



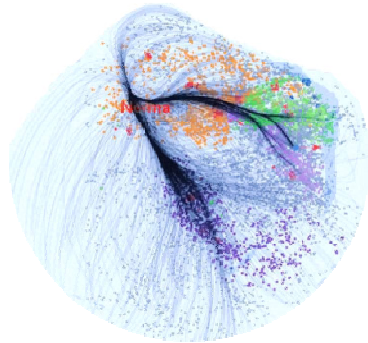
Balkan Architectural Biennale

INTERNATIONAL CONFERENCE:

“BALKAN PATTERNS IN URBANISM AND ARCHITECTURE: CHALLENGES”

19-22.12.2017. Belgrade

BOOK OF ABSTRACTS



Faculty of Architecture in Belgrade

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INTRODUCTION:

International conference „BALKAN PATTERNS in Urbanism and Architecture: Challenges“ seeks to enlighten various processes on Balkan territory that are related to urban development, urban planning, urban design and Architecture in whole, putting emphasis both on inner and outer crosscutting influences in theory and practice that are reflected in city and regional development in Balkan and region. The conference brings together theorist, academics, researchers, professionals, practitioners and city developers to discuss future patterns and paths of urban and architectural development based on its historical development and wider integrative regional and global processes. Therefore, the conference is an communicative arena between BABs 2017 exhibition and investment fair as well as a dialogue between academia and profession bringing together theory and practice to work together towards future patterns in urbanism and architecture. The conference has both scientific and professional character in order to bind these areas and enforce their mutual relations.

THE SPECIAL TOPICS OF THE CONFERENCE ARE:

- Architectural patterns: novelties and tradition
- Urban planning patterns: what planning do we need?
- Resilience, urban planning & design: issues to be addressed
- Urban design patterns: issues of designing
- Urban and architectural heritage patterns: where tradition meets future
- Urban transformations and transitions in the Balkans
- Energy efficiency refurbishment of public buildings —EmBuild project

dr Tatjana Mrdenović, grad.eng.of Arch.
Marko Stojanović, ArtHistorian
Conference conceptors

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CONSUMING TRADITION/MANUFACTURING HERITAGE: The Built Environment from Vernacular modes to Globalization

prof. dr Nezar AlSayyad¹

The changes that the world undergone in the past few decades have been monumental particularly in challenging well established notions of time and space. This is requiring that architects and planners need to find different frames of reference and a recalibration of the traditions involved in the production of the built environment. For example, heritage attractions in this global era offer income-producing opportunities to some of the poorest, as well as the richest, communities in the world. But the mass tourism that follows has often resulted in the irreversible destruction of traditional places and historic sites. This in turn has inflamed international passions and caused anxieties among local communities.

Understanding the connection between heritage preservation and tourism development requires as to ground it in both history and political economy. Studies of post-colonial urbanism have provided valuable insight into the politics of heritage and the related preservation discourses. It is important to try to understand how global consumers today seek “difference” and “hospitality” as economic goods, and how producers or suppliers, often in the Third World, make their living catering to this demand.

Today, one may distinguish three types of physical environments produced with the planned intent of making them simulacra and places for the representation of the cultural tradition of the other. The first type is dream landscapes that Replicate Historical Settings based on the notion of using history to create a, a “Wizard of Oz” like-place where all conflicts within a given culture are resolved, and where all cultural aspects are reduced to their basic representations. A second type of touristic environment seeks to exploit cultural heritage, but their claim to history is non-existent. The third type is nostalgic places that exploit cultural heritage in attempt to normalize it for everyday life. This talk will explore these different environments and reflect on the increasingly complex relationship between tourism and heritage in the current era of globalization.

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NATURE AS SYMBOL: TITO'S MENAGERIES AS MICROCOSMS OF YUGOSLAV POLITICAL SPACE

ass.prof. dr Tijana Vujošević²

The design of the material environment involves conceptualizing buildings, cities, and landscapes. How can we talk about genres of design which involve the management of animals and what is its significance? Is the way people form, manage, and nurture animal assemblages an equally important and equally meaningful way of shaping the environment? This paper addresses these questions by looking at the two most important menageries of Communist Yugoslavia — the zoos on the island of Brioni and the Belje hunting grounds. The two menageries were supposed to mirror two Yugoslav political territories, a global and a local one. Brioni with “exotic” species from Africa and Asia were the reconstruction of the non-aligned alliance. Belje, inhabited by “autochthonous” creature and situated between Serbia and Croatia, was the manifestation of Yugoslav “brotherhood and unity”.

Throughout history, exotic animals represented political power, worldliness and the mastery of nature. Noah's Arc, the Medici lion collection, Louis XIV's menagerie at Versailles, the modern zoo... All of them are not only physical but also representational spaces, in which animal assemblages symbolize a system of rule, a set of beliefs, and the scope of collective knowledge. It was no different in the Yugoslav case, where Brioni and Belje figured as microcosms of global and local political space created by Tito's regime. The design and management of fauna articulated Yugoslav notions of territory and authority. Its workings and significance shed light on the unique world-image of the Yugoslav Communist regime, its aspirations and idiosyncrasies.

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POST-CARBON RESILIENCE: A TALE OF GULF CITIES' EMERGING ARCHITECTURE AND URBANISM

prof. dr Ali A. Alraouf³

After decades of extravagant exploitation of the lucrative revenues from oil and gas, Gulf cities within the Middle East context, are facing unprecedented challenge. Oil and gas resources are either drying up or swiftly alternated by more clean and cheap renewable resources. The post Carbon paradigm is approaching swiftly and the latest decrease in oil prices is validating the unexpected. This paper aims to provide a better understanding on how multiple possibilities for the construction of knowledge-based development initiatives in Gulf cities can achieve the needed transformation into resilient cities in the post carbon paradigm. This paper therefore explores key aspects of knowledge-based development and how it can be a resilient catalyst for a better development of Gulf cities in the near and far future. The paper will analyze the contemporary urbanity of major capital cities in the Gulf to examine the impact of such paradigm change on their planning, development, urbanity and architecture. A rigorous evaluation process will be conducted to illustrate the relative effort towards creating a more resilient urbanity that would allow Gulf cities to guarantee a more prosperous future for its citizens (locals and Expatriates). The paper focusses on how Gulf cities resort to a shift from resources economy to knowledge economy to provide a resilient model of development which responds to the challenges of decline of oil prices, city governance challenges, unique demographic profiles, and a qualitative shift towards preserving nature, heritage and local assets. With such comparative study, the paper aims at providing an alternative understanding of the needed new paradigm in urbanism within the contemporary Gulf cities which would allow for a diversified economic approach and a more holistic implementation of resilient and sustainable principles of development. The outcome of such comparative study would enlight current and future plans for contemporary Gulf cities. More significantly, it will provide an additional understanding to the pertinent questions of the resilience concept and its relation with development challenges in a perpetually changing Middle East and Arabian Gulf States.

. *Keywords: Gulf Cities; Post oil Era; Post Carbon Urbanism; Resilient Gulf Cities; Knowledge-based Urbanism.*

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CHALLENGING FUTURE(S): URBAN INNOVATIONS IN THE AGE OF FEAR

asoc. prof dr Aleksandra Stupar⁴

Exposed to unavoidable natural forces and shaken by drastic corrective processes, cities always represented a demonstration of our own failures and a perplexing expression of a self-proclaimed but unconfirmed omnipotence. Simultaneously, they have been indicators of civilization's ups and downs, acting as a melting pot responsible for creation, diffusion and modification of ideas whose influence might be ambivalent.

Through history, different environmental, economical or social challenges have triggered a number of theoretical speculations, visions and forecasts, which influenced upgrading of urban policies, planning methods and architectural practice as a response to the modified perception(s) of multiplying fears, environmental risks, contextual uncertainties and increasing global anxiety. The accumulating problems of our time (e.g. the aging population, global warming, hyper-urbanization, economic turbulences and fast-shifting political landscapes) have been additionally magnified by the increased cross-border mobility and the threat of terrorism. At the same time, De Cauter's seven strata of New Fear (2004) - demographic fear, dromophobia, economic fear, xenophobia, agoraphobia/political fear and the fear of terrorism, influence our behavior, challenging the openness of our systems and shaping new 'shelters' in a form of self-sufficient cocoons. These spatial fragments, frequently controlled and protected by the latest technology and innovations, test the vision of the future based on a collection of contemporary (anti)utopias or, according to Foucault, heterotopias. However, the ecology of fear is confronted by the ecology of hope, which is gradually embedded in numerous expectations regarding desired futures, i.e., sustainable transitions, resilience, social equity, security and the potential of new technologies. Based on the idea of an "ecological/environmental citizenship" and the "green state", which should provide an efficient symbiosis of environmental values, political rights and obligations, these emerging concepts confirm the complexity of our world, exposed to the flows of globalization. Focusing on the relationship between cities, civilization fears and innovativeness, the presentation will address different contemporary urban phenomena instigated by internal and external threats of our epoch, reflected in new spatial typologies, innovative approaches and their amalgamation with urban hardware and software.

Keywords: city, fear, innovation, future, ecology

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THREATS AND OPPORTUNITIES FOR THE TRANSFORMATION OF URBAN ENVIRONMENTS

prof. dr Guido Cimadomo⁵

At a stage of deep and very rapid changes in society it is important to understand the effects they can have on the built environment that surrounds us. The transformations of the beginning of the twentieth century that led to the definition of a properly modern society can serve to understand those that are shaping the future of the twenty-first century. Recognizing the importance of flows in the configuration of the contemporary city, and the role of certain technological companies by their impact on the media and economies of different scale, their possible effects on the city are evident. In addition to the physical transformations, we intuit the possibility that different solutions for our needs will be produced, customized according to what companies know about our habits. It is therefore easy to imagine how each citizen can live in a fragmented and tangent world to the people around him, although this same technology offers opportunities for participatory transformation.

We look at the possible effects on the configuration of the city of the future, recognizing the increasing impact that information technology has on urban development. Its hypothetical fulfillment should be an alert for those responsible for urban planning to take into account these trends, assess possible threats, and take advantage of the opportunities that open up for an increasing enjoyment and social inclusion in the urban context.

Key words: Urban transformations; Community participation; Information technology.

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EFFECTS OF NEO-LIBERALISM URBANISM IN WROCLAW WEST END

prof. dr Laura Verdelli⁶

In recent decades in most of Central and Eastern European (CEE) cities we can observe a more or less voluntary turn towards neo-liberal urbanism. This effect started first with decentralisation, directly followed by a process of deregulation of land market, privatisation of housing and housing construction that became the major features of policy-making, housing policy and urban planning. Deregulation, decentralisation, privatisation and commodification became the main pillars of public policies and drastically transfigured the landscape of the former socialist system opening the door to the action of powerful groups of private stakeholders, in particular in the sector of buildings construction. *“Housing offers an excellent research site to grasp the reconfiguration of the state and the complexity of private and public at the local level”* (Bodnar, Molnar, 2010). If, following some scholars, we assume that not only socialist city (e.g. Dangschat, Blasius, 1987; Fisher, 1962; Hamilton, 1979; Sheppard, 2000; Smith, 1996) but also post-socialist city (Sýkora, 2009) exist, we can generally observe that the *“the state no longer has a monopoly on urban development since it has relinquished ownership of the majority of urban land, real estate and means of production; resources including land and property are distributed according to market principles”* (Hirt, 2013). Of course, if we can start with this generalisation, we also have to detail specificities of each situation and breakdown different contexts that show that there are several post-socialist city types, and that we can at least identify *“five key elements of spatial composition: overall spatial articulation, scale of urban development, functional balance, building typologies, and urban aesthetics”* (Hirt, 2013). This paper observes the specific situation of a medium size post-socialist city in Poland and tries to decrypt the space reconfiguration between uncontrolled sprawl and local institutions efforts to reorganise urban growth. What we can today observe, through this specific case study, is the functioning of the recent neo-liberal organisation in a combination with the past socialist system and “model”. In fact, some remaining of the past values plus some Western European influences lead to a contradictory overlapping between neo-liberal urbanism and the role of the public institutions in supplying inhabitants with infrastructures, services, networks and the connection public open spaces (streets and roads, squares, and land of public utilities) where no compensation by the developers is asked. *“Yet, the legacy of socialist urban planning and imagination has neither just disappeared, nor did it come to coexist peacefully with the new. Rather, the story is one of conflict and hybridity, of*

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replacement as well as of recodification" (Dmitrieva, Kliems, 2010). This paper would like to raise the question of the unequal relation between developers (by definition profit makers) and public institutions (if the concept of public service realm still has a meaning) in the making of a contemporary peri urban polish city. "*Naturally, the dismantling of the socialist system, with the ensuing shift in the balance between the public and private realms, has led to a massive reorganization of public space within the changing structure of the post-socialist city*" (Stanilov, 2007b).

Key words: Post-socialist city, neo-liberal urbanism, gated communities

OLD MODEL OF NEW SOCIAL AND CULTURAL REALITY

prof. dr Mihajlo Zinoski⁷, PhD, Iva Kolevska, M Arch⁸

This paper presents the project design process where local authorities should anticipate the key aspects of socially significant needs in the process of planning considerations. The success of implementation of sustainable architectural project depends on development of social process that meet the needs of community current members, but also to support the future generation development.

The key assumption presented in this paper is architectural research project as a tool to argue between aprioristic doctrines of ecological sustainability versus social sustainability. Therefore the key hypothesis is that hybrid architectural concept with multiple meanings shall produce social cohesion by attracting diverse group of users.

Key words: Social sustainability, multiplicity, hybrid.

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DECONSTRUCTIVISM IN TIRANA IN THE EARLY 2000

Florian Nepravishta⁹, Gjergj Ruci¹⁰

After the collapse of communism in the 90s in the transition period Tirana experienced a need for new private developments, mostly housing buildings. The main qualities of these constructions were low costs and regular plan shapes. The vigorous economic development after year 2000 created the space for better and contemporary designs. Albanian architects inspired by international architecture experimented in various styles. The most interesting movement in those years was following the ideas of deconstructivism philosophy. The writings of Peter Eisenman and Rem Koolhaas, the works of Daniel Libeskind and Frank Gehry were an inspiration for the Albanian deconstructivism. Coloured deconstructed facades were created as a response of a grey dull environment filled with rectangular cuboids with no style or architectural identity.

This paper analyses the architectonic movement and the deconstructivist designs produced by Albanian architects. It recalls their philosophy, the ideas and architectonic projects developed in those years. We analyse the social-economic situation in Tirana at the start of the new century and its impacts on the built environment in the capital of Albania. We present design ideas and buildings that embraced deconstructivism. Concept designs, manifestos of the architectural firms and original materials from their archives will be part of the paper. Structure, building technology, façade materials, geometry and form will be explained in detail. Built examples of these ideas will be presented. This paper aims to emphasize these particular architectonic interventions from a formal point of view and their impact on the built interventions. Conclusions from the architectonic analysis on this decade will be the final part of the paper. key words: deconstructivism, contemporary architecture, transition, Tirana, buildings, facades, colors.

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BALKAN PLANNING — WHERE EAST COULD MEET WEST: THE NEW URBAN AGENDA AS OPPORTUNITY FOR BUSINESS AS UNUSUAL

Frank D'hondt¹¹

The Balkan region has always 'hung' in between West and East, even between North and South, at least in Europe. In some eras the Balkans played a role as connector and unifier, but at some times rather as divider or disruptor. The state of urban planning and architecture in any given era is always a reflection of the regional and local disposition. At the Balkans southern edge, Athens City State was a long-due forerunner on metropolitan planning and governance in the Antiquity Age, with a short-lived rebirth after the Greek independence; while at the northern edge of the Balkans, Belgrade flourished in the High and Middle-Ages, with a remarkable but dramatically ending capital city role in former Yugoslavia. The two cities are still Balkans' main cities, with Thessaloniki as in-between regional city on the cross-roads of both north-south and east-west trade corridors. Belgrade is trying to redefine its regional role and ambitions, while Athens is simply trying to survive after the 2008 financial downfall. While 'Balkanisation' became a geopolitical term to describe the process of fragmentation or division of a region into smaller regions that are often hostile or uncooperative with one another, initiatives as this Balkan Biennial could try to restore lost and forgotten historical and economic ties, beyond the 'outdated' religious ties of Eastern Orthodoxies. However, both secular and religious 'planning traditions' — such as the Athens Agora and Acropolis, as well as the Belgrade fortress and Serbian Orthodox monasteries, are all expressions of the strong bonding between people and urban or natural spaces — somehow lost in a direction-void 'modernisation'. While European urban/planning revival initiatives provide ample inspiration for a Balkan style renaissance, also extra-continental 'East' — e.g. China, and 'West' — e.g. Colombia, USA offer some interesting benchmarks to re-align the 'Balkan way of (not) doing (proper) planning' with the 'business as unusual' principles and guidelines provided by the New Urban Agenda and the International Guidelines on Urban and Territorial Planning. The lecture will further explore these guidelines and illustrate with some interesting practices, including Wuhan's transformation of Zhongshan Avenue, Quito's preservation of its historic district and Portland's transition to a less-car dependent and carbon-emitting city.

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BYZANTINE REVIVAL AS NATIONAL STYLE IN CROATIAN ARCHITECTURE 1910 – 1945

asos. prof. Dragan Damjanović¹²

While the Neo-Byzantine style was in 19th -century architecture in Croatia exclusively used for architectural projects funded by the Serbian Orthodox Church (such as parochial churches in Zagreb, Dubrovnik and many other towns and places), in the period shortly before the First World War, it also started to be used in the architecture of the Catholic Church. The crucial role in spreading the use of the style was played by the pioneer of Croatian modernist architecture Viktor Kovačić and his design for St Blasius' Church in Zagreb (built in 1910-13).

Neo-Byzantine appeared primary due to ideological and political reasons, because it served as a reference to the period of Croatian political independence. Along with political reasons, the Neo-Byzantine style emerged also as a response to the extreme ornamentalism of the Vienna Secession. Early medieval architecture in Croatia, or more precisely Dalmatia, and Byzantine architecture in general, featured elements whose simplicity matched the sensibilities of increasingly permeating modernism.

During the 1920s the Neo-Byzantine style became dominant in church architecture, primarily owing to architect Stjepan Podhorsky who applied the style in his numerous church building designs. The popularity of the style flourished especially in relation to the millennial celebration of the Croatian kingdom (925 – 1925), connected to which a large Neo-Byzantine church was built in Duvno (present Tomislavgrad in Bosnia and Herzegovina) sponsored by the Yugoslav Karađorđević dynasty.

The Neo-Byzantine style at the same time turned into the main national style of Serbs in the Kingdom of Serbs, Croats and Slovenes. However, it appropriated motifs mostly from late medieval Serbian church architecture, which was characterized by much more lavish decoration than early medieval architecture in Croatia. The last Neo-Byzantine churches were built during the 1930s and in the early 1940s. Since modernism began pervading Croatian architecture, the majority of architects turned to designing modernist or some sort of mixed Neo-Romanesque, Art-déco and modernist church buildings.

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BETWEEN THE SIMILARITIES AND DIFFERENCES: BALKAN ARCHITECTURAL CONNECTIONS AND DISCONNECTIONS (FROM THE LATE 18TH TO THE BEGINNING OF THE 21ST CENTURY)

prof. dr Aleksandar Kadrijević, Ph. D., University of Belgrade — Faculty of Philosophy

Due to the primary insight into architecture outside the region, and very rarely in its own regional environment, the roads of war and peacetime destructors, the annulment of the signs of another identity, the newer Balkan architecture shows the general characteristics of closed cultures in a small geographical area burdened by deep differences.

In the atmosphere of high-level military-political clashes and peacetime animosity, the Balkan countries and peoples could not develop more fruitful cooperation in the architectural field. In order to emancipate and achieve European standards, each national environment was initially linked to the architectural system of more developed cultures, of which it depended politically or tended them as cultural patterns. In such conditions, the national cultures of the Balkan peoples secularized the semi-colonial status, developing specific forms of European nationalism, which also emphasized their speciality and identity in the field of architecture. Not since all this happened to a relative narrow margins, national maximalism had not stopped endangering each other, which continues in part today. There are also few examples of mutual cooperation and coherence in the Balkan architecture, due to which the development of individual environments has remained uneven and uncoordinated, burdened with numerous limitations. Therefore, about the newer and contemporary Balkan architecture, can still first speak as a phenomenon of divergent parallels, in which diversity of history and tradition largely nullified attempts at regional permeation.

COLLABORATIVE RESILIENCE: TOWARD NEW URBAN DESIGN PARADIGM

dr Sonja Radovic — Jelovac¹³, dr Tatjana Mrdjenovic¹⁴

In this paper, we provide a synthesized overview of what collaborative resilience concept can offer urban design and planning with reference to the meaningful and rare contributions in this section as SES Resilience¹⁵ informs and improves planning theory and contemporary urban design. This research is based on the resilience theory, however it integrates elements of collaborative planning, current ecological concepts from the aspect of CAS - complex adaptive system theory, as well as developing of transdisciplinary integrative collaboration through collaborative understanding of SES resilience.

Resilience theory is an important addition to existing theory of landscape architecture and urban design practice. It is not an approach that resolves everything but is starting to change some gaps in understanding and adequate engagement of urban design. This is not a completely different or beginning of new approach but continuance of existing research and design strategy for a more successful usage of urban design practices. We believe that it is necessary to develop integrative models that unite different theories and develop advanced collaborative approaches aimed at creating “mental model” for a specific social-ecological situation.

In that light we are positioning in the domain of Resilient Urban Design as bridging discipline between strategic planning and integral urban design, landscape ecology and Collaborative resilience claiming that urban design is not a matter of scale but approach so in this paper we will be discussing how different understanding of SES resilience role affect modelling processing for planning and urban design in respect to laid down hypothesis, investigating the case Integrative strategy for Tourist Valorisation of NP Skadar Lake.

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THEMATIC SESSION 1:
ARCHITECTURAL PATTERNS: NOVELTIES AND TRADITION

THE EVOLUTION OF THE BALKANS HOUSING TYPOLOGY: GUIDELINES FOR ACCOMMODATING THE MILLIENIAL GENERATION'S NEEDS

Jana Kulić, M.Arch¹⁶, Marina Višić, M.Arch¹⁷

The purpose of this study is to determine the needs of the Millennial generation in relation to their living environment, and to predict the guidelines for creating a housing typology that could accommodate those needs. The Millennials, a demographic cohort including people born between the years of 1982 and 1999,¹⁸ are currently at the point in life when they are in search of their own homes. However, the available housing has not evolved in order to meet the needs of this new generation.

The housing typology in the Balkans has transformed under the changing socioeconomic circumstances of different historical periods: the period between the two World wars, the period after the Second World War, and during the 60s and the 70s. Since the beginning of the 80s, the already established model of the housing unit continues to be used with minimal adjustments,¹⁹ not taking into account the specific needs of the Millennials.

Widespread use of technology, especially the Internet and social media, directly impacts the formation of a different set of values and lifestyle of the Millennials, creating a generation that is always connected. The urban environment enables them to pursue desired education and jobs, while remaining socially networked. However, due to poor economic conditions, and unstable job markets, they don't find the current housing options affordable. Moreover, the change in typical life stages, due to the delay of marriage and child bearing, is not reflected in the current housing typology.

The results of a conducted survey will provide a more detailed insight into the needs of the Millennials in a local context. This will enable a greater understanding of the research problem, and contribute to making a relevant information base for developing the guidelines which will make way to the evolution of the housing typology in the Balkans.

key words: housing typology, Millennials, living environment, home, social factors, demographic cohort

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¹⁸ William Strauss and Neil Howe, *Generations: the history of America's future, 1584 to 2069* (New York: Morrow, 1991)

¹⁹ Vladimir Lojanica, "Razvojeogradskestambenarhitektureodkraja I svetskog rata do danas" (lecture, Faculty of Architecture, Belgrade, May 28, 2001)

PATTERNS OF FLUIDITY: MOSTAR INTERCHANGE IN BELGRADE

Bojana Jerković-Babović, M. Arch²⁰, Nebojša Fotirić²¹

The main idea of this paper is to research the patterns of fluidity in the relations between contemporary urban perceptual experiences and architectural elements of Mostar Interchange in Belgrade. Fluidity is positioned as the main conceptual phenomenon, simultaneously causing and manifesting in contemporary transformations of perceptual and spatial conditions into a constant process of dynamic interactions and flows of sequences of ambient, tectonic and formal elements. Contemporary context of global informational, communicational, spatial networks requires processes of constant flows and dynamics. Therefore, urban and architectural experiences are increasingly being transformed into the fluidity qualities of the dynamic everydayness. Accordingly, this research is focused on the relations between the elements of form, tectonics and ambient in the Mostar Interchange architecture and dynamic perceptual experiences in the process of constant movement.

The paper is based on the study of Mostar Interchange space in Belgrade, former symbol of the city modernization and networking, today understood as a specific urban landscape of dynamics and fluidity. In addition, this research is contextualized by reading the new sense of perceptively, sensory and experiential values of this city area through the analysis of the architectural patterns of fluid experience. The dynamic concept of flows is positioned into the spatial perspective as a design method and architectural criteria of creating the fluidity patterns. Therefore, the aim of this paper is to position fluidity and notion of flow into the spatial perspective through the patterns of continuity, dynamism, sequence, rhythm and repetition of formal, tectonic, ambient elements.

key words: fluidity, flows, architecture, Mostar Interchange

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DUBROVNIK 1950/1956 — AFFIRMATION OF THE MODERN ARCHITECTURE IN YUGOSLAVIA

Marko Stojanović²²

After the relations between the FNR Yugoslavia and the USSR became unstable due to political differences, the issue of official architectural style which the new socialist state would promote as part of its identity was opened. Slowly, a deviation from socialist realism started, and most architects had a desire to publicly express their views. Opportunity appeared in 1950, when the First Yugoslav Consultation of architects and urbanists was held in Dubrovnik, where architects from all the republics sent their representatives. Almost all participants unanimously condemned soc-realism and stood in defense of international modern architecture. Especially the architectural and urban ideas of the architect Le Corbusier were supported. Shortly after the consultation, the application of the agreed ideas starts in the initial phase of the construction of Novi Beograd (New Belgrade), and later on during the construction of other new cities (such as Gorica, Ljubljana, Zagreb, Sarajevo, Skopje, etc.).

On the other hand, just six years later, also in Dubrovnik, for the tenth time, the international consulting of architects and urban planners - CIAM X took place. Perhaps surprisingly paradoxical for Yugoslav architects and urbanists, but their colleagues from the world after the already prepared debate, almost unanimously decided that architectural and urban ideas of Le Corbusier and his older colleagues from CIAM are overrated and must be re-examined and perfected. Le Corbusier himself assumed the epilogue of this counseling, and he did not even appear with a suspicious explanation that he was prevented.

Yugoslav architects were present as observers in 1956 (Yugoslavia did not have a representative in CIAM) and were acquainted with the details of the situation. The question which arises is why, despite the views of their colleagues from the world, Yugoslav architects and urban planners without significant corrections, continued with the application of Le Corbusier's ideas in the construction of Yugoslav cities?

Key words: architecture, Yugoslavia, modern, architects, urbanists, CIAM, Le Corbusier

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ARCHITECTURE OF MASS EVENTS IN YUGOSLAVIA: THE MATURATION OF SOCIETY AND THE SEARCH FOR "STYLE" USING TECHNOLOGIES AND CONSTRUCTIONS

Bratislav Ilic, Arch²³

A certain type of hidden ideology, pamphlet, and political manifesto has always accompanied the paradigm of the development of large public projects. After the Second World War, the rise of the culmination of the instability of the social and political system Yugoslavia has long sought for architectural programs of objects and complexes of mass events and manifestations. In this paper, the development and transformation of the topics will be touched upon, following the paradigm of the transition of the post-war society, by laying down the concepts of cooperative homes, the large stadium, the gym parks, the sports stadiums, the universal halls. In addition to the classic concepts of modern architecture, the shell as a form, acquires a wider application in architecture, which is reflected in the enrichment of previously reduced cubic forms. Shell has great significance as the new, perhaps the most powerful visual discourse to which a large number of authors are searching for a new expression, incorporated visually as a factor of disintegration of the existing assemblage, while simultaneously encouraging a complete shift in design based on the application of new technologies and unconventional technical solutions.

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THEMATIC SESSION 2:
URBAN PLANNING PATTERNS: WHAT PLANNING DO WE NEED?

LACK OF DIVERSE LIVELIHOOD OPPORTUNITIES - POSITION OF BELGRADE YOUTH IN THE SYSTEM OF SOCIAL HOUSING SUPPORT AND POLICY

Margita Vajović²⁴

Resilience is a very important topic in contemporary thinking about the city. Our cities are confronted with rapid changes - both acute and chronic, that can vary from sudden natural disasters to problems accumulated because of inconsistent public policies, such as poverty and housing shortages. Definition given by 100 resilient cities says that city resilience is the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience. Capital of Serbia has been dealing with chronic stresses for decades, and with the most recent natural extremes as a consequence of climate change like floods in 2013 and regular heat waves during the summer, it became obvious that we need a long term plan how to cope with these changes. Belgrade has begun establishing its urban resilience strategy by forming the Working Group for the Resilience Program for the City of Belgrade. In 2017 Office of Urban Resilience of the City of Belgrade in collaboration with the strategic partner BuroHappold Engineering has published the Preliminary Resilience Assessment (PRA) of Belgrade in which identifies the list of primary shocks and stresses relevant for Belgrade, that should be priority fields for intervention. The topic which will be further discussed in this paper is based on primary chronic stresses that Belgrade faces. PRA has defined four fields of those stresses:

1. Poverty/Inequality/Misery
2. Demand for health services exceeding supply
3. Unemployment and lack of diverse livelihood opportunities
4. Unclear local identity, lack of social cohesion and community participation

PRA further elaborates item number 3 by saying that Belgrade experiences high levels of unemployment. The unemployment rate of the metropolitan area is officially 13.9% overall, however some surveys indicate 18.8%, and administrative method estimates it to cca. 30% (2015). It doubles dramatically for youth unemployment, making it the poorest portion of population. As a result, family support is common through adulthood: 67% of Serbian youth live with their parents, and many households depend on pensions of their elderly members as the only regular income, further aggravating the previous stress.

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According to the World Bank and World Economy Forum, Serbia has been, for two decades, the first in the region, and the second in the world for emigration of educated young people (ranked 137th out of 138 countries for capacity to retain and attract talent by the WEF's 2016/17 Global Competitiveness Report). Though precise data is not available, the "brain drain" keeps increasing. The estimations of total Serbian emigration ranges from 4.5 to 11 million (compared to the 7.1 million living in the country), and the number of highly educated people in this emigration has grown tenfold. This is a very interesting topic for research if we compare this problem of "brain drain" and inability of youth to accomplish their personal and professional goals in Serbia/Belgrade to national and city level strategies and programs addressing youth. As already mentioned in PRA, 67% of Serbian youth live with their parents.

The topic of this research will mainly address this problem in the context of new law on Housing and building maintenance adopted in 2016, or rather the place of youth as a vulnerable group that should be included in social housing policy of Serbia. Applied methodology will be the analysis of previous literature and practice in this topic, as well as the primary documents such as Law on Housing and building maintenance ("The Official Gazette of RS" number 104/2016), Law on Youth ("The Official Gazette of RS" number 50/2011), National strategy for youth for the period of 2015 to 2025, General urban plan of Belgrade, documents and programs issued by relevant ministries and institutions on national and city level.

Results of this research should contribute to the future elaboration of this topic in formal documents and improve the position of youth in the social housing policy. This means that youth is yet to be recognized not only as a vulnerable group that needs systematic support from the state and the city in resolving their housing issue, but as an active participant in elaboration of goals and actions in the field of social housing for youth by youth. Hopefully, this topic will be recognized by state and city authorities as crucial in efforts to decrease emigration of educated young people, support human talent locally and establish innovation and knowledge based economy.

key words: resilience, Belgrade, youth, social housing, brain drain, emigration, aging population, poverty

SPONTANEOUS PLANNING PATTERNS IN BELGRADE, SERBIA: DO WE NEED PLANNING?

Biserka Mitrovic, PhD²⁵Jelena Maric, MArch²⁶Tamara Vukovic, MArch²⁷

The paper is aiming to stress the importance and magnitude of the spontaneous and informal city growth in Serbia and especially in Belgrade. The informal planning patterns that have emerged spontaneously and have spread all over the Belgrade city territory during more than four decades, have shaped not only the planning patterns of the Serbia capital, but have also influenced the patterns and structure of ‘formal’ planning.

The scale and the structure of Belgrade spontaneously grown areas place Belgrade suburban growth somewhere in between the third-world sprawl and post-socialist housing transformation process (Tosics, 2005). As opposed to many other developing countries facing dual nature of globalisation — the economic growth of the cities on one hand and consequential demographic pressure and constantly growing informal settlements on the other - the case study of Belgrade offers the possibility to explore how different political and economic background, as well as the enormous immigration pressure shaped the city territory. This pressure has continued since 70ties till present days and as result, many previously agriculture areas at the fringes of the city have become illegal urban sprawls. As the time has proven, the country did not manage to limit the informal growth in the acceptable manner, neither through restrictive policy and plans, nor through the legalization process (Mitrovic, Antonic, 2013).

This paper will enlighten the specific political, social and economic causes of the genesis of the informal Belgrade growth and will focus on the parallel processes of informal and formal planning patterns in Serbia and Belgrade, as well as their mutual influence. The analysis will offer the chance for better understanding of this unusual symbiosis and will suggest the recommendations for possible progressive bottom up approach, the reverse process- from informality to policy in order to achieve better quality of planning patterns for the informal settlements.

key words: planning patterns, informal city, housing transformation process, suburban growth, bottom up approach.

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RESILIENCE AND URBAN PLANNING: ISSUES TO BE ADDRESSED

Senzekile Mlambo²⁸

The history of South Africa is a turbulent one as a result of the oppressive apartheid system which severely infringed on the rights of the majority of the population. The Group Areas Act which was legislated by the nationalist government in the 1950's is among the laws that reinforced segregation and oppression of certain racial groups. The city centres and other developed areas were designated for occupation by European/white citizens only, the non-white citizens were permitted in these areas only for employment purposes. Non-white citizens had to be in possession of their "pass book" (passport) at all times in order to avoid detention.

The dawn of democracy brought with it a cloud of uncertainty among most of white South African who were and still remain the majority of business owners. This resulted in white flight, which refers to a large scale migration of people of European descent from a racially mixed neighbourhood to more homogeneous suburban or exurban areas with some even opting to emigrate to countries like Australia or New Zealand. Thus some buildings were abandoned and left vacant, which led to them being taken over by vagrants and other unsavoury elements.

Degradation of the environmental, functional, economic and sociocultural aspect of the old city centres in South Africa is said to be detrimental to preserving the historical values of urban planning and architecture. This paper seeks to investigate how cities can stimulate inner city upgrades without gentrification by having pockets of places with different economic activities and ensuring that the grains are evenly spread. Cities change, evolve and find new identities with time thus it is vital for these changes to be understood and accommodated for with the utmost consideration for the people that continue to utilize these spaces. This paper will reinforce this by interrogating the revitalization of the Maboneng Precinct in one of the biggest metropolitans in South Africa. This is one such case study that was an area of concern for city officials and citizens as this area had become prone to criminal activities and was an undesirable eyesore. It has since won numerous accolades for demonstrating a gentrification alleviation approach within an urban precinct upgrade.

key words: Revitalization, Gentrification alleviation, Degradation, Inner city upgrades

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CHALLENGES OF LINKING URBAN SETTLEMENTS

Urban planning of Kurbin Municipality in Albania

Mr. Besar Zifla, MSc.²⁹ Mr. Gjergji Ruci, MSc.³⁰

Albanian Government went through a process of Territorial reforms to reconstruct local administration, reinforce and raise their capacity in terms of territorial planning and managing resources. It was top priority working in two directions, commissioning General Territorial Plans for new Municipalities and preparing the General National Plan as a frame to hold the pieces together. This text will try to explain the method, the analyze and the challenges to perceive new patterns of communication during the preparation of Kurbin Municipality's Plan, while trying to work with a strategic approach and concrete needs of long term aims.

Planning Strategy recognizes the needs of local systems and the crisis of traditional method of development. The intention of new urban plans should be creating possibilities for a sustainable use of local resources, involving urban initiatives of large scale, considering alternative scenarios, evaluating effects and highlighting important territorial perspectives. In terms of communication, it is paramount to consider new ways of connection, away from traditional patterns, following metabolic flows of territory, geographic morphology and landscape.

Strategic planning, while redesigning infrastructure networks may turn empty urban areas in new development opportunities; the spatial configuration of an infrastructure node can determine essential conditions; and bring new socioeconomic dynamics into play. Dividing the territory into five main landscapes: Coastline, Agricultural Plain, Infrastructural Corridor, Settlements Crown, Mountains; understanding (natural) corridors going through them, transformed the Planning strategy into a matrix of links between nodes of territorial value. Therefore, communication became a clear method and strong concept for the development of territorial plan for Kurbin Municipality in a 15-20 years period and Graph Theory methods gave us a better understanding of how to use this concept, hopefully away from old intuitive methods of traditional Urban Planning.

key words: Urban planning, patterns, graph theory, Planning Strategy

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IMPROVE TRANSPORTATION OF TODAY, SOLVE THE PROBLEM OF TOMORROW

Electric Public Transportation Buses: lessons to be learn

Stevo Marijanovic³¹

In the Belgrade diesel-powered motor vehicles, including transit buses, are significant sources of several criteria pollutants that contribute to ground level ozone formation or smog. The effects of air pollution in urban areas are often more significant due to congestion and can lead to respiratory and cardiovascular health impacts.

The rapid growth of urban air pollution from transportation vehicles necessitates the introduction of sustainable technologies that will enable us to meet our commitment to a cleaner environment. Buses in large cities in the US, Europe and Asia present a major opportunity for conversion to electric drive systems. Public awareness is backed by legislation world wide, from New York to Shanghai. Existing battery technologies do not offer a solution that meets all market requirements for range, power and economy. While certain technologies may individually address one or two of these requirements — none really address all three.

Electric buses deliver zero tailpipe emissions and have the potential to offer solutions to the air quality challenges of urban mobility in the 21st century. However, bus duty cycles are very demanding and unusually large batteries are required if electric buses are to have the range and ruggedness of their diesel counterparts. This research investigates an alternative strategy focusing on the performance of electric buses, their impact on the people, society and ecosystem. In particular, the Belgrade's EKO I bus route demonstration project is analysed in an attempt to detect the factors that affect electric vehicles' functionality, and learn lessons retrospectively in terms of design considerations. Approach used to evaluate the performance of the five buses which have taken over the EKO I route at Belgrade, such as an overall analysis of the buses has been conducted according to the ambient conditions, driver influence on the performance, vehicles' capabilities, vertical profile of the route as well as the driving and battery conditions. This study raises important points for the crucial factors that affect urban planning, ecosystem and society.

Key words: public transport, electric power, benefits, bus, electric bus

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ARCHITECTURE AND URBANISM AFTER A DISASTER URBAN DEVELOPMENT OF THE CITY OF SKOPJE IN THE PERIOD AFTER THE CATASTROPHIC EARTHQUAKE OF 1963

Aleksandra Marsenić Krajčeski³²

Large natural disasters affecting populated areas have the power to destroy lives, landscapes, but also the facilities and infrastructure that man has built. Urban regeneration processes after large-scale disasters can be long lasting, sometimes unsuccessful, but they bring new concepts, new architecture and new life. When talking about disasters, we are most often referring to natural hazards such as earthquakes, floods, tornadoes, hurricanes, droughts, volcanic eruptions... There are also human-induced catastrophes such as war, terrorism, industrial accidents, and disasters such as fires, and artificially induced disasters that can be triggers for natural ones and vice versa. One of the most common natural disasters is the earthquake, which is actually a wave vibration that travels through the earth's crust. Earth is a living planet and forces under the surface layer (lithosphere) are in constant turmoil that affects its surface.

The territory of the Republic of Macedonia is located in the Mediterranean seismic zone and represents an area of high seismicity. In the seismic history of the Republic of Macedonia, the Vardar zone appears as a region in which earthquakes occur frequently, while the Skopje region is considered the most active part of the Vardar zone. On July 26, 1963, at 5:17 pm, Skopje was hit by a shallow earthquake, magnitude $M = 6.1$ on the Richter scale, and the intensity of IX per Merkali scale. The catastrophic event caused great losses in life and property. More than 1,070 people were killed, about 4,000 injured, while more than 200,000 people lost their homes. About 80 percent of the city was destroyed, many public buildings, schools, hospitals and historical monuments. According to various reports, material losses of about one billion US dollars have been estimated.

The reconstruction of the city of Skopje after the disastrous earthquake that hit this city in 1963, especially the central city area, took place several decades after the disaster. How are the city's reconstructions concepts discussed and decided? Should the problem be resolved at the state or local level? Should they be left only to the professionals or should the public be included in the decisions? Should decisions be made by local or world architects and artists? How much does the current moment in architecture and art in the world and in the country affect the emergence of new aesthetics? Does politics play a role

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in shaping the solutions to be used? Do we need to keep the existing damaged facilities and try to integrate them into the future of the city? What factors influence the formation of the architectural and artistic expression used in the design of new plans and objects?

This paper answers the above questions through a case study of the reconstruction of the city of Skopje. The paper presents the analysis of events, activities after the disaster itself, as well as the long-term renovation activities of the city. There is also an analysis of the chosen solution for the Skopje master plan, by Kenzo Tange and its impact on the aesthetic design of newly constructed buildings. A special accent is placed on the aesthetics of new architectural objects, the formation of a new style in architecture, which contains elements of modern, brutalism and socialist architecture, and forms a unique architectural style characteristic for the city of Skopje. The aim of the paper is to give answers to the above questions and to put them again in the context of the events in the current reconstruction of the city of Skopje.

Key words: natural disasters, earthquake, Skopje 1963, urban reconstruction of the city, Kenzo Tange, modern, brutalism, socialist architecture

TREATMENT OF THE LOCAL CITY CONTEXT THROUGH THE PROCESS OF MEGAPROJECT DEVELOPMENT

Valentina Milovanović³³

This paper involves research about the local context as a sort of the history and tradition representation of some city site, but also the concept of a megaproject as a very important presentation of globalization. Since globalization can be defined as an indispensable part of the general idea on which the 21st century is based, it is very significant the way of treating existing urban values through innovative ideas (and the activities that arise from them), regardless of whether it comes to contextual characteristics in physical or in symbolic meaning.

Therefore, in order to point out the importance of the local context in the whole development process of megaprojects in domains of urbanism and architecture, in further text it will be presented three examples of megaprojects which are realized in different parts of the world. Beside that and at the same time, their comparative analysis will be made. All selected case studies are from foreign practices and they are related to cultural objects (they were created as a result of the implementation of complete megaprojects solutions or just some of their segments).

The objects of this kind of purpose have been chosen for several reasons, and the main of them refers to the attitude that culture is the clearest reflection of the local population habits and their lifestyle. What is also important is that, at the same time, culture links people and urban environments to a higher, global level. Everything that is previously explained is required in order to reach out certain conclusions on international scale. Those conclusions are actually a base of knowledge and experience that eventually could be used in terms of application when it comes to countries of the Balkans.

Key words: megaprojects, local urban context, globalization, "starchitects", public spaces, objects of culture, users

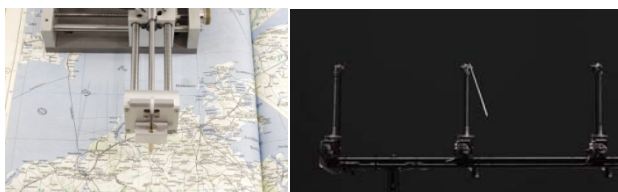
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LOCATION INTELLIGENCE DYNAMICS AND COMPLEXITY: THE QUESTIONS OF DESIGN THINKING STRATEGY

dr Dragana Ciric³⁴

The aim of the paper is to investigate newly developed theories and forms of application of global monitoring and analysis closely related to spatial coordination and design decision making. It deals with designerly advanced *location intelligence science and technology* that enables development of new aspects of spatial knowledge extending reality with additional data - managing and processing complex systems and structures of information and simultaneously making vast data-storages - used in solving various design problems. The special remark has been made on the relation between design thinking strategies and this field of research — a comprehension of architectural and urban problematization of a certain design situation in the light of a broader geo-spatial (political or physical) conditions whose scale sometimes transcends planetary limits and determinants. A more detailed look at the theoretical views and scientific background that made digital world (the world of digitalized data and representations of reality) dominate our design perception and action by becoming major subject of our design investigation, creative research, and innovation, has been illustrated throughout the study making important connections between design thinking strategies and strategies of spatial knowledge production through digital tools of tracing, mapping and charting, or more broadly defined spatial (aerial and territorial) coding and codification. In that respect, we may reconsider the ways in which consequently developed or adopted logics of digital transcription of our existing (documentary) or invented (fictional) complex environments through contemporary *spatial/location intelligence* platforms shape and define mind-sets by which we develop and operate design ideas, articulate spatial tactics and strategies as parts of our metacognitive design activity.

key words: datascares, mapping, cartography, complexity, location intelligence and design intelligence strategy, geo-spatial monitoring and notation, digital literacy and big data networks



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MULTICULTURALISM AS AN IMPACT FACTOR, BY MEANS OF DEMOGRAPHY, FOR ACHIEVING URBAN DEVELOPMENT IN THE BORDER MUNICIPALITY OF STRUGA

Damjan Balkoski³⁵

The purpose of the research contained in this paper is to give a concept of the spatial organization in the Municipality of Struga, located in the south-west part of Republic of Macedonia, on the coast of the Ohrid Lake. By spatial planning in this region should be achieved an equal planning of the expanse, correlation between the urban area and the rural settlements. The rural settlements should have conditions for their independent functioning and influence over the total functioning of the Municipality, by creating a living quality and enabling the local economic development.

The subject of the research is the territory of Municipality of Struga, which consists of the town Struga and fifty villages. The research, apart from correlation between the urban part and the villages, mutual relations and influences among villages, it also covers the correlation between the built-up area and the nature.

Within the Spatial Plan of the Ohrid-Prespa region are covered: towns Ohrid, Struga, Resen, Ohrid Lake and Prespa Lake. This Spatial Plan defines the concept of the spatial organization, arrangement and utilisation of the region depending on the development, structural changes and spatial distribution of the population. According to the demographic projection until year 2020, it is anticipated that the Municipality of Struga will reach approximately 69.000 inhabitants. Typical for this region, regarding the demographic development, is that all populated places which gravitate towards the town Struga, will note a population growth, which is not the case with the other places in this region. The demographic development of the villages will directly influence the urban development of the Municipality of Struga. In this paper will be analysed these changes and the obtained result will be a suggestion for a possible new urban development of the town Struga.

Key words: demography, development, municipality, planning, rural settlements.

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MULTIPOLAR STRATEGY OF THE MOSCOW AGGLOMERATION DEVELOPMENT

Zaykova Elena³⁶

This paper aims at investigating the possibility of the long term multipolar landscape ecosystem strategies for the former industrial territories about water of Moscow in Russia. The challenge of the research is to deal with the fast transformation of post-soviet territory and the processes which are difficult to predict. The values of the society were shifted after the decline of the Soviet Union when the chaotic rush for the creation of new order changed the principles of the city planning. The unsustainable trend to destroy the natural environment and urban voids after more than twenty years is finally in the discussion of many professionals.

Their models or visions for the future are very important for the cities to become internationally competitive and resilient for the next generations. Based on the sustainable urbanism of David Farr and the studies of the green urban planning the vision of a Sustainable Moscow 2035 operates with the territory in transformation when urbanization destroys natural environment and offers a scenario city as a park on the water that figures out the urban voids in a contour of the Moskva River (post-industrial territories) to be preserved and designs green zones that unite the central and median parts of the city with its periphery.

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CONTINUOUS PROCESS AS A NEW PATTERN FOR URBAN DEVELOPMENT

Isidora Karan³⁷

The continuous process as a new pattern for urban development is defined as an usual process of urbanization in which the action (process) is identified with reaction (space). It is observed at personal, collective, social and geo-political level in which the physical space is created, and equally observed through the local (Banja Luka and Bosnia and Herzegovina) and global (worldwide) context that continually makes unique and in the same time always new landscape.

The process is abstracted as a semi-material cloud of ideas, events, situations and desires that overlap in a certain in-between space, forming new patterns of re-thinking city, which are then being projected into a constantly changing landscape. The abstracted flow of the real process involves links between numerous actors of the process, external and internal factors influencing it, and cyclical phases through which the process is always modified and upgraded so that space (rural, architectural, collective, personal, ...) is also the result and an integral part of the process. The cloud of process represents a complex, porous and dynamic structure that simulates a continuity of creation, which enables a variety of actors for different experiences in relation to previous ones, as well as projections towards the future.

This way defined pattern of urban development represents a continuous acceptance of the future challenges, and programming of potentials of continuous space, which is always in process and always all at once, without being separated from internal- external, physically-natural, perceived-minded. It is analyzed through only one example, which includes a series of actors, phases and activities that are directed toward physical realization in a real context. A case study is a project of small scale urban and architectural intervention in open public space near the Vrbas river in Banja Luka, the second largest city in Bosnia and Herzegovina. The pattern tries to explain the way of re-thinking space in a real context, and accepting the future as a continuous thought that is continually happening.

Key words: continuous process, pattern, small-scale, Banja Luka, Bosnia and Herzegovina

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INTER-ACTIVE INFRASTRUCTURE Themes and projects for the European city

Renzo Lecardane³⁸, Paola La Scala³⁹

Within the wider-ranging theme of *Re-modernising the modern city*, our research investigates the specific issue of *interactive infrastructure*. More particularly, the research tackles questions linked to the infrastructure of mobility, the infrastructure of landscape in-the-making, and the infrastructure of information. European (French, Dutch and Spanish) experiences over the last decades have based themselves on criticizing town-planning tools, blocking land use and optimizing resources and assume a particular importance in their capacity to transform the imagined conception of the infrastructure into pragmatic strategies geared towards the objective of novel and essential research.

In this framework, the *Mezzogiorno* risks being left behind, through the lack of adequate initiatives that might supersede modernity's legacy in creating infrastructure that meets the demands of prospective future development. The infrastructural system is somewhat incomplete and extremely heterogeneous, there being the intimation of a scarcity of interaction on the part of the infrastructural project as part of the local landscape and culture of reference. However, it is evident that there is still considerable potential in the region, urging greater interest on the part of research in re-directing the project towards new models of sustainability, albeit marked by the meagerness of resources.

With regard to the results of our research, according to which the project might transform the contemporary city through its close relations with the infrastructure, in the cities of Palermo and Trapani the concept of *interactive infrastructure* is applied as a key-word in overcoming the conflict between the *modern* and *post-modern*. Palermo is backed by a consolidated relationship with the city-council, and the research scrutinizes the future underground stations in the railway ring, whilst proposing a *Green line* linking up a series of those urban and architectural areas recently included in the UNESCO lists. Trapani's extraordinary geographical setting steers research towards an infrastructural system destined to relaunch its appeal to tourism in terms of history, culture and nature, in the easily-reached areas of the city, and by rail with the project for the new station or at the new points of access to the Parco delle Saline.

key words: infrastructure, mobility, city, architecture

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THEMATIC SESSION 3:
RESILIENCE, URBAN PLANNING & DESIGN: ISSUES TO BE ADDRESSED

REDISCOVERING “AGRICULTURAL CITY” RADISHANI, SKOPJE

Divna Penčić, PhD⁴⁰, Radica Ugrova, M. Arch⁴¹ Filip Cenovski, MSc⁴²

The concept of "in-between space" was developed after the devastating earthquake in Skopje in 1963 and the search for a more resilient city. Namely, the established bases of the Spatial Plan of the Skopje Region and the Master Plan of Skopje from 1965 are used as a starting point for rethinking the space between urban and rural, and creating the concept of a network of "Agricultural Cities" around Skopje.

Exploring the case of the settlement Radishani in Skopje, the paper aims to rediscover proposed concept of "Agricultural Cities", by evaluating its goals and achievements after a period of 50 years.

The question that arises is whether this concept could be used to strengthen the "urban-rural" relation in today's context of the spatial development of Skopje and in achieving the Sustainable Development Goals — SDG (11), to review the "urban-rural" relation and to draw attention on the peri-urban settlements.

key words: In-between space, Urban-rural, Peri-urban settlements, Agricultural City

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STRATEGIES FOR URBAN REGENERATION IN THE HISTORIC CENTRE OF VIENNA

Jan Durdevic⁴³

The main objective is to contribute to defining innovative solutions, in theory and practice, for the historic centre that comply with the Global Sustainable Goal 11 "Create inclusive, resilient, safe, cities". Today, historic centres face several levels of problems and decision-making levels: participation, sustainable transport systems, cultural heritage protection, air pollution, energy efficiency, maintenance and security, liveability of spaces. This presupposes the creation of partnerships between the public sector, the private sector and civil society, which will have to work together in a collaborative way to (re) define strategies and projects in order to promote sustainable development.

The paper will link to the vision and main principles of the HABITAT III agenda, especially those related to participation, sense of belonging, green spaces and the quality of public space, which are essential to the revitalization of central districts in all their aspects: social, economic, ecological, cultural.

The basic idea is to reflect on the future of the development of the city, from the reinvestment of historic city centres, considered as areas of possible optimization of the density/diversity ratio and privileged place of implementation of sustainability. The main objective is to evaluate and analyze spatial strategies, operational projects and legal frameworks mobilized for the regeneration of historic city centres in the case of study of Vienna city centre, particularly through confrontation with a compilation of best practices (to be carried out in parallel and complementary to the field work) in order to propose useful guidelines for professionals and decision-makers.

key words: Historic center, urban regeneration, Habitat III, Vienne, livability, sustainability

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RESILIENCE STRATEGIES: UPGRADING THE SUSTAINABLE PRACTICE?

Ivan Simić⁴⁴, Aleksandar Grujičić⁴⁵, Vladimir Mihajlov⁴⁶

Climate change has become one of the biggest challenges for the sustainable development of cities - the rapid urbanization, marking the late 20th and the beginning of the 21st century, has highlighted cities as main arenas for testing and addressing the effects of climate change. Due to their complexity, the cities generate their own (changeable) logic, which affects their physical, functional and social structure. Constantly "revising" and upgrading their strategic orientation, urban areas are integrating the concept of resilience into their sustainable development goals. In order to meet the needs of each city, local contextualization forms a distinctive framework that enables them to resist and adapt to present and future climate challenges. Nevertheless, the recent concept of resilience includes not only the climate change issues, but broadens it to general principles of "sustainable" topics: economical, social, and environmental.

The focus of this paper is on the sustainability-resilience relation in strategic orientation of cities. By examining the best practices in formulation and implementation of resilience strategies, the aim is to define how cities perceive, adjust and (re)act to current climate change issues while applying the holistic approach. The emphasis is on locally specific context, particularly Belgrade, that, in spite of facing numerous socio-economic obstacles, is trying to implement the general resilience goals and meet the sustainable demands, simultaneously showing that less developed cities have the capacities to follow the global trends.

key words: climate change, sustainability, resilience, strategic orientation, holistic approach, local contextualization, Belgrade

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THE NEED FOR GREENS IN URBAN DEVELOPMENT IN NIGERIA

P. C. Ogbuefi^{47*}, Kolade M. Muritala⁴⁸, Osazee Edogwawerie⁴⁹

The bulk of planning and management inadequacies in most urban areas in Nigeria is amply manifested in poor urban land use pattern, inadequate green zones, recreational parks, poor urban infrastructure and above all deliberate and increasing destruction of the eco-system thereby causing distortion in the bio-diversity. Most of the Nigerian urban centres are in chaos. There is an abundant indication of misuse and consequent abuse of urban lands. For instance, most of our urban lands are characterized by poor space management leading to over- development of available urban space with little room for nature's other components like trees, shrubs and crops.

This state of affairs brings to question the integrity of urban designers, planners and managers. The situation is further aggravated under the Land Use Act of 1978, especially in the Southern parts of Nigeria. This is because land owners often refuse to allow development on their land particularly urban land. Government in these areas in turn claimed that it lacked the financial capacity to pay compensation. The situation has led to unbalanced development planning and control.

In Nigeria, urbanization has been going on for a long period. Some of the towns date back to the middle ages, while many are of pre-European origin like the ancient city of Benin. This situation has given rise to some urban centers in Nigeria being an amalgam of two forms of urbanization namely, traditional oriented urbanization and western orientated urbanization.

The aim of a sound urban development should originally be to ensure the maximization of the welfare, efficiency and productivity of the urban community as a whole. It does not therefore necessarily aim at just optimizing the return of a particular activity on a particular site without consideration to its urban implications especially the attendant danger to the eco-system. There should be a deliberate effort at ensuring a green urban environment as this would not only help in a balanced urban development but in the maintenance of a stable bio-diversity in the urban area.

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THE „ILLEGAL / EXTRALEGAL“ BELGRADE AND ITS CONTEMPORARY FORMS, CAUSES AND FORMING METHODS

Ljubica Slavković⁵⁰

The transition period from the socialist to the open liberal economy, followed by the rise of migration, brought an enormous rise of informal growth in Belgrade, especially in the field of housing. However, even the first modernization steps of Belgrade faced the questions of illegal builds. From outside the city-county boundaries, the problem of an illegal building has spread all over the city and has grown with it, becoming an inseparable layer(s) of the Belgrade urban tissue. The informal growth continued to be the “blind spot” of contemporary Belgrade architecture, conquering not only entire city settlements but also existing city structures and empty lots in all the city municipalities, including the most central and historical.

This paper gives an overview of the problem of informal and illegal builds in Serbia ever since the first steps of modernization at the end of the 19th century. Furthermore, it focuses on giving more insight the contemporary situation and the ongoing problem of the omnipresent informal and illegal builds not in the informal settlements, but in the urban municipalities of the city. The paper researches its various forms, causes and scopes, as well as the role of institutions and the variety of actors.

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THEMATIC SESSION 4:
URBAN DESIGN PATTERNS: ISSUES OF DESIGNING

PRESERVATION OF THE AMBIENCE VALUES THROUGH LIGHTING: A CASE STUDY OF THE PEDESTRIAN SKADARLIJA STREET IN BELGRADE

Ivana Rakonjac⁵¹, Ivan Rakonjac⁵², Miloš Gašić⁵³

The phenomenon of lighting is one of the major elements which can promote sustainability of the urban ambience entities and the preservation of social, architectural and urban values. Its significance can be seen both in the functional qualities of safety and amenity for users, and the preservation of the mode in which the users experience the space. Public urban spaces are the core elements of the urban tissue and hence represent the places of interactions which enjoy the zeitgeist to the space.

The Skadarlija street is an authentic ambience in which a particular public life of Belgrade is featured. Therefore, it was officially acknowledged as the spatial cultural historical entity of the old town's centre. The primary goal of this paper is to provide an insight into the process of the creation of the space perception patterns in relation to the applied lighting model which has transformed over time.

Various approaches to the lighting of this street are presented, starting with the traditional lanterns all the way to the advanced lighting sources which embody innovation and the contemporary methods in this field. Different concepts of lighting which were in the history used in Skadarlija street are analyzed and the conclusions are reached concerning the influence of lighting on the preservation of the ambience values and the patterns in which the notion of space and its atmosphere are created.

key words: lighting design, urban environment, open public space, safety, architectural values, ambience, urban and architectural heritage

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REDESIGNING URBAN FABRIC BY ALLOCATING PUBLIC PROPERTY FOR SOCIAL ENTREPRENEURSHIP

Božena Stojic⁵⁴, Danijela Milovanovic Rodic⁵⁵

The subject of this paper is an analysis of managing public property system and existing models of allocating public property on national and local level in Republic of Serbia, in terms of designing urban fabric of cities in Serbia. The analysis includes comparative review of public property legislation in Serbia, which determines the models of allocating public property for several purposes and users. Those models, as it turned out, are entirely market oriented.

On the other hand, large number of public property units can not compete on the market because of their bad conditions and high price for renting, or because of unsolved ownership issues. The consequences of this problem are affecting urban fabrics of cities in Serbia in terms of unused and neglected public property units and public spaces in city centers, as well as limited development of local communities.

The case study in this research is city of Pancevo in Autonomous Province of Vojvodina which old town's core is affected by problems listed above to a great extent. The case study analysis includes the review of local public property legislation as well as planning and strategic documents. Likewise, analysis includes structure of local civil society, their activities and needs on one hand, and the spatial distribution and planned purpose of Pancevo's unused public property units on the other.

As result of this research and as a response to identified problem, an alternative model for allocating public property for social entrepreneurship instead of market oriented purposes has been developed in order to redesign urban fabrics in cities in Serbia.

key words: public property, urban fabric design, revitalization of city center, social entrepreneurship, models of allocating public property

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THE INTENSITY AND IDENTITY OF BELGRADE'S WATERFRONT ALONG THE SAVA RIVER

Aleksandra Đukić⁵⁶, Jelena Marić⁵⁷, Tamara Radic⁵⁸

The riverbanks along the Sava river in Belgrade were transformed and revitalised during the last decade. The new constructions next to the waterfront were planned and adaptive reuse of several buildings are in a process of realization. After these interventions, abandoned parts of riverbank become more liveable. The aim of the paper is measuring the intensity of pedestrian movement in the monitored territory and concentrations of users in open public spaces as well as developing an image of the promenade, its surrounding and vistas perceived by its users. The methods that were used in analysis include the method of direct surveying of users - both inhabitants and tourists, based on the Kevin Lynch 's *determination of the image of the city* and method of the mapping users on social maps (via social networks). Furthermore, this paper offers a unique approach using the social network analysis throughout the past two years with an overview that includes tracking the changes in users' behaviour and the usage of the riverfront area.

The quantitative element of the research consisted out of two surveys. The first was a direct survey undertaken among a group of 200 users along the promenade and the second was mapping the users on social networks (Tweeter and Instagram).

Summarizing and interpreting the collected data two groups of results were obtained: the image of Sava riverbank and surrounding composed of five elements: paths, edges, nodes, districts and landmarks and an overview of the pedestrian intensity and concentration in observed territory, compared with the contents located along the path, and with the distributions of the elements of the image of the city, with the aim to measure the quality of open public space and concentrations of users. This research has indicated the potential of the analyzed area for intensifying the concentrations of users and therefore creating more livable spaces. However, they can enable active use of territory and improve the network of open public spaces.

key words: Belgrade waterfront, Kevin Lynch, pedestrian movement, social networks

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THE IMPACT OF URBAN LANDMARKS ON THE CITY IDENTITY AND ON THE IDENTITY OF CITIZENS - CASE STUDY - GENERALŠTAB

Eva Vaništa Lazarević⁵⁹, Jelena Maric⁶⁰, Tamara Radić⁶¹

This study analyzes the impact of urban landmarks (UL) on preservation of the city's identity (CI), and therefore the identity of its citizens. It has been well known since ancient times that UL affect both the comfort of the city, and the awareness of its citizens. The main objective of this paper is to assess the role of UL on the orientation in the city, the importance of UL for the CI, as well as the emotional connection of an individual with different types of UL.

The first part of the paper examines the way the site is formed (CI), special character, spirit of place and unique ambiances in the urban tissue of the city. Paper also examines the individual's identity in relation to the city in which it lives and his perception of CI that determines his social and national identity (Schulz, 2003).

The second part of the paper examines the influence of UL on CI using the case study of Generalštab complex in Belgrade. Also, kinds of UL are examined as well as the attitude of citizens towards different types of UL.

The contextual framework of this research is based on the analysis of primary and secondary sources, while the main methodological tool is multicriteria analysis. In addition to this, the method of observation, case studies, and the method of interviewing were used for the purposes of this work.

Throughout the work, multicriteria analysis is presented, with the help of which one can determine the character and importance of chosen UL. The proposed criteria was used on the case study on Generalštab complex. As a further part of this research proposed criteria could be used for the analysis of main UL of Belgrade, as well as UL of any other city.

key words: urban landmarks, city's identity, self-identity, Generalštab

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TEMPORARY LANDSCAPE INTERVENTIONS

Karl H.C. Ludwig

All landscapes are temporary - as everything around us. While major landscape architecture works in our eyes seem to be sustainable taking money and time to roll out, temporary landscape and art works - human scale signs of invention and resilience - may be as well of great interest in specific situations. The more that quite often in the past they have been neglected and failed to see.

In recent years temporary landscapes are an emerging project type in urban landscape architecture. Pop-up parks, park lets, and temporary art installations have gained a broad media attention and changing notions of open space. Landscape architects could play and need to take a more active role in the planning, design, and realization of such temporary interventions and projects.

There is a great value to discover in temporary landscapes for cities and their citizens. They can serve to try things out, change the character of the site, until it will be used for another, more permanent, project, and show the possibilities and potential of a site. In addition to that temporary projects are also often low-budget interventions allowing for ideas to be tested.

Projects from around the globe will indicate and illustrate the rise of temporary interventions that are both lighthearted as well as culture and amenity providing.



SECURITY THROUGH THE LENS OF URBAN REGENERATION: THE CASES OF AUTOKOMANDA AND MOSTAR LOOPS

prof.dr Eva Vaništa Lazarević⁶², Milena Ivanović⁶³, Filip Trgovčević⁶⁴

This paper tends to examine and explain the principles of urban regeneration in the context of urban security by examining Belgrade's central municipalities. The spatial polygon covered in this paper was chosen as a specific urban fabric that embodies two largest, most frequent traffic nodes in the city, both on the international corridor E-75 — Autokomanda and Mostar loops.

The first part of the paper presents the analysis of the principles of urban regeneration in the context of urban security with a review of security perception. We also point to the role of urban planners in the effort to raise the level of overall security of open and semi-open public spaces. It is explained how the users of space perceive safety and how certain architectural qualities influence this perception. The spatial aspect of security is also analyzed with the goal of identifying spaces with the highest crime rate. In the second part of the paper, we used statistical data to analyze crime rates in Belgrade's central municipalities in order to determine the spatial factors that influence crime generation. Expected results of this research are guidelines for urban planners who use spatial design as a tool to improve public space user's sense of safety as well the overall security of public spaces.

keywords: urban security, urban regeneration, Belgrade city, crime, Autokomanda loop, Mostar loop, public space

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OPEN SPACES RECONSIDERED: THE CASE STUDY OF NEW BELGRADE'S SUPER-BLOCKS 37 AND 38

Predrag Jovanović⁶⁵, Aleksandra Stupar⁶⁶

The development of the municipality of New Belgrade, initiated in the post-war period, was based on the *functional city* concept. However, its planned center has never been built and the only areas that could be defined as a central zone nowadays are the riverbanks of Sava and Danube, as well as newly developed or reactivated commercial and business centers (shopping malls - *Old Mercator*, *Piramida*, *New Mercator*, *Delta City*, *Ušće* and the business center *Airport city*).

Simultaneously, at the neighborhood level, the open space of *super-blocks* is used for the formation of various meeting and gathering community places (hereinafter *local community places*). Considering these changes, the paper focuses on the transformation of activities conducted in the super-block's open spaces until today, as well as on the development tendencies based on the *placemaking process* and the *place attachment* theory, both related to the spatio-social dimension of local community places and their importance. The paper will present two case studies which belong to the administrative local community *Old Airport* - the residential super-blocks 37 and 38, planned during the 1960s and built in the 1970s. In the contemporary context, they started developing different typologies of local community places.

The analysis will provide an insight into their development and the typology of local community places will be established, based on the current observations. Finally, the systems of activities will be compared in order to define the diversity of local community places which simultaneously developed.

Key words: Local community places, Open spaces, Super-block, New Belgrade, Placemaking

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THEMATIC SESSION 5:
**URBAN AND ARCHITECTURAL HERITAGE PATTERNS: WHERE TRADITION MEETS
FUTURE**

SHELTERS FOR VIMINACIUM

Ana Kantić⁶⁷

Serbia is blessed with numerous archaeological sites especially from the ancient roman period. This paper represents continuation of own research: designing new protective structure for one of the most important archaeological sites in Serbia: Viminacium. Although this research started with very specific and unique site on my mind, it aims to look deeply into correlation between archaeological site in general and new protective structure. One of the most important steps in process of designing shelters for archaeological sites, is selection and modeling of constructive system. Putting the archaeological site in the future, it becomes almost alive, changable, requiring new technologies with potential to reveal more.

Therefore, every constructive system of protective structure, should be analyzed from three time dimensions, from the past, present and the future. If we think about what shelters should respond to, we should, for sure, divide those requests. Some of them are general, common for every archeological site, but there are also specific needs of unique site, which is very important in proces of conceptualization. Generally speaking, shelters should physically protect archeological heritage. It should, also, fulfil the need for large span construction, with carefully selected type of foundation.

Rapid development of technology, undoubtedly, made technology an integral part of nowadays architecture, therefore, designed constructive system should also respond to requests of technology and its growth. But, exploring Viminacium, analyzing the nature of spatial contex, analyzing contours of former urban center, it gave a whole new perspective in process of designing shelters for archeological sites. The result provides constructive systems for designing solutions that intends to answer the complexity between archaeological site, Viminacium, and protective structure. This paper aims to analyze different construction systems, to provide as better solutions as possible, in order to keep the past for the future.

key words: constructive system, archaeological site, protective structure, large span construction, foundation

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URBAN HERITAGE AS DEVELOPMENT POTENTIAL FOR SERBIAN TOWNS*

Anđelka Mirkov⁶⁸

This paper analyses the evaluation of urban heritage among citizens, and its potential exploitation for developmental purposes in Serbian towns. Urban heritage is defined under three main categories: both tangible and intangible cultural assets as well as natural beauty in a town and the surrounding area. In a research project on local development realised by the Institute for Sociological Research (University of Belgrade — Faculty of Philosophy) urban heritage issues were recognised as “soft” dimensions of territorial capital, which may contribute to the competitiveness and economic recovery of Serbian towns. Multiple case study analysis involved four medium-sized towns in Serbia (Sombor, Zrenjanin, Leskovac and Zaječar).

Analysis was primarily based on the results of a research survey conducted in 2014 and 2015 which enabled us to draw conclusions regarding citizen perspectives on urban heritage. Secondary resources were also used in order to identify the urban heritage potential of those towns. The aim of the paper is to determine whether there are differences between urban heritage perceptions in the four towns studied, and to highlight their development potential in the context of unexploited urban heritage. According to the research, there are statistically significant differences between the towns. Inhabitants of Sombor are more satisfied with their urban heritage and its exploitation than others. Conversely, inhabitants of Leskovac think that urban heritage is not sufficiently exploited, since there are significant but unexplored avenues for promoting the town through its festivals, cultural and historical heritage, its archaeological site, parks and so on.

key words: urban heritage, local development, Sombor, Zrenjanin, Leskovac, Zaječar

* This paper is a result of the project “Challenges of New Social Integration in Serbia: Concepts and Actors” (record no. 179035), funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia.

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HERITAGE REFLECTIONS IN SERVICE OF CONTEMPORARY AND RESILIENT INHABITATION

Slobodan Peulić⁶⁹

Spatial and urban development of certain inhabitable space, whether it is village, countryside, or town district is commonly based upon inherited spatial elements. The work analyses historical reflections in the process of area creation with all its peculiarities. Terms resilient, sustainable, affordable, etc. are usually consisted in urban patterns of old town parts where relations between small-scale and large-scale spatial elements are most prominent for analysing. Tensions between one element and unity leads contemporary planning in the direction where new, resilient models needs to be made, and new settlements to be adaptable for changes in process of uncertainty.

As a research field, "Rurban" areas of City of Banja Luka would serve for identifying basic principles of housing and organization of settled areas. Inherited settlements today, in the city silhouette, represent marks of the past with significant structures serving as urban landmarks (such as graveyards) where green infrastructure has been found as the most common element which connects urban and rural areas, and serves as an element through which people can relate themselves to the city and part of the space identity.

Spatial borders are often erasable and more or less permeable, but more interesting is borders typology which was based on natural elements through the centuries, but is becoming much more rigid and artificially defined. It is very common to notice borders in much larger scales, usually between different social structures, as in Lagos in Nigeria - which serves as a guide through analytical part of the work. Researching process is based on the principles of today's planning but with highlight on the heritage elements which participate as a triggers in forming inhabitable areas. Patterns, borders, axes, landmarks, and space memory are crucial for understanding settled area, what for they are specially treated in the work.

key words: heritage, patterns, borders, green infrastructure, landmarks, space memory, urban agriculture, resilient models.

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INHERITED URBAN PATTERNS ON THE BALKANS — OPPORTUNITIES AND CHALLENGES

Milica Igić⁷⁰, Petar Mitković⁷¹, Milena Dinić-Branković⁷², Jelena Đekić⁷³, Mihailo Mitković⁷⁴, Mahtab Baghaiepoor⁷⁵

Balkans, huge peninsula has very long and vibrant past and it is home for different nationalities and religions where east and west meet in Europe. Specific culture, religion and very dynamic historical development shaped a very unique environment. Urban planning and design developed through years influenced by different eastern and western forces, but still unique Balkan spirit had influence in creating specific urban patterns which are evident in many cities. Tradition, culture and politics had the greatest impact and today we have similar cityscape in many countries which creates numerous problems for future urban planning. This paper discusses phenomenon of Balkans architecture and urban planning and issues that cities are facing because of their specific pattern. In era of great climate changes, inherited city structure leads to many problems which are decreasing level of life comfort and creating a nonhuman-scaled environment.

Aim of this paper is to represent Balkans urban growth pattern in Serbian cities and to point out main urban planning and design issues that residents are facing nowadays. Main question is how to overcome problems with inherited city structure and at the same time not to endanger heritage sites and specific ambient zones? Based on site analyzes, different simulations and comparison with good practical examples, main conclusions and recommendations will be outlined. By protecting unique ambient zones, we are protecting city's identity and using many contemporary methods makes it possible to create liveable environment while keeping traditional city scape. Even nationality and religion are different in Balkan countries, model for urban planning improvement in order to answer to all contemporary issues, can be the same and it can help overcome many problems which are endangering everyday's life quality.

key words: Inherited urban pattern, Balkan ambient zones, Heritage and climate changes, life comfort and quality

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WHAT KIND OF DEVELOPMENT FOR THE COASTAL TOWNS OF MONTENEGRO

Enrico Pietrogrande⁷⁶, Andreina Milan⁷⁷

The paper is centred on the coast of Montenegro, where several invasive hotel complexes are arising, built with disregard for the landscape richness and the historical, artistic, architectural treasures. Montenegrin coastal areas will not benefit in the future from the construction of large building complexes that offer immediate but short-lived benefits. Look at the disfigurement of the coastal landscape along the beach to the north of the old town of Budva, where new hotel blocks dominate the ancient houses of the town and seem unable to give satisfaction to future tourism with its demand for culture as well as fun.

Montenegro lends itself favourably to a type of non-invasive tourism based on the enjoyment of cultural as well as natural sites, highly compatible with the Albergo Diffuso model. Ancient villages, cathedrals, forts and palaces inserted in a context that is still largely preserved, offer the opportunity to enhance this unique environment, which is very rich in potential. This is a model of tourism development that is perhaps less immediate but offers long-term guarantees. In this way, environmental resources are in fact preserved both actively and passively: on the one hand, it injects new life into the small towns spread throughout the coast and the country behind, and, on the other, avoids the construction of hotel complexes that disfigure a landscape of natural beauty.

The attention will be particularly paid to three ancient and delicate towns which are in this period involved in a potentially very dangerous and apparently irresistible growth of interest on behalf of foreigner investors, Budva, Kotor, Ulcinj. Here especially cultural development must not be abandoned in exchange for economic progress.

Key words: Environmental Values, Economic Development, Territorial Valorization, Memory, Identity of the Community, Montenegro, Albergo Diffuso, Heritage

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THE NEIDHART'S PATTERN LANGUAGE OF BOSNIA AND HERZEGOVINA'S URBAN AND ARCHITECTURAL HERITAGE

dr Dijana Simonović⁷⁸

The initial premises of this paper that some of universal principles underlying the architectural heritage of Bosnia and Herzegovina and the special qualities of its modernist architecture may provide a firm basis for a set of criteria for the recognition of the value of the modernist heritage still awaiting valuation. Juraj Neidhardt, a key figure in architecture and town planning in Bosnia and Herzegovina, created a “modern glossary of architecture and town planning — an alphabet of the carpet town,” which contained new terms and definitions based on analogies with the concepts and spatial elements exploited in the past. He wrote down the unwritten laws of local design, which he framed and published in graphic form, claiming they were the rules adhered to in the construction of settlements in Bosnia in the long period. Such as: “architecture on a human scale, in the shape of domes and cubes, surfaces plus structure, houses without furniture, growing houses, spatial architecture, the right of view and entitlement to one's own building procedures.

key words: universal principles, alphabet of the carpet town, unwritten rules, heritage

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PRESERVATION OF AUTHENTIC EXPRESION OF PREFABRICATED CONCRETE FACADES - CASE STUDY: RESIDENTAL BUILDING IN BLOCK 29, NEW BELGRADE

Nikola Macut⁷⁹, Ana Radivojević⁸⁰

Concrete and brick were typical materials of building fabric of multifamily residential buildings from Belgrade, from the 1960s until the 1980s. This was the period of intensive building construction, supported and financed by the state, when new parts of the Belgrade were erected, and New Belgrade was one of such new residential settlements. High intensity of construction that was typical for the period in question was followed by the application of various prefabricated construction systems that offered possibilities of creating diverse design solutions.

Nowadays efforts to improve the quality of existing residential buildings through the implementation of energy rehabilitation measures, raises the question of the need for preservation of original appearance. When such need exists, usual energy renovation measures such as addition of external thermal insulation and finishing layers are not considered appropriate. Therefore, such buildings seek for other type of intervention on the existing building fabric.

Having this in mind, this paper presents a case study of one of the residential buildings from the Block 29 in New Belgrade, designed by the Serbian architects Milosav Mitić and Mihailo Čanak during the 1960s. Thanks to its architectural values, today this block has the status of previous protection. Three main types of materialisation prevail on the building's façade planes: concrete prefabricated elements with ceramic tiles as finishing, elements with exposed concrete and bricks applied on the walls. Today this building is approximately 50 years old, so the prefabricated facade elements are not in good condition and needs to be repaired, but the building as a whole also needs to be energy renovated. Taking it all into account, problems and potential solutions of energy renovation and repair of prefabricated concrete facades that preserve their original appearance are examined on the example of the selected residential building.

key words: residential blocks, prefabricated concrete facades, authenticity, energy rehabilitation measures

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THEMATIC SESSION 6:
URBAN TRANSFORMATIONS AND TRANSITIONS IN THE BALKANS

99FILES OPERATIVE ARCHIVE_device for the contemporary Balkan city

Marina Tornatora⁸¹, Blagoja Bajkovski⁸²

In the complexity of the contemporary Balkan cities emerge the need to rethink and investigate new strategies and design approaches towards the urban and architectural project in response to the division between architecture and urbanism.

The paper proposes to develop a reflection on this question taking Skopje as a case study.

Many architects have interpreted the project as design and the city was represented and discussed as an unresponsive condition overwhelmed by its insoluble “complexities and contradictions”. Today the city of Skopje is experiencing a period of strong transformation, resulting in a fragmented and confused urban environment.

After the earthquake in 1963 there was a proliferation of significant architectural and cultural heritage which historically has always been marginalized, and today it is in danger to be canceled.

It represents a significant modern heritage that today risks to be destroyed by the interventions coming from the project SK2014 that neglect the concept of the modernization in favor of an architecture that does not present the same levels of innovation and quality.

The paper presents the concept of recently constructed multidisciplinary platform called 99FILES. It proposes a different point of observation of the modernist and brutalism heritage with a goal to find the values that they could represent on the physiognomy of the contemporary Balkan cities. The intention of this platform is to construct an Operative Archive thought as a device that can reinforce the identity of the city and support the architectural and the urban project. The aim of the Archive is to stimulate new visions able to produce strategies for possible development of the contemporary city freeing “the unloved heritage”¹ from the negative connotation.

99FILES explore the heterogeneous condition of the contemporary Balkan cities through an experimental strategy based on relation and contamination between different disciplines.

key words: Architecture, Urbanism, Archive

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APPLICATION OF BIOCLIMATIC DESIGN PRINCIPLES IN URBAN RECONSTRUCTION OF THE CITY SQUARES OF BALKAN CITIES — CASE STUDY: CITY SQUARE PRODOR IN KRAGUJEVAC

Lazar Mandić⁸³

The paper represents an analysis of the possibility of applying the principles of bioclimatic urban design in the urban reconstruction of the city squares of Balkan cities. The application of these principles contributes to the quality of public spaces in terms of thermal comfort, greater adaptability to extreme temperatures, wind, rain and snow, leading to their more intensive use. As a case study, the urban reconstruction of the central town square Prodor in Kragujevac was considered. A comparative analysis and assessment of the condition before and after the urban reconstruction according to the selected principles of bioclimatic design was carried out: change in the land use in relation to various activities taking place in the city center, changing the form of buildings to improve the microclimate of public spaces: impacts of sun, wind and precipitation, introduction of greenery and appropriate paving material. The analysis shows that the reconstruction has partly improved the situation from the aspect of quality of public spaces, and that further improvement is possible with regard to the flexibility of the realized spatial concept.

Key words: bioclimatic design principles, city squares, urban reconstruction, quality of public spaces

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INTEGRATED SHOPPING CENTERS AS INITIATORS OF THE CITY CENTRE URBAN RENEWAL

Marija Cvetković⁸⁴

Today's development of cities is often associated with development of shopping malls on the suburbs of the city, taking over roles of public spaces and considered one of the causes of the disappearance of shopping functions in the historical city, which directly affects the decrease in activity and the general deterioration of the historic city. In this paper shopping centers integrated in historical core of the city are considered as a positive example of modern consumer space.

On the one hand, modern activities are combined in this center, where the purchase is made in a practical and pleasant environment. On the other hand, they are becoming an integral part of historical city environment, encouraging the revival and renewal of this sensitive part of the urban core. There are few examples of successful integration of shopping malls in the historic cities of Serbia and wider region. This paper explores how the urban recycling of old industrial buildings and complexes in historic urban core can be used during this integration, as well as show the possibility to integrate a shopping centre into pedestrian zone in the core in the way to achieve a synergy between old and new, traditional and contemporary.

The aim of the paper is to encourage consideration that shopping centers are not in conflict with the urban core by 'definition', and to present through the best practice that carefully located and well-integrated shopping centers can contribute to the promotion and regeneration of historic urban and architectural heritage, where situating shopping center in pedestrian zone or their proximity of the historic city contributed to the maintaining of activities and people, thus to the preservation of city values.

key words: Integrated shopping mall, urban renewal, pedestrian environment, public space

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URBAN FABRIC AS PERFORMATIVE SPACE: A SEQUENCE OF NEW CULTURAL IDENTITY IN THE CITY OF BELGRADE

Zorica Vukovic⁸⁵

Belgrade is the capital and the largest city in Serbia, often referred as the gateway to the Balkans. It lies at the confluence of two international rivers — the Sava and the Danube, defining the city structure by separating its territory into 2 parts (Old and New Belgrade).

At the beginning of the 20th century, industrialisation introduced new activities in the waterfront area, moving the commercial and business centre from the Sava waterfront to the top of the hill- side, known as Kosancicev Venac. Strip of houses and commercial buildings along the Karadjordjeva Street, once socially and economically vital and outstanding in its appearance, became deeply neglected and introvert area.

The intervention fits in the area in-between the waterfront and the Kosancicev Venac hillside. The project attempts to think about the city using some principles that were assigned by the Detailed Plan of Regulation of the Kosancicev Venac zone. It tries to imagine how the new functional organism attaches itself to the irregularities of the perimeter of existing disregarded buildings, and manifests itself proudly on the outside facing river confluence. Therefore the new intervention re-habilitates the area, establishing an organic symbiosis and acquiring a new meaning of contemporaneity.

The concentration of culture and art on the Kosancicev Venac is more felt in the ambient values and atmosphere it manifests, than in the offer of activities and institutions provided by this cultural district. Therefore, the project proposes more concentrated cultural complex that consists of complementary activities that supplement the original historical context: K3 Performance Centre, new rehearsal activities, cultural pavilion facing the street Karadjordjeva and performance courtyard.

The intervention does not indicate bringing a “ new city” to this area, but a space of new sensibility within the framework of a city matrix that carries a reminiscence of the former.

key words: identity, city, irregularities, disregarded, boundaries, territory

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HOW A BRAND SELLS A CITY: BRANDING OF BELGRADE WATERFRONT

Sofija Bajić⁸⁶

For the purpose of promoting, positioning on the world market and of economic profit, cities resort to marketing techniques that in the world of corporations and businesses have proved themselves more than successful to branding. The two main goals of branding a city are economy, that is, profit, and positioning on the political scene. When it owns a strong brand, a city can set higher prices for everything: real estate, services, products, transportation, etc.

The branded city is worth more than the unbranded one. A buyer, a tourist or a resident of a branded city knows exactly what he is buying, where he is coming to or where he lives. It is not something out there, it is exactly the city and the brand, the atmosphere and the emotion that he wants. The city branding process familiarizes the user with the image of the city. It creates an emotion and association in him, which later can be charged more.

The aim of the Paper is to answer the question on how to sell the property even before it is built by using the branding process. The Paper analyzes marketing campaigns made for the Belgrade Waterfront Project. It presents clear steps being taken in the process of creating this brand. Clearly defined, detailed and thoroughly implemented marketing techniques have contributed to creating a strong image of this new part of Belgrade. Although it does not exist in a real, built space yet, the real estates are already being sold at the site according to the official advertisements. That is the power of a brand - a brand sells fantasy. On the other hand, the Belgrade Waterfront Project has positive reception in the world as well which contributes the overall branding of both Belgrade and even the state.

key words: Branded city; City image; City marketing; Economic development, Belgrade Waterfront

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POSSIBILITIES FOR SETTLEMENT RESILIENCE IMPROVEMENT — CASE STUDY OF „BRAĆE JUGOVIĆA“ SETTLEMENT, OBRENOVAC, SERBIA

Filip Trgovčević⁸⁷

The transition period from the socialist to the open liberal economy, followed by the rise of migration, brought an enormous rise of informal growth in Belgrade, especially in the field of housing. However, even the first modernization steps of Belgrade faced the questions of illegal builds. From outside the city-county boundaries, the problem of an illegal building has spread all over the city and has grown with it, becoming an inseparable layer(s) of the Belgrade urban tissue. The informal growth continued to be the “blind spot” of contemporary Belgrade architecture, conquering not only entire city settlements but also existing city structures and empty lots in all the city municipalities, including the most central and historical.

This paper gives an overview of the problem of informal and illegal builds in Serbia ever since the first steps of modernization at the end of the 19th century. Furthermore, it focuses on giving more insight the contemporary situation and the ongoing problem of the omnipresent informal and illegal builds not in the informal settlements, but in the urban municipalities of the city. The paper researches its various forms, causes and scopes, as well as the role of institutions and the variety of actors.

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ENVIRONMENTAL ADAPTATION: UNDERSTANDING AND IMPLEMENTATION

Ivana Korica⁸⁸

The context of the paper deals with the interdisciplinary comparison of LEED neighbourhood development and BREEAM communities, as well as their possible integration into the urban and rural environment of the western Balkan territory.

The importance of such an analysis lies within the significance of change and improvement of the current state of built environment in the region, with a clear prior understanding of the above mentioned.

The focus of the work is on understanding the new movement – of previously only architectural sustainability which now deals with communities, neighbourhoods and site-wide, small scale urbanism as well as on the bigger scale – and the way western Balkan built environments could benefit from it.

The paper employs informative and comparative analysis methodologies, elaborating an understanding of the modern solutions to the upcoming problems of city development in relation to life and space quality, a brief analysis of case studies from the world (United Kingdom, Sweden and America) and an understanding of potentials and possibilities of regional improvement.

Results of the research and analysis contribute to the indistinct understanding of the new movement, its benefits, values and primarily its importance to the current communities and that of tomorrow.

Scientific contribution is archived in the form of a 'layout' for the impending possibility of transformation and regeneration of the western Balkan region to sustainability.

Key words: communities, environmental impacts of the built environment, site-wide level, neighborhood, BREEAM, LEED

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THE CONTRADICTION BETWEEN OLD CONCEPT OF PUBLIC SPACES AND EVOLVING SOCIETY IN MODERN RUSSIA. THE CASE OF TOMSK. FROM DEATH TO LIFE

Anastasia Ignatova⁸⁹

Vast squares in the majority of Russian cities have an almost identical history regarding urban development, from the Soviet concept of organization, passing through the stressful era of the crisis, some public spaces evolved into the convivial component of daily life. Physically, the area has remained the same, but society has given a new meaning to it. The study analyzes Novo-Sobornaya Square in Tomsk as an illustration of the "peculiar urban way" where transformation is more evident due to the young and active population of the city. The study compares physical characteristics, political, economic and social aspects of development with actual usage and appropriation of the space by people. The result showed that deficient conditions of the square, cold, can't be an obstacle in enjoying the public space. The square becomes attractive due to people and their interactions.

key words: Convivial public space, social interactions, post-Soviet city, modern Russia, Novo-Sobornaya, Tomsk

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HETEROPOLITANISATION NOW: PRIVATISATION-TRIGGERED MIND-SHIFT, SPATIAL PRACTICES AND DO-IT-YOURSELF CITIES. NARRATIVES OF URBAN TRANSFORMATION OF BANJA LUKA, NIŠ AND PODGORICA

Sonja Lakić⁹⁰

Almost two decades ago, the introduction of the privatisation of formerly socially owned apartments in the former Yugoslav countries Bosnia and Herzegovina, Serbia and Montenegro declared the end of the era of the tenants, providing thousands of citizens of the aforementioned neighbouring countries with the entirely new meaning, assigning them with the role of the homeowners. This once-in-a-lifetime opportunity first and foremost provided citizens with the new kind of personal freedom of making individual choices with respect to the personal living space and, as such, resulted in the outburst of different anarchy-driven acts of self-managed and illegal modifications of privatised apartments in the cities of Banja Luka, Niš and Podgorica.

This study first demonstrates how have the changes in ownership patterns contributed to the emergence of new types of behaviour of the masses, and, moreover, resulted in the rise of self-built illegal practices and new spatial configurations that represent a product of homeowners' personal needs and/or aesthetic preferences. Secondly, this micro-level mix-method research employs the smallest urban scale of all – the one of an apartment – and, through series of individual stories and variety of visual material, tells the story not only about about the physical cities we get to inhabit nowadays bur rather discusses these appropriations of space as part of the big picture. In other words, I here argue and, moreover, conclude that the privatisation process provoked significant socio-spatial changes, and finally resulted in a whole new world of entirely new standards and principles, hence affecting society as a whole.

key words: transition; privatisation; housing; spatial appropriation; informality; Bosnia and Herzegovina; Serbia; Montenegro.

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THEMATIC SESSION 7:
**ENERGY EFFICIENCY REFURBISHMENT OF PUBLIC BUILDINGS -EMBUILD
PROJECT**

BEYOND ENERGYSAVINGS: DEEP REFURBISHMENT POTENTIALS

Bojana Stanković⁹¹

Although energy savings represent the most common interest for energy efficiency refurbishment of building sector, there are numerous implications of building renovation. Promoting deep refurbishment, through recent directives and incentives, makes issues of renovations for improving energy efficiency even more complex and challenging.

Deep refurbishment is considered as a secure path towards reaching the ambitious goals for energy savings and CO₂ emission cuts on the level of EU. Only scenarios for long term building stock energy modelling which include deep refurbishment of buildings reach the proposed targets, like 80% cuts until 2050. However, although deep refurbishment is defined as energy renovation which achieves energy savings of over 60%, it also represents an opportunity for a significant renovation of often outdated buildings, tackling also some non-energy related features. Although this is a good opportunity for significant improvement of living comfort and value of buildings, it is also followed by higher investment and sometimes by an overall increase of energy consumption, known as a rebound effect. One example of deep refurbishment in residential buildings is elaborated and analysed.

By including issues of improved living comfort and property value into assessment of energy savings, some significant potentials of deep refurbishment can be included into quantification of its results.

keywords: deep refurbishment, rebound effect, living comfort, residential buildings

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ENERGY REFURBISHMENT OF TRADITIONAL HOUSES IN SERBIA: POTENTIALS AND PROBLEMS

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Traditional houses are important part of cultural and built heritage, giving inhabited areas their uniqueness and identity. Keeping them intact and alive is a priority of national strategies and regulations, but also a major challenge due to special approach these buildings require. Built in interaction with nature, conditioned by climatic and geographic properties of immediate location and occupant needs, traditional buildings are often not up to modern standards of living and current demands. In order to increase energy levels, enhance comfort and improve living standard of the occupants there is a need for their refurbishment and adaptation. Matter of the refurbishment of protected built heritage is defined by national regulations and strategies, but only a small number of traditional buildings are defined and recognised as cultural properties. Since majority of traditional buildings are not protected it is possible to take actions that may jeopardize the identity of these buildings during the renovation process.

The need for energy refurbishment of traditional buildings is addressed in this paper through current regulations, practice and strategies regarding energy refurbishment, tourism and cultural heritage. It is noticed that due to the need to preserve the authenticity and integrity of these buildings, many developed actions and solutions in the field of renovation are not compatible with or adequately adapted for use in traditional buildings and may affect both the heritage preservation as well as occupant's health. This research indicates the need for further definition of recommendations and strategies regarding energy improvement of traditional buildings without endangering the preservation of historic building values.

Key words: traditional houses, renovation, energy refurbishment, cultural heritage

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INCORPORATING WIDER BENEFITS OF ENERGY EFFICIENCY MEASURES IN LOCAL AND REGIONAL DECISION-MAKING PROCESSES

Sebastian Botzler⁹³

40 % of all energy consumption and 36 % of CO₂ emissions in the European Union (EU) arise in private and public buildings. The renovation of existing buildings represents more than 17 % of the primary energy saving potential (or 51 % savings only in the building sector) of the EU until 2050. Despite the economic and legal necessity and the technical possibility, renovation rates e.g. in Serbia are still remarkably low around 0.6 % per year (Sandberg 2016). Reasons for that are amongst others the high initial financing costs, long payback periods and the missing present necessity to implement energy efficient renovation measures in the most municipalities.

However, improving the energy performance of buildings results in a wide number of benefits for individuals, communities and the whole society, which exceed the solely effect of energy saving. The challenge is to provide a methodology to facilitate the analysis and quantification of these wider benefits in order to integrate them in local public policy and decision-making. The introduced project uses indicators and factors based on regional and municipal characteristics to weight and rank the benefits induced by renovation measures according to their impact in the specific location. The model takes existing data and recalculates the wider benefits within regional context. Profound reporting and support schemes will accompany this process. Webinar and roundtables as well as technical guidelines and brochures are going to be designed to disseminate wider benefits as a motivator to increase renovation rates.

The topic is embedded in the European Horizon 2020 Research Project “EmBuild”. This enhances the work with case study municipalities in six countries in South Eastern Europe. The feedback will lead to an optimisation of the methodology and help the municipalities to incorporate wider benefits into their renovation strategies.

key words: wider benefits of energy efficiency, EmBuild project, regional and local context, indicators

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