

The Urban Book Series

Israa Hanafi Mahmoud

## Placemaking for Green Urban Regeneration

This book investigates the dynamics and the role of green urban regeneration using nature-based solutions (NBS) in contributing to the cultural aspects of public spaces. In the first part of the book, insights on analytical methods, planning strategies and shared governance examples are given, as well as, an assessment tool, namely public space index (PSI), is given for successfully measuring sociability impact while using a placemaking approach to green urban regeneration processes. In the second part, the case study (Rose Kennedy Greenway of Boston, MA, USA) has been extensively researched during many years of observations and analysis which gives a realistic taste of the implementation of the proposed PSI. The book's last part reflects on PSI to measure its adaptability and replicability in other contexts, whereas NBS are playing a major role in physical and spatial green urban regeneration in current cities contexts.

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 Springer

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Israa Hanafi Mahmoud

# Placemaking for Green Urban Regeneration

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*A City is not a Coincidence, it is the Artwork  
of Architects  
and Urban Planners Orchestrated.*

*For urban planners, placemaking enthusiasts,  
and nature lovers, this book is for you.*

*Israa Hanafi Mahmoud*

# Foreword

At the centre of any wonderful place are people, well-being, and joy. In this way, we can say the best urban places foster positive human experiences—driven by their form and function. Therefore, city planners and urban designers need to know-how to (a) evaluate and understand the problems associated with the design and performance of urban spaces, and then (b) know-how to enact policies and programmes to solve the problems observed. Key to this is knowing how to understand the human experience in urban places—from the ecosystem to the human scale—and what makes them joyful, enriching, and special. Therefore, the main goal of this book is to appreciate, observe, and understand the human experience of urban places, and then figure out how to make things better.

This book is timely as the importance of place has been brought to the forefront of academia and the new urban agenda lately by the UN. This book covers the interaction between people and their environment, moving from the human-centred to ecosystem scale in its recognition of urban regeneration, helping us understand interactions at the scale of our human senses and sensibilities. As Dr. Mahmoud states, “A great public space cannot be measured by its physical attributes alone; it must also serve people as a vital community resource in which function always trumps form,” which again highlights the importance of people in the placemaking equation, accentuating our humanity and the sensory experiences of place.

At this time when some are talking about building cities in the desert out of nothing, we need to think about the happy accidents that occurred to create great places. Times Square, for example, grew out of the intersection of Broadway, which existed before the gridiron plan as an organic path travelling from the south part of Manhattan to the north, and seventh avenue.

This book also talks about how we can rapidly respond to make conditions better for people through lighter, quicker, cheaper approaches and other placemaking techniques. This book examines the efforts to quantify the hard to quantify and provides generalisable lessons on how to enhance any public space, so it lives up to its potential of fostering enriching and joyful human experiences.

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# Preface

Processes of green urban regeneration have to embed an intrinsic, measurable sense of improvement in changing and adapting urban areas. Both research and practice demonstrate that most systemic approaches to regeneration, such as placemaking, need to integrate processes of evaluation both before and after implementation. In parallel, Nature-Based Solutions (NBS) have arisen to a key position, bringing to the forefront the need to create multiple benefits, including social and cultural, in urban regeneration processes. However, dealing with complex, multifaceted adaptations is neither easy nor something that has been researched much up to now. In this book, insights into analytical evaluation methods, planning strategies, and shared governance examples are given as well as a simple tool, namely the Public Space Index (PSI), that will together help determine successful pathways to implementing urban change anchored in placemaking that uses a socio-cultural approach. The case study (the Rose Kennedy Greenway of Boston, Massachusetts, USA) that has been extensively researched over a number of years, helps to ground the discussion with examples of how the implementation of the PSI measures the quality of urban space including its adaptability and replicability in other contexts. As Nature Based Solutions are playing a major role in physical and spatial regeneration in current city contexts, they represent the key to bringing place and nature flourishing together. One thing that can certainly be taken from this book is that the combined roles of people, space, and nature must come to the fore in any current urban planning policies debate aimed at reform, regeneration, and rebirth.

Milan, Italy  
2022

Israa Hanafi Mahmoud

# Acknowledgements

The journey taken to produce this work was not easy. The book in your hands today is a result of long days of discomfort, travel, research, and sleepless nights. It was done with full consciousness of leaving “*a science that might help.*” For that purpose, I hope that I may have added something to the field of knowledge of urban regeneration. I have always been fascinated by how public spaces and urban design would change our lives, and vice versa. Thus, hopefully, this work adds a drop in the ocean of the world of urban planning and the development of more humane cities. Together I hope we can strive for a better future through the design of public spaces in a way that makes them public places.

Firstly, I thank **GOD** for giving me the strength and guiding my way and commitment to finish it. Secondly, all praise goes to my mother (**Magda Bayoumi El Karadisy**), without her support, love, and understanding I would not have been able to go so far and beyond. Thirdly, my gratitude goes to my professors along the way, especially Prof. **Eugenio Morello** from Politecnico di Milano who believed in me from day one and gave me all the opportunities for self-development and learning in my post-doc journey from 2018 at Laboratorio di Simulazione Urbana (Fausto Curti) until today. I also want to warmly thank Prof. Niki Frantzeskaki from Utrecht University and Prof. Fabiano Lemes di Oliveira from Politecnico di Milano for all their kind words and support all the time.

Special words of Gratitude go to Professor **Bruce Appleyard** and **Carmelina Bevilacqua** for guiding me through the writing of this book. I have to admit, it would not have been easy to combine all this work, without their encouragement and supervision. I also want to thank Sean Bradley from the Groundwork London, for his revisions to the text and English editing. For that, I owe him a lot.

Finally, special thanks to the interviewees for the main case study: **Katerina Zimmerman, Nidhi Gulati, John (Tad) Read, Laura Jasinski, Michael Nichols, and Natalia Urtubey.**

# About This Book

Placemaking and the sociability of public spaces have been at the centre of urban planning anthropological studies for quite a long time, either in the academic field or in on-the-ground implementation. However, there are ongoing difficulties in the processes of concretely identifying, defining, and evaluating the non-material inter-relationships that map onto physical space. The coherence of the relationship between space and day-to-day life is what the concept of sociability is based on and what needs to be at the core or of regeneration.

Contemporarily, a placemaking-centred approach to green urban design has emerged, paving the way more refined understanding of the correlation between the physical qualities and conditions in which these public spaces prosper, taking into consideration the social and cultural aspects in order to capture the essence of the contexts and the nature of the places in which human life unfolds. Based on these notions, finding common ground between the sociability of public spaces and the placemaking approach in culturally sensitive urban regeneration processes is still somewhat of a missing link in a robust methodological empirical framework for evaluating the performance indicators of public spaces, known as the **Public Space Index (PSI)**.

Hence, the main aim of this book is to understand how in the placemaking approach to implementation, the dynamics of sociability and the social mixing in public spaces help to shape the cultural aspects of public space itself. In the case studies presented here, particular attention was given to the role of green corridors and other nature-based solutions, in line with current research literature, in order to enhance the cities' resilience and green strategic planning.

## Part I

**In the first part of this book, the placemaking movement** is investigated by means of a review of literature on public space development including definitions, social roles, current trends in placemaking, and the different on-the-ground placemaking

implementation strategies. That is followed by the definition of sociability, its role as an attribute of public spaces that adds economic and cultural value, and how specific urban design elements can change its facets.

### ***Chapter 1: Introduction***

The first chapter introduces the main concepts addressed in this book: placemaking, public spaces, and the green urban regeneration nexus. The chapter provides a brief insight into the overall research approach, hypothesis, and aims and objectives.

### ***Chapter 2: Public Spaces and Placemaking Approach: The Implementation Strategies***

The focus of this chapter is to identify the definition of public spaces and the role they play in daily life, whether cultural or social. In addition to that, the main aim is to analyse placemaking as an approach “in practice” to better regenerate public spaces in contemporary cities, and how the different implementation techniques and strategies of placemaking have proven able to produce positive economic outcomes and social responses. As it is connected to so many urban processes, placemaking is not an easy topic to wrest with; this is evident in how widely implementation policies differ between European and US contexts. Definitions tend to be tricky and fundamentally intertwined, strategies and their execution are inherently multifaceted and complex, and these can be either top-down approaches, led from a governmental agency, or bottom-up approaches starting from grassroots or citizen movements.

### ***Chapter 3: Sociability in Cultural-Based Urban Regeneration Projects***

This chapter introduces the definition of public place with a clear focus on the social dimension; it sheds light on the different poles of the physical environment that have an influence on human behaviour, as well as on human agency and other key social influences on urban spaces. Moreover, it brings sociability to the forefront as the core identifiable attribute of successful public places. Other key considerations are how cultural and economic influences can impact the liveability of public spaces. The important weight of non-physical aspects of public space is clearly qualified by observations of the occurrence of cultural activities and social events. In sum, this

chapter intentionally raises the questions of the impact of sociability on public life as seen through users' activities, and it relates these processes to urban form and public space design.

## Part II

**The second part** utilises an empirical methodology to consider the quality of public spaces in three similar case studies. Key criteria are qualified, quantified, and comparatively analysed. This is followed by an evaluation matrix that vertically compresses four evaluation tools (individual user surveys, observational analysis, in-depth interviews with on-site and in-field experts, and finally analysis of micro urban planning smart tools). This evaluation matrix is built horizontally across two identifiable categories of metrics (**public life and public space**). In total, this accounts for the mix of quantitative and qualitative methods to be subsequently incorporated into the **Public Space Index (PSI)** matrix.

### *Chapter 4: Empirical Analysis of Similar Cases Studies: Boston, Cambridge, and Valencia*

This chapter introduces case studies that are similar to the final implementation case study, where the similarities and differences are presented either in the stakeholders—represented by a Public–Private Partnership in which the urban regeneration project was implemented—or in the urban scale at which the implementation took shape. That said, three case studies are dealt with; the first is the Lawn on D project, and the reason for this choice is that it falls in the innovation district of Boston, which allowed the PPS to intervene and implement the so-called lighter, quicker, cheaper techniques (LQC) to regenerate the surrounding community.

The second is Harvard Square in the city of Cambridge, Massachusetts, where the governmental approach for the city of Cambridge, in collaboration with a variety of community groups and stakeholders, involves implementing the power of 10+ strategy towards regenerating sociability in the previously underutilised square. The third and last case study is part of the “Rio Túria Gardens” grassroots movement, a citizen-led regeneration project that led to significant changes to the city of Valencia, Spain by transforming a highway into a greenway, similar to the North End Park project. This case study helps provide a better understanding of the similarities and differences in urban planning policies in different contexts. The choice of the first two case studies focused on investigating urban policies implemented in the context of the State of Massachusetts. Together these case studies all help inform the decision-making process of public authorities and provide context for the analysis of sociability and place.

Anchoring the analysis in tangible developments has led to better insights into how to understand the stakeholders and to formulate the placemaking strategies at the heart of this work. The learnings acquired from the case study of North End Park provide a critical framework of the implementation of effective placemaking strategies that can be developed.

### ***Chapter 5: Sociability and Placemaking Methodological Framework Approach: Identifying a Public Space Index (PSI)***

In this part of the research, the public life/public space metrics—as introduced by the Gehl Institute—are used to identify different criteria sets and/or methods to collect both qualitative and quantitative data on users, their behaviour, frequency of use, age, and gender, as well as physical observations on site during the first phase. The reason for this mixed-methods approach was to capture a wide range of the aspects of public spaces that affect people and places and vice versa.

Using Gehl’s framework, it is possible to identify the qualities of a public space that make the space work, including how the space is used, what makes it desirable, and where user experience is positive mostly based on where people prefer to linger and socialise. The Application case study in this research is on the so-called North End Park and Plaza. It falls within what is called the Rose Fitzgerald Kennedy Greenway of Boston, MA. The reason for selecting the North End Park in the city of Boston is that it fulfils the criteria of being a public space formed after a regeneration project that involved various stakeholders, while transforming an eyesore into a green corridor as a vital liveable destination in the heart of the city.

## **Part III**

The third and last part encompasses the application of the evaluation tools in the case study in order to evaluate the success or failure of using the placemaking approach while emphasising the sociability aspects in achieving the aims of cultural-oriented urban regeneration projects.

The Case Study in question is **the North End Park on the Rose Kennedy Greenway, Boston, MA; identified as a cultural cluster** that—in a wider scope—aims to foster the infusion of a theoretical approach **from literature into** the evaluative **work of the sociability evaluation matrix of the case study realised on the ground**. That said, with the aim of implementing the placemaking approach as an identifiable urban planning policy, by which, we can change the key components of a human-centred approach to designing public spaces in cities today.

## ***Chapter 6: Learning Case Study: North End Park, Rose Fitzgerald Kennedy Greenway: Boston, Massachusetts, USA***

The North End Park is part of the Boston Ribbon of contemporary parks. The **Rose Kennedy Greenway** is a mile and a half of contemporary parks in the heart of Boston city. The Greenway is a roof garden over a highway tunnel that connects people, cityscape, and fun. The Greenway connects a series of parks, in which there are public art installations, water fountains, historical sites (the freedom trail), public transit and bike sharing stations, food truck vending locations, and public restrooms. The chapter lays the historical background of the case study area as well as the context of North End park as a public space within the Greenway in Boston.

## ***Chapter 7: The North End Park as a Liveable Destination, an In-depth Analysis***

While physical analysis is important for any site, one of the most important measurable qualities of any public place is its attraction for users. People gather in squares, walk in parks, and the relationship between people and their urban spaces is an essential component of urban design. Based on this notion, the following in-depth analysis looks at the users of North End Park with the help of the public life matrix toolkit technique; the main outcomes are part of physical observation analysis, with a statistical survey of the users, interviews with on-site and in-the-field experts, and a video camera surveillance records analysis, as well as an analysis of smart planning tools such as Co-Urbanize, Vision Zero, and the Liveability Calculator.

## **Part IV**

## ***Chapter 8: Findings, Conclusions, and Recommendations***

This Chapter discusses the findings and conclusions from the literature, the methodological framework, and the case study of North End Park. It gives a general path for the application of the **Public Space Index** in reality, laying common ground between the theory and practice of placemaking on the ground. It also involves testing sociability measurements in terms of quantitative authenticity rather than just an environmental dimension concept. The research was based on a mixed-methods approach in the case study analysis; Both qualitative and quantitative tools and techniques were used in order to investigate the sociability of public spaces as a driver for cultural regeneration projects.

The first part of the research involved a literature review to establish a better understanding of the concept of placemaking. In addition, the important concept of

sociability is discussed as a fundamental dimension of urban design as the generative relationships between people and day-to-day spaces form the collective built environment. However, it is worth noting that attempting to adapt environmental psychology into an applied science like urban planning and design is not an easy task. Sociability is the bridge needed to connect from different perspectives and correlate the different approaches of these distinct fields. By connecting behaviour and space through sociability we will be able to develop truly healthy urban space at a human scale creating liveable places in our parks, squares, and all other public spaces in general.



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## About the Author

**Israa Hanafi Mahmoud** is a Polyglot urban planner and architect by education. Since 2018, she is a Post-Doctoral Researcher Fellow at the Urban Simulation Lab (Fausto Curti), Department of Architecture and Urban Studies (DAStU), at Politecnico di Milano. Now she is the research team leader together with Prof. Eugenio Morello on CLEVER Cities Project—Funded by the European Commission—Horizon 2020 as an expert of Co-creation guidance for cities to implement Nature-based solutions in socially inclusive urban regeneration processes. She holds a Ph.D. in *Urban Regeneration and Economic Development*. In 2016, she pursued her Ph.D. degree in Northeastern University of Boston MA as an (ESR) early-stage researcher part of a European Commission—MARIE-CURIE Action funded Horizon 2020 Project—GA # 645651—MAPS-LED Project then in 2017, as an Experienced Researcher (ER) in San Diego State University, CA, USA. In 2010, she earned her bachelor's degree from Architectural Engineering Department Alexandria University of Egypt with a major in Urban Design section about Psychological and Environmental urban design, in a collaboration programme with Michigan State University and Bauhaus—Universität Weimar, Germany. In Politecnico di Milano, she also lectures about Nature-Based Solutions and placemaking in the Master of Science in Urban Planning and Policy Design, as well as Master of Sustainable Architecture and Landscape design. She is also an Adjunct professor at the Alleanza Italiana dello sviluppo Sostenibile (ASVIS), advocating for Climate Change and Environmental sustainability pathways. Lately, she co-led the Greening Cities, Shaping Cities international symposium at Politecnico di Milano, October 2020 and co-edited the latest published book *Nature-based Solutions for Sustainable Urban Planning: Greening Cities, Shaping Cities* (2022).