# Landscape's ocular-centrism – and beyond?

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### Abstract

For many academics and policy makers the concept of landscape is associated with 'land as it is seen'. In this paper I consider some of the literature which traces this association of landscape with the sense of sight. I focus on the suggestion that notions and concepts related to landscape are symptomatic of a pervasive 'ocular-centrism' within western thought. I then highlight the ocular-centric approach to landscape which permeates much of the landscape and environmental-perception literature. Concerns are raised that the ocular-centric legacy of landscape may occlude alternative aspects of how the land is sensed and interacted with. I therefore proceed to explore research which addresses the 'non-visual' embodied aspects of our interactions with the land. It seems that sight isn't necessarily the primary medium through which we come to know and organize our understandings of the land. In particular I address the potential of recent attempts to re-conceptualize landscape as an 'interaction' or as 'a moment in a process' and in doing so question to what extent it is possible to move beyond landscape's ocular-centrism.

Keywords: landscape theory; ocular-centrism; senses; blindness

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## Introduction

This paper emerges from a thesis I am preparing on the topic of Landscape and Blindness. One of my particular concerns is with what counts as 'landscape' and 'legitimate knowledge' of landscape, and how this is influenced by physiological, cultural and historical influences. My interest with this topic stemmed from an interest in participation processes in landscape planning. I would argue that a contradiction often emerges here between landscape hailed as *holistic planning tool* and *how landscape planning operated in practice* where landscape was assumed to be a primarily visual mappable entity.

I begin by outlining the suggestion that landscape is inextricably tied to modernity and a 'westernized' way of seeing (Cosgrove 2002). I highlight recent ideas about the way visualizing technologies are reinforcing a distant ocular conception of landscape. I then go on to consider some research which begins to address the multi-sensory nature of our interactions with the land. I call for recognition of diversity in our embodied interactions with the land and thus our landscape perceptions. Consideration is then given to some of the strengths and weaknesses of literature which attempts to re-conceptualize landscape as embodied interaction.

#### Landscape as seen

Landscape is a complex and contested concept. Its meaning, value and characteristics are unstable. It has been used to refer to a measurable range of material forms, to the representation of those forms in painting, texts and photos, to a way of seeing, and to the imagined and desired spaces of the mind (Rodaway 1994, p. 129). Despite some scholars suggesting that the landscape concept should be avoided due to its multiple interpretations (Hartshorne 1939) the term persists. This is perhaps because it can be employed to denote both material form and our interpretations of it. There is no simple linear history of the landscape concept and it is not solely limited to what is seen. For example, the German term 'Landschaft' and its derivatives give a sense not only of territory but also of community and polity (Olwig 1996; Olwig 2002). However, a persistent feature within modern usage of the landscape concept is a connection with seeing and the sense of sight (Rodaway 1994; Olwig 2002; Cosgrove 2002; MacDonald 2003). Porteous provides a quite typical example of such a connection;

"What I wish to emphasize here is that, when we consider landscape, we are almost always concerned with a visual construct. Landscape is something we look at or imagine as a visual metaphor." (Porteous 1990, p. 4)

Under the influence of Dutch 'landschap' painters of the early seventeenth century, the term landscape came to refer to the representation of scenery (Johnston et al. 2000). Subsequently, a fashion for landscaping spaces to conform to pictorial taste emerged in England. Understandings of landscape as scenery continued to be reworked in a variety of forms from the 18th into the 21st century (Schein 1997; Matless 1998; Landry 2001). A scenic concept of landscape also continues to be used in some studies of human environmental perception (Tuan 1974; Thompson 1998). Taken to the extreme, environmental-perception studies have tended to ignore the subjective and non-visual qualities of perception, understanding the scenic object to

be the ultimate determinant of perception (Appleton 1975; Bourassa 1991). A predominantly visual understanding of landscape is also pursued within post-modern and post-structural traditions of landscape study, where the 'focus' has been not on land itself but on representation and iconography (Cosgrove and Daniels 1988; Barnes and Duncan 1992; Daniels 1993). This led Cosgrove and Daniels to famously claim landscape to be completely about representation being merely "a flickering text" (Cosgrove and Daniels 1988).

For some scholars within this tradition and for Porteus quoted above, landscape is treated as a primarily visual construct. Porteus suggests that landscape is *something we stand back to view*. For him, it is vision, the 'cool', 'detached', 'intellectual sense', which creates landscape. This understanding of landscape as something we primarily look at, and of vision as 'cool' and 'detached', can be understood as characteristic of an ocular-centrism central to western thought (Jay 1994). In this paper ocular-centrism is taken to mean not only a privileging of knowledge gained through sight but also a privileging of an objectifying way of seeing associated with modernity. Thus, as I discuss in the next section, this article is not an all-out attack on the eye; rather it is a consideration of the potentials to go beyond a particular objectifying way of seeing in our studies of land and landscape.

The ocular-centrism of the landscape concept has been attributed to the evolution of the concept in the West (Cosgrove 2002) and has been reinforced by a scientific worldview reliant on the rules of Euclidian geometry (Rodaway 1994). New technologies of observation and representation such as remote sensing and geographical information systems further extend the eyes' reach and serve to reinforce a distant, visual, ocular-centric conception of landscape. Virtual Reality used by architects and planners allows the eye alone to traverse a landscape within a virtual space, where physical action is often eliminated. Scenario visualization and virtual environments may be helpful tools for communicating potential landscape changes to stakeholders (Bishop, Joanna and David 2001; Tress and Tress 2003). However such technology should not be uncritically embraced. There is a danger that virtual environments emphasize visual beauty over other ecological and social processes and may operate to the expense of other forms of landscape-perception data. It seems the practice of landscape observation is far from a neutral affair. As Cosgrove states, "The evolving relationship between vision, technology and landscape is not a morally or politically neutral affair. Privileging vision as the principle means of knowing the world devalues alternative modes of experience and cognition" (Cosgrove 2002, p. 257).

Research from outside of geography and landscape disciplines serves to reinforce Cosgrove's point. Feminist thought for example reminds us that landscape observers cannot be separated from the position of power in which they are situated (Rose 1993; Whatmore 1999). For anthropologist David Howes (2003) the relationship between perception, the senses and landscape is not fixed, but geographically, historically and culturally contingent. These findings strengthen the suggestion that the primacy of sight in landscape-perception processes can be understood in historical and cultural rather than purely physiological terms. Focusing on landscape as visual representation can also run against principles of sustainability by enabling immaterial conceptions of landscape and reinforcing nature/society dualisms. By utilizing the concept of landscape to give consideration to something external to us 'out there' rather than materially implicated in our day-to-day lives, we may remove any sense of direct responsibility or connection with the object of debate. This is not to negate sight as an important source of information about the world. Rather is to highlight that particular 'ways of seeing' within disciplines which study landscape may serve to obscure or structure other forms of knowledge about the world. For example, the Countryside Council for Wales GIS 'Land-Map' programme, while being hailed as exemplary for modern landscape planning, is also shaping landscape planners' and designers' ideas of what might be regarded as acceptable, useful 'landscape data' (Scott 2002). There is a danger that visualizing technology may end up blinding us to other potential avenues for landscape research.

### Ways of seeing/sensing

So far the arguments put forward here are somewhat 'anti-ocular', however an all out 'attack on the eye' as approach to landscape is not appropriate. In his essays on environmental perception Ingold (2000) shows us how much of the recent critique of vision has been based on a limited conception of sight as a singular modality which distances and objectifies. Ingold (2000) points out that in fact sight can also be intimate and engaging. He suggests that it is not the emphasis on vision per se that is always at fault in landscape interpretation but rather a particular 'way of seeing' that can be associated with the project of modernity. This way of seeing is exemplified by Porteus's approach to landscape and his understanding of vision as the 'cool', 'detached' and 'intellectual sense'. An alternative way of seeing is identified by Judith Okely. In her ethnographic work on the Normandy landscape, she identifies a receptive, absorbing and experiential way of seeing where "the body becomes the memory" (Okely 2001, p. 115). This alternative understanding of how we might come to see and know the landscape has important implications for what we understand to be legitimate landscape knowledge.

In my own research with visually impaired walkers people ask: what do blind people have to do with landscape? The answer depends on how you conceptualize landscape, but to be without sight is not necessarily to be without landscape. Landscape is about collective understandings as well as individual points of view, and 'seeing' landscape can be about much more than the physical faculty of sight. As Okely (2001) and others (Wylie 2002; Lorimer and Lund 2003) suggest, landscape can also be about memory and embodied interaction. This work on landscape as an interaction, can be located within a growing interest in the body from across the social sciences (Shilling 2003), where a strand of research has begun to address the determined and determining role of the body and the senses in landscape (Nast and Pile 1998; Edensor 2000; Lewis 2000; Macnaghten and Urry 2000aa; 2000bb; Micheal 2000; Okely 2001). This combined concern with landscape, the senses and the body is important. "At the heart of many environmental disputes between lay and expert forms of knowledge lie contestations over different senses, and over the relative role of the senses as opposed to more abstract and cognitive forms of knowledge" (Macnaghten and Urry 1998).

Recognition of the potential for contestation over what is classed as legitimate environmental knowledge has now impacted on disciplines traditionally concerned with questions of landscape. Some recognition within landscape planning and architecture is now being given to previously overlooked forms of landscape knowledge which involve embodied, sensory and cognitive aspects. Landscape planners Linehan and Gross (1998) have critiqued a 'humanless definition' of landscape in the United States, which they attribute to the ongoing objectification and materialist interpretation of landscape and to a pastoral American ideal. Linehan and Gross advocate research efforts which are directed at more experiential rather than simply technical and cognitive conceptions of landscape (Linehan and Gross 1998). James Corner (1999) in 'Recovering Landscape' outlines the social and political dimensions of landscape architecture and the implications of landscape for peoples' day-to-day lives. It would seem that continuing this examination of the history and consequences of landscape and its connections with particular '*ways of seeing' and* '*ways of seeing*' (Macnaghten and Urry 1998) remains a fruitful area for research.

#### Sensory landscape research

There is a considerable body of research which recognizes landscape as engaging other senses (Tuan 1993; Soini 2001; Thwaites 2001), including work on 'soundscapes' and 'smellscapes' (Porteous 1985; Porteous and Mastin 1985; Wrightson 2000; Hedfors and Berg 2003). This sort of sensory landscape research often utilizes a quite static visual conception of landscape to frame the research and give order to the data. In this 'sensory landscape' literature there is a tendency to treat the senses as largely discrete sensory registers, to assume that sense perception is a rational, relatively objective process and to treat smells and sounds as static. This allows researchers and practitioners to map (impose a visual order) onto these 'sense-scapes' (Tuan 1993; Soini 2001; Thwaites 2001). However such approaches ignore the integrated nature of environmental perception. "Whilst it is possible to identify the apparent dominance of a specific sense in a given situation, on closer analysis all geographical experiences are made up of a complex of sensuous information combining activities of the sense organs, the body and its limbs, and mental processes (memory and expectation, analysis and evaluation)" (Rodaway 1994, p. 35).

Recent scholars such as Rodaway tell us that the senses operate together and are to some extent interchangeable functionings. For example, we rely on vision to orientate hearing (and visa versa), and touch can enable someone to visualize (Rodaway 1994; Ingold 2000, p. 244-245; Howes 2003). It seems that a significant proportion of sense perception is a subjective, culturally and bodily specific functioning. So while Tuan (1993, p. 68) talks in simple terms of 'good' and 'bad' odours, in fact we may become habituated to certain smells and noises (Rodaway 1994). It is perhaps easy to understand the motivations for particular sensory landscape research to 'fit' perceptual data into existing landscape-planning processes to achieve particular policy goals within a particular timescale. Sensory mapping processes may be appealing for landscape planners and designers seeking singular, 'rational' solutions to landscapeplanning dilemmas (see http://www.sensorytrust.org.uk/projects/index.html), but the danger is that such processes may be reliant on a single model of human behaviour and may result in the imposition of an inappropriate visual logic onto what are quite transient, subjective occurrences. Sounds and smells tend to unfold and have a very different spatial and temporal logic in contrast to the more persistent nature of visual landscapes (Rodaway 1994). While I do not wish to downplay the role of those researchers concerned with our body's physiological responses to the material world, the search for universals in the 'world of sense' may not always 'make sense'. Is there a better way to research the subjective and embodied aspects of landscape perception?

#### **Re-conceptualizing landscape as embodied interaction**

Tim Ingold, drawing on the phenomenology of Merleau Ponty (1962) and the environmental psychology of Gibson (1986), develops an alternative approach to landscape perception as a 'whole-body activity'. He argues that the material nature of

the land, together with our own embodiment, means that interpretations of landscape are dynamic, but finite and 'woven' into the landscape. This approach acknowledges the individual body's importance in structuring perception. So is this 'whole-body' approach to landscape perception useful? It is possible to highlight some of the determining features of the body which affect our perceptions of landscape?: the body gives us orientation, geometry and gravity, it gives a measure of the world, acts as a yardstick for distance and scale, enables movement and operates as a coherent system helping to give a sense of wholeness (Gibson 1986, p. 141, originally published 1979). A person's experience of the material land is not just composed of external information (such as that gained through sight and sound) but also of internal information such as our sense of muscular effort and locomotion (Kinaesthesia). Recent research shows that people may develop a sense of landscape which is "felt through the physical terrain" (Lorimer and Lund 2003) or a sense of place through an "accretion of embodied experiences" (Latham 2003). It seems the body is central to some of our understandings of landscape.

Gibson's (1986) concept of 'affordances' has been influential in conceptualizing the relationship between environmental perception and the human body. He describes 'affordances' as potentials or possibilities for use or action, and these derive from the environment, our selves and our capabilities. His argument is that our purposes direct our perception (cf. Ittelson 1973) and we do not encounter the environment as a set of objective things but rather as different surfaces and objects that are perceived relative to the human organism. This helps to remind us that in the process of perceiving the world we are also co-perceiving ourselves (cf. De Certeau 1984). The concept of affordances has been utilized in diverse ways by researchers trying to theorize environmental perception (for a functionalist interpretation see Kaplan and Kaplan 1989; for a more recent adaptation see Macnaghten and Urry? 2000). Doreen Massey's (2001) work enables us to think through some of the benefits of Gibson's concept of 'affordances' and Ingolds 'whole-body approach' to landscape perception. She shows how place is practised using the example of her ageing parents' neighbourhood. Through her parents' growing disablement she shows how their perceptions of place change and shrink, illustrating how the 'affordances' within her parents' immediate environment, its mobile social spaces, their own physical competencies and their memories and imagination (a place's hauntings) combine to create their particular perceptions of a neighbourhood landscape.

"On a wheelchair walk around the grounds of the nursing home, smells can signal where you are .... a sudden whiff of something in the air can carry your thoughts away, to other times and other places. The changing texture of the path reverberates through the wheelchair into your body; the movement from ruckly gravel to the smooth passage of asphalt brings relief" (Massey 2001, p. 462).

To enhance our understanding of how landscape becomes apparent to the individual we must recognize our relationship with landscape is not just rational and visual but also active and embodied. Our perceptions of places and landscape exist to some extent relative to our changing bodies. It is also important to consider how perceptions continue to be structured and mediated not only by our bodies and subjectivities, but also by technological extensions of our capabilities (Micheal 2000; Cloke and Jones 2001; Laurier, Whyte and Buckner 2001), the wheelchair in Massey's excerpt provides an example of this.

It is possible to suggest that landscape, understood and represented through the principles of Euclidian geometry is not necessarily an adequate representation of 'lived space' (De Certeau 1984; Lefebvre 1991; Latour 1999). The experience of Massey's ageing parents is just one example of this. This point resonates with recent concerns in geography with the 'non-representational' aspects of experience, where greater consideration is being given to what is done rather than what is represented (Thrift 1997; Thrift 1999; Hetherington 2000; Rose 2002; Wylie 2002; Lorimer and Lund 2003). Developing these ideas Thrift builds up an idea of embodiment not as a constant but as a process of practical and expressive involvement with other objects and people who are in the process of continually reaffirming and reworking their existence in the world. Such work, combined with Ingold's work, has influenced recent performative, embodied (less ocular-centric) approaches to landscape (Rose 2002; Lorimer and Lund 2003). The understandings of landscape, embodiment and perception developed in such literature present a significant challenge to fixed conceptions of the individual landscape perceiver.

The potential for a less visually orientated approach to landscape perception provided by recent 'performative' and 'whole-body' interpretations is a refreshing one. However we should be wary of retreating back to a universalizing, depoliticized notion of the body (Nash 2000). The socially conditioned and discursive aspects of our perceptions should continue to be emphasized within accounts of landscape. There is a danger that if we (the author and the reader) simply accept Ingold's concept of landscape perception as 'whole-body activity', we may ignore important questions of representation (cf. Cloke and Jones 2001). There is a politics to our embodied interactions with landscape. As Massey has put it: "embodiedness ... has to be on certain terms to result in meaningfulness" (Massey 2004, p. 8).

#### Conclusions

Landscape is always in flux. Physical and ecological processes shift the materiality of landscape, while our changing bodies, technologies and socio-political circumstances mediate our relationships to the land. In this paper I have tried to show how landscape can operate as a powerful discourse or cultural ideology, centring on a particular, modern, way of seeing. However it is inadequate to solely theorize landscape in terms of representation, discourse and ideology. Landscape is not freefloating; it has a materiality to it which can affect our perceptions and experiences. These perceptions and experiences have multi-sensory and embodied qualities. Landscape perception isn't only about sight. Recent landscape theorists suggest it may be useful to consider landscape not as an objective thing but as coming about through an interaction. Giving consideration to our interactions with the land enables us then to ask: which of these interactions would be included in definitions of 'legitimate knowledge' of landscape and why? It seems critical that those dealing with our perceptions and representations of landscape continue this questioning of how landscape operates as both an ideology and as something with material, embodied affects.

### References

Appleton, J., 1975. The experience of landscape. Wiley, Chichester.

- Barnes, T.J. and Duncan, J.S., 1992. Writing worlds: discourse, text and metaphor in the representation of landscape. Routledge, London.
- Bishop, I.D., Joanna, R.W. and David, R.M., 2001. Assessment of path choices on a country walk using a virtual environment. *Landscape and Urban Planning*, 52 (4), 225-237.
- Bourassa, S.C., 1991. The aesthetics of landscape. Belhaven Press, London.
- Cloke, P. and Jones, O., 2001. Dwelling, place and landscape: an orchard in Somerset. *Environment and Planning A*, 33 (4), 649-666.
- Corner, J., 1999. *Recovering landscape: essays in contemporary landscape architecture*. Princetown Architectural Press, New York.
- Cosgrove, D., 2002. Landscape and the European sense of sight: eyeing nature. *In:* Anderson, K., Domosh, M., Pile, S., et al. eds. *Handbook of Cultural Geography. Chapter 12.* SAGE Publications, London, 249-268.
- Cosgrove, D. and Daniels, S., 1988. Introduction: iconography and landscape. *In:* Cosgrove, D. and Daniels, S. eds. *The iconography of landscape*. Bath Press, Bath, 1-11.
- Daniels, S., 1993. Fields of vision. Polity Press, Cambridge.
- De Certeau, M., 1984. *The practice of everyday life*. University of California Press, Berkeley.
- Edensor, T., 2000. Walking in the British countryside, reflexivity, embodied practices and ways to escape. *Body and Society*, 6 (3/4), 81-106.
- Gibson, J.J., 1986. *The ecological approach to visual perception*. Lawrence Erlbaum Associates, Hillsdale.
- Hartshorne, R., 1939. The nature of geography. *Annals of the Association of American Geographers*, 29, 173-658.
- Hedfors, P. and Berg, P.G., 2003. Sounds of two landscape settings: auditory concepts for physical planning and design. *Landscape Research*, 28 (3), 245-263.
- Hetherington, K., 2000. Museums and the visually impaired: the spatial politics of acess. *Sociological Review*, 48 (3), 444-463.
- Howes, D., 2003. Sensual relations: engaging the senses in cultural and social theory. University of Michigan Press, Ann Arbor.
- Ingold, T., 2000. The perception of the environment: essays on livelihood, dwelling and skill. Routledge, London.
- Ittelson, W.H., 1973. Environment and cognition. Seminar Press, New York.
- Jay, M., 1994. Downcast eyes: the denigration of vision in twentieth-century french thought. University of California Press, Berkeley.
- Johnston, R.J., Gregory, D., Pratt, G., et al., 2000. *The dictionary of human geography*. 4th edn. Blackwell, Oxford.
- Kaplan, R. and Kaplan, S., 1989. *The experience of nature: a psychological perspective*. Cambridge University Press, Cambridge.
- Landry, D., 2001. The invention of the countryside: hunting, walking, and ecology in English literature, 1671-1831. Palgrave, New York.
- Latham, A., 2003. Research, performance, and doing human geography: some reflections on the diary-photograph, diary-interview method. *Environment and Planning A*, 35 (11), 1993-2017.

- Latour, B., 1999. "Do you believe in reality?" news from the trenches of the science wars. *In:* Latour, B. ed. *Pandora's hope: essays on the reality of science studies.* Harvard Press, Cambridge, 1-23.
- Laurier, E., Whyte, A. and Buckner, K., 2001. An ethnography of a neighbourhood café: informality, table arrangements and background noise. *Journal of Mundane Behaviour*, 2 (2), 1-50. [http://mundanebehavior.org/index.htm]
- Lefebvre, H., 1991. The production of space. Blackwell, Oxford.
- Lewis, N., 2000. The climbing body, nature and the experience of modernity. *Body and Society*, 6 (3/4), 58-80.
- Linehan, J.R. and Gross, M., 1998. Back to the future, back to basics: the social ecology of landscapes and the future of landscape planning. *Landscape and Urban Planning*, 42 (2/4), 207-223.
- Lorimer, H. and Lund, K., 2003. Performing facts: finding a way over Scotland's mountains. *In:* Szerszynski, B., Heim, W. and Waterton, C. eds. *Nature performed: environment, culture and performance*. Blackwell, London. Sociological Review Monographs.
- MacDonald, F., 2003. Geographies of vision and modernity: things seen in the Scottish Highlands. University of Oxford, Oxford. Thesis
- Macnaghten, P. and Urry, J., 1998. Contested natures. Sage Publications, London.
- Macnaghten, P. and Urry, J., 2000a. Bodies in the woods. *Body and Society*, 6 (3/4), 166-182.
- Macnaghten, P. and Urry, J., 2000b. Bodies of nature: introduction. *Body and Society*, 6 (3/4), 1-11.
- Massey, D., 2001. Living in Wythenshawe. *In:* Borden, I., Kerr, J., Rendell, J., et al. eds. *The unknown city: contesting architecture and social space: a strangely familiar project.* MIT Press, Cambridge, 459-473.
- Massey, D., 2004. Geographies of responsibility. Geografiska Annaler. Series B. Human Geography, 86 (1), 5-18.
- Matless, D., 1998. Landscape and Englishness. Biddles Ltd., Guildford.
- Merleau-Ponty, M., 1962. Phenomenology of perception. Routledge, London.
- Micheal, M., 2000. These boots are made for walking.: mundane technology, the body and human-environment relations. *Body and Society*, 6 (3/4), 107-126.
- Nash, C., 2000. Performativity in practice: some recent work in cultural geography. *Progress in Human Geography*, 24 (4), 653-664.
- Nast, H.J. and Pile, S., 1998. Places through the body. Routledge, London.
- Okely, J., 2001. Visualism and landscape: looking and seeing in Normandy. *Ethnos*, 66 (1), 99-120.
- Olwig, K.R., 1996. Recovering the substantive nature of landscape. Annals of the Association of American Geographers, 86 (4), 630-653.
- Olwig, K.R., 2002. Landscape, nature, and the body politic: from Britain's renaissance to America's new world. University of Wisconsin Press, Madison.
- Porteous, J.D., 1985. Smellscape. Progress in Human Geography, 9 (3), 356-378.
- Porteous, J.D., 1990. Landscapes of the mind: worlds of sense and metaphor. University of Toronto Press, London.
- Porteous, J.D. and Mastin, J.F., 1985. Soundscape. Journal of Architectural and Planning Research, 2 (3), 169-186.
- Rodaway, P., 1994. Sensuous geographies: body, sense, and place. Routledge, London.

- Rose, G., 1993. Looking at landscape: the uneasy pleasures of power. *In:* Rose, G. ed. *Feminism and geography: the limits of geographical knowledge*. Polity Press, Cambridge, 87-112.
- Rose, M., 2002. Landscape and labyrinths. Geoforum, 33 (4), 455-467.
- Schein, R.H., 1997. The place of landscape: a conceptual famework for interpreting an American scene. Annals of the Association of American Geographers, 87 (4), 660-680.
- Scott, A., 2002. Assessing public perception of landscape: the landmap experience. *Landscape Research*, 27 (3), 271-290.
- Shilling, C., 2003. *The body and social theory*. 2nd edn. Sage publications, Thousand Oaks.
- Soini, K., 2001. Exploring human dimensions of multifunctional landscapes through mapping and map-making. *Landscape and Urban Planning*, 57 (3/4), 225-239.
- Thompson, C.W., 1998. *Review of research in landscape and woodland perceptions, aesthetics and experience*. Landscape Design and Research Unit, College of Art, Edinburgh.
- Thrift, N., 1997. The Still Point: resistance, expressive embodiment and dance. *In:* Pile, S. and Keith, M. eds. *Geographies of resistance*. Routledge, London, 124-151.
- Thrift, N., 1999. Steps to an ecology of place. *In:* Massey, D., Allen, J. and Sarre, P. eds. *Human geography today*. Polity Press, Cambridge, 295-321.
- Thwaites, K., 2001. Experiential landscape place: an exploration of space and experience in neighbourhood landscape architecture. *Landscape Research*, 26 (3), 245-255.
- Tress, B. and Tress, G., 2003. Scenario visualisation for participatory landscape planning: a study from Denmark. *Landscape and Urban Planning*, 64 (3), 161-178.
- Tuan, Y.F., 1974. *Topophilia: a study of environmental perception, attitudes, and values.* Prentice Hall, Englewood Cliffs.
- Tuan, Y.F., 1993. *Passing strange and wonderful: aesthetics, nature, and culture.* Island Press, Washington.
- Whatmore, S., 1999. Hybrid geographies: rethinking the 'human' in human geography. *In:* Massey, D., Allen, J. and Sarre, P. eds. *Human geography today*. Polity Press, Cambridge, 22-41.

Wrightson, K., 2000. An introduction to acoustic ecology. Soundscape, 1 (1), 10-13.

Wylie, J., 2002. An essay on ascending Glastonbury Tor. Geoforum, 33 (4), 441-454.