

PLACES AND TECHNOLOGIES 2017
KEEPING UP WITH TECHNOLOGIES IN THE CONTEXT OF URBAN AND RURAL SYNERGY

Book of Conference Proceedings

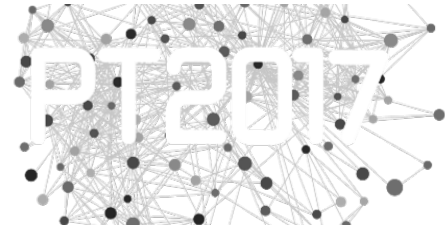
Sarajevo, Bosnia and Herzegovina, June, 08th - 09th, 2017

PLACES AND TECHNOLOGIES 2017
KEEPING UP WITH TECHNOLOGIES IN THE CONTEXT OF URBAN AND RURAL
SYNERGY

BOOK OF CONFERENCE PROCEEDINGS

Editors:

Dženana Bijedić, Aleksandra Krstić-Furundžić, Mevludin Zečević



Sarajevo, Bosnia and Herzegovina

Title :

**PLACES AND TECHNOLOGIES 2017 - KEEPING UP WITH TECHNOLOGIES IN THE CONTEXT OF URBAN AND RURAL SYNERGY
BOOK OF CONFERENCE PROCEEDINGS**

For publisher:

Prof.Mr.Sci Mevludin Zečević

Chef editors:

Prof.Dr Dženana Bijedić, Prof.Dr Aleksandra Krstić-Furundžić, Prof.Mr.Sci Mevludin Zečević

Editorial board:

Prof.Dr Eva Vaništa Lazarević, Prof. Dr Aleksandra Djukić, Dr Milena Vukmirović

Publisher:

Arhitektonski fakultet Univerziteta u Sarajevu

Year of publishing:

2017

CIP - Katalogizacija u publikaciji
Nacionalna i univerzitetska biblioteka

Bosne i Hercegovine, Sarajevo

711.3/.4(063)(082)

INTERNATIONAL Academic Conference Places and Technologies (4 ; 2017 ; Sarajevo)

Keeping up with technologies in the context of urban and rural synergy [Elektronski izvor] : book of conference proceedings / [4th International academic conference] Places and technologies 2017, Sarajevo, June, 08th - 09th, 2017 ; editors Dženana Bijedić, Aleksandra Krstić-Furundžić, Mevludin Zečević. - El. zbornik. - Sarajevo : Arhitektonski fakultet, 2017. - 1 USB fleš memorija

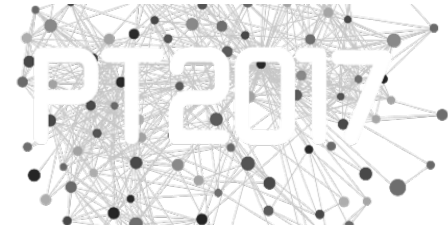
Sistemska zahtjevi: Nisu navedeni. - Nasl. sa nasl. ekrana

ISBN 978-9958-691-56-0

COBISS.BH-ID 24131590

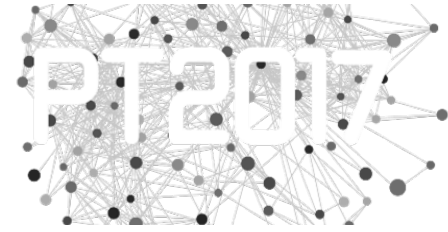
CONTENTS

| | |
|---|------|
| ORGANIZATION | ix |
| ABOUT | xiv |
| TOPICS | xiv |
| KEY NOTE SPEAKERS | xv |
| WORD OF THE P&T_2017 CONFERENCE DIRECTORS | xvii |
| OPENING AND SPECIAL PAPERS' TOPICS | 1 |
| URBAN AND RURAL CONNECTION BETWEEN GLOBAL AND LOCAL – BETWEEN ROLE AND REALITY. WHAT DESIGN CAN DO TO ACHIVE THE SYNERGY? | 3 |
| SPACES OF LOW AND HIGH-INTENSITY CHANGES | 4 |
| DECENTRALISING CITIES: TECHNOLOGY, THE NEW CLIMATE AND THE FUTURE OF PERI-URBAN GROWTH | 13 |
| TOPIC I: IMAGE, IDENTITY AND QUALITY OF PLACE | 27 |
| LIGHT AND ARCHITECTURE IN THE CASE OF ADIL BEY AND KUWAIT MOSQUE IN SARAJEVO | 28 |
| THE HOMEOSTASIS AND THE SYNERGY IN THE CONTEMPORARY AND FUTURE LANDSCAPING | 38 |
| PRINCIPLES OF ARCHITECTURAL REGIONALISM AS MEANS OF BUILT FORM IMPROVEMENT IN BOKA BAY, MONTENEGRO | 48 |
| INVESTMENT OPPORTUNITIES IN SERBIA: KIKINDA CASE STUDY | 57 |
| FREE ZONE IN KIKINDA | 64 |
| DEVELOPMENT CONCEPTS OF <i>UrbRur</i> AREAS | 68 |
| COMPLEX PATTERNS OF SYNERGY BETWEEN URBAN AND RURAL SPACES | 77 |
| THE IMPORTANCE OF IDENTITY AND QUALITY OF LIFE, THE CITY OF BANJALUKA | 88 |



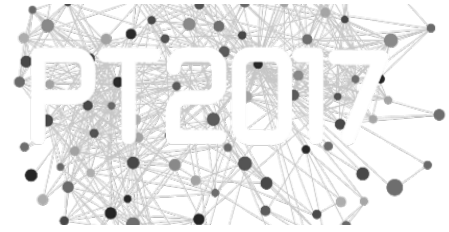
| | |
|--|-----|
| SELF-ORGANIZED PATTERNS OF RURAL SETTLEMENTS VS. PLANING AND DESIGNING THE BUILT ENVIRONMENT..... | 96 |
| KNEZ (PRINCE) MIROSLAV SQUARE IN OMIŠ (CROATIA) | 105 |
| IMAGE, IDENTITY AND QUALITY OF <i>CVJETNO NASELJE</i> HOUSING DEVELOPMENT IN ZAGREB..... | 115 |
| THE SMALL-SCALE APPROACH AS A GENERATOR FOR URBANITY INCREASE OF BANJA LUKA CITY | 126 |
| SPATIAL, TECHNOLOGICAL AND STYLISTIC PATTERNS OF PRODUCTION OF THE BUILT ENVIRONMENT IN BOSNIA AND HERZEGOVINA | 135 |
| TOPIC II: URBAN AND RURAL PLACES TOWARD HUMAN COMFORT, HEALTH AND INCLUSION | 144 |
| THE EXPERIENCE OF SMART CITY IN LIGURIA, ITALY. THE CASE STUDIES OF THE MUNICIPALITIES OF LA SPEZIA AND SAVONA | 145 |
| HEALTHY URBAN ENVIRONMENT AND DESIGN: THE OUTDOOR SPACES | 155 |
| TENDENCIES IN NEWLY-BUILT MULTI-FAMILY HOUSING IN SERBIA: OUTLOOK OF URBAN EXPERTS..... | 169 |
| DECODING URBAN FRAGMENTATION: MORPHOGENETIC PROCESSES IN THE SHAPING OF A SUBURBAN TERRITORY IN LISBON'S METROPOLIS..... | 180 |
| RETHINKING ARCHITECTURE AND RELATED ENERGY EFFICIENCY IN WESTERN BALKAN CITIES “Case study of the housing developments in city of Sarajevo” | 189 |
| THE ZONE OF TRANSITION: BETWEEN CITY AND LANDSCAPE | 204 |
| INNOVATIVE APPROACHES IN THE PROOCES OF RE-INTEGRATION OF CITY AND VILLAGE..... | 215 |
| PERSPECTIVES THAT ARISE FOR PREVENTIVE MEDICINE FROM THE SYNERGY OF URBAN AND RURAL AREAS..... | 227 |
| WATER PROTECTION IN URBAN AREAS | 236 |
| RELATION BETWEEN PLANNING AND REALIZATION OF OPEN SPACES IN NEW BELGRADE SUPER-BLOCKS: CASE STUDIES OF BLOCKS 45 AND 70 | 244 |
| IMPACTS OF EARTHQUAKE ACTIONS ON URBAN AND RURAL AREAS | 253 |
| TOPIC III: SUSTAINABLE COMMUNITIES AND PARTICIPATION..... | 263 |
| THE ARCHITECTURE OF GARDEN AS NEW RECREATION FIELD OF EVERYDAY URBAN LIFE | 264 |
| THE SCIENCE OR ART OF MAPPING? - ELABORATING THE PROCESS OF TIS CREATION IN CITY OF NIŠ..... | 273 |

| | |
|---|-----|
| THE ROLE OF SOCIAL MEDIA IN THE PROCESS OF ENHANCING COMMUNITY PARTICIPATION THROUGH BOTTOM-UP APPROACH IN THE CONTEXT OF URBAN REGENERATION..... | 284 |
| CREATIVE CITY CHALLENGING CONCEPT “ALL FOR ONE – ONE FOR ALL” | 295 |
| HOUSING QUALITY OF SOCIALLY VULNERABLE CATEGORIES AND AFFORDABILITY OF CURRENT SOCIAL HOUSING PROGRAMMES..... | 304 |
| TOWARDS SUSTAINABLE REGIONAL DEVELOPMENT THROUGH SOCIAL NETWORKING – „NEGOTINSKA KRAJINA “CASE..... | 312 |
| COOPERATIVE GIS PLATFORM FOR IMPROVING RESILIENCE TO HOUSEHOLD RISKS – CASE STUDY OF ADA MEDJICA ON SAVA RIVER IN BELGRADE..... | 323 |
| MULTILEVEL GOVERNANCE INSTRUMENTS FOR ACHIEVING BALANCED URBAN-RURAL DEVELOPMENT | 332 |
| SMART CITY CONCEPT IN THE STRATEGIC URBAN PLANNING PROCESS. CASE STUDY OF THE CITY OF BELGRADE, SERBIA | 341 |
| INTEGRATIVE AND LOCALLY SENSITIVE APPROACH TO THE COMMUNITY PLANNING IN SERBIA..... | 350 |
| THE “DYNAMIC EDGE”: RE-CONCEPTUALIZATION OF THE URBAN FRINGE | 359 |
| TOPIC IV: ARCHITECTURE AND BUILDING TECHNOLOGIES..... | 370 |
| SUSTAINABILITY IN HIGHER EDUCATION AND RESEARCH: THE ROLE OF THE ARCHITECT | 371 |
| INTEGRATION OF SOLAR THERMAL COLLECTORS INTO THE BUILDING ENVELOPE OF THE MULTIFAMILY HOUSING BUILDING IN BELGRADE | 379 |
| TESTING THE MOST OPTIMAL SCENARIO OF IMPROVING ENERGY PERFORMANCES OF RESIDENTIAL BUILDINGS IN SERBIA, CONSTRUCTED IN THE PERIOD OF 1971-1980..... | 389 |
| DAYLIGHT AND ENERGY ENHANCEMENT WITH VENTILATED FAÇADE SYSTEMS FOR RENOVATION PROJECTS | 399 |
| INTEGRATED DESIGN IN THE PROCESS OF ARCHITECTURAL EDUCATION | 408 |
| EVALUATION OF WALL THERMAL PERFORMANCE FOR VEGETATION WALL..... | 417 |
| MONOCULTURE FACTORY BUILDING PROJECT - Facility relaying on energy efficient technologies in order to prevent abandonment and decay of rural communities in Vojvodina | 418 |
| NEGOTIATING SUSTAINABILITY IN URBAN DEVELOPMENT: THE ROLE OF TECHNICAL BUILDING EQUIPMENT AT DAS ECKWERK, BERLIN..... | 427 |



| | |
|---|-----|
| TOPIC V: ENVIRONMENTALLY FRIENDLY MODES OF TRANSPORT AND COMMUTE... 438 | |
| WEARABLE DEVICES HELP THE WALKER TO EXPLORE THE CITY | 439 |
| EXPLORING THE CITY WITH THE BICYCLE AND TECHNOLOGY HELP TO IDENTIFY HAZARDS MET THEREBY | 445 |
| AIRCRAFT TECHNOLOGY ENHANCING ENVIRONMENTAL PROTECTION WITHIN URBAN AREAS | 455 |
| CARSHARING – USING INSTEAD OF OWNING | 461 |
| CONCEPT OF THE REGIONAL PUBLIC TRANSPORT SYSTEM DEVELOPMENT | 470 |
| TOPICS VI: CLIMATE CHANGE..... | 477 |
| ENERGY SAVING POTENTIAL OF THE REFURBISHMENT OF BUILDING ENVELOPE OF THE EXISTING SINGLE-FAMILY HOUSES IN URBAN AND RURAL AREAS OF BOSNIA AND HERZEGOVINA..... | 478 |
| (R)URBAN SYNERGY RECONSIDERED: THE ROLE OF INFORMATION NETWORKS IN CLIMATE CHANGE ADAPTATION AND MITIGATION..... | 489 |
| TOPICS VII: GEOGRAPHY AS DEVELOPMENT FACTOR | 499 |
| ROLE OF TWIN CITIES AND SATELLITE TOWNS IN INTENSIFYING REGIONAL DEVELOPMENT..... | 500 |
| SMALL URBAN CENTERS AS DRIVERS OF DAILY MIGRATIONS AND AGENTS OF TRANSFORMATION OF RURAL BACKGROUND: EXAMPLE OF BLACE MUNICIPALITY | 512 |
| TOPIC VIII & IX: CULTURAL PATTERNS AND SENSITIVITY; SUSTAINABILITY LESSONS FROM VARNICULAR ARCHITECTURE..... | 525 |
| USING SPACE SYNTAX MODEL IN TYPO MORPHOLOGICAL STUDIES - UNDERSTANDING THE TRANSFORMATION OF URBAN FORM AND URBAN LIFE OF THE EDGE BLOCKS OF NEW BELGRADE | 526 |
| THE FUNCTION OF GREENERY IN A SKYSCRAPER: THE PLACEMENT AND ITS INFLUENCE | 536 |
| Moshe Safdie..... | 539 |
| THE IMPORTANCE OF THE APPLICATION OF CO-DESIGN WITHIN THE REDESIGN OF THE CULTURAL CENTERS IN B&H | 544 |
| LEARNING FROM THE TRADITIONAL MEDITERRANEAN ARCHITECTURE: MICROCLIMATIC AND LIVEABILITY CONDITIONS IN INTERMEDIATE OUTDOOR SPACES..... | 553 |
| SUSTAINABILITY AND RESILIENCE IN TRADITIONAL BOSNIAN AND HERZEGOVINIAN ARCHITECTURE - LEARNING FROM TRADITION FOR BETTER FUTURE | 563 |
| TOPIC X: TOURISM FOR URBAN-RURAL SYNERGIES | 572 |

| | |
|--|-----|
| FLUIDITY: NETWORKED CONTEXT AND CONTEMPORARY METHODOLOGIES OF ARCHITECTURE IN TOURISM | 573 |
| ICT POTENTIAL FOR ENTREPRENEURSHIP IN RURAL AREAS..... | 582 |
| FOOD TOURISM CONCEPT - CREATING SYNERGY BETWEEN URBAN AND RURAL PLACES - CASE STUDY OF MAGLIĆ, SERBIA..... | 582 |
| STRATEGIES FOR RURAL TOURISM DEVELOPMENT IN NIŠAVA DISTRICT IN SOUTHEASTERN SERBIA AS MAIN HUB FOR URBAN AND RURAL SYNERGY..... | 608 |
| TOPIC XI: RESILIENCE OF PLACES..... | 624 |
| APPLICATION OF ICT FOR URBAN REGENERATION, ENVIRONMENTAL PROTECTION AND SOCIAL EQUALITY IN SCOTLAND..... | 625 |
| METHODS AND TECHNIQUES TO SUPPORT COGNITIVE PROCESSES OF TERRITORIAL RESILIENCE IN DEVELOPING COUNTRIES – CASE STUDY OF SERBIA..... | 634 |
| CONTINUOUS PERFORMATIVE LANDSCAPES FOR RESILIENT CITY OF SKOPJE | 644 |
| AGILE METHODS IN FORMATION OF METROPOLIS NEIGHBOURHOOD..... | 654 |
| REVITALIZATION OF VAST CITY SPACES THROUGH THE MEANS OF SOUND | 663 |
| “URBAN RENEWAL UNDER THE SCOPE OF SECURITY ISSUES” - CASE STUDY OF BELGRADE – GLOOMY PARTS OF THE CITY..... | 669 |
| DISASTER RISK REDUCTION IN URBAN SETTLEMENTS – COMBINED MORPHOLOGICAL ANALYSIS AND SYSTEM DYNAMICS APPROACH..... | 681 |
| COMBINED GMA AND SD DISASTER RISK REDUCTION MODEL..... | 688 |
| TOPICS XII: HISTORY AND PHILOSOPHY OF TECHNOLOGY AND PLACES..... | 694 |
| REDESIGNING COMFORT | 695 |
| TOPICS XIII: BIOMIMICRY AND SMART INNOVATIONS TO HUMAN CHALLENGES..... | 706 |
| REVERSE BIOMIMETIC ANALOGIES IN DESIGN OF ARCHITECTURAL STRUCTURES..... | 707 |
| TOPICS XIV: PARTICIPATORY AND CRITICAL DESIGN IN URBAN DECISION-MAKING PROCESSES | 718 |
| MODERN SPATIAL CONCEPTS, PROGRAMMES AND TECHNOLOGIES AIMED AT SUSTAINABILITY OF HISTORICAL NUCLEI – THE CASE OF THE TOWN OF BUJE..... | 719 |



PLACES AND TECHNOLOGIES 2017

4th International Academic Conference

KEEPING UP WITH TECHNOLOGIES IN THE CONTEXT OF URBAN AND RURAL SYNERGY

ORGANIZATION

Organizers:

University of Belgrade, Faculty of Architecture, Serbia

University of Sarajevo, Faculty of Architecture, Bosnia and Herzegovina

Dr Vladan Đokić, Dean

University of Belgrade, Faculty of Architecture, Serbia

MSc Mevludin Zečević, Dean

University of Sarajevo, Faculty of Architecture, Bosnia and Herzegovina

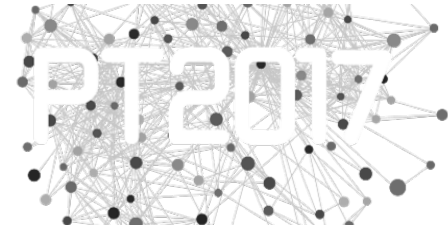
COMMITTEES

Organizing Committee:

Dr Aleksandra Krstić-Furundžić, Conference Director, University of Belgrade, Faculty of Architecture, Serbia
Dr Dženana Bijedic, Regional Conference Director, University of Sarajevo, Faculty of Architecture, Bosnia and Herzegovina
MSc Mevludin Zečević, University of Sarajevo, Faculty of Architecture, Bosnia and Herzegovina
Dr Eva Vaništa Iazarević, University of Belgrade, Faculty of Architecture, Serbia
Dr Aleksandra Djukić, University of Belgrade, Faculty of Architecture, Serbia
Dr Milena Vukmirović, Urban Laboratory, Belgrade, Serbia

Technical Committee:

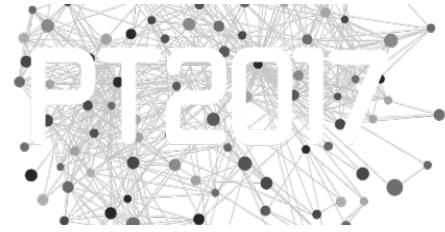
MA Adna Šarac, Teaching Assistant, University of Sarajevo, Faculty of Architecture, Sarajevo, Bosnia and Herzegovina
MA Zulejha Šabić-Zatrić, Teaching Assistant
University of Sarajevo, Faculty of Architecture, Sarajevo, Bosnia and Herzegovina
PhD Candidate Alma Hudović Kljuno, University of Technology Berlin, Germany



Scientific Committee

- Dr Evangelina Athanassiou, Aristotle University of Thessaloniki School of Architecture, Thessaloniki, Greece
- Dr Milica Bajić Brković, ISOCARP, The Hague, Netherlands
- Dr Ljiljana Blagojević, University of Belgrade - Faculty of Architecture, Belgrade, Serbia
- Dr Ružica Božović Stamenović, University of Belgrade, Faculty of Architecture, Belgrade, Serbia and National University of Singapore, Singapore
- Dr Olja Čokorilo, University of Belgrade Faculty of Transport and Traffic Sciences, Belgrade, Serbia
- Dr Grygor Doytchinov, Institute for Urban Design, Technical University of Graz, Austria
- Dr Nataša Danilović Hristić, Urban Planning Institute of Belgrade, Belgrade, Serbia
- Dr Vladan Đokić, University of Belgrade Faculty of Architecture, Belgrade, Serbia
- Dr Aleksandra Đukić, University of Belgrade Faculty of Architecture, Belgrade, Serbia
- Dr Alenka Fikfak, University of Ljubljana – Faculty of Architecture, Ljubljana, Slovenia
- Dr Dejan Filipović, University of Belgrade – Faculty of Geography, Belgrade, Serbia
- Dr Daria Gajić, University of Banja Luka – Faculty of Architecture and Civil Engineering, Banja Luka, Republic of Srpska, Bosnia and Herzegovina
- Dr Bob Giddings, Northumbria University Faculty of Engineering and Environment, Newcastle, United Kingdom
- Dr Jelena Ivanović Šekularac, University of Belgrade Faculty of Architecture, Belgrade, Serbia
- Dr Saja Kosanović, University of Priština, Faculty of Technical Sciences, Department of Architecture, Kosovska Mitrovica, Serbia
- Dr Aleksandra Krstić-Furundžić, University of Belgrade Faculty of Architecture, Belgrade, Serbia
- Dr Višnja Kukoč, University of Split, Faculty of Civil Engineering, Architecture and Geodesy, Split, Croatia
- Dr Piotr Lorens, Faculty of Architecture, Gdansk University of Technology, Gdansk, Poland
- Dr Lucia Martincigh, University RomaTre, Faculty of Architecture, Rome, Italy
- Prof Ljubomir Mišćević, University of Zagreb, Faculty of Architecture, Zagreb, Croatia
- Dr Juan Luis Rivas Navarro, University of Granada Department of Urban and Regional Planning, Granada, Spain
- Dr Ralf Risser, Palacky University, Olomouc, Czech Republic
- Dr Lina Seduikyte, Kaunas University of Technology, Faculty of Civil Engineering and Architecture, Kaunas, Lithuania
- Dr Metka Sitar, University of Maribor - Faculty of Civil Engineering, Traffic Engineering and Architecture, Maribor, Slovenia

- Dr Predrag Šinđanin, University of Novi Sad - Faculty of Technical Sciences
- Dr Ljupko Šimunović, University of Zagreb Faculty of Transport and Traffic Sciences, Zagreb, Croatia
- Dr Lea Petrović Krajnik, University of Zagreb – Faculty of Architecture, Zagreb, Croatia
- Dr Grzegorz Peczek, Sopot University of Applied Science, Sopot, Poland
- Dr Miroslava Raspopović Milić, Faculty of Information Technology, Belgrade Metropolitan University, Belgrade, Serbia
- Manfred Schrenk, CORP - Competence Center for Urban and Regional Planning, Vienna, Austria
- Dr Jasmina Siljanoska, St. Cyril and Methodius University, Faculty of Architecture, Skopje, FYR Macedonia
- Dr Stefan van der Spek, Delft University of Technology, Faculty of Architecture and Built Environment, Delft, Netherlands
- Dr Milena Stavrić, Graz University of Technology, Graz, Austria
- Dr Petar Mitković, University of Niš, Faculty of Civil Engineering and Architecture, Serbia
- Dr Keković Aleksandar, University of Niš, Faculty of Civil Engineering and Architecture, Serbia
- Dr Aleksandra Stupar, University of Belgrade Faculty of Architecture, Belgrade, Serbia
- Dr Svetlana Stanarević, University of Belgrade - Faculty of Security Studies, Belgrade, Serbia
- Dr Eva Vaništa Lazarević, University of Belgrade Faculty of Architecture, Belgrade, Serbia
- Dr Milena Vukmirović, University of Belgrade, Faculty of Architecture and Urban Laboratory, Belgrade, Serbia
- Dr Salih Yilmaz, Izmir Katib Celebi University, Department of Engineering and Architecture, Izmir, Turkey
- Dr Francesco Rotondo, civil engineer, Associate professor of Urban planning and design at the Polytechnic University of Bari, Italy.
- Dr Mladen Jadrić, TU Wien, Austria;
- Dr Francesca Giofre, La Sapienza Roma, Dipartimento Architettura e Progetto, Italy
- Dr Vesna Mikić, University of Zagreb, Faculty of Architecture, Zagreb, Croatia
- Dr Manja Kitek Kuzman, Univerza v Ljubljani, Biotehniška fakulteta, Slovenia
- Dr Lucija Ažman Momirski, Univerza v Ljubljani Fakulteta za arhitekturo Slovenia
- Dr Martina Zbašnik Senegačnik, Univerza v Ljubljani, Fakulteta za arhitekturo, Slovenia
- Dr. Markus Schwai, Norwegian University of Science and Technology, Norway
- Dr. Dick Sandberg, Luleå University of Technology, Sweden
- Dr Hamid Čusović, University of Sarajevo, Faculty of Agriculture, Bosnia & Herzegovina
- Dr Aleksandra Nikolić, University of Sarajevo, Faculty of Agriculture, Bosnia & Herzegovina
- Dr Aida Hodžić, University of Sarajevo, Faculty of Veterinary Medicine, Bosnia & Herzegovina
- Dr Izet Rađo, University of Sarajevo, Faculty of Sport and Physical Education, Bosnia & Herzegovina



- Dr Maida Čohodar Husić, University of Sarajevo, Faculty of Mechanical Engineering, Bosnia & Herzegovina
- Dr Emina Hadžić, University of Sarajevo, Faculty of Civil Engineering, Bosnia & Herzegovina
- Dr Ahmet Hadrović, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Amir Pašić, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Emir Fejzić, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Denis Zvizdić, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Erdin Salihović, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Nina Ugljen Ademović, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Lemija Chabbou-Akšamija, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Aida Idribegović-Zgonić, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Amir Čaušević, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Neriman Rustempašić, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Slađana Miljanović, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Amira Salihbegovi, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Nihad Čengić, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Rada Čahtarević, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Jasenka Čakarić, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Pavle Krstić, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Elša Turkušić Jurić, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Senka Ibrišimbegović, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Nermina Zagora, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Haris Bradić, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Vedad Islambegović, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina
- Dr Maja Popovac, University "Džemal Bijedić" Mostar, Civil Engineering Faculty, Bosnia & Herzegovina
- Dr Dženana Bijedić, University of Sarajevo, Faculty of Architecture, Bosnia & Herzegovina

ABOUT

The conference examines the formation and presentation of knowledge on technologies and the environment, as well as ethical considerations and potential risks, developing solutions, expertise and discussions with respect to one of the emerging spatial development concepts – urban and rural synergy. The stated objective points to the necessity of a multidisciplinary approach to this matter, identification and establishment of relationships between issues of technological development, environmental protection, economic and social change. Consequently the conference program and research are based on the knowledge of several academic disciplines: engineering and technical sciences, humanities, natural and social sciences. The main tasks of the conference are defined in order to discuss the issues related to:

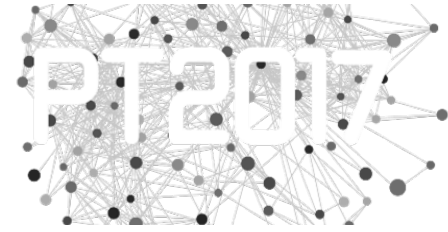
- the future of society and places;
- creation of sustainable areas and its facilities and infrastructure in line with needs of inhabitants;
- development of institutions and regulations with an aim of creating safe, sustainable, efficient, imageable and liveable, healthy environment; and
- creation of favourable conditions for the advancement of innovation to achieve a good quality of life.

Having in mind the conference goals and objectives, we wish to research and understand from the critical aspect the importance and role of technology in design and creation of sustainable places, in the cities, as well as, in the countryside through:

- Technological perspective
- Science perspective
- Security perspective
- Built environment perspective
- Social perspective
- Government perspective
- Economic perspective

TOPICS

- Sustainable communities and participation
- Social networks – inherited and created
- Resilience of places
- Urban and rural places towards human comfort, health and inclusion
- Biomimicry and smart innovations to human challenges
- Geography as development factor
- Climate change
- Image, identity and quality of place
- Cultural patterns and sensitivity
- Architecture and building technologies
- Sustainability lessons from vernacular architecture
- Tourism for urban-rural synergies
- Agriculture as development force
- Environmentally friendly modes of transport and commute



KEY NOTE SPEAKERS

Dr Mattheos Santamouris, *Anita Lawrence Chair in High Performance Architecture, School of Built Environment, University of New South Wales, Australia*

Professor of High Performance Architecture in the University of New South Wales in Australia. He is also a professor at the University of Athens, Greece and visiting Professor at the Cyprus Institute, Metropolitan University of London, Tokyo Polytechnic University, Bolzano University, Brunel University and National University of Singapore. Director of the Laboratory of Building Energy Research, at the University of Athens. Past President of the National Center of Renewable and Energy Savings of Greece.

Editor in Chief of the Energy and Buildings, Past Editor in Chief of the Journal of Advances Building Energy Research, Associate Editor of the Solar Energy Journal and actual or past Member of the Editorial Board of the International Journal of Solar Energy, Journal of Buildings and Environment, Journal of Sustainable Energy, Journal of Low Carbon Technologies, Journal of Open Construction and Building Technology, Sustainable Cities and Society and of the Journal of Ventilation. Editor of the Series of Book on Buildings, Energy and Solar Technologies published by Earthscan Science Publishers in London.

Editor and author of 14 international books on topics related to heat island, solar energy and energy conservation in buildings published by Earthscan, Springer, etc. Guest editor of twelve special issues of various scientific journals. Scientific coordinator of many international research programs and author of almost 240 scientific papers published in peer reviewed international scientific journals. Reviewer of research projects in 15 countries including USA, UK, France, Germany, Canada, Sweden, etc. Expert in various International Research Institutions.

Dr Francesca Giofrè, *Sapienza University of Rome, Faculty of Architecture, Department of Planning, Design and Technology of Architecture, Rome, Italy*

(1968) Architect, PhD in Technology of Architecture, full time associate professor at the Faculty of Architecture of the Sapienza University of Rome, Department Planning, Design, Technology of Architecture. She teaches Technology of Architecture since 2004. Since 1995 she has carried research and consultancy work through the University and other institutions national and international. She has published various papers, articles and books and she made many feasibility design studies in the field of architecture for health. She has been Member of Teachers College PhD in "Regeneration and recovery of the settlements" (2004-10); since 2013 she is member of the Teachers College PhD

“Engineering-based Architecture and Urban Planning”. Teaching co-ordinator, member of scientific board and teacher of the II level Master in Architecture for Health for architects and engineers comes from Developing and emerging countries co-financed by the Italian Ministry Foreign (since 2004).

From 2014 she is director of the Master in Architecture for Health. Since 2004, she is member of Member of Interuniversity Research Centre TESIS, Systems and technologies for health care buildings. She has selected to participate as visiting professor by Basilesu programme at the Faculty of Architecture of Belgrade (2012) and Faculty of Architecture of Sarajevo (2014). She has different responsibilities inside the Faculty and Department as member of the board of studies and Erasmus Programme for degree in Architecture UE. She has the scientific responsibility of executive agreements with foreign Faculties of Architecture (Belgrade, Ethiopia, Guatemala, Mozambique, Paraguay).

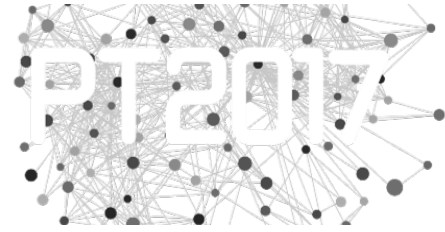
Dr Vesna Mikić, *University of Zagreb, Faculty of Architecture, Zagreb, Croatia*

Professor at the Faculty of Architecture in Zagreb, Department for Architectural Design. She realizes her architectural scientific-research opus through two basic domains: in her scientific and research work, she primarily focuses on topics from contemporary architecture, particularly on modernity and research conducted within her doctoral dissertation “Antun Ulrich's opus, the classicity of the Modern Era”, and persistently enhances both her teaching and her primary research of architectural phenomena which provide the initial ideas of her own architectural opus.

She contemplates on the development of modernity by relying on postulates of classical architecture, exemplified in classicism. In that domain, she confirms her research theses by projects designed for public spaces, squares, parks; therefore, urbanist-architectural entreties belonging to architectural assignments of highest ranking. Research within that domain confirm the fundamental postulate on evolution from classicism to international style as well as the idea that classicism is inherent to modernism.

The second segment of her work accentuates regional sensibility of contemporary architecture development in the spaces of Croatian regions. She particularly researches the multilayeredness of processes of preservation of Croatian heritage and sustainable development of the natural and cultural space of the Croatian cultural landscape. Those are researches which she strives to build in within her teaching process; particularly the industry to sensitize the young generation of students for regional topics and the culture of the Croatian space.

Apart from pedagogical and scientific, she also does professional work. In her professional work Mikić shows interest for a wide range of topics and problem areas, ranging from cooperation in complex architectural-urbanist complexes as associate in projects of Professor Miroslav Begović, PhD, to realization and participation in the construction of public and housing architecture, in big projects, and shows particular interest for projects of social and societal standard (institutions which deal with victims of family violence).



WORD OF THE P&T_2017 CONFERENCE DIRECTORS

It is a great pleasure and honour that we are entering the fourth season of the International Academic Conference on Places and Technologies event this June 2017, thus extending the cycle of this important event. The 2017 Conference had three precedents: the first conference was held in 2014 in Belgrade at the Faculty of Architecture – University of Belgrade, the second was held in 2015 in Slovenia in collaboration with the University of Ljubljana, with the main topic concerning the Healthy Cities and the third was held in 2016 in Belgrade and dedicated to the technologies to create cognitive city. In addition to very reputable scientific conference proceedings, it is important to point out some other valuable results. Two notable results from 2014 Conference that include valuable publications *Keeping up with technologies to improve places* published by Cambridge Scholar Publishing and Elsevier's *Energy and Buildings Special Issue on Places and Technologies*, which were based upon the evaluation of the most outstanding submitted papers from our Conference. Regarding the results of the Conference in 2016, in the process of publication are the book *Keeping up with technologies to create cognitive city by highlighting its safety, sustainability, efficiency, imageability and liveability*, the special issue of Elsevier's international journal *Energy and Buildings* and *Facta Universitatis, Series Architecture and Civil Engineering Special Issue*.

The fourth Conference is in collaboration with the University of Sarajevo. The focus of the conference is the synergy between urban and rural. Aware of the fact that there are a number of different connections and interactions between rural and urban areas, the conference sets the context of urban and rural synergy as a common thread that connects the enormous diversity of connections and interactions between the given places. The rural-urban linkages to promote development can only synergistically stimulate the growth of certain places, but certainly through and with people who live and work there. In this regard the conference emphasizes the importance of networking with the specifics of given environment, social, economic, technological and institutional realities of urban centres and their surroundings.

The conference examines the formation and presentation of knowledge on technologies and the environment, as well as ethical considerations and potential risks, developing solutions, expertise and discussions with respect to one of the emerging spatial development concepts – urban and rural synergy. The stated objective points to the necessity of a multidisciplinary approach to this matter, identification and establishment of relationships between issues of technological development, environmental protection, economic and social change. Consequently the conference program and research are based on the knowledge of several academic disciplines: engineering and technical sciences, humanities, natural and social sciences.

The papers will be published in the post conference book of proceedings “Keeping up with Technologies in the Context of Urban and Rural Synergy”, the best of papers will be published in the Scientific Journal Facta Universitatis, Series Architecture and Civil Engineering, as well.

Since the founding conference in Belgrade, there is a visible growing interest in the Places and Technologies Conference encountering support in the region and beyond. All this has qualified the conference as a traditional event. Through commitment to specific topics and the quality we have the ambition to keep its importance among the many European conferences.

Aleksandra Krstić-Furundžić

Director of the P&T Conference

PhD, Professor, University of Belgrade, Faculty of Architecture, Serbia

Dženana Bijedić

Regional Director of the P&T Conference

PhD, Professor, University of Sarajevo, Faculty of Architecture, B&H

TOPIC X:
TOURISM FOR URBAN-RURAL SYNERGIES

CONTINUOUS PERFORMATIVE LANDSCAPES FOR RESILIENT CITY OF SKOPJE

Divna Penchikj¹⁴⁷

Assoc. Prof. PhD, Faculty of Architecture, University “Sts. Cyril and Methodius”, Blvd. Partizanski odredi 24, Skopje, Republic of Macedonia, pencic.divna@arh.ukim.edu.mk

Jasmina Siljanoska

Prof. PhD, Faculty of Architecture, University “SS. Cyril and Methodius”, jasiljan@ukim.edu.mk

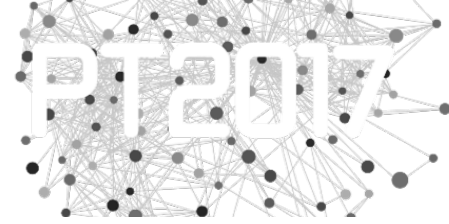
Dana Jovanovska

Assoc. Assist. MSc, Faculty of Architecture, danajovanovska@gmail.com

ABSTRACT

The present time city of Skopje is dialectical result of contradictions of its society and planning systems, a diffuse result of unfinished layers of diachronically superimposed different planning concepts, none of which has lasted long enough to establish a homogenous city structure. The combination of its structural parts is no longer defined as homogenous, but rather as a multiple layering and heterogeneity, a fragmented solids and voids with borders, barriers and edges that are subject to a constant process of modification and reconfiguration of the dynamic image. In this regard, it is interesting to look at constitution of space that occurs outside of the urban network, as well, in order to clarify vague spatial morphology and landscape between urban and rural/ suburban areas. The boundary between the end of the city and the beginning of the nature or urban/rural fringe defines discontinuous route which gradually perforated casing urban structure of the city. This disintegrated and unfinished urban structure needs to become adaptive, fluid and responsive system able to accept disturbances, without changing to another system. Only this way, we can establish a city capable of extending its own continuity: a resilient city. When exploring the fragmented reality of Skopje and the potentials for establishment of a new urban reality the paper relies on the principle of the newly emerged landscape urbanism approach in the planning discourse. It is based on the idea of continuous landscape, where physical urban fragments and residual urban voids need to be connected, integrated and structured in an open flexible system, and on the necessitate potential of the voids as ecological intensity. The idea is to bring all urban fragments together in one open system and to create an integrated overall system of green areas and corridors that connect the inner city with the exurban green lands, agricultural land, as well as exurban greenery of the mountains. The “power” of the landscape medium is in the possibility to organise the urban fabric of fragmented voids into the continuous landscape within the city of Skopje. It is not conceived only a simple medium for defragmented city development, but more importantly it is a medium that activates urban space through invoking processes and events that move within the city, which means a performative landscape. Through performability introduced the ecological performance of the continuous urban landscape is becoming productive environmentally, economically and socially (producing food, pollution absorption, air, water and soil purification, etc).

¹⁴⁷ Corresponding author



TOPIC XI:

RESILIENCE OF PLACES

Keywords: Fragmented city, Resilient city, Performative landscapes, Continuous landscapes

INTRODUCTION

With the existence of the border, the world has always been divided into two different groups of people, those who live rural or urban life. Uneven density of human population and intensity of development between rural and urban result in "line" that distinguishes different models and typologies of construction, changing landscapes from urban to rural, and their gradual integration into the natural environment. The concept of boundary changes and is materialized in new urban morphologies within the context of the contemporary diffuse metropolis. The boundary between the end of the city and the beginning of nature is subtle and cannot always be discerned. On the other hand, it is interesting from typological and morphological point of view to clarify the vague spatial morphology and landscape between urban, suburban and rural areas.

Skopje is a city with changing planning paradigms and conceptual misalignment of different periods of development. Former lines that define the border of the city are assimilated into its urban tissue and suburbs started to become closer to the inner city. When we talk about Skopje, the rapid urbanization during the XX century and constant increase of the territory has brought ever-changing borderline of the legal perimeter. The combination of its structural parts is no longer defined as a homogeneous and mutually harmonious system, but rather as a system subjected to the constant process of modification and reconfiguration of the dynamic image. "Edges" as present confront not only as porous borders which are generally subjected to change or substitution but as well as a barrier that composes the urban envelope.

For planning to be considerate, the border has to allow interactivity, porosity, flexibility and confluence of the urban and ex-urban territories and realities. Urban design provides examples of how porosity and resistance can combine. This paper examines the transition zones that occur around the edges of Skopje e.g. demarcation edges that are defined by law and master planning. Within the "holes" of the interactive border zone of the green corridors residues, left from the previous periods of city development, is applicable the concept of continual landscape, interactivity and urban-rural synergy. It is explored how, for example, have edge conditions affected access to the greenery as corridors of possible connections between the urban-suburban and urban-rural, as well as their patterns and physical evolution over the years. The view gives importance to conceiving a green-border-land-city "edge effect" that should be considered in the planning processes of our city and suburbs.

FROM FRAGMENTATION TO RESILIENCE

Skopje is a diffuse result of successive unfinished cycles that have always been oriented towards radical transforming the present. The way of embedding the legacy of each strongly ideological cycle within the city was mainly juxtaposition (Пенчиќ, 2011), which eventually created a city of divergent urban realities – small cities within the city. All shifts between ideologies and concepts for the city, not only resulted in creation of fragments of different physical urban form, but it also left a lot of ruptures in the urban tissue. Such urbanization of Skopje brought and stimulated generation of new kind of urban sites: post-industrial sites, post-infrastructure sites, peripheral sites and

fringes, undefined enclaves, etc. These residual sites are subjected to misuse, dissolution, abandoning, loss of program, informal development etc., in contrast to other parts of the city that became increasingly themed venues for establishing still on-going national agendas. Even though these new sites are voids that do not hold any particular ideology embedded, they are residues of shifting concepts which instigated their 'evolution'. Therefore, they are considered as post-urban fragments and are given same importance as the physical urban forms of the unfinished concepts - the urban fragments (Daskalakis, 2001). All of these fragments are legacy of distinctive historical cycles, diverse political, economic, social and natural systems. They have a distinguishing spatial arrangements and each of them entails the basic resistant level towards the context as well as the transformation that replaced them. The situation with border and edge structures, no matter if solid or void concerned, is even more heterogeneous and subject to a constant reconfiguration.

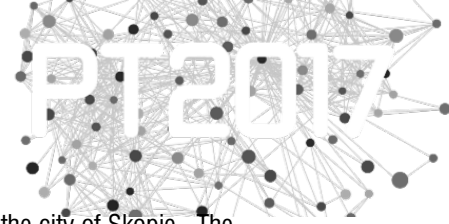
The evident fragmentation of Skopje plays an important role towards the dissolution of the idea for the city as a comprehensive whole. Skopje is a heterogeneous amalgam of different layers, elements, systems and functions. Its fragmentation cannot be reversed! That's why, when thinking about the future development of Skopje, fragmentation and discontinuity shouldn't be taken as a negative phenomenon by itself, but as an opportunity to engender improved city profile (Ungers, 1997). Can the discontinuity produce new possibilities for continuity? Is there a 'meta-form' capable of 'defragmenting' the city of Skopje?

Since the context of Skopje is a dispersed cityscape, comprised of fragments and voids, with different level of historical, economic, social and natural resistance, we aim towards finding the potential in this given reality as it is, and provide the urban quality of the city out of its weakness, instead of constant importing and imposing concepts.

As a system that vanished through dissolutions and reconstructions, Skopje had become a system subjected to constant disturbances that lead to its discontinuous development. In order to enable future 'continuity', we should start thinking how to make the city more adjustable for changing demands and unpredictable circumstances (Wall, 1999). The disintegrated and unfinished urban system of Skopje has to become a system able to take disturbances, without changing to a different system. Only the flexibility and responsiveness to the unpredictable future can produce 'defragmentation' of such disintegrated system. The fragmented city has to become a resilient city!

Establishing resilience requires whole system approach inclusive of multiple and unpredictable perspectives. The city of Skopje is not just a collection of objects, a collection of fragments. Instead, it is a system that relies on their mutual relational forces – connectivity, repulsiveness, and flows within. We should think about Skopje as a large open system rather than as bounded entity. The planning actions and interventions should be adaptive 'experiments' that acknowledge and celebrate the failings of the past, while 'making a room' for eventual future failings that will not disrupt the on-going transformation of the city. This disintegrated and unfinished urban structure needs to become adaptive, fluid and responsive system able to accept disturbances, without changing to another system. Only this way, we can establish a city capable of extending its own continuity: a resilient city.

LANDSCAPE URBANISM FOR SKOPJE (THE METHOD)



TOPIC XI:

RESILIENCE OF PLACES

Skopje's post-urban fragments are 'voids' with potential for providing a resilient structure for the city of Skopje. The basic assumption is that the landscape can serve as an operative tool to re-engage the discontinuous and fragmented reality of Skopje. The landscape is implied as a medium for repurposing, transforming and recalibrating urban contexts, which are experiencing the phenomenon of fragmentation (Lister, 2010). The contemporary landscape is considered to be a spatial medium for city building that includes the complexity of places (their different physical, natural, artificial, biological, cultural, environmental and aesthetic values), and as such invokes a functioning programmatic matrix of the urban tissue (Wall, 1999).

In a city where architecture was imposed as timeless totality and urban planning operated to set control, determinism and hierarchy, we need to move forward and accept what landscape urbanism offers - temporality, complexity and soft control enabling shift in the strategies towards changing, open and experimental development (Hight, 2003; Ungers, 1997).

Identifying the urban and post-urban fragments as pre-landscapes within the city starts as planning act of discovery and not invention (Ungers, 1997). Based on the porosity and local interconnectivity, the distinctive fragments can constitute a loosely bounded aggregate with highly fluid shape, also known as field conditions of Skopje. This sort of network of relations between urban entities should be capable of assimilating the existing differences in the city, and yet strong enough to incorporate change without destroying its internal coherence. The logistics of field conditions reasserts the potential of the city of Skopje as the whole: The whole which is not defined and complete, hierarchically ordered and closed, but capable of permutation, open to time and space, and only provisionally stable (Allen, 2001).

First field operation is the grid. It lends framework to the field while allowing autonomy and individuality of each part that remains open to alternative changes in future (Corner, 2006). The grid of Skopje's urban field is conceived as a re-organizing engine for the ground and all other site displacements of the city. Initially, it is an artificial structure with determinacy that relies on the existing measure of the city and the organization of the existing physical urban fragments. This way it basically defines the "game space" where the new strategy for Skopje is going to happen. Defined as such, the grids simultaneously act as a motif for the existing urban fragments and the urban residues of past ideologies and orders. This kind of grid construct for the city provides a provisional organizational system for the urban 'pre-landscapes'.

CONTINUOUS LANDSCAPES

The idea of continuous landscapes for Skopje is an idea about the synergy of the urban and rural, the city and non-city, the urban and ex-urban, the built and void, the central and the peripheral – all with equal quality and beyond any dualisms and separations. The notion of 'continuous landscapes' for Skopje is not a new idea. Even though it referred only to greenery, it can be traced back in the concept of the General Urban Plan for Skopje of 1965 for creating a holistic system of green areas and corridors that connect the inner city's greenery with the exurban greenery of the surrounding mountains in one vegetation system (Figure 1).

The concept of spatial organization inaugurated with the master-planning in 1965, established green corridors as important structures that connect the green areas intra and extra urban perimeter. The corridors are conceived as a green continual landscape penetrating from around the city to the inner city thus connecting the exurban-suburban zones to urban public greenery. Later plans accept these concepts, but in practice, the green corridors were hard to achieve. Most of the key green corridors that were envisaged to connect Vodno Mountain, on the south, with Skopska Crna Gora, on the north, have not been completed and the land designated for these corridors was decomposed, retrofitted or had its land use changed. The blue-infrastructure of the river banks of Vardar, Lepenec and Serava is not used as axes for green inter-connectivity, while the exurban and suburban green areas are not strictly defined by the lines of the green belt buffer zone. For these reasons, park forests, recreational sports centres, forests, agricultural land and buffer zones that surround the city are sporadically connected, while some even converted into different land use building plots.

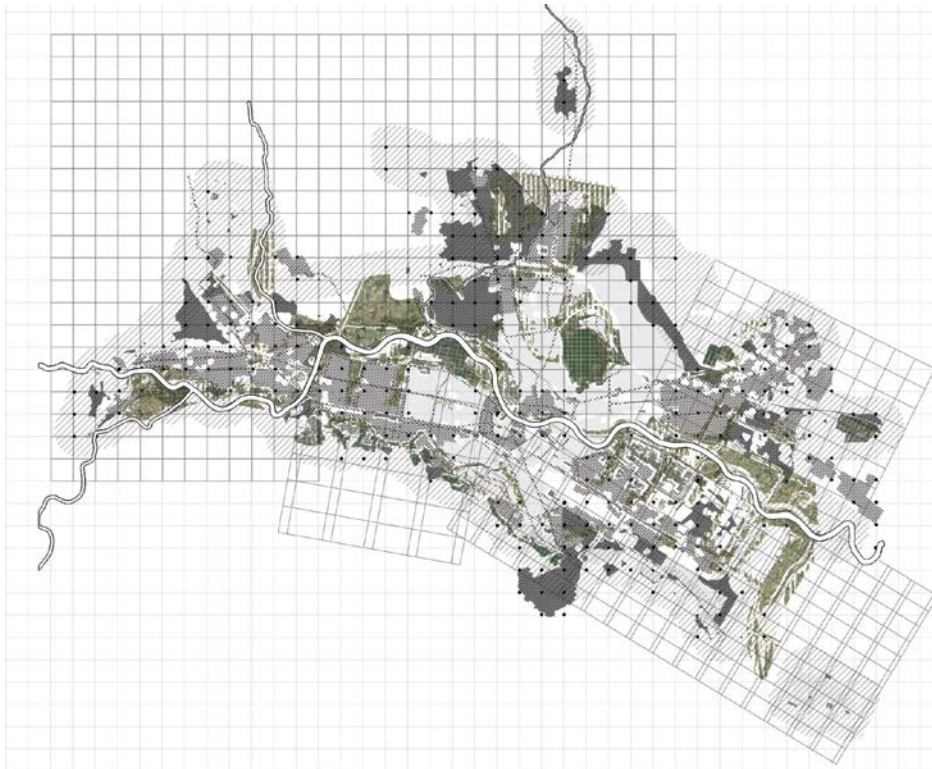
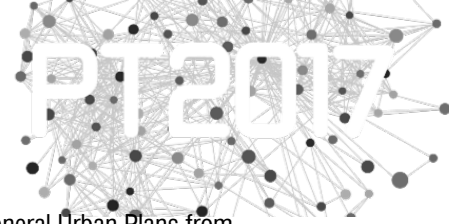


Figure 46: 1965 and 2012 fragments and the planned greenery system of GUP 1965



TOPIC XI:

RESILIENCE OF PLACES

Unfortunately, the idea of corridors has never been accomplished, although all subsequent General Urban Plans from 1965/1985/2001/2012 aimed towards creation of a holistic, integrated, vegetation system within the city and its region. The real transformations of the city have had a huge impact on degradation of public spaces and especially green areas in the city, bringing speculative actions that transformed the green areas into construction land, and diminished the inner city greenery system to a mere set of isolated, disconnected, sometimes even randomly placed green areas, without any clear concept visible.

Poor implementation of the greenery in the planning period from 1965-2012 is a result of not providing substantial changes in planning and management of green areas, due to the changing political and social circumstances and post-liberal urbanism of retrofitting greenery to other land uses. After evident degradation of the open spaces and greenery throughout past decades, the General Urban Plan of 2012 proposes reshaping the existing and introduces new green areas in the city in order to stop the tendency of decline, by aiming to reach the standard of 25m² per inhabitant, set with the master planning in 1965. (The present situation is 9.34 m² per inhabitant, or if added the green areas registered as exurban greenery that de facto are within the urban perimeter, it is 12.17 m², which is far below the European cities level with usually over 15m² per inhabitant.)

The new concept of continuous urban landscapes will imply a strategy that aims to protect and promote the public realm, and bring different urban and post-urban fragments together in one open system while respecting their autonomy. Continuous landscapes for Skopje will be city-traversing open spaces running through the built urban environment, connecting all kinds of existing inner-city open spaces and extending finally to the surrounding rural area (Viljoen, 2005). This kind of continuity will allow flow and distribution of different resources at different levels and intensity: vegetation, air, information, energy, people etc., in the city and out of it. The continuous landscapes will be connecting different fragments and therefore sliding conceptually through different ideologies of the urban archipelago.

Continuous urban landscapes are successions of programmatic diversities and functionalities, which in order to work as a system, have to be phenomenologically derived. They can be communication routes, movement axes, journey paths, or places for reflection, cultural gathering and social play, hubs for storing and sharing information, locations for energy production, saving and distribution, sites for urban agriculture, production, environmental intensification etc. The diversity of their nature depends on the complexity of context that they run through (Viljoen, 2005).

Establishment of continuous urban landscapes in Skopje will not be about destroying parts of the urban tissue. They will be built through engaging and interweaving existing spatial properties within the city. They will appropriate and reclaim the ground, and protect and promote the open space by including existing green areas, as well as residual post-urban voids. Developing the continuous urban landscapes may start on a small scale, as punctual interventions in the city, and then gradually develop into extensive urban landscapes. However, achieving total continuity of a city building medium, through a city such as Skopje, will often come across boundaries, connecting this way suburban, exurban and rural areas. Besides physical, continuity can be achieved on an infra-free level. All the segments of the continuous landscape will be connected in a 'smart way' through communication technologies, sharing information (about micro-environmental aspects, functions of the spaces available at the moment, didactic city fragments information, mobility etc.) and overlapping and complementing the intensities of their own performance in the context.

Whichever continuity is, utmost important is providing extensiveness of dynamic processes that happen through the city and extending the 'benefit' of their impact on a larger scale.

Setting the continuous landscapes relies on the previously elaborated grid. This is where the determinacy of the grid based on real measure and rhythm of the urban tissue becomes physical and real. Even though these newly produced stripes, demonstrate a quality of being fixed within the rhythm of the existing and adopted grids, they refer more to the provisional extensive organization of the appropriation of successive spaces that are supposed to establish certain continuity of landscapes traversing the city. This complex new system of horizontal continuous matrices will become the new 'infrastructure' for the city that organizes fields and sets new conditions for future development. The origin and end of each stripe of the continuous landscape lay on two opposite sides outside the city. They represent a new way of re-creating a city which is open and boundless, with synergy of in and out, natural and artificial, rural and urban.

PERFORMATIVE LANDSCAPE

Landscape for Skopje should not become only a model for urbanism of the fragmented city, but more importantly, a model for processes within the city (Allen, 2001). The 'form' of the landscapes should be an outcome of its performance – a result of actions and behaviours of the object and the subjects (users) (Grobman, 2012). Through that mechanism of mutually dependent performative exchange, space is being generated – the process becomes a space happening over time (Figure 2).

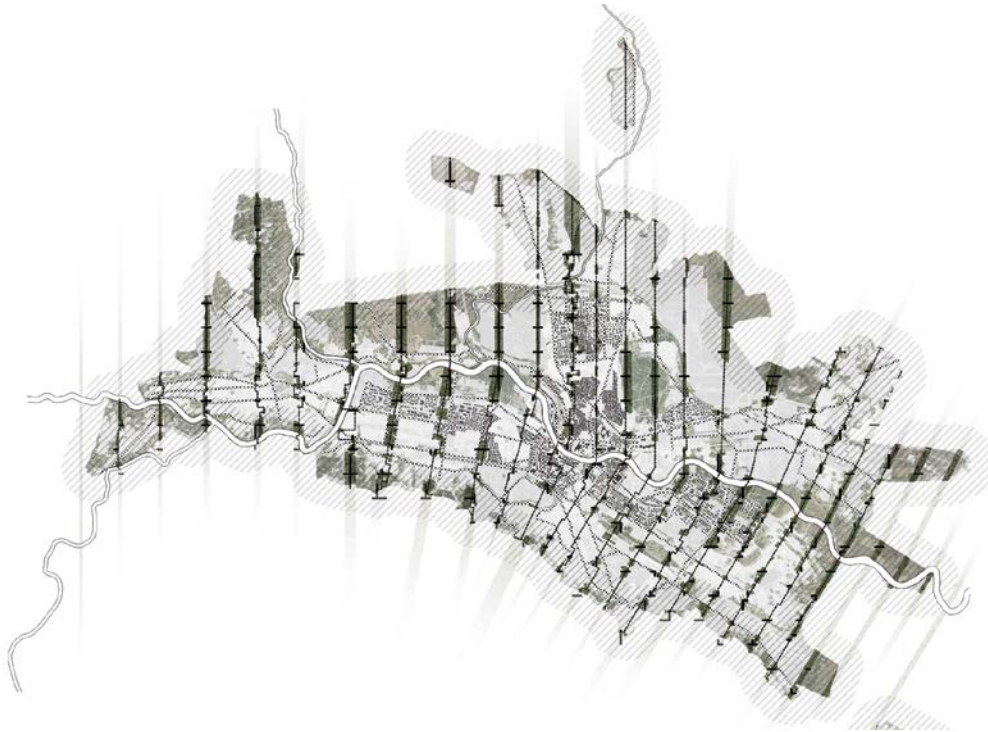


Figure 2: Continuous performative landscapes through Skopje

The landscapes engaged, are not plane surfaces. Their section is defined through their constitutive form, material characteristics, configuration etc. which determine the performative effects of the landscape. Depending on the pre-conditions of the context, terrain configuration, hardness or softness, permeability or depth, quality of air, water and soil, availability of natural resources, social stability etc. the performative effects can be: ability to accommodate life and stimulate biodiversity, absorb pollution, mitigate microclimate, hold or purify water, produce and store energy, enable mobility, provide information, communication, public services and care, support events etc. (Allen, 2001). Those performances exactly, become a new way of activating space and producing urban effects, beyond the traditional space making with definite physical forms.

CONCLUSION

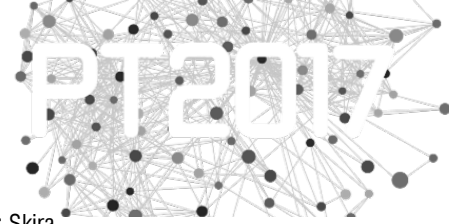
For the fragmented city of Skopje, we proposed a strategy of continuous urban landscapes, which is basically a transcript of the given reality of the city, with assimilated entities and functionalities that already exist in the city. Quite the opposite of the previous concepts that imposed visions, utopias and incompatible concepts on the city, this concept offers abundant flexibility to the city, while supporting the idea of autonomy of every fragment, which ultimately reinforces the coherence of the whole.

The need to develop a new holistic approach to planning and strategy for further urban development is more than evident in times of intense urban transformations. Protection of the open spaces should be a strategic commitment to sensible development. With the idea described we wanted to reaffirm an almost abandoned idea of green corridors as continual landscapes that are conceived as media for achieving interactivity and connectivity of the different urban-suburban-rural morphologies and activities.

The new concept of continuous urban landscapes will imply a strategy that aims to protect and promote the public realm and brings different urban and post-urban fragments together in one open system. In order to accept and stimulate transformations the idea is reinforced with the inclusion of programmatic diversities (e.g. communication routes and pathways, places for reflection and sharing information, or for cultural gathering and social play, for energy production or for urban agriculture, environmental intensification etc.) which is going to be achieved through the idea of performative landscape.

REFERENCES

- Allen, Stan. 1997. "From object to field." *AD: Architecture After Geometry*, no. 127: 31-24.
- Allen, Stan. 2001. "Mat urbanism: The thick 2-D." In *CASE: Le Corbusier's Venice hospital and the Mat Building Revival*, edited by Hashim Sarkis, Pablo Allard and Timothy Hyde, 126-118. New York: Prestel.
- Corner, James. 2006. "Terra fluxus" In *The Landscape Urbanism Reader*, edited by Charles Waldheim, 33-21. New York: Princeton Architectural Press.
- Daskalakis, Georgia, and Perez, Omar. 2001. "Things to Do in Detroit." In *Stalking Detroit*, edited by Georgia Daskalakis, Charles Waldheim and Jason Young, Barcelona: Actar.
- Grobman, Yasha, and Neuman, Eran. 2012. *Performatism: Form and Performance in Digital Architecture*. London: Routledge.
- Hight, Christopher. 2003. "Portraying the urban landscape: Landscape in architectural criticism and theory, 1960 – present." In *Landscape Urbanism: A Manual for the Machinic Landscape*, edited by Mohsen Mostafavi and Ciro Najle, 32-22. New York: Princeton Architectural Press.
- Lister, Nina-Marie. 2010. "Insurgent Ecologies: (Re) Claiming Ground in Landscape and Urbanism." In *Ecological Urbanism*, edited by Mohsen Mostafavi and Gareth Doherty, 535-524. Cambridge: Lars Müller Publishers.
- Пенчиќ, Дивна. 2011. *Влиј аниетона Урбанистичките Планови врз Дисконтинуираната Просторна Транзициј на Градот Скопје во Дваесеттиот век* (PhD), **ЅНУВЕ** и Методиј .



TOPIC XI:

RESILIENCE OF PLACES

Ungers, Mathias, Oswald, and Vieths, Stefan. 1997. *Oswald Mathias Ungers: The Dialectic City*. Milano: Skira.

Viljoen, Andre, Howe, Joe, and Bohn, Katrin. 2005. *Continuous Productive Urban Landscapes: Designing Urban Agriculture for Sustainable Cities*. Oxford: Architectural Press.

Wall, Alex. 1999. "Programming the urban surface" In *Recovering Landscape: Essays in Contemporary Landscape Architecture*, edited by James Corner. New York: Princeton Architectural Press.