Landscape Research

'Seeing is Not Everything': Exploring the Landscape Experiences of Different Publics

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'Seeing is Not Everything': Exploring the Landscape Experiences of Different Publics

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ABSTRACT *This paper develops a multi-sensory and multiple-perspective framework for assessing public perception of landscapes. Proceeding from a viewpoint that landscape research and policy have been pre-occupied with expert-led and visual approaches, our method elevates the experiences and range of responses of different publics to centre stage. Set within phenomenological and experiential epistemologies, our piloted technique captured the real time responses of walkers, mountain bikers, planners, councillors and land managers on pre-planned trips in Aberdeenshire. Subsequent analysis of audio recordings and field notes elicited detailed data revealing a complex appreciation of landscape set within dynamic and multiple socio-economic identities and sensory experiences of individuals. The paper concludes with a plea for policy-makers and researchers to recognise the importance of different publics who may experience and respond to landscape in different ways and the significance of incorporating both visual and non-visual components into emergent landscape assessment and policy approaches.*

KEY WORDS: Landscape planning, different publics, multi-sensory, landscape perceptions, experiential research

1. Introduction

Landscapes matter to people. They shape national, regional and local identities, affect quality of life and provide the arena within which development and conservation takes place (Appleton, 1975; Scott, 2002). Consequently, people are concerned about proposed landscape changes reflecting contested notions over the kinds of landscapes and places that different individuals, groups or communities value and want (Hall *et al.*, 2004; Scott & Moore-Colyer, 2005). Translating differing publics' views into decision-making processes pose significant policy and research challenges, particularly when set against contemporary discourses of social inclusion, participation, futurity and environmental justice (Jackson & Curry, 2004; Shafer *et al.*, 1969; Stirling, 2006).

Research and policy on landscape has predominantly focused on the visual aesthetic through the use of quantitative-led tools for landscape evaluation and assessment (Appleton & Lovett, 2003; Bell, 2001; Orland *et al.*, 2001; Tyrvainen *et al.*, 2005). Both the visual primacy and expert-led characteristics of these methods have been increasingly challenged with calls for more holistic and multi-functional approaches that draw on people's experiences and interactions with local landscapes (Bills & Gross, 2005; Blandford & Boisvert, 2002; Brabyn, 1996; Burel & Baudry, 1995; Merrimen, 2005; Lee, 2007; Scott, 2003; Tress *et al.*, 2005). Contributions from the fields of philosophy (Berleant, 1992), physiology (Bruce *et al.*, 1996), environmental psychology (Kaplan & Kaplan, 1989; Nasar, 1988) and phenomenology (Bourdieu, 1977; Ittelson, 1973), together signal an emergent body of studies which takes a more holistic approach, encompassing multidisciplinary and transdisciplinary perspectives (Tress *et al.*, 2004, 2005). This informs our approach utilising concepts of practice, performativity and multiple sensory experiences (McIntyre & Roggenbach, 1998). The paper contributes to the discourse of visual and non-visual methods through the development of a phenomenological approach that seeks to understand (largely by deconstructing) individual's experiences of landscapes in a series of pre-planned respondent-led tours.

In the following sections the paper first reviews the key literature that has influenced our conceptualisation of landscape experience and perception. We then describe the approach we have employed using two groups to give a flavour of the insights gained. We then discuss the results within seven propositions for policy makers highlighting the significance of this method for policy and its wider applicability as a tool for landscape management.

2. From Seeing to Experiencing Landscape

In this section we briefly review relevant methodological developments in the landscape research literature, signposting the key developments and debates that have informed our own methodological position.

2.1. From Expert-led Quantification to Citizen-led Approaches

The *Morphology of Landscape* by Carl Sauer, published in 1925, arguably shaped the direction and focus of landscape research. For Sauer the landscape was a material expression of the culture of the people that lived in a particular region. Landscape could be 'read' in an objective, scientific way by mapping, classifying and describing various material forms. Consequently, the first studies into landscape preference and perception were rooted in the quantitative revolution of the 1960s. Here Shafer *et al.* provide a useful illustration of the approach emphasising the objective properties of landscape as the basis for aesthetic preference:

> . . . By knowing what quantitative features in a landscape affect its aesthetic appeal, natural resource planners can make decisions on a factual basis about purchasing, developing, or preserving these features. (Shafer *et al.*, 1969, p. 1)

Such thinking informed key policy approaches, including the Coventry-Solihull-Warwickshire Sub-Regional Planning Group (1971), the Countryside Council for Wales LANDMAP initiative (1999) and the Countryside Agency/Scottish Natural Heritage landscape character assessment (2002). Experts used multivariate and spatial analyses to produce 'objective' landscape assessment and evaluation methodologies.

These methods have attracted considerable criticism, primarily relating to the biases inherent in expert-led field assessments (Duffield & Coppock, 1975; Gold, 1980) and the dubious proxy they provide in terms of representing public opinion and local concerns (e.g. Kaplan & Kaplan, 1982; Nasar, 1988). Thus, while expert-led approaches can help assure consistency and professional knowledge input, they can prematurely narrow the range of perspectives and values considered through bypassing local concerns, knowledge and experience of places and risk producing inappropriate or highly contentious outcomes (Stirling, 2006). Consequently, an increasing number of researchers have incorporated components of public involvement into their methodologies (e.g. Kent, 1993; Penning-Rowsell, 1982; Seddon, 1986), notwithstanding the highly pertinent concerns raised by Beierle and Konisky (2001) and Cooke and Kothari (2001) about the potential and actual misuse of public participatory processes and the unquestioning assumption that increased public participation is inherently a good thing.

Contemporary landscape research and planning has been shaped by this public-oriented agenda within a new rhetoric of empowerment and local action closely associated with the Aarhus Convention (UNECE, 1998) and the European Landscape Convention (Council of Europe, 2000). However, this has yet to directly filter into the landscape assessment techniques and policy within the UK, to reflect the considerable rhetoric on the matter (Scott, 2002). Furthermore, landscape policy is still rooted in the visual dimension in much of the UK as evidenced by the Countryside Agency and Scottish Natural Heritage (2002) publication on landscape character assessment; although the LANDMAP approach developed in Wales does recognise and assess the multi-sensory aspect of landscape (Scott, 2002).

2.2. Landscape Perception—The Visual

Research methods in the visual domain are diverse and many now utilise the advantages of modern technology to gauge public perception of, and preferences for, different landscapes. These include pre-selected images (by the researcher) for comparison by the respondent both on- and off-site in a questionnaire: the 'photo-questionnaire' (e.g. Mugica & Delucio, 1996; Ryan, 1998, 2006; Scott, 2003); virtual reality landscape presentations and questionnaires (e.g. Bishop & Rohrmann, 2003; Bishop *et al.*, 2001; Brush *et al.*, 2000); and questionnaires completed by the respondent on-site, as they are looking at and experiencing the landscape in question (e.g. Bishop & Rohrmann, 2003; Chhetri *et al.*, 2004; Hull *et al.*, 1992; Lynch & Rivkin, 1976).

The way these techniques have evolved utilising new technological developments has been impressive, with computer and virtual reality (VR) simulations now enabling observers to view and experience change in the landscape at various spatial

and temporal scales (e.g. Naderi & Raman, 2005). Further developments include the introduction of sound (Bishop & Rohrmann, 2003) and locomotion (Iwata & Fujii, 1996).

The implications of using VR representations of real landscapes as a basis for decision-making and planning consultations are controversial. Daniel and Meitner (2001), in exploring the representational validity of landscape visualisations with varying levels of 'graphical realism', argued that the appropriateness of the representation was vital in producing valid results.

A further problem with photographic and VR questionnaire approaches is that the researcher-led approach conditions and bounds respondents' feedback. This has given rise to the use of participatory photographic techniques which allow respondents to take their own photographs signifying what they see as important in their interactions with landscape (Scarles, 2004; Stedman *et al.*, 2004). Oku and Fukamachi (2006) and Schuster *et al.* (2004), in follow-up questionnaires, highlighted the importance of feelings and sensory experience as key factors in landscape appreciation that challenge the primacy of the visual domain.

This thinking has shaped a whole genre of research studies on non-visual dimensions. For example, Lee and Ingold (2006:10) state: "The eyes . . . seem rather secondary to the feet, ears and skin in terms of how the environment is perceived." Other studies include those by Anderson (2004) on 'walking the talk'; McIntyre and Roggenbuck (1998) on action sports; Conradson (2005) on social intercourse; Porteous (1985) on the importance of smells; Mitchell (2003) on the significance of power relations; and Wylie (2002) on performativity within the act of ascent of a notable landmark.

2.3. Landscape Perception—A Cultural and Experiential Turn

Towards the end of the twentieth century research thus shifted away from the morphology of landscape to the human experience of the landscape (Cresswell, 2003). Landscape was seen less as something material and more as a mental construct. The research focus shifted from *what* is seen in the landscape to *the way* landscape is seen and how different people can interpret the same material features differently (Meinig, 1979; Tuan, 1977). These 'cultural' and 'performative' turns in landscape research have led to a rich new vein of work towards more processional accounts of the steps and practices entailed in encountering, assembling and ordering landscapes (Merriman, 2005; Anderson, 2004; Lorimer & Lund, 2003). Of particular relevance here are Felber's (2005) use of landscape walks in rural Switzerland to capture 'lifeworld' experiences of village inhabitants; Lee and Ingold (2006) who accompanied walkers on routine walks in the city environment; and the Welsh Assembly Government (2004) where community visioning exercises involved accompanied trips around the local countryside.

Ittelson *et al.* (1976) provide primary inspiration in terms of their holistic approach that seeks to understand peoples' experiences in the environment. Essentially the environment is 'experienced' in multiple ways which differ across time and space and which are shaped by people's identities, social and physical backgrounds and intended actions and motivations. This framework provides a useful starting point to conceptualise the potential attributes that may influence a

particular landscape experience and ultimately shape perceptions arising therein. We purposefully distinguish between the terms 'experience' and 'perception' as experience implies a direct involvement with a given landscape setting whereas perceptions may be formed outwith a particular landscape setting. Certainly experience shapes perception and vice versa. This symbiosis is a key defining characteristic of this research.

The European Landscape Convention recognises many of these perspectives and embodies a multi-sensory and multifunctional approach to landscape in terms of its planning, protection and management defining it as ''an area as perceived by the public'' (Council of Europe, 2000).

Our overriding conclusion from the literature was that we needed to maximise the positive aspects of the variety of research approaches explaining landscape perception but without inviting biases and encountering unnecessary limitations in gathering raw data. We perceived the need to develop a more holistic and robust method to capture cultural, visual and other factors of people's experiences of landscape as close as possible to the original experience and response. Thus, rather than moulding the approach on one of the existing paradigms of landscape research we wanted to capture key moments of the directly experienced landscape.

3. Methodological Approach

The work of Ittelson *et al.* (1976), Merleau-Ponty (1967), Felber (2005) and Lee and Ingold (2006) provided the primary inspiration for informing our approach, moving beyond the one-dimensional visioning and perception studies as recognised by Scott (2006). Our approach is new to the extent that it is rooted in an interdisciplinary team perspective and using a grounded theory approach that aims to capture landscape experiences across different publics in real time.

Addressing what we perceive to be the key weaknesses in the current research literature on approaches to landscape perception we devised six specific research objectives to guide our overall approach:

- The experience of and interaction with the landscape is shared and captured in real time to address the focus on summary questionnaires and reductionism.
- The experience is captured at random without trying to distort or change an activity to fit in with the research project to address expert framing limitations.
- The experience should have occurred, as part of the respondents' planned work/ leisure activity without researcher intervention to address the way that research can force respondents into artificially created locations or situations.
- The experience is shaped by the participant, with the researcher only reacting to and probing into respondents' comments and actions to address the issue of pre-set questions.
- Interaction with other publics, if relevant, is incorporated into the research to address the deficit in understanding how and why these interactions occur.
- Non-verbal reactions to landscape are noted by the researcher over the course of the experience to try and capture the range of different responses during landscape experiences.

Purposive sampling (through individual contacts, professional links, organised groups and clubs and internet searches) was used to identify five different publics that reflected a range of rural, urban, professional and leisure interests in landscape: landowners, municipal councillors, planners, walkers, and mountain bikers. These groups were also chosen to reflect different capabilities, capacities and motivations in their use of landscape and policy requirements so as to generate results from 'different' publics.

Marr administrative council area in Aberdeenshire, Scotland, was selected as the unit within which to pilot our approach (Figure 1). Marr was chosen due to its proximity to Aberdeen and its diversity of lowland and upland landscapes with areas of remote and accessible countryside. Each member of the research team took responsibility for a group, with contact initiated through existing links and networks. A letter explained to potential participants the purpose of the research in its broadest terms and asked if we could shadow them on a particular routine activity/visit in their rural environment. Crucially, we did not state that we were interested specifically in landscape or defined where our core interest lay in order to minimise influencing respondent behaviour. This was followed up a week later with a phone call in order to secure the possibility of maximum involvement.

The approach involved a respondent-led 'landscape tour' according to a set of protocols to ensure consistency of method, as summarised in Box 1.
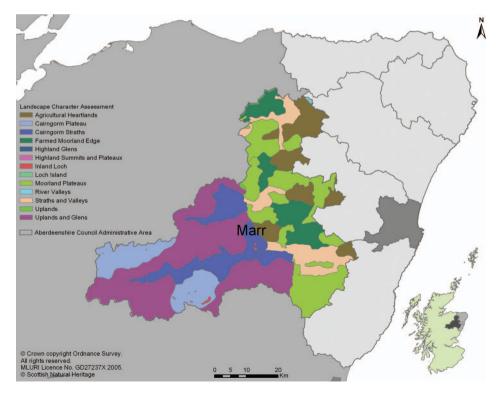

Figure 1. Marr District Aberdeenshire with landscape character assessment.

Box 1. Landscape Tours – Protocol

Structure and Techniques
Each session is likely to consist of the following four parts:
1. <u>Preamble</u>: **Explain** what our research is about and what we are trying to learn more about. **Obtain verbal consent** to use data for research (audio-record consent). State that **data/references will be anonymous**.
2. On-the-move **Observations** during landscape tour
3. On-the-move <u>**Interrogation**</u>
4. <u>**Debrief**</u> interrogation

On-the-Move Observations
Note:
- specific observations at stops or changes in route direction
- characteristics of landscape elements of interest
- social interaction
- location of viewpoints
- weather conditions
- body language
- emotions; mood

There is an important role for observing the people and their interactions, movements attention and moods. In groups the issue of social interaction is important. Try and capture these in your notes.

Audio-record observations/conversations.
Make sure to periodically test that the digital recorder is working.
Try and let people steer as much as possible. If they are uncertain as what we are trying to get out of this, remind them that we are simply accompanying them on their planned activities/work in order to find out more about how they experience and value their/these surroundings.

On-the-Move Interrogations
In response to statements or other non-verbal communication prompt for their particular actions. Test resilience of answers. Do they tell us things just to please us, or do they give us 'real' explanations and answers? The aim is to find out about actual feelings and concerns rather than the informant's rationalisation of the matter.
On seeing or informant having mentioned specific locations or landscape elements or qualities, try and probe into the following: How does this make you feel? or How do you feel about that? And why?

Debrief Interrogations
- Follow-up on any observations or comments that you as researcher are unsure whether you recorded it correctly.
- Together with the informant, mark the route on the map.
- Get respondent to comment on the whole experience (some reflection may uncover important issues to do with the impact of a landscape experience after the event) and gauge how 'typical' it was.

Individuals or groups were accompanied by one researcher and their landscape experience was observed and recorded in real time using field/oral notes and dictaphone respectively. If it was a group outing, we randomly selected a participant by selecting the person with the nearest birthday to the outing date. Where appropriate or feasible, we started the recording process in the office or car as

participants' prior expectations and other intervening factors were deemed important to incorporate into our analysis. The key conceptual step was that the interaction with the landscape, whether it be professional or leisure orientated, was already pre-planned by the participant rather than arranged specifically for this research. However, each group posed different methodological challenges and adaptations to our guiding rules were required in some cases (Table 1). For example, some councillors and land managers did not have fieldwork or routine visits scheduled for the period of the research and thus chose trips that they felt were typical and most illustrative of their work and experiences. Such timing issues reflect the different *modus operandi* of various landscape users and decision-makers alongside constraints of short-term projects.

At the outset our role was explained to the respondent and permission was secured for audio-recording the experience. Thereafter, the researcher only questioned the participant in response to a comment, observation or action such as looking at something or any other form of non-verbal communication: for example, stopping suddenly, diverting gaze or change in body language. Their interactions and emotions were noted and the session was concluded with a general debriefing. Once the interview was completed the audio-recording and field notes/commentary were transcribed and contents analyses carried out using NVivo software. The analysis brought out key themes within and between different landscape experiences. Initially, the analysis and identification of themes and key issues were done for each user type adhering to best practice of qualitative data analysis (e.g. Silverman, 2001). The subsequent critical assessment and discussion of these resulted in seven propositions to be used as a framework to inform and analyse future landscape policy and practice.

The research team debrief indicated that both researchers and respondents felt comfortable with the approach; for example, respondents seemed at ease doing their activity and talking about their experience. Naturally, there was some awkwardness at first with some respondents but over time they felt relaxed and became 'themselves'. Having the respondents 'lead' and share their experience—and indeed their interaction with the researcher—may make them talk or comment or do something to possibly distort their 'usual' experience with the landscape. This kind of research cannot exclude some distorting effects, we can only seek to minimise such occurrences; for example, at the outset we briefed the participant to pursue their task as naturally as circumstances allowed and not to feel obliged to make conversation. The ability for the researcher to remain focused over long periods of time, with assessment, recording and writing requirements during the landscape experience together with observing non-verbal communication, moods and interactions with the respondent was demanding and undoubtedly led to minor inconsistencies. Indeed, many observations had to be discreetly spoken into the dictaphone or noted down from memory after the actual landscape experience as taking notes was often deemed impractical and intrusive. The amount of data generated was huge, which put considerable time demands on researchers for transcription and analysis.

Despite these potential limitations, we found that a relatively small sample of people with different interests in, or remits for, managing landscapes could yield rich data, providing insights into the professional, social, personal and emotional dimensions of landscape. This could be achieved in a 'natural' way where the stakeholder was free to explore and express their range of knowledge and feelings in

Table 1. Methodological issues and overview over the pilot study using the 'Landscape Tour' approach

Participant group	Methodological issues	Interview details	Focus	Length (of recording)
Walkers	• Recording whilst walking • Certain weather conditions reducing sound quality • Visiting walkers: difficult to pre-arrange and limited success approaching on site	Group walk 1 Group walk 2 Group walk 3	Organised group walk Organised group walk 'Path to Health' (NHS initiative)	3 hr 15 mins 3 hr 25 mins 30 mins
		Individual Individual leader of local walking group Couple	Local walk used for training in preparation for Munro's Local walk used regularly on group walks Local walk within easy drive of residence	2 hr 20 mins 2 hr 43 mins 3 hrs
Community Cllr	• Recording in the car: engine noise • What is 'routine' activity?			2 hr 22 mins
Councillors	• Recording in the car: engine noise • Certain weather conditions reducing sound quality	Tour conducted by car, participant opted to drive Tour conducted on foot, ending in local retail/food outlet	Regular visits, places of interest/areas of concern Regular visits, places of interest/areas of concern	1 hr 48 mins 1hr
	• Recording, observing and interacting whilst driving (researcher)	Tour conducted by car, researcher driving, ending with walk around place of interest to Cllr	Regular visits, places of interest/areas of concern	2 hr 10 mins
	• Talking, observing whilst driving (participant)	Tour conducted by car, participant driving, stopping occasionally to look at places of interest on foot	Regular visits, places of interest/areas of concern	5 hr 45 mins

Table 1. (*Continued*)

Participant group	Methodological issues	Interview details	Focus	Length (of recording)
	● Not possible to accompany on routine visits: tour constructed for sake of research	Tour conducted by car, researcher driving	Regular visits, places of interest/areas of concern	1 hr 40 mins
Planners	● Recording in the car: engine noise	Area: Cairngorms National Park Researcher driving between sites	Planning site visits (retrospective)	3 hr 2 mins
	● Certain weather conditions reducing sound quality			
	● Certain weather conditions reducing sound quality	Area: Huntly Participant driving	Planning site visits	4 hr 4 mins
	● Recording, observing and interacting whilst driving (researcher)	Area: Aboyne Participant driving	Planning site visits	3 hr 10 mins
	● Talking, observing whilst driving (participant)			
Land Managers	● Recording in the car: engine noise	PCT; participant driving; stop at viewpoint	Landscape design; Blackhall Forest	1 hr 50 mins
	● Certain weather conditions reducing sound quality	PCT; participant driving; walk with stops	Forest management, archaeological remains; Durris Forest	1 hr 30 mins
	● Talking, observing whilst driving (participant)	PCT round estate by land rover with stops at certain points; participant driving	Estate management; around Tarland	1 hr 53 mins
	● Feasibility of accompanying on routine activities—participant-constructed tour (PCT) approach used when necessary	PCT; participant driving; walk up a hill to viewpoint	Estate management; near Braemar	1 hr 45 mins

(*continued*)

Table 1. (*Continued*)

Participant group	Methodological issues	Interview details	Focus	Length (of recording)
		Species officer: Exploratory visit to check out habitat; walk	Near Banchory	2 hrs
		Accompanied 2 land managers on site visits re: planning applications; participant driving	Landscape design; rural planning	1 hr 43 mins
		PCT; tenant farmer on estate: accompanied around the farm, participant driving	Land use and landscape from a farming perspective; near Tarland	1 hr 15 mins
Mountain Bikers	• Recording whilst on a bike: weather interference • Keeping up with the group • Ability of participants to communicate whilst cycling • Researcher ability to observe/interact whilst cycling • Extra challenges posed by night riding	3 bikers 3 bikers 8 bikers 4 bikers 9 bikers	Cullardoch Mt.Keen Feteresso Scolty Bennachie	∼4 hours 4.5 hours ∼2 hours ∼2 hours ∼2 hours

response to their landscape experience. As the experience is bounded in time by the respondent only and unbounded in potential scope, the method remained manage-able in terms of researchers' time input and extremely rich in providing insights into how landscape is perceived, interacted with and managed by different publics.

4. Results

This section uses the results from two participant groups: mountain bikers and land managers to give a flavour of some of the outcomes and insights from using this approach. These are presented and discussed using selective quotes. Box 2 provides a key to interpreting the interview data.

4.1. The Mountain Biker Landscape Experience

Mountain bikers have over the past two decades become one of several significant recreational landscape users, with varying preferences and skill levels and a plethora of opportunities including purpose-built trails and other public access routes in upland and lowland environments. The development of mountain bike technology has allowed riders to undertake more challenging and technical routes which has on occasion brought them into conflict with other users of the countryside. The Land Reform Act 2004 has enabled cyclists to have a right of 'responsible' access across the whole of Scotland which is perhaps unique in the world and has made Scotland ranked as one of the best mountain bike destinations according to the International Mountain Biking Association. In addition to a strong 'culture' that has developed around mountain biking, it is important to remember that with rights come responsibilities and mountain bikers also have other identities and interests in the landscape which can switch on and off during a particular landscape experience. These differing recreational identities can be conflicting or mutually reinforcing; and, as described below, seemingly result in behavioural modifications:

> There are a lot of mountain bikers who walk or walkers who use mountain bikes to access the hills to do all their Munros and stuff . . . so they are not mutually exclusive . . . I can feel guilty sometimes as I know as a biker I can interfere with walkers' enjoyment; so I guess I just go out later to avoid them.

Box 2. Key to interview extract tables

Direct quotes:	Respondents' comments are displayed as normal text
Prefix:	Indicating who is talking (i.e. R = Researcher; MB = Mountain biker; LM = Land Manager) is only used to show dialogue between 2(+) participants or when the interviewer intervened with a prompt
[ ]	Indicates actions of the respondent, observed by the researcher or adds text to clarify the meaning
. . .	Indicates some text has been left out
[. . .]	Indicates a pause in conversation
( )	Provides information to put the quote in context

For a mountain biker the landscape provides the setting within which the biking experience takes place. The landscape was generally seen in terms of its ability to challenge, enthuse and motivate. This took several forms and was evident at a variety of spatial and temporal scales. The next extract shows the importance of the 'natural' micro-landscape scale where the bikers focus on the challenging uphill ascent followed by a change in focus to the macro-scale when having reached the top and enjoying the view.

> MB1: That was really tough.
> MB2: Yeah it was pretty rough. It's not really enjoyable at all. It would be great if it was all tarmac [smiles]...no it wouldn't [...] It is pretty rough up here. All the path management is really down here where all the people are; so it is hard going, but we like it that way. It stops everyone from coming up here. I prefer it not to be too looked after.
> MB2: [stopped to look at view] Well, that's pretty stunning. Good, eh?
> MB1: It makes all the walking worthwhile...its like surfing. I used to drive two hours to stand on a board for three seconds and drive home two hours thinking it all was worthwhile because that rush you got for those two seconds was just unbeatable.
> MB2: Surfing's really like that. You go out for three hours and get two waves and you are happy.
> MB1: Would like to be good at it but it's just too fickle really.
> MB2: It's just the hardest sport I think of all of them to pick up at a reasonable level. Most sports you can get to a certain level and kind of plateau but surfing is hard unless you are living somewhere where there is consistently good weather.
> MB1: Whereas you can put your bike in the car drive half an hour and know you are going to get a three-hour ride. Whatever the weather does you will get going.
> MB2: But as you say three seconds on the board and you're happy...there's nothing like it.

The diversion of the conversation into surfing shows the difference between what might be seen as a highly weather-dependent sport with an intense thrill factor as compared with mountain biking which can be enjoyed with some degree of certainty whatever the weather. The diversion also shows how social bonds are reinforced through group discourse. A natural break in the activity allows a more con-templative discourse to pass before the next stage in the physical activity occurs.

The way people see and imagine particular landscape settings can be different and intensely personal. The following exchange reveals how one rider sees particular landscape phenomena on a night ride in a different, almost mystical, way to another rider who clearly never viewed landscape features in that way. These differing personal interpretations of the same landscape draw our attention to the importance of subjective imaginations that form an integral part of the overall experience.

> MB1: Every time we come round here the landscape changes, doesn't it? There seems to be a lot of big puddles around. When you are out riding at night in the

big puddles and your lights get reflected off a puddle and then shadow up onto the trees.

MB2: Ah I never noticed that.

MB1: And you are cycling along, and ahead of you it looks like someone is shining your lights up into the trees and waving it around . . . but it's actually coming off the puddles . . . it's a beautiful thing. Looks like there's ghosts in the trees.

MB2: I just see the boggy green down the way.

The importance of the social context is reinforced in the following extract by the way peer group pressure provides the catalyst for the respondent to come out and participate in the recreation experience and in so doing provides the security and confidence for the act of participation itself which would otherwise be too dangerous.

I love the Thursday nights because there is always someone else to come out biking with you, and in the winter it is so hard to motivate yourself. But every time I go out, I'm really glad I did and I always have a really good time . . . it's like a mini-weekend during the week . . . I'm too scared of the dark to go on my own as well . . . even with the dog I wouldn't go.

For the mountain biker and his friends the landscape provides the context for action which he actively seeks. The following extracts are typical and reflect the 'wow' factor heightened by overcoming some aspect of personal danger or obstacle where speed and darkness are major factors.

MB2: There's a little jump down here isn't there? Which I never really jump, I just kind of fall over [. . .] oh this is really tricky in the dark, ooh that's a bit slippy side-on . . . ooooph [. . .] ooph, made it! I made it, excellent! That was really nicely made, that . . .

MB1: Aah! Through the gorse bushes. Ow, ow, ow, ow, this is not good for shorts . . . aaaaah [. . .] ohh [falls off], what did I hit there? Ohh!

MB2: A monstrous great boulder.

MB1: Ohhh, oohhh ya, excuse my . . . c*** . . . ohhh, ahhhh, ha ha . . . f****** h*** . . . how could I not see that [laughs]

The last extract shows how the action of riding in the landscape promotes a reflective discourse with colleagues that partly summarises what the ride meant for him, providing an escape and also a pre-occupation with the immediate landscape that the tyre engages with. Yet the experience allows the other aspects of the landscape experience to emerge including the landform and the weather, heightening the senses in both positive and negative ways.

[Reflecting on the day's ride] . . . going up that hill into the wind was a nightmare . . . actually that's probably the best up to the top I've ever had . . . 'cos it was nice and dry with a good strong wind behind you . . . I don't know what the lowlight is, but it is just those hills, they go on for ever, but that's part of it

[…] it's just quite weird actually because you think, well what am I thinking when I'm going round on my mountain bike? Apart from that bit of dirt two foot in front of my tyre?
MB2: Yeah I find you get so preoccupied you can't think of anything else but what you are doing.
MB1: Yeah 'cos I am hating my job at the minute, but I didn't even think of it once… whereas when you are on the golf course you've got time, and you have a shocking game of golf!

4.2. The Land Managers' Landscape Experience

Managing the countryside for multiple benefits and in a sustainable way have become underlying themes of almost all rural professions and organisations. Land managers interviewed included a range from those who had a highly specific remit (e.g. management of a specific bird species and its habitat) to others who had a more general remit (e.g. estate manager and forester comprising a range of land uses and interests). All of them were several years into their job/occupation and, unsurprisingly, threading through each account were perceptions of and (past/current/planned) actions in the landscape as shaped by their work remit. The estate manager paid attention to economic returns alongside environmental and social stewardship roles:

I mean we produced a longer-term vision for the estate and that for me was the first step toward trying to integrate all the different things we do. We have objectives obviously for environmental improvement but also to ensure that our farmers can make a good living and balancing the whole sort of property portfolio of the estate and also trying to benefit the local community. So there is the beginnings of trying to have an integrated and holistic approach to everything we do here that tries to create, I suppose, in some way a healthy community, people and a good relationship with the landscape around.

The forestry employee focused on landscape level issues of planting, managing and harvesting forests:

…we try to manage the woods to the benefit of everything. Something, say well, if we want, if recreation is the high objective, then we have to make sacrifices of some things; and vice versa. Some people would say that conservation way outweighs, you know, the recreation requirements, we therefore should concentrate on that perspective. That is part of the whole design process. Looking at what are the management objectives.

However, while focused on their specific area of work, their approach included explicit consideration of other perspectives and demands. Thus, the land manager was eager to explore rural diversification possibilities (such as organic farming, wind power and improving access for locals and visitors); the forestry employee emphasised the need to balance different social and environmental demands on forests. The species officer focussed on what needed doing to improve/manage

habitats and increase the capercaillie population, recognising both the scope and constraints that this management focus has for a range of other species and land management interests. The following extract illustrates the positive scope whereas a later quote, where the species officer compares the management of Forestry Commission land with privately managed woodland, highlights constraints:

> The capercaillie is a good example...we can manage forests adequately for capercaillie that benefits a lot of other species that live in these forests...Basically, capercaillie like structurally diverse forests so there are a lot of suitable niches for other species.

The farmer we interviewed also had a clear focus, namely profitable and well managed agricultural land, but voiced at times and in certain places (here looking at the nearby hills and towards the highest peak, Lochnagar) the pleasure of seeing a variety of landscapes and management intensities, especially the contrast between rough upland hillsides and lowland agricultural use/ploughed fields:

> I like to see the hills, wild with snow and that [...] [after being asked what he liked about the hills, adding]...it is more reassuring, it has always been there, with the snow and that, it is just like normal and that. In my more controversial days, I used to say what I would like to see is just the land being cropped up to a certain height and the cows up to a certain height then Sitka spruce with big machinery working in the woods after that height! [laughs]

The above quote signals both stability of preferences and values (the wild hills; cropped lowlands), but also changing views or need for some dynamic, such as changes in priorities and landscape management, over time. For example, continuous cover forestry and planting or regeneration of native species have replaced intensive conifer forest rotations (such as the Sitka spruce mentioned above) in many parts of Scotland. This change in landscape features and management is part of a shift of focus away from solely or predominantly timber production to recognising the ecological and social benefits of more diverse woodlands, especially in terms of biodiversity; recreation and amenity. Different purposes, demands and preferences can, of course, compete or be in conflict. For example, change may be regarded as necessary and desirable, but only as long as it does not interfere with one's own personal space:

> I don't believe in keeping the countryside like it was fifty years ago. You know, I prefer seeing things changing...why should everything be kept like it was from a hundred years ago?...I would probably prefer to see more houses built in the countryside [but adding a little later]...I don't mind other people staying beside each other but I would have to be about half a mile to a mile from anybody!

When talking about a piece of flood-prone land a conflict appeared between the farmer's pride in his own work/profession and wider community benefits, providing a further example of (at the community level) changing and conflicting demands and preferences (upstream management for downstream benefits):

...a lot of people want to see things evolving but I prefer seeing it as arable land. I have spent all my life draining it and improving it and it is a bit of a joke, to let it return (to a 'natural' floodplain).

Multiple demands and different scopes for managing the landscape and/or responding to various policy agendas are of course also observed at the organisational level with different incentives and duties for different types of actors (e.g. the Forestry Commission, private landowners), as the following two extracts illustrate. This makes landscape planning and management a complex and challenging task:

(Talking about multiple purpose forest planning and management) Well, if you're wanting, for example, timber production may be low [in some areas] and in others it would be high. [...] Blackhall's got quite fertile soils compared to the rest of the district, that's sort of more brown earths. So there is a bit more choice of species. Ehm, but it is also within the capercaillie core area so we have got that to look at as well.

(Checking out potential new habits or their improvement for capercaillie) We're just fortunate that this forest is of a certain age...if there was money in this, they'd just come right in and chop it down right away. I mean, I'm not criticising that—it'd be the natural thing to do, that's why it's planted—but, you know you can't cut down all the trees and save wildlife at the same time. But, we can over there [gesturing to land managed by the Forestry Commission] because the government are bound to do something for wildlife and biodiversity...These private forest managers...from their point of view; they've got a multitude of people like me telling them what to do. Always conflicting interests. It must be really hellish; and basically our forests are too small for all these things we want to do. So they've got a really difficult job.

Even where the land is fertile and suitable for a range of management options, we have to balance different interests and policy objectives; in the first extract, for example, interests in producing high quality timber may conflict with requirements for (specific or general) conservation interests. This issue is also picked up by a different land manager in the second extract where financial return oriented private forest enterprises are contrasted with the public forestry sector that has a stronger onus on managing woodland for biodiversity and public interest.

Alongside an understanding of the range of landscape management issues, demands and constraints, the landscape tours also elicited statements and actions that reflected personal meaning, past experiences and/or imagination. This permeates some of the above extracts of the farmer, as well as the following ones:

...how you perceive landscape is so much about who you are as an individual and what your own personal motivations and values are [...] for me although this is an intellectual understanding, I also believe that there is no real separation between us, and between ourselves and the land. I mean we breathe

the oxygen that the plants produce, we eat what comes off the land, and we obviously return to it in the end; so there is a wholeness there.

And later during the landscape tour:

> . . . on the estate we have quite big blocks of forestry but not enough I think connections between the blocks and the habitat, the idea of habitat networks in a sense. The way I see it, it's not a soft landscape . . . I worked for a long time in the Lake District and, you know, I feel so much more at home in that sort of landscape . . . which is softer and more intimate and more natural. This is quite . . . it is beautiful in one way but it is also quite hard. And I suppose that is one of my desires to try and soften it in a way to try and make it more appealing. But again as I said at the beginning it is so subjective what you want to do with the landscape.

The two extracts from the land manager reflect the importance of personal motivations and perceived agency. This is relevant for influencing visions and shaping contributions to the management and appreciation of landscapes. In the above instance larger scale visual elements were highlighted, in another landscape tour, near- or under-the-surface smaller scale historical features were the passion and focus of interest:

> I see practical things I don't see ehm I can't look at an area and it would be really good if this looked like that you know. . . . I can see archaeology but other dinna [don't]. (and a little later) For instance here we're moving more and more to continuous tree cover where we are not doing clear fell at all, which is really good. And I just hope that we get the thinnings to get the regeneration to work properly and that's to get steady regeneration where we want it and where it disna [doesn't] happen just leave it alone because we need open space within the forest as well. The natural stuff's far better than me trying to plan it—because I'm hopeless (at landscape planning). [grins and laughs]

Likes and dislikes, landscape meaning and management potential thus operated for different people at different scales and implied different landscape or contextual characteristics. Values and preferences can have a strong historical component, not just in terms of preserving remaining archaeological features but also in terms of defining gains and losses in the ecosystem and landscape appreciation. In the following quote, we hear one manager describe his feelings about the landscape by reference to a past period in time that was characterised by a more natural ecological state:

> Well, the main way I look at the landscape is with respect to how it's changed under human influence. I'm particularly interested in forests and forest ecology and the wildlife in forests and obviously most of the natural forests in Scotland have disappeared. So now when I drive up and down Deeside, or Marr in general, I think of this as being a kind of degraded landscape because all the [original, more natural] forest's gone away.

The above quotes illustrate how interests, motivations and values are fundamental in determining how a landscape is perceived, experienced and shaped. Thus while the job remit shapes the individual's experience, focus and perceptions, the individual also, to some degree, influences or shapes the work carried out, as the following extracts from two different land managers further illustrate:

> You will see my neighbours up here, they are in to the more extensive farming. I think mine looks neater than theirs; but from an environmental point of view theirs are probably better than mine.

Speaking about landscape advice as part of the planning process:

> Nobody is going to die if we get it wrong. It is not hugely essential, but it is, all of these things add up a lot to improve on the general quality of life and there is huge amounts of research that say how important that is. The difference it can make to people's lives really. So yeah, it is not rocket science, it is not essential, but it helps. My god that's enough philosophy!

It is interesting to note that the different landscape tours for the land managers took place within a 15-mile radius in one part of the case study area. Different land managers referred to similar themes and recognised landscape issues beyond their own remit, yet also imprinted their personal perspective on experiencing and shaping the land.

5. Discussion and Conclusions

This research method piloted on five 'groups' directly engaged with landscapes either on a professional and recreational basis has provided material to help improve our understanding of how individuals experience, perceive and engage with 'their' landscapes. The applied approach reverses the conventional power between the researcher and the researched, passing the framing, selecting and directing of the focus and remit to the participant, while the researcher 'shadows' the participant's experience. Using this actor-oriented approach provided rich information on landscape experiences, perceptions and actions, including underlying values and cognitive reflection and learning, concomitant with changing societal and individual demands and needs from present and future landscapes. The resulting narrative from the various landscape experiences was detailed and varied, challenging any simplistic assessments. Whilst this is of academic interest it also signals a challenge to policy-makers to translate such perspectives more explicitly into landscape assessment and evaluation methods.

Consequently, researchers and policy-makers need to rethink and refine their approaches to incorporate more multidimensional aspects explicitly into their toolkits. By allowing the researched person/stakeholder to 'experience' a landscape through their state of 'being there', and relate its meanings using their own vocabulary we can start to identify new insights to inform and improve landscape science and policy. Within the context of our analyses of land managers and

mountain bikers, we critically discuss seven propositions for landscape policy and practice (which are also supported by findings from the other targeted groups).

5.1. Landscape Perceptions are Dynamic and Complex

Respondents' perceptions of landscape were subject to diverse stimuli, producing changing/complex respondent reactions over both time and space. This promotes instability and dynamism into perception. These subtle changes do not render perceptions redundant; rather they require us to identify key influences on perception (see next three propositions). This requires more open approaches and is unlikely to be achievable using current survey approaches such as Likert scales or scoring systems that can hide more than reveal through limiting different perspectives or stimuli and oversimplification (Zube *et al.*, 1982). Trying to capture less obvious, but significant, factors is, in Latham's view, a more important and complex undertaking (Latham, 2003). Throughout a given landscape experience different criteria stimulated particular responses either singly or in combination, but the extent to which a participant can process the variety or meaning of all of these responses in a pre-conceived survey format is questionable. Our approach to record a detailed narrative of how a person perceives and interacts with the landscape through their lens of experience, as Wylie (2002) illustrated in his ascent of Glastonbury Tor, provides a frame within which we can start understanding the diverse meanings and imaginations of place, landscape and environment from the participant's perspective. This approach minimises the expert-led steer that undoubtedly has tainted much public perception research and policy to date.

5.2. Experiences with Landscape are Multi-dimensional

Landscape perceptions were rarely 'seen' within one particular dimension but were multi-dimensional which may or may not be directly related to the landscape setting, but are nonetheless important to the overall landscape experience. The quotes reflect components of the visual, lifestyle, professional, action, social, sensory and personal dimensions thereby supporting the existing literature on multi-dimensional landscape assessment (Scott, 2006). However, many of the quotes reveal the important fact that the meaning is derived from the totality of these factors rather than its crude dissection as is commonly requested and attempted by policy-makers and professionals; a point emphasised by Scott (2003) in his work on public perception in Wales.

The extracts from our landscape tours reveal complexity and individuality through the interaction and changes of different components: sounds; light; darkness; shapes; structure; visible or associated wildlife; aesthetics; imaginations; memory; movement; social interaction; fear; challenge; observed, planned or performed activities; or even lifestyle change. The specific points expressed were diverse and often unpredictable and frequently went beyond what is seen. Thus, our research reinforces the caution expressed by others, such as Orland *et al.* (2001) and Sheppard (2001), over the undue prevalence given to any one dimension in landscape research.

5.3. Experiences with Landscape Elicit Multiple Identities

Experiences with landscape reflect as much about 'who' we are as the landscape we interact with. The idea that land managers and mountain bikers elicit perceptions directly relating to their interests is evident in the results, but not necessarily dominant. Landscape experiences are interrupted and affected by the multiple identities, interests and perspectives that people bring to a particular experience. Unpacking these is problematic, as Valentine (1993) illustrated in her study of lesbian identities that may remain subverted and hidden. Personal perspectives and points of reference and identification are revealed, in part, through the landscape stimuli but also are shaped by the respondent's background and life experience. These different identities are not always distinct or consistent. Indeed, identities merge or even conflict in response to particular stimuli. For example, the mountain biker quotation was interesting in revealing an understanding of sensitivities of the issues associated with potential biker-walker conflicts and the coping strategies employed to minimise conflict. Similarly, some land managers who had recently become parents acknowledged changes in their perceptions to landscapes, their work and their priorities due to that 'new' identity. Different identities were also evident when an individual formed part of a collective group. The nature of a group identity of mountain bikers in terms of stimulating action was evident; indeed providing the confidence and social setting for participation.

Such differing identities can lead to potential conflict when considering the kinds of landscape that are 'liked' or preferred or when certain changes are proposed. Probing into these multiple identities thus provides a relevant and interesting area of research, especially since many existing studies expect participants to 'wear a particular hat', yet we found that people have many different hats. Trying to unpack these may provide important insights into resolving landscape conflicts, as opposed to focusing on consensus of likes or dislikes without exploring the different identities of an individual and how they may affect landscape perception.

Allowing people to share their perceptions and experience *in* the landscapes they are frequenting and talking about, in our view, greatly enhances the resulting analysis. Such exercises are rare in today's policy environment where results are needed quickly and cheaply and therefore photographs and computer simulations are used. Our pilot work has allowed us to understand how and why differences emerge, even over the course of one landscape experience for one individual. It also highlights how a landscape can have value for its form and function both as productive (e.g. agricultural productivity values) and consumptive (e.g. technical attributes for mountain bike pursuits or mere passive enjoyment). This in itself illuminates that the act of 'seeing' a landscape differs significantly depending on the lens being used.

5.4. Experiences with Landscape are Secondary to Other Primary Activities

The research confirmed the way that a landscape provides the setting within which certain activities take place. This was manifest primarily through social interaction, professional duties, routine activities, or sometimes chance. These motives are important and are under-researched particularly within a landscape context.

Our findings coincide with work by Conradson (2005) and McIntyre and Roggenbuck (1998) where the group aspect enriches the landscape experience and provides the key catalyst for engagement and accessibility. For the mountain biker the social group component was instrumental to that person overcoming his fear of the dark and also being motivated to actually engage with that landscape. For the land managers the work function appeared to be the key driver but the exchanges reveal powerful attachments to place that reflect history and a sense of protecting and/or enhancing what is there. Land managers conveyed their concept of stewardship based on their given remit, but moulded by their own understandings and convictions about the quality of the landscape product. All expressed that landscape management involved having to make some trade-offs and compromises, for example due to economic imperatives, fragmented land ownership or targeted conservation interests.

The idea of landscape as a backdrop for such matters is important as bonds are created and quality of life enriched in ways that defy simple economic assumptions, analysis and valuation (Spash, 1999). However, although it might appear as a secondary consideration it must also be realised that particular landscapes are chosen for the 'special' attributes they possess. For example, the mountain biker preferred a challenging 'natural' ride with uphill sections requiring technical skills and downhill sections with obstacles and jumps. Without this the social interaction may not occur.

5.5. *Landscape Perceptions are Personal and Difficult to Capture Accurately in Their Totality*

Considerable time is required to accurately capture how people feel about their landscape and why and this flies counter to the policy need to secure this information cheaply and efficiently. Landscape is a personal and emotive concept with often powerful and important attachments to place which simplistic surveys and consultation exercises can easily overlook. Facilitating these responses requires innovative approaches and our method forms part of wider ethnographic and phenomenological approaches which can go beyond the superficiality of rating scales and (semi-)structured questionnaires which still inform much policy development (Scott, 2003; Burgess, 1996). It is here that the shared experience between researcher and researched brings new insights as opposed to the sole reliance on respondents to summarise their own experiences. Keirle and Walsh (1999) observed how people actually used public rights of way and compared this with responses to traditional questionnaires, with important differences obtained.

Landscapes have importance to people for a whole host of personal reasons. Planners and policy-makers need to be aware of the complex and elusive nature of this. Furthermore strong emotive statements should not be dismissed; they form part of legitimate expressions of value and preference that need to be recorded and captured as much as paintings and poetry symbolise the power of some of our most iconic landscapes. It is here that the ordinary landscapes have real meaning and importance to people for which there is no designation to reflect their value (Scott & Shannon, 2007). This more formalised capturing of public views and expressions is important and addresses quite often the intangible aspects of landscape and we argue

that these qualities are equally important and should not be dismissed just because an economic value can not be directly put on them.

5.6. Public Perception of Landscape May Not Be Consensual

Landscape perception studies have generally sought to identify consensus-style outputs for policy responses. This question of consensus versus dissensus from multiple identities of stakeholders is important with the need for research to look more closely at variation within groups and differentiate between different publics (Porteous, 1985). Indeed, the concept of multiple publics and their respective power and influence in the landscape debate is rarely discussed or given sufficient credence in policy or research. This is further complicated by the multiple identities that an individual may posses and which change over time and space.

Recognition of diversity of thoughts, ideas, attitudes and perspectives among members of a society and their identification within more deliberative forms of participation early on in a project/process seem an important step towards fostering socially acceptable landscape management outputs and reducing conflicts that obfuscate the attainment of this goal (Blackstock & Richards, 2006; Carter, 2005; Richards *et al.*, 2004). All too often landscape arguments are evidenced in response to particular threats rather than being used as a proactive and routine policy tool. It is here that participatory GIS might make a contribution (Jankowski & Nyerges, 2001). These different perspectives might yield important results, as the following excerpt from one of the land manager's landscape tours illustrates:

> . . . I go to forest planning meetings and . . . ideas about expanding this or doing that are stymied by some . . . [person] from the Council saying 'oh no, the landscape implications' and it's all usually subjective anyway. You know people, there's all sorts of unnatural things in the landscape . . . huge pylons, straight lines of forestry . . . Big scale, unnatural appearing things. Yet we are constrained in terms of forest planning by silly considerations about what it would look like. That holds far too much sway in forest meetings.

5.7. Public Perceptions of Landscape Should Inform Policy

The often-cited argument that public landscape perceptions are too woolly and subjective and best left for professional mediation is, in our view, a dangerous fallacy. The perceptions of the landscape secured from this research revealed an inherent complexity and subjectivity which applies to all individuals whether experts or public(s). Crucially, the narratives—partly illustrated in quotes we included in this paper—showed a considerable degree of sophistication and understanding of landscape form, function and value as well as indicating the integral role they play in shaping people's working and/or leisure lives. The idea that such views should be represented by professionals only is worrying and risks further distancing policy-makers and planners from the public(s) that they allegedly serve. Indeed, this flies in the face of the European Landscape Convention's definition of landscape. There is a tension here in that the 'tick-box culture', in which much participation takes place,

never unfolds the most valuable insights and material as, for example, gained from our work. If we want to be serious about involving the public in landscape policy matters, we have to resort to new mechanisms and methodologies that change the culture of both professionals and the public to improve mutual understanding of how we actually experience and value landscapes. Herein lies the difference between what is token consultation and active participation (Richards *et al.*, 2004).

5.8. Impacts on Policy

All the above raises the wider issues of whether and how such complexity can be incorporated into policy? Our results certainly challenge conventional policy approaches with their heavy reliance on photographic, schematic or VR methods and experts producing landscape character assessments, environmental assessments and landscape scenarios (Bishop & Rohrmann, 2003; Tress & Tress, 2003). It is crucial for planners and policy-makers who are looking at the future needs of areas to utilise proactive and deliberative techniques to elicit public perceptions through more experiential and multidimensional approaches. Planners in particular have rarely achieved this with their reactive, top-down approaches which largely request objections to proposals rather using a more open and positive style of engagement.

We believe that the basic tools to facilitate this are already in existence. Participatory techniques have grown in their sophistication and increasingly recognise the importance of the respondent-led approach. For example, exemplars of good practice in implementing the European Landscape Convention include people-centric models. In the Scottish Islands the Lighthouse project worked with children to define landscapes for play; whilst in Dumfries and Galloway a novel approach was used to develop a landscape strategy and governance model for a National Scenic Area with local people playing an active role in identifying, valuing and managing their landscapes (International Centre for Protected Landscapes, 2008). Interestingly, Devisch (2008) provides some thoughts and comments on how policy-makers might better utilise computer and social networking sites in landscape work. However, our key concern is less about arguing for a specific approach, and more about encouraging policy-makers to design their participation exercises in a way that allow the wide range of perspectives, underlying values, interests and visions to emerge. Here, our seven wider themes may provide a useful starting point for the conceptual framework, using (in combination or on their own) techniques such as 'parish maps' (Crouch & Matless, 1996), gathering oral histories of communities (e.g. Soliva, 2007) or landscape tours (Felber, 2005), and this paper).

We believe that further work is required to test these methods that bridge the research-policy-practice divides. In particular, issues around social inclusion and greater openness to negotiated change and future long-term scenarios should be key priorities. For example, the engagement with children/teenagers and other 'hidden' or marginalised groups in the policy arena should be given a greater voice. Here trans-disciplinary work engaging social scientists, planners, citizens, modellers and environmental scientists could help take up the exciting challenge to help identify the kinds of multi-functional landscapes that people want.

Acknowledgements

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