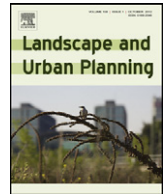




Contents lists available at [SciVerse ScienceDirect](#)

Landscape and Urban Planning

journal homepage: www.elsevier.com/locate/landurbplan



Perspective essay

Studying the preoccupations that prevent people from going into green space

Russell Hitchings

Department of Geography, UCL, London WC1E 6BT, United Kingdom

HIGHLIGHTS

- ▶ Argues for a fuller contextual appreciation of why people might not go to green spaces.
- ▶ Demonstrates the value of qualitative research on this topic through a study of city workers.
- ▶ Considers how the study was received and what future researchers might take from this.

ARTICLE INFO

Article history:
Available online xxx

Keywords:
Urban green space
Qualitative methods
Transactional approach
Public health

ABSTRACT

That urban green space can provide opportunities for psychological restoration which could prove valuable in promoting public health now seems relatively well established. What is less clear is whether many of us will continue to avail ourselves of these opportunities. Perhaps the question to pose is less one of whether green space experience can be good for people and more one of how best to tempt them there. This essay draws on a serial interview study with a sample of city professionals who ventured relatively infrequently into the various parks and gardens scattered around their offices. The aim is to stage a broader discussion about ways of researching those who seem happy to go without green space experience and the role of qualitative methods in questioning the most effective means of engaging with them.

© 2012 Elsevier B.V. All rights reserved.

1. Introduction

This essay considers the merits of a qualitative approach to questioning people about how their everyday sensibilities may be structured in ways that serve to dissuade them from spending time outside in green space. Though even short periods in the company of plants and trees often appear to provide some form of psychological restoration, many of us now find ourselves forgoing even these. My own sense is that more time in the landscaped square across the road from my office could be quite good for me. Yet I often forget about going there because I have somehow become otherwise preoccupied. Many others probably share comparable preoccupations and they therefore warrant attention. The recommendations that come from studying them could be especially worth heeding in order to ensure that city green spaces continue to play their part in fostering public health.

This, at least, was a cornerstone argument of a serial interview study I conducted with a sample of city professionals who often found themselves in exactly this position. The objective was to use this exercise to explore their weekday relationships with the outdoor environment better to understand, amongst other things,

the likelihood that they might ever venture into the various vegetated public areas scattered around their offices. My essay uses this project to shape a broader discussion about ways of questioning the links between the provision of urban green space and the promotion of public health. It begins with how my study related to some relevant previous work, then details two findings and how they were received, and ends with some broader thoughts regarding the objectives of this special issue.

2. Researching green space experience

The evidence base suggesting that green space experience can lead to various health benefits and forms of human restoration is now sizeable. Studies show how being outdoors within such spaces can play an important public health role since these environments incline people towards certain physical activities (Ewing, 2005) such that, for instance, many find themselves exercising for longer there than they otherwise would (Pennebaker & Lightner, 1980). Merely looking at vegetation appears to have a positive effect since views of greenery seem to speed recovery within hospitals (Ulrich, 1983) and prisoners with cells facing internal courtyards use medical facilities more than those overlooking fields further beyond (Moore, 1981). Just seeing trees and grass from apartment windows appears to help residents face the challenges of their lives and thereby reduce their aggression levels (Kuo & Sullivan, 2001).

E-mail address: r.hitchings@ucl.ac.uk

0169-2046/\$ – see front matter © 2012 Elsevier B.V. All rights reserved.
<http://dx.doi.org/10.1016/j.landurbplan.2012.09.006>

Please cite this article in press as: Hitchings, R. Studying the preoccupations that prevent people from going into green space. *Landscape Urban Plan.* (2012), <http://dx.doi.org/10.1016/j.landurbplan.2012.09.006>

All this is perhaps unsurprising when field tests show how contemplating vegetation can reduce blood pressure (Van den Berg, Hartig, & Staats, 2007) and improve both mood and self-esteem (Pretty, Peacock, Sellens, & Griffin, 2005). Wider publics seem to know this too (Van den Berg et al., 2007). When office workers must go without windows, they often hang pictures that include greenery (Bringslimark, Hartig, & Grindal Patil, 2011; Heerwagen & Orians, 1986), thereby combating angry feelings they may otherwise harbour (Kweon, Ulrich, Walker, & Tassunary, 2008), and many are clearly prepared to pay significantly more to live near vegetated environments (Martin, Warren, & Kinzig, 2004). Hartig, Mang, and Evan's (1991) claim that, on reviewing the evidence as a whole, green space experience appears good for people still seems to stand.

In terms of the mechanism involved, one leading argument is that being near to vegetation provides an important form of psychological respite (Kaplan & Kaplan, 1989; Kaplan, Kaplan, & Ryan, 1998). Here the suggestion is that such experiences help people recharge themselves mentally since contemplating the intricacies of vegetation can beguile us in a manner that temporarily allows us to transcend immediate worries and then return to our tasks refreshed (Han, 2009; Kaplan, 1993). Others work with the assumption of a fundamental connection between humans, plants and trees such that our shared history of co-existence inclines people to seek out the reassuring familiarity of the places in which we find these organisms (Lohr & Pearson-Mims, 2006; Summit & Sommer, 1999). Linked to biophilia (Kellert & Wilson, 1993), understood as the innate attraction humans may feel for natural processes, the belief here is that the desire for green space experience could be hard wired into people in some quite basic terms. The task accordingly becomes one of helping them respond to these desires. Such thinking underpins the currently popular argument that governments should provide green spaces within certain distances from where people live (see Boone, Buckley, Grove, & Sister, 2009; Natural England, 2010). The assumption here is that, if green spaces are available nearby, we should logically expect to see people going to them.

This line of research is valuable because, once these benefits have been demonstrated, champions of urban green spaces are much better armed to fight for their continued provision. As such, it is unsurprising to see these studies featuring more and more in policies hoping to realise the various public health benefits that could flow out of such spaces (Brown & Bell, 2007; Eden, 2009; Park, O'Brien, Roe, Ward Thompson, & Mitchell, 2011). Part of the reason why these arguments are so persuasive, however, is because the studies involved often permit themselves to draw conclusions about a generic human response. In other words, they seek to establish how people, frequently understood as a relatively undifferentiated category, experience these environments. This makes for persuasive advocacy because, when benefits appear to be derived by everyone, it becomes much harder to argue against facilitating them. Yet one downside to this style of research is that it necessarily sidelines important cultural factors associated with how different groups have come to live and what this means for whether they will really avail themselves of these benefits. Put simply, though various forms of human restoration appear to come from green space experience, whether different groups are inclined to submit to the processes that result in this restoration is another matter entirely. Furthermore, because many studies have sought to establish and evaluate these benefits in relatively general and abstract terms, we still know comparatively little about the reasons why many of us may be quite happy going without in the course of our everyday lives. Indeed, and building on this suggestion, there are various further ways in which commonplace modes of investigating this topic may impede a fuller appreciation of exactly these reasons:

- A first relates to the statistical approach that continues to predominate in this field. This is entirely understandable given the methodological background of many in environmental psychology and public health research. Yet it is also true that the statistical analysis of surveys can only ever provide a comparatively anaemic account of how everyday lives are lived and what this means for whether greater amounts of green space experience could feasibly infiltrate them. Because larger sample sizes are often prized, researchers have often had less time to linger with any of the individuals involved. Meanwhile, a more subtle sense of the pressures and preoccupations that characterise specific social groups could suggest positive interventions that may be all the more effective for having taken the time to achieve this sense.
- A second reason why less is known about how the subtleties of lived experience influence the likelihood that people will go into green space relates to the prevalence of techniques centred on visual preference and design. This focus is again understandable when audiences are often taken to be those in landscape architecture who may be eager to provide the most attractive and restorative scenes. Yet, by delimiting the discussion in this way, we blind ourselves to other aspects that could be just as significant in dictating whether people will end up looking at them. Parks and gardens may be made as visually appealing as we like but if, for other reasons entirely, people are not going there our endeavours are rendered redundant. Green space researchers might start instead with a more rounded sense of how particular groups have come to live and what this tells us about whether aspects of landscape design are indeed central to tempting them into these spaces. Put simply, we might benefit from beginning with the everyday lives of people, not the physical organisation of their parks.
- A third characteristic obscuring a fuller appreciation of why certain groups might be uninterested in green space experience relates to those who rarely venture into public parks. Many field studies of how people relate to urban green spaces observe those found within them. This is again understandable in terms of research pragmatics since doing so is easier than, for instance, calling in at their homes. Yet the implication remains that any resulting recommendations could merely be making these spaces more attractive to an atypical group. Meanwhile, the feasibly very different wishes and requirements of those who currently stay away remain hidden from view. This is despite the fact that these groups may be exactly those we should be targeting. Bluntly put, policies derived from studies of those already found within urban green spaces could be tinkering around the edge of some much more profound aspects of social change with regard to how and where wider populations spend their time – aspects to which researchers are currently oblivious because of the methods they have come to favour.
- A fourth also concerns the sampling choices of green space experience studies. Many involve students who are asked to respond to particular stimuli or state how particular environments make them feel. This is again understandable in terms of gaining efficient access to large numbers of respondents. Furthermore, if we believe ourselves to be evaluating processes that are shared by everyone, individual respondent characteristics should logically make little difference. There are studies of those who enjoy various green space pursuits like anglers or walkers. Yet asking those who initially seem less keen on green space about the pressures of their everyday lives could generate a more rounded appreciation of whether they too will respond to the positive green space feelings such studies have usefully evaluated.

All these concerns are, of course, not mine alone. In recent editions of this journal, various contributors have argued for more

culturally sensitive approaches to the experience of urban green space and the human restoration it potentially brings. For Ward Thompson (2011) we need to examine the ‘mechanisms’ through which people derive health benefits from landscape experience and how they vary for identified population segments (see also, Park et al., 2011). Though Stamps has shown students to respond to images of green space in similar ways to wider populations (1999), the details of how various mundane pressures may dissuade specific groups from seeking out such scenes is another matter entirely. Grinde and Grindal Patil (2009) pursue the contention that, though green space benefits seem to exist, we must stay mindful of their ‘penetrance’ in the sense that various social and cultural factors may effectively over-ride them in ways that render people unable to respond to the urge to derive these benefits. As Grah and Stigsdotter (2010) suggest, if we really want to ensure green spaces continue to reduce stress amongst city populations, we need to examine how people experience these spaces in more contextually sensitive and less visual ways (see also Jorgensen, 2011 or Gobster, 2011 on the latter point). In this sense, these scholars are moving in the direction of cultural studies of park access which question why some groups feel disinclined to enter these spaces because they have been subtly coded as places where they do not really belong (Byrne & Wolch, 2009).

That this special issue is partly devoted to expanding the repertoire of techniques used to question the links between green space and health testifies to interest in these ideas. This may therefore be quite a timely point at which to experiment with the conceptual and practical building blocks from which we assemble our studies of urban green space experience. This, at least, was the contention of a project in which I took a ‘transactional’ approach to these matters (Hartig, 1993) – one in which potentially innate responses to green space are examined alongside wider cultural imperatives that may either impede or amplify them (see also Staats & Hartig, 2004; Staats, Van Gemerden, & Hartig, 2010).

3. Good reasons for forgetting and avoiding urban green space

Arguments for grasping the nettle of investigating the cultural dynamics that serve to keep societies out of their green spaces occasionally surface in this field. Bixler and Floyd (1997) believe researchers should consider how human environments are increasingly engineered to meet specified levels of cleanliness and comfort such that outdoor green spaces can easily become places of dirt and disgust more than relaxing restoration. Pergams and Zaradic (2006) connect declining national park visits to the popularity of distractions like computer games, through others suggest the opposite since green space may provide a beneficial escape from otherwise media saturated homes (Worpole, 2000). Ward Thompson (2002) links these disinclinations to the stigma of lingering without purpose in public spaces within societies whose members must be seen to be doing something. Others consider whether green spaces now feel like unpalatable places of risk such that many do not go to them because of a lingering sense of them being insufficiently safe or sanitised (CABE, 2005; Skår, 2010).

There are clearly various intriguing mechanisms through which the everyday sensibilities associated with modern societies might be evolving in ways that make regular green space experience unappealing and what is especially laudable about these arguments is their willingness to think laterally about the factors involved. After all, as Herzog, Chen, and Primeau (2002) astutely observe, if many of us now under-appreciate the restorative effects of going into green space and prefer other preoccupations instead, the question becomes much less about establishing the potential benefits of these spaces and much more about ensuring people continue to

pick them. This may be especially so when recent studies suggest modern lifestyles encourage us to under-estimate these benefits, even though we still derive them when we eventually go (Nisbet & Zelenski, 2011).

Partly motivated by these suggestions, I recently embarked upon a serial interview project that examined the possibility of more green space experience infiltrating the working lives of a group who were generally quite removed from these environments. These were professional lawyers found in either the traditional financial heart of London or the newer business complex of Canary Wharf. Building on previous research considering how office workers relate to nearby green space (Kaplan, 1993) and novel arguments about how this sizeable group might be encouraged to take healthier and more restorative breaks (Hartig, 2006; Taylor, 2005), I sought fresh suggestions about how this might be done (for the most relevant material, see Hitchings, 2010a). I was particularly interested in whether my respondents would go into green spaces more than whether they looked at them through windows. It was also quite possible that weekends may have provided my respondents with valuable green space ‘inoculations’ (Hartig et al., 1991) to get them through the daily grind. Yet I was also most interested in the working week.

Through four long interviews at evenly spaced points over the course of one year, I questioned the working routines of a diverse sample of individuals from this group and whether they might be punctuated by more outdoor experiences. The background suggestion was that, because this group was generally busy, subject to certain workplace expectations, and occupied office environments that were generally kept at similar temperatures throughout the year, its members might provide a revealing test case in understanding lives that could be rather disconnected from the outdoor environment. According to their own reckoning, my respondents spent on average only around thirty minutes outside buildings per day during the working week. What did all this mean for the likelihood that they might venture outside into areas of nearby green space?

Such matters were not always easy to explore at the start. These were busy people, after all, and the reasons why they did, or did not, spend more time in parks could initially prove difficult to pause and evaluate when there were more pressing issues on their minds. Staging open discussion about urban green space experience with those who infrequently go there may also be difficult since this category of respondent may naturally feel they have little to say on the matter. This was compounded by my wish to start with a more general appreciation of their routines in a way that could easily have been taken to indicate a lack of research focus. Yet these were problems I had to face because I wanted to maximise on the promise of the serial approach in allowing the researcher, through repeated cycles of coding and analysing interview transcripts before returning with an increasingly pertinent set of questions, to reveal which factors had most bearing on the matter at hand. Nevertheless, once rapport was established, and once respondents were sufficiently persuaded of the merit of my study to devote their full attention, a collective examination of how they, along with their professional peers, lived with their outdoor spaces slowly became easier to stage. As the year passed, various aspects of their lives were explored in our conversations, before evaluating how each impacted on questions that included whether they might spend more time in outdoor green space and whether such experiences were particularly hankered after in light of their other preoccupations.

I will now outline two findings as a means of exemplifying what this approach can reveal. The first related to forgetting about the very idea of spending time outside. In this respect, the study concluded that advocates of regular green space experience overlook the power of personal routine at their peril in so far as, for this group

at least, once indoor habits were established, they often proved difficult thereafter to shake. This was over and above the pressure of deadlines and professional performance and much more about how they had assumed certain purposeful states during the working week that meant the idea of green space experience soon fell out of the frame. One important task might therefore be about finding ways to help the very notion of going outside insinuate itself into the consciousness of this group. Otherwise, as one respondent tellingly described it, even the large expanse of green space immediately outside her office could soon be viewed as a restorative resource for others only. She undoubtedly thought it important to provide people with easy access to these spaces. Yet, on reflection and through our discussions together, she came to appreciate how the power of personal routine rendered her unlikely ever to consider benefitting from them herself.

The second related to the perceived pitfalls of submitting to the processes involved in deriving restoration. Such restoration may very well be beneficial but, if people feel they should retain certain workplace dispositions, the processes leading up to it become problematic. For this reason, green spaces were sometimes deemed places that were best avoided in the course of the working day. The idea here was that it was better not to avail yourself of any such respite because, after having spent time in the park, for example, it could prove difficult subsequently to heave yourself back into the more determined mind-set felt necessary to embody professionalism. As another respondent described it, she would never spend lunchtimes outside in green space if she had a meeting afterwards and this was about much more than dirty environments or the potential arrival of sweat in summer. Rather the problem was that she would start to relax. Doing so would be pleasant but it would also undermine her sense of being an appropriately purposeful lawyer and this, she worried, would make her less likely to impress her clients. More generally, it was often thought better to push through the day and then really relax on returning home.

4. Policy suggestions and sampling suspicions

But what could be done with such findings and how were my results received? In terms of the former, on completing the project I distributed a policy report detailing various responses that might be made to this study (Hitchings, 2010b). With regard to more restorative green space experience featuring in the daily lives of this specific group, a first suggestion was that planners might do better to ensure spaces near their homes are well stocked with suitable greenery, rather than focussing on those near the workplace when those spaces could easily be overlooked and there were anxieties linked to the effects of encountering them. Taking a less fatalistic stance on the promotion of daytime outdoor relaxation, a second related to helping these workers remember the existence of these environments. Building on this suggestion, one body charged with the management of city parks in London has since been developing a mobile phone text service to remind such professionals when it might be particularly pleasurable or interesting to go into nearby green spaces because, for example, particular plants are flowering or entertainment is provided. The thinking here is that otherwise the idea of doing so is unlikely to arrive. By creatively working with the grain of city worker lifestyles, their hope is that, once jolted out of the usual routine, such workers may soon think about going to the park again.

So some relatively novel suggestions were made and there was, at least some, interest in these results. However, and turning to the latter, it would be wrong to paint such a rosy picture of my project dissemination. It was not always so easy to persuade people of the value of the study. Reservations commonly related to sample size. Though I had conducted and analysed over forty long

interviews, and though I had encouraged my respondents to reflect on the wider workplace norms and expectations faced by those in comparable city jobs and whether they were individually typical, still some immediately dismissed the study because the sample was felt to be too small. Though the approach logically requires picking a group with whom to explore the topic, it proved easy for potential critics to focus on the peculiarities associated with lawyers and how they might be subject to specific opportunities and constraints. This has some truth in it, of course, but a larger project adopting similar methods would have been costly and other office workers were likely to have much in common with my respondents in terms of workplace routine.

So, whilst this style of research has the potential to distil fresh suggestions about the most effective means of encouraging different groups to avail themselves of the restorative benefits linked to lingering amongst plants and trees, it can also be difficult to convince wider audiences of its merit. This was even though these suggestions could be especially effective at troubling such otherwise indoor existences by virtue of being derived from a detailed examination of how these existences are sustained and experienced. As such, though the enthusiasm of some audiences was encouraging, further researchers of this stripe should probably prepare for their findings being both unfamiliar and unsettling to others who continue to prize larger samples that seem more superficially scientific or chime with more familiar renderings of research rigour. One way around this, of course, would be to test out the insights of such smaller studies in projects with much bigger samples. Another would be to recognise the advantages of qualitative work in challenging commonplace ways of framing the question and generating new ideas about the factors worth considering in future policy. For the moment, however, it may be worth remembering that, despite calls for creativity in studies of green space and health, many of those we hope to influence may remain happier with more established methods. There is more work to be done in ensuring a full range of techniques are used to produce the most sophisticated sense of how to facilitate restorative green space experience.

5. Intervening in health

This special issue positions urban green space as having the potential to make interventions which could feasibly lead to improved public health. This strikes me as a very promising way of framing the process in the sense that green spaces, along with the human benefits that potentially flow out of them, are positioned as features that must make an effort. In other words, this characterisation hints at how these spaces must do battle with wider cultural trends in order to continue supplying these benefits. No longer are they resources simply to be provided, safe in the assumption that societies will then naturally drift into them. Instead we might prefer to think about helping our green spaces tug at the sleeves of everyday routines that otherwise carry people through life in ways that render them relatively indifferent to the idea of spending time within these spaces. In this sense, the challenge is potentially much more about actively pulling people into areas of urban green space than providing well designed parks and gardens and then hoping for the best. The question then is how best to go about this.

As one way of responding, my study sought to put some qualitative flesh on the bones of a 'transactional' mode (Hartig, 1993) of researching the links between the benefits of urban green space, the dynamics of everyday life, and the promotion of public health. There is now sufficient evidence to be relatively confident about the psychological restoration that can result from being in green space. But how easy it is for identified groups to insert such experiences into their everyday lives? Qualitative strategies, such as that

described here, should be especially adept at answering this slightly different and less often asked question. It may not always be easy to persuade our audiences of the value in this undertaking and there will be challenges associated with practical implementation. Nevertheless my view is it may well be worth making more use of these strategies to understand how various lives are now lived, focusing on infrequent green space visitors as much as those who are often there, and thereby identifying recommendations which could relate to landscape design, but which could also relate to other matters entirely. The point is to wait and see what a subtle appreciation of the lifestyles involved tells us about the most effective means of promoting green space experience.

Further work in this vein might focus on young people who somehow find themselves playing inside on computers instead of outside in parks, recreational runners who somehow find themselves inside on treadmills instead of outside on tracks, or other city dwellers who somehow find themselves catching up inside shopping centres instead of outside on benches. My more general contention, however, is that researchers interested in promoting restoration through green space experience should not shy away from such developments because studying them may require comparatively unfamiliar methods. This is because, as I have hopefully exemplified in this essay, various mundane preoccupations can make it quite easy to forget about the idea of going into green space even though the people involved may be otherwise well aware of the restorative benefits that often follow.

Acknowledgements

The project discussed in the paper was funded by the ESRC (Ref: RES-000-22-2129-A). Thanks to the anonymous reviewers for their helpful suggestions and to Beck Collins, Alan Latham and Dasha Maljutina for editing and more general advice.

References

- Bixler, R., & Floyd, M. (1997). Nature is scary, disgusting and uncomfortable. *Environment and Behavior*, 29, 443–467.
- Boone, C., Buckley, G., Grove, J., & Sister, C. (2009). People and parks: An environmental justice enquiry in Baltimore, Maryland. *Annals of the Association of American Geographers*, 99, 767–787.
- Bringslimark, T., Hartig, T., & Grindal Patil, G. (2011). Adaptation to windowlessness: Do office workers compensate for a lack of visual access to the outdoors? *Environment and Behavior*, 43, 469–487.
- Brown, T., & Bell, M. (2007). Off the couch and on the move: Global public health and the medicalisation of nature. *Social Science and Medicine*, 64, 1343–1354.
- Byrne, J., & Wolch, J. (2009). Nature, race, and parks: Past research and future directions for geographic research. *Progress in Human Geography*, 33, 743–765.
- Commission for Architecture and the Built Environment. (2005). *What are we scared of? The value of risk in designing public space*. London: Author.
- Eden, S. (2009). Environmental solutions. *Environment and Planning A*, 41, 2037–2040.
- Ewing, R. (2005). Can the physical environment determine physical activity levels? *Exercise and Sport Science Review*, 33, 69–75.
- Gobster, P. (2011). Landscape and urban planning at 100: Looking back and moving forward. *Landscape and Urban Planning*, 100, 315–317.
- Grahn, P., & Stigsdotter, U. (2010). The relation between perceived sensory dimensions of urban green space and stress restoration. *Landscape and Urban Planning*, 94, 264–275.
- Grinde, B., & Grindal Patil, G. (2009). Biophilia: Does visual contact with nature impact on health and well-being? *International Journal of Environmental Research and Public Health*, 6, 2332–2343.
- Han, K.-T. (2009). Influence of limitedly visible leafy indoor plants on the psychology, behaviour, and health of students at a junior high school in Taiwan. *Environment and Behavior*, 41, 658–692.
- Hartig, T. (1993). Nature experience in transactional perspective. *Landscape and Urban Planning*, 25, 17–36.
- Hartig, T. (2006). Where best to take a booster break? *American Journal of Preventive Medicine*, 31, 350.
- Hartig, T., Mang, M., & Evans, G. (1991). Restorative effects of natural environment experience. *Environment and Behavior*, 23, 3–26.
- Heerwagen, J., & Orians, G. (1986). Adaptation to windowlessness: A study of the use of visual décor in windowed and windowless offices. *Environment and Behavior*, 18, 623–639.
- Herzog, T., Chen, H., & Primeau, J. (2002). Perception of the restorative potential of natural and other settings. *Journal of Environmental Psychology*, 22, 295–306.
- Hitchings, R. (2010a). Urban green space from the inside out: An argument for the approach and a study with city workers. *Geoforum*, 41, 855–864.
- Hitchings, R. (2010b). *Indoor office workers and outdoor nature*. Policy report. Available from author.
- Jorgensen, A. (2011). Beyond the view: Future directions in landscape aesthetics research. *Landscape and Urban Planning*, 100, 353–355.
- Kaplan, R. (1993). The role of nature in the context of the workplace. *Landscape and Urban Planning*, 26, 193–201.
- Kaplan, R., & Kaplan, S. (1989). *The experience of nature: A psychological perspective*. New York: Cambridge University Press.
- Kaplan, R., Kaplan, S., & Ryan, R. (1998). *With people in mind: Design and management of everyday nature*. Washington: Island Press.
- Kellert, S., & Wilson, E. O. (1993). *The biophilia hypothesis*. Washington: Island Press.
- Kuo, F., & Sullivan, W. (2001). Environment and crime in the inner city: Does vegetation reduce crime? *Environment and Behavior*, 33, 343–367.
- Kweon, B.-S., Ulrich, R., Walker, V., & Tassunary, L. (2008). Anger and stress: The role of landscape posters in an office setting. *Environment and Behavior*, 40, 355–381.
- Lohr, V., & Pearson-Mims, C. (2006). Responses to scenes with spreading, rounded, and conical tree forms. *Environment and Behavior*, 38, 667–688.
- Martin, C., Warren, P., & Kinzig, A. (2004). Neighborhood socioeconomic status is a useful predictor of perennial landscape vegetation in residential neighborhoods and embedded small parks of Phoenix, AZ. *Landscape and Urban Planning*, 69, 355–368.
- Moore, E. (1981). A prison environment's effect on health care service demands. *Journal of Environmental Systems*, 11, 17–34.
- Natural England. (2010). *'Nature nearby': Accessible natural greenspace guidance*. Author: London.
- Nisbet, E., & Zelenski, J. (2011). Underestimating nearby nature: Affective forecasting errors obscure the happy path to sustainability. *Psychological Science*, 22, 1101–1106.
- Park, J., O'Brien, L., Roe, J., Ward Thompson, C., & Mitchell, R. (2011). The natural outdoors and health: Assessing the value and potential contribution of secondary public data sets in the UK to current and future knowledge. *Health and Place*, 17, 269–279.
- Pennebaker, J., & Lightner, J. (1980). Competition of internal and external information in an exercise setting. *Journal of personality and social psychology*, 39, 165–174.
- Pergams, O., & Zaradic, P. (2006). Is love of nature in the US becoming love of electronic media? 16-Year downtrend in national park visits explained by watching movies, playing video games, internet use, and oil prices. *Journal of Environmental Management*, 80, 387–393.
- Pretty, J., Peacock, J., Sellens, M., & Griffin, M. (2005). The mental and physical health outcomes of green exercise. *International Journal of Environmental Health Research*, 15, 319–337.
- Skär, M. (2010). Forest dear and forest fear: Dwellers' relationships to their neighbourhood forest. *Landscape and Urban Planning*, 98, 110–116.
- Staats, H., & Hartig, T. (2004). Alone or with a friend: A social context for psychological restoration and environmental preferences. *Journal of Environmental Psychology*, 24, 199–211.
- Staats, H., Van Gemerden, E., & Hartig, T. (2010). Preference for restorative situations: Interactive effects of attentional state, activity-in-environment, and social context. *Leisure Studies*, 32, 401–417.
- Stamps, A. (1999). Demographic effects in environmental aesthetics: A meta-analysis. *Journal of Planning Literature*, 14, 155–175.
- Summit, J., & Sommer, R. (1999). Further studies of preferred tree shapes. *Environment and Behavior*, 31, 550–576.
- Taylor, W. (2005). Transforming work breaks to promote health. *American Journal of Preventive Medicine*, 29, 461–465.
- Ulrich, R. (1983). View through a window may influence recovery from surgery. *Science*, 420–421.
- Van den Berg, A., Hartig, T., & Staats, H. (2007). Preference for nature in urbanized societies: Stress, restoration and the pursuit of sustainability. *Journal of Social Issues*, 63, 79–96.
- Ward Thompson, C. (2002). Urban open spaces in the 21st century. *Landscape and Urban Planning*, 60, 59–72.
- Ward Thompson, C. (2011). Linking landscape and health: The recurring theme. *Landscape and Urban Planning*, 99, 187–195.
- Worpole, K. (2000). Regaining an interior world. *Landscape Design*, 289, 20–22.

Russell Hitchings investigates everyday practices in contemporary cities and what they tell us about the changing ways in which people relate to different elements of the natural world. The wider aim is to contribute to our understanding of how societies could be better organised in terms of both resource use and social wellbeing.