## Architectural Research in Finland

Address: https://journal.fi/architecturalresearchfinland

ISSN 2489-6799

## **Publisher**

Aalto University
Tampere University
University of Oulu
Finnish Association of Architects / Suomen Arkkitehtiliitto SAFA

## Editor-in-chief

Kimmo Lapintie kimmo.lapintie@aalto.fi

## Guest Editor (2019 vol. 3, no. 1)

Sari Hirvonen-Kantola sari.hirvonen-kantola @oulu.fi

## **Editorial Board 2019**

Professor Kimmo Lapintie, Aalto University, School of Arts, Design and Architecture

Dr. Helena Teräväinen, Aalto University, School of Arts, Design and Architecture

Dr. Mina di Marino, Norwegian University of Life Sciences

Professor Olli-Paavo Koponen, Tampere University Professor Panu Lehtovuori, Tampere University Dr. Pekka Passinmäki, Tampere University

Professor Anna-Maija Ylimaula, University of Oulu, Oulu School of Architecture Dr. Aulikki Herneoja, University of Oulu, Oulu School of Architecture

Dr. Sari Hirvonen-Kantola, University of Oulu, Oulu School of Architecture

# Table of Contents

Preface by Editor-in-Chief. Kimmo Lapintie	6
Editorial Introduction: Plan, Develop, Design. Making Smart Cities and Architecture. Sari Hirvonen-Kantola	7
Smart Principles for Knowledge-based Urban Development. Case Finnish Railway Station Areas. Ari Hynynen & Jari Kolehmainen	11
Urban Industries and the Production of Urban Form. A Typomorphological Analysis of Urban Productive Spaces in the Jette-Koekelberg Area in Brussels Capital Region. Frederik Vandyck & Inge Bertels	31
The Material City. Potential for Urban Development in Mapping Material Processes, Erosion and Obsolescence in Helsinki.  Tommy K. Lindgren	47
Alternative Approaches to Urban Regeneration and Infill Planning. Case Turku, Finland. Hanna Kosunen & Irina Atkova	56
Which is the Most Cost-efficient Alternative, a New Build or the Rehabilitation of a Cultural Heritage Site? Mari Oline Giske Stendebakken & Nils O. E. Olsson	76
National Urban Park. A Model for a Sustainable City or a Legislative Cage for Development. Ranja Hautamäki	95
Resilient Housing and Care Services for Aging Municipalities. Ira Verma	109
Individuality included. Riikka Kuittinen, Eevamaria Juuti, Matti Lakkala & Janne Pihlajaniemi	121
Perceptions of Log and Log Buildings among Finnish Architectural and Building Industry Professionals. Aale Luusua, Matti Lakkala & Janne Pihlajaniemi	133

Novel Architectonic Solutions for Industrial Log. Five Examples of Contemporary Architecture.  Matti Lakkala, Janne Pihlajaniemi & Riikka Kuittinen	148
Lighting Cultures in Northern and Southern Europe. An Investigation of Living Spaces. Lucrezia Seghi, Sarunas Noskaitis, Spyridon Spanos, Mette Hvass & Ellen Kathrine Hansen	168
Ambient Adaptive Lighting. Kjell Yngve Petersen	184
Light and Media Projections in Patient Rooms. A Preliminary Case Study. Stine Louring Nielsen, Esben Oxholm & Ellen Kathrine Hansen	200