Special Issue

Nexus of Plants, Architecture, and Future Resilient Societies

Message from the Guest Editors

Plants have been used as renewable energy sources and raw materials, a source of design inspiration, and grown in cities to improve thermal comforts, air quality, human health, and well-being. However, demostrating the impact of plants on buildings and cities is a complex phenomenon. This Special Issue seeks to revisit the nexus of plants, architecture, and resilient cities. Architecture has the challenge to provide society with a future resilient built environment that is efficient in its use of resources, effective in providing good conditions in which to live and work, and pleasing to the senses. Plants offer a number of possibilities to help inform future sustainable and resilient building design and urban planning solutions.

Guest Editors

Dr. Yan Xing

Prof. lain Donnison

Prof. Phil Jones

Prof. Dr. Graham Ormondroyd

Dr. Peter Wootton-Beard

Deadline for manuscript submissions

closed (10 December 2019)



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/22476

Buildings Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 buildings@mdpi.com

mdpi.com/journal/buildings





an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4





About the Journal

Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

Editor-in-Chief

Prof. Dr. David Arditi

Construction Engineering and Management Program, Department of Civil, Architectural, and Environmental Engineering, Illinois Institute of Technology, 3201 South Dearborn Street, Chicago, IL 60616, USA

Author Benefits

High Visibility:

indexed within SCIE (Web of Science), Scopus, Ei Compendex, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Construction and Building Technology) / CiteScore - Q1 (Architecture)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).