Resilience: Building Intelligent Cities with Resilient Landscapes

With the world experiencing rapid urbanization, there is a growing need to build cities that are not only smart but also resilient. Enter the era of Resilient Intelligent Cities, where technology and sustainable landscape design converge to create urban environments that can adapt and thrive in the face of various challenges.

Resilient Intelligent Cities aim to harness the power of data analytics, artificial intelligence, and advanced technologies to improve urban planning, infrastructure, and overall quality of life for residents. These cities leverage the principles of resilience to build a robust and adaptable framework that can withstand shocks and stresses, whether they are caused by climate change, natural disasters, or social disruptions.

The Role of Resilient Landscapes

One of the key components of Resilient Intelligent Cities is the integration of resilient landscapes. These landscapes are designed to enhance the natural environment, promote biodiversity, and provide multiple benefits such as flood protection, carbon sequestration, and improved air quality. Resilient landscapes not only contribute to the overall resilience of the city but also create a more livable and sustainable urban environment for its inhabitants.

Resiligence: Intelligent Cities / Resilient

Landscapes by Dietrich Schlichthärle (Kindle Edition)

★★★★★ 4.2 out of 5
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Screen Reader : Supported





In a Resilient Intelligent City, resilient landscapes are strategically planned and integrated into the urban fabric. They act as green corridors, connecting different parts of the city and providing ecosystem services. By incorporating green spaces, parks, green roofs, and vertical gardens, these landscapes help regulate temperature, mitigate the urban heat island effect, and improve water management.

Furthermore, resilient landscapes can also enhance social resilience by improving mental and physical health, fostering social cohesion, and promoting a sense of community. Accessible and well-designed public spaces encourage physical activity and social interaction, contributing to the overall well-being of residents.

The Importance of Data-driven Decision Making

In Resilient Intelligent Cities, data plays a crucial role in informing decisionmaking processes. By leveraging advanced technologies and data analytics, city planners and policymakers can gain valuable insights that help them identify vulnerabilities, assess risks, and prioritize interventions. For example, by analyzing data from sensors installed across the city, decision-makers can quickly identify areas prone to flooding or overheating. This information can then inform the design of resilient landscapes, allowing for the implementation of targeted strategies to mitigate these risks.

Data-driven decision making also enables cities to monitor and evaluate the effectiveness of resilience interventions over time. By continuously collecting and analyzing data, cities can refine their strategies and make necessary adjustments to ensure long-term resilience.

Challenges and Opportunities

Building Resilient Intelligent Cities with resilient landscapes is not without its challenges. Implementation may require significant investment, collaboration between various stakeholders, and overcoming bureaucratic barriers. However, the benefits are substantial and far-reaching.

Resilient Intelligent Cities create opportunities for innovation and economic growth. By investing in technologies and sustainable practices, cities can attract businesses and talent, driving economic development and improving their global competitiveness.

Additionally, these cities can become living laboratories for research and development. By partnering with academic institutions and private entities, cities can test and implement cutting-edge technologies and explore innovative solutions to urban challenges.

The Future of Resilient Intelligent Cities

As urban populations continue to grow, the need for Resilient Intelligent Cities becomes even more urgent. Resilience is no longer just a nice-to-have feature

but an essential characteristic for cities to thrive in the face of rapid change and uncertainty.

Resilient Intelligent Cities with their integrated resilient landscapes offer a vision of urban development that is both sustainable and adaptive. By harnessing the power of technology, data, and nature, these cities can create a harmonious balance between urban life and the natural environment, ensuring a better quality of life for current and future generations.



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The Resili(g)ence publication is part of the outputs produced within the European project KAAU, Knowledge Alliance for Advanced Urbanism (www.ka-au.net), Erasmus + program, and consists of two volumes: the first Resili(g)ence Intelligent Cities / Resilient Landscapes offers reflections on the general framework and on the theme of resilience applied to intelligent cities and the landscape, while the second volume GOA Resili(g)ent City, analyzes the case study of Genoa.

The term Resili(g)ence is presented in these pages as a neologism coined by the team responsible of the GIC.Lab (DAD-UNIGE) to define those strategies of approach to our cities and environments of life, exchange and relationship,

capable of combining Urban Resilience and Urban Intelligence, simultaneously. As will be seen later in some of the texts that make up this publication, both voices are called, intersected, combined and intertwined, in many of their meanings and possible connotations.

The structure of this publication includes 4 different sections that articulate the different contributions and approaches that are conjugated here.

- A first section (Foreword and Framework) introduces, in fact, the context and the framework of reflection and the different connotations associated with it.
- A second section (Crossing Scenarios) articulates various contributions
 generated around the GIC.Lab of Genova and the ADD (Doctorate in Architecture and Design) of the DAD (Department Architecture and Design UNIGE) by
 responsible, collaborators and researchers.

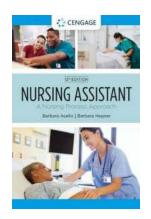
This approach defends, in large part, a holistic vision in the contemporary approach to the city and its complex relationship with the environment, focusing mainly on aspects of reading and strategic-landscape and social projection.

- A third section (Key-Cases of Study) presents a selection of experiences and exemplary case studies, ordered according to their interest and level of complexity in various topics related to the Urban Resilience + Intelligence combination (mapping, managing, planning, landing, designing, socializing).
- A fourth section (MED.NET.KAAU Symposium) synthesizes positions,
 experiences and reflections presented in this meeting, structured in turn in three
 basic sections (mapping + managing, planning + landing, designing + socializing).

A final section (Backstage Gallery) shows a series of images and pictures of the event, made by different collaborator that contextualize and personalize the atmosphere and the plural cultural, professional, teaching and scientific – nature of a meeting with a double vocation, academic and civil.

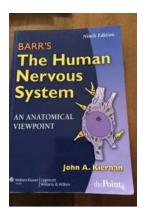
This document of synthesis can be seen as a concentration of voices and stimuli, also complemented by the publication International Forum Med.Net 03
Resili(g)ence. ADD Scientific Meeting. Conference Proceedings (Papers Docs. Barcelona 2016) where are collected the papers, acts and proceedings of this scientific conference, held in parallel to the KAAU Symposium and more focused on environmental and territorial issues, addressed from a broad multidisciplinary spectrum.

With these lines we would also like to thank all those collaborators who have made these reflections possible (teachers, students, assistants, members of the KAAU consortium and the various cultural associations and professional collaborators) for their generous effort and proactive energy.



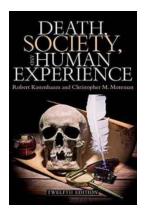
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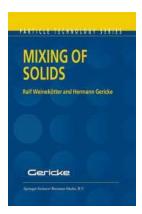
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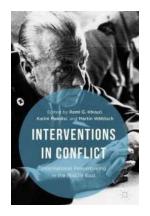
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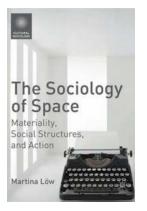
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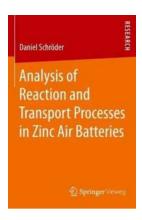
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