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ON ARCHITECTURE — Shaping the City through Architecture

BOOK OF ABSTRACTS

strand Sustainable Urban Society Association

ON ARCHITECTURE

— SHAPING THE CITY THROUGH ARCHITECTURE

BOOK OF ABSTRACTS

Belgrade, Serbia
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CONTENTS

10 PREFACE

INTRODUCTION

City design vs scenario for the future (or new scenario)

15 Illusions, delusions, confusions? Navigating the Future of Contemporary Cities
Aleksandra Stupar

17 The Role of Architectural Education Models in Sustainable Transition of Cities
Vladimir Mihajlov

19 Empowering Local Communities in Urban Transformations: A Case Study of Belgrade
Iva Čukić

Architecture and challenges in creating architecture for the future

21 To Plurality and Synthesis — Tradition, Objects, and Body: An Anthropological Design Didactic Principle
Aleksa Bijelovic

23 The Art (of) Museums: Creating Contemporary Spaces of Identity
Senka Ibrišimbegović

Architecture and/or art, and the influence of new media approach in creating a vision of new architecture

25 Redesigning Media Living Spaces
Christiane Wagner

27 Soundscapes of Female Experience: Acoustic Ecology and Feminist Political Ecology of Urban Spaces in Music
Jasna Jovićević

29 AvantGarden
Tanja Vujinovic

Research through design: a creative process in tandem with conventional research

31 Disciplinary Encounter: Merging Architecture Urbanism and Landscape in "Research by Design" Processes
Marija Mano-Velevska

32 A Journey Through Time: Preserving Cultural Heritage in the Process of Reconstruction and Repurposing – A Case Study
Monika Štiklica

35 A Genealogy of Power: The Spatial & Temporal Morphologies of 120 Years of Mining Activity in Bor, Serbia
Mitesh Dixit

CHAPTER 1 *CITY DESIGN VS SCENARIO FOR THE FUTURE (OR NEW SCENARIO)*

37 Ideas Have Consequences
Denis Ambruš, Vlatko Dusparić

38 Lessons From the Past – Post-Earthquake Artefacts of Solidarity
Tamara Koneska

39 From Past to Future: Urban Development Strategies for Tetovo
Vlera Thaci, Marija Petrova

40 Energy Efficiency in Buildings with Machine Learning Applications: A Bibliometric Analysis
Yusuf Budak, Gevher Nesibe Kaya, Figen Beyhan

41 From Grid to Green: Navigating Challenges and Opportunities in Sustainable Urban Planning – The Case Study of Milton Keynes
Dimitra Vlassaki

42 Contribution to the Establishment of Green Infrastructure as an Equal Element of the City Morphology in the Service of the Future City
Aljosha Shopar

43 Can 'commoning' recompose the publicness of the neighborhood unit, thus making it resilient?
Repository of discontinuous spatial practices in Skopje
Ana Rafailovska

44 Warehouse Roof Landscape as a Potential for Hydroponic Agriculture
Tereza Nalezena

45 The Role of Cohousing Communities in Shaping Architecture
Aleksandra Milošević Pantović

46 Special issues in architectural design: fluidity and transformability in residential spaces
Kosta Stojanović

CHAPTER 2 *ARCHITECTURE AND CHALLENGES IN CREATING ARCHITECTURE FOR THE FUTURE*

— Challenges in architecture in contemporary times,
— Phenomenology of architecture, Architecture and art, Technology and architecture.

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

49 Potential Impact of the Metaverse on Residential Space Changes
Đorđe Alfirević, Marina Nenković Riznić, Sanja Simonović Alfirević

50 A Dictionary-Driven Review of Digital Methods and Tools for Urban Patterns Decoding: SPATTERN Perspectives
Aleksandra Milovanović, Mladen Pešić, Uroš Šošević, Nikola Cvetković, Stefan Janković

51 Indeterminacy of Spatial Effects of Soft Power Architecture: Towards A Hypothesis of Untestability
Ivan Filipović

52 Evolution of Design Methods in Performance Space and Venue Architecture: Integrating Artificial Intelligence in the Design Process
Vasileios Sempsis, Giannis Tsaras

53 BIM – Search for Information
Igor Svetel

54 Graph-Based Problem-Solving and Representation: Levels of Deployment in Computational Design Process
Dragana Ćirić

55 A study on the Conversion of Modernism Buildings in Kitakyushu City, Japan
Yurika Mori

56 Back to the Future: Challenges of Experimental House Projects Designed for Future Scenarios
Sanja Nikolić, Marta Grbić

57 Phenomenology, Space, Architecture
Dejan Milivojević

CHAPTER 3 *ARCHITECTURE AND/OR ART, AND THE INFLUENCE OF NEW MEDIA APPROACH IN CREATING A VISION OF NEW ARCHITECTURE*

59 (Re)creating *genius loci* AI-generated Design Trends as Architectural Concepts and Methods
Jovana Tošić

60 The Influence of Media on the Transformation of Public Space – Considering the Future of Friendship Park
Dragana Kocić, Petar Mitrović, Dragana Konstantinović

61 The New Art for the New Sarajevo: Spaces for Art and Culture in The Post-Socialist Urban Neighbourhoods
Senka Ibrišimbegović, Nermina Zagora

62 Today's Traces of Belgrade Between Two World Wars: Milutin Borisavljević's Disappearing Architectural Heritage
Irena Kuletin Ćulafić

63 Golden Ratio
Melina Vlachou

64 The Archaeological Site as a Theatrical Space and the Contribution of Lighting
Konstantinos Briasoulis

65 The Poetics of Abandoned Motel "Košuta" by Ivan Vitić
Aleksandra Pešterac, Natalija Bogdanović

66 The Transition of Scale: New Approaches in Examining Spatial Sensations from Urban Vegetation in the Context of Interior Architecture
Šejla Župljanin, Relja Petrović

CHAPTER 4 *RESEARCH THROUGH DESIGN: A CREATIVE PROCESS IN TANDEM WITH CONVENTIONAL RESEARCH*

— Respect for landscape ecology requires an opportunity for development.
— Respect the historical context, culture, and physical heritage

68 Drawing as a Methodological Tool for Reading the Cityscape
Snežana Zlatković

69 Heritage Layers as Initiators of Modern Recreational Programs: Testing the HERSUS Io5 Curriculum at Ub-Af
Ana Zorić

70 *Space 'Readability' and Flows* – Reconstruction of the central city areas of Belgrade with emphasis on alternative modes of traffic and environmental protection
Svetlana Batarilo, Ranka Gajić

71 Visual Thinking: A Methodological Approach to Age-Inclusive Housing Research
Ivana Rakonjac, Ana Zorić, Aleksandra Milovanović , Jelena Ristić Trajković, Verica Krstić, Pavle Stamenović

72 Facade Reconstruction and Landscape Design of UB-FoF as an Educational-Experimental Model for Climate Change Resilience
Milena Kordić, Dejan Todorović, Rade Mrlješ
Vesna Cagić Milošević, Dušan Ignjatović, Nevena Vasiljević, Jelena Matić

73 Art Project H_3O_2 Vol. 3 – *Aquatectorium: Habitats of the Future*
Miloš Stojković Minić, Bogdan Knežević, Nevena Petrović, Dušan Stipić Dudwarszky, Irina Živković, Jovana Lučić, Ljubica Arsić

75 AUTHOR INDEX

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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2

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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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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