

Architecture, Design and Planning towards Sustainable Development: Regional Approaches

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Abstract

The special issue Architecture, Design and Planning towards Sustainable Development: Regional Approaches, discusses how the shaping of the built environment may contribute to sustainability and resilience. It encompasses both macro and micro design by bringing together articles which deal with urban planning, architecture and product design, this way contributing to a holistic perspective of the theme. It pays attention to different regional approaches addressing the shape of surroundings fit for inhabitants with various cultural backgrounds, needs and aspirations. Thereby, the issue focuses on hitherto underrated topics contributing to a multiscale approach and crossed culture discourse.

Key words

Architecture for sustainability Design for sustainability Urban Planning for sustainability
Regional approaches

Introduction

The matter of creating a healthy and decent life for people in poor urban areas has been much discussed. The UN sustainable development goal 3 is to ensure healthy lives and promote well-being for all at all ages while the goal 11 is making cities and human settlements inclusive, safe, resilient and sustainable. The convergence of these two goals seems essential to achieve sustainable development. At the ISDRS conferences in Lisbon in 2016 and Bogota in 2017 there were many contributions related to the theme, and four of the contributions in this issue are based on inputs from these conferences. It is a fact that several urban development projects have been performed, with various grades of success. Most of the projects have comprised architecture and urban planning, and they have tended to be top-down approaches where stakeholders and experts played a critical role, often becoming the main decision makers. The shaping of limited and intimate areas like squares, streets, as well as interiors and minor objects like furniture and utensils have often been neglected. The preferences, competence and innovative energy of the inhabitants have been

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given little consideration. This issue aims at contributing to a more holistic understanding and knowledge of the theme by bringing together investigations from various disciplines and localities. The role of local and regional traditions and how they could be utilized to enhance the quality and durability of the development projects have been given particular consideration.

Most of the papers are empirical or case studies focused on local challenges, but still have relevance for other areas and demands. Some are theoretical approaches that have overall validity and could be used as basic approaches for further research.

Astrid Skjerven's article "Envisioning versus realizing products for use in poor communities: The case of Victor Papanek and Nordic designers" presents the ideas of one of the first and most prominent exponents of the Environmental Movement. He aimed to fulfil basic needs by using approaches and methods from indigenous people in the field of product design. The article explores his impact on the new generation of Nordic designers, and the challenges in transforming his ideas into reality. It discusses in what way they might be utilized today, where an increasing number of people is living under poor conditions in enclaves of rapidly growing urban areas, many of them of indigenous origin. The conclusion is that contact and cooperation with stakeholders, particularly the political and commercial sector, as well as people in the local communities, constitute essential parameters for realizing ideas of this kind. The work of the Norwegian organization "Design without Borders" constitutes an excellent example of success, and should be used as a model for further work. The author's main point is that cooperation between local inhabitants and stakeholders with diverging constitutions is a necessary balancing act.

Nuno Martins and Jacira Saavedra's contribution "Inclusive sustainability within favela upgrading and incremental housing: The case of Rocinha, in Rio de Janeiro" addresses two different urban phenomena that currently take place in one of the biggest and most famous of Brazilian favelas : that of the houses' expansion typically accomplished through constructions on the rooftop, and new urban spaces as a result of public resettlement operations consisting of the clearing of tangled webs of narrow, dark and unhealthy alleys. The research has focused on the social sustainability issues underlying the private and public process, analyzing the role played by the different stakeholders and their interactions. Conclusions highlight the social networks that arose and consolidated over the slum upgrading process and qualify the interactions among the members of those networks. The article demonstrates how inclusiveness and the communication between residents, builders and technicians have been vital to the result.

Jilan Hosni and Antonio Zumelzu's article "Assessing nodality in neighbourhoods in transformation: A concept of sustainable urban form: The case study of Rahue Bajo, Osorno, Chile" put forward the importance of human interaction in neighborhoods to promote vitality. Public spaces are regarded as the hub of social control over territories. The research has evaluated the quality of these spaces, based on the users' own perception. The authors utilize the concept of nodality as a dimension of sustainable urban form that is defined by its size, level and type. Nodes afford a physical articulation of the community, by providing a common destination for residents of the surrounding area. A new perspective is highlighted to help officials advance with new tools and methods to achieve better design results. This can be seen as a step forward towards a more inclusive city development and can expose the discussion of new systems of organizing cities according to people's perception of and behavior in space. Since Chilean urban development has followed the same pattern as American and European cities, the study has global relevance.

Aneta Hristova's paper "Architecture as a cultural sustainability factor of the Macedonian cities: The branding of Bitola" presents the current need of policy programs for the Macedonian cities to reach the standards of sustainable and prosperous economic development and to enable their promotion on the European cultural map. This situation initiated the project "Architecture as a Cultural Sustainability Factor of the Macedonian Cities", which aims to inspect the spatial and physical potentials of the Macedonian architectural and bio-regional heritage in order to create unique and competitive brands and to develop the overall economic and touristic possibilities of the Republic of Macedonia. The findings outline the general branding strategy for the Macedonian cities, adjoined with a spectrum of interventions for site-specific adaptive design concepts aimed to employ their unique physical and cultural identities to brand themselves successfully. On a political level, it pioneers the grounds on which architecture expands its disciplinary assumptions, goals, institutional, legal and financial tools in the municipal policies of sustainable development. The article demonstrates the importance of regional identity to create a functional and visible society.

Bijay Singh and Martina Keitsch's article "Scaling up sustainability: Concepts and practices of the ecovillage", introduces an alternative to the incoherencies in the traditional concept of sustainability or sustainable development, which is defined on a global level and applied

through local level initiatives. Within tensions between global and local, and spatial-temporal necessity, ecovillage is an emerging approach for shaping a sustainable future at grass root level and an opportunity to deal with the challenge of managing nature conservation in a community with culturally, socially and economically diverse actors. It identifies concepts and practices of eco-village as sustainable ways of living connected to a context and establishes an integrative understanding to sustainability. This understanding can be scaled up to strategies and policies. Findings indicate that it is essential to focus on the cultural and regional aspects. This focus can also provide a transition from local to national and global interventions and thereby become a mediator between different levels of sustainability, global and local.

Michael Hensel "The Rights to Ground: Integrating Human and Non-Human Perspectives in an Inclusive Approach to Sustainability" concerns the rapid decrease in the available ground for ecological and human social collective purposes due to construction and other transformations of ground in combination with an understanding that sees such different needs as contradictory and mutually exclusive. The article outlines a more complex and integrative approach to sustainable design and development, which entails prevailing general concerns and insights that need to be adapted to locally specific conditions and circumstances with focus on potential implications for architectural, urban and landscape design. Furthermore, this involves examining exemplary historical and current architectures and the settlement pattern that can support a specific pattern of ground access and use, which hold the potential to be further developed regarding designs that can address political, cultural, social and environmental sustainability from an integrative human and non-human perspective. The author demonstrates how these factors are intertwined and interdependent.

What marks all of the contributions is their focus on a social and inclusive approach to sustainability. The common denominator is their engagement in making well-functioning neighborhoods for people in poor urban areas. The conclusions all point to the necessity of enabling the inhabitants themselves to take an active part in shaping their surroundings, from squares, streets and parks to interiors and utensils, in order to overcome barriers and reach out a long-lasting result. This can only be done by utilizing their own cultural traditions and regional habits in cooperation with stakeholders with mainstream attitudes and competence. Local competence and regional adaptation are critical factors for in the creation of sustainable built environments. This demonstrates the necessity to take local traditions into

account in urban planning. Paths for further research could be to find indicators for enhancing empowerment at different scales of intervention, methods to engage local inhabitants on a personal, family and group level, and to engage stakeholders in such processes.