Cultural Ecosystem Services and the Challenge for Cultural Geography

Abstract

Cultural ecosystem services are one of four services identified by the Millennium Ecosystem Assessment (2005) as critical to the support of human life on earth and therefore in need of proper valuation and protection. Cultural services seem to embody the objects of enquiry for cultural geographers interested in landscape, identity and place. However, potentially insurmountable epistemological challenges face the participation of cultural geographers in: a) the identification and evaluation of CES; and b) the operationalization of environmental governance. One challenge for cultural geographers is to make the relevance of their theoretical and conceptual insights felt in a field dominated by the natural sciences and scientific epistemologies. Meanwhile, the problems of defining and identifying cultural services in ways that make them compatible with provision, regulating and supporting services, even threaten the continued inclusion of cultural services in the ecosystem services approach. The concept of landscape seems to provide a shared intellectual terrain over which cultural geographers can work with others interested in cultural ecosystem services.

Introduction

There has never been a better time or a greater necessity for cultural geographers to get involved in the emergent politics and operationalization of the ecosystem services (ES) approach to the management of nature and the environment. Whilst it is true that geographers of many different types have something to contribute to emerging debates about mapping and evaluating ES
and Cultural Ecosystem Services (CES) (Portman, 2013), it is cultural
geographers interested in topics like landscape, identity, sense of place,
belonging, and dwelling who I wish to mobilise because rarely do we find the
object of our research at the heart of new policy directions. But the risks are
great: geographers schooled in nearly three decades of intellectual effort to
understand people’s complex relationships with landscape and place will not
easily find their voice in the multi-disciplinary clamour that surrounds the work
of identifying, defining, measuring, and evaluating ES.² This is especially so when
geography is characterised as useful only because “one needs to know where
[ecosystem] services are located” (Portman 2013 p.187; Potschin & Haines-
Young 2011; Ruhl 2010). Cultural geographers also share with colleagues
interested in the politics of nature a trenchant critique of environmental
governance in general and ES in particular (Robertson 2012; Yusoff 2011).
Further, potentially insurmountable epistemological challenges face
participation in: i) the identification and evaluation of CES; and ii) the
operationalization of environmental governance. This, to summarise, presents
two problems which I explain in this paper (along with a history and critique of
ES and CES): the ability of cultural geography to make its relevance felt and the
continued inclusion of CES in the ES approach.

Ecosystem Services

There is much debate over the definition of ES (Daily, 1997; Fisher et al. 2009;
Gómez-Baggethun, 2010; Nahlick et al. 2012) which drawn attention to the
semantic messiness around terms like ‘services’, ‘goods’, and ‘benefits’, which
has a bearing on the place of CES within ES.
A widely used definition of ES comes from the Millennium Ecosystem Assessment (MA), which attempted to establish the scientific evidence for the conservation and sustainable use of ecosystems and identify their contributions to human well-being (Millennium Ecosystem Assessment 2005, p.v). Ecosystem services are:

- the benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fiber; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling (Millennium Ecosystem Assessment 2005, p.v).

Provisioning, regulating, supporting and cultural services are linked to the broad concept of human ‘well-being’ which goes beyond the necessary conditions of existence (security, livelihood, food, shelter, clean air and water) to embrace the lofty aims of “good social relations” (social cohesion, mutual respect, and the ability to help others), and “freedom of choice and action” which provide the opportunity to be able to achieve “what an individual values doing and being” (see figure 1). This quadumverate of services and the link to well-being has subsequently become shorthand for a complex range of functions, relations, and objects of study (Fisher et al 2009; Daniel et al. 2012a).

ES as a dominant concept steering environmental governance has already generated a hefty academic and policy literature (Fisher et al. 2009; Gómez-
Baggethun, 2010; Portman 2013), although this tends to neglect the way the
descriptor...negligent (Portman 2013).

Gómez-Baggethun et al. (2010) chart how the concept of ES emerged from the
work of Ehrlich and Ehrlich (1981) (Figure 2), drawing on earlier ecological
literature which was attentive to how human societies were served by nature
and critical of the Neoclassic economic view that nature’s resources could be
replaced by capital.

Schumacher (1973) was probably the first author to use the concept of natural
capital, whereupon the notion of ES gained momentum (Gómez-Baggethun et al.
2010). Norgaard (2010) maintains that ‘ecosystem services’ was intended to
work as an “eye-opening metaphor” to build support for conservation amongst
“a public deeply embedded in a global economy and distant from natural
processes” (p.1219). In the space of about 15 years this metaphor was
“transformed into a dominant model for environmental policy and management”
(p.1219). Thus, as Ernstson and Sörlin (2013) note, the ES approach is dynamic,
plastic and swiftly evolving, the product of human intellect and effort rather than
an *a-priori way of* knowing the world. Notwithstanding the volume of work on
ES, a fundamental definitional ambiguity goes unresolved, to which I now turn.

Benefits and Services

As noted, the MA definition of ES has become dominant (Millennium Ecosystem
Assessment 2005, p.v; Daniel et al 2012a). One problem with the definition, however, is that it conflates benefits and services: “the benefits... include provisioning services...” (emphasis added). The vexed relationship between benefits and services across a range of definitions is illustrated by Nahlik et al. (2012: 28) (figure 3). In any given definition, ES can either lead to, or are the same as, benefits (see also Satz et al. 2013; Chan et al. 2012). Different definitions identify entirely “different suites of either purely ecological (equated to ecosystem attributes) or purely anthropologic (equated to benefits) services” (Nahlik et al. 2012, p.28).

Fisher and Turner (2008) and Wallace (2007, p.235) agree that the MA definition mixes "processes (means) for achieving services and the services themselves (ends) within the same classification category", compounding a flaw in the work of leading practitioners such as Costanza et al. (1997), De Groot et al. (2002), and Farber et al. (2006). The solution seemed to lie in greater definitional clarity (Fisher et al. 2009) to allow for “meaningful comparisons across different projects, policy contexts, time and space” (p.644). However, it is also possible to glimpse in Fisher et al’s (2009) assertion an attempt to shut out the messiness and ambiguity in the MA definition. The problem with defining ES as the “benefits people obtain from ecosystems” (emphasis added) is that these ‘benefits’ might include “things outside of ecological systems such as imputed cultural meanings, recreation, and spiritual fulfilment” – potentially transient, ephemeral, illusive, contingent things that threaten to disrupt orderliness and comparability. To
create a more “transparent way to organize ecosystem services for use”, Fisher et al. (2009, p.644) and Boyd and Banzhaf (2007) have argued that ES are not the benefits that humans obtain from ecosystems. Rather, ecological phenomena must have human beneficiaries if they are to be considered services.

These semantic refinements have, to a large extent, not taken hold, overcome by the scramble to start identifying, mapping, measuring, assessing and – most importantly – valuing ES. Nahlik et al. (2012, p.28) suggest that the volume and ambiguity of definitions has meant that the term ‘ecosystem service’ has become “a catchall phrase that is now used to refer to anything from or within an ecosystem that is beneficial to any living thing” (see also Seppelt et al. 2011). The widely repeated maxim (see, for example, Daniel et al 2012a) that services generate/are benefits that contribute to well-being (themselves relatively poorly defined in the MA – see Fish 2011) somewhat underplays a complexity that is semantic, epistemic and methodological.

The ES approach is rapidly moving into applied policy contexts (e.g. through The Economics of Ecosystems and Biodiversity project and a new EU toolkit, both aimed at decision-makers (TEEB 2013; European Commission 2013). The ambiguity remains unresolved, though ES proponents continue to strive to be exhaustive in compiling a “comprehensive set of services and value dimensions in ecosystem assessments” (European Commission 2013, p.20). Portman (2013, p.188; see also Potschin and Haines-Young 2011) is not alone in emphasizing the absolute necessity of this to the veracity of the approach:
the scientific community needs to deliver the knowledge and tools necessary to
forecast and quantify the return from ES... and to aid professionals in explicitly and
systematically integrating this knowledge into institutional frameworks.

I now focus on some of the issues raised for CES.

**Cultural Ecosystem Services**

In the MA definition of Cultural Services, the semantic ambiguity between
services and benefits is pronounced (see figure 4), with the added complication
that services (benefits?) are obtained ‘through’ spiritual enrichment, cognitive
development, reflection, recreation, and aesthetic experiences. An extensive
unpublished literature review prepared for the UK National Ecosystem
Assessment Follow On identified these as *processes* (NEA, undated) but their
relationship with service/benefits is far from clear. The ‘processes’ and the
‘benefits’ are not mutually exclusive, with recreation appearing twice.
Substantive concepts seem synonymous, such as *values* (understood as beliefs or
ideals about what is desirable or undesirable) and *value* (understood as
monetary worth or a numerical quantity). Some benefits seem to be obtained in
a way which by-passes the ‘processes’ all together, e.g. that “ecosystems
influence the types of social relations that are established in particular cultures”
(Millennium Ecosystem Assessment 2005, p.40).

Having identified these services (benefits?), the MA had little to say about their
condition (Figure 5), spawning research to fill the gaps. However, the ambiguity,
polysemousness and tervigersations of the MA document conditioned the nature
of subsequent research. Schaich et al (2010, p.270) observe that "the assessment
of trends in human use and of the status of CES is one of the most difficult and
least accomplished tasks in ecosystem services research".

A range of alternative terminologies for what is provided to the sum of human
culture by ecosystems include amenity functions (Pinto-Correia and Carvalho-
Ribeiro 2012), information functions (de Groot 2006; de Groot et al. 2002) life
fulfilling services (Chee 2004) and socio-cultural fulfilment (Wallace 2007. See
also Milcu et al. 2013). Little consensus or conceptual clarity emerges from these
efforts (Milcu et al. 2013) and research on CES has been dwarfed by the effort
across the full range of ES (Gee et al. 2010; Rey Benayas et al. 2009; Schaich et al.
2010; Turner et al. 2003).

**Epistemic Gaps**
The epistemic 'problems' with ES arise because the approach has been conceived
of, developed, and applied within science disciplines where the objects of study
are the components of ecological systems and the systems themselves, and
extrapolated to something that is not normally the object of study of natural
scientists: culture. The ES approach conceives of the world as a series of complex
yet ultimately knowable objects, functions, processes and outcomes. They cannot
overlap, for if they do we run the risk of double-counting and overestimating
their economic value, ruining the argument that a rigourously valued ecosystem
is a necessary condition for proper management of the world’s natural resources.
As Chan et al (2012, p.9) argue:

everything must somehow ‘fit’ into an ES framework so that all that matters can be

treated equally, and thereafter be compared and traded off against one another as

more or less important, more or less ‘valued’ or more or less subject to protection,

loss, or gain.

Thus, the ES approach attempts to still the world in a particular way but it has

quickly become apparent that complexity of the world cannot be stilled,

evidenced by the legion of articles that attempt to define, refine, capture and

render the vigour of the world’s ecosystems (see above). But the intellectual

project of identification and classification continues apace, for example in the

European Commission’s proposal for the use of the Common International

Classification of Ecosystem Services (CICES), developed for environmental

accounting purposes (European Commission 2013).

Whilst Portman (2013, p.185) hails “progress towards a common ‘language’ of

ES for practical and professional use”, the attempt at a stable classificatory

system frustrates its own object. The classification’s hierarchical structure

provides: i) an artificial sense of a causative relationship between divisions,

groups and classes (‘classes’ for example can be “linked back to concrete

identifiable service sources” (European Commission 2013, p.51); and ii) and a

forced separation between activities, processes, objects, outcomes, and

experiences, to avoid double counting (Gee et al. 2010). But in what sense, for

example, is a physical and intellectual interaction not also representational?
Although there is little consensus on CES, benefits or measure regimes, there is an agreement that CES are tricky and equivocal because they are intangible and subjective, with multiple values in different social contexts (Milcu et al. 2013; Potschin and Haines-Young 2013). This will not come as news to most cultural geographers but seems to be a source of increasing vexation to the main proponents of the ES approach for whom CES sit at odds with a natural science paradigm (Tenbert et al. 2012).

The question of value in CES is especially vexing, because CES are mobile, tractable, non-material, ephemeral, and perhaps fleeting. Refering to CES, Gee et al. (2010, p.350) wonder

When appreciating a view, or a concept such as wilderness... is it the thing itself (e.g. the actual physical landscape), knowledge of the thing or the satisfaction that people derive from the thing, either by visiting it or simply knowing it exists?

For cultural geographers, separating out the intellectual, visceral, aesthetic, or embodied encounter from — say — a view runs counter to much intellectual effort invested in understanding the texture and complexity of every day life, most recently in relation to climate or environmental change, including the imbrications of memory and place (Bull and Leyshon 2010; DeSilvey 2012); dwelling (Ingold 2000); and familiar landscapes (Brace and Geoghegan 2011; Leyshon and Geoghegan 2012).
Dealing with the Cultural Services

In this section, I consider two contrasting responses to the ‘problem’ of CES’ difference from other ES. The first is to engage the social and behavioural sciences in the task of ‘integrating’ CES into the overall ES approach. The second is to sideline the cultural services all together.

Integrating

The correspondence between science, social science and the humanities features what I term ‘epistemic distance decay’. Distance decay describes the effect of distance on cultural or spatial interactions and states that the interaction between two locales declines as the distance between them increases. Distance decay provides a neat metaphor for how different disciplines interact in the study of ES: the social science disciplines with at least some recognisably scientific ontological, epistemic and methodological concerns, feature most strongly as the source of possible solutions to the ‘problem’ of identifying, mapping, valuing and incorporating CES (Daniel et al. 2012a; Schaich et al. 2010). Conversely, qualitative, critical, interpretative approaches (which are epistemologically distant from the sciences) feature little, though their potential is recognised in some quarters (Satterfield et al. 2013). Three exceptions are Tenberg et al’s (2012 p.25) attempt to add historical depth through a focus on cultural heritage, Potschin and Haines-Young’s (2013) place based approach to ES, and Schaich et al’s (2010) interest in CES and cultural landscapes.

Although Daniel et al. (2012a) identify work in landscape aesthetics, cultural heritage, recreation and tourism as having some potential for understanding CES
better, these fields are only attractive for their potential to “operationally define” CES through a recognisable episteme, producing sociological models, expanding systems for evaluation and informing trade-off negotiations “consistent with the larger set of ES” (p.8812). This is to perhaps underplay the long history of work in these fields but contributes to the overall impression that the dominant disciplines in ES research have a limited view of the relevance of other disciplines. Meanwhile, disciplines like tourism and leisure research have perhaps not done enough to assert their relevance and applicability.

Daniel et al (2012a) argue that work from social and behavioural scientists looking at ecological structures and cultural benefits could be used more effectively to “integrate cultural services into the broader ES framework” (p.8813) but this has been “retarded” by the characterisation of CES as intangible, subjective, and difficult to quantify in biophysical or monetary terms. Social and behavioural work can, they assert, provide a “science base” for the better integration of CES into the ES framework.

The confident assurance with which Daniel et al. (2012a, 2012b) assert that the right sort of approach can corral the intangible, subjective, difficult-to-quantify makes for uncomfortable reading for any academician whose theoretical predilections challenge the dominance of science as a way of knowing, with its attendant claims to objectivity and truthfulness (Davies and Burgess 2004; Whatmore 2009; Livingstone 2003). Even Schaich et al. (2010) and Milcu et al. (2013), who promote the view that cultural landscapes has much to offer CES, can do little more than call for more dialogue between different research
communities on the grounds that, notwithstanding their different theories, concepts and methods, they share a common object of research: “the demands people place on, as well as benefits people obtain from, ecosystems and landscapes”. (p.270).

Despite an evident willingness on the part of scholars of heritage and cultural landscapes (amongst the few disciplines to attempt to get involved with ES) to open a dialogue, a recent review of crossdisciplinary research contributions to the United Kingdom’s National Ecosystem Assessment found that the UKNEA “integrated knowledge more successfully between neighboring disciplines, but struggled to overcome barriers between natural and social science” (Lawton and Rudd 2013, p.149). The consequence of this may be the sidelining of CES, which I consider now.

Evicting

Integrating CES into the ES approach by narrowing their scope or finding a way to equivocate their complexity may be unpalatable for scholars who are committed to understanding the messiness and complexity of our social worlds. But far more seriously for both the status of CES and cultural geography’s role in future environmental governance is the possible relegation of CES out of the main four services (provisioning, regulating, supporting and cultural) altogether (Fisher et al. 2009; Tengberg et al. 2012). For example, CES are at risk from attempts (outlined above) to thoroughly disentangle benefits from services. Fisher et al. (2008, 2009) “define ecosystem services to be about ecological phenomena (e.g. not cultural services which we see as very valuable benefits derived from ecosystems and services)” (Fisher et al. 2009, p. 644; see also Gee
Kirchhoff (2012) agrees that “pivotal cultural values cannot be integrated into the ES framework and should not be called ES” (p.E3146) because many cultural values (such as feelings of belonging, cultural heritage, and other symbolic meanings) do not correlate to ecological structures and functions. Further, the objects which carry symbolic cultural meanings (such as mountains, lakes, forests or other symbolic landscapes) are not ecosystems at all, but “shaped phenomena” (p.E3146). Kirchhoff concludes that the proper concern of an ES approach should be with instrumental, not cultural, values of nature.

Daniel et al. (2012b) are quick to respond by pointing out that:

any attribution of a cultural ecosystem service can only be determined by considering the specific needs/wants of a particular human/social client at a given time and place in relation to the demonstrated ability of designated ecological structures and functions to contribute towards meeting those needs/wants (Daniel et al. 2012b, p.E3147).

In other words, CES are particular, individual, personal, non-scalable, non-generalisable, temporally and spatially specific. Such concessions might be fatal to CES, because they imply that cultural services and/or benefits are so small scale and peculiar that they cannot be incorporated into the wider intellectual project of identifying, measuring and mapping ES (see also Martín-López et al. 2009, Norton et al. 2012 and Portman 2013 on the necessity of ES being able to scale up). Further, Daniel et al. (2012b, p.E3147) assert that they are not willing, a-priori, to define cultural values out of the ES framework at the expense of further marginalising their contributions to the full range of benefits.
ecosystems provide to people.

But this is only “in the absence of countervailing data”, whatever that might be, which might prove cultural values to be fatally unstable and impossible to incorporate into the ES framework.

Satz et al. (2013) argue that there are five challenges that need to be addressed to secure the continued inclusion of CES in environmental assessment: accounting for interconnected benefits, dealing with plural values and cultural values that are incommensurate with monetary valuations, understanding the geographical boundedness of services and finally asking whether CES are an indulgence that will distract attention from the ES which are most crucial for human existence. Chan et al. (2012, p.13) ask whether ES researchers should bother seeking a comprehensive analytical framework that includes ill-fitting values, suggesting that “political processes will ensure that such values will be properly considered in decision-making”. They rightly argue that technical black box analyses might be difficult to reconcile with deeply held values. Meanwhile, political processes may not adequately accommodate the dynamism of social and ecological processes whilst simultaneously privileging those with powerful political, social and economic interests.

These examples show some acknowledgement of dealing with the relational and affective qualities of CES, and hint at the possibility of admitting deliberative, subjective and procedural approaches (Fish et al. 2011). However, as Satz et al. (2013) acknowledge, so far these are applied in specific and limited geographical
and cultural contexts where it is necessary to discuss cultural and other ES in ways that are meaningful to local residents and stakeholders (see also Gee et al. 2010 and Potschin and Haines-Young 2013). Such work does not have a general, universal application (Portman 2013).

In light of this, it is unlikely that Fish’s (2011) call to put culture on an equal footing with ecosystems in the ES approach will succeed, given the epistemic dominance of the natural sciences in framing the debate. Indeed, what is implied is that CES do not require the same attention to their management or sustainability because they are: a) not as important or essential to life as the other services; and/or b) cultural services/benefits will simply be the collateral outcome of a properly managed ecosystem, a by-product of the other services.

Theories and Methodologies

Expunging CES from the broader ES framework will not be necessary if the epistemic distance decay described above can be overcome. Cultural geography has much to offer to enrich dominant conceptualisations of culture within ES, bringing a rich theoretical literature on place, identity, power, and human-nature relations along with diverse techniques of data collection and analysis which attempt to understand the complex spatialities of our (more-than) human worlds. Unfortunately, cultural geography’s engagement with ES or CES has yet to move much beyond bold theoretical arguments and incisive critique (Robertson 2012; Yusoff 2011).

One way forward, currently being explored by Fish et al (forthcoming) is to insist that CES have an exceptional status within the ES approach, and require
distinctive concepts and methods if they are to be accounted for and integrated into decision making. They suggest that CES can be better aligned to the rest of the ES framework by making two significant strides in their conceptualization. The first is to recognize both the distinction between but interaction of environmental spaces, cultural practices, and cultural benefits. The emphasis on spaces, practices and benefits combines the material and non-material elements of culture, thereby addressing the view that cultural values are intangible. The second is to disentangle the various outcomes or benefits as the identities CES help frame, the experiences they help enable and the capabilities they help equip. Thus the benefits can be recognized as “visceral, embodied and ‘felt’” (Fish et al forthcoming unpaginated).

Reconceptualising CES by drawing on a richly theorized literature on the co-production and reciprocity of culture-nature relations, as Fish et al attempt, is one means of integrating cultural geography into ES research. However, cultural geographers are unlikely to be able to effectively challenge the epistemic dominance of the ES approach in the institutional spaces in which it has been forged. Another approach is to become involved in the operationalization of the ecosystem approach in local contexts that will raise the questions of local structures of feeling, politics and poetics of place, unequal relations of power that cultural geographers are well equipped, both theoretically and methodologically, to answer, despite the reservations of Satz et al. (2013) and others that specific case studies have limited usefulness because they cannot provide generalisations. But there is already a rich literature on which to draw which is concerned with, inter alia, the politics of the environment (Walker et al.
knowledge controversies (Whatmore 2009); vernacular ecologies (Hinchliffe 2010); and topographical readings of landscape as a material-semiotic assemblage with affective qualities (Leyshon and Geoghegan 2012) that can add critical and interpretative heft to understanding CES in practice. Where ES is being operationalized, such work could enable a consideration of micro-geographical sociospatial relations, at the quotidian scale, in which the play of knowledge, identity, agency, location, and place in the understanding of local environmental change can be foregrounded (Harrison et al. 2004; Lorimer 2003).

Landscapes and Settings

For cultural geographers interested in refining and operationalizing the ES approach a further, possible route might be through a shared scholarly interest in landscapes as sites were CES's are both generated and consumed and which may have some imaginative and affective resonance with different communities of practice (Norton et al. 2012 p.449). Amongst authors like Satz et al. (2013), Potschin and Haines-Young (2013) and Schaich et al. (2010), landscape has emerged as an organising concept that seems to form an epistemic bridge between the natural and social sciences. Notwithstanding the multiple and competing definitions of landscape across a range of academic disciplines – from a scale of spatial analysis to the product of human agency, imagination and socio-spatial relations (Leyshon and Geoghegan, 2013) – landscape has the potential to ground the operationalization of the ES approach, lending a materiality to the byzantine intellectual machinery of a reductionist science of ES. It connects disciplines by operating as the site at which multi-, trans- and inter-disciplinary
conversations might be had, drawing in policy makers and landscape management professionals charged with protecting landscapes valued for their productivity, fragility, beauty or habitat. Landscapes feature in the collective imaginaries of people and communities across the planet, for whom senses of place and purpose are located in the familiar surroundings of their everyday lives. Conceptualisations of landscape as ‘the mutual embeddedness and interconnectivity of self, body and land – landscape as the world we live in, a constantly emergent perceptual and material milieu’ (Wylie, 2007, p.1–2) may also help ES researchers to see that the apparent intangibility and evasiveness of CES can be productively theorized.

Notwithstanding these possibilities for a productive intervention around the notion of landscape (broadly conceived), the UK’s National Ecosystem Services Assessment (Church, et al. 2011) avoided the use of landscape in preference for ‘environmental settings’, developed in the work of Manfred Max-Neef (1989; 1992). These settings are the domestic garden, informal green and blue spaces, formal green/blue spaces, the nearby and wider countryside and national landscapes. This act of epistemic diplomacy attempted to sidestep landscape’s extensive theoretical entanglements across a range of disciplines and seemed to offer an uncontaminated concept over which the fabric of cultural ecosystems services could be hung without snags or runs, a concept over which few if any established disciplines had any a-priori claim of any significance. In the NEA conception, “ecosystem cultural services are the environmental settings that give rise to the cultural goods and benefits that people obtain from ecosystems”, eliding but not resolving the benefits/services problematic (UK National
Conclusion

Critiques of discursive regimes from cultural geography, political ecology and other critical theoretical disciplines suggest that knowledge and meaning are always contingent and partial. Such understandings force us to step outside of ES to see it not as an *a priori* way of knowing but one which is itself a product of the politics of nature and a neo-liberal political ideology. Within ES, Fish argues that CES remained “arguably one of the least understood, and most controversial, areas of the framework” (Fish, 2011, p.674). The epistemic differences between scholars engaged in research on ES in general and CES in particular present themselves as methodological problems of identifying, mapping, quantifying and categorizing ES. Few scholars give themselves time to interrogate the fundamental assumptions of our knowledge making practices so that we can make them visible to each other. Further, the work of prediction, modeling and mapping is at odds with critical and contextual methods which emphasise the mobility, motility, and fluidity of people, ideas and objects at scales where the focus is on local structures of feeling and the personal and institutional politics of place.

Fish (2011 674) argues that “advocates of the ecosystem services framework face a steep climb in winning the hearts and minds of cultural theorists over to their world view, many of whom would be more likely to regard CES as an object of critique, rather than a concept to be embraced” (see also Chan et al 2012). This begs the question why advocates of ecosystem services would attempt to
win over cultural theorists as their own epistemic status is so dominant. One option for cultural geographers and others is to stand on the outside theorisising and problematising without restraint. Rather, we should get inside the spaces in which a new paradigm of environmental governance is taking shape in the UK, such as the follow-on work of the National Ecosystem Assessment. This will not necessarily be comfortable. The yawning epistemological gap might be too wide to make oneself heard by shouting across it. It might be necessary to moderate theoretical and conceptual approaches, accommodating the very different approaches of others in trying to find some common ground. Nevertheless, cultural geography has a responsibility to stand up for the applied relevance of its work. And there won’t be a better moment to do that than now.

Reference List


Chan, K.M.A., Satterfield, T., Goldstein, J. (2012). Rethinking ecosystem services to better address and navigate cultural values. Ecological Economics 74, pp.8–18.


Figures


Figure 3: Definitions of ecosystem services and their sources commonly cited in the literature. Nahlik, A.M., Kentula, M.E., Fennessy, M.S., Landers, D.H. (2012)
Where is the consensus? A proposed foundation for moving ecosystem service concepts into practice. *Ecological Economics* 77 pp.28.

### Cultural Services

These are the nonmaterial *benefits* people obtain from ecosystems *through* spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences, including:

- Cultural diversity. The diversity of ecosystems is one factor influencing the diversity of cultures.
- Spiritual and religious values. Many religions attach spiritual and religious values to ecosystems or their components.
- Knowledge systems (traditional and formal). Ecosystems influence the types of knowledge systems developed by different cultures.
- Educational values. Ecosystems and their components and processes provide the basis for both formal and informal education in many societies.
- Inspiration. Ecosystems provide a rich source of inspiration for art, folklore, national symbols, architecture, and advertising.
- Aesthetic values. Many people find beauty or aesthetic value in various aspects of ecosystems, as reflected in the support for parks, scenic drives, and the selection of housing locations.
- Social relations. Ecosystems influence the types of social relations that are established in particular cultures. Fishing societies, for example, differ in many respects in their social relations from nomadic herding or agricultural societies.
- Sense of place. Many people value the “sense of place” that is associated with recognized features of their environment, including aspects of the ecosystem.
- Cultural heritage values. Many societies place high value on the maintenance of either historically important landscapes (“cultural landscapes”) or culturally significant species.
- Recreation and ecotourism. People often choose where to spend their leisure time based in part on the characteristics of the natural or cultivated landscapes in a particular area (MA synthesis report, p.40)

Figure 4: Cultural Services in the Millennium Ecosystem Assessment (2005).