

**The experience of landscape – understanding responses to  
landscape design and exploring demands for the future**

*by*

Catharine Ward Thompson

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## **Abstract**

The research that forms this thesis is a portfolio of seven published papers together with a critical review, set out below, which gives a general overview of all the work. The work covers a period from the 1990s until 2008, with publication dates spanning a decade.

The research has developed from an early interest in exploring the nature of landscape experience, responses to past and contemporary landscape designs, and what benefits people might gain from engaging with such landscapes. It has also reflected a desire to raise standards of scholarship and research in landscape architecture. The portfolio of work addresses three broad themes, interconnected but requiring different approaches in terms of method: the distinctiveness of place and design responses to it; design of public open space for the 21<sup>st</sup> century; and understanding people's engagement with the natural environment.

The research addresses the following questions and is presented under these headings, each representing a different strand or focus of attention.

- a) History, prototypes and local distinctiveness: what is the role of historic design prototypes in contemporary landscape architecture and how can an understanding of them enhance sensitivity to local distinctiveness in new design?
- b) Urban open space: how can an understanding of the history of landscape design inform the way urban open space is designed, planned and managed in the 21<sup>st</sup> century and what new paradigms might there be?
- c) Experiencing the landscape: how do people perceive, use and respond to green landscapes in their local environment, and what factors influence engagement with and benefit from such natural environments?

The outputs in this portfolio are shown to have influenced other researchers as well as policy makers and practitioners; they are reflected in citations of the work and in government agency initiatives to develop new approaches to

accessing the landscape. Finally, a conceptual framework is offered for understanding and responding to people's diverse experiences of landscape.

## **Acknowledgements**

I am grateful to Edinburgh College of Art for giving me the opportunity and context to undertake this research and to colleagues with whom I've had the pleasure to work on collaborative ventures, especially Peter Aspinall. I thank my tolerant and wise supervisor, Iain Boyd Whyte, for his good humour throughout. Finally, I thank Henry Thompson and my children for their unstinting support, as ever.

**Declaration of authorship**

This thesis has been composed by myself. The work in the portfolio of research publications included as part of this thesis is either entirely my own or a substantial contribution to the work of a research group; in the latter case my contribution has been clearly indicated. The work in this thesis has not been submitted for any other degree or professional qualification.

**Note on Permissions**

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# 1. Introduction



## 1. Introduction

The portfolio of seven published papers that form the main body of this thesis, listed in chronological order, is as follows:

Ward Thompson, C. (1998a) International Prototypes and Local Identity: the walled garden of Scotland as heritage landscape, *International Journal of Heritage Studies* 4 (2), pp 64-72

Ward Thompson, C. (1998b) Historic American Parks and Contemporary Needs, *Landscape Journal* 17 (1), pp 1-25

Ward Thompson, C. (2002) Urban open space in the 21<sup>st</sup> century, *Landscape and Urban Planning* 60 (2), pp. 59-72

Ward Thompson, C., Aspinall, P., Bell, S. and Findlay, C. (2005) "It Gets You Away From Everyday Life": Local Woodlands and Community Use – What Makes a Difference? *Landscape Research* 30 (1), pp. 109-146

Ward Thompson, C. (2006a) Patrick Geddes and the Edinburgh Zoological Garden: Expressing Universal Processes Through Local Place, *Landscape Journal* 25 (1), pp. 80-93

Ward Thompson, C. (2007a) Complex Concepts and Controlling Designs: Charles Jencks' Landform at the Scottish National Gallery of Modern Art, Edinburgh, *Journal of Landscape Architecture*, 3, Spring 2007, pp. 64-75

Ward Thompson, C., Aspinall, P. and Montarzino, A. (2008) The Childhood Factor: Adult Visits to Green Places and the Significance of Childhood Experience, *Environment and Behavior*. 40 (1), pp. 111-143

The critical review that follows gives an overview of the research and its contribution to knowledge and understanding.

Section 2 sets out the background to the development of my research, explains the trajectory of research interests and sets the work contained in this thesis in broad context.

Section 3 describes the theoretical foundations for my work in the light of current overviews of theory in landscape architecture. It sets out the key theories that have informed research methods in my work, drawn from a range of disciplines.

Section 4 sets out the research aims for the work presented here and explains how the publications are considered in more detail under three sub-headings relating to these aims:

- d) History, prototypes and local distinctiveness
- e) Urban open space – analysing the past and planning the future
- f) Experiencing the landscape – people and nature:

Sections 5, 6 and 7 take each of these research strands in turn and describe the background and context for the work, the objectives and methodology, and the results. The background and context section explains the scholarly and public policy initiatives and pressures to which the research has responded and, in turn, contributed. The objectives and methodology are distinctive for each strand and described accordingly, including an indication of my contribution to the work where there is multiple authorship of papers. The results section in each case gives an overview of the more detailed findings presented in each of the papers grouped under each heading.

Section 8 provides evidence of the ways in which the research has made an impact and contributed to knowledge and understanding as well as policy and practice in landscape architecture.

Section 9 concludes the critical review, showing how the work forms a diverse but coherent whole and suggesting a conceptual framework within which the findings might contribute to a better understanding of landscape experience and responses to this experience in policy and practice.



## **2. Background to development of a programme of research**



## 2. Background to development of a programme of research

My research in landscape architecture has developed from an early interest in exploring the nature of landscape experience, how this experience influences our emotions, behaviour and perceptions, and what benefits we derive from it. I saw the enquiry as broadly encompassing, rather than narrowly focused, taking advantage of opportunities as they arose in my academic and professional life and grounded in methods that evolved from the research context. As an educator, I looked for opportunities to inform the pedagogy of the discipline, to enhance ways of learning about and understanding landscape architecture. I was keen to contribute to "raising the standards of scholarship and research, while maintaining both a diversity of approaches and some sense of relevance to real-world design - the bettering of the human environment", as the editor of *Landscape Journal*, Bob Riley, put it in the 1990s (Riley, 1990, p. 47).

My research continues to be inspired by the positive experiences that engagement with the landscape may engender, and the benefits that arise from good landscape design, planning and management. Nonetheless, I am conscious of the many poorly planned, badly designed and neglectfully managed landscapes that exist. Landscape architects and those commissioning their work have frequently relied on a patchy evidence base, at best, to support their work. Many claims are made about the positive results of landscape design interventions without any rigorous attempt to gather evidence on whether this is really the case or to identify mistakes and share the learning from them. My work has targeted this evidence gap and the lack of methodical approaches to gathering evidence. Laurie Olin reinforces this point in his Foreword to the first book I co-edited on *Open Space: People Space* (2007): "the twentieth century has experienced widespread examples of both the best and worst of these [landscapes]... How could nations that have so many trained professionals have produced such banal, dysfunctional, unsupportive ... environments?" (Olin, 2007, p. xii). His trenchant critique goes on to say that these problems arise "... in part from

ignorance regarding human needs and behaviour” (p. xii), before identifying the importance of landscape research in the last two decades or so by a number of scholars (myself included) whose work has “...looked at the design of open space and human behaviour, asking what do people do? Why? What do they think about their spaces, their lives and their quality? What works and what doesn’t?” (p. xiv). This nicely underlines my approach to research in landscape architecture, and some of the reasons for it.

Through my research, I want to understand better what human experience of the landscape is grounded in, what our diverse social and cultural milieu offers and demands of landscape architecture, how the natural world sustains a habitat for human nature, and how the landscape might offer an enriching aesthetic environment in which humans can flourish. It has been exciting, as well as demanding, to contribute to research in this field, given landscape architecture’s place as a comparatively new academic discipline in the modern world, and I have sought out theories, approaches and methods from a number of directions to support the foundations and build the body of work presented here.

Landscape architecture engages with physical, biological and social sciences as well as with art and design, history and the humanities. It is in the nature of landscape architecture that it is integrative, that it transcends particular research paradigms, that it borrows from other disciplinary methodologies and that it has few methodologies specific to its own discipline. This is both strength and weakness, opportunity and challenge. Few researchers can be expert in depth across a number of very different theoretical approaches and their practical applications. For this reason, much good, empirical work in landscape architecture is undertaken in multidisciplinary teams. My earliest research projects built on the expertise of others, particularly in environmental psychology, to inform and enhance methodologies and interpretations appropriate for developing work in my own discipline. As my understanding of pedagogy, scholarship and the needs of the academy evolved, I developed a more distinctive approach, searching within and between paradigms and methodologies to find appropriate ways forward, in



the pursuit of improved rigour in landscape architecture research. In recent years, as I have built up a portfolio of grants and a team of researchers to work with me in the OPENspace Research Centre, my research again draws on collaborative and multidisciplinary team working, which is reflected in some of the more recent publications presented here.

The focus of my research remains landscape experience and the ways our understanding of this may drive and inform, as well as respond to, public policy and practice. It is interesting to note that, when the OPENspace research centre was first established in 2001 (with a Strategic Research Development grant from the Scottish Higher Education Funding Council, reflecting the fact that OPENspace's aims were seen as addressing Scotland's future needs), research funders had little understanding of how landscape architecture might play a role in social inclusion, access to health and quality of life benefits, and the development of the Scottish tourist industry. They requested an addendum to our grant application clarifying exactly what landscape architecture might have to do with these laudable aims in our proposal! And when we sought further funding from public agencies and research councils to undertake research on the links between green space and health, we found no takers at that time. Yet by 2003 there were national, publicly funded agencies in England (CABE Space) and Scotland (Greenspace Scotland) focused on championing the cause of good quality public space in people's everyday lives, and by 2008 the Scottish Government was prepared to fund a major research project on the links between the quality of green space experience and human health and wellbeing (SSAP, 2007), in which I am a co-investigator. My research and that of OPENspace under my directorship has contributed to this change in understanding; we have worked for these and other public bodies and my publications include not only peer-reviewed journal papers such as those presented in this portfolio but also a number of reports for government agencies that have informed public policy development.

The research presented here draws on, and contributes to, a common body of theory and conceptual underpinning relating to engagement with the

landscape. The details of objectives, methodologies and analytical tools used in my work are more diverse, and are discussed in more detail in subsequent sections. First, the theoretical background is described to set the scene for the evolution of the portfolio of research that constitutes this thesis.



### **3. Theoretical Background**



### 3. Theoretical background

Swaffield (2002) edited one of the first books to attempt a survey of 20<sup>th</sup> century landscape architecture theory: *Theory in Landscape Architecture, a Reader*. It harks back to the 1950s but most contributions date from the 1980s and 1990s. In it, he identifies three broad roles for theory in the discipline:

- a) *instrumental theory*, based in empirical observation but with the principal aim of generalising and codifying knowledge as a basis for practical action;
- b) *critical theory*, contingent upon circumstance, history and, in particular, the social and political setting, challenging and even disruptive of current views of the landscape and of landscape architecture as an agent;
- c) *interpretive theory*, drawing on the hermeneutic tradition and attempting to understand and explain without necessarily aiming for control or change.

My research has drawn on theory from all of these categories. An early focus on instrumental approaches and associated methods that could provide a basis for practice and for educating practitioners led to a broader enquiry into interpretation and in particular into the phenomenological tradition of Merleau-Ponty (1962) and others to address the phenomena of landscape experience. At the same time, critical theory has both informed my work in a number of areas and, in turn, has been informed by it.

A research project from the early 1990s involved studying ways to enhance school playground design through research with primary school children, aimed at understanding their perceptions, needs and aspirations, which were then compared and contrasted with teachers' engagement with the playground landscape (Ward Thompson, 1995; 1998c). As Little (1980) and others have argued, it is essential to enquire into children's own particular perceptions and mental constructs in order to understand the environment from a child's perspective. The theoretical basis for my research here lay in Merleau-Ponty's phenomenology: to observe a distinction between space as

it may be objectively defined and space as it is encountered, starting with the body as the primary reference from which all perception and spatial reference is derived (Merleau-Ponty, 1962). His notions of 'lived space' and 'lived body' emphasise that perceiver and perceived inhabit the same space, with the body at the centre of the experience, determining the directional axes and existential distance. This is an important basis from which to consider work on childhood experience, resonating with Bronfenbrenner's approach to children and their developmental needs. Bronfenbrenner's human ecology theory, drawing on the work of Vygotsky and others (Bronfenbrenner, 1979; 2005), also identifies the individual human as the focus around which nested ecological systems are located. Such models have proved valuable to researchers in a number of disciplines relevant to landscape architecture, and in relation to people of all ages and contexts, from the ecological psychology of Gibson (1979) and others (e.g. Heft, 2010), with its emphasis on 'affordance' and the reciprocal relationship between perceiver and environment (discussed further below), to the socio-ecological models of behaviour change that underlie recent work on physical activity and health (Bauer, 2003; Bull et al, 2010) and emphasise the individual, societal and environmental context in which human behaviour takes place.

Affordance theory, as initially developed by James Gibson (1979) and his wife, Eleanor (see for instance E. Gibson, 2000), links environment and human behaviour, or opportunities for action. Heft (2010) describes affordances as "perceptible properties of the environment that have functional significance for an individual" (Heft, 2010, p. 18). He highlights the importance of the concept as a relational one, being about the *relationship* of an organism to an environmental property. He has set out the basis for affordance theory in the psychology of environmental perception and highlights its value in understanding how environments are experienced dynamically by users in the course of action, an insight of key relevance to investigating human behaviour in the landscape. As Appleton has put it more succinctly, for any individual considering their landscape context, it helps us understand "what's in it for me?" (Appleton, 1975).

As Tuan (1974) and Norberg-Schultz (1980) have emphasised, a phenomenological approach is necessarily a situated approach, responsive to place and context. But it must also be situated in the person, as we have seen above. Kelly's personal construct psychology (PCP) offers an approach to this (Kelly, 1955). There is evidence in the literature that our actions are based on 'pre-conscious' factors (Eiser, 1986); this is essentially a phenomenological concept and has been explored by philosophers (Berleant, 1992), psychologists (Nasar, 1988; Purcell et al., 1994; Bruce et al, 1996) and designers (Norberg-Schulz, 1980). Kelly's PCP offers a way of enabling pre-conscious factors to be raised to the level of consciousness so that they can be recorded and inform our understanding of people's response to place.

Kelly believed human behaviour to be based on individual constructions of reality rather than on direct contact with reality - whatever that may turn out to be. PCP takes as its premise the idea that we mediate reality through 'constructions' which influence how we perceive reality and how we respond to it. The construct system is like a pair of spectacles that not only filters information (for example, what we see and how we see it) but also influences our future expectations. The system consists of two components: elements such as objects, events, places and people; and constructs that operate on this field of elements, allowing us to discriminate between them and providing the basis for choices, judgements and actions. These 'takes' on reality are fundamental to thinking and making sense of the world as we experience it. According to a Kellyian view, such constructions offer a representative model which is built up and modified over time, through experience. While some psychologists and aestheticians might challenge this model, one strength of PCP is its grounding in empirical evidence. Kelly and his followers (e.g. Little, 1983) have emphasised the importance of asking people for their views and responses, rather than simply observing them, in researching engagement with the environment. PCP techniques facilitate the exploration of constructs relevant to people's experience of, and behaviour in, the environment by eliciting responses that tap into pre-conscious factors. The research project I undertook in the early 1990s on primary school playgrounds used a projective approach based on Kelly's theories and

principles and gave me a grounding in empirical methods for data collection and analysis (Ward Thompson, 1995; 1998c). The findings were shown to be different from those generated by more conventional methods (Ward Thompson, 1995) and were intended to inform landscape design practice.

My research at this time was also informed by an interest in the importance of prototypes or solution types in illuminating the way we perceive, understand and plan our environment. Purcell (1987) has provided evidence that we learn from our experience of existing landscapes by storing the information in relation to remembered prototypes. In other words, our mental constructs (as proposed by Kelly) for understanding the landscape accumulate around prototypical examples. An early publication on teaching the history of landscape design to landscape architecture students (Ward Thompson and Aspinall, 1996) articulated how Piaget's theories of education and an understanding of landscape prototypes might be used to engage students more effectively. It also set out a conceptual underpinning for the design process and the nature of creativity within this process, drawing on the work of Piaget (1971), Hillier *et al.* (1972) and Schön (1983). Hillier and colleagues discuss how design creativity comes from exploring the opportunities inherent in solution types and what they call "the latencies of the instrumental set" (Hillier *et al.*, 1972), in other words, the potential in materials and technologies available. "Non-reflexive" creativity, according to these authors, explores the opportunities inherent in existing understandings of these, and some of the most sophisticated designs in history have arisen from highly refined and increasingly skilled developments of this kind. "Reflexive" design creativity, on the other hand, is described by Hillier *et al.* as involving novel combinations of solution types and materials or technologies. This echoes reflections by Koestler (1964, quoted in Bourassa, 1991) and others on the nature of innovation, coming from the creative combination of elements or frames of reference that are pre-existing and known but which have previously been considered incompatible. A thorough knowledge of existing and past design vocabulary is necessary, therefore, in order to be creative in the future. This work reinforced



conclusions by Schön (1983) and Olin (1988) on the importance of landscape design prototypes (Ward Thompson, 1996b).

Such theories provide the underpinning for my research and have energised my explorations in various directions, as I have sought to understand different aspects of landscape, place and experience. I have recognised the need to be flexible and to choose methods appropriate to different lines of enquiry. There are multiple strands to my work that have run in parallel, constantly informing each other but at times inhabiting rather distinct research domains.





## 4. Research Aims

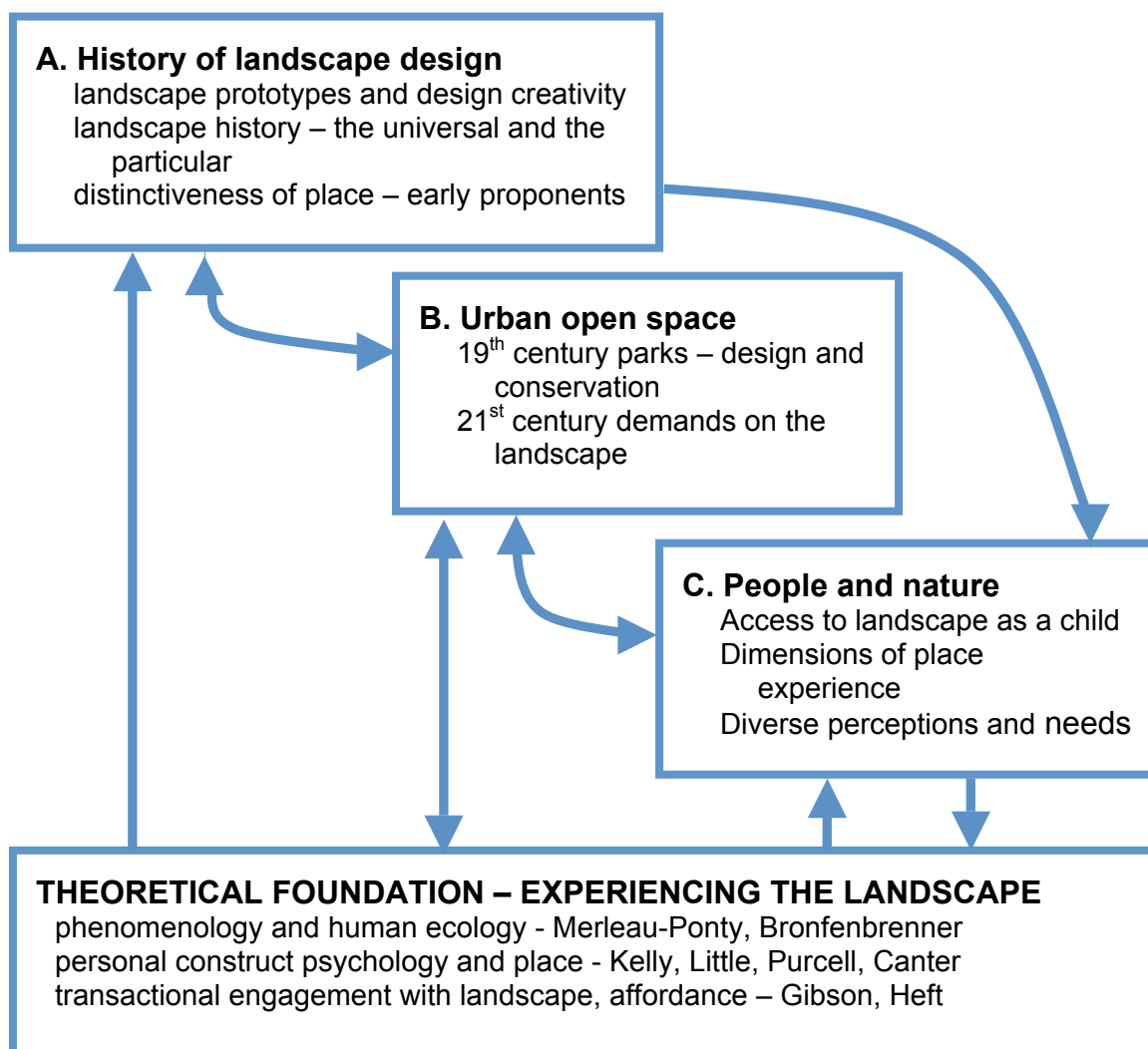


## 4. Research Aims

The portfolio of research presented for this thesis addresses three broad research foci, interconnected but requiring different approaches in terms of method: the distinctiveness of place and design responses to it; design of public open space for the 21<sup>st</sup> century; and understanding people's engagement with the natural environment. The first theme has generated a rigorous approach to critical review of landscape design through a proper understanding of history and context. This has informed the second theme, whose focus is the analysis of recent and current paradigms used in landscape architecture practice in order to project future directions and recommend innovative approaches. The third theme builds on the first two, using multidisciplinary approaches to address the challenges of understanding diverse people's landscape needs and desires in the context of rapidly changing lifestyles and an ageing, increasingly urban demographic. Figure 1 is an illustration of these themes and the way each builds on and contributes to the others, as well as to the underlying theory.

The research in this portfolio of work therefore aims to address the following broad questions.

- g) **History, prototypes and local distinctiveness:** what is the role of historic design prototypes in contemporary landscape architecture and how can an understanding of them enhance sensitivity to local distinctiveness in new design?
- h) **Urban open space – analysing the past and planning the future:** How can an understanding of the history of landscape design inform the way urban open space is designed, planned and managed in the 21<sup>st</sup> century, and what new paradigms might there be?
- i) **Experiencing the landscape – people and nature:** how do people perceive, use and respond to green landscapes in their local environment, and what factors influence engagement with and benefit from such natural environments?



**Figure 1. Three foci for research and the underlying theory**

In order to address these aims, a number of more specific objectives were identified and methods chosen appropriate to addressing each. While there are over-arching themes and resonances between the research strands, to which I will return in the conclusion, the objectives, methodology and principal results are critically reviewed here in three sections, matching the aims above.







## 5. History, prototypes and local distinctiveness

### 5.1 Background and context

Research under this theme arose from an interest in articulating the purpose of studying history and context as a key to contemporary landscape architecture education and future practice. My earlier publications on teaching the history of landscape design to landscape architecture students (Ward Thompson and Aspinall, 1996, Ward Thompson 1996) emphasised, *inter alia*, the importance of developing a vocabulary for design through studying historical exemplars and design solutions, at all scales, and relating these to the students' lived experience of landscapes wherever possible. My approach also demanded an understanding of process and place. Some processes that affect the landscape are international in their influence, be they social, biophysical or economic in their origin. As they affect the landscape, their products are in turn modified by local culture and biogeography. So it is necessary to understand the local, the specific, the place-bound as well as the mobile (and increasingly international) currency of society and culture as well as large-scale natural processes. In the language of Geddes (1915), this approach might be seen as using the lens of 'Folk/Work/Place' to examine the evolution of the landscape at all scales and to develop models such as his Valley Section (Tyrwhitt, 1968; Welter, 2002) for understanding underlying patterns and principles; but always, at its heart, is a sense of place in the specifics of locality. This kind of systematic approach to landscape history education for designers has been articulated by Bob Riley, a pioneer of the landscape architecture academy (Riley, 1995). He has noted how landscape history involves observing processes of change in a particular place or across landscapes of a particular type. He suggested that relevant questions for designers and planners to ask are: what is universal in the human response to and modification of the landscape, what is bound to the physical or cultural geography of the landscape, and what is particular to a local place and/or time? Such questions inform the research presented here.

The papers in the portfolio of work relevant to this section are as follows:

Ward Thompson, C. (1998a) International Prototypes and Local Identity: the walled garden of Scotland as heritage landscape, *International Journal of Heritage Studies* 4 (2), pp 64-72

Ward Thompson, C. (2006a) Patrick Geddes and the Edinburgh Zoological Garden: Expressing Universal Processes Through Local Place, *Landscape Journal* 25 (1), pp. 80-93

Ward Thompson, C. (2007a) Complex Concepts and Controlling Designs: Charles Jencks' Landform at the Scottish National Gallery of Modern Art, Edinburgh, *Journal of Landscape Architecture*, 3, Spring 2007, pp. 64-75

## **5.2 Objectives and methodology**

The objectives of the research set out in these papers are a further articulation of the first broad aim for the thesis, which is to explore the role of historic design prototypes in contemporary landscape architecture and to ask how an understanding of them might enhance creativity and sensitivity to place and local distinctiveness in new design. The objectives were:

- (i) to explore the local expression of certain international landscape design prototypes (the walled garden, the zoological garden, the sculpted earth mound) in the Scottish and UK contexts and in certain periods in history;
- (ii) to examine how successful particular designs or redesigns are in articulating and developing the prototype;
- (iii) to study how the particularities of place, time and culture have, in turn, influenced the definition and development of the prototype;
- (iv) to critique how such prototypes are considered within today's planning, design and conservation system.

The methods used in these studies are principally those of historical research, based on archival search of primary materials as well as critical review of secondary materials and sources. Such an approach recognises the interpretive nature of design and research into design history, where the

horizon of cultural meaning today may be the result of an accretion of past understandings, building and sometimes modifying the original intention or its expression (Corner, 1991; Crotty, 1998). Thus, the comments of designers, where relevant and available, have been (selectively) drawn upon, as have those of other critics and commentators.

### **5.3 Results**

In 'International Prototypes and Local Identity: the walled garden of Scotland as heritage landscape' (Ward Thompson, 1998a), the results illustrate the increasingly sophisticated use of walls as a means to modify microclimate and create benign growing conditions, from the planticrues (kailyards) of Shetland to the grand, 19<sup>th</sup> century powerhouses of flower, fruit and vegetable production for the country estate. Variations in detail of scale, construction and use are presented as evidence of the walled garden or enclosure as a Scottish design prototype, used in traditional ways into the early 20<sup>th</sup> century.

A critique is also made of recent approaches to design of new gardens and associated housing, and to conservation of existing walled gardens, many of which survive as semi-derelict remnants from the 19<sup>th</sup> century. Recent conservation of walled gardens tends, mistakenly, to focus only on the wall as artefact rather than on the walled enclosure (along with the shelter planting that usually surrounds it) as a space which is rich in soil (and often in old fruit varieties), beneficent in microclimate and whose value is as an outdoor space for plant cultivation and pleasurable use. To build within the walls, or to remove, compact or otherwise destroy the topsoil, is therefore to fail in conservation of the essential historical and (literally) cultural qualities of the walled garden. The prototype is thus understood neither in the conservation of historical walled gardens, nor, by and large, in planning for modern developments. The lessons of design that the walled garden prototype offers to enhance the microclimate of human-scale outdoor spaces and create energy-efficient contexts for house and garden, ever more important in terms of sustainability, are largely forgotten in new planning contexts.

In 'Patrick Geddes and the Edinburgh Zoological Garden: Expressing Universal Processes through Local Place' (Ward Thompson, 2006a), the public zoo is examined at a critical moment in the development of the prototype, when the naturalistic setting for animals was beginning to be favoured, as opposed to the caged rows of earlier menageries. An initial exploration of the contribution of Geddes and colleagues to the landscape design of zoological gardens, drawing on his concept of the Valley Section (Ward Thompson, 2004) was subsequently developed to articulate more fully two different ways of thinking about design prototypes and local distinctiveness. The first took the Valley Section (Tyrwhitt, 1968), a concept developed from the particularities of Edinburgh and its context, and showed how this prototype for thinking about universal processes at work in the city region (Welter, 2002) was demonstrated via the Edinburgh Zoological Garden - a model exposition of this Valley Section in three dimensions, on a micro-scale. As a prototype for future design – a way of looking backwards to help us think about how to go forwards as landscape planners and designers –, Geddes's Edinburgh zoo also offers a rich exposition of principles relating to pedagogical landscapes and childhood education. This second approach to prototypes is explored in depth in my paper (Ward Thompson, 2006a), where the innovative placement of animals in naturalistic settings is seen as part of a wider approach to environmental design that supports children's natural sense of wonder and curiosity. Direct engagement with such landscapes, Geddes imagined, would encourage a playful educative process drawing on the natural environment and the roots of civilisation embedded in that landscape.

One of the original contributions of this paper was to present previously unpublished or poorly accessible archive material, including letters, maps and photographs, to show Geddes's contribution to the development of the Edinburgh zoo and the context in which it occurred, as a rare example of a British design by Geddes that was actually implemented. The paper also offered an insight into a Geddes prototype for environmental education, one with striking resonances for today's re-awakened interest in the importance

of childhood free play, contact with nature and understanding of the environment. The paper draws on prior research on children's landscape preferences and experience (Ward Thompson 1995, 1998c) in relation to playground design, and to wider issues of freedom and control to which I will return in sections 7 and 8.

The final, much briefer, paper in this section (Ward Thompson, 2007a) takes Charles Jencks' very recent design for the landscape of the Scottish National Gallery of Modern Art and shows how it is both a reiteration of a design solution type developed by Jencks himself – one perhaps in danger of becoming a stereotype - and yet also drawing on a range of earlier landscape design prototypes, from the mediaeval mount, through the 18<sup>th</sup> century English Landscape Garden, to 20<sup>th</sup> century land art. The design analysis takes into account the principles espoused by Jencks in developing what he considers a 21<sup>st</sup> century prototype, based on post-modern scientific understanding, and shows how much of it is prefigured in earlier models, particularly those of the early eighteenth century. The analysis offers a critique on the appropriateness of the design as a response to the distinctiveness of its local setting and as a demonstration of 21<sup>st</sup> century understandings of chaos theory and complexity. The paper was published in the comparatively new, European, peer-reviewed *Journal of Landscape Architecture* (JoLA), as a contribution to developing the rigour of scholarly critique, offering an example of research-informed design analysis that might, *inter alia*, act as a model for future critical enquiry in landscape architecture.

These three papers bring a hermeneutic approach to landscape design (Corner, 1991; Crotty, 1998): making the past present in the future (Ward Thompson and Aspinall, 1996). An understanding of landscape history and an exploration of design solution types and prototypes as models for future action inform the next research focus in my work.





**6. Urban open space –  
analysing the past and  
planning the future**





## **6. Urban open space – analysing the past and planning the future**

### **6.1 Background and context**

In both North America and Europe, many cities and towns have a legacy of 19<sup>th</sup> and early 20<sup>th</sup> century parks that were originally developed to structure the urban fabric and to provide recreational opportunities for the working population in its (rare) moments of leisure. Their creation had been visionary in its time, with a few, leading exponents, such as Joseph Paxton in Britain and Frederick Law Olmsted and Calvert Vaux in the USA, making their name as landscape architects while developing theories about the purpose and principles of public park design (Schuyler, 1986). The 'Victoria Park' found in so many towns in Britain is an expression of the enthusiasm with which the principles and practice of park creation were taken up, and of the positive political climate in which the benefits of green space and well designed public parks were almost universally espoused (Wirral, 2004; Ward Thompson, 2005a; 2006b).

However, by the 1980s, urban parks in the USA and the UK had become a phenomenon in decline. An element of the urban environment once believed to be a vital indication of culture and civility was no longer regarded as a priority for investment. The physical infrastructure, built and planted, was frequently in a poor and deteriorating state, while management and maintenance regimes, in the post-industrial era of service industries and compulsory competitive tendering, were reduced to the lowest common denominator. Fear of crime and incivilities in American parks, exacerbated by sensationalist press reporting, meant that once famous parks began to be treated as 'no-go' areas. In Britain, the skill base that had once been relied upon to manage and maintain parks was disappearing as local authorities contracted out maintenance and prioritised budget savings (House of Commons, Environment, Transport and Regional Affairs Select Committee, 1999). Spurred by the decline of the urban park in general and the perceived devaluing of its status and role within urban life, a movement to restore and

renew urban parks was begun by landscape architects, park managers and supporters of public open space. Concomitant with this was a questioning of values and meanings, of priorities and modes of practice associated with urban open space, and green space in particular (Cranz, 1982; Muschamp *et al.*, 1993). New conceptual frameworks were needed for thinking about open space in post-industrial cities, new models of social inclusion and definitions of user requirements were being debated, and practitioners in planning, design and management were looking for new paradigms to inform practice.

In Barcelona, a post-industrial urban planning strategy was developed during the 1980s that used design of (mostly small) new urban parks as the focus and inspiration for economic regeneration (Marshall, 2004). In Paris, several new, large public park projects attracted considerable interest from the design community, starting with the competition for the design of Parc de la Villette in 1982-3 (won by architect Bernard Tschumi). This, and many of the other competition entries for Parc de la Villette, challenged established conventions of park design and generated widespread debate on design paradigms for the new, global, urban age (Baljon, 1992). In Germany, Peter Latz's 1991 design for Landschaftspark Duisburg-Nord proposed a post-industrial design approach using phytoremediation and ecological processes as the principal tools (Tate, 2001), building on the earlier precedent of Richard Haag's 1975 Gas Works Park in Seattle, USA. In the Netherlands, West8 proposed tightly controlled urban spaces as stages for public events using a new minimalist and technological aesthetic typified by their Schouwburgplein in Rotterdam, completed in 1996 (Rousseau, 2000). In Portugal, for the Expo 98 Parque do Tejo e Trancao in Lisbon, North American designer George Hargreaves modelled artificial, biomorphic earth forms to act as initiators of hydrological and ecological processes, thereby relinquishing some control of the design over time (Meyer, 2000).

This re-energising of intellectual and practical investment in urban open space has continued for nearly three decades, from the renewal of New York City's Central Park to the community based environmental work of the Groundwork Trust in Britain's towns and cities. The work of CABA Space in

England and Greenspace Scotland, both non-departmental public organisations that have emerged to champion urban open space in Britain in the last six or seven years, reflects a new spirit of interest and investment. At the same time, worldwide concerns over human and environmental health, ecology and climate change have placed a new imperative on urban open space. It is called upon to deliver in multiple ways, to serve a changing world where natural systems and sustainable ways of living seem to have gone awry. My research under this theme has developed as a response to self-questioning from the landscape architecture profession but also to the interest of others in what designed landscape and urban open space can offer society. Its role has been to inform the debate and, in turn, to help set the agenda for planners, policy-makers and practitioners.

The papers in the portfolio of work relevant to this section are as follows:

Ward Thompson, C (1998b) 'Historic American Parks and Contemporary Needs' *Landscape Journal* 17 (1), pp 1-25

Ward Thompson, C (2002) 'Urban Open Space in the 21<sup>st</sup> Century', *Landscape and Urban Planning* 60 (2), pp. 59-72

## **6.2 Objectives and methodology**

The objectives of the two papers on this theme overlap with those of the first theme in that they also interrogate the role of historic design prototypes in contemporary landscape architecture, in order to inform an understanding of creativity and local distinctiveness in new design and conservation. Given the focus on the public domain, however, additional weight is placed on the role that open space plays, or should play, in contemporary society. The objectives were:

- (i) to investigate the design origins and prototypes for some of the early and iconic urban parks of East coast American cities;
- (ii) to investigate what approaches landscape planners, designers and managers were using in their conservation, restoration or

rehabilitation of such public parks under the 1980s park renewal movement in the USA;

- (iii) to explore the basis for urban landscape renewal in Britain and further afield, and the evidence and experience to support it, at the turn of the millennium;
- (iv) to analyse the paradigms under which urban open space is designed, planned and managed and to identify challenges and opportunities for the future.

The initial stages of this research were undertaken while on a year's sabbatical based in the USA during 1994/5. During this time I was a visiting research scholar at the Universities of Pennsylvania and Harvard and had access to library resources in Philadelphia, New York, Boston/Cambridge and Washington DC (Dumbarton Oaks). I was also able to interview and debate issues with a number of the key players in the American urban parks renewal movement. The methods for the research involved critical reviews of secondary sources on 19<sup>th</sup> century park design principles and practice in Europe and North America, and a limited amount of archival search and review of primary sources in relation to historic park design principles, largely focussed on the North American designs of F.L. Olmsted and his associates. The methods also included comparative analysis of recent reports on park and urban open space renewal produced by contemporary planners, designers and managers in Europe and in North America. In the case of individual parks in the USA, the methods included interviews with a number of the professionals responsible for each park project, as well as examination of their published or draft plans, which often included histories of each park's design and development. Finally, I undertook a critical review of recent literature on urban park and open space renewal in Europe and North America.

The publication of a significant paper on my study of North American park renewal (Ward Thompson, 1998b) preceded the emergence of two key publications in Britain in 1999: Richard Rogers' Urban Task Force report (Rogers et al., 1999) and the House of Commons Report on Town and

Country Parks (House of Commons Environment, Transport and Regional Affairs Select Committee, 1999). These signalled a re-energising of British policy in relation to urban open space and a demand for a better understanding of how public parks might structure and enhance the urban fabric of the future. My publication on urban open space in the 21<sup>st</sup> century (Ward Thompson 2002) built on my analysis of the North American experience, and a response to these 1999 reports on urban parks in Britain, to develop new ways of thinking about what the green infrastructure of urban environments could deliver.

### **6.3 Results**

The study of 'Historic American Parks and Contemporary Needs' (Ward Thompson, 1998b) was the first attempt to publish such a comparative analysis and critique of current plans for redesign, planning and management of 19<sup>th</sup> century urban parks at this key moment in their history. Several scholarly commentators, such as Cranz (1982) and Muschamp (1993), had focused on the politics and rhetoric of urban park design and redesign that arose as the momentum for urban park renewal gathered strength in the 1980s and 90s, while a number of other researchers focused on the history and opportunities for renewal of particular urban parks, e.g. Kinkead's study of Central Park, New York (1990). My contribution was to identify the paradigms behind the plans for a number of parks, through a comparative study of the texts and images in the documents themselves but also through interviews with those responsible for the plans and their implementation.

My study traced the development of the urban park as a landscape design prototype, from its European origins to its detailed and increasingly sophisticated American exposition under Frederick Law Olmsted and his firm. I identified five central paradigms from my North American work, evident in conceptualisations of the role of urban parks in late twentieth century society, reflecting both theoretical approaches and policy or practice rhetoric on historic urban parks (Ward Thompson, 1998b, p.4). These were:

- the park as democratic place
- the park as historic work of art

- the park as nature
- the park as educator
- the park as paradise.

The paper identified a change in emphasis in park planning since the early 1980s, when the idea of urban parks as an historic legacy to be preserved seemed very radical. It was an idea that stuck, however, as the concept of the park as a work of art proved highly effective in generating patronage and income for park renewal, especially in the hands of Betsy Barlow Rogers as she developed the plan for New York City's Central Park. Yet, as the park renewal movement progressed, interest in the artistic integrity of park design often became overshadowed by enthusiasm for the rich biodiversity that had developed in many parks over the 120 years or more since their initial planting. Promoters of visions of ecological purity in planting often based their arguments on a mistaken belief in the original use of native plants in such parks, and the notion of self-sustaining native plant communities. By and large, however, by the mid 1990s there was a recognition of the importance of maintaining a design integrity that might include non-native species, as well as a more sophisticated understanding of how to work with ecological processes in maintaining parks under low budget regimes.

The paper identified the two most important visions for planners and managers of historic parks in the future as:

- a) the need to embrace cultural pluralism in serving user needs, and
- b) the opportunities for urban parks to be places where urban biophysical functions, such as flooding, could also be managed.

The first is a reflection of one of the points brought out very clearly in this research: that the public park is one of the few places where democracy in urban society is worked out, quite literally, *on the ground*. The park is a visible, tangible and culturally laden expression of the contemporary and political attitude to social inclusion, ethnic diversity, policing of the public realm, and environmental justice. I suggest therefore that good planning,

management and conservation of urban public parks has a central social importance which public agencies would do well not to ignore.

The second point emphasizes my vision, returned to in my subsequent paper (Ward Thompson, 2002) of a park or park system that serves multiple functions for urban sustainability. I argued for a new approach to urban ecological planning that recognises the habitat of *Homo sapiens* alongside other species and treats the needs of humans accordingly, while remembering the importance of green networks as places for regulation of water flow, moderation of flooding and phytoremediation of pollutants. Since the first paper was published in 1998, there has been a rapid expansion of ideas, and terminology to go with it, on the role of ecological systems in our increasingly urban society: concepts such as 'ecosystem services', 'green infrastructure', 'sustainable urban drainage systems' (SUDS), and so on, reflect notions of sustainability that encompass multifunctional green space. My work has helped define the potential for future park design, planning and management to serve these sustainable functions.

My 2002 paper on 'Urban Open Space in the 21<sup>st</sup> century' presented a critical overview of existing plans for urban open space in Britain, arising *inter alia* out of the Rogers Report (Rogers et al, 1999), and introduced new ideas on urban parks for 21<sup>st</sup> century, reflecting insights from my study of American parks. I presented the case for developing plans and designs with clearly defined artistic visions for future parks, where function-specific space will serve different user needs within a coherent design whole. I also drew on work such as that of the House of Commons Select Committee report on Town and Country Parks (1999) and the Department of the Environment, Transport and the Regions strategy for delivering "an urban renaissance" (DETR, 2000) to reflect on the need for well-maintained, safe and attractive parks which offer equity of access for all. But my research also suggested that, to be successful, these plans will need to sit within the wider framework of an open space network which is dynamic in aesthetic and ecological status, allowing for a larger mosaic, a patchwork of changing, 'loose-fit' landscapes (Dovey, 2000).

In considering the nature of environments for children and young people to enjoy as part of their everyday experience and development, I introduced an argument for loose-fit landscapes as places for children and teenagers. Such locations would include risky, unconstrained places of freedom to choose activity in an environment that would tolerate robust use, where outdoor play would be considered a form of heuristics, offering opportunities to learn about the world and develop skills in risk management. The focus was on the phenomenological experience of landscape and on the vital importance of bodily engagement with the natural world and with the stimulating and manipulable environments such natural places can offer. My forecasting of demands on urban open space also argued for an expansion of urban agriculture and allotments and, more specifically, for the importance of children having the experience of growing food. This reiterated Patrick Geddes' promotion of this direct experience as the basis of a proper education (MacDonald, 1992; Mairet, 1957).

One of the insights developed in the paper, arising from the comparative analysis of previous research and my own scenario-building for the future, points to apparent paradoxes in the evidence on human need and response to public parks. For example, evidence from Worpole (2000) suggests that people visit parks to gain anonymity and privacy, and perhaps also an intimacy with a select one or more others, that is not always available in the media-dominated and maybe crowded home. Yet the park has also been identified as a public place, a place to see and be seen, where strangers can be encountered (if only at a distance) and where it is possible to be part of the crowd. Another contradiction appears to lie in the way people enjoy and appreciate the natural, intimate, wild and free qualities of woodland areas of parks; at the same time, many feel fearful and anxious about woodland use because of the qualities of wildness and unpredictability. I suggest that it is precisely the tension between these polarities that creates pleasure in perceptions and use of such parks. These ideas are in part supported by the Kaplans' work (1989) in the psychology of landscape aesthetics and that of, e.g. Singh et al (2008), providing evidence that people seek environments



that offer mystery and complexity, that arouse and intrigue, yet they will only tolerate such arousal or complexity to a certain level before it generates more negative than positive responses (Berlyne, 1960; Herzog and Miller, 1998). Crucially in my view, these responses will also be moderated by the particular circumstances of time, place and (especially) company, as well as the expectations people bring with them (Aspinall, 2010).

Such reflections point to the final theme of this thesis, my research focused on recording and understanding people's experience of the landscape and the natural environment.





## **7. Experiencing the landscape – people and nature**



## 7. Experiencing the landscape – people and nature

### 7.1 Background and context

At the beginning of the 21<sup>st</sup> century, there was only a poor understanding of the nature of, and mechanisms behind, well-being associated with landscape and, in an era of expanding social and ethnic diversity, little exploration of cultural relationships with the landscape for different sectors of the population (OPENspace, 2003; Ward Thompson, 2005a). The interest in conservation and restoration of historic parks and designated landscapes focused attention on a limited number of highly regarded landscapes within the dominant cultural tradition, but did little to address the lesser, local landscapes that are the everyday experience of most of the population. It was these that became the focus of the third strand in my research.

The European Landscape Convention, promulgated by the Council of Europe in 2000 and ratified by the UK in 2006, lays emphasis on the contribution made by the landscape to the formation of local distinctiveness and quality of life, stating that the landscape is "... a basic component of the European natural and cultural heritage, contributing to human well-being and consolidation of the European identity" (Council of Europe, 2000, preamble). By contrast with previous landscape planning strategies adopted by many countries that emphasised the designation and protection of *special* areas of landscape - those considered 'high quality' with regard to scenic beauty or biological diversity or rarity, for example -, the Landscape Convention promotes an approach where *all* landscapes are considered important and worthy of attention in relation to people's everyday lives (Ward Thompson and Sarlöv Herlin (2004). The landscape is considered important for people everywhere, "... in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as every day areas" (Council of Europe, 2000, preamble). The Convention articulates a notion of the landscape as a key element of individual and social well-being as well as a component of cultural identity.

In the UK, in anticipation of adopting the Landscape Convention's requirements, the Countryside Agency and Scottish Natural Heritage (2002) and Countryside Council for Wales (2003) promoted a move towards 'landscape character' mapping and assessment, as a way to inform the fields of landscape management, planning and monitoring, where all landscapes were given equal attention. It was noted that such assessment should include aspects of landscape experience in arriving at final categorisations, policies and plans of action for the landscape. Yet, when the landscape character assessment guidance was being developed, it was recognised that "...The involvement of stakeholders in the process is still a developing area" (Swanwick et al, p.13) and there was much interest in effective methods for eliciting landscape experience from local communities and landscape users (or potential users).

My work with OPENspace colleagues on community planning processes in Strathdon, in the Scottish Highlands, was part of a developing set of techniques for data gathering and analysis that recognised people's transactional relationship with place and attempted to make these explicit as part of stakeholder involvement in planning (Myers and Ward Thompson, 2003). This example was focused on a rural community, like much of the early work on landscape character categorisation and assessment, and yet the nature of society across Europe had been radically transformed from largely rural to largely urban by the end of the 20<sup>th</sup> century. In the opening years of the 21<sup>st</sup> century, nearly 80% of England was under agriculture, forestry or woodland land use but less than 20% of the population now lived there (Commission for Rural Communities, 2008) and less than 2% of the population was now directly engaged in agriculture or forestry (Commission for Rural Communities, 2006). Many people say they would like to live in countryside areas, and the population in rural areas has been growing faster in percentage terms since 2001 than urban areas (Commission for Rural Communities, 2008), but clearly this rarely equates with direct engagement with the countryside as a means of livelihood. The question arises as to what a population wants, needs or experiences from the countryside or the natural

environment when that population, even if living in comparatively close proximity to the countryside, is overwhelmingly urban in terms of lifestyle.

Since participation in countryside recreational activity has been shown to have a wide range of potential benefits, countryside access legislation in the 21<sup>st</sup> century has reflected the government's desire to provide more equitable access to the rural and natural or semi-natural environment for this urbanised population (OPENspace, 2003); a population increasingly likely to have little experience of traditional countryside activities (Ward Thompson, 2005a). At the same time, intensification of agriculture and variable markets for UK-grown timber have radically changed many of the priorities for primary production from the land. Post-industrial urban and peri-urban areas are similarly under new or different kinds of pressure. The accelerating rate of change in the landscape reflects "developments in agriculture, forestry, industrial and mineral production techniques and in spatial planning, town planning, transport, infrastructure, tourism and recreation and, at a more general level, changes in the world economy" (Council of Europe, 2000, preamble). The landscape in and around urban areas where most people live now includes reclaimed industrial land and temporary open space, urban forestry and community woodlands. Yet those responsible for developing and maintaining the 'green' environments in and around towns, beyond formal public parks, recognised that they were poorly equipped to understand what people wanted from the experience of the wider landscape. They knew little about how users or potential users perceived and responded to woodlands, nature reserves, etc., and what factors might influence engagement with such landscape and the benefits to be gained thereby.

As indicated earlier, this expanding interest in people's perceptions and use of green and open space reflected not only a response to the European Landscape Convention, but also a number of more recent concerns in British government policy and planning: social inclusion, environmental justice, accessibility, and healthy lifestyles (Land Use Consultants, 2004; CABE Space, 2004). Such concerns reflected a belief in the desirability of good quality environments for all, where attractive landscape and green space is

available and accessible to all sectors of society, near to where people live. They also reflected a growing body of evidence suggesting that such green space can offer physical, mental and social health benefits for individuals and communities, and that lack of access to high quality green and nature-like environments may, conversely, disadvantage certain populations. These concerns have led to initiatives such as the Department for Communities and Local Government's "cleaner, safer, greener" campaign and the Sustainable Communities Plan (DCLG, 2003) and public health programmes such as 'Paths to Health' in Scotland and 'Walking the Way to Health' in England, initiatives supported by the British Heart Foundation, Scottish Natural Heritage and the Countryside Agency.

It is in this context that, working with a multidisciplinary team at OPENspace, my research for the Forestry Commission over a number of years, and for public agencies such as English Nature, the Countryside Agency/Natural England and, more recently, CABE Space, has been undertaken. The work in this area has also drawn on my earlier interest in children's landscape needs and aspirations. The importance of play for children's development is well recognised (Gibson, 2000; New Policy Institute, 2002), but it is only recently that the constraints on free play and engagement with natural environments that today's young children experience have been recognised as excessively restricted and potentially damaging (Louv, 2005; Gill, 2007). The growing rate of ill-health in the next generation, from childhood obesity and poor physical fitness to mental illness, has alerted public health experts to the need to reconsider what kinds of environments most children have regular access to. They are also concerned to know what kinds of activities these environments support. In the last few years, urgent questions have been raised about whether today's children have adequate access to outdoor environments, since children are more likely to be active outdoors than indoors, and whether the natural environment might offer important developmental benefits for mental as well as physical health (Bird, 2004; Faber Taylor and Kuo, 2006). My research has contributed to this debate and to a better understanding of the links between access to green and natural environments in childhood and later,



adult perceptions, experiences and behaviour in such places (Ward Thompson, 2007b; Ward Thompson et al., 2008).

The papers in the portfolio of work relevant to this section are as follows:

Ward Thompson, C., Aspinall, P., Bell, S. and Findlay, C. (2005) "It gets you away from everyday life": local woodlands and community use – what makes a difference? *Landscape Research* 30 (1): 109-146

Ward Thompson, C, Aspinall, P and Montarzino, A. (2008). The Childhood Factor: Adult Visits to Green Places and the Significance of Childhood Experience, *Environment and Behavior*. 40 (1): 111-143

## **7.2 Objectives and methodology**

My research into the factors outlined above has been aimed at understanding the nature of people's experience of woodland and other green, natural or countryside environments near to where they live, and to explore what diverse groups' perceptions, needs and aspirations are in relation to such environments. The research described in these papers has been supported, at least in the initial phases, by the Forestry Commission and by English Nature and therefore the focus has been partly determined by the kinds of environments over which they have responsibility. In the case of the woodlands researched in Ward Thompson et al. (2005), the sites under consideration were by and large those defined and identified by the research participants themselves.

The objectives of the research under this heading were to address the following questions:

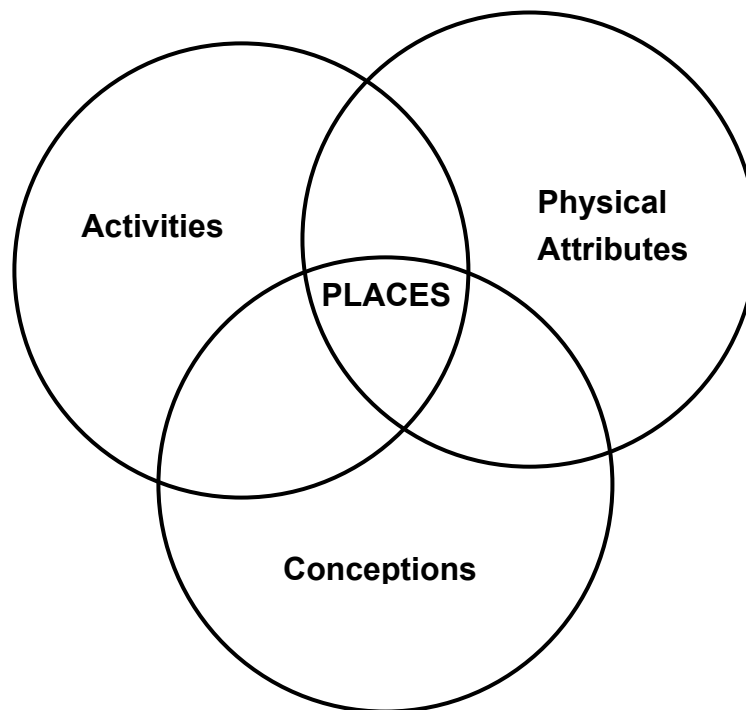
- (i) What empirical approaches in terms of data collection and analysis can help us better understand how people of different ages, backgrounds and contexts perceive, use and respond to local natural environments?
- (ii) Who uses nearby natural environments as places to visit on a regular basis and what kind of activities do they undertake?

- (iii) What is the experience of visiting such places for different sectors of the population?
- (iv) What are the barriers to visiting for different sectors or groups and what makes the difference between them choosing to visit or not?
- (v) What is the relationship between remembered childhood experience and adult use and experience of natural environments?

Both papers in this section were based on empirical data collection but the foundation for understanding experience of natural environments lay in an earlier literature review carried out on *Landscape and Woodland Perceptions, Aesthetics and Experience* (Ward Thompson and Boyd, 1998d). This set out the theoretical and philosophical basis for understanding experience and response to the landscape and identified a number of areas where future research might usefully focus. While some of these areas have remained gaps in research coverage, some have been (or are being) tackled by researchers including those in my research group, OPENspace. The review identified the shortcomings of much of the research on 'scenic beauty', undertaken using photographs and asking comparatively simple questions on people's preferences without regard for the context in which people make choices in the real world. It pointed out the attractions of the richer insight and understandings gained through use of certain phenomenological methods, but also identified drawbacks where generalisations drawn from individual experience cannot always be transferred to larger groups in the population. One conclusion underlined by the review was the importance of having a sound theoretical basis for any empirical work on environment-behaviour interactions, and one potential approach particularly highlighted related to use of Personal Construct Psychology (PCP) as a basis for information-gathering which is sensitive to age difference, gender, experience and socio-cultural background.

I have worked with colleagues in the OPENspace research centre over more than a decade to develop this approach and apply it to a range of projects in order to understand the experience of landscape. The foundations for PCP lie in Kelly's work, described above (Kelly, 1955) and in its development

subsequently by other researchers in environmental psychology and environment-behaviour research. One important contributor to the field has been Canter (1977), who proposed a theory of place based on PCP approaches that has proved remarkably robust. It recognises that people bring previous experiences, expectations and their personal objectives in a place to any evaluation they make of it, and therefore a person's background will help shape their perceptions, experience and response to the landscape (Scott and Canter, 1997). Canter's theory identifies the physical environment, people's conceptualisations and their behaviours in a place as the three components of place (see Figure 2).



**Figure 2. Canter's Visual Metaphor for the nature of Places** (Canter, 1977, p. 158).

The advantage to this theory is that there are three clear areas for exploration. There are, of course, sub-sets of categories within each area: physical attributes can range in type and scale, from the broad geomorphological and spatial structure of the landscape to individual plant species or biophysical patterns; activities may be social as well as physical,

and some behaviour included in this category can involve very little physical activity; conceptions can include beliefs, aspirations and past experiences but also intangibles such as feelings of peacefulness or aesthetic pleasure. My research findings have reinforced the value of the approach in that it has frequently elucidated analysis and interpretation of people's responses to the experience of particular places and helped in further development of research tools (e.g. in Ward Thompson, 1998c; Myers and Ward Thompson, 2003; Ward Thompson et al., 2005).

In addition to Canter's theory of place, OPENspace work in this area has drawn on Facet Theory, also embraced by Canter (1985), which provides a method of formally defining a research area, its main concepts and hypotheses. In an effort to move scientific research away from the emphasis on the experimental method and reliance on statistical significance alone, Facet Theory focuses on cumulative science and provides ways of identifying the components of concepts and then describing their inter-relationships (Canter 1985, Donald 1995). The value of using an established theoretical framework means that the research has a clear basis and results can be placed within an established and authenticated body of knowledge.

The methodologies used for the papers in this section have drawn on PCP, Canter's theory of Place, and Facet Theory in a mixed methods approach. The idea is that qualitative methods such as focus groups and discussions with stakeholders can illuminate meanings and offer in-depth understandings of people's experience of the landscape, while quantitative methods using questionnaires allow a larger sample of people to be engaged in the research. The statistical analysis of the questionnaire responses offers opportunities for exploring patterns in the data and relationships between variables, testing the significance of results and giving confidence in the transferability of findings to wider populations within the same demographic groups.

It is a fundamental premise of Kelly's PCP that people whose responses are sought are treated as research participants, not merely subjects of a study,

and that any structured set of questions asked of them is relevant to their own context, and arises from gaining an understanding of their perceptions and experience. The theoretical framework outlined above is particularly helpful here. In the research projects described in the papers in this section, focus groups were established with different sub-groups within the populations of interest, using local facilitators as a means of ensuring sensitivity to local demographics. These focus groups, with different age, gender or ethnic groups, for example, allowed time to elicit the meanings that terms such as 'woodland', 'countryside' or 'green space' had for different participants, and enabled an in-depth exploration of their experience of such places, attitudes towards them, and reasons for visiting or not visiting such places. It was only after such focus group results had been analysed that Facet Theory and Canter's theory of Place were used to develop questionnaires, using statements that arose out of themes and issues identified and ensuring that all dimensions of the place experience were covered.

Finally, in all of the locations where research was undertaken, it was important that site visits were undertaken to any key sites identified as visited by participants. This was to allow an independent audit of the sites, so that an expert, landscape architects' description and assessment could be recorded, using a combination of text, photographs and sketch maps, to assist in interpretation of findings and in developing any subsequent guidance for site managers. Part of these audits, in the case of research for the Forestry Commission, involved an innovative approach to recording the 'view from the path' (Ward Thompson et al., 2004; Ward Thompson, 2010) to capture the dynamic, spatial experience of moving through the landscape and the changing effects of topography and vegetation cover on that experience. Although this is not explicitly referred to in Ward Thompson et al (2005), it is described in detail in a longer publication giving all the initial results of the project, published by the Forestry Commission (Ward Thompson et al, 2004).

The analysis used for focus groups was based on textual analysis of the transcripts (this was prior to the availability of NVivo and other software tools that facilitate discourse analysis), using simple procedures to scan and note words or phrases used and their frequency of use across different groups. For the questionnaire data, a standard protocol was developed using the Statistical Package for Social Sciences (© SPSS, Inc.), where simple, descriptive charts and diagnostic tests were used initially to explore patterns in the data and identify where any significant difference in responses lay, according to characteristics of the participants. Because the data collected were often ordinal (e.g. categories of distance of an open space from a person's home) or likely to be non-parametric in distribution (e.g. attitudes to the attractiveness of woodlands), tests such as Pearson's Chi-Square, Mann-Whitney and Kruskal-Wallis were used, which do not make assumptions about the normal distribution of data (Field, 2005). The Kruskal-Wallis test, a non-parametric analysis of variance, was particularly useful in allowing an initial sift of data according to the personal and demographic characteristics of participants and their patterns of visiting woodlands or green spaces, followed by an analysis of responses on attitudes to such places (physical features, perceptions and use) according to the same personal and demographic participant characteristics.

After such initial sifting, a reduced number of significant variables could be used in more sophisticated analysis to explore which factors best predicted outcome variables of interest, such as how often people visited woodlands or green space, and attitudes to such places. The analytical tool here was initially logistic regression (forward likelihood ratio), which allows for non-parametric and categorical data as well as continuous data to be used as predictor variables in the model, and has a dichotomous outcome variable. The variable of most interest here as an outcome was some measure of frequency of visit to woodland or green spaces. A final method, illustrated in Ward Thompson et al. 2008, was a more exploratory version of regression called AnswerTree (© SPSS, Inc.). AnswerTree illustrates in a graphic way not only which variables best predict an outcome measure but also the best order in which to use predictors, and what point on any predictor variable

scale is the best criterion for distinguishing between outcomes at any point in the AnswerTree model.

Finally, in interpreting results of statistical analysis and discussing their relevance for policy and practice in landscape planning, design and management, site visit data were drawn upon to illustrate the nature of the landscapes being discussed, their level of use (and/or abuse) and any evidence of activities in the landscape not recorded in questionnaire data. The focus group findings were also relevant in the interpretation phase of the research; they not only helped in constructing meaningful and relevant questionnaires but also assisted in understanding the results of the statistical analysis and in illustrating the findings through the use of quotes.

As the authorship of the two papers in this section indicates, the research was led by myself but involved a team of researchers in data collection and analysis, with expert statistical advice from Peter Aspinall and assistance in field work and data input, cleaning, running tests, etc. from research fellows/associates Simon Bell and Catherine Findlay, and from a number of field assistants. For the Central Scotland study, the subject of Ward Thompson et al., 2005, I was director of the project, which included determining the research questions, developing the research approach, choice of sites and sampling methods, refining questionnaires, etc., and interpretation of the results. I produced the final text of the report for the Forestry Commission (Ward Thompson et al., 2004) and wrote the paper included in this portfolio (Ward Thompson et al., 2005).

For the childhood factor paper (Ward Thompson et al., 2008), I decided to compare data from the Forestry Commission supported work in Central Scotland with data from the English East Midlands study (a study which I jointly led with Simon Bell, in a similar manner, (Bell et al., 2004)). With expert statistical advice and support from Peter Aspinall and assistance with cleaning the data and running statistical tests from Alicia Montarzino, I developed the overall shape and direction of the additional analysis and the

interpretation and discussion of results. I wrote the paper, Ward Thompson et al, 2008.

### **7.3 Results**

As indicated above, the research reported in Ward Thompson et al (2005) is a further analysis of data from a larger body of work undertaken with support from the Forestry Commission over several years and published in full in Ward Thompson et al (2004). The 2005 paper refined some of the more significant results and presented findings which in part confounded earlier predictions about perceptions and patterns of woodland use. They demonstrated a largely positive attitude to woodlands and woodland use on the part of a sample taken from populations in urban communities in Central Scotland. These communities included areas of high deprivation, such as the post-industrial mining community of Whitburn, and the results illustrated a contemporary attitude to use of nearby countryside areas by a population that has little tradition of countryside employment.

The value of woodlands as places of recreation and relaxation for young people and for unemployed people was highlighted. Unconventional woodland use by young people who often feel socially marginalised may offer an important benefit to wider society, allowing young people a space to be free of constraints and a comparatively robust environment in which to play or spend leisure time. This theme has been taken up further in another paper (Bell, Ward Thompson and Travlou, 2003) drawing on the same data, with an emphasis on the qualitative findings to illustrate issues and recommendations. It was further developed in a separate project undertaken for Natural England on teenagers' access to natural, wild and countryside places - *Free-Range Teenagers: The Role of Wild Adventure Space in Young People's Lives* (Ward Thompson et al, 2006).

The research on Central Scotland (Ward Thompson et al, 2005) illustrates largely positive attitudes to woodlands on the part of women as well as men, partially contradicting much-quoted earlier findings by researchers such as Burgess (1995; 1998), although it is clear that, despite this, women are much



less likely than men to visit woodlands alone. Nonetheless, women reported positive attitudes to feeling at home in woodland settings and most did not feel vulnerable in such places, perhaps partly because they are unlikely to visit alone.

Proximity to local woodlands emerges as an important factor in the frequency with which people visit such places. However, the most striking message that emerged from this research was the evidence of a difference in experience and attitudes on the part of older people, compared with young adults and children, and the strength with which remembered childhood experience of woodlands predicted adult patterns of perception and use. Given emerging concerns in public health about childhood obesity and low levels of physical activity, this finding seemed particularly significant and worthy of further exploration.

The opportunity was provided by research undertaken in the East Midlands of England with support from English Nature, in which the same theoretical background and methodological approach had been used. The full initial presentation of data and analysis by the team of OPENspace researchers led by Simon Bell and myself is presented in Bell et al., (2004). Although analysis of the significance of childhood experience was not a prime concern of the commissioning client, this data offered a rich opportunity to test whether the findings from Central Scotland could be replicated in the English East Midlands context. Despite some necessary differences in details of approach and certain data categories, due to the different demands of funders, the data was sufficiently similar to allow further analysis using the same methods and matching sub-sets of data. The English sample included people from very diverse backgrounds, ranging from black and minority ethnic (BME) groups living in inner city areas such as Leicester, to people living in quite isolated rural settlements in Lincolnshire. Unlike the Central Scotland data, which focused specifically on woodlands, the focus of the English research was use of green spaces in general, from urban parks to nature reserves, country parks and woodlands. The further analysis of the Central Scotland data compared with the English data is presented in Ward Thompson et al., 2008.

The findings illustrate the importance of childhood experience in relation to patterns of visiting woodlands or green space, whether urban or rural, and reinforce the generalisability of the finding from the Scottish data. The strongest association was between an absence of visits in childhood and a low likelihood of visits to woodland or green spaces as adults. It was notable that age and employment status were not significant factors in predicting frequency of woodland or green space visits, the latter suggesting that the importance of childhood visits may be independent of people's socio-economic status, although this would merit further, more detailed analysis of deprivation measures now that indices of multiple deprivation are available across different countries in the UK.

Other potential factors relating to woodland or green space use across both sets of data were examined. This confirmed the significance of distance from home in influencing how often people visit green spaces, a finding to support earlier work on Accessible Natural Greenspace Standards (ANGSt) for English Nature (Handley et al., 2003). It reinforces the importance of having green or natural places very close to home if people are to use them on a frequent, daily or weekly basis.

The highly significant relationship between remembered childhood visits and frequency of adult visits to woodlands and green space, which I termed 'the childhood factor', was a finding that had not been reported before with such robust evidence. The study also explored what might lie behind such behaviour patterns. Frequency of childhood visits was significantly associated with a number of attitudinal differences in adults across both studies. Of most interest were the cases where frequent visits as a child were significantly associated with positive responses, whilst infrequent visits as a child were associated with negative responses. This was true of attitudes towards going walking on ones own in green or woodland places, with feeling 'more energetic' in green spaces, and with thinking that 'green spaces can be magical places' as adults. These striking attitudinal differences suggest that the childhood factor represents a complex relationship between

people and the natural environment, one that may influence physical activity as well as mental or spiritual well-being as an adult.

Given current health concerns about poor physical and mental health in children and in adults, these findings point to issues that may be of major concern in relation to long term health trajectories in the population. Comparing these findings with other studies that have looked for demographic and environmental influences on physical activity (e.g. Trost et al, 2002; Owen et al, 2004), my research offers new and distinctive evidence. Examination of demographic and childhood factors suggests that it is not physical activity *per se* that is important in childhood access to woodlands and green spaces, but perhaps a more complex psychological, cognitive and emotional relationship with the outdoor environments, supported by family and friends, which is subsequently associated with positive use of woodlands and green spaces as adults (Ward Thompson et al., 2008).

Overall, setting both of these research papers in the context of a larger body of work drawing on the same theories, the findings provide confirmation that Canter's conceptualisation of Place is a meaningful and useful model for exploring experience of the landscape. The findings complement earlier work using the same theories with school children, on their preferences for playground landscapes (Ward Thompson, 1995; 1998c). They demonstrate the value of PCP theory and associated methodology as a meaningful way of engaging with people to understand their experience of place. This understanding is also demonstrated to be useful in terms of applied research, providing findings of relevance to policy makers and practitioners not just in landscape architecture but in wider spheres of public health, childhood development, outdoor education and socially inclusive planning.

My research subsequent to these papers has focused on older people and other sub-groups within the population, in terms of their access to green and outdoor space. But it keeps returning to issues of childhood experience and the importance of good landscape planning and design to facilitate and enhance the embodied experience of the natural environment for all children

and young people. Although I have found it necessary in more recent research to speak the language of health professionals and policy planners, and ensure that robust evidence is provided to support assertions about environmental management and intervention in relation to well-being and quality of life, findings such as 'the childhood factor' also speak the language of Patrick Geddes. The hermeneutic or interpretive approach to understanding the landscape experience in context, and the more phenomenological emphasis on exploring bodily engagement with the natural (wild and man-modified) environment in all its richness, remains a strand throughout my work. The findings on childhood experience point to the relevance of Patrick Geddes's pedagogical principles – *vivendo discimus* – and enrich our understanding of the nature and importance of engagement with the biophysical world which Geddes promoted so enthusiastically and which society seems to need to rediscover in the 21<sup>st</sup> century.



## **8. Evidence of the contribution to knowledge and understanding in the field**



## 8. Evidence of the contribution to knowledge and understanding in the field

In his Foreword to the first of OPENspace's edited books - *Open Space: People Space* - compiling relevant work from myself and OPENspace researchers as well as international colleagues, Laurie Olin said:

“Clare Cooper Marcus, Randy Hester and their colleagues at Berkeley, Jay Appleton, Yi-Fu Tuan, Bill Hillier and others at the Bartlett School in London, Catharine Ward Thompson in Edinburgh, Jan Gehl in Copenhagen, and many others have continuously issued work in the past two decades that has looked at the design of open space and human behaviour, asking what do people do? Why? What do they think about their spaces, their lives and their quality? What works and what doesn't? The range of philosophy, theory, experiments, studies, findings and statistics has been very rich.” (Olin, 2007, p. xiv).

Coming from one of the few, internationally known landscape architects whose work manages to bridge the academic world and that of practice with equal ease, Olin's recognition is an indicator that the research gathered in this thesis has made a contribution to the field.

Inevitably, some work has resonated more than others. My paper '*Urban Open Space in the 21<sup>st</sup> Century*' (2002) has been the most in demand and remained consistently so since its publication, with 64 citations listed by Google Scholar (42 by Scopus) to the end of 2009. It was the most requested article in *Landscape and Urban Planning* online for the year following its publication (November 2002-2003) and has remained one of the most requested ever since (e.g. 5<sup>th</sup> most requested July - September 2008; 9<sup>th</sup> most requested July - September 2009). For other research, by contrast, it has only been some years after the original publication that the work's relevance has been highlighted by other academics and research users. For example, I have in 2009 been asked by several different landscape architects and environmental practitioners for copies of my paper on the walled garden of Scotland (Ward Thompson, 1998a), published a decade earlier. It is in the context of current interest in sustainable urban environments, productive

landscapes near to where people live, and the benefits for energy conservation of creating good microclimates in gardens and outdoor spaces, that this research has been resonating with other landscape architects.

### **8.1 Contributions on history, prototypes and local distinctiveness**

As stated above, my research on the walled garden of Scotland and the benefits of benign microclimate that accompany such a tradition has very recently attracted a new interest from other researchers and practitioners. I have been invited to participate in a research proposal currently in preparation for the Engineering and Physical Sciences Research Council, relating urban energy consumption and gardens, that will draw on this work, recognising its contribution to the wider urban sustainability agenda.

My work on Patrick Geddes and his promotion of pedagogical landscape design through his work on the Edinburgh Zoological Garden has received acclaim from noted landscape design historian Marc Treib (University of California, Berkeley), who stated “The depth of research was impressive, the ideas and content clear—and I will never look at a "valley section" in the same way again.” (E-mail pers. comm., 2006). My publication on Charles Jencks’ Landform at the Scottish National Gallery of Modern Art (Ward Thompson, 2007a) has been cited by international authors Prominski and Koutoufinis (2009) as an illustration of concerns over contemporary landscape design approaches.

The impact of my research on history, prototypes and local distinctiveness is also illustrated in the invitations to speak on these issues. An early paper on ‘Geddes, zoos and early modernist landscape architecture’, presented at the European Council of Landscape Architecture Schools’ conference in Lisbon, 2003, was subsequently developed and presented at the 2004 Council of Educators in Landscape Architecture conference in Christchurch, New Zealand and invited for publication in the proceedings (Ward Thompson, 2004). In September 2005, in anticipation of considerably expanded research on this theme appearing in print (Ward Thompson, 2006a), I was asked to give the inaugural address at the National Trust for Scotland (NTS)/City of



Edinburgh Council conference to celebrate 60 years of the NTS. The conference theme was “Shaping Continuity, International Perspectives on Tomorrow’s Historic Gardens and Landscapes’, and my introduction to the conference drew on my Geddes research and critiques of contemporary landscape design in Scotland, including Ward Thompson, 2007a, in a paper entitled “Shaping Continuity: ensuring the past is present in the future”. I drew on this work in a similar vein in my paper presented at the ‘40<sup>th</sup> Anniversary of Landscape Architecture Education’ celebratory lectures at the University of Zagreb Faculty of Agriculture, Croatia, in 2008, where I was asked to reflect on research in landscape architecture and the place of landscape history in contemporary landscape design pedagogy.

## **8.2 Contributions made on urban open space – analysing the past and planning the future**

My study of ‘Historic American Parks and Contemporary Needs’ (Ward Thompson, 1998b) was the first attempt to publish a critique of urban park renewal at a key moment in the history of some of the most iconic parks of North America, including Central Park, New York, and the Boston’s ‘Emerald Necklace’ park system. It was published in the US based *Landscape Journal*, the first peer-reviewed journal devoted explicitly to landscape architecture, after an early version of the research paper had received the North American Council of Educators in Landscape Architecture’s Best Paper Award based on their 1997 conference proceedings. It was an apposite moment to be undertaking such research because the UK urban park renewal movement, lagging behind its North American counterparts, had just begun to gather momentum (evidenced in the House of Commons Environment, Transport and Regional Affairs Select Committee’s report on Town and Country Parks, 1999) and policy-makers as well as practitioners were searching for approaches and paradigms to inform their work in Britain. As a result, the research project (including a paper in a professional journal to disseminate it to landscape architects in the UK: Ward Thompson, 1996a) also went on to win the UK Landscape Institute’s Biennial Award for Research in 2004, reflecting its contribution to professional policy and practice. I was invited to present a paper drawing on this work at the

international conference on Urban and Metropolitan Parks held in Portugal in 2006 (Ward Thompson, 2006b). The 1998 paper (Ward Thompson, 1998b) continues to be cited, e.g. by Byrne and Wolch (2009) in a paper on 'Nature, race, and parks: past research and future directions for geographic research' for *Progress in Human Geography*.

As mentioned above, my paper on 'Urban Open Space in 21<sup>st</sup> Century' (Ward Thompson, 2002) has been cited by an international list of authors, including authors from Australia, Chile, many parts of China (e.g. Nanjing, Beijing, Hong Kong), Thailand, South Africa, the USA, Croatia, Portugal and Turkey. I was invited to contribute a paper on 'Urban Green Spaces' to the Chinese publication *World Architecture* reflecting this work (Ward Thompson, 2006c). The paper predicted a revival of interest in allowing children opportunities for free and risky play in natural environments, in encouraging opportunities for people – children and adults – to grow their own food in town, and in a range of 'ecosystem services' in relation to pollution, urban hydrology and water management, etc. that have since become more mainstream policy or are in the process of becoming so. The influences of this paper have been so widespread that I articulate some of them further below.

In highlighting "loose-fit" places (a term not coined by me but a concept I have articulated and developed further for a new audience of urban planners and landscape architects), I introduced an argument for loose-fit places for children and teenagers to play – risky, slippery, free – presenting outdoor play as a form of heuristics, risk management. Aruninta (2009), writing in the context of work in Thailand, credits my paper with introducing "loose-fit places" and underlines my emphasis on the need for planners to examine human recreational habitats holistically. Jorgensen and Tylecote (2007) take up my theme in more detail as follows:

"Other commentators have argued for a similar re-visioning of urban green and open space including Ward Thompson's (2002, p. 70) "patchwork of changing, loose-fit landscapes" ..., "  
(Jorgensen and Tylecote, 2007 p. 459).

“This highlights another important aspect of interstitial wilderness landscapes, which is their temporal dimension. Ward Thompson (2002, p. 70) has argued that “a much longer time-frame” may be necessary “for engaging effectively with the entirety of the ecological networks which structure our towns and cities”,” (Jorgensen and Tylecote, 2007 p.459).

“Re-visioning interstitial wilderness landscapes and their role in the urban fabric implies new ways of structuring towns and cities and presents some alternatives to the tabula rasa approach to developing brownfield sites; furthermore this discussion of their previously summarized qualities opens up some new possibilities in urban landscape planning and design more generally, and questions the relentless production, reproduction, consumption (and destruction) of over-programmed urban environments. It challenges the landscape and other professions involved in urban planning and design to take risks in advocating such approaches, and to help develop the necessary techniques and expertise to facilitate their implementation.”(Jorgensen and Tylecote, 2007 p. 460).

Another theme of my paper, taken up by a number of authors, is recognition of the urban park as an expression of social and political equity and inclusion. Yilmaz and colleagues refer to this paper, highlighting how:

“One vital role that urban parks play is providing space for the expression of diversity, both personal and cultural, which raises issues of democratic provision for and access to public open space” (Yilmaz et al, 2007, p. 2325).

Stokols et al, writing in *American Psychologist*, note that:

“... the ease of communication afforded by the Internet and mobile phones enables people to organize their use of public spaces (e.g., plazas and parks) efficiently and economically (Thompson, 2002) (Stokols et al., 2009, p. 185),

This credits my paper with early identification of the ways that the electronic age would alter people’s behaviour in going out.

Reference to my identification of the potentially rich ‘ecosystem services’ provided by urban green infrastructure has been made by a number of authors.

“Urban green space is an important component of the complex urban ecosystem, which makes a significant contribution to the environment, ecology, and cultural and economic life... Therefore, urban green space improves the urban environment, contributes to public health and improves the quality of urban life (Thompson, 2002),” (Zhang et al, 2007, p. 534).

Having cited my work, Esbah and Deniz refer to this theme as follows:

“Urban open spaces are key ingredients in the cities’ sustainability. If the aim is to create livable cities, the recognition of different types of open spaces and their contribution in the overall system should be assessed and evaluated. Opportunities to increase the variability in the open space types should be embraced to enhance the ecological functioning of the highly complex urban matrix. Urban open spaces are the direct expression of what is on the local and national agenda,” (Esbah and Deniz, 2007, p. 1144).

Finally, in an important and much-cited paper, Chiesura takes note of my reference to the psychological and spiritual dimensions of engagement with the natural environment in my conceptualisation of ecosystem services.

“Despite their intangible and immaterial nature, these services provide clear benefits to people, whose loss can have serious socio-economic consequences. Failure to provide the restorative and psychological benefits of access to nature in the city, for example, could have substantial health costs in the long run (Thompson, 2002)... As Thompson (2002, p. 65) also noted, “for many people in cities, the park is a place where nature may have a metaphysical or spiritual dimension”,” (Chiesura, 2004, p. 136).

Chiesura concludes that:

“Valuation and assessment of these intangible services and benefits is of crucial importance in order to justify and legitimise strategies for urban sustainability. It is argued that valuation of their worth to society must start from the appraisal of the needs, wants and beliefs of the individuals composing that very society. Public involvement, citizens’ participation and a qualitative appraisal of their needs and interests are believed to help urban communities to articulate commonly shared values which, in turn, can serve as reference criteria for local planners to envision more sustainable city strategies” (Chiesura 2004, p. 137).

### **8.3 Contributions made on experiencing the landscape – people and nature**

The research in Ward Thompson et al (2005) on local woodlands and community use has been cited by a number of authors (10 listed in Google Scholar, 7 in Scopus), and draws on the Ward Thompson et al 2004 publication, which has also been much cited. The 2004 publication is cited in Midgley & Toogood (2004) as policy-oriented, empirical and qualitative research that is “agenda-setting” in relation to local woodland use, social inclusion and access, issue identification, and assignment of priorities. Simon Williams’ (2006) work for the Bevan Foundation on ‘Active Lives – physical activity in disadvantaged communities’, also cites Ward Thompson et al (2004) with reference to the use of woodlands and the barriers to accessing these valuable resources through neglect or fear of using them.

Midgley et al’s 2008 study of the value of land-based enterprises notes:

“It has long been recognised that forests in Britain produce social and environmental benefits and that these non-market benefits include open access recreation, landscape amenity, biodiversity, carbon sequestration, pollution absorption, water supply and quality, and protection of archaeological artefacts (... Ward-Thompson *et al.* 2005)”, (Midgley et al, 2008, p. 28).

O’Brien (2006) cites Ward Thompson et al., 2005 as evidence that woodlands located near to where people live are valuable spaces, providing people with opportunities for contact with nature in the urban environment and as an escape from the built environment.

Many studies cite the 2005 paper in the context of discussions on children’s and young people’s access to woodland and natural environments. Mäkinen and Tyrväinen (2008) refer to the evidence in Ward Thompson et al (2005) that being in contact with nature is beneficial to an individual in many ways, and particularly for young people. Boekhoven (2009) commends the research for showing that choices made on behalf of children and adolescents with respect to free time activities may have implications for their future

educational and recreational experiences, their physical and mental health, and their maturation into adulthood. Muhar et al (2006) note:

“... it also appears, that people pursuing outdoor activities on a regular basis in their childhood, tend to continue these activities as adults (Ward Thompson et al. 2005). The fact that outdoor activities of children generally decreased in the past decades therefore is a big challenge for designing outdoor programs for young people and children.” (Muhar et al., 2006, p. 27)

Such references are reinforced by the response to the 2008 paper on the ‘childhood factor’ (Ward Thompson et al., 2008), which has already been cited by 13 (Google Scholar), and greeted with interest from its first appearance (it initially appeared in advanced, electronic form in 2007). As an indication of the variety of professionals and policy-makers interested in the work, it is mentioned on the website of the Children and Nature Network (2008), a USA based charitable organisation, and in *World Landscape Architect*, an online professional journal based in Shanghai, China (World Landscape Architect, 2007).

The childhood factor paper (Ward Thompson et al., 2008) has been referred to as evidence that:

“... the best learning environments are informal and naturalistic outdoor nature-scapes where children have unmediated opportunities for adventure and self-initiated play, exploration and discovery. Such informal experiences stimulate genuine interest in and valuing of environmental knowledge that is provided in more structured environmental education programs” (White & Stoecklin, 2008, p. 3).

Skår and Krogh identify:

“...qualitative studies [that have] indicated that childhood experiences in nature lay the foundation for both shaping later preferences for particular landscapes and for people's relationships to places ... besides influencing adult patterns of nature use (Thompson *et al.* 2008)”, (Skår and Krogh, 2009, p. 343).

Pretty et al's paper on ‘Nature, Childhood, Health and Life Pathways’ argues

for the importance of healthy activity in natural environments, citing several research papers led by myself, including Ward Thompson et al (2008), in evidence, and noting in the executive summary:

“There is therefore growing evidence to show that children’s contact with nature and consequent levels of physical activity affects not only their well-being but also their health in later life” (Pretty et al, 2009, p. 5).

In her paper on ‘Society’s attitudes to and preferences for land and landscape’, part of the Government Office for Science’s ‘Foresight study on the future of land use – Land Use Futures’, Carys Swanwick discusses evidence of the effects on attitudes to and preferences for landscape, for certain demographic factors, and picks up my work.

“Recently research has shown that childhood experience is a key influence on behaviour in later life. This is demonstrated in propensity to visit woodland and other natural greenspace as an adult. Greater exposure to the experience as a child means a high likelihood of later adult visits, while not visiting as a child was associated with a very low likelihood of later adult visits (Ward Thompson et al., 2007)” (Swanwick, 2009, p. S71) (this refers to the pre-publication of Ward Thompson et al 2008 in electronic form).

Such policy interest has been reflected in new work by the Forestry Commission, including Forest Research’s Liz O’Brien:

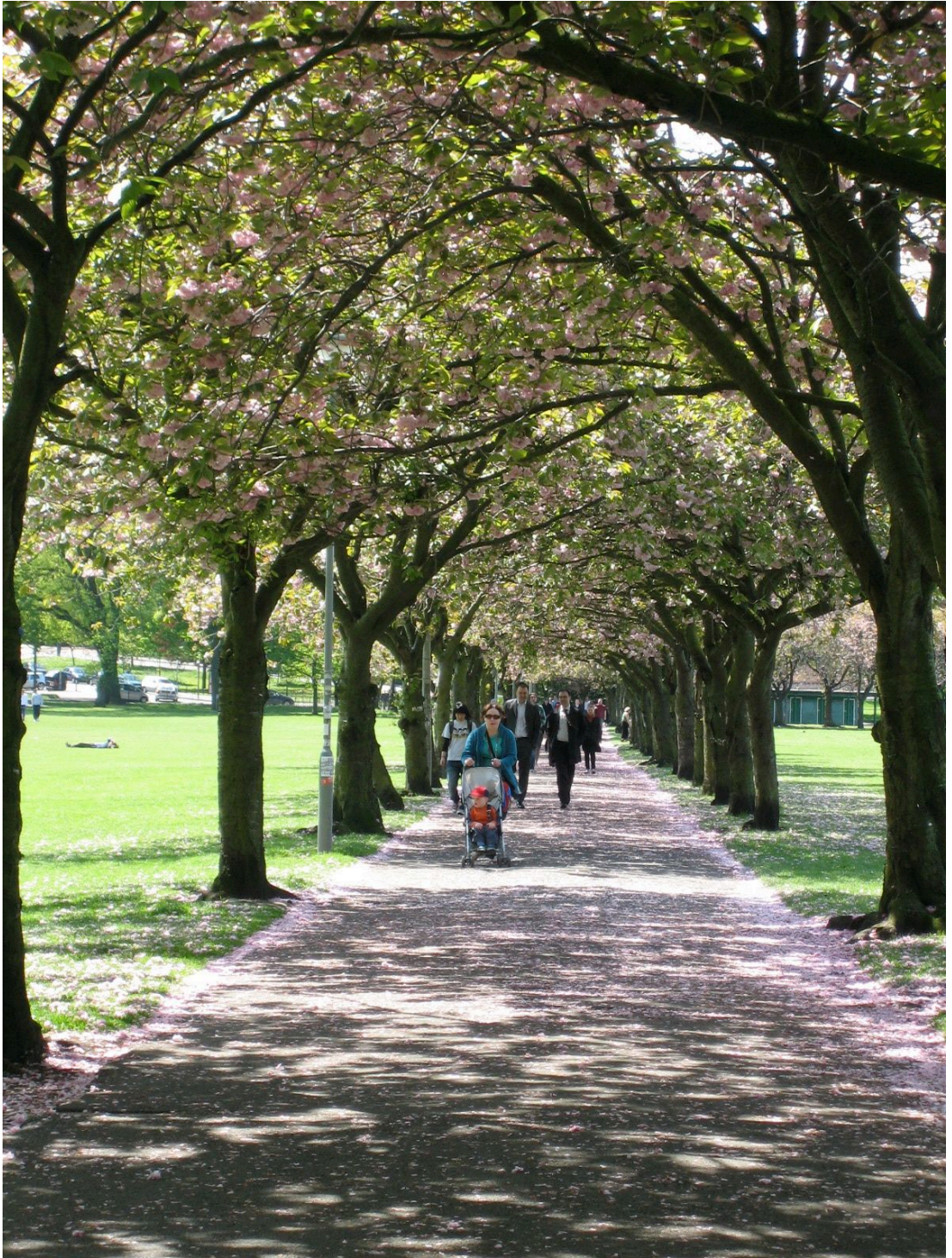
“There are growing concerns among a range of organisations within British and American society about the lack of access to nature by children ... A key issue is that children are not able to access the outdoor environment as freely as previous generations (Ward Thompson, Aspinall, and Montarzino 2008)”, (O’Brien, 2009, p. 46).

The development, on behalf of the Forestry Commission Scotland and the Glasgow and Clyde Valley Green Network Partnership, of Forest Kindergartens has been one response to my research on the importance of children’s access to wooded and natural environments (Forestry Commission Equality Impact Assessment Summary, 2009).

“Childhood experience of natural spaces has been shown to affect behaviour and attitudes as adults, especially toward the environment (Ward Thompson *et al*, 2008)” (Robertson *et al.*, 2009, p. 18).

This feasibility study for Forest Kindergartens aimed to identify at least one suitable woodland area in each local authority in the City of Glasgow and Clyde Valley and to match this with at least one pre-school establishment within each local authority. This is just one response to my research but a useful illustration of how it has been contributing to development of new policies and practical interventions that have an impact on landscape architecture and the wider sphere of environment, education and health.





## 9. Conclusions



## 9. Conclusions

My research has cast back to the history of landscape design based on the English Landscape style and to design precedents in Scotland, such as the walled garden, to understand the aesthetic principles behind successful landscape architecture, from private gardens to public parks and beyond. I have also sought to understand historical and contemporary theories on how people engage with the landscape, and benefit from that engagement, by looking at the work of Frederick Law Olmsted and Patrick Geddes and the 20<sup>th</sup> century theories of George Kelly, James and Eleanor Gibson, David Canter and others. I have investigated the particularities of place, and responses to that place, which lie behind successful and not so successful landscape architecture, and developed articulations of this that are both rigorous and relevant to the discipline. I have increasingly found that my research into the benefits that accrue from access to nature in landscapes resonates with current government concerns about health and well-being, social inclusion and quality of life. This is important throughout people's lives but appears to be particularly so for children and young people. Given the increasing evidence, to which I have contributed, on the importance of childhood engagement with the landscape - the childhood factor - we must ask questions about the likely consequences of today's restrictions on children's free access to outdoor and natural places.

In my chapter for the book *The Cultured Landscape: Designing the environment in the 21<sup>st</sup> century*, I noted that there was little empirical research demonstrating unequivocally that good landscape design is better than bad (or no) landscape design for people, or that ignoring the quality of landscape carries the risk of a health hazard. I added that, until we make this link effectively, that is, demonstrate that bad landscape design (or failure to give due weight to landscape quality) is too high a financial and health risk to justify, the true value of landscape architecture as a profession is unlikely to be recognised (Ward Thompson 2005a). My most recent work has been an attempt to address this challenge, and the papers in this thesis, in their several different ways, also reflect that effort.

My earlier work on parks and urban open space offered new ways of considering both historic parks and new green infrastructure within our towns and cities, including the informal, often disregarded, “loose-fit” landscapes of waste ground, temporary green space and interstitial fragments of nature.

When considering historic American parks and contemporary needs over a decade ago, I identified 5 paradigms under which park planners, designers and managers appeared to be working in developing and renewing such parks: the park as democratic place; as historic work of art; as nature; as educator; and as paradise (Ward Thompson, 1998b). Intriguingly, given the Olmsted firm’s declared interest in the therapeutic and health benefits of good quality parks, there was little interest from landscape professionals responsible for urban park renewal in the 1980s and 90s in the health benefits of the landscape. This has changed quite markedly in recent years, however, and in reviewing those paradigms now, it is necessary to add the category of ‘park (or landscape) as salutogenic environment’. The other categories remain robust and important, resonating in different ways with my subsequent research findings.

- a. The park or urban landscape as a democratic place remains as relevant today as ever, with new concerns over environmental justice, social inclusion and equity of access to high quality green and natural environments driving policies on urban open space and accessible woodlands in and around towns.
- b. The park as a work of art is reflected in the Heritage Lottery funded support for park renewal in Britain through its ‘Parks for People’ programme, which emphasises the heritage value of parks, as well as in new works such as Charles Jencks’ design for the Scottish National Gallery of Modern Art.
- c. The value of the natural environment in parks, and in the wider urban landscape, has been emphasised recently in the language of

'ecosystem services' and the multiple benefits green infrastructure is seen to bring to sustainable urban environments.

- d. The pedagogical benefits of direct engagement with the landscape were important for Geddes in his design of urban landscapes, including zoos, and the renewed interest in children's access to landscapes such as woodlands, close to where they live and go to school, reflects a revival of this concern today.
- e. Finally, the park as paradise was a metaphor for the spiritual dimension of engagement with the landscape, a dimension that has rarely been debated in direct terms in recent times but is alluded to in findings such as references to 'magical places' in Ward Thompson et al 2008, and in discussions about the benefits of outdoor adventure therapy. However, recent debates about mental ill health in the British population, and in the Scottish population in particular, signal perhaps a new openness to exploring the benefits of being in the landscape in a wider sense than before.

I have used a range of research methods in my work presented here. I have rejected any simplistic notion of the superiority of qualitative over quantitative approaches, critical theory versus interpretive approaches or empirical methods, since it was important to be open to a range of approaches and match the method to the quest and the challenge in any research project. I have drawn on the different theories, techniques and interpretations that a multidisciplinary endeavour can offer. For my empirical research, I have favoured a mixed method approach as most likely to throw light on complex issues that span and transcend individual disciplines and specialisms. My work has focused on the specificity of person and place while also seeking what might be generalised beyond that, to other places and groups of people.

The approaches we have developed in OPENspace are an attempt to understand both the person and the place, and the transactional relationship between the two. Other projects have built on the research presented in this

portfolio, including the use of PCP-based Personal Projects (Little, 1983) to explore idiosyncratic responses to environmental support and the experience of the landscape (Sugiyama and Ward Thompson 2007a; 2007b). Such work reflects the need to acknowledge the diversity as well as the commonality in people's capabilities, experience and desires if we are to understand what qualities of the environment are important to quality of life. We need to understand the cultural, the social and the individual influences on what people seek and experience in the landscape around them, as Bronfenbrenner's (1979) approach to human ecology suggests.

A framework that might effectively articulate these concepts, and which the research in this thesis supports, is development of Vygotsky's work as expounded by Bourassa (1991). Bourassa draws on "the existentialists' phenomenological account of the nature of human existence" (Bourassa, 1991, p. 56) and the work of Dewey, Hume and others to suggest a model of a tripartite mode of existence based on Vygotsky's work (see Bourassa, 1991, pp. 55-57). This posits biological, cultural and personal components to human aesthetic response, including engagement with the environment. It is important to note that individual traits, according to Vygotsky, can transcend the biological constraints on a person's behaviour and therefore "individuals' personalities should be viewed as composites of biological and cultural constraints and personal idiosyncracies" (Bourassa, 1991, p. 110).

With this understanding, we can develop a model with the potential for explaining the different responses we find in people's engagement with the landscape. Such a model, for example, recognises the personal traits which make one person attracted and another repelled by the busyness of a park on a sunny day, while recognising the cultural desire to visit a park on a clement weekend afternoon and the biological inclination to engage with greenery and water in a benign climatic setting. This tripartite conceptualisation of 'biological laws', 'cultural rules' and 'personal preferences', as Bourassa puts it, allows the development of a model that speaks to the designers' and planners' concern to provide for the common

good while recognising that one park or landscape may need to serve very different groups' expectations and aspirations.

The theories and methods that allow us to explore these dimensions of human response are being developed by OPENspace researchers and by outside colleagues, reflected particularly in the book recently edited by OPENspace (Ward Thompson et al., 2010). We are interested in the notion of affordances and the transactional relationship between person and environment at its core. My work has contributed to the understanding that the same place can have multiple meanings and, indeed, be experienced as a different place by different people (Myers and Ward Thompson, 2003), complementing Harry Heft's and Brian Little's work (2010) to help us understand the motivations behind affordances and *why* the relationships between individuals, their projects and their environment may lead to stress or to restoration. Our work also contributes to considerations of the evolutionary (and therefore biological) basis for engagement with the landscape, which may have an increasing role to play in our understanding of the therapeutic benefits of the landscape, as Heft, de Vries and Grahn *et al.* also discuss in our book (2010). In the middle lie cultural rules, vitally important elements of people's behaviour and response to environments, that are explored in research on diversity and landscape use such as that for CABE Space (Ward Thompson et al., 2009) to understand how different BME groups, for example, perceive and experience urban green space in their neighbourhood.

I suggest that this model of human relationship with the landscape may provide a helpful framework for thinking about landscape planning, design and management. While accepting that, for any individual, the combination of biological, cultural and personal responses to the landscape may be inextricably intermeshed, it is nonetheless likely that there are biological constraints and responses to which designers need to pay attention. People have a similar walking speed, within certain parameters, and therefore the proximity of open space that is within 5-10 minutes' walk of most people's homes is biologically constrained by the walking speed of young, ambulant

children and older people. Equally, it is likely that certain kinds of commonly recorded positive responses to the natural environment – rivers, seas and lakes, mature trees amid an open landscape, bird song, and similar – are based on an evolutionary response to a supportive environment for survival and flourishing.

Yet when thinking about design of the landscape, practitioners need also to be aware of cultural responses and expectations. What kind of use is likely to be demanded by different groups and what cultural demands are exclusive to a particular group or likely to be shared among many? Cricket for the Trinidadians or fiestas for the Latin Americans in Prospect Park, Brooklyn, NY, for example, provided just such conundrums for park managers. Park and landscape design and programming will need to take such aspects into account in determining best and most inclusive use of space. Finally, special facilities and provisions will be needed to support personal differences and preferences – those who need quick access to toilet facilities (true both of parents/carers with small children and of some older people) – as opposed to the majority who may not need these provisions in order to be able to enjoy the open space. Information and wayfinding design needs to recognise some user's need for precise information in certain locations, while allowing opportunities for others to enjoy the challenge of making their own way and discovering things for themselves. I am still working on the development of this framework for conceptualising what we need to create as landscape architects but I am hopeful that it may offer a way forward, supported by sound theory, that will be of practical use in an era where professionals are still struggling to meet the demands of the diverse 21<sup>st</sup> century society in which we find ourselves.

My research has developed as a response to my own interests, to self-questioning from the landscape architecture profession but also to the interest of others in what designed landscape and urban open space can offer society. It has served to inform the debate and, in turn, to help set the agenda for policy-makers; it is an agenda that recognises the vital role of green and open space in all our lives.





*An Introduction to the*  
NATIONAL ZOOLOGICAL  
PARK OF SCOTLAND

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## **Portfolio of Published Papers**

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