

# GLOBAL VILLAGE 2



Conference proceedings  
**GLOBAL VILLAGE - SHELTER FOR RESILIENT LIVING 2**  
On-line version

Conference proceedings  
**GLOBAL VILLAGE - SHELTER FOR RESILIENT LIVING 2**  
On-line version

## GLOBAL VILLAGE - SHELTER FOR RESILIENT LIVING 2

---

Conference proceedings  
21-23<sup>th</sup> of November 2023.

### Organizers

University of Belgrade - Faculty of Architecture , SERBIA with a support of Ministry of Science, Technological  
Development and Innovations REPUBLIC OF SERBIA

Balkan Architectural Biennale – BAB

International Society of City and Regional Planners – ISOCARP

Conceptor and Editor in chief: Tatjana Mrdenović, University of Belgrade Faculty of Architecture – SERBIA

Co-editors: Pietro Elisei, ISOCARP, ROMANIA

Mihalo Zinoski, Faculty of Architecture University SS Cyril and Methods -NORTH MACEDONIA

Bojana Zeković, University of Belgrade Faculty of Architecture – SERBIA

Jelena Marić, University of Belgrade Faculty of Architecture – SERBIA

### SCIENTIFIC COMMITTEE

Prof. dr John Kiousopoulos – UNIWA – GREECE

Prof. dr Aleksandra Stupar – University of Belgrade Faculty of Architecture – SERBIA

Prof. dr Mihajlo Zinoski – Faculty of Architecture University SS Cyril and Methods -NORTH MACEDONIA

Prof. dr Evinc Dogan, Bogazici University– TURKEY

Res. asoc. dr Tatjana Mrdenović – University of Belgrade Faculty of Architecture – SERBIA

Prof. dr Florian Nepravishta – Faculty of Architecture and Urbanism Polytechnic University of Tirana (FAU UPT) – ALBANIA

Res. Asis. dr Ana Perić – University of Belgrade Faculty of Architecture – SERBIA

Prof. dr Guido Cimadomo – Escuela Técnica Superior de Arquitectura Universidad de Malaga – SPAIN

Prof. dr Laura Verdelli – Universite de Tours – FRANCE

Prof. dr Danilo Furundzic – University of Belgrade Faculty of Architecture – SERBIA

prof. dr Marina Tornatora – Università Mediterranea di Reggio Calabria – ITALY

asis. dr Jelena Marić – University of Belgrade Faculty of Architecture – SERBIA

3

### ORGANIZATIONAL COMMITTEE

prof. dr Ana Nikezić – CID, University of Belgrade Faculty of Architecture – SERBIA

res.ass. dr Tatjana Mrdenović,, BAB – SERBIA

prof. dr Aleksandra Stupar, University of Belgrade Faculty of Architecture – SERBIA

dr Jelena Marić, University of Belgrade Faculty of Architecture – SERBIA

res.ass. dr Anđelka Bnin Bninski – CID, University of Belgrade Faculty of Architecture – SERBIA

art hist. Marko Stojanović – BAB – SERBIA

Publisher: Faculty of Architecture in Belgrade

For publisher: prof. Vladimir Lojanica, dean

Circulation: 50

ISBN-978-86-7924-340-9

Print DONAT GRAF , Serbia

Cover design – Tatjana Mrdenovic

Publisher is not responsible for attitudes presented in the published papers nor for copyrights of illustrations, images, diagrams, graphs and all the other material used in published papers.

All papers and abstracts passed review procedure

## **PREFACE: GLOBAL VILLAGE — UTOPIA OR REALITY?**

res. ass .dr Tatjana Mrdjenovic, Faculty of Architecture in Belgrade  
Conference conceper and Editor in chief

The discussion will start debates about the diverse paradigms of suburban, rural, and urban places in today's global society, and it will do so by comparing these three types of locations. The primary point of contention is whether a Global Village should be categorized as an idealistic utopia or a feasible possibility for the foreseeable future. This debate will explore the advantages and disadvantages of each type of location, considering factors such as population density, infrastructure, and access to resources. Additionally, it will delve into the social, economic, and environmental implications of striving towards a Global Village concept. In the conversation that will bridge hierarchical and network viewpoints, we will investigate the idea of needs. Let's investigate some alternative ways of living to the one we are now accustomed to, on the presumption that we ought to consider the requirements that have been produced. These alternative ways of living may include sustainable communities, eco-villages, and self-sufficient neighborhoods. By considering the requirements that have been produced, we can explore how these alternative living arrangements can address issues such as energy consumption, mobility, built environment, waste management, and food production more efficiently and environmentally friendly. Furthermore, examining the social and economic implications of these alternative ways of living can shed light on the potential benefits and challenges they may bring to individuals and society as a whole. The core beliefs and identities held by people all over the world help to foster the growth of a diversified socio-economic and cultural network that spans a variety of geographic regions. This network serves as the basis for a worldwide community that is referred to as the Global Village. Within the context of our increasingly interdependent global community, this idea stands as a singular example of new communalism. As a result, Global Village would like to draw your attention to the following topics, most of which are also being explored in the thematic sessions of the conference:

1. ARCHITECTURE OF GLOBAL VILLAGE: PATTERNS, FORMS, SYSTEMS
2. PLANNING AND ARRANGING THE GLOBAL VILLAGE: INSTRUMENTS AND MODELS
3. MODERN TECHNOLOGIES IN RISK MANAGEMENT OF TERRITORIES
4. FORMS OF MOVEMENT AND MOBILITY MANAGEMENT IN THE GLOBAL VILLAGE
5. THE ROLE OF URBAN PLANNERS IN MANAGING THE CLIMATE TRANSITION
6. NEW MODELS OF ARCHITECTURE IN TRANSITION
7. RESILIENT CITIES IN THE ERA OF GLOBALIZATION: URBAN INTERVENTIONS TOWARDS A SUSTAINABLE FUTURE
8. HEALTHY city HEALTHY people: designing future cities for "mind body and soul"
9. RESEARCH IN THE FIELD OF ARCHITECTURAL TECHNOLOGIES - IDEAS AND POSSIBILITIES

## TABLE OF CONTENTS:

---

### KEYNOTE LECTURES

#### PLANNING CONTEMPORARY CITIES: BETWEEN URBANISATION AND CLIMATE CHANGE p11

Pietro Elisei – ISOCARP President, ROMANIA

#### CITIES - INCLUSIVENESS AND COMMUNITY PLANNING p12

Rajendra Kumar - ISOCARP, INDIA

#### UNIVERSAL AND SPECIALIZED EXPOS THROUGH THE LENS OF ISIE - Towards Belgrade 2027 p13

prof. dr Guido Cimadomo, Universidad de Malaga, SPAIN;

---

### THEMATIC SESSION I:

#### ARCHITECTURE OF GLOBAL VILLAGE: PATTERNS, FORMS, SYSTEMS

#### GLOBAL VILLAGE IN ARCHITECTURAL THEORY AND PRACTICE: SOFTENING LIMINAL CONDITIONS p17

Vanja Spasenović, Teaching Assistant, Department of Architecture, Faculty of Architecture, University of Belgrade, SERBIA; v.spasenovic@arh.bg.ac.rs

Bojana Sićović, Associate, Department of Fine and Applied Arts, Academy of Arts, University of Novi Sad, SERBIA"

#### ARCHITECTURAL MANIFESTATIONS OF PRIMARY PRODUCTION INDUSTRY IN URBANIZED TERRITORIES p23

Stela Skrizhovska-Koleva, University of architecture, civil engineering and geodesy, BULGARIA;

#### SUSTAINABLE URBAN FORM AS AN IDENTIFIER OF ARCHITECTURAL SPACE p30

Dr Tatjana Mrdjenovic, University of Belgrade – Faculty of Architecture

Pavle Vasev, MArch, ULUPUDS

#### PROLEGOMENA FOR THE NEW THEORETICAL DESTINY OF 'STRUCTURE' p31

Aleksa Ciganović, dipl. ing. Arch advisor, Republic Institute for the Protection of Cultural Monuments, Belgrade

---

### THEMATIC SESSION II:

#### HEALTHY City HEALTHY People: Designing Future Cities For “Mind Body And Soul”

#### IMPACT OF NATURAL ELEMENTS IN URBAN PUBLIC SPACES ON MENTAL HEALTH. p39

Marja Stojkovic, University of Belgrade, Faculty of Architecture, Serbia,

Eva Vanista Lazarevic, University of Belgrade, Faculty of Architecture, Serbia,

Jelena Maric, University of Belgrade, Faculty of Architecture, Serbia,

#### LEARNING THROUGH EXPERIENCE: RETHINKING SPACE AFTER THE PANDEMIC p43

Ivana Rakonjac, PhD, Assistant Professor, Department of Architecture, University of Belgrade – Faculty of Architecture, SERBIA;

#### THE DISAPPEARANCE OF OPEN PUBLIC SPACE IN THE CONTEMPORARY ERA: INTERIOR SPACE AS SPACE OF PUBLIC INTERACTION p49

Relja Petrović, M. Arch, University of Belgrade – Faculty of Architecture, SERBIA;

Iva Lokas, Ph.D. Student, Institute of Architecture and Urban & Spatial Planning of Serbia, SERBIA;

Ivana Rakonjac, Ph.D., Assistant Professor, Department of Architecture, University of Belgrade – Faculty of Architecture, SERBIA;

**THE ELUSIVE CITY: MELANCHOLY, REVERIE AND THE CONTEMPORARY URBAN EXPERIENCE p54**

**Ivana Maraš**, Department of Architecture and Urban Planning, Faculty of Technical Sciences, Novi Sad, SERBIA

**LONG-TERM CARE LIVING ENVIRONMENTS FOR OLDER ADULTS: A COMPARISON OF TWO CONTEMPORARY CONCEPTS p59**

**Vanja Skalicky Klemenčič**, assist.prof.dr., Faculty of Civil Engineering, Transportation Engineering and Architecture, University of Maribor, Slovenia;

**Vesna Žegarac Leskovar**, prof.dr., Faculty of Civil Engineering, Transportation Engineering and Architecture, University of Maribor, Slovenia;

---

**THEMATIC SESSION III**

**NEW MODELS OF ARCHITECTURE IN TRANSITION**

**THE INFLUENCE OF BUILDING PHYSICS BETWEEN FORMAL AND MATERIAL ELEMENTS OF THE PUBLIC LIBRARY BUILDINGS. p67**

**Kire Stavrov**, University Sc Cyril and Methodius, Faculty of Architecture, Skopje, MACEDONIA;

**Strahinja Trpevski**, University Sc Cyril and Methodius, Faculty of Architecture, Skopje, MACEDONIA;

**Andrijana Tasheva**, Herzen State Pedagogical University, St. Petersburg 19118, RUSSIA

**URBAN PLANNING REGULATION AS A GENERATOR OF NEW HOUSING TYPOLOGIES NOT TYPICAL FOR THE CITY OF SKOPJE p73**

**Mihajlo Zinoski**, Professor, "Ss Cyril and Methodius" University, Faculty of Architecture, Skopje, RN MACEDONIA;

**Vebi Fazliu**, Assistant Professor, "Mother Teresa" University, Faculty of Civil Engineering and Architecture, Skopje, RN MACEDONIA;

**Valmir Dalipi**, Assistant, "Mother Teresa" University, Faculty of Civil Engineering and Architecture, Skopje, RN MACEDONIA;

**TRANSFORMATIONS OF THE SOCIAL MODERNIST BUILDINGS DURING THE TRANSITION IN TERMS OF THEIR RENOVATIONS FOR BETTER ENERGY EFFICIENCY p78**

**Liljana D. Sofronievska**, Faculty of Architecture, Ss. Cyril and Methodius University N. Macedonia,

**Ana T. Gavriloska**, Faculty of Architecture, Ss. Cyril and Methodius University N. Macedonia

**Bojan Karanakov**, Faculty of Architecture, Ss. Cyril and Methodius University N. Macedonia

**Teodora Mihajlovska**, Faculty of Architecture, Ss. Cyril and Methodius University N.Macedonia

**REMOTE WORK FOR COORDINATION OF ARCHITECTURAL AND INVESTMENT PROJECTS p83**

**Nikolay Istatkov**, University of architecture, civil engineering and geodesy, BULGARIA

**HEALTHCARE FACILITIES AS A GENERATOR OF ARCHITECTURAL MODELS p93**

**Jana Brsakoska**, Faculty of Architecture at Ss Cyril and Methodius University in Skopje, NORTH MACEDONIA,

**Mihajlo Zinoski**, Faculty of Architecture at Ss Cyril and Methodius University in Skopje, NORTH MACEDONIA

**HYBRID TIMBER CITY: LIFE-CYCLE ASSESSMENT OF MASS-TIMBER, STEEL, AND CONCRETE STRUCTURAL PROTOTYPES FOR CLIMATE-RESPONSIVE PERI-URBAN DENSIFICATION IN THE HUDSON VALLEY'S URBAN FRINGE p98**

**Eleni Stefania Kalapoda**, Architect & Urban Designer, Columbia University GSAPP (NYC), Greece,

---

**THEMATIC SESSION IV**

**PLANNING AND ARRANGING THE GLOBAL VILLAGE TOWARDS RESILIENT SETTLEMENTS**

**BUILDING URBAN RESILIENCE IN THE BALKANS: THE CASE OF 'MULTITUDINOUS' BUCHAREST p101**

**Dr Eleni G. Gavra**, Professor, Dr Architect [Ekistics and Cultural Heritage], Department of Balkan, Slavic and Oriental Studies, University of Macedonia, Thessaloniki, GREECE,

**Kleoniki Gkioufi**, Architect-Urbanist, Dr Department of Balkan, Slavic and Oriental Studies, University of Macedonia, Thessaloniki, GREECE,

**Eleni Kiourou**, Archaeologist - Art Historian, MSc [History, Anthropology and Culture in Eastern and South-Eastern Europe], University of Macedonia Thessaloniki, GREECE,

**Anukrishnan A. S.**, Post-Graduate student, College of Engineering Trivandrum, INDIA

**THE NEXUS BETWEEN GREEN TRANSITION TO AFFORDABLE CLEAN ENERGY AND THE GLOBAL VILLAGE PARADIGM IN ARCHITECTURE AND SUSTAINABLE CITIES p106**

**Angelica Stan**, PhD Arch Professor, Ion Mincu University of Architecture and Urban Planning, ROMANIA,

**BUILDING RESILIENT CITIES WHILE TRAINING FUTURE COMMUNITY ARCHITECTS: THE CASE OF THE SMALL CENTER IN NEW ORLEANS p111**

**Mart Deceuninck**, KU Leuven, Belgium;

**Emilie Taylor Welty**, Professor of Practice, Tulane University, USA;

**Angeliki Paidakaki**, Assistant Professor, Harokopio University of Athens, Greece;

**Pieter Van den Broeck**, Professor of Spatial Planning and Sustainable Development, KU Leuven, BELGIUM;

**SUSTAINBLE PRESERVATION OF COMMUNAL LIVING:CASE STUDY SHARE YARAICHO, TOKYO: SATOKO SHINOHARA p119**

**Bojan Koncarevic**, Architect, Ph.D. MArch, SERBIA

**IDENTIFICATION OF PARAMETERS AND TOOLS FOR URBAN FIRE HAZARD ZONATION MAPPING IN THE KERALA CONTEXT p130**

**Sneha John**, Post-Graduate student, College of Engineering Trivandrum, INDIA

**Anurup K.**, Assistant Professor, College of Engineering Trivandrum, INDIA

**Vipin Sebastian**, Post-Graduate student, College of Engineering Trivandrum, INDIA

**IDENTIFICATION OF INDICES AND METHODS FOR MAPPING LANDUSE LANDCOVER (LULC) ,LAND SURFACE TEMPERATURES(LST) IN URBAN AREAS IN KERALA CONTEXT p131**

**Vipin Sebastian**, Student , College Of Engineering Trivandrum , INDIA

**Anurup K**, Assistant Professor , College Of Engineering Trivandrum, INDIA

**Sneha John**, Student, College Of Engineering Trivandrum, INDIA

**Anukrishnan A S**, Student, College Of Engineering Trivandrum, INDIA

**POSSIBILITIES AND CHALLENGES OF INCORPORATING SPECIES HABITAT NETWORKS INTO MASTER PLANS p132**

**Yasmin A**, Post Graduate student, College of Engineering, Trivandrum, INDIA,

**Priyanjali Prabhakaran**, Professor, College of Engineering, Trivandrum, INDIA

**INTEGRATING CLIMATE CHANGE ADAPTATION INTO URBAN PLANNING STRATEGIES ANALYZING THE SPATIAL AGENDA FOR KARLSRUHE CITY - GERMANY p133**

**Dr. Heba Mohamed Soliman**, University of Kafr El-Sheikh, Department of Architecture

---

**THEMATIC SESSION V**

**RESEARCH IN THE FIELD OF ARCHITECTURAL TECHNOLOGIES - IDEAS AND POSSIBILITIES**

**THE ASSIMILATION OF ARCHITECTURE, INFRASTRUCTURE AND LANDSCAPE IN THE POST-INDUSTRIAL DEVELOPMENT OF DANUBE WATERFRONT IN BELGRADE: RESEARCH BY DESIGN APPROACHES p137**

**dr Bojana Jerković-Babović**, University of Belgrade — Faculty of Architecture, Department of Architecture,

**THE IMPORTANCE OF SITE SPECIFIC SUSTAINABLE HOSPITAL DESIGN: GENERAL HOSPITAL IN PLJEVLJA, MONTENEGRO p143**

**Tijana Žišić**, University of Belgrade — Faculty of Architecture, SERBIA, [tijana.zisic@arh.bg.ac.rs](mailto:tijana.zisic@arh.bg.ac.rs)

**Marija Milenković**, University of Belgrade — Faculty of Architecture, SERBIA,

**Nataša Ćuković Ignjatović**, University of Belgrade — Faculty of Architecture, SERBIA,

**A FRAMEWORK FOR THE AUGMENTED ARCHITECT-MACHINE INTERACTION IN THE REHABILITATION OF MODERN HERITAGE STRUCTURAL SYSTEMS p149**

**Milijana Živković**, PhD Candidate, University of Belgrade, Faculty of Architecture, SERBIA;

**RESIDENTIAL BUILDINGS ENERGY PERFORMANCE OPTIMISATION - FAÇADE OPENINGS AND SHADING DEVICES p153**

**Nikola Miletić**, Teaching Assistant at University of Belgrade - Faculty of Architecture, SERBIA;

**FRAMEWORK FOR THE COMPLEX AND INTEGRATED REFURBISHMENT OF MULTI-FAMILY HOUSING STOCK OF SERBIA USING VOLUMETRIC ADDITIONS p157**

**Bojana Lević**, Department of Architectural Technologies, University of Belgrade — Faculty of Architecture, SERBIA;

**THE APPLICATION OF STRUCTURES MADE OF LIGHT-WEIGHT CONSTRUCTION COMPONENTS BASED ON TIMBER FIBRES p165**

**Irina Živković**, M. arch. Teaching Assistant, University of Belgrade Faculty of Architecture, SERBIA;