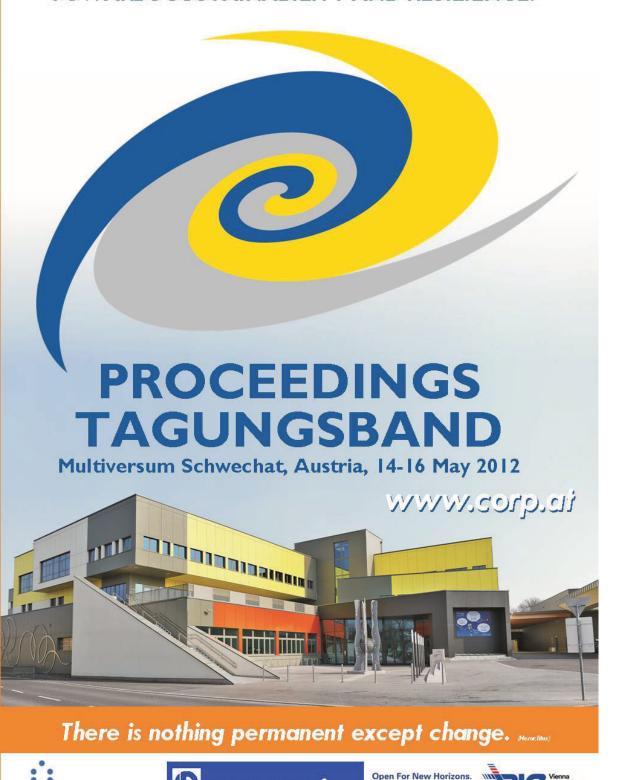
Manfred SCHRENK, Vasily V. POPOVICH, Peter ZEILE, Pietro ELISEI (Eds.)

RE-MIXING THE C

TOWARDS SUSTAINABILITY AND RESILIENCE?

Conference on Urban Planning, Regional Development and Information Society







CEIT ALANOVA















REAL CORP 2012. Re-Mixing the City. Towards Sustainability and Resilience?

Proceedings of

17th International Conference on Urban Planning, Regional Development and Information Society

Beiträge zur

17. internationalen Konferenz zu Stadtplanung, Regionalentwicklung und Informationsgesellschaft

Edited by

Manfred SCHRENK, Vasily V. POPOVICH, Peter ZEILE, Pietro ELISEI

Schwechat, 2012

CD-ROM-Edition ISBN: 978-3-9503110-2-0 **Print-Edition** ISBN: 978-3-9503110-3-7

Im Selbstverlag des Vereins

CORP - Competence Center of Urban and Regional Planning

Kompetenzzentrum für Stadtplanung und Regionalentwicklung Lerchergasse 4, A-2320 Schwechat-Rannersdorf office@corp.at, http://www.corp.at

REAL CORP 2012

TEAM

Manfred SCHRENK
Clemens BEYER
Christian EIZINGER
Flora STROHMEIER
Linda DÖRRZAPF
Patrick KREJCI
Adela MARCOCI
Katharina MITTERER-REINISCH
Michael MÜLLNER
Julia NEUSCHMID
Petrina PAPAZEK
Daniela PATTI
Slobodan POPOVIĆ
Wolfgang W. WASSERBURGER

All rights reserved. – Alle Rechte vorbehalten.

Editors – Herausgeber:

DI Manfred SCHRENK, CEIT ALANOVA - Central European Institute of Technology, Schwechat, Austria

Prof. Dr. Vasily V. POPOVICH, SPIIRAS, St. Petersburg, Russia

Dr.-Ing. Peter ZEILE, TU Kaiserslautern, Kaiserslautern, Germany

Dr.-Ing. Pietro ELISEI, URBASOFIA, Bucharest, Romania

Publisher – Medieninhaber und Verleger:

CORP - Competence Center of Urban and Regional Planning

Kompetenzzentrum für Stadtplanung und Regionalentwicklung

Lechergasse 4, A-2320 Schwechat-Rannersdorf

office@corp.at, http://www.corp.at

CD-ROM Edition: ISBN 978-3-9503110-2-0 **Print Edition:** ISBN 978-3-9503110-3-7

Contributions by the authors reflect their own findings, views and opinions which may not necessarily be consistent with the views and opinions of the editors.

Die Arbeiten geben die Erkenntnisse und Ansichten des jeweiligen Autors wieder und müssen nicht mit den Ansichten der Herausgeber übereinstimmen.

Table of contents – Inhaltsverzeichnis:

A New Urban Sensing and Monitoring Approach: Tagging the City with the RADAR SENSING App	
A Preliminary Study of the Impact of Urban Energy Consumption with Urban Form in Taiwan	
A Spatial Assessment for Re-Mixing Buildings on the Rural Fringe of Spain	
Addressing Environmental Problems in the Coastal Urban Area of Attica	
An Exploration of Efficiency and Influencing Factors of Low Carbon City	
Anknüpfungspunkte für Web-2.0- und AR-Instrumente in Verkehrsplanungs- und Beteiligungsprozessen und ihre Umsetzung	
Application of Knowledge Management Framework as a Decision-Support System for Disaster Management in Metropolitan Areas – Tehran as the Case Study	63
Zohreh A. Daneshpour, Alireza Fallahi, Asrin Mahmoodpour Aufbau einer partizipativen Planungscommunity am Beispiel von Nexthamburg	
Daniel Kulus, Alenka Poplin, Rajiv Patwardhan	
BIBBIDI-BOBBIDI-BOO: The Reinvented Magic of Urban Shopping? Mira Milakovic, Aleksandra Stupar	
Can Universities Facilitate Cities to Function Better?	
Changing Sub-Urban Land Uses to Urban	 101 101
City Region of Short Distance for ALL? Planning the 'Everyday' for a Diversity and Mixity of Users in Functional Area Heidrun Wankiewicz	
Climate Change in Cities – Can Remote Sensing Help to Optimise Mitigation Strategies?	 121 121
Compact Development as Land Use Planning Tool for Urban Disaster Management Neha Bansal, Mahua Mukherjee, Ajay Gairola	 129 129
Comparing Metropolitan Governance in Germany and the US: A Social Network Analysis	
Concepts Of Urban Renewal in an Aging Society in the XXI Century – Case Studies in Polish Cities	
Considering the Impact of Future Climate Change on the Resilience of a City – Surface Run-Off due to Heavy Storm Events in the City of Wuppertal	161
Frank Michel, Daniel Steffen, Sascha Schlobinski, Stefan Sander	
Deconstructing Smart Cities: An Intertextual Reading of Concepts and Practices for Integrated Urban and ICT Development Marc Wolfram	
Der Pfalzfinder – mobiler Service im regionalen Tourismus	
Sebastian Althoff, Norman Kratz, Gregor Landwehr	
Der Weg zum Smart Citizen – soziotechnologische Anforderungen an die Stadt der Zukunft	
Development and Application of Urban Micro-Climate Management System for Creating Low-Carbon and Green City Daewuk Kim, Eung-Ho Jung, Jiwon Ryu, Jae-Gyu Cha, Jeong-Sik Yun	
DGNB Zertifizierungssystem: Neubau gemischte Stadtquartiere	
Do New Urban Densities Provide Urban Landscape Identity? A Concept for Operationalizing Qualitative Factors	
Combining Sophisticated Visualization Workflows	221 221
"Dream" Regional Planning – "Real" Estate Development Based on Shopping Center Developments as Examples of "Real" Re-Mixing	
Evelyn Susanne Ernst	

3-Plus der Initiierung und Umsetzung smarter Mobilitätslösungen: Die Gunst der Stunde nutzen!	
Martin Berger, Ulrich Bergmann, Markus Frewein, Mario Platzer	23 /
Prozesse	
Henning Stepper, Ingo Wietzel	
Ecological Problems of Motor Transport of Azerbaijan	
Effects Comparison of Tools to Control the Traffic Demand as an Instrument of Urban Environmental and Climate	
Policy	
Dietrich Leihs	
Enriching Public Spaces in Iran – Challenges and Opportunities	
Environmental Challenges of Peri-Urban Settlements in the Lagos Megacity	
Evaluation of the Current Municipal Slaughterhouse of Babolsar and Locate an Appropriate Site via Fuzzy Logic in GI for the Future One	
Farhad Amiri Fard, Sadjad Mohammad Zahraei	
Explore the Effect of Urban Flood with the Integration of Spatial Analysis Technique	
Fill in the Blanks: Challenging the Modernism, Satisfying the Users' Needs?	
Aleksandra Djukic, Aleksandra Stupar	
Geographic Views on Regional Planning and Development of Bosnia and Herzegovina	
Geschlechterverhältnisse und Mobilität-Welchen Beitrag leisten Mobilitätserhebungen?	
Gesunde Kommune – Chancen für eine nachhaltige Stadtentwicklung durch Sport und Bewegung	
Gerhard Steinebach, Henning Stepper, Lukas Esper, Cordula Uhlig	
GIS for Urban Environmental Management Plan: Making it through the Crisis	
High Building Density around Subway Stations, Policies and Solutions Abdolhossein Ardekani	
How Is Mobility Behaviour Affected by a Migrant Background?	
Humans as Sensors to Enhance the Built Environment: a Case Study of the Eastern Harbor, Alexandria, Egypt Dina Taha, Rania Raslan, Benjamin Sebastian Bergner	
Improvement of City Competitiveness by Re-Mixing of Inner Strengths	37
Sanja Simeuncevic Radulovic, Biserka Mitrovic, Danilo Furundzic	
Integrating Disaster Management and Metropolitan Planning in Tehran Alireza Fallahi, Zohreh A. Daneshpour, Vahideh Ebrahimnia	
Integrative Urban Design Game as a Method for Creating Liveable Urban Ambients	399
Integrierte Simulation von Raumentwicklung und Verkehr bei stark steigenden Energiepreisen	
Intra-Urban Differentials in Poverty and Livelihoods in Selected Residential Neighbourhoods of Lagos Metropolis Taibat Lawanson	417
Ivan: Creator of Sustainability in Iranian Old Houses	427
Javad Eiraji, Pouya Joudi Gollar, Ayub Nalbandi Bukani	
Key Impacts of Economic Integration of Kazakhstan on Spatial Development of Its Settlements Madina Junussova	
LIMES – Large Scale Innovative and Mobile European Services for Culture Tourism in Rural Areas	
Livability and Social Integration vs. Economic Crisis and Trends of Transition: Case Study of Local Planning in Belgrad Biserka Mitrović, Sanja Simeunčević	
Mitnahmesysteme als Ergänzung des öffentlichen Personennahverkehrs (ÖPNV) in ländlichen Räumen – das Beispiel	,=-
"Mobilfalt"	453 453



Mixed Building use Promotes Mixed Urbanity: Insights from Historical Use-neutral Architecture	
Mobile Digitalisierung von Baulücken – Baulückenerfassung mit GIS, iPad und Geoweb Julia Biwer, Daniel Broschart, Stefan Höffken	
Modelling Affective Responses to Space	
Möglichkeiten der ökonomischen Bewertung des Verlusts der Nacht	493
MOR€CO – Mobility and Residential Costs: Improving the Settlement Development in the Transnational Alpine Space	ce
Region Benjamin Büttner, Susanne Franz, Ulrike Reutter, Gebhard Wulfhorst	
Multi-Channel-Konzepte als Chance für eine nachhaltige und zukunftsfähige Entwicklung der Innenstädte?	513
Negative Space and Positive Environment: Mapping Opportunities for Urban Resilience	52 3
Noise Pollution Management Issues in Tirana, the Capital of Albania Dorina Pojani	
Offene Ganzheit in der europäischen Stadt der Zukunft Beate Niemann, Priscilla Schädler	
Parking Regulations and Urban Development – Poznań's Case Study	
Pathology of Urban Space Based on Standard Designs for Wheelchair Users, Sari 2011	55
Pedestrian Crossing Behaviour in Signalized Crossings in Middle Size Cities in Greece Athanasios Galanis, Eliou Nikolaos	563
Pedestrian Evacuation Planning for Major Events – a New Approach Combining Planning Aspects and Human Factor Verena Reuter, Benjamin Sebastian Bergner, Annette Spellerberg	
Planning Emergence via Sustainable Partnerships in Urban Ethiopia Tendayi Gondo	58 :
Planning Re-Mixed: Conceptual Framework of New Planning Ideas Izabela Mironowicz, Derek Martin	
Potenziale und Wirkungen standortbezogenen Mobilitätsmangements	
Prospects for Brownfields at the Edge of Nicosia Buffer Zone	
Providing Web Maps for Everyone. Understanding Users and their Requirements	
Raum.Sicherheit.Bewusstsein – Sicherheitswirkung und Sicherheitsverständnis räumlich handelnder Akteure Jan Abt, Josiane Meier	
Raumpioniership in sozial benachteiligten Großstadtquartieren: Akteurstypen aus Berlin-Moabit und Hamburg-	
WilhelmsburgPetra Jähnke	
Re-Mixing and Re-Using: the Urban Integration of the Specialized Filamentary Morphologies in Metropolitan Lisbon Inês de Castro Luís Lopes Moreira	
Real Estate Taxation in Poland and its Influence on Spatial Development	
Rebuilding Old Downtowns: the Case of Doha, Qatar	
Regeneration of Heritage Urban Space of Delhi, Shahjahanabad, the Walled City	
Remixing New Ideas with Old Countries—the Attempt to Apply Airport City Concept and Special City Quartier Conc to the Armenian Landscape	703
Resilience, Resistance, Reinvention of the Right to the City	
Resizing/Re-Seizing the City – Requirements for Diversity	

Seismic Risk Reduction: a Proposal for Identifying Elements Enhancing Resilience of Territorial Systems	
Sensing the City – How to Identify Recreational Benefits of Urban Green Areas with the Help of Sensor Technology Benjamin Sebastian Bergner, Jan-Philipp Exner, Peter Zeile, Martin Rumberg	
Sharing is Caring – Will Users Comply with the Current Smart City Approach?	
Sicherheit im demographischen Wandel	
Social and Spatial Behaviour in Shared Spaces	
Socio-Technical Assisted Neighborhoods	
"Spaces-In-Between" – Reweaving the City along its Inner Edges	775 775
Städtebauliche Methodenentwicklung mit GeoWeb und Mobile Computing	
Stadtplanerische Herausforderungen einer funktionalen Durchmischung am Beispiel der Landeshauptstadt Innsbruck . Antonia Roither, Anne Weidner	
Strategic Forecasting and Planning that City Planners can do Themselves: Examples of Simple but Powerful Visual Techniques for Specifying Urban Outcomes in Growing Metropolitan Regions	
Studying Industrial Symbols in Contemporary Shiraz Urban Landscape	
Testing the Resilience of Underground Infrastructure Solutions through an Urban Futures Methodology Dexter Hunt, Ian Jefferson, Chris Rogers	
The Ability of Wheelchair Users in Utilizing Urban Facilities, Sari 2011	
The Effects of Mobility Management for Companies in the Course of the German Mobility Management Action Programme "effizient mobil"	
The Egyptian Revolution from the Perspective of an Urban Planner: Demonstrations on the Streets of Alexandria, Egyp Dina Taha, Rania Raslan, Benjamin Sebastian Bergner	
The Evaluation of Daily Urban System in the City of Rasht	
The Netherlands in Transition. The Planning of Low Carbon, Sustainable and Liveable Cities in the Utrecht Region Martin Dubbeling	867 867
The Urban Risk Dilemma: Urbanisation, Modernisation and Disaster Risks in Ho Chi Minh City	881 881
The Way to Plan a Sustainable "Deep City": From Economic and Strategic Aspects	
The "Open Cities" Approach: a Prospect for Improving the Quality of Life in Alexandria City, Egypt	
Tischlein, deck dich! Über städtische Gastronomielandschaften und was Stadtplanung damit zu tun haben könnte	
Tourism Continuity Plan after the 2003 Bam Earthquake	923 923
Toward Mixed-Use Communities by Transit-oriented development (TOD) in the United States	
Traffic Impact Analysis as a Tool for Planning Permiot Considewration in Lagos, Nigeria: Guidelines and Procedures Taofiki Salau	
Transition Analyses on Land Use and Land Price in Nagoya CBD during the Deregulation Decade	
Understanding the Relationship between Resilience and Sustainability: Emergency Planning and the Design of Urban Space	
Julie Fisher, Steven Harre-Young, Lee Bosher	965
Christof Schremmer, Ursula Mollay, Barbara Saringer-Bory	

Urban Governance and Contribution of Climate Change Consideration and Energy Efficiency: Case Study of Hashtge New Town, Iran	
Ghazaleh Jasbi	
Urban Nomads. Building Shanghai: Migrant Workers and the Construction Process	
Urban Safety of the Public Spaces in Belgrade, Serbia Nataša Danilović Hristić	
Urban Structure as a Repository of Social Content – the Case Study of the Lodz 'Jewish District'	
Urban Time and Energy (UTE) – Time-Space-Energy Scenarios in Urban Areas. Edeltraud Haselsteiner, Veronika Gaube, Alexander Remesch, Barbara Smetschka	
Urban Types and Transformation of the City Mohammed Qasim Abdul Ghafoor Al Ani	
Urbane Sicherheit – eine Gemeinschaftsaufgabe vieler Akteure	1055 1055
Using Current Condition of Cities to Change them to Dynamic Cities – Case Study of Rasht, Guilan, Iran Seyed Mehdi Amirkiaei, Seyedeh Roshanak Amirkiaei	
Visibility Analysis of the Capital District in the 2030 Master Plan of Abu Dhabi	
Wayfinding Performance of Visually Impaired Pedestrians in an Urban Area	1081
Without Planning? Incremental Emergence of High Density Mixed Use Centres in Mega Manila	
Zielgruppeneinbindung in Verkehrsplanungsprozesse mittels neuer Technologien?	1103
A Planning Support System as a Tool for Sustainable Urban Planning	
An Introduction to Major Challenges of Urban Transportation in Metropolises of Iran	 1121 1121
An Introduction to Socio-spatial Consequences of Urban Poverty in Iran	
Analysis of the Fabric of Hawramane Takht Village from Natural and Climatic Point of View	
ARGUS: Assisting Personal Guidance System for People with Visual Impairment	
Building up Land Use Management Skills	
CARBOTRAF – A Decision Support System for Reducing CO ₂ and Black Carbon Emissions by Adaptive Traffic Management	1149
Martin Litzenberger, Wolfgang Ponweiser, Michael Schramm, Alfred Paukerl, Marie-S. Marcinek	
CentropeSTATISTICS – Working Interactively with Cross-Border Statistic Data	
City on the Edge of Moscow Agglomeration: a Chance for Sustainable Development	
Conceptual Approaches on the Development of the Territory of the Republic Kazakhstan Turlybek Mussabayev, Karlygash Muldagaliyeva	
Cooperation between AAL-related Research and Caregiving for Seniors in the Municipality of Schwechat	
Development of Managed Real Estate-International Case Studies on Principles and Success Factors Dietmar Wiegand, Marijana Sreckovic	
Enhancing the Social Inclusion of Seniors by Using Tablets as a Main Gateway to the World Wide Web	
Evaluation Performance Comparison of Surveying and Mapping Systems for Updating the City Geospatial Progress Mahmoud Al-Hader	
Feedback for Urban Planning and Solutions David Pešek. Bohdana Fialová, Ing Arch. Eva Špačková	 1201

From 5 to 10 %. The Challenge to Double Vienna's Modal Share of Cycling	
Andrea Weninger	
Geosimulation of Urban Housing Market Conditions: A Preliminary Investigation Harald Schernthanner, Hartmut Asche	1213
I-Scope-Interoperable Smart City Services through an Open Platform for Urban Ecosystems	
Identification of Innovative Solutions to Decarbonise Transportation of People and Goods in Smart Cities	1227 1227
Implications of Land Use Mix on the Sustainability of African Urban Centres: A Case Study of Stellenbosch, South	
Africa	1237
Innovative Informationstechnologien als Bausteine einer nachhaltigen Stadtentwicklungspolitik	
Integrated Action Plans and Training Course for Circular Land Management	
Introducing Integrated Eco-Mobility to the New Asian Urban Model – Filling Systemic Transit Convenience Gaps. A Case in Chongqing's High-Density Jiangbei Centre	
Stefan Rau, Jianfeng Xu, Hang Yi Chen, Yi Hua Zhang	
It's the Footprint, Stupid! Urban Assessment by Footprinting Public Transit	1267
Kostenreduktion im Bereich der Infrastruktur durch LifeCycle-Management	
Land Uses: Anything Anywhere & Anytime? Yes, but How Thematically and Where Areally?	1279
Looking for New Ideas of Public Space – Public Space Projects in Gdansk Reinforced by Art Activities	1285
Memorable Square: Identities, Meanings and the Production of Urban Space in Yogyakarta, Indonesia Dyah Widiyastuti	
Mobility Pass for Residential Real Estate – An Online Tool for the Calculation of Mobility Costs and the Awareness on Housing Decisions	1301
Manfred Schrenk, Patrick Krejci, Linda Dörrzapf, Christian Eizinger, Wolfgang W. Wasserburger	. 1301
Modelling the Coverage of Public Utility Providers	
Möglichkeiten zum Einsatz von Augmented-Reality-Technologien in Verbindung mit WebGIS-Services in der urbanen Pflanzenverwendung	
Marcel Heins, René Krug, Einar Kretzler, Wolfram Kircher, Christina Werner	
Partizipationstool – Tool zur Überwindung von prozessbedingten Barrieren in Infrastrukturprojekten	
"Pedestrianize Your City" – Elemente und Vorteile einer Fußgängerstrategie sowie eines Fußgängerchecks für Ihre	. 1517
Stadt	
Dieter Schwab, Martina Strasser	. 1325
People Articulating "the Urban" in Serbia: On-line Platform for the Dialog about Public Spaces, their Availability and Public Usage	
Marija Cvetinovic, Dobrica Veselinovic	
Alireza Soltani	
Re-Mixing City vs. Re-Mixing the Cities: Interactive Cities, Zipped Regions and Regional Coalition Model. The Case of Orange County as a Successful Illustration of Regional Coalition Model	1341
Remixing Music in the City and Music online: How Listening to Music Changes because of Piracy	1353
Olivier Lefebvre	1359
Andreas Hacker	
Raoof Zabeh, Pouya Joudi, Ramez Zabeh	
Sharing the Land Knowledge: The HLANDATA Way to Harmonized Information on Land Cover/Land Use Tomas Soukup, Tomas Loukotka, Antonin Orlik	



Smart Cities – wie Systeme intelligent werden	
Spatial Planning and Open Space Integration in Urban Ethiopia: a Sustainable Accessibility Exegesis	1383
Stakeholder Process in the City of Bruck an der Mur: Lessons Learned in Developing a Vision and Designing an	Action
Plan for a Smart City	
Sustainable Urban Development in Germany in the 1990s – a Situation Report after 20 Years	
The Effect of Fourth Dimension on the Behavior of Urban Dwellers	
The Resource-Saving Enterprise Zone Liesing	141′
The Walkable City – the Concept of Stockholm Michael Erman	
Three Dimensional Mixtures of Different Activities in Buildings around Railway Stations in Tokyo – Shibuya, A	
Juban and Kasai	
TURaS: Transitioning to Urban Resilience and Sustainability	1435
Urban Nomads: How to Remix the Demography of the City Ehsan Bazafkan	
Urbane Zentren für alle Menschen nutzbar machen	
Utility Tunnels – Proven Sustainability Above and Below Ground	
Wir schützen uns zu Tode. Schallschutz ohne Ende oder akustische Raumplanung?	145



BIBBIDI-BOBBIDI-BOO: The Reinvented Magic of Urban Shopping?

Mira Milakovic, Aleksandra Stupar

(Mira Milakovic, Teaching Assistant, University of Belgrade, Faculty of Architecture, Bul. Kralja Aleksandra 73/II, mira.milakovic@gmail.com)
(Dr Aleksandra Stupar, Associate Professor, University of Belgrade, Faculty of Architecture, Bul. Kralja Aleksandra 73/II, stupar@afrodita.rcub.bg.ac.rs)

1 ABSTRACT1

Built on the principles of the Athens charter and Modern movement, New Belgrade was a spatial representative of a new state and the post-war Yugoslav society. However, at the turn of the 21st century the processes of transition, globalization and EU-integration started, shaping New Belgrade into a polygon of another experiment, initiated by a number of local and foreign greenfield investments. The intensification of commercial, business and administrative activities has created a new identity of this urban entity, imposing new rules and elements into the rigid modernist concept. The shifts of consumption patterns and contemporary life style have imposed new shopping demands which reflected in a new typology of shopping nodes/centers dispersed throughout the territory.

The paper will focus on the period of the 1990s and 2000s analyzing the application of 'global rules' to shopping nodes and their network. The new layer of consumerism will be related to large/small scale spatial and social changes of New Belgrade, which have generated new urban energy while boosting further development and increasing the value of existing structures. The emphasis of the analysis will be on large shopping malls which announced another phase of New Belgrade's development offering elements of traditional 'inner city' atmosphere implanted into the modernist grid.

2 INTRODUCTION: THE JOY OF CONSUMERISM

The contemporary way of life has generated a number of problems which are directly or indirectly caused by our patterns of consumption and their effects on environment. Saturated by increasing consumerism, modern cities face difficulties related to production technologies, distribution, transportation and — consequently pollution, while the gap between low-income and high-income social groups becomes more visible then ever. However, it is difficult to step out of the vicious circle of shopping addiction and to return to a simple fulfillment of basic needs.

The 'art of shopping' has become a well-elaborated subject for architects, urban planers, psychologist and sociologists, while its importance for urban development has been frequently underlined. Sometimes, shopping represents a necessity, everyday routine or even a nuisance. On another level, it could be glorified as an activator of total urban regeneration or it could be labeled as an instrument of personal catharsis for over-stressed consumers. Therefore, it is not surprising that the relation between shopping and urban morphing becomes very strong, which reflects in a number of types that evolved during the last few decades. Hugh Pearman (2002) identifies seven main categories/types of shopping centers – open mall, 'black box' enclosed mall, daylit covered mall, mega-mall, 'speciality center', village-like 'factory shopping center' and 'intersection city'. Most of these types could be considered as the latest development/transformation phase of a traditional shopping street, while the seventh type represents a mega-manifestation of commerce and its globalized character and performance. Pearman also emphasizes the revival of big department stores, which actually represent a social and architectural innovation of the 19th century (although the first one appeared even earlier in the UK, during the 18th century).

The position of new shopping nodes indicates recent changes and trends in urban development, demonstrating all the turbulence which occurred in the city of the 20th and early 21st century. The decline of the inner city, the expansion of town edges, urban growth and regional re-grouping, each one of these phases has affected different modes of shopping - their scale, architectural appearance, theme and attractions, favored atmosphere and relations to the city. However, the selected type of shopping could also define a preferred urban image, channeling its future nature and form (Sudjic, 1993).

¹ The paper was realized as a part of the research project "Spatial, Environmental, Energy and Social Aspects of Developing Settlements and Climate Change – Mutual Impacts" (project number TP36035), PP1: "Climate change as a factor of spatial development of settlements, natural areas and landscapes", financed within the program Technological Development by the Ministry of Education and Science of the Republic of Serbia (from 2011to 2014).



Consumerism usually overlaps with ideology, enabling a bifocal view to a society and its spatial manifestations. Therefore, this paper will give an insight into the urban transformations of New Belgrade analyzing the changes which occurred in shopping patterns during the last two decades. Representing a unique testimony of an epoch, New Belgrade has become the best example of recent social changes, revealing a striking image of transition - from socialism to capitalism (Fig. 1).



Figure 1: The image(s) of New Belgrade – snapshots of history and urban transformations (1950s and 2000s).

3 SETTING THE STAGE: MORPHOLOGY VS. IDEOLOGY

Conceived as a new administrative economic and cultural node of the post-war Yugoslavia and its society, New Belgrade played an important representative and symbolical role, which essentially distinguished its character, appearance and quality from other modern(ist) settlements and satellite towns with similar design pattern. As such, a new node of the Yugoslav capital had a necessary economic and ideological backup to implement a number of modernist ideals. Conceived as a functional city, it was composed according to an orthogonal grid of mega-blocks and mono-functional zoning. Consequently, it should have provided a variety of activities adjusted to the accepted concept and recognizable image of residential blocks with free standing buildings, greenery and large open spaces for social interactions. However, the changes of sociopolitical and economic conditions reduced the original idea transforming New Belgrade into a predominantly residential city. Nowadays, global trends and continuous debates about city development have underlined the importance of this area, bringing the question of its functional (re)structuring and activation into the limelight.



Figure 2: The local center in residential block no. 1 intended to serve the community cultural and daily needs.

3.1 The image of progress

New Belgrade, planned and designed as a modern, functional city, materialized some of the ideas launched by CIAM and Le Corbusier's Athens Charter. Beside its foreseen important position of a new administrative, economic and cultural hub of the capital, it also had the crucial impact on the integration of historical centers of Zemun and Belgrade into a greater metropolitan region. Thus, it does not represent a peripheral satellite settlement, but a unique central territory planned for further growth and concentration. Although conceived as a complex spatial structure with a number of functions, it was only partially realized. For many years, it has been dominated by residential modernist blocks. The mix of activities existed only on a community level, as a local center in each orthogonal mega-block, and it represented a state property (Fig. 2). The main role of every local center was to act as a meeting point, local supplier and a focus of cultural activities for the residents.

3.2 The critic of Modern

The critic of the applied modern concept marked the 1980's architectural scene, together with the impacts arising from the changed socio-political context. The concept was re-questioned, a number of problems was detected and some ideas about a renewal of this area appeared. This situation caused a shift of the original paradigm, transforming the open plan of New Belgrade and adjusting it to new users and needs. These changes could be decoded through two interesting events related to two different spatial levels. The first was The international competition for the future of New Belgrade, where majority of authors proposed fragmentation of over-scaled urban elements/blocks and suggested a return to traditional urban values. The second one was visible through the reinvention of residential scenery i.e. the construction of semi-open shopping centers which represented extensions of existing local centers.

The concept of these shopping centers was more traditional than modern, since their form and function resembled features and the atmosphere of old urban cores. Mostly composed of one or two longitudinal buildings, these nodes of shopping usually occupied only ground floor level. The space was divided into separate functional units – small shops which could only be accessed from outside. The variety of mixed contents included fashion stores, bakeries, cafes, bookstores, home appliances, etc. The land was state-owned, but each store was in private ownership. However, having in mind their small spatial capacity and structure and the fact that they were constructed only in a few mega-blocks, their role was mainly identified on a local level (Fig. 3).







Figure 3: First shopping centers built in New Belgrade - a/ the position in the block; b/ and c/ the built structure.

3.3 The period of transition

After 1989 and the beginning of European integration, Yugoslavia disintegrated. During the 1990s, the political, economic and social situation in Serbia was additionally complicated by the influence of international embargo, civil wars in ex-Yugoslavia and a continuous flow of refuges from ex-Yugoslav republics. Belgrade, as a capital, again became a stage for social turbulence, while New Belgrade, once conceived as an administrative and residential paradise of a socialist society, lost its prominent label. Reflecting a gloomy reality and limitations imposed by the economic isolation of the country, its urban tissue became a setting for new social transformation and architectural experiments.

The new postmodern streams that already emerged in the profession set off an imperative of 'thickening' the urban structure of New Belgrade. The guidelines were clear – to recreate a human scale of streets, to provide better accessibility for pedestrians, to reconsider scale of mega-blocks, superpose traditional urban patterns and, finally, to stimulate mixed-use by introducing new activities - culture, commerce, business, etc. (Milakovic and Vukmirovic, 2011). Consequently, the changed socio-economic circumstances and preferred spatial concepts reflected in the typology of shopping centers/nodes and this period generated three new types.

The first one – the flea/open market, represented a direct consequence of social stratification. In order to support socially vulnerable groups and meet their needs limited by low-income, this type was generated from informal sales near official markets and along streets. In time, this mode of shopping was relocated to a new, legal(ized) site, utilizing a large wired plot in which metal counters were set in rows. The market is totally open-air, with some characteristics of oriental bazaars (Fig. 4). The plot is still city-owned but each counter is private. Although its main role is to sell a wide range of products, there are some complementary activities, such as cafes and restaurants. The gravitation area of the largest New Belgrade open-market has also changed along with the change of its informal character. Nowadays, its importance on a city level is additionally supported by the proximity of a metro/tram station and a large parking lot.



Figure 4: The flea/open market - a/ the position in the block; b/ the entrance to the market, and c/ the daily atmosphere.

The second type appeared in a form of semi-closed malls along the main boulevards in just one area of New Belgrade and there are two examples of this concept. The spatial organization is based on a longitudinal building parallel to the main street, with two levels – ground floor and first floor. There are two types of galleries – closed, oriented toward the inner space, and opened, oriented toward the street. Both galleries actually represent a special kind of pedestrian 'street', providing access to all stores (Fig. 5). The longitudinal form is divided into three sections and two central atria are designed to be meeting points. Activities range from simple fashion stores to kindergartens and private medical offices. The buildings are still owned by the city, while individual stores are private. Parking lots exist, but their capacity in both cases is limited and inadequate – for ex. for more than 500 stores in one of the malls there are only 96 available parking places.

Although with similar spatial and functional structure, two representatives of this type have generated different importance and impact. The one which was built first remained locally oriented, attracting mostly residents of the nearby blocks. The structure of users has been changed in the second mall, becoming the biggest Chinese shopping center in the city and evolving into a shopping node of regional importance. This trend also influenced some changes in social diversity, replacing the inherited consistent structure of residents (originally mostly middle-income state officials) with a more multicultural (and globalized) milieu, composed of newcomers attracted by specific economic circumstances.



Figure 5: The semi-closed mall in Block 70: a/ the position in the block; b/ the system of open and closed galleries; c/ the daily atmosphere.



Figure 6: The transition type: from the semi-closed mall to the enclosed mall.

The third type actually represents a transition mode of the enclosed mall. Its semi-closed scheme consists of satellite standalone buildings located on the same lot/block. Visually, the central facility (the shopping center) and the surrounding satellite buildings are perceived as a single 'unit', although the outlying buildings are not physically connected (Fig. 6). At first, its importance was recognized on a city level, but nowadays its activities are mostly limited to the local area. Since it is not a typical representative of its kind, this paper will not consider further details.

4 MIRRORING THE GLOBAL FASHION

4.1 Shopping (in) the City

At the turn of centuries, the political and economical conditions in the country became more or less stable and a transition towards democracy influenced significant changes in planning practice. Stimulated by international trends, the area of New Belgrade has commenced its new life cycle and its disadvantages turned out to be potentials: the low index of built areas has indicated a number of possibilities for large development projects, while infrastructure and connectivity have provided a good backup. Open public spaces in this area have embraced some elements of traditional design and the process of reorganization and upgrading has started – responding both to an internal pressure (to transform the spatial structure) and respecting the global trends. The privatization of some public spaces has become a reality, imposing a business interest over the public one. The commercial facilities have been considered as positive markers of neighborhoods, while the penetration of private sector and the increased commercialization of public spaces have been accepted and promoted as an appropriate answer to the problems of mono-functional zoning and an opportunity to intensify activities, their quality and diversity (Fig. 7).

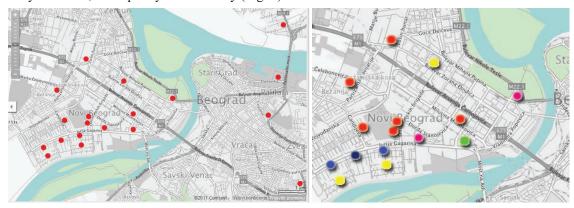


Figure 7: a/ Concentration of shopping malls in Belgrade; b/ Distribution of shopping mall types in New Belgrade (yellow – semi-open; blue – semi-closed; red – ,big-box' mall; pink – enclosed mall; green – open shopping center).

The first enclosed malls in New Belgrade were positioned at strategic locations, attached to important traffic arteries. Occupying large plots they represented large retails, i.e. parts of different chains that operate a store. Their physical structure cold be classified as the 'big-box', a free-standing two story building, with a totally closed compact space (Fig. 8).



Figure 8. The first types of enclosed (big-box) malls in New Belgrade.

However, the typical representatives of the enclosed type appeared in New Belgrade few years ago. Since then, their number has increased, as well as a level and number of their activities and facilities. The design is introverted/inward-facing and its internal organization is based on theories which 'control' customers' behavior (for example, the Gruen transfer - the moment when consumers respond to "scripted disorientation" cues in the environment; the effect of the transfer is marked by a slower walking pace). Like in many other cases, the mall is designed as a regional shopping hub and its building represents only a part of a larger superstructure, which also includes offices and/or residential space. The mall is up to three stories high, designed around two central atria, with a wide selection of stores, as well as with a number of entertainment facilities, fast-food outlets, restaurants and public areas (Fig. 9). The mall has its own social and functional dynamic, oriented towards the consumer. The shopping area is combined with a system of enclosed

walkways for pedestrians, which represents a modern version of the traditional marketplace. A convenient parking area is situated in an underground garage. One of the advantages of this type is certainly a permanent control of micro-climate.







Figure 9. An example/the biggest enclosed shopping mall (Usce): a/ the position in the block; b/ the connection to the historical core (via one of the major streets); c/ the internal atmosphere.

Obviously, the identified types (Table 1) are well positioned in the contemporary consumption pattern(s), but depending on their spatial and functional concept (which is the result of all inherited/imposed ideological stimuli) their attractiveness varies, as well as the level of their adjustment to current needs. Therefore, some of these shopping structures seem to be outdated or even abandoned, but the general image represents New Belgrade as a new shopping paradise. From approx. 0,5m2 of retail space per inhabitant (during the 1970s), the municipality of New Belgrade has nowadays around 1,6m2 of retail space/inhabitant, which is the highest ratio in Belgrade.

The established urban magnetism has certainly brought a significant financial benefits, but some other levels – mostly social and ecological, have to be reconsidered and thoroughly evaluated in the next phase of urban development and growth.

4.2 Shopping and environment

The current situation in New Belgrade has caused a number of environmental problems and dilemmas. Some of them are related to old/inherited types of shopping centers, their structure and performances, while others represent results of the recent urban intensification triggered by the construction of new shopping malls. The concerns about energy efficiency and environmental protection have opened a new perspective of the future urban transformation, focusing a professional and public attention to accumulated problems of pollution, waste recycling and thermal control.

The main challenges, identified after the introduction of new, 'globalized' patterns of consumption, could be divided in three groups which are mutually dependent:

- traffic increased intensity, points of congestion, critical routs, car-friendly vs. pedestrian-friendly concept, parking capacity;
- environment air pollution, waste recycling, climate, carbon intensive vs. carbon-free consumption;
- energy heating/cooling, renewable sources, thermal insulation, natural systems vs high technology.

In New Belgrade, the crucial impacts could be decoded in the increased intensity of traffic and the appearance of new points of congestion. This problem is mostly related to the shopping malls of regional importance, which are positioned along strategic routes of the city, in a close proximity to the access points to New Belgrade. Since these shopping malls represent car-friendly structures, they cause major traffic congestion and obstruct expected mobility. The consequences could be also detected in air pollution and changes of micro-climate. The other types of shopping centers in New Belgrade have more pedestrian-friendly concept. However, in comparison to them, parking capacities in enclosed malls are well calculated and designed.

	physic	Fu	nctional	soci	al	environmental			
characteristics/ representatives	surface and height openness or closure	internal organization/c oncept	activities/struc ture	quality of activities services	structure of users	special significance	included by project or not	microclimate	indirect impacts on the environment

block 45 and 70/extensions	1500 - 2000m2/P	semi-open shopping centre	traditional open streets	mix-use/not satisfactory	not satisfactory		local level	only on local level/residents of a block	no	good/considering open/air concept	
block 43/flea market	23000 m2/P	open shopping centre	characteristics of traditional bazaars	mix-use/not satisfactory	average	parking	city level	meeting point	ou	good/considering open/air concept	increased traffic
block 45 and 70/multicultural transformation	10000 – 15000 m2/P+1	semi-closed shopping mall	traditional streets and squares	retail and wholesale	not satisfactory	parking/inadequately dimensioned	regional level	meeting point/symbol – element of new identity	ou	bad	increased traffic
block 16 and 67/new city markers	50000 – 85000 m2/P+2	enclosed	traditional streets and squares	mix-use/satisfactory	poog	parking, business, residential	city and regional level	meeting point, element of new identity	À	poos	increased traffic/air pollutionincreased traffic

Table 1: Main types of commercial spaces in New Belgrade and their characteristics.

Regarding energy consumption, new enclosed malls are better designed than other types. The attention was mostly payed on thermal insulation. However, the latest standards of energy efficiency are not applied and there are still no attempts to orient/shift existing shopping centers to renewable sources of energy or (re)use of natural materials. The territory of New Belgrade is covered with remote heating system. However, all shopping centers use unsustainable systems of cooling.

The differences between identified types of shopping centers certainly direct future actions but the introduction of new environmental standards and their adjustment to local conditions should become an imperative for every process of renewal and/or transformation. The magnetism of consumption could also be used as an instrument of public promotion and education – suggesting and testing an environmentally conscious approach through various campaigns and activities.

5 CONCLUSION: FACING THE EFFECTS

The latest type of shopping malls, which is inserted into the urban tissue of New Belgrade, has become a landmark on several levels – local, city and regional. The changes in consumption patterns have also resulted in different urban morphology and functional structure, but in general, transformations could be decoded in several spheres:

- economy (higher rates of land and apartments in the surrounding area);
- society (new elements of multiculturalism/cosmopolitanism);
- space/activities (space attractiveness, intensification of pedestrian flows, articulation of meeting points, structure and quality of activities);
- environment (new standards and challenges).

Simultaneously, the contemporary urban needs, new inhabitants and recently improved attractiveness of New Belgrade have instigated some modifications of old types of shopping centers, as well as a new life of excommunity centers (initially with cultural activities). These new forms of shopping actually upgrade the previous content, providing a number of additional activities and public/communal facilities - such as libraries, theaters, banks, recreational units, pubs, groceries and even some civic initiatives (for ex. New Belgrade's Cultural Network), etc. As the trend grows, other facilities are usually developed around the existing centers increasing the significance of the center among local residents and other users on the city level (Fig. 10).





Figure 10. a/the local community center in block 45 - the public event 'New Belgrade – the city of the open heart'; b/reconstructed movie theater - multipurpose hall.

The shopping landscape of New Belgrade, currently composed of old and new types of commercial spaces, still needs to be thoroughly evaluated and subordinated to an integral vision of development. The physical, functional, social and environmental elements of each type provide a comprehensive image of a current situation and/or undertaken actions, while the synergy of global trends and local economy direct further guidelines. However, the magic of consumerism remains. Nowadays, it is in a glitzy package wrapped with mixed-use and new aesthetic, but the ultimate sensation and excitement are guaranteed.

You just have to pay for the spell.

6 REFERENCES

BAUDRILLARD, Jean: The Consumer Society: Myths and Structures. London, Thousand Oaks and New Delhi, 1998.

BENJAMIN, Walter: The Arcades Project. Cambridge, Massachusetts and London, 1999.

BLAGOJEVIĆ, Ljiljana: Pejzaž slobodnog tržišta. In: Forum, Issue 53, pp. 58-59. Beograd, 2008.

BLAGOJEVIĆ, Ljiljana: Strategije modernizma u planiranju i projektovanju urbane structure i arhitekture Novog Beograda: period konceptualne faze od 1922. do 1962. godine. Beograd, 2004.

ERIĆ, Zoran (ur.): Diferencirana susedstva Novog Beograda: projekat centra za vizuelnu kulturu MSUB/Differentiated neighbourhoods of New Belgrade: project of the centre for visual culture at MOCAB. Beograd, 2009.

GOSS, Jon: The 'Magic of the Mall': An Analysis of Form, Function, and Meaning in the Contemporary Retail Built Environment. In: Annals of the Association of American Geographers, Vol. 83, Issue 1, pp. 18-47. Cambridge and Oxford, 1993.

HANNIGAN, John: Fantasy City: Pleasure and Profit in the postmodern Metropolis. London and New York, 1998.

HARVEY, David: Spaces of Global Capitalism. London and New York, 2006.

MILAKOVIC, Mira, VUKMIROVIC, Milena: New Life of Modern Cities: Transformation and Renewal of Public Spaces in New Belgrade. In: REAL CORP 2011: Change for Stability: Lifecycle of Cities and Regions. Edited by Manfred Schrenk, Vasily V. Popovich and Peter Zeile. Essen, 2011.

MOSS, Mark: Shopping as an Entertainment Experience. Lexington, MA, 2007.

PEARMAN, Hugh: Contemporary world architecture. London, New York, 2002.

PEROVIĆ, Miloš: Iskustva prošlosti/Lessons of the Past. Beograd, 1985.

PETROVIĆ, Mina: Istraživanje socijalnih aspekata urbanog susedstva: percepcija stručnjaka na Novom Beogradu. In: Sociologija, Vol. L, Issue 1, pp. 55-78. Beograd, 2008.

STUPAR, Aleksandra: (Re)symbolizing the Modern Heritage: A New Identity for a Prosperous Future? In 42nd Isocarp Congress: Cities Between Integration and Disintegration. Istanbul, 2006.

SUDJIC, Deyan: The 100 mile city. San Diego, New York and London, 1992.

URBANISTIČKI ZAVOD BEOGRADA: Generalni plan Grada Beograda 2021. Beograd, 2003.

WOODWARD, Ian: The Shopping Mall, Postmodern Space and Architectural Practice: Theorising the Postmodern Spatial Turn through the Planning Discourse of Mall Architects. In: Architectural Theory Review, Vol. 3, Issue 2, pp. 45-56. London, 1998.