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ON ARCHITECTURE — Shaping the City through Architecture



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strand Sustainable Urban Society Association

ON ARCHITECTURE

— SHAPING THE CITY THROUGH ARCHITECTURE

BOOK OF ABSTRACTS

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Editor
Ružica Bogdanović

Reviewers
Aleksandra Stupar
Nataša Danilović Hristić
Ranka Gajić
Svetlana Batarilo
Ružica Bogdanović
Nora Lefa

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Bogdan Maksimović

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Milica Maksimovic

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Kosta Stojanović*

Special Issues in Architectural Design:
Fluidity and Transformability in Residential Spaces

Architecture, as a multidisciplinary field, shapes our spatial experiences beyond physical structures. The design process, rooted in abstract concepts, addresses functional needs and aesthetic preferences (Koolhaas, 1994; Le Corbusier, 1986). Architects optimize space usage by grouping related functions into zones, enhancing user experience (Tschumi, 1996).

In an era of rapid change and adaptability, rigid designs are restrictive. Flexibility and transformability are now essential in modern architecture (Jencks, 1987). The COVID-19 pandemic highlighted the need for multifunctional spaces for work, learning, and leisure. Smaller spaces particularly face challenges in accommodating diverse functions.

Spatial transformability can be achieved through creative layouts, movable partitions, multifunctional furniture, and technological innovations (Tschumi, 1996). For example, living rooms can convert into workspaces, and kitchens can adapt for social gatherings. This flexibility supports sustainability by reducing the need for new construction or extensive renovations (Le Corbusier, 1986).

Globalization and technological advancements since World War II have transformed business, work, and social interactions (Castells, 2010). This shift impacts residential design, now often combining living, office, and commercial spaces (Giddens, 1999). The rise of remote work, accelerated by the pandemic, demands adaptable spaces integrating work and living functions. Timeless architectural values, such as open plans and adaptability, are crucial for multifunctional spaces. Case studies illustrate these principles: the Duinker & van der Torre project in Amsterdam (1987) with its flexible housing design, Moshe Safdie's Habitat 67 in Quebec (1967), and the Valley project by MVRDV in Amsterdam (2021), both integrating green terraces. These projects set benchmarks for future developments, reflecting and supporting contemporary societal needs. This article is important as it highlights the necessity of innovative design in creating dynamic, personalized, and sustainable environments that respond to the evolving demands of modern life.

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* University of Belgrade, Faculty of architecture, Belgarde, Serbia
kostastojanovic1@gmail.com

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ARCHITECTURE AND CHALLENGES IN CREATING ARCHITECTURE FOR THE FUTURE

— Challenges in architecture in contemporary times

— Phenomenology of architecture, Architecture and art, Technology and architecture

Mauro Berta*

Designing *in medias res*. Adaptive Reuse as an Exaptative Strategy

Architectural design is often seen as an activity that envisages a very vast range of possible outcomes, from its physical realization, to the elaboration of alternatives, to the partial or total reconfiguration of the mandate, up to the cancellation of the assignment or to its transformation for other purposes. At the same time the design activity has normally a quite clearly identifiable beginning in a series of recurring events: the official assignment, the definition of the functional program and the clients' expectations, the inspection and the first investigations, etc. The very concept of "condition survey", which constantly returns in the lexicon and argumentative methods of the technical documents, evokes with a certain precision a "before" and an "after" state, a temporal threshold that marks a discontinuity within the history of a place and starts a process meant in some way to reconfigure its destiny. This condition is particularly evident in the adaptive reuse and urban design domains, where the presence of pre-existing artefacts is a binding constraint. Thus, dealing with the complexity of architectural and urban transformations and their transitional nature inevitably means taking note of the intrinsic evanescence of this ideal dividing line. The designer - especially in the current historical situation, characterized by increasingly complex technical challenges and growing economic scarcity - is more and more distant from the idealized demiurgic and authorial figure already demystified in recent years, and increasingly close instead to an interpreter who penetrates processes already underway, reorienting their outcomes and "pre-adapting their characteristics", in the sense that Gould and Vrba attributed to the term *exaptation*. The paper aims to reflect on this condition starting from a design experience in Bari, Italy, which has led to questioning the boundaries of validity of the project action and the margins for redefinition of the project itself.

Keywords: adaptive reuse, urban design, *exaptation*, agentivity

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*Politecnico di Torino, Department of Architecture and Design, Italy
mauro.berta@polito.it

Đorđe Alfirević*, Marina Nenković Riznić**, Sanja Simonović Alfirević***

Potential Impact of The Metaverse on Residential Space Changes

This paper explores how technological innovations such as the metaverse shape our living environment, providing insight into potential changes in residential space. By analyzing current trends, the study examines how the metaverse concept can transform the way we live and use residential space. The focus is on potential changes that may occur in residential space over time under the influence of the metaverse. The research centers on four key aspects of possible changes: a) miniaturization of the surface and structure of living space, b) disappearance of certain types of rooms, c) reduction of the surface area and dimensions of specific rooms (social spaces for entertainment and socializing, kitchen spaces, etc.), and d) transformation of spaces into virtual entities.

The research methodology involves an analysis of current trends in metaverse technology and its impact on the architectural design of residential spaces. Descriptive analysis, trend analysis, and case studies were used to identify possible changes and their impact on residential space users. The goal of the paper is to explore possible changes in residential space that may arise from the application of metaverse technology. The focus is on identifying key aspects of these changes and their potential impact on lifestyle and the use of residential space.

Through an analysis of current trends and research into possible changes in residential space under the influence of the metaverse, four key aspects of possible changes were identified: miniaturization of the surface and structure of living space, disappearance of certain types of rooms, reduction of the surface area and dimensions of specific rooms, and transformation of spaces into virtual entities. Metaverse technology has great potential to transform the way we live and use residential space. Expected changes include more efficient use of space, adaptation of rooms to new user needs, and integration of virtual elements into real spaces to support interactions through the metaverse. This research provides a basis for further exploration and implementation of metaverse technology in the architectural design of residential spaces.

Key words: metaverse, residential space, technological innovations, architectural design, virtual transformation

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*Assistant Professor, Faculty of Contemporary Arts, Belgrade, djordje.alfirevic@gmail.com
**Principal Research Fellow, Institute of architecture and urban & spatial planning of Serbia, marina@iaus.ac.rs
***Senior Research Fellow, Institute of architecture and urban & spatial planning of Serbia, sanjas@iaus.ac.rs

Dr Ivan Filipović
Faculty of Architecture, University of Belgrade, Serbia
ivan.filipovic@arh.bg.ac.rs

Dr Ivana Rakonjac
University of Belgrade – Faculty of Architecture (UBFA), Serbia
i.rakonjac@arh.bg.ac.rs

Dr Irena Kuletin Ćulafić
University of Belgrade, Faculty of Architecture, Department of History and Theory of Architecture and Art, Belgrade, Serbia
kuletin@arh.bg.ac.rs
ORCID: https://orcid.org/0000-0001-7052-4596

Irina Živković
Teaching Assistant
University of Belgrade Faculty of Architecture, Belgrade, Serbia
irina.zivkovic@arh.bg.ac.rs

Dr Jasna Jovićević
www.jasnajovicevic.com

Dr Jelena Ristić Trajković
Associate Professor
University of Belgrade – Faculty of Architecture (UBFA), Serbia
jelena.ristic@arh.bg.ac.rs

Jelena Matić
University of Belgrade, Faculty of Forestry, Belgrade, Serbia

Jovana Lučić
jovanalucic134@gmail.com

Dr Jovana Tošić
Professor of Vocational Studies, ITS Belgrade
jovana.tosic@its.edu.rs
ORCID: https://orcid.org/0000-0001-6779-9310

Konstantinos Briasoulis
National and Kapodistrian University, University of Patra, University of the Aegean
k.mpriasoulis@gmail.com

Kosta Stojanović
University of Belgrade, Faculty of architecture
kostastojanovic1@gmail.com

Ljubica Arsić
lju.arsic@gmail.com

Dr Marija Mano-Velevska
Professor
Faculty of Architecture, St. Cyril and Methodius University in Skopje

Dr Mauro Berta
Politecnico di Torino, Department of Architecture and Design, Italy
mauro.berta@polito.it
ORCID: https://orcid.org/0000-0002-7414-239X

Dr Marina Nenković Riznić
Principal Research Fellow
Institute of Architecture and Urban & Spatial Planning of Serbia (IAUS), Belgrade
marina@iaus.ac.rs

Marija Petrova
Faculty of Architecture, Ss. Cyril and Methodius University in Skopje
petrova.marija@arh.ukim.edu.mk

Marta Grbić
Teaching Assistant
Faculty of Technical Sciences in Kosovska Mitrovica, Department of Design and Urbanism, University of Priština
marta.grbic@pr.ac.rs

Melina Vlachou
Music professor in Municipal Conservatory of Ioannina, Greece
roudivons@yahoo.gr