



PLACE, PEDAGOGY AND PLAY

Participation, Design
and Research with Children

Edited by **Matluba Khan, Simon Bell and Jenny Wood**



Place, Pedagogy and Play

Place, Pedagogy and Play connects landscape architecture with education, psychology, public health and planning. Over the course of thirteen chapters it examines how design and research of places can be approached through multiple lenses – of pedagogy and play and how children, as competent social agents, are engaged in the process of designing their own spaces – and brings a global perspective to the debate around child-friendly environments.

Despite growing evidence of the benefits of nature for health, wellbeing, play and learning, children are increasingly spending more time indoors. Indeed, new policy ideas and public campaigns suggest how children can become better connected with nature, yet linking outdoor space to pedagogy is largely overlooked in research. By focusing on three themes within these debates, place and play; place and pedagogy; and place and participation, this book explores a variety of angles to show that best practice requires dialogue between research disciplines, designers, educationists and psychologists, and a move beyond seeing the spaces children inhabit as the domain only of childhood professionals.

Through illustrated case studies this book presents a wider picture of the state of childhood today, and offers practical solutions and further research avenues that promote a more holistic and internationally focused perspective on place, pedagogy and play for built-environment professionals.

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To all the children who have been denied their human rights.



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FOREWORD

PEDAGOGY OF PLACE IN THE ANTHROPOCENE

When children play, do they learn? “Yes,” would be the expected answer from child development experts and early childhood educators, and hopefully, parents. Positive responses from professionals not directly engaged with children and the public at large are probably less likely. Perhaps the question should be more often asked. If we agree that children do learn through play, are *where* they play and the physical characteristics of those places important? This question is seldom asked and poorly understood.

Recently, I tagged along with a half-dozen four-year-olds, their teacher and a student intern, in a small remnant woodland situated just beyond the boundary fence of the licensed area of a large child development center. In the quarter-acre paradise, informal paths had been cleared and edged with pieces of tree trunks and limbs, which sometimes ballooned out to form additional activity areas. Some were equipped with large tree trunk slices, laid horizontally to support kids’ investigations. “Research tools” included recycled plastic receptacles, bottles, hand-lenses, and steel-bladed scissors. The teachers let kids roam freely, solo or in groups, exploring and discovering whatever attracted their attention. Within moments, kids were digging in the leaf litter, turning over logs, peeling decomposing bark, digging into rotting wood with scissors, clearly fascinated by the material transformations they made and the small animals they found.

Teachers stayed in the background keeping a watchful eye, joining in when the children’s attention focused on something specific, using Socratic, inquiry-based probing. What did you find? What color is it? What’s that along the edge of the body? Legs? How many? Are they all used at once? Children trap the centipede-like insect in a bottle for closer inspection. The student teacher discusses with another child the curvy grooves on the inside of bark separated from a fallen log and asks what made them.

The two-fold advantage of the woodland was its easy access from the childcare center and the fact that it was an unkempt landscape, with a mix of deciduous trees and conifers, some fallen and left to decompose, together with a diverse understory—a biosystem of readable markers of seasonal cycles and the passage of time. To the casual observer the place would appear similar to any patch of Piedmont woodland in North Carolina. However, through the play and learning experiences of children with their teachers, the woods have been psychologically transformed into a well-loved place full of meaning, reinforcing the childcare center’s bio-identity. Intervention was a looping, rough-and-ready pathway to help children discover some of the infinite affordances of the place. The freedom and imagination of these children was also expressed in natural shelter constructions, pretend animal habitats, and homes for other imagined beings.

Teachers facilitated, extended, and deepened discovery, encouraging close observation, responding to questions, inventing ways to capture, observe, describe, count, and use words related to animal and plant parts, sounds of nature, qualities of ever-changing light, the sensation of air on one’s face, and the behavior of autumn leaves floating gently to the ground. Play and learning experiences were taken back to the classroom for further steps in the learning process: observing more closely, making drawings, listening to a related teacher-read story. Each

woodland trip adds layers of individual meaning and collective meaning for the class. A new kid, just arrived from a foreign land, experiences the woodland as a social link with another child as they explore wordlessly together, then starting a conversation as they share discoveries, co-creating the pedagogy of the place. Social-emotional learning is palpable when observed first-hand, although not yet well represented in the literature.

The above example of place pedagogy lies at one end of the place biospectrum as a diverse, multi-layered, well-established habitat, requiring minimalist intervention to activate childhood wonder and its extension by mindful teachers. The other end of the place biospectrum is more challenging to activate because it involves the re-naturing of existing childhood spaces to create biodiversity from scratch. Nonetheless, a positive aspect is the possibility of engaging children and youth in the design and management processes that strengthen place affiliation and a sense of ownership. As the majority of children live in cities, conserving local natural places and re-naturing them are equally important. Nature facilitates equity and inclusion by affording many points of entry, offering diverse possibilities for interaction and rich social relations at ground level, regardless of individual special needs or disabilities.

Possible place pedagogy outcomes include health promotion via increased time outdoors as a proxy for physical activity and reduction of sickness (reduced exposure to indoor germs). Adding nature can dramatically increase body-in-space affordances and thus fitness. The adaptability of nature can support wide-ranging learning styles, especially for kids intolerant of sitting in classroom chairs for long periods. For them, outdoor hands-on learning can be transformed through memory and applied to new situations back in the classroom and beyond. Tacit, experiential learning through play in nature supports cognitive development. Children know things because they confidently perform actions on their environment and observe the results—in other words gain agency, now recognized as crucial to successful human development. Hands-on science happens in front of their eyes. Diverse action in nature motivates literacy.

As human society enters the Anthropocene and faces the enormous challenges of climate change, guided by OECD's *Future of Education and Skills 2030*, we must re-examine the role of learning, education, and schools in the volatile digital era, where acquiring social values may be more important than learning skills. In this regard, the timely publication of *Place, Pedagogy and Play* must be applauded. The book's interdisciplinary contents bridging research, practice, and policy take us a long step forward towards a new vision of holistic childhood based on the integration of play, learning, and education; and, I would emphasize, the need for place pedagogies intimately entwined with nature. Supportive, international policy already exists in the form of the UN Convention on the Rights of the Child and the UN Sustainable Development Goals. Together, they provide portals for national and local policy to shape the long-term health of Planet Earth and its human inhabitants. Action is imperative!

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PREFACE

The inspiration for this book comes from a vision about researching with and for children, to learn how to enhance the opportunities offered by the environments in which they spend their days to provide for stimulating, healthy and playful child development. Remarkably, given the success of the vision – culminating in this book – it was initially developed by a group of Landscape Architecture and Architecture doctoral (PhD) students at the University of Edinburgh, who then reached out to their colleagues in other disciplines, including Design and Education, to develop and obtain funding for an international conference. The organising committee, many of whom were already professionals in academia or practice as well as being research students, brought together an international group of researchers and practitioners working on diverse aspects of children's environments for an interdisciplinary conference held at the University of Edinburgh in May 2017. The conference, entitled 'Researching with and for Children: Place, Pedagogy and Play', combined these three important themes of childhood, often explored only in disciplinary silos.

To enhance these links, the conference was designed so that all participants attended every presentation across the wide range of topics. The diverse contributions, ranging from experiences of children's play in China to considerations of learning and creativity in primary school classrooms and nursery playgrounds in the UK, spawned much debate and fruitful discussion. It was a particular pleasure to engage with so many dedicated and enthusiastic colleagues at this conference, given the track record of research into supportive outdoor environments for children and young people undertaken by the OPENspace research centre, to which I and co-editor Simon Bell belong. We are delighted that this book can now expand and reflect on the rich range of research, and its practical implications, that continues to be needed in the ever-changing world of childhood today.

The book presents 13 chapters that reflect varied aspects of children's lives in different contexts. Part 1 focuses on the dynamic between places and children's play; Part 2 focuses on how place affects children's learning and their experience of this learning; and Part 3 reflects on the role of children in place making and how we may work to counter some of the barriers currently in place for children's participation. The conclusion then draws out the differences and commonalities in the range of approaches, identifies learnings for academia and practice, and considers how we may use interdisciplinarity to illuminate approaches and understandings in different parts of the world.

The outcome of this volume is a call to action for further collaboration between individuals and organisations that believe in the primacy of children's environmental experience for better understanding and shaping our world. We hope that lessons contained in this book will be of use both to researchers and to practitioners. Several contributions come from practitioners engaged in research and many chapters report on an action research approach that worked with communities and other child-focused organisations. The aim is to draw out the links between current research and practice and inspire future collaborations.

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INTRODUCTION

Simon Bell, Matluba Khan and Jenny Wood

In 2005 the American child advocacy expert Richard Louv published a book which was to have reverberations around the world. *Last Child in the Woods: Saving our Children from Nature Deficit Disorder* (Louv 2005) became a best-seller, bringing together a body of research and demonstrating through this the importance of giving children direct experiences of and exposure to nature (in its widest sense). This serves a vital contribution to their development in terms of physical and mental health and well-being. As well as presenting the evidence, Louv also offered solutions. It therefore seems strange that in the almost 15 years since then children appear to be spending less time outdoors than ever before. Louv's call has largely fallen on deaf ears, despite the uptake of his ideas and the continuing references to his work. Is knowing about the problem enough to solve it?

Since 2005 we have seen the inexorable rise of the internet, and social media in particular has attracted children to the indoor world of the screen. Smartphones have become entrenched and strongly intermingled with both child and adult cultures worldwide, and with the wealth of content now at our fingertips, it is proving irresistible to many, if not most, children.

The massive increase in urbanisation across the globe is a further contributing factor to children's increasingly indoor lives. Since 2008 over 50% of the world's population has been living in cities, and the poor quality of many urban environments – replete with traffic, air and water pollution, poor housing and a lack of green areas – means that many children grow up in places devoid of nature, so that even if they wanted to make direct contact, it is not easy to do so. Add to that the perception that urban areas are child-unfriendly and full of risks – ranging from traffic to stranger danger – and children are often not allowed out on their own to play freely.

Compounding the above factors, children in many societies face pressures to succeed in their education and lead programmed lives where almost every minute is taken up with some activity which is supposed to increase their chances of getting into a good school or succeeding in sports, music or art (as well as in the classroom). Clearly this pressure varies from society to society, but it has a major negative impact on the development of young children in ways other than those measurable by educational or sporting attainment.

The United Nations Convention on the Rights of the Child (UNCRC) was adopted in 1989 and came into force in 1990. 196 countries ratified the UNCRC, including all eligible member states of the United Nations except the USA. There are three aspects which concern us in this book: play, pedagogy and participation. Regarding play, the convention contains a single major clause on this in Article 31 where it states:

States Parties recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.

(UN 1989)

Other articles also contain statements which link to this, such as Article 15, which gives children the right to gather, assemble and organise their own activities. Signatory countries have in many cases taken on the task of creating a

set of guidelines on play which refer to both the letter and spirit of the convention. As an example, the Play England Charter for Children's Play states:

Play is an essential part of every child's life – vital to his or her development. It is the way that children explore for themselves the world around them; the way that they naturally develop understanding and practice skills. Play is essential for healthy physical and emotional growth, for intellectual and educational development, and for acquiring social and behavioural skills.

(Play England 2009)

However, such moves are usually led by Non-Governmental Organisations, and there continues to be a lack of strategic thought from governments (with some exceptions) across the world as to how to protect children's declining freedoms to play on their own terms.

Regarding pedagogy, the UNCRC declares a right for all children to receive an education in Article 28, and stipulates qualities of that education in Article 29. This includes education that helps children learn about the world around them, and respect for their own and other people's rights. While new policy ideas and public campaigns suggest how children can become better-connected with nature, linking outdoor space to pedagogy is largely overlooked in both research and practice. An exception may be Scotland's new 'Learning for Sustainability' aspect of the school curriculum. However, it is too early to measure the impact of this.

Participation is explicitly mentioned in the UNCRC in Article 12 section 1:

States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.

(UN 1989)

Indeed, this is an underpinning principle of the UNCRC, and one that challenges many existing societal structures. The other two underpinning principles are 'non-discrimination' (Article 2), and 'best interests of the child' (Article 3). In relation to the concept of place – a specific geographic location or space which can be connected to a person, and with which they identify an attachment – children frequently grow up in and form strong links to their home environment. This is not just their residence but their immediate neighbourhood, local parks, their school, shops, religious centres and other places which form their world. Ideally this place-attachment leads to a feeling of safety and security; enabling children to play freely; to be concerned about and develop care for the environment; and to wish to be consulted or to participate in certain decisions which may affect their space. Thus, the place in which rights are enacted are vital, and children are likely to have important insights to contribute around what makes a place good or bad – for them and also for others.

Place can be changed for the better by design and, for example, play equipment or educational tools at the micro scale. At the meso and macro scale, play or educational space (whether indoor or outdoor classrooms or other environments such as forests) can be improved with the participation of children who are the beneficiaries of the design.

This book is the first to link place, pedagogy and play, by connecting landscape architecture with education, psychology, public health and planning. It looks at how children, as competent social agents, can participate in the process of designing their own spaces, and brings a global perspective to the debate around child-friendly environments. It also considers how research in these fields (obviously done *for* children as beneficiaries) should be undertaken, where possible and ethically acceptable, *with* children. This reverses traditional approaches of conducting research *on children*. Readers will find that this is a central theme in the book.

THE ORIGINS OF THE BOOK

This book started life at an interdisciplinary conference held at the University of Edinburgh in May 2017. The conference, entitled “Researching with and for Children: Place, Pedagogy and Play” combined three important interconnected themes of childhood often explored only in mono-disciplinary silos. To enhance these links, the conference was not split into different themes as is usual, but all attendees sat in on every presentation across the diverse range of topics. From researching the experiences of children’s play in China, to how the layout of a primary school classroom in the UK affects children’s learning, the structure and collegiate nature of the gathering spawned fruitful and energising discussion. We are delighted that this book can now draw out the commonalities in these areas and reflect the diverse range of research that has been carried out to date and should continue to benefit future generations of children.

A key aspect of the conference is that it was entirely planned, organised, and the funding acquired by PhD students led by Matluba Khan following the submission of her PhD thesis in landscape architecture to the University of Edinburgh. A large proportion of the papers were also presented by doctoral students from a range of locations. Many of these, while conducting their research in Scotland or the UK, were from overseas and this is reflected in the authorship. When inviting and selecting papers to include in the book – and for a range of reasons not all submitted papers from the conference were suitable, nor could some authors commit to a book chapter – we also took the opportunity to identify other work which fit the theme and invited these authors to submit a chapter. Thus, the book adheres to the themes as presented in the three well-balanced sections, while the actual range of chapters is rather eclectic.

This collection shows the range of issues of interest to researchers, and a wide variety of research methods and contexts for research. Moreover, the chapters are more discursive, reflective and hopefully make interesting and stimulating reading for the non-expert. By focusing on three themes within these debates, this book takes a variety of angles and shows that best practice requires links between research disciplines, designers, educationists and psychologists, and a move beyond seeing the spaces children inhabit as the domain only of childhood professionals. We hope that lessons contained in this book will be of use to both researchers and practitioners, and while chapters present academic research, all authors have brought out implications for policy and practice through their exploration. Indeed, several contributions come from practitioners engaged in research and even more chapters take an action research approach where authors worked with communities and other organisations. The aim is that, far from research taking place in ivory towers away from the gaze of those shaping the world we live in, we can draw out the connections for current practice and future collaboration.

Collaboration is increasingly important in focusing these wide-ranging debates, as while changing pedagogical models favour innovation, the design of the pedagogical “place” remains largely static. As noted on p. 2, the UNCRC has transformed the way child-focused researchers and practitioners view children; however, practitioners of environmental design continue to eschew these rights in spatial practice. This means:

- the place for play and the place for pedagogy are thought of as mutually exclusive;
- spaces for play are often segregated from the rest of the public realm;
- practice fails to acknowledge children’s capabilities to participate in design and planning.

The book draws together a wider (but necessarily partial) picture of the current state of childhood research, grouped into the three themes, and offers both practical solutions and further research avenues to promote a more holistic and internationally focused perspective on place, pedagogy and play. This reflects the foci of the young researchers who had the foresight and ambition to hold the conference (and that of their senior supervisors who supported them and who of course saw their research come to fruition).

We present here 13 chapters that reflect different aspects of children’s lives in different contexts. Part 1 focuses on the dynamic between places and children’s play; Part 2 examines how place affects children’s learning and

their experience of this learning; and Part 3 reflects on the role of children in place-making and how we may work to counter some of the barriers currently in place for children's participation. The conclusion then draws out the differences and commonalities in the approaches presented and lessons for academia, practice and how we may combine approaches and understandings in different disciplines in different parts of the world.

As Catherine Ward Thompson writes in the Preface, the outcome of this volume, taken as a whole, is a call to action for further collaboration between individuals and organisations that believe in the primacy of children's experience for better understanding and shaping our world.

PART 1: PLACE AND PLAY

This section comprises chapters that explore the ways outdoor environments can be designed to foster children's rich play opportunities and behaviour and, through this, affect their learning. Chapters address:

- which playground features encourage more creative play among children;
- whether natural play elements and loose materials have an impact on children's active play;
- how architects and other designers can understand how a play space for younger kindergarten children functions and how it can be improved;
- how the play experiences – or lack of them – of primary school children affect their lives;
- how we can design for equity and for children with special educational needs;
- how we can improve physical literacy among children, given the crisis with low levels of physical activity.

The section starts with an important question for planners and designers, posed by Reyhaneh Mozaffar in Chapter 1: given the current state of play provision in many areas, should we provide manufactured play equipment or loose parts? This is examined in the context of a need acknowledged by UNICEF to ensure children's cognitive development, and the author believes this to be in part achieved by creative play. Her chapter reviews the nature of creativity and how to measure it, and defines creative play and related theories. Her research explored the creative possibilities of provided equipment and loose parts (all sorts of things such as blocks of wood, tyres, cloth and sand) through an experiment at a cooperative nursery for pre-school children in a small town in Scotland. The results showed how the loose parts led to much more creativity, with differences between boys and girls. It would be a straightforward task to apply the findings by simply providing such materials – cheap and versatile – in a nursery, with potentially important results, and this has implications transcending geographical boundaries.

From a project aiming to maximise creative play, we move to Chapter 2 where Pai Tang and her supervisor Helen Woolley study children's daily activities during summer holidays in the Beijing central area, China. Here, due to a competitive educational environment, the amount of time for children's free play is very limited and little of this takes place outdoors. This is ground-breaking research in a society which places great importance on education. The situation is not helped by the summer climate of inner Beijing which is hot and humid. This chapter shows that problems of lack of time and space for play are not only features of western societies, which have so far been the predominant focus of play research.

We next move to Estonia, one of the Baltic states which were part of the Soviet Union between 1944 and 1990. In Chapter 3, Bhavna Mishra, with her supervisor Simon Bell, and Himansu Sekhar Mishra, explored how playground design affects the play behaviour of kindergarten children in Tartu, Estonia. Bhavna describes how she chose four different kindergartens in the city, all reflecting in varying degrees the somewhat out-of-date approach to their function following decades of Soviet theories and practices. She undertook detailed observations of children playing in the outdoor spaces of each kindergarten and interviewed the staff. This revealed the specific ways in which the layout and equipment of each space was used by small children and which elements and designs have the most play value for them. The research revealed how different settings provided affordances for different types of play,

which differed between girls and boys. It draws out the shortcomings and opportunities for improving the design and for making the most of natural spaces and loose materials with less reliance on manufactured equipment – so it fits well alongside the results of the study presented in Chapter 1.

Chapter 4 moves from small, able-bodied children or the specific geographic focus of China or Estonia, to explore landscapes for children with disabilities. Hazreena Hussein examines the design of sensory gardens for children in the context of the United Kingdom. She conducted case-study research using mixed methods in order to understand better how two sensory gardens in special schools work and the benefits they provide for children. She focuses very much on drawing out design principles for landscape architects but also notes that such gardens could have pedagogic as well as play potential if integrated into mainstream schools.

This section ends with the rather compelling Chapter 5, in which Patrizio De Rossi investigates and reveals a critical understanding of the role of active play in promoting physical literacy. Physical literacy refers to the motivation, confidence, physical competence, knowledge and understanding for engagement in physical activities throughout the life course. This chapter considers the perspectives of children and adolescents in rural Gloucestershire in an investigation into the relationship between play and physical literacy. Patrizio asked four boys and three girls to create their own ‘play diary’ for a week using a disposable camera, and then held interactive discussions with children around the 99 photographs. The narrative analysis of the data gathered in meetings with children reveals that free, unstructured and semi-structured (traditional playground games) active play activities have the potential to encourage the development of physical literacy. The chapter ends with recommendations for creating opportunities for active play.

PART 2: PLACE AND PEDAGOGY

This theme is addressed in chapters that explore the relationship between the design of physical environments and pedagogy. Physical environments, when designed with the learning needs of children in mind, can enhance the teaching and learning process. Teachers, if aware of the role of the environment, can integrate the outdoor context in teaching of the curriculum. The chapters in this section address:

- how teachers can work towards new models of curriculum planning by recognising and harnessing the active role places can play in learning;
- how educators can make learning more purposeful by involving nature;
- how children transition between key stages of school and navigate the differential balance of ‘work’ and play in primary classrooms;
- the role of the indoor–outdoor relationship of space in teaching and learning in early childhood classrooms;
- how an outdoor learning environment can be designed and evaluated to foster both children’s play activities and learning of the curriculum;
- the role of outdoor learning in reducing the attainment gap between children from the richest and poorest socio-economic backgrounds.

This section starts with Chapter 6, in which Muntazar Monsur explores the role of the indoor–outdoor relationship of space in teaching and learning in an early childhood classroom in the USA. The intersection between indoor and outdoor environments is rarely explored in research as an important aspect of children’s environments. Indeed, it is ‘much more than just the size and number of windows and doors’ as the author put it while investigating the answer to the question, “Can the design of windows, doors and desk spaces become effective tools for teaching and learning?”. Inspired by the educational philosophies of Montessori and Reggio Emilia, the author discusses the importance of critically examining the built environment in terms of learning outcomes and behaviour, and the special attention the indoor–outdoor relationship deserves in this discourse. The results show how a better view from the window, i.e. a view of nature, resulted in more motivated teaching, more engaged children, and more nature-based learning inside the classroom. This therefore indicates the importance of better landscape design in

early childhood settings. Results also indicate how a simple design intervention like wider window sills, with wider views from the windows, can offer more opportunities for learning activities like growing plants, drying artworks, conducting science experiments, etc., which has potential application beyond the USA.

From an architect's exploration of elements for better teaching and learning, we move next to a pedagogue's account of how children's connection with nature can be instated through learning in nature in Chapter 7. Inspired by a love of nature, this chapter reflects on Cathy Francis's thirty years' experience as a primary teacher working with children who seemed increasingly distanced from nature. The chapter particularly draws on weekly excursions of eight to nine-year-old children from the north east of Scotland to a local beach with their class teacher. Cathy begins the chapter by expressing her personal motivation to connect with nature, defines 'nature' in the context of the chapter and proposes a theoretical framework comprising four elements: encounter, touch, affiliation and surrender, to describe a process by which children may secure a positive, mutually beneficial connection with Nature. This chapter principally addresses teachers, but has implications for planners and landscape architects in terms of finding a balance between natural and built elements when designing and planning environments.

Chapter 8 by Jamie McKenzie Hamilton, also situated in Scotland, explores the impacts of indoor and outdoor settings on children's education, and provides recommendations for environmental qualities for engaging pre-schoolers in learning. Jamie's PhD research involved three primary schools, and compared the performance of 71 pupils on curriculum tasks between indoor and outdoor settings, categorised for their natural richness. He used multiple mixed methods including observations, questionnaires carefully designed for young children, focus group interviews with teachers and teachers' answers to the child-focused questionnaires. The results show general individual and group performance was superior outdoors and related to natural richness, including significant impacts on memory, attention, motivation and social interaction. Effects on underachievers were especially notable, bringing their engagement, contribution and self-confidence to levels which matched their peers. Jamie argues that stronger policy on outdoor learning could help close the attainment gap in Scottish education and beyond.

From the description of aspects of environmental qualities in early childhood settings, Chapter 9 poses an important question: 'Can we bridge the gap between research and practice?', and moves to discussing a comprehensive approach for evaluation of interventions in school grounds as both places for play and for pedagogy. The approach proposed by Matluba Khan, her supervisor Sarah McGeown and Simon Bell can be used by both researchers and professionals: architects, landscape architects and planners. It is based on Matluba's action-focused and experimental design and research projects (prior, during and post-PhD) in the context of Bangladesh. The authors first illustrate the theoretical framework that underpins the approach, and continue by discussing the usefulness and challenges of using different methods by referring to several case studies. In particular, the authors focus on a design project at a primary school in a small town about 80 km from the capital city, Dhaka. The chapter ends by providing a framework for the analysis of school ground settings based on the designers' intentions as potential affordances, i.e. opportunities for a behaviour or activity offered by a setting or object, affordances actualised by children and new affordances discovered by children.

PART 3: PLACE AND PARTICIPATION

This theme highlights and explores how children are often excluded from decisions about places and spaces. While co-production and community engagement are increasingly important to planners, designers, and other policymakers, it remains the case that including children is still seen as 'innovative'. Aspects under discussion include:

- how children are currently involved in the design and planning of their spaces through both active participation and playful manipulation of everyday space;
- how children could be more effectively involved in design;

- what methods we might use to encourage creative participation;
- challenges and opportunities of engaging children in the design process;
- children's perspectives on the management of space and place.

This section offers a critical commentary on contemporary issues regarding children's participation in a number of matters that affect them. Attempts at integrating Article 12 of the UNCRC have thrown up a number of challenges for nations across the world, but when it comes to place-based issues there are significant gaps in policy, practice and research. The four chapters here explore a variety of issues in the UK, Sweden, Denmark and China.

The section opens in Scotland, with a take on children in town planning through Jenny Wood's empirically supported, theoretical discussion of children's participation in urban environments in Chapter 10. She takes participation in this context to be an inalienable combination between participation both in the processes and the outcomes of planning. Drawing on the views of children in one area of a Scottish city, she links their insights with theories of power and spatial organisation, as proposed by Foucault. The result is an untangling of power in the outcomes of planning, and a route forward through the use of Foucault's heterotopia to see children as heterotopians – always seeking their own playful opportunities in every and any space. Through this theorisation, planners can come to understand that children not only need specific facilities, but also places where they are unconfined without their activities being dictated by adults. Children have agency in their own use of place; planners could do better by reducing the dominance of cars on urban environments, improving active travel infrastructure and taking a less interventionist approach to open and 'leftover' space.

The section continues with Chapter 11 by Simon Beeson, a chapter that truly embodies the interconnection of play, pedagogy and participation with regard to children and place. Beeson reflects on his long standing, playful pedagogic practice where children co-create ideas for public art and architecture by manipulating simple but adaptable chair-shaped blocks. Offering a comprehensive historical analysis on this and similar practices, he situates his work as distinctly Froebelian in nature. While the initial work was never intended to be more than exploratory educational practice, Beeson reflects on the ongoing impact of the children's ideas in his own practice. The chapter thus embodies the impact that listening and engaging with children can have on adult approaches, allowing us to reflect on our own views, assumptions and worldviews, and often resulting in a more playful and pleasing result.

As we move away from public art and architectural practice, Märit Jansson and Inger Lerstrup, in Chapter 12, move the conversation to Sweden and Denmark to consider green space management and its relation to children. While these nations undoubtedly offer greater independence for many children than others in Europe, the authors note that regard for children's rights is not always consistent or sustained and that many of the same problems around reductions in children's independence are occurring. They document and compare the views of children aged 10–11, gathered primarily through child-led walks. This simple and situated method allows for the rich collection of data and true insights that relate directly to place as children interact naturally with their surroundings. Importantly, the experiences detailed in this chapter show the high regard children have for their local environments, and their strong wish to have them well-maintained, attractive and interactive. While many of the children felt they could not have a say in green space management, it was clear from their reflections that children's involvement here is equally, or perhaps even more important than their participation in wider planning processes. Management issues can have direct impact on children's everyday lives, and are often more easily rectified than planning issues that work to more complex arrangements and time frames.

Staying on the planning theme, we end 'Place and Participation' by looking at the emerging opportunities and challenges for youth participation in Chinese urban planning. Yupeng Ren, in Chapter 13, introduces the tensions created by a nation that on the one hand has ratified the UNCRC, and on the other operates through centralised state control with cultural principles of both Confucianism and Communism (or arguably state-run capitalism). Yupeng takes us through the implications of a human rights instrument which emphasises individualism in a context that emphasises collectivism. With increasing access to western media and values through the internet, as

well as rising knowledge of environmental problems, the chapter supposes that youth participation is endowed with both major challenges and opportunities. This first critical look may well springboard further academic research into young people's participation in environmental matters in China. These tentative and fascinating insights are an exciting place to end our initial discussions of the interaction between Place, Pedagogy and Play, with plenty of work to continue in future across these emerging themes.

WHO SHOULD READ THIS BOOK?

The multidisciplinary nature of this book lends itself to a wide readership. Indeed, since contributors take a range of research methodologies and examine a range of contexts rarely brought together in a single volume, we anticipate a readership not only from Europe, but North America and Asia. This extends the debate beyond its usual confines, bringing in new voices that allow for a more global conversation about children's lives today. We hope that it will be picked up and read by people interested in the field from all over the world. Moreover, as this book will be the first volume to present wider evidence on child-centric design to designers, educators and environmental psychologists, we feel sure that such disciplines will find something of value.

Architects and landscape architects can use the book as a guide for designing school grounds and other outdoor environments, while educators can use it to understand the role of environment in pedagogy and play, with suggestions on how to implement it into their practice. It is also pertinent that government policies in Scotland and Scandinavian countries encourage outdoor learning and reinforce this through their curricula, which provide policy-makers from other countries rich insights. Meanwhile, children's rights are increasingly supported by governments across the world, with genuine interest from policymakers in how to care for and prepare children for a rapidly changing world.

Naturally, we hope that students of the disciplines noted above will find it of use, to stimulate their own thoughts and research into children and help them to realise that children, their environments, play and educational needs are of vital importance and that we cannot continue to create child un-friendly cities, to ignore children in decision making, to restrict their freedom to play or to keep applying limited pedagogical approaches.

REFERENCES

- Louv, R. (2005) *Last child in the woods: Saving our children from nature-deficit disorder*. Chapel Hill, NC: Algonquin Books.
Play England (2009) *Charter for children's play*. London: Play England.
UN (1989) *Convention on the rights of the child*. New York: UN Secretary-General.

Part 1

PLACE AND PLAY



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