



Next Places, Next Spaces

PROCEEDING BOOK

Forthcoming approaches in architectural and urban designing



October 24-26, Tirana 2019

Department of Architecture, Faculty of Architecture and Engineering, Epoka University



**3rd International Conference on Architecture and Urban Design
3-ICAUD**

PROCEEDINGS

**Proceedings Book of the
THIRD INTERNATIONAL CONFERENCE ON ARCHITECTURE AND URBAN DESIGN
3-ICAUD
October 24-26 2019**

ISBN: 978-9928-135-33-9

Edited by: Edmond Manahasa
Anna Yunitsyna
Fabio Naselli
Artan Hysa
Ina Osmani
Artemis Hasa

Cover Design: Eugert Skura

Published by:
Department of Architecture
Epoka University
Tirana, Albania

All rights reserved.

No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law. For permission requests, write to the publisher, addressed "Attention: Permissions Coordinator," at the address below.

CONFERENCE CHAIR:
Dr. Edmond Manahasa
Department of Architecture
Epoka University
Tirana, Albania
emanahasa@epoka.edu.al

Conference Topics

Architectural History and Theory

Classical Antiquity and Ancient Architecture
Byzantine Architecture
Ottoman Architecture
Architectural and Urban Discourse, Polemics and Strategies of 20th Century
20th Century Architectural Developments in Albania
Contemporary Discourse on Architectural Theory
Current Utopias

Historic Preservation

Historic Architecture and the City
Archeology and Museology
Materials and Construction Techniques in Preservation
Adaptive Reuse in Historical Context

Architectural Design

Architectural Design and Design Methodologies,
Digital Age and Contemporary Discussions
Architectural Design Practice
Innovative Technologies in Architectural Design
Urban and Rural Housing
Informal Housing
Affordable Housing

Next Trajectories in Design Education

Design Concepts and Strategies
Design Curriculum
Design Tools
Computational Design Thinking
Collaboration in Design Education

Environmental Psychology

Environmental and User Behavior
Environmental Quality
Architectural Psychology
Phenomenology in Architecture
Place Attachment
Place Identity
Social Use of Space
Memory of the Place

Landscape Research, Planning and Design

Landscape Research
Landscape Design
Digital Landscape Architecture
GIS application in Landscape Planning
Landscape Management
Landscape preservation

Urban/Building Physics and Technology

Heat and Mass Transfer in Building Materials and Building Envelope
Buildings' Energy Performance
Indoor Climate and Thermal Comfort
Urban Physics
Technologies for Intelligent Buildings
Building and Room Acoustics

Urban Planning and Design

Next City: Utopic Scenarios and Transformation of Cities in post-industrial age
Sustainable Urban Planning and Territorial Development
Physical and Social Regeneration of Marginal and Rural Areas
Urban Spaces Design and Management
Bottom-up Urbanism/Democracy and Community Participation
Sustainable Transports and new Mobility Systems
Closing the Cycles: Water, Energy, Waste and Mobility
ICTs and City, Smart City
Urban Fringe

Digital technologies in architecture and urban design

Concepts and Strategies of Digital Design
Digital Fabrication in Design and Architecture
Computational Architecture and Urban Planning

Industry and Practice in Albanian/International context

Architectural Projects in Albanian/International Context
Urban Design Projects in Albanian/International Context
Innovative Technologies of the Industry

Committees

Organizing Committee

(Department of Architecture, Epoka University, Tirana, Albania)

Dr. Edmond Manahasa – Chair

Assist. Prof. Dr. Anna Yunitsyna - Co Chair

Assoc.Prof.Dr. Sokol Dervishi

Prof. Dr. Kujtim Elezi

Prof.Dr. Enis Jakup

MSc. Ina Osmani

Dr. Artan Hysa

Dr. Odeta Manahasa

MSc. Egin Zeka

MSc. Desantila Hysa

Dr. Fabio Naselli

Ramazan Rameta

Oltjon Rukaj

Eugert Skura

Alban Bathorja

Rexhina Basha

Mario Alla

Miriana Pali

International Scientific Committee

Adolfo Sotoca, Lulea University of Technology, Sweden

Ahmed H. Radwan, Helwan University, Egypt

Ahmed J. Rashed, The British University in Egypt, Egypt

Anna Bruna Menghini, Politechnic University of Bari, Italy

Anna Yunitsyna, Epoka University, Albania

Artan Hysa, Epoka University, Albania

Claudio Gambardella, University of Campania, Italy

Dukajin Hasimija, University of Pristina, Kosovo

Edmond Manahasa, Epoka University, Albania

Enea Mustafaraj, Epoka University, Albania

Enis Jakupi, State University of Tetovo, Macedonia

Enrico Pietrogrande, University of Padua, Italy
Eva Spackova, Technical University of Ostrava, Czech Republic
Florian Nepravishta, Tirana Polytechnic University, Albania
Francesca Calace, Politechnic University of Bari, Italy
Francesco Defilippis, Politechnic University of Bari, Italy
Francisco Manuel Serdoura, University of Lisbon, Portugal
Frida Pashako, Tirana Municipality, Albania
Giorgio Rocco, Politechnic University of Bari, Italy
Gjergji Islami, Tirana Polytechnic University, Albania
Huseyin Bilgin, Epoka University, Albania
Isak Idrizi, Mother Teresa University Skopje, Macedonia
Jana Zdrahalova, Czech Technical University in Prague, Czech Republic
Kujtim Elezi, State University of Tetovo, Macedonia
Ledita Mezini, Tirana Polytechnic University, Albania
Loredana Ficarelli, Politechnic University of Bari, Italy
Mahmoud Yousef M. Ghoneem, Helwan University, Egypt
Marta Serra, Universitat Politecnica di Catalunya, Spain
Maurizio Carta, University of Palermo, Italy
Michal Kohout, Czech Technical University in Prague, Czech Republic
Michelangelo Russo, University of Naples “Federico II”. Italy
Michele Montemurro, Politechnic University of Bari, Italy
Mieke Oostra, Utrecht University of Applied Sciences, Netherlands
Miriam Ndini, Epoka University, Albania
Odeta Manahasa, Epoka University, Albania
Petr Vorlik, Czech Technical University in Prague, Czech Republic
Roberta Belli, Politechnic University of Bari, Italy
Siqing Chen, University of Melbourne, Australia
Sokol Dervishi, Epoka University, Albania
Vasco Barbosa, Universidad de la Sabana, Columbia
Marsela Demaj, Institute of Cultural Monuments, Albania
Joli Mitrojorgji, Institute of Cultural Monuments, Albania
Klodjana Gjata, Institute of Cultural Monuments, Albania

KEYNOTE SPEAKERS



Prof. Piotr Lorens - PhD, DSc.

Urban planner. Lecturer in urban design and development and - since 2007 - Head of the Department of Urban Design and Regional Planning at the Faculty of Architecture, Gdansk University of Technology. His university activities also include coordination of the research and EU Social Fund projects.

Based on these projects he was responsible for organization and coordination of the post-graduate studies and international conferences related to the issues of urban regeneration and management. Besides his academic career he is also actively involved in the activities of the International Society of City and Regional Planners (within 2011-2017 was holding the position of Vice President responsible for the Young Planning Professionals program) as well as of the Society of Polish Town Planners – TUP (at present – Chairman of the Advisory Board of the society, within years 2015-2018 – President of the Society).

Piotr Lorens graduated as architect from the Gdansk University of Technology, and also completed the post-graduate studies (as Fulbright Fellow) at Harvard University and Massachusetts Institute of Technology. Since then he is active as guest lecturer at numerous universities, mostly around Europe but also in Asia and Africa. He was also teaching as guest professor at two Russian universities. At the same time he is conducting his professional career with the focus on planning and management of the urban regeneration projects in Poland. Among others, he was involved in development of urban regeneration plans for numerous municipalities in Poland and also for many years was involved in planning for regeneration of the Young City in Gdansk - the large-scale urban project located on the site of former Gdansk shipyard.

His professional interests include urban planning and regeneration processes, with special focus on waterfront areas and public spaces.



Prof. Maurizio Carta - PhD,

Maurizio Carta is architect, PhD and full professor of urbanism and regional planning at the Department of Architecture of the University of Palermo. He's the Dean of the Polytechnic School of the University of Palermo. He is senior expert in strategic planning, urban design and local development, drawing up several urban, landscape and strategic plans in Italy.

In 2015 the International Biennial of Architecture in Buenos Aires, he was awarded the prize for "academic investigation". He is visiting professor or keynote speaker in several universities and institutions.

He is author of several publications, among the most recent: Reimagining Urbanism (Listlab, 2014), Re-cyclical Urbanism (with B. Lino and D. Ronsivalle, Listlab, 2016), The Fluid City Paradigm (with D. Ronsivalle, Springer, 2016), Augmented City (Listlab, 2017) Dynamics of Periphery (with J. Schroeder, Jovis, 2018).

Among the most recent experimental activities, the scientific coordination of the regional urban spatial Plan of Sicily, of the structural territorial Plans of the Provinces of Palermo and Agrigento and of the Strategic Plans of Palermo, of the Northern Barese Ofantino, by the Province of Catania and the municipalities of the Province of Syracuse, of the Partinicese, Corleonese and Sicani Landscape Plan, of the Port regulatory plan of Palermo, of the Plan for the Nature Park of the Lucan Apennines, of the General Town Plan of Poggioreale.

From 2008 to 2009 he is an expert of the President of the Province of Palermo for strategic territorial planning. From September 2009 to June 2011 he was Councilor for the Municipality of Palermo with delegations to the historic center, strategic plan and urban redevelopment of the coast. From 2018 part of the work group of the Sicily Region for the Regional Urban Law and for the guidelines for the Regional Territorial Plan.

For his research and publications he is invited to give lectures and conferences in numerous Italian and foreign universities and institutions, including Milan, Rome, Florence, Naples, Turin, Genoa, Venice, New York, London, Paris, Moscow, Dortmund, Hannover, Madrid, Barcelona, Prague, Buenos Aires, Beijing, Valencia, Tunis, Malta. Since 2016 he has started a scientific collaboration with the Leibniz University of Hannover as part of the DAAD program. From 2018 he is a member of the Scientific Committee of EUROPAN.

**Prof. Francesco Alberti - PhD**

Dr Francesco Alberti is Associate Professor of Urban Planning and Design at the Department of Architecture of the University of Florence, where he is currently the coordinator of the Laboratory of Landscape and Urban Design for the master's degree course in Urban and Regional Planning and in charge with the teachings of Urban Design for the Laboratory "Architecture and City" for the master's degree course in Architecture, Smart City Planning for the postgraduate programme "ABITA" (Bioecological Architecture and Technological Innovation for the Environment) and and Mobility Planning for the postgraduate programme in Landscape Architecture. In the same department, he is the scientific coordinator of the research unit "SUP&R" (Sustainable Urban Projects & Research) and of the related university spin-off "Urban LIFE" (Urban Liveability & Innovation for Everyone).

As a member of the Italian National Institute of Urban Planning (INU - Istituto Nazionale di Urbanistica) he joined the National Committees "Networks, Infrastructure and Innovation Policies" (2014-2016) and "Urban Accessibility for Everyone" (2016-). Since 2016 he is the President of the Regional division of INU in Tuscany.

His scientific interests in the fields of spatial planning and urban design refer to an approach aimed at giving cultural coherence and operational continuity among research, education and public policies concerning city and territory, with a special focus on two main areas:

- the relationship between urban planning, design and management in the perspective of sustainability and urban resilience;
- the interpretation of mobility systems as "public spaces", playing a major role in structuring contemporary cities.

On these topics he has written many essays, articles and books, joined national and international conferences, lectured in postgraduate programmes and master courses for professionals and public administrators, provided expert help in participatory processes, coordinated seminars and conducted researches on behalf of public institutions and private enterprises.

Contents

A word from Editors	XVI
ABSTRACTS OF KEYNOTE SPEAKERS	XIX
AUGMENTED CITIES OF THE NEOANTHROPOCENE	XX
CITIES OF TOMORROW – TOMORROW OF PLANNING	XXI
LIVING AND WORKING IN A HERITAGE SITE. A STUDY AND A PARTICIPATORY PROCESS ON THE CONFLICTS AND OPPORTUNITIES INSIDE THE HISTORIC NEIGHBORHOOD OF SAN LORENZO IN FLORENCE	XXII
ARCHITECTURAL HISTORY AND THEORY	23
EUCLIDIAN AND NON-EUCLIDIAN GEOMETRY, ARCHITECTURE AND HUMAN HABITATION: EXPERIENTIAL, COGNITIVE AND CULTURAL PARADIGMS AFFECTING ARCHITECTURE	24
RETROSPECTIVE ON THE ORIGINS OF SCHOOL BUILDINGS IN ALBANIA	28
SPACE AND TECTONIC. AN INTERPRETATIVE KEY TO THE RELATION BETWEEN ARCHITECTURE AND CONSTRUCTION	40
THE BLENDED NATURE OF CZECH ARCHITECTURE IN THE EIGHTIES	51
HISTORIC PRESERVATION	64
CENTRALITY OF DESIGN AND SURVEY FOR THE PROTECTION AND ENHANCEMENT OF CULTURAL HERITAGE	65
AN ATLAS OF POST-MEDIEVAL MASONRY STRUCTURES IN CAMPANIAN AREA METHODOLOGY	75
NEW MODELS OF HYBRID HOUSING: A CASE OF TRANSFORMING A NEIGHBORHOOD IN TETOVO, MACEDONIA..	86

CORRELATION BETWEEN UX/UI DESIGN AND ARCHITECTURAL COMPOSITION OF SPACE	94
LANDSCAPE RESEARCH, PLANNING AND DESIGN	114
DEFINING LANDSCAPE STRATEGIES FOR EASTERN EUROPEAN HOUSING NEIGHBORHOODS	115
THE CHALLENGES OF KOSOVO MUNICIPALITIES CONCERNING PUBLIC OPEN SPACES AND THEIR MAINTENANCE.....	134
CROSS-CULTURAL PARK OF THE BENEDICTINE MONKS IN THE ADRIATIC	146
URBAN-BUILDING PHYSICS AND TECHNOLOGY	155
EMPHASIZING THE ‘GREEN’ PROPERTIES OF ETFE FOILS AND VISUALIZING ITS SPECTRUM OF IMPLEMENTATION IN ARCHITECTURAL BUILDING ENVELOPES.....	156
ENERGY EFFICIENCY FUNCTION OF INTEGRATED PHOTOVOLTAIC MODULES INTO FAÇADE AT PUBLIC ADMINISTRATION BUILDINGS.....	174
RECYCLING OF BRICK DUST/GROUND MORTAR MIXTURES AS PARTIAL REPLACEMENT OF PORTLAND CEMENT	185
SIMULATION-ASSISTED DOUBLE SKIN FAÇADE ANALYSIS OF AN OFFICE BUILDING IN TIRANA, ALBANIA	194
SUSTAINABLE SYSTEMS AND THERMAL COMFORT EVALUATION IN TRADITIONAL HOUSING	203
URBAN PLANNING AND DESIGN	224
IMPROVING THE QUALITY OF JAKARTA'S COMMERCIAL AREA THROUGH DESIGNING THRESHOLD SPACES IN A PUBLIC PLACE	225
DEVELOPMENT AXES AS A CATALYST FOR REVIVING THE UN-INHABITED NEW URBAN COMMUNITIES EGYPTIAN WESTERN NORTH COAST DEVELOPMENT AXIS.....	244

**PROCESSUAL AND TYPO-MORPHOLOGICAL READING
METHOD.THE CASE OF BIRGU, MALTA. 269**

**INTERCONNECTION VS INTERDEPENDENCY: DIFFERENT URBAN
RELATIONSHIPS IN THE SMART CITY ERA 287**

PROJECTING AND BUILDING ‘LA GRANDE PLACE’ 297

**THE OLD STRAIGHT TRACK: WALKING THROUGH HISTORY, ART
AND PLACE..... 325**

**THE STRUCTURAL PLANNING OF THE MUNICIPALITY OF
DIAMANTE..... 335**

**TIRANA AS CONTEMPORARY LABORATORY: LIVING THE
“GREEN BELT” 348**

**TOWARDS A BETTER QUALITY OF LIFE, PROPOSING A
PROTOTYPE MODEL OF SUBSTITUTE ACCOMMODATION
FACILITIES AT GAMALYAH IN CAIRO..... 373**

**URBAN GREENING: FROM THE SOCIAL VALUE TO
ENVIRONMENTAL QUALITY..... 389**

**AN INTEGRATED DESIGN MODEL FOR SUSTAINABLE
DEVELOPMENT IN WATERFRONT AREAS PORT SAID CITY AS A
CASE STUDY.URBAN REGENERATION IN COASTAL CITIES..... 399**

**SHARED METHODS FOR THE VALORISATION OF THE INLAND
TERRITORY. THE ALLIANCE BETWEEN SAMO AND THE
ABANDONED VILLAGE OF PRECACORE 420**

**DIGITAL TECHNOLOGIES IN ARCHITECTURE AND URBAN DESIGN
..... 433**

**MAPPING THE WALKABILITY OF INFANTS, TODDLERS,
CAREGIVERS, AS AN INDICATOR FOR THE PERFORMANCE OF
URBAN SPACES: THE ITC-FRIENDLY ROUTE 434**

A word from Editors

As we all see, we are experiencing a fast change in place making due to the new planning strategies and design tools, innovative building technologies and especially more and more consumerist driven ephemerality, which have become the main factors in producing a new built environment.

The continuous concentration of the world population in the urban areas requires more and more spaces and places, resources and energies, modalities of mobility and transport, social inclusion and integrated economies. Considering also that the past general trend produced or helped many environmental challenges in both local and global scale: such as climate change, social marginalization, advancing in land consumption, growing in demand for energies, loss of jobs and so on. These have become the major challenges for the 21st century and some of the greatest problems facing humanity in the next future but starting from today.

During the Modernist period, architects and urban planners aimed to design spaces oriented by the principles of this Movement. The “5 points of Architecture” architectural principles and “Radiant City” urban model of Le Corbusier worked as ideals. After the fall of Modernism as a paradigm, although post-modernism evolved as a counter-reaction movement inspired by Venturi’s ideas, it further continued to be developed heavily influenced by philosophical theories including structuralism, post-structuralism, deconstruction and semiotics. Moreover, later different theoreticians brought into focus themes like: Analogical Architecture, Ecology, Phenomenology, Critical Regionalism, Typology in Architecture, Interrogation of Tectonics, Architecture of Pleasure or Folding in Architecture. Now more and more the issue of sustainable designed and climate-oriented place has become the most emerging one. In fact, this theoretical discourse provided by the most brilliant scholars is a reality of the western world.

The fall of Berlin Wall brought into existence new horizons for Eastern Europe as the architectural context got influenced from this new reality. The monotonous grey socialist urban fabric typical for the eastern countries-built environment became subject of architectural discourse. New actors like private landowners, developers, politicians emerged in the post-socialist urban context. The change in regime from communism to capitalism woke up the socialist city from the “sleep” of abundant public space, parks and green areas to face the

aggressive world of commoditization. In post-socialist countries, the free market economy system-imposed governments to liberate themselves from the monopoly of urban land and to open to the privatization process.

As a matter of fact, the public spaces close to the city center became very expensive, valuable and attractive for the private entrepreneurs, who would build high and luxury buildings in the new political context. Permission was given through different intermediary processes like competitions, which in general were at international level. Data including post-socialist period after the 90s show a continuous reduction of public space. The process of reduction of urban public space was guided within the framework of “partial urban plans” (example of Albania) or ad hoc plans, which awarded privileges to developers and which did not exist in the “in force” regulatory plans, by amending them. An important fact to be considered is the attenuated state of local and municipal authorities in terms of planning strategies at the end of the communist period, which also made the process easier.

As a result of this process Moscow lost 15% of forests and 55% of green areas, while Sofia’s public green space was reduced by 30% (Boentje & Blinnikov, 2007). Tirana would be the worst example where the area per person before the 90s was 10 m² and now it is almost 3m², which means a decrease by 70%. Although the issue of public space reduction exists even in West Europe countries, in Ex-Communist countries it was celebrated and marketed as a tool to become westernized. The process had another cover, which justified the loss of urban space for the sake of inviting international companies and making and increasing city’s brand value within the global market. Berlin would be a typical example of the latter (Mauser & Goldhoorn, 2006; as cited in Hirt, 2014).



The aim of this book is to provide a multidisciplinary context for a general debate about the forthcoming approaches in architectural and urban design for the human's Next Places/Next Spaces. It may represent an opportunity through which we all can reflect about how designing is evolving in the arena of worldwide practices and "experiments" aimed to a better quality of life.

ABSTRACTS OF KEYNOTE SPEAKERS

AUGMENTED CITIES OF THE NEOANTHROPOCENE

Maurizio Carta

University of Palermo

Viale delle Scienze, Edificio 14 - 90100 Palermo

maurizio.cart@unipa.it

ABSTRACT

Contemporary cities could be considered vibrant organisms of places and communities, of data and information, of sensors and actuators, of actions and reactions generated by people and environment both. Cities must be more responsive to our behavioral changes, enabling devices for enhancing our contemporary life. We would be able to build a more efficient urban environment, able to sense, to understand and to act everyday and for everyone. In the post-city age and beyond the smart city, Augmented City is a new paradigm that perceives the demands of more networked, knowledge-based and creative society that answers to the global change by a new circular metabolism. The Augmented City is a spatial/cultural/social/economic platform for enhancing our contemporary life, individual and collective, informal and institutional, expanding the urban space generated by the effects of innovation. The Augmented City redefines dogmas of urbanism that we often thought of being more static and rule-based, recovering its prospective, incremental, responsive and creative approach. We need to think, design and manage cities more sentient, open source and intelligent, again productive, creative and based on recycle, cities resilient, fluid and reticular, and truly strategic. The Augmented City isn't the city of the future, but it brings us in a different present!

CITIES OF TOMORROW – TOMORROW OF PLANNING

Piotr Lorens

Gdańsk University of Technology
Ul. Narutowicza 11/12 80-233 Gdansk, Poland
plorens@pg.gda.pl

ABSTRACT

Contemporary cities face numerous changes which effect in an intensive debate regarding their future. This debate includes both discussions of what cities can become and how they can look like in closer or more distant future, although there is little discussion on how these visions shall be delivered and implemented. Firstly, we have to deal with the city of the future. But we have to admit that we do not know how it will look like – shall it be an “enhanced” version of the New Urbanists’ fantasy, an embodied dream of urban activists, a “copy-paste” version from Blade Runner movies, or just a bit different version of the city we know today? This bears severe consequences to planning practice - and we have to admit that “rigid” planning based on defining the “final” structure of the city is the song of the past. Secondly, the state-regulated planning law does not respond to the dynamically changing ideas of the society and making it even more “comprehensive” will not help. Thirdly, the increasing variety of problems and issues we deal within planning calls for very diversified approaches to the particular sites and problems, including usage of the much greater palette of tools and techniques. All of this means that – most probably– the future planning shall be much more diversified, responding to upcoming needs and ever-changing situations, focusing – on one hand – on “big issues” and – on the other – dealing with the “small needs” of even small groups of stakeholders. But the problem is much broader, dealing not only with type of approach but also with scale, way of delivery and (finally) way of its implementation.

LIVING AND WORKING IN A HERITAGE SITE. A STUDY AND A PARTICIPATORY PROCESS ON THE CONFLICTS AND OPPORTUNITIES INSIDE THE HISTORIC NEIGHBORHOOD OF SAN LORENZO IN FLORENCE

Francesco Alberti

University of Firenze

Via Pier Antonio Micheli 2, 50121 Firenze

francesco.alberti@unifi.it

ABSTRACT

The lecture focuses on the concept of “identity” of a place, making a distinction between local identity, which implies a community rooted in a place, and the image of the place, which may become recognizable even at a global level. On this subject, the case study of the neighborhood of San Lorenzo in Florence is presented, where a research by the Department of Architecture of Florence has been developed, along with a process of civic participation aimed at orienting public policies to prevent gentrification and tourism homologation of the city center.