

CONFERENCE
PROCEEDINGS

**5th INTERNATIONAL
ACADEMIC CONFERENCE ON
PLACES AND TECHNOLOGIES**

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PLACES AND TECHNOLOGIES 2018

**THE 5TH INTERNATIONAL ACADEMIC CONFERENCE ON
PLACES AND TECHNOLOGIES**

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FOR PUBLISHER: Vladan Đokić

PUBLISHER: University of Belgrade - Faculty of Architecture

DESIGN: Stanislav Mirković

TECHNICAL SUPPORT: Jana Milovanović

PLACE AND YEAR: Belgrade 2018

ISBN: 978-86-7924-199-3

PRINTED BY: University of Belgrade - Faculty of Architecture

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TABLE OF CONTENTS

IMAGE, IDENTITY AND QUALITY OF PLACE: URBAN ASPECTS

THE EFFECT OF BEHAVIOURAL SETTINGS ON THE REGENERATION OF URBAN DYNAMIC ARTS, CASE STUDY: TEHRAN AZADI SQUARE Yasaman NEKOU Ali Entezarinajafabadi	3
DEVELOPMENT SCENARIOS OF THE ZAGREB'S SATELLITE TOWN DUGOSELO - "THE CITY OF THE FUTURE" Lea Petrović Krajnik Damir Krajnik Ivan Mlinar	11
SUSTAINABILITY OF MODERN-DAY UTOPIAS AS SEEN IN MASS MEDIA Aleksandra Til	18
URBAN DENSIFICATION OF THE POST-SOCIALIST CITY AND ITS IMPLICATIONS UPON URBAN STRUCTURE: A STUDY OF NIS, SERBIA Milena Dinić Branković Ivana Bogdanović Protić Mihailo Mitković Jelena Đekić	25
MUSEUM QUARTERS VS CREATIVE CLUSTERS: FORMATION OF THE IDENTITY AND QUALITY OF THE URBAN ENVIRONMENT Ekaterina Kochergina	35
URBAN NON-MECHANICAL CODE AND PUBLIC SPACE Aleksandra Đukić Valentina Milovanović Dubravko Aleksić	43
ADDRESSING THE SOCIO-SANITARY EMERGENCY IN AFRICA: THEORIES AND TECHNIQUES FOR DESIGNING A COMMUNITY HEALTH CENTRE IN MALI Adolfo F. L. Baratta Laura Calcagnini Fabrizio Finucci Cecilia M. L. Luschi Antonio Magarò Massimo Mariani Alessandra Venturoli Alessandra Vezzi	50
THE NETWORK OF LOCAL CENTERS AS A TOOL FOR STRENGTHENING THE SUPER-BLOCK COMMUNITIES: BELGRADE VS. ROME Predrag Jovanović Aleksandra Stupar	58
TRANSFORMATION OF IDENTITY OF SAVAMALA DISTRICT IN BELGRADE Aleksandra Đukić Jelena Marić Tamara Radić	66
THE CULTURE OF MEMORY AND OPEN PUBLIC SPACE - BANJA LUKA Jelena Stankovic Milenko Stankovic	73

IMAGE, IDENTITY AND QUALITY OF PLACE: ARCHITECTURAL ASPECTS

IMPROVEMENT OF SOCIAL HOUSING THROUGH THE MIXING CONCEPT IMPLEMENTATION Nataša Petković Grozdanović Branislava Stoilković Vladana Petrović Aleksandar Keković Goran Jovanović	83
--	----

IMPROVING THE IDENTITY OF NON – SURROUNDED COMMUNAL SPACES WITH USING ARCHITECTURAL PROGRAMING. CASE STUDY: NAJAF ABAD (ESFAHAN), IMAM KHOMEINI SQUARE 91
Ali Entezarinajafabadi YasamanNekoui

A CONTRIBUTION TO THE STUDY OF THE ARCHITECTURAL OPUS OF NATIONAL STYLE WITH MODELS IN FOLK ARCHITECTURE AND NEW INTERPOLATIONS 100
Katarina Stojanović

SHOPPING CENTRE AS A LEISURE SPACE: CASE STUDY OF BELGRADE 108
Marija Cvetković Jelena Živković Ksenija Lalović

ARCHITECTURAL CREATION AND ITS INFLUENCE ON HUMANS 119
Nikola Z. Furundžić Dijana P. Furundžić Aleksandra Krstić-Furundžić

INNOVATIVE METHODS AND TECHNOLOGIES FOR SMART(ER) CITIES

POTENTIAL OF ADAPTING SMART CULTURAL MODEL: THE CASE OF JEDDAH OPEN- SCULPTURE MUSEUM 131
Sema Refae Aida Nayer

AN INNOVATIVE PROTOCOL TO ASSESS AND PROMOTE SUSTAINABILITY IN RESPONSIBLE COMMUNITIES 140
Lucia Martincigh Marina Di Guida Giovanni Perrucci

GEOHERMAL DISTRICT HEATING SYSTEMS DESIGN: CASE STUDY OF ARMUTLU DISTRICT 148
Ayşe Fidan ALTUN Muhsin KILIC

DATA COLLECTION METHODS FOR ASSESSMENT OF PUBLIC BUILDING STOCK REFURBISHMENT POTENTIAL 157
Ljiljana Đukanović Nataša Čuković Ignjatović Milica Jovanović Popović

SMART HOSPITALS IN SMART CITIES 165
Maria Grazia Giardinelli Luca Marzi Arch. PhD Valentina Santi

INNOVATIVE METHODS AND TOOLS

PRIMARY AND SECONDARY USES IN CITIES – PRINCIPLES, PATTERNS AND INTERDEPENDENCE 175
Marina Čarević Tomić Milica Kostreš Darko Reba

MODELLING AND ANALYSING LAND USE CHANGES WITH DATA-DRIVEN MODELS: A REVIEW OF APPLICATION ON THE BELGRADE STUDY AREA 183
Mileva Samardžic-Petrović Branislav Bajat Miloš Kovačević Suzana Dragičević

INNOVATIVE DECISION SUPPORT SYSTEM 190
Mariella Annese Silvana Milella Nicola La Macchia Letizia Chiapperino

URBAN FACILITY MANAGEMENT ROLE	196
Alenka Temeljotov Salaj Svein Bjørberg Carmel Margaret Lindkvist Jardar Lohne	
ANALYSES OF PUBLIC SPACES IN BELGRADE USING GEO-REFERENCED TWITTER DATA	205
Nikola Džaković Nikola Dinkić Jugoslav Joković Leonid Stoimenov Aleksandra Djukić	
SENTIMENT ANALYSIS OF TWITTER DATA FOR EXPLORATION OF PUBLIC SPACE SENTIMENTS	212
Miroslava Raspopovic Milic Milena Vukmirovic	
CITIES AND SCREENS: ARCHITECTURE AND INFORMATION IN THE AGE OF TRANSDUCTIVE REPRODUCTION	217
Catarina Patricio	
CITIZEN EMPOWERMENT, PUBLIC PARTICIPATION AND DEMOCRATIC CITIES	
CITIES AS PLATFORMS FOR SOCIAL INNOVATION: AN INVESTIGATION INTO HOW DIGITAL PLATFORMS AND TOOLS ARE USED TO SUPPORT ENTREPRENEURSHIP IN URBAN ENVIRONMENTS	227
Margarita Angelidou	
PROBLEM ISSUES OF PUBLIC PARTICIPATION IN HERITAGE CONSERVATION: GEO-MINING PARKIN SARDINIA	235
Nađa Beretić Arnaldo Cecchini Zoran Đukanović	
A METHODOLOGY FOR STAKEHOLDER EMPOWERMENT AND BENEFIT ASSESSMENT OF MUNICIPAL LONG-TERM DEEP RENOVATION STRATEGIES: A SURVEY WITHIN SOUTH-EASTERN EUROPEAN MUNICIPALITIES	242
Sebastian Botzler	
THE OPPORTUNITIES OF MEDIATED PUBLIC SPACES: CO-CREATION PROCESS FOR MORE INCLUSIVE URBAN PUBLIC SPACES	249
Inês Almeida Joana Solipa Batista Carlos Smaniotto Costa Marluci Menezes	
ARCHITECTURE AS SOCIAL INNOVATION: EDUCATION FOR NEW FORMS OF PROFESSIONAL PRACTICE	255
Danijela Milovanović Rodić, Božena Stojčić Aleksandra Milovanović	
CITY AS A PRODUCT, PLANNING AS A SERVICE	262
Viktorija Prilenska Katrin Paadam Roode Liias	
RAJKA: CHANGING SOCIAL, ETHNIC AND ARCHITECTURAL CHARACTER OF THE "HUNGARIAN SUBURB" OF BRATISLAVA	269
Dániel Balizs Péter Bajmócy	
POSSIBLE IMPACT OF MIGRANT CRISIS ON THE CONCEPT OF URBAN PLANNING	279
Nataša Danilović Hristić Žaklina Gligorijević Nebojša Stefanović	

TOWARDS DIMINUISHING DISADVANTAGES IN MIGRATION ISSUES IN SERBIA
(FROM 2015) THROUGH PROPOSAL OF SOME MODELS 287

Eva Vaništa Lazarević Jelena Marić Dragan Komatina

ARCHITECTURAL DESIGN AND ENERGY PERFORMANCE OF BUILDINGS

APPLICATION OF ENERGY SIMULATION OF AN ARCHITECTURAL HERITAGE
BUILDING 303

Norbert Harmathy Zoltán Magyar

APPLICATION OF TRADITIONAL MATERIALS IN DESIGN OF ENERGY EFFI-
CIENT INTERIORS 311

Vladana Petrović Nataša Petković Grozdanović Branislava Stoiljković Aleksandar Keković
Goran Jovanović

DETERMINATION OF THE LIMIT VALUE OF PERMITTED ENERGY CLASS FOR
THE KINDERGARTENS IN THE NORTH REGION OF BOSNIA AND HERZEGOVI-
NA 318

Darija Gajić Biljana Antunović Aleksandar Janković

ARCHITECTURAL ASPECTS OF ENERGY AND ECOLOGICALLY RESPONSIBLE
DESIGN OF STUDENT HOUSE BUILDINGS 326

Malina Čvoro Saša B. Čvoro Aleksandar Janković

ENERGY EFFICIENCY ANALYSES OF RESIDENTIAL BUILDINGS THROUGH
TRANSIENT SIMULATION 332

Ayşe Fidan ALTUN Muhsin KILIC

INNOVATIVE TECHNOLOGIES FOR PLANNING AND DESIGN OF “ZERO-ENER-
GY BUILDINGS” 340

Kosa Golić Vesna Kosorić Suzana Koprivica

ENERGY REFURBISHMENT OF A PUBLIC BUILDING IN BELGRADE 348

Mirjana Miletić Aleksandra Krstić-Furundžić

TPOLOGY OF SCHOOL BUILDINGS IN SERBIA: A TOOL FOR SUSTAINABLE
ENERGY REFURBISHMENT 357

Nataša Čuković Ignjatović Dušan Ignjatović Ljiljana Đukanović

ARCHITECTURAL DESIGN AND NEW TECHNOLOGIES

EVALUATION OF ADVANCED NATURAL VENTILATION POTENTIAL IN THE
MEDITERRANEAN COASTAL REGION OF CATALONIA 367

Nikola Pestic Jaime Roset Calzada Adrian MurosAlcojor

TRENDS IN INTEGRATION OF PHOTOVOLTAIC FACILITIES INTO THE BUILT
ENVIRONMENT 375

Aleksandra Krstić-Furundžić Alessandra Scognamiglio, Mirjana Devetaković, Francesco
Frontini, Budimir Sudimac

INTEGRATION OF NEW TECHNOLOGIES INTO BUILDINGS MADE FROM CLT	389
Milica Petrović Isidora Ilić	
INTEGRATION OF SOLAR WATER HEATING SYSTEMS INTO GREEN BUILDINGS BY APPLYING GIS AND BIM TECHNOLOGIES	394
Kosa Golić Vesna Kosorić Dragana Mecanov	
IMPLEMENTING ADAPTIVE FAÇADES CONCEPT IN BUILDINGS DESIGN: A CASE STUDY OF A SPORTS HALL	402
Aleksandar Petrovski Lepa Petrovska-Hristovska	
SIMULATION AIDED ENERGY PERFORMANCE ASSESSMENT OF A COMPLEX OFFICE BUILDING PROJECT	409
Norbert Harmathy László Szerdahelyi	

ARCHITECTURAL DESIGN AND PROCESS

THE HABITABLE BRIDGE: EXPLORING AN ARCHITECTURAL PARADIGM THAT COMBINES CONNECTIVITY WITH HABITATION	421
Ioanna Symeonidou	
REFURBISHMENT OF POST-WAR PREFABRICATED MULTIFAMILY BUILDINGS	428
Aleksandra Krstić-Furundžić, Tatjana Kosić, PhD	
THE FUTURE (OF) BUILDING	438
Morana Pap, Roberto Vdović, Bojan Baletić	
COMPARISON OF ARCHITECTS' AND USERS' ATTITUDES TOWARD SPATIAL CHARACTERISTICS OF APARTMENTS	445
Ivana Brkanić	
DIGITAL VS. TRADITIONAL DESIGN PROCESS	453
Igor Svetel Tatjana Kosić Milica Pejanović	
CREATING THE EASTERN CAMPUS CONCEPT AT THE UNIVERSITY OF PÉCS - CONNECTED THE FACULTY OF BUSINESS AND ECONOMICS	461
Péter Paári Gabriella Medvegy Bálint Bachmann	

BUILDING STRUCTURES AND MATERIALS

SUSTAINABILITY BENEFITS OF FERROCEMENT APPLICATION IN COMPOSITE BUILDING STRUCTURES	471
Aleksandra Nenadović Žikica Tekić	
POSSIBILITIES OF ENERGY EFFICIENT REFURBISHMENT OF A FAMILY VILLA IN BELGRADE: A CASE STUDY	479
Nenad Šekularac Jasna Čikić Tovarović Jelena Ivanović-Šekularac	

ENHANCING THE BUILDING ENVELOPE PERFORMANCE OF EXISTING BUILDINGS USING HYBRID VENTILATED FAÇADE SYSTEMS	485
Katerina Tsikaloudaki Theodore Theodosiou Stella Tsoka Dimitrios Bikas	
STRUCTURAL ASPECTS OF ADAPTIVE FACADES	493
Marcin Kozłowski Chiara Bedon Klára Machalická Thomas Wüest Dániel Honfi	
STRATEGIZING FOR INFORMAL SETTLEMENTS: THE CASE OF BEIRUT	500
Hassan Zaiter Francesca Giofrè	
THE IMPACT OF USERS' BEHAVIOUR ON SOLAR GAINS IN RESIDENTIAL BUILDINGS	509
Rajčić Aleksandar Radivojević Ana Đukanović Ljiljana	
PRESERVATION OF ORIGINAL APPEARANCE OF EXPOSED CONCRETE FACADES, CASE STUDY: RESIDENTIAL BLOCK 23, NEW BELGRADE	517
Nikola Macut Ana Radivojević	

ADAPTIVE REUSE

CONVERSION AS MODEL OF SUSTAINABLE SOLUTION FOR DEVASTATED INDUSTRIAL COMPLEXES	529
Branko AJ Turnšek Aleksandra Kostić Milun Rancić	
SILO CONVERSION - POTENTIALS, FLEXIBILITY AND CONSTRAINTS	537
Branko AJ Turnsek Ljiljana Jevremovic Ana Stanojevic	
ARCHITECTURE OF MULTIPLE BEGINNINGS AS A TOOL OF SUSTAINABLE URBAN DEVELOPMENT	545
Milan Brzaković Petar Mitković Aleksandar Milojković Marko Nikolić	
INHABITING THE TOWER. THE PARADIGM OF THE FORTIFIED TOWERS OF MANI AND THE REUSE PROJECT	556
Rachele Lomurno	
ADAPTIVE REUSE THROUGH CREATIVE INDUSTRY TOOLS: CASE OF URAL-MASH, YEKATERINBURG, RUSSIA	564
Eva Vaništa Lazarević Timur Abdullaev, Larisa Bannikova	

URBAN MOBILITY, TRANSPORT AND TRAFFIC SOLUTIONS

POLICY FOR REDUCING EMISSIONS IN AIRCRAFT OPERATIONS IN URBAN AEREAS BASED ON REGULATORY AND FISCAL MEASURES	579
Marija Glogovac Olja Čokorilo	
SIMULATING PEDESTRIAN BEHAVIOUR IN SCHOOL ZONES – POSSIBILITIES AND CHALLENGES	586
Ljupko Šimunović Mario Ćosić Dino Šojat Božo Radulović Domagoj Dijanić	

MODEL OF SMART PEDESTRIAN NETWORK DEVELOPMENT USING AN EDGE-NODE SPACE SYNTAX ABSTRACTION FOR URBAN CENTRES 593

Bálint Kádár

THE ROLE OF SMART PASSENGER INTERCHANGES IN THE URBAN TRANSPORT NETWORK 604

Bia Mandžuka, Marinko Jurčević, Davor Brčić

CLIMATE CHANGE, RESILIENCE OF PLACES AND HAZARD RISK MANAGEMENT

THE IMPACT OF CLIMATE CHANGES ON THE DESIGN ELEMENTS OF CONTEMPORARY WINERIES - CASE STUDIES 617

Branko AJ Turnšek Ana Stanojević LjiljanaJevremović

DETERMINATION OF COMMUNITY DEVELOPMENT POLICIES USING URBAN RESILIENCE AND SYSTEM DYNAMICS SIMULATION APPROACH 626

Zoran Keković Ozren Džigurski Vladimir Ninković

QUALITIES OF RESILIENT CITY IN SYSTEMS OF PLANNING SUSTAINABLE URBAN DEVELOPMENT. AN INTRODUCTORY REVIEW. 634

Brankica Milojević Isidora Karan

PLACE-BASED URBAN DESIGN EDUCATION FOR ADAPTING CITIES TO CLIMATE CHANGE 641

Jelena Živković Ksenija Lalović

IMPROVING URBAN RESILIENCE, INCREASING ENVIRONMENTAL AWARENESS: NEW CHALLENGE OF ARCHITECTURAL AND PLANNING EDUCATION 652

Aleksandra Stupar Vladimir Mihajlov Ivan Simic

URBAN RESILIENCE AND INDUSTRIAL DESIGN: TECHNOLOGIES, MATERIALS AND FORMS OF THE NEW PUBLIC SPACE 659

Vincenzo Paolo Bagnato

THERMAL COMFORT OF NIŠFORTRESS PARK IN THE SUMMER PERIOD 666

Ivana Bogdanović Protić Milena Dinić Branković Petar Mitković Milica Ljubenović

LANDSCAPE ARCHITECTURE AND NATURAL BASED SOLUTIONS

SMALL ISLANDS IN THE FRAMEWORK OF THE U.E. MARINE STRATEGY – CHERADI'S ARCHIPELAGO IN TARANTO 679

Giuseppe d'Agostino Federica Montalto

LANDSCAPE AWARENESS AND RENEWABLE ENERGY PRODUCTION IN BOSNIA AND HERZEGOVINA 686

Isidora Karan Igor Kuvac Radovan Vukomanovic

SAVAPARK – A RESILIENT AND SUSTAINABLE NEW DEVELOPMENT FOR ŠABAC 692

Milena Zindović Ksenija Lukić Marović

ADRIATIC LIGHTHOUSES. STRATEGIC VISIONS AND DESIGN FEATURES 702

Michele Montemurro

LANDSCAPE ARCHITECTURE AND INFRASTRUCTURES: TYPOLOGICAL INVENTORY OF GREEK WATER RESERVOIRS' LANDSCAPE 710

Marianna Nana Maria Ananiadou-Tzimopoulou

THE BASIN OF THE MAR PICCOLO OF TARANTO AS URBAN AND LANDSCAPE "THEATRE" 717

Francesco Paolo Protomastro

INTERWEAVING AND COMPLEXITIES OF THE MAN-MADE ENVIRONMENT AND NATURE 725

Dženana Bijedić Senaida Halilović Rada Čahtarević

BUILT HERITAGE, NEW TECHNOLOGIES AND DANUBE CORRIDOR

DIGITAL TOOLS IN RESEARCHING HISTORICAL DEVELOPMENT OF CITIES 737

Milena Vukmirović Nikola Samardžić

APPLICATION OF BIM TECHNOLOGY IN THE PROCESSES OF DOCUMENTING HERITAGE BUILDINGS 751

Mirjana Devetaković Milan Radojević

GIS-BASED MAPPING OF DEVELOPMENT POTENTIALS OF UNDERVALUED REGIONS – A CASE STUDY OF BAČKA PALANKA MUNICIPALITY IN SERBIA 758

Ranka Medenica Milica Kostreš Darko Reba Marina Carević Tomić

MAPPING THE ATTRACTIVITY OF TOURIST SITES ALL ALONG THE DANUBE USING GEOTAGGED IMAGES FROM FLICKR.COM 766

Bálint Kádár Mátyás Gede

INVENTARISATION AND SYSTEMATIZATION OF INDUSTRIAL HERITAGE DOCUMENTATION: A CROATIAN MATCH FACTORY CASE STUDY 777

Lucija Lončar Zlatko Karač

CULTURAL LANDSCAPE OF ANCIENT VIMINACIUM AND MODERN KOSTOLAC – CREATION OF A NEW APPROACH TO THE PRESERVATION AND PRESENTATION OF ITS ARCHAEOLOGICAL AND INDUSTRIAL HERITAGE 785

Emilija Nikolić Mirjana Roter-Blagojević

ALTERNATIVE TERRITORIAL CHANGES OF HOUSING ESTATES TOWARDS A SUSTAINABLE CONCEPTION 793

Regina Balla

HERITAGE, TOURISM AND DANUBE CORRIDOR

- CULTURAL TOURISM IN THE BALKANS: TRENDS AND PERSPECTIVES. 807
Kleoniki Gkioufi
- CULTURAL TOURISM AS A NEW DRIVING FORCE FOR A SETTLEMENT REVIT-
ALISATION: THE CASE OF GOLUBAC MUNICIPALITY IN IRON GATES REGION,
SERBIA 814
Branislav Antonić Aleksandra Djukić
- CULTURAL AND HISTORICAL IDENTITY OF TWIN CITIES KOMÁR-
NO-KOMÁROM 823
Kristína Kalašová
- PLACE NETWORKS. EXPERIENCE THE CITY ON FOOT 830
Milena Vukmirovic Aleksandra Djukić Branislav Antonić
- STORIES WITH SOUP - CULTURAL HERITAGE MOMENTS ALONG THE DAN-
UBE RIVER 837
Heidi Dumreicher Bettina Kolb Michael Anranter
- ETHNIC AND TOPONYMIC BACKGROUND OF THE SERBIAN CULTURAL HERI-
TAGE ALONG THE DANUBE 844
Dániel Balizs Béla Zsolt Gergely

SPATIAL AND RURAL DEVELOPMENT

- BEAUTIFUL VILLAGE PROJECT: AN ARCHITECTURAL AND LANDSCAPE DESIGN
STRATEGY FOR NON-HERITAGE VILLAGES IN HEBEI PROVINCE 859
Dapeng Zhao Bálint Bachmann Tie Wang
- CHANGES IN DEVELOPMENT OF NORTHERN CROATIA CITIES AND MUNICI-
PALITIES FROM 1991 TO 2011: MULTIVARIABLE ANALYTICAL APPROACH 869
Valentina Valjak
- SPECIFICS OF DYNAMICS OF SHRINKING SMALL TOWNS IN SERBIA 879
Milica Ljubenović Milica Igić Jelena Đekić Ivana Bogdanović-Protić Ana Momčilović-Petroni-
jević
- BALANCED REGIONAL DEVELOPMENT OF RURAL AREAS IN THE LIGHT OF
CLIMATE CHANGE IN SERBIA– OPPORTUNITIES AND CHALLENGES 888
Milicalgić MilicaLjubenović Jelena Đekić Mihailo Mitković
- COLLABORATIVE RESEARCH FOR SUSTAINABLE REGIONALDEVELOPMENT:
EXPERIENCES FROM “LEARNING ECONOMIES” ITALY-SERBIA BILATERAL
PROJECT 899
Jelena Živković Ksenija Lalović Elena Battaglini Zoran Đukanović Vladan Đokić

ASSESSMENT OF VALUE OF BIOMASS ENERGY POTENTIAL FROM AGRICULTURAL WASTE IN LESKOVAC FIELD AND ITS IMPORTANCE IN THE SETTLEMENT DEVELOPMENT PLANNING 908

Mihailo Mitković Dragoljub Živković Petar Mitković Milena Dinić Branković Milica Igić

MULTIFUNCTIONAL FACILITIES – FROM PRIMARY FUNCTIONS TO SPATIAL LANDMARKS (STUDY OF TWO CASES IN SERBIA AND BOSNIA AND HERZEGOVINA) 918

Aleksandar Videnovic Milos Arandjelovic

THE NETWORK OF LOCAL CENTERS AS A TOOL FOR STRENGTHENING THE SUPER-BLOCK COMMUNITIES: BELGRADE VS. ROME

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ABSTRACT

The comparative study presented in this paper analyses the network of local community centers generated in the open spaces of the super-blocks of Rome and Belgrade. The focus is on the barriers that affect their functioning in the terms of connectivity. Considering the future development of local neighborhoods, the questions of accessibility and integration are raised, targeting the identified community centers and their emerging networks. This topic is important on the level of place attachment, addressing the issues of the everyday life quality within a neighbourhood, and the potential strength of the inner-community relationships. The main goal is to analyze the effects created by the existing physical barriers, using five principles of urban design defined by Jan Gehl's *Cities for people*. Two selected case studies represent the *functional city* concept, transformed into two different models. Certain barriers within them are the products of socio-political contexts, influencing the structure and inner-connectivity of the local community. The conclusion of the paper highlights the main reasons instigating the differences between selected neighbourhoods (in terms of the networking of local community centers), simultaneously suggesting possibilities and themes for further research.

Keywords: Belgrade, Rome, Super-block, Local community centers, Barriers

Introduction

The *functional city* concept (Le Corbusier, 1929; Athens Charter, 1933) was widely applied in the period of massive migrations of people to cities across Europe after the World War II. The great potential of the physical structure imposed by this model reflected in the higher density of inhabitants. In the cities with a long tradition, such as Rome, these structures developed in the border zone of historical centers, while some cities used new areas built in the functionalist manner as a symbol of new national identity (e.g. Belgrade - New Belgrade). It should be highlighted that in spite of their contextual social and political differences, the main unit of these structures is a super-block neighborhood. The critique of these structures (Jacobs, 1961; Gehl, 2011; Alexander, 1980-2005; Perović 1985) suggests a need for their reconceptualization. According to the global tendencies for neighborhood development (PPS, 2016; UN Habitat, 2015), a very important topic related to this need is the place attachment theory (Manzo and Perkins, 2006). Its essence lies in the development of individual and collective ties to everyday physical environment, within the patterns of beliefs, preferences, feelings, values, and goals that are shared through it.

Based on the previous research (Jovanović, 2017) inspired by theories about Hulls of open spaces (Alexander, 2005), the focus of this paper is on the barriers that disturb the networks

¹ Corresponding author

of local community centers within super-block neighborhoods of San Basilio in Rome and Old Airport in New Belgrade. These kinds of networks and types of local community centers (that they connect) will be briefly presented. After that, the barriers within these spaces will be emphasized. Finally, the comparative analysis will be carried out through Gehl's five principles of city planning (Gehl, 2016, p. 233): Assemble vs. Disperse, Integrate vs. Segregate, Invite vs. Repel, Open Up vs. Close In, Increase vs. Reduce. The results of this research could be used for a better understanding of different barrier types and for the development of tools which would overcome these spatial obstacles.

Functional cities in Rome and Belgrade

It is important to understand the functional city model and circumstances which caused its development both in San Basilio and Old Airport neighborhoods. After the CIAM IV conference held in 1933, the Athens Charter emerged as a new approach to city planning, where the functional city model was explained (Mašić, 1965). Le Corbusier (1929) writes that its main unit is an open city block with dimensions 400x400m and a density of 300 inhabitants per acre. These densities would be achieved through 12-story freestanding buildings, where open spaces occupy 48-85% of the block and consist of green areas, sports and recreation areas, nurseries and primary school. The cultural and commercial contents have been foreseen in other parts of the city. The "city lungs", as Le Corbusier calls the open spaces of such structures, represent a very important component of everyday life – "an extension of the apartment". On the other hand, the critique of this model, which does not have a possibility of universal application, suggests that city structures based on it have introverted communities, more cars than people, large distances which reduce the opportunity for closer contact, a sense of cold and impersonal spaces (Jacobs, 1961; Perović 1985; Alexander, 1980-2005; Gehl, 2011). In Rome and Belgrade, the functional city model has been developed in different ways after the World War II. For example, in Italy the number of citizens increased from 1,3 to 46,5 millions (Ferracuti and Marcelloni, 1982). With a help of Marshal plan between 1948 and 1951, the construction sector has played a central role in the political strategy that led the development dynamics of the entire Italian economy (Giofre, Palombi, Piraino i Terranova, 2000). In the second cycle of construction from 1964 to 1974, the technology of prefabrication in the construction of peripheral neighborhoods is used. Rome's residents were also under the strong influence of the Catholic religion through the Vatican, while the Christian Democratic Party won the 1946 elections and ruled until the 1990s. In Yugoslavia, after the period of monarchy, a new modern state was established under the Communist Party which ruled until the 1980s. Articles from this period (Belgrade Cultural Center, 1977; Višnjic, 1977) describe Yugoslavia as one of the largest construction sites in Europe. It is especially emphasized that the entire social life is taking place in the centers of local communities in New Belgrade, although they were a product of the political system. Also, due to the large investments in the construction of housing stock, cultural activities in the New Belgrade have been developed very poorly.

3.1 Previous research on super-blocks in Rome and Belgrade

It is interesting that Rome and Belgrade share some similarities in their territory management systems, the size of their central municipalities, as well as their number of inhabitants. As a result of the previous research concerning the development of Rome and Belgrade between the 1960s and 1980s (Figure 1), it can be concluded that in Rome super-blocks have been developed in the peripheral zones, while in Belgrade, beside periphery, the super-blocks spread across the entire municipality of New Belgrade (Jovanović, 2017).

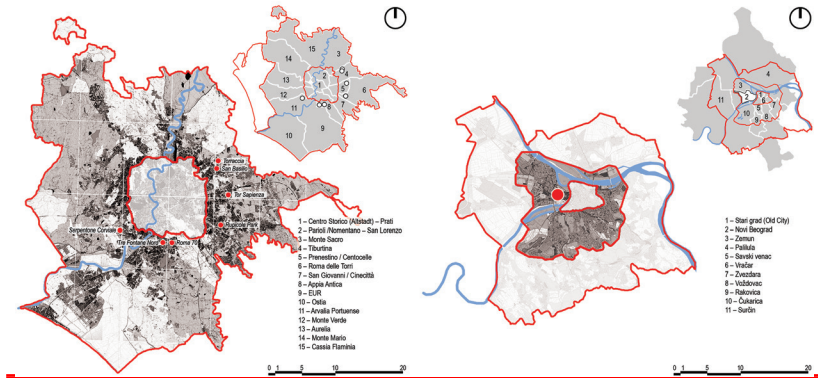
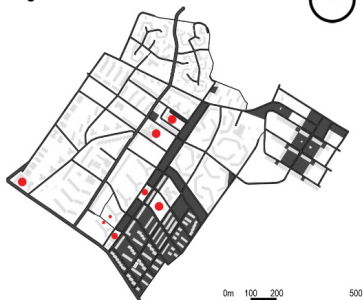


Figure 1: Overlapping the General Plans of Rome and Belgrade (Jovanović, 2017)

Also, it is important to stress out the position of the super-block neighborhoods in relation to the city center, which was a part of the previous research (Jovanović, 2017). All peripheral neighborhoods in Rome are 6-10 km distant from the center, or 90 minutes by public transportation. The municipality of New Belgrade is in a close proximity of the historical center, and its farthest point is about 10 km away, or 45 minutes by public transportation. It should be taken into account that the structure and distribution of neighborhoods on the periphery of Rome are conditioned by the morphology of terrain and the position of archaeological sites, in contrast to the New Town's settlements whose composition is designed on almost flat terrain in orthogonal matrix. The analysis of the accessibility of open spaces in super-blocks of Rome and Belgrade (Jovanović, 2017) resulted in the schemes of networks of local community centers, where it is evident that the open spaces of super-blocks in Belgrade are much more accessible than those in Rome. This situation occurs mostly due to the enclosure of certain parts of the settlement of San Basilio, which is why the access to some parts is not possible (Figure 2).

City: **Rome**
Municipality: **Municipio IV**
Neighborhood: **San Basilio**



City: **Belgrade**
Municipality: **New Belgrade**
Neighborhood: **Old Airport**

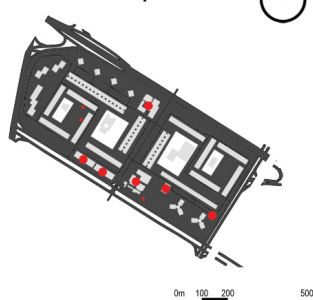


Figure 2: The network of local community centers within the neighborhoods San Basilio and Old Airport (Jovanović, 2017)

3.2 Local community center and barrier concepts

By defining two main concepts of local community center and barrier we can related the critique of the functional city concept and the contemporary tendencies of its functionality. Since one super-block represents a neighborhood which consists of at least a few hundred people, it is important to analyse meaning of the neighborhood and community concepts. Brint (2001) defines community as a group of people who share certain activities and/or beliefs, indicating loyalty, common values and emotions. He explains that within these communities, the mechanisms for stimulating social interaction provide relatively high interaction and group activities within the space of everyday life. Davidson (2008) stresses out that the most important elements of a neighborhood are stores and local places for community gathering, because in that way people develop the sense of place or non-place. Also, Booklend (2009) writes that knowing the surrounding and people within the neighborhood is important for a sense of collective belonging and safety. According to Mumford (2004), reflecting the interests and preferences of citizens in a particular area can lead to personal disintegration, but also represents a need for recognition through wider participation in a particular visible collective entity. He states that if the city represents a “stage of collective activity”, which implies that it is defined by the possibilities it offers to various social groups, certain constraints on its own capacity for activities are occurring. Having all above mentioned in mind, it can be said that super-block is a neighborhood where one or a few communities interact mutually in a certain open space where they can gather around cultural, social and recreational activities. In this research, these spaces represent local community centers. Alexander (Alexander, 2002-2005) defines the place that attracts people as a positive place which has a 15 geometrical properties. For this research the most important properties are strong centers, positive space and not-separateness. In this research, a barrier represents every physical element within a super-block which restricts or disturbs the movement between the centers of local community. Based on observation and the Gehl’s principles of city planning (Gehl, 2016; p. 233), it was concluded that the barriers in the open space of a super-block, within a network of local community centers, are: built ground floor facilities, parked cars, local streets, fences, green surfaces.

The comparative analysis of the networks of local community centers: Rome and Belgrade

In terms of spatial units, San Basilio consists of more than 15, while Old Airport has less than 10 units. The area of San Basilio is almost twice the size of the Old Airport neighborhood, but, due to the lower height of its buildings, both neighborhoods have similar number of inhabitants - 10-12 thousand. Both settlements are equipped with schools and kindergartens, but other local centers differ in terms of their functions. For the better understanding of local community centers and the typology of barriers, a comparative analysis of these two cases is presented in Table 1, while the Table 2 provides the comparison of two areas, based on the Gehl’s five principles of urban design.

Table 1: The comparative description of the centers of local communities and barriers: San Basilio vs. Old Airport

Type of local center	San Basilio (Rome)	Old Airport (Belgrade)
Recreational centers	Fenced football terrains.	Open terrains for various sports and recreational activities.
Playgrounds for children	Distributed in some fenced segments of the settlement.	Pretty good coverage of open neighborhood's playgrounds.
Commercial centers	The most of them spread along the main axis of the neighborhood on the ground level and there are few spatially dispersed commercial activities.	Two strong commercial centers at both ends of the central axis (every block has one), and spatially dispersed commercial activities.
Cultural centers	A new specialized cultural center established during the past few years.	Rare cultural activities without a specialized place.
Religious centers	The name of this neighborhood originates from this center.	The nearest religious center is not in this neighborhood (1,5 km distance)
Spontaneous centers	They appear in almost all segments of the neighborhood as the isolated places of community gathering.	They are dispersed throughout the neighborhood and available to different communities.
Organized centers	They appear in the form of sitting places positioned on the square on the central axis, bounded by high intensity roads.	They are created by the adaptation of spontaneous centers within open spaces.

Table 2: The comparative analysis of the neighborhoods, according to Gehl's five principles of urban design(Gehl, 2016; p. 233)

Principles	San Basilio (Rome)	Old Airport (Belgrade)
Assemble vs. Disperse	The dispersed position of spontaneous, sports and recreational centers and playgrounds within neighborhood segments disintegrates the network, while religious and cultural centers represent a gravitational areas for the majority of population due to the specificity of their function.	As there are open and always accessible centers, they are gathering different communities at the level of the entire neighborhood, and the different paths for approaching them reinforce their connection.

Integrate vs. Segregate	Organizing various activities within the cultural center has stimulated the meeting of individuals and the formation of new communities based on shared interests. Consequently, different communities become more familiar with each other. Commercial and organized centers are concentrated around the main axis of the neighborhood, with the aim of integrating different functions into the linear center. However, the frequent traffic is limiting access to the center.	It is characteristic that the emergence of one activity created a need for another, stimulating their integration. Block 37, in addition to the sports field, spontaneously developed an outdoor gym and a sitting place with tables, which were later included as an integral activity of the system through the project. In the similar way, in block 38 the formation of bowling playing field caused the creation of more seats for the tables.
Invite vs. Repel	The space in the form of a network that connects the centers is not attractive either for pedestrians or for cyclists due to narrow pavements, a large number of parked cars, and intense traffic.	Bicycle traffic develops on the edge of the blocks, but it is also possible to use the main path within the blocks. Large open spaces and buildings on pillars provide a better view of the environment and numerous tracks stimulate pedestrian traffic.
Open Up vs. Close In	The enclosure of individual segments of the neighborhood by fences creates an introvert community, while the closed floor levels of buildings make the structure of each segment even more fragmented. Although in several segments there is the possibility of passing through the yard where the fence is broken, the impression of passing through a private estate is present. A large amount of cars divides open space, creating "rough edge zones".	A good connection between open spaces is making more possibilities for better functioning of the whole network. However, barriers, as a partly closed ground floor of buildings, and parked cars, make communication difficult. Some leveled-up building entrances do not have a ramp preventing access for all.
Increase vs. Reduce	The construction and increase of the area of organized centers are underway along the central axis of the settlement. Increasing the number of seating places in the presence of protective and natural elements stimulates the retention of population in these areas.	There was an increase in the number of spontaneous centers (seating places) within open spaces, and their intensive use by different communities. Spontaneous emerging centers and activities are recognized by the city administration, which stimulates their establishment by creating certain places of consistent materials.

Conclusion

As expected, the social and political circumstances caused different development of neighborhoods San Basilio (Rome) and Old Airport (Belgrade), both in a physical and functional sense, in spite of their similar concept based on the functional city model. However, the main aim of this research was to identify barriers that make network functioning more difficult. The diversity of the centers in San Basilio is noticeable around the central axis of the neighborhood. Simultaneously, the same axis is bounded by intensive traffic and parking places, creating a discontinuity of the neighborhood open space structure as a whole. Although the southeastern area of the settlement is open and accessible, the only activities that occur there are urban gardens with very poorly developed commercial activities and fragmented spaces between buildings. The segments that stand out in this neighborhood are those which are enclosed (semi-public/semi-private) and inaccessible for passers-by. Even in places where there is a possibility of an access, the feeling of entering someone else's territory is very present. The neighborhood is not perceived as a whole, while streets represent its most public part and constantly accessible space. Considering the relationship between these neighborhoods and the city center(s), San Basilio needs to develop cultural and social contents, which is not the case with the Old Airport, where all open spaces have a high level of accessibility. However, Old Airport does not have a strong (religious and cultural) center like the one of San Basilio. The socio-political transition in Serbia caused a specific ownership issues, and the open spaces in this neighborhood remained in the domain of the city. Therefore, their appearance does not awake the feeling of someone else's territory but remains (and feels as) open for all. In both cases, the distance between the centers is less/about 0.5 km, but the closed ground floor of the buildings and the fences make these routes longer and therefore they are weakening the whole network.

Due to the distance to the city center, all centers of local communities represent positive places and strong nodes, and the most important feature of the activities in these super-blocks is their consistency through the network connecting these centers. In order to reach any community on the spatial level within the neighborhood, and to increase the quality of his own life, an individual needs to establish a certain value system through social, cultural or recreational activities through the local community places. As this theme is very complex, it is necessary that the team of experts from different disciplines constantly works with local communities to better understand their daily life and its physical manifestation through open public spaces. The aims of the previous, as well as this research, are to illustrate in a simple way, some of the rules and patterns existing within super-blocks, in order to better understand their problems, overcome them and predict their further development.

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CIP - Каталогизација у публикацији
Народна библиотека Србије, Београд

711.4.01(082)(0.034.2)

711.4:005.591.6(082)(0.034.2)

INTERNATIONAL Academic Conference on Places and Technologies (5 ; 2018 ;
Belgrade)

Conference Proceedings [Elektronski izvor] / 5th international Academic
Conference on Places and Technologies, [Belgrade] ; [conference organisers
University of Belgrade - Faculty of Architecture and Professional
Association Urban Laboratory] ; editors Aleksandra Krstić-Furundžić ... [et
al.]. - Belgrade : University, Faculty of Architecture, 2018 (Belgrade :
University, Faculty of Architecture). - 1 elektronski optički disk (CD-ROM)
; 12 cm

Sistemski zahtevi: Nisu navedeni. - Nasl. sa naslovnog ekrana. - Tiraž 150.
- Bibliografija uz svaki rad.

ISBN 978-86-7924-199-3

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Architecture (Belgrade)

а) Градови - Мултидисциплинарни приступ - Зборници б) Урбанистичко
планирање - Технолошки развој - Зборници

COBISS.SR-ID 262556428