

Overview of “Landscape Research and Design for Urban and Peri-Urban Environments—2nd Edition”

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1. Introduction

This is a continuation on the theme of the first edition of this Special Issue of *Land*, “Landscape Research and Design for the Urban and Peri-Urban Environments”, edited by Richard Smardon [1]. There is a pressing need for landscape architecture and design research to address rapid urbanization and its impacts on urban and peri-urban environments. The constant sprawl of urban areas, and the mitigation thereof, sets an imperative to better understand which natural and man-made landscape innovations or patterns in urban landscape architecture and design are most suitable and sustainable. Such knowledge is crucial to achieving sustainable urbanization while maintaining and improving urban and peri-urban landscapes, and providing healthy environments for urban residents.

Thus, innovative research that is supported by computational approaches, field studies, successful landscape architecture case studies, and spatial analyses seeking to expand knowledge on sustainable urbanization is in high demand. In this Special Issue, we invited researchers to share their work on combining state-of-the-art landscape architecture and design with sustainable solutions, as well as other research fields such as environmental health, urban agriculture and land use, urban flora and vegetation, streetscape design, and urban climate mitigation, in addition to architectural and design amenities related to urban and peri-urban environmental engineering fostering resilience to the impacts of urbanization.

We welcomed manuscripts that addressed the following themes: peri-urban landscape restoration; sustainable landscape architecture, planning, design, and management of public open spaces and green spaces; sustainable urban design; planning and maintenance of peri-urban areas; expansion of urban areas and their impact in an urban–rural context; and enhancement of environmental and human health benefits.

2. Key Findings and Insights

The articles in this Special Issue fall into five major categories: (1) urban environmental health and safety, (2) urban agricultural and land use assessment, (3) streetscape assessment and development, (4) urban vegetation and plant biodiversity assessment, and (5) urban climate assessment and mitigation. Each of these thematic areas will be summarized in that order.

Yang et al.’s article (Contribution 1) investigated associations between facility accessibility and resident health in new rural communities in China. Gheitasi et al. (Contribution 7) evaluated the impact of an oil refinery in Tehran on the landscape perception and mental health of nearby residents. Nosrati et al. (Contribution 9) investigated the greenspace



Received: 16 September 2025

Accepted: 19 September 2025

Published: 5 October 2025

Citation: Ignatieva, M.; Smardon, R. Overview of “Landscape Research and Design for Urban and Peri-Urban Environments—2nd Edition”. *Land* **2025**, *14*, 1998. <https://doi.org/10.3390/land14101998>

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design of small inner-city parks and how it impacts teenager stress levels in New Zealand. Zhao et al. (Contribution 12) assessed visitor usage and the safety perceptions of people visiting Chinese National Forest Parks. All of these articles contribute to the development of the methods used to assess people's perceptions of environmental health and safety.

Under the second theme, urban agricultural and land use assessment, Zeunert et al. (Contribution 2) explored the role urban agriculture plays in land use planning in the Greater Sydney region, Australia, utilizing GIS data. Xie et al. (Contribution 13) investigated environmental management and landscape design for “lifestyle blocks” in peri-urban communities in New Zealand. Both studies relied on the innovative use of spatial data to project possible future land use development configurations.

For the third theme, urban streetscape assessment, Lu et al. (Contribution 3) assessed the combined effects of sound and vision on subjects perceiving the restoration of four streetscape types in Nanjing, China. Clemente (Contribution 5) focused on the impact of street trees on sidewalks and streetscape redevelopment in Rome, Italy. Marshall et al. (Contribution 8) assessed the role street furniture plays in improving the design and amenities of open public spaces. Bai et al. (Contribution 11) investigated motorists' perceptions of scenic roads in peri-urban Malaysia using binocular simulation and image segmentation methodology. Although these four studies are quite different methodologically, they all offer innovative ways of assessing linear urban landscapes.

The fourth theme was urban vegetation and biodiversity assessment. Stewart and Ignatieva (Contribution 4) present a case study for assessing the functions of spontaneous vegetation in Southwestern Australian cities. Davidová et al. (Contribution 6) offer the use of gamification as a means to gather reactions and evaluations of greenspace enhancements and alternative designs. Li and Gou (Contribution 10) assess nature-based solutions to manage urban flooding in United States urban parks. Lee et al. (Contribution 14) present a comprehensive literature review of spatial dimension measurements for urban green space research and development. All of these articles provide a rich base of research that can assist with future greenspace assessment and development.

The final and fifth theme of this Special Issue is urban climate mitigation. Norouzi et al. (Contribution 15) offer a review of design- and site-related factors affecting the cooling performance of urban parks in different climatic zones. Nikologianni and Albans (Contribution 16) present another review article on landscape design and policy climate guidance. Both review articles offer a solid foundation for addressing research needs pertaining to urban climate mitigation.

3. Conclusions

The sixteen articles that make up this Special Issue all contribute urban and peri-urban landscape research and development that complements existing guides for research and design in this context [1–3].

Author Contributions: Conceptualization, R.S. and M.I.; writing—original draft preparation, R.S.; writing—review and editing, R.S. and M.I. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Acknowledgments: The authors and editors of the this Special Issue of *Land* on “Landscape Architecture Research and Design for Urban and Peri-Urban Environment—2nd Edition” wish to thank the contributing authors as well as the editorial staff of *Land* who supported the production of this Special Issue. The authors have reviewed and edited the output and take full responsibility for the content of this publication.

Conflicts of Interest: The authors declare no conflicts of interest.

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