

Introduction



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INTRODUCTION

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With the focus on the Anthropocene in recent years, proposed by many scientists as being our new geologic age—where man's impact on the planet has led to critical climate changes, a shortage of natural resources, and collapsed ecosystems—questions of sustainability and resilience are crucial to the work and theories of architects and urban designers all over the word. For NAF/NAAR and its collaborators from Tampere University of Technology in Finland, the aim of the symposium 'Built Environment and Architecture as a Resource' was to create a platform for discussion on how cities, neighbourhoods, buildings, and citizens can become resilient, and what role architects and urban planners may play in this process.

Many cities worldwide are already in the process of developing resilient strategic frameworks for the future to adapt their physical structures to the challenges of tomorrow. However, the built environment with its infrastructures, buildings, spaces, and landscapes is a sociotechnical assemblage that is transforming relatively slowly. The concept of resilience originates from the natural sciences, but in the 2010s it was applied to multiple disciplines, including architecture and urban planning. It is noteworthy that some definitions of the term 'resilience' suggest that the built environment not only bounces back to its original state after changes, but actually reaches a renewed state, which is even more resilient than the original. According to this idea, the new state should open up new possibilities for better resource efficiency, better economic profitability, better technical resistance, and, most particularly, new opportunities for social regeneration and evolving lifestyles, as well as new cultural values. All of this raises a bundle of questions.

First, what kind of theorizing is needed to meet the future challenges? In order to embrace the built environment and architecture as a resource in society, this issue should be addressed as widely as possible. Traditionally, the city and its built environment are usually understood as users of resour-

ces, but they should also be seen as the producers of new ones. Every site has potential resources—values and qualities—that can be investigated and developed by design. Aside from the economic and material resources, we should include the social ones too. The qualities of the built environment and architecture, as well as people's everyday life, must be identified as important assets in this discussion.

Consequently, in what ways are the possibilities for social interaction changing in today's urban environments? In recent decades, various types of urban activism have brought new life to city cores. Spontaneous pop-up events have sometimes evolved into more organized, regularly occurring happenings. At the same time, citizen participation has reached a level where individual groups may come up with urban planning scenarios that offer an alternative to the official versions developed by professionals. In addition, co-creation has increasingly become a part of the official planning process, with collaborative charrettes and new GIS platforms offering citizens a possibility to voice their opinions. Discussions are continued in the social media, which is thus complementing the traditional urban spaces as a scene of social interaction. Augmented reality is bringing its own layer to this interaction and to the experience of the urban environment. The city is everybody's business, and the ways of participation are constantly developing.

However, is there a peaceful path to the urban reform of our time? The early modernists wanted to break away from the burdens of history and begin a new era of architecture. The transformation of cities in the twentieth century was radical and visible. Since then, architecture has created its own 'modern' urban layers. As we today to some extent use cities differently than in the past, the activities of planning and design have increasingly become replanning, redesigning, and reusing the existing environment. This development is not necessarily linear. The current challenges of sustainability may require just as big of a reform as that faced by the early modernists. One important difference remains, however: instead of adopting a totalizing vision of the city, we have to get along with the existing urban diversity.

Finally, will our current architecture stand the test of time? With cities growing as fast as ever, the globe is running out of vital resources such as, for example, sand due to the cradle-to-grave nature of modern construction. At the same time, buildings are discarded after unprecedentedly short life spans. This obviously unsustainable situation calls for both reactive and proactive

approaches to the way we build our buildings and cities. The idea of circularity fosters the perspective of new architecture that is timeless, flexible, adaptive, and/or structurally designed for deconstruction, relocation, and, eventually, recycling. It also views existing buildings as the undervalued stock of spatial and material resources, with a life cycle that claims to be extended in one form or another.

Based on these initial thoughts and questions, scholars from academia and practice, respectively, were encouraged to reflect on issues relevant to the four thematic tracks of the symposium: 'Theory and Its Uses'; 'Spatial and Social Interaction / Co-Creation'; 'Transition and Time'; and 'Circular Buildings and Cities'. To frame and structure the discussions of the symposium, NAF/NAAR and its collaborating partner had invited Matti Kuittinen, Michaël Ghyoot, and Ida Andersson as keynote speakers. Representing different discursive backgrounds, their lectures, which were developed into articles for this publication, focused on diverse aspects of how society can become more resilient and what role architects and urban planners may play in this process.

'Finding a remedy to the Anthropocene is perhaps the biggest joint effort of the whole of humankind', writes Matti Kuittinen in his article 'Architecture for the Anthropocene: How to Build a Better Future?'. On this topic, the architect and senior specialist from the Ministry of the Environment in Finland gives an account of the complexity of the Anthropocene and the important roles that architects and urban planners play in making our built environment resilient. According to Kuittinen, the global construction sector consumes half of all planetary raw materials. It is also accountable for over 30 per cent of all waste. Furthermore, it is the main end user of many of the products of our heavy industries. Several countries, including Nordic ones, are working towards so-called climate neutrality (keeping national GHG emissions and removals in balance) by 2030 or 2050. However, in most countries the goals for the construction sector have not yet been specified. Kuttinen's article suggests different ways of dealing with this issue. By discussing the background and drivers for the environmental and social changes associated with the Anthropocene, and by reflecting on possible mitigation and adaptation strategies, while using the building norms and architectural policies of the Nordic countries as an example, he puts forward three practical suggestions for the design of buildings: 1) decoupling of functional quality and environmental impact, 2) simplification of building, and 3) strengthening cultural resilience through architecture.

In his article 'Salvage and Integrity,' Lionel Devlieger, partner in the collective Rotor, which is internationally credited for its reflective work on the notion of sustainability and the reuse of material from the construction industries, sheds light on the intentions behind Rotor's deconstruction company, Rotor DC. The company was established in 2016 because, according to Devlieger, 'there is a gap in the market for salvaged materials from office buildings: recent, urban, large-scale developments'. But also because he believes that 'in the coming years the reuse of components of existing buildings will become of more and more importance' in architecture. In the article, Devlieger reflects on the history of demolition and the practice of deconstruction, pleading for a careful and slow dismantling of buildings and components with reuse in mind. The article raises important ethical questions regarding the notions of sustainability, cultural heritage, aesthetic value, architectural craftsmanship, the business of demolition, and the reuse of material resources. It puts into perspective the current global industry of deconstruction and its stereotypes, pointing to alternative ways of operating with deconstruction in the future.

The urbanist and human geographer Ida Andersson, in her article 'Building the Green City from Wood? Policies, Practices and Institutional Capabilities in Sweden, discusses the representation of green cities. More specifically, the article critically reflects on the conventions around the representational formats of these cities and examines in what way they and their dissemination tend to shape urban planning discourse in general. Andersson points out that what the establishment often considers 'good' or best practice in urban planning is very much a cultural construct. Andersson, in her article, goes on to describe how so-called 'policy mobilities'—the circulation of policy ideas and models—work and what governs their agencies. According to her, they play an important role in many people's ideas and understanding of green city policies. As a case for her discussions in the article, Andersson puts forward Swedish multistorey housing in wood, and how it is being conceptualized as a solution for building green cities in Sweden. Taking a critical and self-reflexive standpoint, the article aims at illustrating how ideas about the green city are conceptualized and conveyed in urban policy and why it matters for scholars in general to understand how policy ideas and models are formulated and mobilized.

"The Past in the Future: Investigating Values of Circulation" is a contribution by Birgitte T. Eybye and Lars N. Bock. Future commissions for architects can partly be assumed to be in the field of sustainable transformation, according to the authors. For this reason, Eybye and Bock investigate concepts, methods, and theories that promote a reuse of building materials, buildings, and infrastructures. Learning from architectural history is, in this context, important for both contemporary architecture and the challenges of tomorrow in this profession. The article belongs to the symposium theme circular buildings and cities. The fact that buildings have been modified and transformed at 'all times' is a starting point for the authors. By studying circular approaches in architecture—design for repair, conservation, modification for new uses, restoration, retrofitting, and deconstruction—tools may be redesigned for a sustainable architecture in a future-oriented context. Eybye and Bock examine theories and methodologies of architectural conservation and their potential to promote circularity in the built environment. The authors evolve and test an analytical framework in order to identify values in architectural conservation. Theory and practice are connected in a joint venture; a first step in developing tools and methods on circularity for architectural practice.

The second contribution on circular buildings and cities is an article by Inge Vestergaard and Guillermo Martín Jiménez, titled 'Exploring Secondary Resources in an Architectural Project'. This study examines the role of architecture in curtailing the contemporary overspending of resources. The focus is on reuse, and therefore on secondary resources as opposed to primary ones. The described research has evolved from graduate studio coursework of recent years at Aarhus School of Architecture. The courses were conducted with project-based learning. During the courses, local resource streams were studied, secondary resources were salvaged and mapped, circular sustainable business models were explored, and, finally, a set of design intentions became an architectural case project. The article focuses on the project, which resulted in a historically conscious design, offering new social facilities for a local housing area, while turning salvaged resources into actual building components. The research shows that it is possible to salvage resources directly for new construction—thus, waste can be seen as a resource.

'Campus in Transition: Suburban Transformation and Resilient Urbanity' is the name of the article by Anna Kholina. She explores the alteration of Otaniemi, an area close to Helsinki, designed from 1960 to 1980 according to modernistic planning principles. Her contribution is a part of the symposium theme of transformation and change. Kholina reflects on the objectives behind the alteration of Otaniemi, which is home to Aalto University's main campus along with residential housing. Alvar Aalto

designed the urban plan and buildings in Otaniemi, which are subjects of heritage preservation, making significant changes difficult. The area is also a nature reserve with protected species. This article presents a case study on the attempt by the planning authority to transform a suburban area into a liveable and attractive urban space. Data collection by Kholina was done from 2015 to 2018. The transformation is analysed as a *social production of space* (economic, historical, and ideological forces shaping physical conditions) and as a *social construction of space* (everyday practices and human interaction). The objective for the alteration was to increase density and to plan for social diversity in Otaniemi, which in this case is in line with the strategy of Aalto University. However, the social construction of space requires widening the spectrum of practices, such as community building, inclusive design, and participatory methods according to Khohlina.

The contribution by Ranja Hautamäki and Julia Donner is called 'Park in Flux: Change and Continuity in the Planning Discourse of Kaisaniemi Park'. This article belongs to the symposium theme transition and time. Kaisaniemi Park is a green urban site of cultural heritage. It is one of the oldest city parks in Finland at the centre of Helsinki, established in 1827. Planning and alteration have been a part of the park's 200 years of history. Hautamäki and Donner examine the preservation and renewal of the park in a long-term context, with a focus on three planning phases: the renewal discourse from the 1910s, the design competition of 2000, and the detailed plan of 2007. The competition aimed at redefining the identity of the park and replacing the historical structure. A small, high-quality play park was added to the area. However, the winning design was not implemented. After the competition, a new local detailed plan was developed in 2007 so as to find a new balance between continuity and transition. The article shows how difficult it is to restore a historical urban park in the centre of Helsinki with conflicting interests and different professionals' visions expressed in the design. The preservation of urban parks also substantially differs from the conservation of architectural heritage. Parks are shaped through natural processes. According to Hautamäki and Donner, preservation should include the managing of change in a sustainable way, without compromising the integrity and authenticity of the place. They conclude that old, traditional urban parks do not require 'new clothes or ideologies, but rather careful revival, improvement, and repair.

Two conference articles deal with the topic of temporary use in the city. Dalia Milián Bernal's article, 'Temporary Use of Vacant and Abandoned Urban

Spaces in Latin America: An Exploration, presents various cases of temporary use—from community centres to art galleries and urban gardens—within Latin American cities, from Mexico to Argentina. The historic context is presented as a background in order to explain the contemporary urban situation. The examples are set within a current theoretical debate, using the concepts of everyday urbanism and do-it-yourself urbanism. The latter is particularly interesting, since the projects studied involve citizen-led transformations. The former is relevant in the study due to its capacity for dispelling boundaries between public and private space. The analysis of the twenty-four cases reveals a wide range of uses, achieved through creative transformation processes. The cases illustrate the generative potential of temporary uses, which can in some cases lead to continuing cultural practices in urban spaces. The article indicates that understanding the processes behind temporary uses may eventually generate awareness about the physical, social, and economic contexts of citizen activity.

Hella Hernberg's article, titled 'Mediating "Temporary Use" in Cities: Accounts of Selected Practitioners, focuses on the roles of mediating actors in the temporary use process. Architects and designers often act in this mediator role, the author included. The research is qualitative, utilizing the 'Research through Design' method. The aim of the study is to determine the roles and tasks of mediating actors, as well as to identify their working conditions and contexts. To achieve this aim, representatives of mediating organizations from four different European cities—Ghent, Bremen, Nantes, and Riga were interviewed. The background of the mediator organizations was diverse, from ones within the public sector to those representing private owners. According to the study, common tasks and concerns of mediation work include managing and building relationships as well as bridging conflicts. Mediation also tends to challenge dominant traditions of urban planning. The study concludes that understanding the role of mediation in temporary use could have an impact on future urban planning, possibly leading the way towards more resilient and adaptive approaches to development issues.

The key questions that formed the background of the discussions at the symposium 'Built Environment and Architecture as a Resource' were: How do we as architects and urban planners define resilience in architecture and the built environment? What does it take to make our cities resilient—now and in the future—and in what way will it change our perception of the urban and its spaces? The compilation of articles in this proceedings publication

presents different reflections on the built environment and architecture as a resource. It addresses how cities, neighbourhoods, buildings, and citizens can become resilient, and what role architects and urban planners may play in this process. It gives an account of some of the many future challenges of society, and it discusses the social and cultural construction of concepts and theories that define society's understanding of resilience in relationship to the design of the built environment. Furthermore, it puts a new perspective on methods and practices being used to predict the future relevance of architecture.

It is the hope of NAF/NAAR and its collaborating partner that the publication will make a qualified contribution to the already existing body of critical work concerning resilience and the built environment and architecture as a resource.

NOTES

¹ This article was previously published in *The Architectural Review* (February 2019), issue on 'Failure', under the title 'Waste Not: Rotor and the Practice of Deconstruction'.