

## Perspectives from cultural and ecological projects

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### 1 Introduction

Preserving our culture and ecology is preserving our heritage. Common features include their long-term nature and their immense range from global to local scale, from the atmosphere to small buildings in country towns.

Another common feature is the inherent difficulty of valuation, especially benefits. We need to take a critical look at concepts adapted from conventional economic theory, and at consumer preference analysis, as indeed the seminar background paper does.

I wonder whether the Sydney Opera House would have been built – despite the vision of people like Premier Cahill – if the eventual cost of the building had been factored in at the outset. Looking back, however, it is hard to imagine anything but a highly favourable actual benefit-cost ratio, despite the fact that construction costs exceeded the initial estimates about tenfold.<sup>1</sup> Actually, I wonder whether any formal cost-benefit analysis was carried out in 1957, when Utzon's exciting but sketchy vision was chosen on the assumption that it would cost \$7 million and take five years to build.

I want to give three actual examples, from the huge to the tiny, from the economics of climate change to how a small art deco building in a country town got on the NSW State Heritage List. Between these extremes, I will refer to a project I am involved with in the United States, which illustrates the use and limitations of socioeconomic research methods when analysing the long-term degradation of coral reefs in the Florida Keys.

### 2 The huge: Lessons from the economics of climate change

David Throsby argues that culture has a independent contribution to make to the total economic capital, in addition to manufactured or physical capital, and the modern concepts of human and natural capital. His conclusion is that cultural assets both tangible (such as the Opera House) and intangible (such as the vigour and diversity of cultural communities) make independent additions to the stock of economic capital, but it is hard to measure. He also explores the parallel between environmental and cultural capital, based on their long-term impact and the importance of *sustainability* and *substitution* in both.

Substitution is basic: some is beneficial such as clever humans replacing cumbersome heavy machinery – digital versus mechanical technology. Some is not, above all our destruction of ecosystems and the atmosphere to boost physical capital and output.

I was able to take this a little further<sup>2</sup> through an analysis of the October 2006 British Stern report<sup>3</sup> on climate change to identify cultural parallels. One main feature of the Stern report is that it challenges economic theory and exposes the difficulty of applying standard cost-benefit analysis to long-term issues.

Stern makes several key points on the economics of climate change which have parallels in cultural economics. Here are two of them:

- 1 First, Stern's central point is that climate change represents a unique challenge for economists: it is *global*, and the greatest *market failure* the world has ever seen, in the sense that it is associated with the massive *externality* that greenhouse gas emissions are not paid by those who cause them. In the process, the *public good* called climate is damaged, to the detriment of everybody.

In cultural economics, global market failure is revealed as soon as we move beyond a philosophy of unfettered economic rationalism, where the survival of the fittest and

strongest is viewed as efficient, and no market failure is perceived based on the successful production and exports of homogenised cultural product. Such a view ignores the benefits of a richer and more diverse cultural life which adds cultural capital to the total economic capital of a nation, resulting in added economic growth.

Whether we talk about climate or culture, these long-term assets need constant nurturing. The risk of severe long-term consequences gets greater the further we move into an unknowable future. It includes possible non-marginal change due to feedback effects from lost cultural diversity to our cultural and social infrastructure, education system and political institutions.

- 2 Secondly, Stern finds that both inter- and intra-generational *equity* are central, and so consequently is *sustainability*. Within our generation, poorer people and countries generally suffer most from the effects of climate change, whereas richer countries have been responsible for the bulk of greenhouse gas emissions. But how much should we take our grandchildren into account?

Throsby<sup>4</sup> notes that cultural sustainability relates to the management of tangible and intangible cultural capital. If we allow this to slip, we damage our ability to bring our cultural heritage forward to the next generation, as well as endangering the equity within the present generation in terms of fair access to cultural participation by all age, income, minority and disadvantaged groups. In short, it is crucial to achieve a balance of equity between generations (heritage) and within the present generation.

There are other parallels between Stern's analysis and cultural economics. The comparison verifies the similar attributes of the public goods called culture and climate. It is all too easy to let the quality of either deteriorate, as is currently happening most visibly to the global climate. To understand this means adapting economic theory and method, and questioning whether standard numerical cost-benefit analysis should be the major analytic tool to deal with our vulnerable cultural or natural capital resources.

### **3 The big: Limits of socioeconomic analysis in coastal management**

The Florida Keys adjoin the main part of the only coral reef system in mainland USA. I am currently engaged in a two-year project to analyse the impact of climate change on the reef, using socioeconomic research as well as macroeconomic and scientific data, and attempting to look into a distant future as any heritage study must if it is to get within striking distance of determining costs and benefits for present and future generations.

The idea of the Florida Keys project, for the National Oceanic and Atmospheric Administration (NOAA), was prompted by a previous report investigating the long-term future of the Great Barrier Reef, in which I conducted the economic research and structured four possible future scenarios.<sup>5</sup> The rationale behind these projects is that coral reefs are among the ecosystems most sensitive to climate change, which cause rising sea surface temperatures, increasing acidification due to absorption of CO<sub>2</sub> into the oceans, increased hurricane activity and, sooner or later, rising sea levels.

The main socioeconomic research in the project is through surveys designed to explore visitors' and residents' attitudes to and knowledge of coral reef degradation caused by pollution, overfishing or direct damage to reef structures and aggravated by climate change. The client, NOAA, has long been a proponent of stated preference techniques as you may note from the background paper for this seminar.

The surveys are linked to main visitor and resident surveys to be conducted between January and August 2008. They are meticulously structured through random sampling procedures to provide a strong analytic base. The main surveys will update successful similar surveys conducted in 1995-96, based on methodology developed by their creator, Bob Leeworthy, chief economist for NOAA's marine sanctuaries.

A central feature of the reef-related survey questionnaires is a choice-modelling approach where respondents are asked: “*Suppose you could only choose between the following three alternative combinations of global and local strategies, which would be your most preferred alternative and which would be your least preferred alternative?*”

The three combinations are (a) that nothing is done extra either globally or at local reef management level, at no extra cost but causing maximum reef degradation over the coming 20 years, and (b) and (c) paying given amounts for randomly selected reef management and global warming mitigation policies to lessen the degradation. The random selections were chosen from 81 possible combinations of local management and global warming policies, each with a given cost and a given impact on reef health.

In addition, these surveys are divided into four batches, with different cost levels: base, and base times two, three, and four (since a typical respondent may select a positive reef management approach at base cost, but not at four times that level).

As the background paper notes: “*The use of multi-attribute scenarios yields richer and more cost-selective data by providing not just one value estimate, but a functional relationship between levels of attributes. Choice modelling can thus be used to estimate consumer preferences towards more complex and realistic policy scenarios.*”

The approach in the Florida Keys survey is probably as good as it can be made to identify consumer attitudes. But it leaves one basic question: Should consumer preferences really be the main determinant of the fate of heritage projects, or should they be just an important input?

On the key heritage concern of our time, climate change, there is a strong feeling that we must go further. Hence, both the Great Barrier Reef and the Florida Keys studies employ *scenario planning* which incorporates consumer and local opinion and much more. Without going into detail, it involves creating four alternative futures across the range from global to local, and taking into account all relevant socio-cultural, technological, ecological, economic and political factors. Most importantly, the four scenarios are constructed to be equally plausible and equally likely to eventuate. The purpose is to create sensible boundaries within which to plan for an increasingly unpredictable long-term future.

Again, it is difficult to see how standard cost-benefit analysis fits into a broad framework of assessing the future as we move beyond comparing more than, say, a group of local projects within the broader context. It appears to be strictly a secondary approach to take after the bigger issues, such as climate change or overall cultural policy, have been canvassed and evaluated in a broader long-term framework.

#### **4 The tiny: Determining what is worthy of heritage status**

In December 2003, a former art deco cinema-cum-multi-function centre in Oberon, NSW, was listed on the State Heritage Register by the NSW Heritage Office, “due to its heritage significance to the people of the State of New South Wales.”<sup>6</sup> The building is the Malachi Gilmore Hall, built in 1937 and functioning in its originally intended form as a dance hall, cinema and venue for all important local events until 1977. Its use since the mid-eighties has been as a wool store, with the former foyer rented out as a craft shop. The proprietor has maintained the appearance of the hall, making the façade an attractive feature in the central streetscape. The original stage, projection room and other areas are largely intact, but restoration is required to return the building to its original use as a social and cultural centre, and to bring it into line with modern safety and other standards.

The application for heritage status was supported by all local private-sector associations, the owners, the Art Deco Society, the National Trust, and the local Federal and State parliamentarians. However, the NSW State Heritage Inventory form, which formed the basis

for the successful application, contains no economic or financial data, let alone any cost-benefit analysis. State heritage status was based on other criteria.

The same applies to the State Heritage Office guidelines for Conservation Management Plans.<sup>7</sup> Those sighted (in preparation of a CMP for the Oberon hall) amount to a detailed verbal description of benefits and costs/issues but no formal numerical cost-benefit analysis.

The background paper for this seminar says under the heading of ‘integrating cost-benefit analysis into government decision-making’: “*As most heritage exists within the jurisdiction of local government, the feasibility of conducting cost-benefit analysis at the local level needs particular attention.*”

We come back to the issue of consumer power. As well as assessing the innate heritage significance of the hall, the State Heritage Office presumably took into account that local organisations representing tourism, local business, and the arts were positively inclined towards heritage listing. Formal cost-benefit analysis, had it been done, might have shown a negative ratio, putting the building at risk of future demolition if the application for listing was then rejected.

So, in conclusion, whether you are dealing with the very large or the very local, to rely on conventional cost-benefit analysis and incidentally removing the influence of opinion leaders and visionaries generally, seems to be fundamentally at odds with the spirit of protecting heritage, whether cultural or environmental.

There is a case for applauding the activists in many areas who started out with the reputation of being ratbags and ended up, too many years later, bringing the mainstream into the fold. The trouble is that this process takes such a long time, and time is increasingly precious. The emergence, in our digital age, of organisations with mass appeal like *GetUp!* may provide a way of speeding the process up.<sup>8</sup>

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<sup>1</sup> Equivalent to about 110 million at 2007 prices compared with an estimated final cost of some 1.1 billion at 2007 prices.

<sup>2</sup> Hans Hoegh-Guldberg (2007), *Cultural Economics as an independent economic force*, written for the Music Council of Australia knowledge base (<http://mcakb.wordpress.com/context/cultural-economics/>).

<sup>3</sup> *Stern Review on the economics of climate change* (2007) ([http://www.hm-treasury.gov.uk/independent\\_reviews/stern\\_review\\_economics\\_climate\\_change/stern\\_review\\_report.cfm](http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm)).

<sup>4</sup> David Throsby (2005), *On the sustainability of cultural capital* ([http://www.econ.mq.edu.au/research/2005/cult\\_cap\\_throsby.pdf](http://www.econ.mq.edu.au/research/2005/cult_cap_throsby.pdf)).

<sup>5</sup> Hans and Ove Hoegh-Guldberg, *The implications of climate change for Australia’s Great Barrier Reef* (2004), for WWF Australia and Queensland Tourism Industry Council (<http://wwf.org.au/publications/ClimateChangeGBR/>).

<sup>6</sup> See the NSW *Government Gazette* <http://www.advertising.nswp.commerce.nsw.gov.au/Gazette/2003+Gazettes/2003+Gazettes.htm> and State Heritage Register ([http://www.heritage.nsw.gov.au/07\\_subnav\\_01\\_2.cfm?itemid=2210019](http://www.heritage.nsw.gov.au/07_subnav_01_2.cfm?itemid=2210019)).

<sup>7</sup> [http://www.heritage.nsw.gov.au/13\\_subnav\\_04.htm](http://www.heritage.nsw.gov.au/13_subnav_04.htm).

<sup>8</sup> <http://www.getup.org.au/>