions will most likely not lead to a large number of popular votes because the public administrators take the threat of a possible referendum into account when preparing the budget. However, these institutions will lead to historic preservation programmes which conform better to the preferences of the median voter.

While this constitutional approach effectively solves the principal-agent problem, it may lead to an underprovision of art subsidies and historic conservation. This outcome is likely because the minority of art-lovers cannot express their intensive preferences

at the polls. We have identified four effects which tend to decrease this underprovision of the public good and bias referendum outcomes in favour of the arts and historic conservation: voter turnout, information effects, non-use values and the endowment effect all lead to larger public budgets than the median-voter outcome implies.

The rôle of cost-benefit analysts need not be diminished under the proposed new set of political institutions. On the contrary, public administrators and politicians will find themselves under much greater pressure to justify the expenditures for the arts and for historic preservation when referenda are permitted. To the extent that cost-benefit analysis provides a rational framework to assess the social value of these investments, the demand for such analyses might even increase. Of course, the resources spent on communicating the rationale for historic preservation to the general public comes at an (additional) opportunity cost. However, public discourse might not only lead to decisions that conform better to the median voter's preferences, but there may be an additional benefit as well. It is well known that the enjoyment of the arts and of good architecture depends on the size of the relevant human capital. The more individuals know about the arts, the higher are the benefits they derive from the existing stock of cultural objects. The proposed political institutions thus lead to more democratic conservation programmes and they provide the public with additional incentives to learn about the arts by granting them the right to decide on budgets and large projects.