

Landscape Forward: Policy, Practice, Research
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**LANDSCAPE AS MEANS & LANDSCAPE AS ENDS:
a utilitarian economist's speculation**

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Introduction

The choice of subtitle is deliberate, and pointed.

Firstly, let us consider what a utilitarian is *not*. A utilitarian is *not* inherently materialist, but is concerned with everything that affects human well-being. A utilitarian is not short-termist: the prominent C19th utilitarian, Henry Sidgwick, declared very explicitly: "...the time at which a man exists cannot affect the value of his happiness: the interests of posterity must concern a Utilitarian" (Sidgwick, 1874). A utilitarian is not even anthropocentric. As well as an abolitionist, advocate of equal rights for women and of many liberal reforms, the father of modern utilitarianism, Jeremy Bentham, was an early champion of animal welfare: he believed that the relevant question was not "can animals reason?" but "can they suffer?" (Bentham, 1789).

For utilitarians "An action is good if it tends to promote happiness", which Bentham viewed as the predominance of pleasure over pain. It is the duty of government to favour such actions. And for utilitarian economists there is a *felicific calculus* which sums the pleasure arising from an action or policy, and deducts the summed pain – including the pain of forgoing potential pleasure – to estimate the net consequential happiness. This, indeed, is the ground of cost–benefit analysis. When challenged on this position, utilitarians might well ask, why would anyone wish to promote lesser happiness rather than more?

It seems unsurprising, then, that utilitarians wonder why their philosophy has such a bad name. Perhaps what troubles opponents is its *consequentialism*. No action, no entity, no policy – including on landscape – is virtuous in and of itself, but must be judged according to a chain of consequences for pleasure and pain. Even motherhood and apple-pie must justify their claims to being virtuous. By contrast, a rights-based approach to land use decisions might assert not only the rights of a landscape's inhabitants, but that a landscape itself has legitimate "interests", to be protected as are the interests of human beings. A utilitarian might agree, but only if humans felt their own interest in protecting those quasi-interests of landscape. "All landscapes matter" is tenable, not as a dogmatic position, but only in that such a generalisation tends to promote the well-being of humans. "How do we improve the quality of landscape *where people live?*" is a question that shows strong utilitarian leanings.

So, utilitarians stand condemned, for their refusal to acknowledge self-evident truths about what is right, ... except, perhaps, the self-evident truths about life, liberty and the pursuit of happiness. The other criticism is a factual one: that humans know what is good for them, and are driven by instinct to maximise their personal good.

Payment for ecosystem services, and valuing them

Until recently, it was widely believed that an insuperable practical obstacle existed to applying the felicific calculus to aesthetic values: that is, the perceived absence of a market for landscape by which intensity of pleasure might be measured. In fact, however, for 70 years utilitarian economists have explored means of monetising the value of the environment. This has come to wider public notice under the label "payment for ecosystem services" promulgated in such documents as the National Ecosystem Assessment (Watson and Albon, 2011).

The "Payment for ..." label is unfortunate, and has strengthened charges of "commodification" of what had been regarded as birthright, or heritage. But does the process imply actual payment, with received monies potentially investible in growth of whatever is deemed good to grow? Or is it only a *valuation*, adding to expert and political judgement – and, yes, prejudice – as means of balancing competing demands on monetary and physical resources?

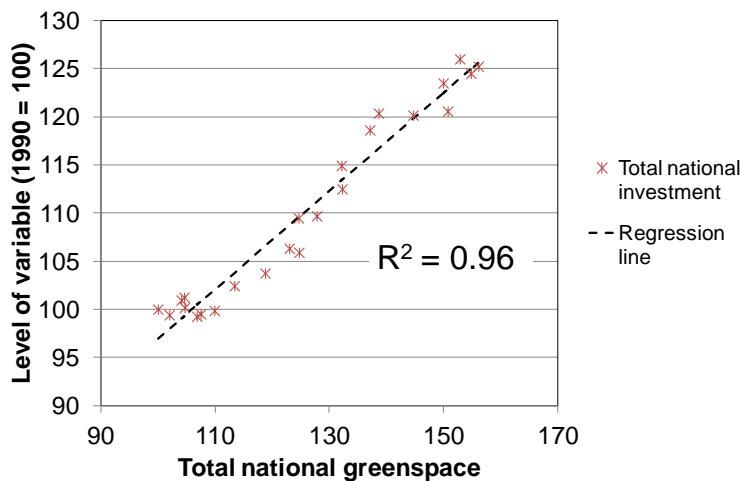
Good landscape to attract investment and growth

In discussions of valuing landscape quality, much is said of the benefits of green infrastructure – planned areas of trees and other vegetation – in encouraging investment, thus generating jobs and local tax revenue (Ecotec, 2007).

One should not, however, claim too much for such fiscal and financial effects. Attracting industry, commerce, residents and visitors into one area will divert benefits from competing areas, or encourage strategic games among adjoining municipalities (Choumert and Salanié, 2008).

More relevant is whether green infrastructure leads to an aggregate increase in investment and output, and if so how one would measure it. At the national level, only time-series data would furnish evidence; and the evidence they furnish, is that two variables trending with time are likely to show an impressive, but not a meaningful correlation.

Figure 1: Correlation does not imply causation



What in theory might reveal enhancement of overall net benefit or profitability would be *differentials* in rent and tax in an attractive environment. Willingness to pay a premium for such a location reflects a decision maker's assessment of concomitant advantages. The theory of this so-called hedonic pricing model is in principle straightforward. Data are gathered on all the attributes of many industrial and commercial locations, together with the cost of locating at them. In practice, however, disentangling the effect of landscaping from all other locational factors is likely to prove problematical, for statistical reasons to do with missing variables, multicollinearity and other horrors.

Moreover, the interests of the decision maker and those of the organisation may diverge. An attractive location is just that: it attracts. But why would that affect *profits* and the ability to grow? Perhaps because happy workers are more productive workers, with reduced stress and absenteeism? Or, it could be argued on the contrary, that truly remarkable landscape gives intimations of an alternative life-path, and an incentive to change the work-life balance in favour of life.

Much the same arguments hang balanced on the matter of attractive leisure environments and tourist revenue. Is *aggregate* revenue and the means to energise the local economy increased, or is it merely redistributed – within the UK, within Europe, within the world? The enormity of the social experiment required to test hypotheses is likely to throw us back on a belief that *obviously* there must be enhanced growth potential. But again, it is plausible that experience of attractive tourist destinations may impel people to an earlier retirement from the productive work-force – and an incursion into housing markets that displaces local workers.

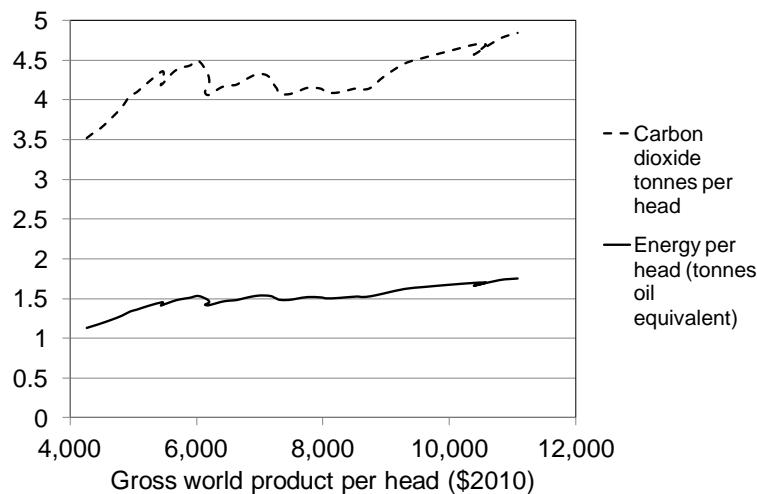
Conversely, Ulrich (1984), in a paper that has accrued more than 2600 citations, found that trees in the view from a hospital ward speeded recovery and discharge. To a saved NHS bed cost of £300 per day might be added £200 per day contribution to GNP, resulting from an early return to the work-force.

Growth as end and growth as means

For utilitarians growth is a good, not self-evidently, but only if it promotes the predominance of pleasure over pain. True, growth increases purchasing power (and those comfortably circumstanced should be wary of pulling up ladders after them. Who am I to deny the unemployed whatever offers a route to their sharing of the possessions that make my own life amenable?)

When I was a postgraduate in the early 1970s, it was a live issue whether growth was in itself desirable. *The Costs of Economic Growth* (Mishan, 1967), and *The Entropy Law and the Economic Process* (Georgescu-Roegen, 1971) were books influential in thinking circles. They were noted in policy circles ... and ignored. But the upshot of greater output and greater purchasing power, is also a greater ability to require and sponsor despoilment. Despite improvements in efficiency, growth brings increase in energy demand and in pollutants (see figure 2), and these in turn affect landscape adversely, as well as threatening sustainability. A three-way trade-off is emplaced.

Figure 2: Two concomitants of growth



Source: Derived from BP Statistical Review 2014

Nowadays politicians (being politicians) promulgate the notion of win-win-win options, in which nobody need be a loser. This is not the common observation of practice. Growth in material well-being in the UK has been accompanied by reduced domestic mineral exploitation, only through diverting exploitation to eastern European and other landscapes. The global constraint on CO₂ emissions from fossil fuel consumption has no direct impact on landscape, but net reductions are achieved only through deployment of renewable energy projects on a far more extensive scale than that of the centralised thermal stations. It would require the land surface of Britain to be covered with high-productivity conifers, to mop up the CO₂ production, and eventually replace the fuel for, our thermal stations. Wind currently supplies 2% of electricity demand: to do no more than fulfil an unexpanded production would still require one large turbine and several smaller ones in every square kilometre – more than that, since present turbines occupy the most advantageous sites.

As for the large-scale innovation of nuclear fusion energy, it seems to be just around much the same corner as it was when I read *The Boys' Own Paper* in my youth. In 1955 von Neumann predicted that "in a few decades energy will become so abundant as to be not worth charging for" – one of the more spectacular feats of technological over-optimism.

No magic bullet, then, to slay the three-headed beast of difficult trade-offs. Not yet.

Similarly housing

All the strands of argument rehearsed so far apply to housing. Of course, a good landscape setting attracts a premium. Because Council Tax is based on property value, whatever enhances property value enhances property tax and promotes the growth of public facilities. And exploitation and pollution to develop such facilities.

And there is a sub-plot. The wealthy gather where high-quality views are seen. The other side of the coin is agglomeration of the less privileged in less well-favoured environments. Here, where willingness to pay least indicates it, is arguably the greatest need for landscape improvement. It can be viewed through the social consequences of landscape improvement for civil behaviour (Sullivan 2001): savings in policing, property damage avoidance, reduced health costs. The quality of intimate landscape also benefits mental health (Grahn and Stigsdottir 2003).

So, is the argument for landscape amelioration *just* that more money is saved from remedial expenditure, that can hence be applied to growth of productive investment? Or is the deeper objective, a better life in itself? Utilitarian economics is people-centred. It reaches over the head of decision-constructors (Price, 1999a) to consult the valuations of those who bear the outcomes of decisions. It answers the question “how do we communicate [these ideas] to the person on the street?” with the speculation that it might be as relevant to ask how the person on the street communicates with us.

One of those modes of communication is through revealed or stated willingness to pay. While this metric has drawn trenchant criticism (Clark et al., 2000), it offers at the least an unbiased comparator for priorities decided by other means. How, for example, would such valuations compare with those implied in allocation of Heritage Lottery Funds?

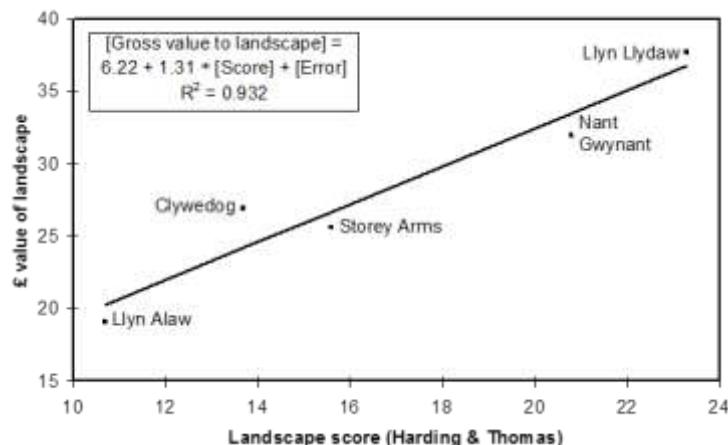
Valuing a better life

Some indications come through the processes already explored, viewed differently. But we must be wary in our consequentialist conclusions. Not all of a locational house price premium is actually attributable to landscape in itself. “Good views are a banner to which the wealthy may rally, confident that poor people can never afford to become their neighbours” (Price, 1995). Such neighbourhoods, with what benefits and obverses they generate, would have emerged anyway: landscape in this sense is no more than a catalyst for agglomeration. And unfortunately economists have tended to pin the values revealed, to readily measured attributes, such as presence of water and trees, rather than to the more contested holistic quality of the residential landscape (Henry, 1994).

As for the benefits to hospital patients implied in their early discharge from wards whose windows show trees, the causality may be that people hate trees, and if forced to confront them from their hospital beds will discharge themselves early, to escape.

In the rural landscape, the aesthetic quality of recreational environments used to be measured by the distribution of travel costs, where visitors must make actual increased payments to access better landscape quality.

Figure 3: Willingness to pay to travel to landscapes of different quality



Source: Thomas and Price (1999)

Nowadays questionnaires have largely supplanted this approach. However, asking consumers what they would be willing to pay to protect or to enhance a landscape invites many biases: the cues given by emotive words; the inclination to give high values in order to seem appreciative of the

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landscape's subtle qualities, or to create an impression of being "particularly environmentally sensitive", or to express a symbolic high valuation of a wider swathe of landscapes. When I once found a stated value, for a little visited area of deep peat in northern Scotland, of 10% of the UK's GNP, I knew that the system was almost infinitely corruptible (Price, 1999b). These biases have been investigated but not entirely corrected: through what are called "choice experiments" that seek to avoid polarisation between money on one hand and environment on the other; and by "contingent referenda", which place the respondent in the role of citizen rather than consumer, in a context which offers no advantage in exaggeration. These more detached approaches can be applied to those ultimately non-polluting and non-depleting benefits termed "passive use values", the ones enjoyed by those who do not travel to landscapes, but simply enjoy contemplating their existence.

In this recipe book approach, applied uniformly, it may seem that there is room for neither elite landscapes, nor for the special delight of local habitations. The latter may be addressed by subtle reconfiguration of existing techniques – for example, by measuring the relative distribution of travel cost by those familiar, and those not familiar, with a landscape.

There are respectable arguments that favour treating landscape as having intrinsic good: transformative values, bequest values, and those quasi-option values which we do not yet have the wit to perceive. Plausibly benevolent assumptions may be used to favour designated areas (Price 1977), with application of "ordinary" cost–benefit analysis elsewhere to what we used to call AOPoCs; any old pieces of countryside, landscapes which nonetheless matter, to the extent that people *can* reveal their attachment to them.

Can there be recommendations?

"Income must be generated, to support good landscaping objectives" can, almost unnoticed, transmute to "The objective of good landscape is to generate income." [Not unlike the apparent objective of research in universities.] That's why the utilitarian discipline of consequentialism is as important as ever, in asking questions about the eventual human consequences of whatever the current policy may be.

I'd love to be able to recommend that we should go forth as advocates of monetary valuation, as a pitch for greater government investment in landscape, and a guide to allocation of the secured funds. But ... in the community of enthusiastic environmental valuers there exists the oft-expressed but little-substantiated sentiment that: "surely any money value better than none?" My sad experience is that this is not necessarily true. On the contrary, "zero-euros" may be closer to the truth than the extravagant values sometimes elicited by the above methods.

Respect, then, the utilitarians' philosophical position when you encounter it, whether it announces itself as such or not. But be wary of presenting results of the felicific calculus as though an objective assessment of landscape value. Not because they undervalue landscape, but because they may overstate it absurdly, and in so doing give a bad name, not only to itself, but to those who deploy it selectively and strategically.

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