

IFAU`19

November 21-23 | Tirana

3rd INTERNATIONAL FORUM ON ARCHITECTURE AND URBANISM

MODERNISATION AND GLOBALIZATION

Challenges and Opportunities in Architecture, Urbanism, Cultural Heritage

ABSTRACT PROCEEDINGS BOOK



Faculty of
Architecture
and Urbanism

POLYTECHNIC UNIVERSITY OF TIRANA

IFAU 2019 – 3rd International Forum on Architecture and Urbanism aims to bring together leading academic scientists, researchers, and research scholars to exchange and share their experiences and research results about all aspects of Architecture, Urbanism, Cultural Heritage within Modernization and Globalization trends of XXI century.

The third edition is expanding the horizon by introducing a series of overlapping visions spanning the recently institutionalized Adriatic – Ionian Euroregion, now extended to the Balkan and South-East European region. The Forum will concentrate on Architecture, Urbanism, Cultural Heritage located in contexts and territories that reveal their tendencies to Modernization and Globalization.

Themes of the Research Abstracts

- Global / local modernizations
- XXth Century modernism and the question of cultural heritage
- Phenomena of re-generation, revitalization, recycle, reuse
- Modernization / globalization of urban planning / design and landscapes
- Modern housing
- Modern designing and daily life / universal design
- Utilization of future technologies
- Sustainability on the era of modernization / globalization



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INTERNATIONAL FORUM

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BOOK

21-23 November 2019
Tirana, Albania

ISBN: 978-9928-131-89-8

This forum is organized
Faculty of Architecture and Urbanism, Polytechnic University of Tirana



Title:

IFAU19 - 3rd International Forum for Architecture and Urbanism.

Modernisation and Globalization
Challenges and opportunities in architecture, urbanism, cultural heritage

Abstract Proceedings Book

Edited by:

Florian Nepravishta, Andrea Maliqari, Ledita Mezini

Layout:

Benida Kraja

Cover and logo design:

Andi Shamenti

Publisher:

Faculty of Architecture and Urbanism (FAU) - Polytechnic University of
Tirana (PUT)

Year of publishing:

2019

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Edited by:

FLASH Publishing

ISBN 978-9928-131-89-8

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DIGITAL REVOLUTION, ARCHITECTURE, URBAN (RE)GENERATION, A CRITICAL OVERVIEW ON THE SOFTWARE FOR THE “DIGITAL LAYER”

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The contemporary town is a mix of transformations, intentions, opportunities and difficult challenges. In recent years a digital layer is overlapping the various levels of the urbanscape. It exists “virtually” but with a more and more strong consistency in all the realities of the town. When William Gibson wrote “virtual space is where we are when at the telephone with someone else” he was maybe barely imaging how much the Information Technology was going to transform the perception of the “real” world. In this context, the architect, the urbanist, the designer is called to operate, not as simple users, but as promoters, members of the teams that should exploit the possibility offered by different tools, both on the front of gathering data, analysing them, using to propose new solutions which hopefully will be tuned with the new reality. In the paper proposed here, it will be presented a critical analysis of the SOFTWARE tools that offer new possibilities of investigation and intervention in the middle of the digital revolution. In facts, this set of tools are more and more accepted in the process of the architectural/urban definition, with a gradual reduction of the operators considering the operations of digital modelling and data treatment as something “external”, almost a disturbing accessory, in front of the pure architecture process. Reflecting on the new level of skills required for appropriate operations on buildings and new urban/regeneration assets, a specific taxonomy will be defined for the digital tools aimed to analyse and design the sites and the projects. With specific attention to their influence in the final results (CAD and BIM environments, data analysis, generative modelling, imaging software, crew sourcing solutions, APP for personal devices for operators/users, etc...) as well as their state of implementation in the general architectural workflows.

Keywords:

**digital tools, digital
modelling, digital layer,
digital solutions,
software**

DIGITAL REVOLUTION, ARCHITECTURE, URBAN (RE)GENERATION, A CRITICAL OVERVIEW ON THE HARDWARE FOR THE “DIGITAL LAYER”

The contemporary town is a mix of transformations, intentions, need of knowledge, opportunities and difficult challenges. Even if global/general planning should be the main reference for organic development, interventions based on isolated intentions, occasional researches, specific investigations may bring positive and interesting contributions to the general debate and the occasions of knowledge. In recent years, with ongoing growth, a digital layer is overlapping the various levels of the urbanscape. It exists “virtually” but with a more and more strong consistency in all the realities of the town. When William Gibson wrote “virtual space is where we are when we are at the telephone with someone else” he was maybe barely imaging how much the mobile communications and the Information Technology was going to transform the perception of the “real” world. In this context, the architect, the urbanist, the designer are called to operate, not as simple users, in which case they are at risk of losing a precious opportunity, but as promoters, members of the teams that should exploit the possibility offered by different tools, both on the front of gathering data, analysing them, using to propose new solutions which hopefully will be tuned with the new reality. In the paper proposed here, critical analysis about the Hardware tools that offer new possibility of knowledge and functioning in the middle of the digital revolution will be presented, reflecting on the new level of skills required for appropriate intervention on buildings and new urban assets. A specific taxonomy will be defined for the digital survey tools and the product they allow to generate (3d laser scanner, photogrammetry, Drone/UAV, diagnostic tools, sensors, personal devices for operators/users, etc...) as well as their state of implementation in the general architectural workflows.

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Keywords:

**digital tools, digital
survey, digital layer,
digital solutions,
hardware**





Cip Cataloguing in publication National Library, Tirana

Nepравishta, Florian
IFAU19 – 3rd International Forum for Architecture and Urbanism
Modernization and Globalization
Abstract Proceedings Book
Challenges and Opportunities in Architecture, Urbanism, Cultural Heritage
/ Florian Nepравishta, Andrea Maliqari, Ledita Mezini

Tiranë: Flesh, 2019

234 f. : me foto ; 21.5 x 21.5 cm Bibliogr.

ISBN: 978-9928-131-89-8

Maliqari, Andrea; Mezini, Ledita

1. Architecture 2. Urbanism 3. Cultural Heritage
4. Modernisation 5. Globalisation 6. International Forum

721 (439.5 : 496.5) "1916/1935"

624.21(439.5 : 496.5) "1916/1935"