

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

RE-MIXING THE CITY

TOWARDS SUSTAINABILITY AND RESILIENCE?



PROCEEDINGS TAGUNGSBAND

Multiversum Schwechat, Austria, 14-16 May 2012

www.corp.at



There is nothing permanent except change. (Heraclitus)

REAL CORP 2012

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



CEIT ALANOVA
Institute of Urbanism,
Transport, Environment
and Information Society



ISBN 978-3-95031 10-2-0
(CD-ROM)
ISBN 978-3-95031 10-3-7
(PRINT)



**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	17
Peter Zeile, Martin Memmel, Jan-Philipp Exner.....	17
A Preliminary Study of the Impact of Urban Energy Consumption with Urban Form in Taiwan	27
Chin-Ying Chen, Hsueh-Sheng Chang.....	27
A Spatial Assessment for Re-Mixing Buildings on the Rural Fringe of Spain	33
Jin Su Jeong, Lorenzo Garcia-Moruno, Julio Hernández-Blanco.....	33
Addressing Environmental Problems in the Coastal Urban Area of Attica	39
Agisilaos Economou.....	39
An Exploration of Efficiency and Influencing Factors of Low Carbon City	47
Wei-Han Cheng, Hsueh-Sheng Chang.....	47
Anknüpfungspunkte für Web-2.0- und AR-Instrumente in Verkehrsplanungs- und Beteiligungsprozessen und ihre Umsetzung	55
Florian Reinwald, Sandra Murg, Doris Damyanovic.....	55
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.....	63
Aufbau einer partizipativen Planungscommunity am Beispiel von Nexthamburg	73
Daniel Kulus, Alenka Poplin, Rajiv Patwardhan.....	73
BIBBIDI-BOBBIDI-BOO: The Reinvented Magic of Urban Shopping?	85
Mira Milakovic, Aleksandra Stupar.....	85
Can Universities Facilitate Cities to Function Better?	93
Asif Khan, Mohsen Mohammadzadeh.....	93
Changing Sub-Urban Land Uses to Urban	101
Despina Dimelli.....	101
City Region of Short Distance for ALL? Planning the ‘Everyday’ for a Diversity and Mixity of Users in Functional Areas	109
Heidrun Wankiewicz.....	109
Climate Change in Cities – Can Remote Sensing Help to Optimise Mitigation Strategies?	121
Wieke Heldens, Thomas Esch, Hannes Taubenböck.....	121
Compact Development as Land Use Planning Tool for Urban Disaster Management	129
Neha Bansal, Mahua Mukherjee, Ajay Gairola.....	129
Comparing Metropolitan Governance in Germany and the US: A Social Network Analysis	141
Alexander Masser, Alan E. Alvarez, David C. Prosperi, Diana Mitsova.....	141
Concepts Of Urban Renewal in an Aging Society in the XXI Century – Case Studies in Polish Cities	151
Agnieszka Labus.....	151
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.....	161
Deconstructing Smart Cities: An Intertextual Reading of Concepts and Practices for Integrated Urban and ICT Development	171
Marc Wolfram.....	171
Der Pfalzfinder – mobiler Service im regionalen Tourismus	183
Sebastian Althoff, Norman Kratz, Gregor Landwehr.....	183
Der Weg zum Smart Citizen – soziotechnologische Anforderungen an die Stadt der Zukunft	191
Bettina Mandl, Petra Schaner.....	191
Development and Application of Urban Micro-Climate Management System for Creating Low-Carbon and Green City	201
Daewuk Kim, Eung-Ho Jung, Jiwon Ryu, Jae-Gyu Cha, Jeong-Sik Yun.....	201
DGNB Zertifizierungssystem: Neubau gemischte Stadtquartiere	211
Stephan Anders.....	211
Do New Urban Densities Provide Urban Landscape Identity? A Concept for Operationalizing Qualitative Factors Combining Sophisticated Visualization Workflows	221
Thomas M. Klein, Ulrike Wissen Hayek, Noemi Neuenschwander, James Melsom, Adrienne Grêt-Regamey.....	221
“Dream” Regional Planning – “Real” Estate Development Based on Shopping Center Developments as Examples of “Real” Re-Mixing	231
Evelyn Susanne Ernst.....	231

3-Plus der Initiierung und Umsetzung smarter Mobilitätslösungen: Die Gunst der Stunde nutzen!	237
Martin Berger, Ulrich Bergmann, Markus Frewein, Mario Platzer	237
Durchmischung verstehen – neue Einsatzfelder von 3D-Stadtmodellen zur Visualisierung und Simulation urbaner Prozesse	247
Henning Stepper, Ingo Wietzel.....	247
Ecological Problems of Motor Transport of Azerbaijan	257
Piriyeve Yakub Maksim oglu, Gozalov Sulhaddin Kamal oglu	257
Effects Comparison of Tools to Control the Traffic Demand as an Instrument of Urban Environmental and Climate Policy	263
Dietrich Leihns	263
Enriching Public Spaces in Iran – Challenges and Opportunities	269
Nasim Iranmanesh, Elham Amini.....	269
Environmental Challenges of Peri-Urban Settlements in the Lagos Megacity	275
Taibat Lawanson, Omoayena Yadau, Idris Salako	275
Evaluation of the Current Municipal Slaughterhouse of Babolsar and Locate an Appropriate Site via Fuzzy Logic in GIS for the Future One	287
Farhad Amiri Fard, Sadjad Mohammad Zahraei	287
Explore the Effect of Urban Flood with the Integration of Spatial Analysis Technique	299
Hsueh-Sheng Chang, Chin-Hsien Liao	299
Fill in the Blanks: Challenging the Modernism, Satisfying the Users' Needs?	305
Aleksandra Djukic, Aleksandra Stupar.....	305
Geographic Views on Regional Planning and Development of Bosnia and Herzegovina	315
Rahman Nurkovic.....	315
Geschlechterverhältnisse und Mobilität–Welchen Beitrag leisten Mobilitätserhebungen?	321
Mechtild Stiewe, Juliane Krause.....	321
Gesunde Kommune – Chancen für eine nachhaltige Stadtentwicklung durch Sport und Bewegung	331
Gerhard Steinebach, Henning Stepper, Lukas Esper, Cordula Uhlig.....	331
GIS for Urban Environmental Management Plan: Making it through the Crisis	341
Piyali Bandyopadhyay	341
High Building Density around Subway Stations, Policies and Solutions	349
Abdolhossein Ardekani	349
How Is Mobility Behaviour Affected by a Migrant Background?	359
Kerstin Suhl, Janina Welsch, Ulrike Reutter	359
Humans as Sensors to Enhance the Built Environment: a Case Study of the Eastern Harbor, Alexandria, Egypt	367
Dina Taha, Rania Raslan, Benjamin Sebastian Bergner	367
Improvement of City Competitiveness by Re-Mixing of Inner Strengths	377
Sanja Simeunčević Radulović, Biserka Mitrović, Danilo Furundžić	377
Integrating Disaster Management and Metropolitan Planning in Tehran	387
Alireza Fallahi, Zohreh A. Daneshpour, Vahideh Ebrahimi	387
Integrative Urban Design Game as a Method for Creating Liveable Urban Ambients	399
Tatjana Mrđenović.....	399
Integrierte Simulation von Raumentwicklung und Verkehr bei stark steigenden Energiepreisen	407
Max Bohnet, Carsten Gertz, Jacqueline Maaß, Sven Altenburg.....	407
Intra-Urban Differentials in Poverty and Livelihoods in Selected Residential Neighbourhoods of Lagos Metropolis	417
Taibat Lawanson.....	417
Ivan: Creator of Sustainability in Iranian Old Houses	427
Javad Eiraji, Pouya Joudi Gollar, Ayub Nalbandi Bukani	427
Key Impacts of Economic Integration of Kazakhstan on Spatial Development of Its Settlements	431
Madina Junussova.....	431
LIMES – Large Scale Innovative and Mobile European Services for Culture Tourism in Rural Areas	441
Sebastian Althoff, Norman Kratz, Gregor Landwehr	441
Livability and Social Integration vs. Economic Crisis and Trends of Transition: Case Study of Local Planning in Belgrade	447
Biserka Mitrović, Sanja Simeunčević	447
Mitnahmesysteme als Ergänzung des öffentlichen Personennahverkehrs (ÖPNV) in ländlichen Räumen – das Beispiel „Mobifalt“	453
Volker Schmitt, Carsten Sommer	453

Mixed Building use Promotes Mixed Urbanity: Insights from Historical Use-neutral Architecture	463
Angelika Psenner	463
Mobile Digitalisierung von Baulücken – Baulückenerfassung mit GIS, iPad und Geoweb	475
Julia Biwer, Daniel Broschart, Stefan Höffken	475
Modelling Affective Responses to Space	485
Silvia Klettner, Georg Gartner	485
Möglichkeiten der ökonomischen Bewertung des Verlusts der Nacht	493
Robert Hänsch, Benjamin Könecke, Merle Pottharst, Florian Wukovitsch.....	493
MORÉCO – Mobility and Residential Costs: Improving the Settlement Development in the Transnational Alpine Space Region	505
Benjamin Büttner, Susanne Franz, Ulrike Reutter, Gebhard Wulfhorst	505
Multi-Channel-Konzepte als Chance für eine nachhaltige und zukunftsfähige Entwicklung der Innenstädte?	513
Martina Hengst, Gerhard Steinebach.....	513
Negative Space and Positive Environment: Mapping Opportunities for Urban Resilience	523
Mirko Guaralda, Magdalena Kowalik.....	523
Noise Pollution Management Issues in Tirana, the Capital of Albania	533
Dorina Pojani	533
Offene Ganzheit in der europäischen Stadt der Zukunft	541
Beate Niemann, Priscilla Schädler	541
Parking Regulations and Urban Development – Poznań’s Case Study	547
Michał Beim, Bogusz Modrzewski, Adam Radzinski.....	547
Pathology of Urban Space Based on Standard Designs for Wheelchair Users, Sari 2011	559
Mehdi Golestanibakht, Khadijeh Rabiei, Reza Lahmian.....	559
Pedestrian Crossing Behaviour in Signalized Crossings in Middle Size Cities in Greece	563
Athanasios Galanis, Eliou Nikolaos	563
Pedestrian Evacuation Planning for Major Events – a New Approach Combining Planning Aspects and Human Factors ...	571
Verena Reuter, Benjamin Sebastian Bergner, Annette Spellerberg.....	571
Planning Emergence via Sustainable Partnerships in Urban Ethiopia	581
Tendayi Gondo.....	581
Planning Re-Mixed: Conceptual Framework of New Planning Ideas	593
Izabela Mironowicz, Derek Martin	593
Potenziale und Wirkungen standortbezogenen Mobilitätsmanagements	605
Mechtild Stiewe, Heike Mühlhans, Max Bohnet, Torben Fricke, Sebastian Heller	605
Prospects for Brownfields at the Edge of Nicosia Buffer Zone	615
Mohsen Shojaee Far, Resmiye Alpar Atun	615
Providing Web Maps for Everyone. Understanding Users and their Requirements	627
Sabine Hennig, Antonia Osberger, Julia Neuschmid, Manfred Schrenk, Wolfgang Wasserburger, Fritz Zobl	627
Raum.Sicherheit.Bewusstsein – Sicherheitswirkung und Sicherheitsverständnis räumlich handelnder Akteure	637
Jan Abt, Josiane Meier	637
Raumpioniership in sozial benachteiligten Großstadtquartieren: Akteurstypen aus Berlin-Moabit und Hamburg-Wilhelmsburg	647
Petra Jähnke	647
Re-Mixing and Re-Using: the Urban Integration of the Specialized Filamentary Morphologies in Metropolitan Lisbon	657
Inês de Castro Luís Lopes Moreira.....	657
Real Estate Taxation in Poland and its Influence on Spatial Development	667
Adam Radzinski	667
Rebuilding Old Downtowns: the Case of Doha, Qatar	677
Rania F. Khalil, Khaled Shaaban	677
Regeneration of Heritage Urban Space of Delhi, Shahjahanabad, the Walled City	691
Bikram Kumar Dutta, Sanhita Bandyopadhyay	691
Remixing New Ideas with Old Countries—the Attempt to Apply Airport City Concept and Special City Quartier Concepts to the Armenian Landscape	703
Stephanie Betz.....	703
Resilience, Resistance, Reinvention of the Right to the City	709
Judith Ryser.....	709
Resizing/Re-Seizing the City – Requirements for Diversity	721
Harald Frey, Iva Kovacic, Maja Lorbek.....	721

Seismic Risk Reduction: a Proposal for Identifying Elements Enhancing Resilience of Territorial Systems	729
Giuseppe B. Las Casas, Lucia Tilio.....	729
Sensing the City – How to Identify Recreational Benefits of Urban Green Areas with the Help of Sensor Technology	737
Benjamin Sebastian Bergner, Jan-Philipp Exner, Peter Zeile, Martin Rumberg.....	737
Sharing is Caring – Will Users Comply with the Current Smart City Approach?	747
Claudia Kaefer, Martin Eder.....	747
Sicherheit im demographischen Wandel	749
Gerhard Steinebach, Cordula Uhlig.....	749
Social and Spatial Behaviour in Shared Spaces	759
Robert Schönauer, Martin Stubenschrott, Helmut Schrom-Feiertag, Karl Menšik.....	759
Socio-Technical Assisted Neighborhoods	769
Annette Spellerberg, Lynn Schelisch.....	769
“Spaces-In-Between” – Reweaving the City along its Inner Edges	775
Silja Tillner.....	775
Städtebauliche Methodenentwicklung mit GeoWeb und Mobile Computing	785
Peter Zeile, Guido Kebbadies, Bernd Streich	785
Stadtplanerische Herausforderungen einer funktionalen Durchmischung am Beispiel der Landeshauptstadt Innsbruck	795
Antonia Roither, Anne Weidner	795
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	805
Jeremy Dawkins	805
Studying Industrial Symbols in Contemporary Shiraz Urban Landscape	817
Mohsen Akbarzadeh, Katayoun Izadi, Meysam Mansouri	817
Testing the Resilience of Underground Infrastructure Solutions through an Urban Futures Methodology	825
Dexter Hunt, Ian Jefferson, Chris Rogers	825
The Ability of Wheelchair Users in Utilizing Urban Facilities, Sari 2011	835
Mehdi Golestanibakht, Khadijeh Rabiei, Reza Lahmian	835
The Effects of Mobility Management for Companies in the Course of the German Mobility Management Action Programme “effizient mobil”	841
Conny Louen, Reyhaneh Farrokhkhiavi, Mechtild Stiewe, Doris Bäumer	841
The Egyptian Revolution from the Perspective of an Urban Planner: Demonstrations on the Streets of Alexandria, Egypt	851
Dina Taha, Rania Raslan, Benjamin Sebastian Bergner	851
The Evaluation of Daily Urban System in the City of Rasht	859
Hekmat Baghaei Roudsari, Farhad Amiri Fard.....	859
The Netherlands in Transition. The Planning of Low Carbon, Sustainable and Liveable Cities in the Utrecht Region	867
Martin Dubbeling	867
The Urban Risk Dilemma: Urbanisation, Modernisation and Disaster Risks in Ho Chi Minh City	881
Harry Storch, Nigel Downes, Le Thanh Hoa.....	881
The Way to Plan a Sustainable “Deep City”: From Economic and Strategic Aspects	889
Huanqing Li.....	889
The “Open Cities” Approach: a Prospect for Improving the Quality of Life in Alexandria City, Egypt	899
Mai M.Abdo, Hany A.Ayad, Dina Taha.....	899
Tischlein, deck dich! Über städtische Gastronomielandschaften und was Stadtplanung damit zu tun haben könnte	911
Ricarda Pätzold.....	911
Tourism Continuity Plan after the 2003 Bam Earthquake	923
Mohammad Hossein Sharifzadegan, Alireza Fallahi, Sahar Nedae Tousi	923
Toward Mixed-Use Communities by Transit-oriented development (TOD) in the United States	935
Hanieh Shamskooshki	935
Traffic Impact Analysis as a Tool for Planning Permiot Consideration in Lagos, Nigeria: Guidelines and Procedures	947
Taofiki Salau	947
Transition Analyses on Land Use and Land Price in Nagoya CBD during the Deregulation Decade	955
Toshiyuki Kaneda, Tomohiko Misaka, Tatsunori Sakai	955
Understanding the Relationship between Resilience and Sustainability: Emergency Planning and the Design of Urban Space	965
Julie Fisher, Steven Harre-Young, Lee Boshier.....	965
Urban Development 2050: Resource Efficiency as Guiding Principle for Rebuilding European Cities	975
Christof Schremmer, Ursula Mollay, Barbara Saringer-Bory.....	975

Urban Governance and Contribution of Climate Change Consideration and Energy Efficiency: Case Study of Hashtgerd New Town, Iran	985
Ghazaleh Jasbi.....	985
Urban Nomads. Building Shanghai: Migrant Workers and the Construction Process	995
Ulrike Bronner, Clarissa Reikersdorfer.....	995
Urban Safety of the Public Spaces in Belgrade, Serbia	1007
Nataša Danilović Hristić.....	1007
Urban Structure as a Repository of Social Content – the Case Study of the Lodz ‘Jewish District’	1017
Małgorzata Hanzl.....	1017
Urban Time and Energy (UTE) – Time-Space-Energy Scenarios in Urban Areas	1031
Edeltraud Haselsteiner, Veronika Gaube, Alexander Remesch, Barbara Smetschka.....	1031
Urban Types and Transformation of the City	1041
Mohammed Qasim Abdul Ghafoor Al Ani.....	1041
Urbane Sicherheit – eine Gemeinschaftsaufgabe vieler Akteure	1055
Holger Floeting, Antje Seidel-Schulze.....	1055
Using Current Condition of Cities to Change them to Dynamic Cities – Case Study of Rasht, Guilan, Iran	1063
Seyed Mehdi Amirikiaei, Seyedeh Roshanak Amirikiaei.....	1063
Visibility Analysis of the Capital District in the 2030 Master Plan of Abu Dhabi	1071
Rim Meziani.....	1071
Wayfinding Performance of Visually Impaired Pedestrians in an Urban Area	1081
Aida E. Afrooz, Toktam Hanaee, Bruno Parolin.....	1081
Without Planning? Incremental Emergence of High Density Mixed Use Centres in Mega Manila	1093
Stefan Rau, Art Corpuz.....	1093
Zielgruppeneinbindung in Verkehrsplanungsprozesse mittels neuer Technologien?	1103
Martina Jauschneg, Christoph Stoik.....	1103
A Planning Support System as a Tool for Sustainable Urban Planning	1111
Yeon Mee Kim, Jaesung Bang, Hyeon Soo Kim.....	1111
An Introduction to Major Challenges of Urban Transportation in Metropolises of Iran	1121
Eshagh Rasouli Sarabi, Shahryar Shaghaghi G.....	1121
An Introduction to Socio-spatial Consequences of Urban Poverty in Iran	1125
Mir Saeed Moosavi.....	1125
Analysis of the Fabric of Hawramane Takht Village from Natural and Climatic Point of View	1129
Shahryar Shaghaghi G., Sangar Sharafi, Abdolrahman Panahandeh.....	1129
ARGUS: Assisting Personal Guidance System for People with Visual Impairment	1137
Oihana Otaegui, Estibaliz Loyo, Eduardo Carrasco, Caludia Föslleitner, John Spiller, Daniela Patti, Adela, Marcoci, Rafael Olmedo, Markus Dubielzig.....	1137
Building up Land Use Management Skills	1143
Jiřina Bergatt Jackson.....	1143
CARBOTRAF – A Decision Support System for Reducing CO₂ and Black Carbon Emissions by Adaptive Traffic Management	1149
Martin Litzemberger, Wolfgang Ponweiser, Michael Schramm, Alfred Paukerl, Marie-S. Marcinek.....	1149
CentrepeSTATISTICS – Working Interactively with Cross-Border Statistic Data	1153
Clemens Beyer, Walter Pozarek, Manfred Schrenk.....	1153
City on the Edge of Moscow Agglomeration: a Chance for Sustainable Development	1159
Alexander Antonov, Anna Shagova.....	1159
Conceptual Approaches on the Development of the Territory of the Republic Kazakhstan	1167
Turlybek Mussabayev, Karlygash Muldagaliyeva.....	1167
Cooperation between AAL-related Research and Caregiving for Seniors in the Municipality of Schwechat	1173
Walter Hlauschek, Helene Meissl, Ulrike Barta, Katharina Werner, Paul Panek.....	1173
Development of Managed Real Estate–International Case Studies on Principles and Success Factors	1179
Dietmar Wiegand, Marijana Sreckovic.....	1179
Enhancing the Social Inclusion of Seniors by Using Tablets as a Main Gateway to the World Wide Web	1187
Franz Werner, Katharina Werner.....	1187
Evaluation Performance Comparison of Surveying and Mapping Systems for Updating the City Geospatial Progress	1193
Mahmoud Al-Hader.....	1193
Feedback for Urban Planning and Solutions	1201
David Pešek, Bohdana Fialová, Ing Arch. Eva Špačková.....	1201

From 5 to 10 %. The Challenge to Double Vienna's Modal Share of Cycling	1207
Andrea Weninger	1207
Geosimulation of Urban Housing Market Conditions: A Preliminary Investigation	1213
Harald Scherthanner, Hartmut Asche	1213
I-Scope–Interoperable Smart City Services through an Open Platform for Urban Ecosystems	1219
Raffaële de Amicis, Giuseppe Conti, Daniela Patti, Martin Ford, Pietro Elisei	1219
Identification of Innovative Solutions to Decarbonise Transportation of People and Goods in Smart Cities	1227
Clemens Schober, Susanne Roiser, Martin Eder	1227
Implications of Land Use Mix on the Sustainability of African Urban Centres: A Case Study of Stellenbosch, South Africa	1237
Walter Musakwa, Adriaan van Niekerk	1237
Innovative Informationstechnologien als Bausteine einer nachhaltigen Stadtentwicklungspolitik	1245
René Krug, Marcel Heins, Claus Dießenbacher, Einar Kretzler	1245
Integrated Action Plans and Training Course for Circular Land Management	1253
Uwe Ferber, Dagmar Petrikova, Maic Verbücheln, Jiřina Bergatt Jackson, Thomas Preuss, Anna Starzewska-Sikorska	1253
Introducing Integrated Eco-Mobility to the New Asian Urban Model – Filling Systemic Transit Convenience Gaps. A Case in Chongqing’s High-Density Jiangbei Centre	1259
Stefan Rau, Jianfeng Xu, Hang Yi Chen, Yi Hua Zhang	1259
It’s the Footprint, Stupid! Urban Assessment by Footprinting Public Transit	1267
Markus Ossberger	1267
Kostenreduktion im Bereich der Infrastruktur durch LifeCycle-Management	1275
Martin Farthofer	1275
Land Uses: Anything Anywhere & Anytime? Yes, but How Thematically and Where Areally?	1279
Ioannis Tsouderos, Despina Dimelli	1279
Looking for New Ideas of Public Space – Public Space Projects in Gdansk Reinforced by Art Activities	1285
Magdalena Rembeza	1285
Memorable Square: Identities, Meanings and the Production of Urban Space in Yogyakarta, Indonesia	1291
Dyah Widiyastuti	1291
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	1307
Nicole Vojtech, Roland Grillmayer, Brigitte Rudel, Mario Wunsch, Martina Dürauer, Manuela Weissenbeck	1307
Möglichkeiten zum Einsatz von Augmented-Reality-Technologien in Verbindung mit WebGIS-Services in der urbanen Pflanzenverwendung	1311
Marcel Heins, René Krug, Einar Kretzler, Wolfram Kircher, Christina Werner	1311
Partizipationstool – Tool zur Überwindung von prozessbedingten Barrieren in Infrastrukturprojekten	1319
Alexander Neumann, Sonja Busch, Wiebke Unbehaun	1319
„Pedestrianize Your City“ – Elemente und Vorteile einer Fußgängerstrategie sowie eines Fußgängerchecks für Ihre Stadt	1325
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	1331
Marija Cvetinovic, Dobrica Veselinovic	1331
Recognition of Sustainable Approaches in Urban Structure of Historical Cities in Iran	1337
Alireza Soltani	1337
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
Eric R. P. Farr, Poorang Piroozfar	1341
Remixing Music in the City and Music online: How Listening to Music Changes because of Piracy	1353
Olivier Lefebvre	1353
Remixing the (Suburban) City – Institutional Frame, Strategies, Projects in the Vienna Region	1359
Andreas Hacker	1359
Revitalizing Urban Neighborhoods with a Community Approach to Sustainable Development	1367
Raouf Zabeh, Pouya Joudi, Ramez Zabeh	1367
Sharing the Land Knowledge: The HLANDATA Way to Harmonized Information on Land Cover/Land Use	1371
Tomas Soukup, Tomas Loukotka, Antonin Orlik	1371

Smart Cities – wie Systeme intelligent werden	1377
Daniela Kain, Elvira Lutter, Theresia Vogel	1377
Spatial Planning and Open Space Integration in Urban Ethiopia: a Sustainable Accessibility Exegesis	1383
Tendayi Gondo.....	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	1391
Ute Gigler, Olivier Pol, Martin Berger, Robert Hermann, Harald Raupenstrauch, Walter Pölzl, Lukas Lippert	1391
Sustainable Urban Development in Germany in the 1990s – a Situation Report after 20 Years.....	1397
Axel Laistner, Hermann Laistner	1397
The Effect of Fourth Dimension on the Behavior of Urban Dwellers	1411
Anahita Mahmoudi, Shabnam Farboud.....	1411
The Resource-Saving Enterprise Zone Liesing.....	1417
Gudrun Maierbrugger, Andrea Faast.....	1417
The Walkable City – the Concept of Stockholm	1423
Michael Erman	1423
Three Dimensional Mixtures of Different Activities in Buildings around Railway Stations in Tokyo – Shibuya, Azabu-Juban and Kasai.....	1429
Keiji Yoshimoto, Yoko Hatori, Tatsuya Kishimoto	1429
TURaS: Transitioning to Urban Resilience and Sustainability	1435
Marcus Collier, Louise Dunne and Zorica Nedović-Budić	1435
Urban Nomads: How to Remix the Demography of the City	1439
Ehsan Bazafkan	1439
Urbane Zentren für alle Menschen nutzbar machen	1441
Dagmar Everding	1441
Utility Tunnels – Proven Sustainability Above and Below Ground	1445
Axel Laistner, Hermann Laistner	1445
Wir schützen uns zu Tode. Schallschutz ohne Ende oder akustische Raumplanung?	1457
Peter Androsch	1457

Livability and Social Integration vs. Economic Crisis and Trends of Transition: Case Study of Local Planning in Belgrade

Biserka Mitrović, Sanja Simeunčević

(Biserka Mitrović, MSc, Assist. Prof., MArch, Faculty of Architecture University of Belgrade, Bulevar kralja Aleksandra 73/2, biserkamitrovic@gmail.com)

(Sanja Simeunčević, MArch, Academic assist., Faculty of Architecture University of Belgrade, Bulevar kralja Aleksandra 73/2, simsanja@arh.bg.ac.rs)

1 ABSTRACT

The paper discusses the negative influence of global economic forces and transition changes against the intention of local municipalities and local inhabitants to achieve better quality of life and better social integration in local environment.

Strong economic crisis affecting cities worldwide and transition trends in post-socialistic countries are the most significant drive force of the development/decline of Serbian cities. It reflects on changing the city structure, lessening the functional diversity and shrinking the public space as most vulnerable and least profitable areas in the city. Public interest and the public space in the current context of legislation, arbitrary treatment of singular locations by some institutions and professionals and pressures of the capital is increasingly losing its significance.

On the other hand, even in such conditions the awareness of local municipalities and local inhabitants about the quality of life as well as about the importance of involvement in participation process as a way to impact local livability has grown during the past decade. Such actions of local community rely upon the strong theoretical background focusing sustainable and integrative urban design approach and protection and enhancement of public space and public realm, as well as upon the principles of social integration and cohesion for the local community.

Following the approach of “learning from mistakes“, the paper presents an example of treatment of sports and recreational facilities within residential areas in Belgrade in the current local planning practice, discussing how this treatment can be considered in sustainable way, resisting the transition trends and economic crisis forces and making the local city space more resilient and livable. As a result, this approach also brings other benefits to the city as whole, making planning procedures more effective and sustainable and creating additional value to the city areas.

2 INTRODUCTION

This paper will present one of possible scopes to the current planning practice in Serbia, specially pointing out the investors’ attitude about the public space and also the way how local communities try to balance public and private interest. The framework is defined by the socio- economic context and transitional changes in an ex-socialistic country towards market oriented economy.

Though the process of transition lasts for more than a decade, the direction of planning process and effective model for planning practice are not yet clearly defined. Some of the questions still waiting for answers are related to: sustainable framework which ‘works’ under condition of discontinuity and growth instead of development; experiences from other countries which are not quite transferable; balanced planning intervention in the market in favour of public realm; dilemmas about lessening the public sector, understood as a category inherited from socialism, etc.

We will try to offer some answers analyzing as a case study three sports and recreational areas in Belgrade, not having and ambition to give final answers but to provoke for further discussion. The approach is based equally on ecological, social, economic and institutional sustainability, thus creating conditions for a realistic community development based on the economic resource preservation.

3 PUBLIC INTEREST, PUBLIC LAND USE AND SUSTAINABILITY

The understanding of public interest relies on the premise that public interest has a different understanding, scope and importance in every socio - political environment. The concept of public interest is equally related to land construction land on which it exerts, land use (transportation, infrastructure or recreation areas) or activities of public interest, as is the case with activities related to the environmental protection or cultural

heritage protection. Public interest in Serbia in the situation of a flexible interpretation of the plans, the current legislative context, arbitrary treatment by some of institutions and the pressure of capital is losing its importance.

The basic understanding of the concept of public interest is tied to the notion of public good, which represents the area or activity whose use by individuals or groups does not diminish the possibility of use by another individual or group. By classical definition, private capital is (mostly) not interested for public good.¹

For socially balanced city, social consensus about definition and coverage of public interest is vitally important, as well as consistent implementation of decisions related to the protection and promotion of public interest within the given limits. Since the city of Belgrade has a legacy in this regard, there is a need for redefining the public interest in areas/purposes/activities that are or have been related to it.

On the other hand, the most important foundation of sustainable development rely upon economic, ecological and social cohesion. Sustainable cities follow an integrated and long-term development that does not question the development of future generations. Among the most important features of the development of sustainable cities are: effective economy, lower external and social costs, social progress and strengthening of the civil society,² which together form the basis for long-term qualitative development. At first seen as an approach that is primarily related to environmentally issues, sustainable development of the city today is also based on: quality of life as the most important value, respect for human dimension, comprehensive and integrative approach to development and planning,³ preservation of natural, economic and social resources for future generations and social equity and cohesion,⁴ and many more.

In this light, this paper emphasizes the social component of sustainability through the vision of social balance and social cohesion in the city. City of social balance is equally good for all citizens within possibilities and constraints. The implementation of the concept is conditioned by harmonized needs and interests of all social groups. The concept focuses on the desirable or optimal development of social/public services that are covered by compulsory social care for local community and are mostly treated as non-profitable, such as: (public) education, health, social care, child daycare, culture and sports and recreation.⁵ Guaranteed elementary education, primary health care and preschool children care is the level of social concern defined by the international documents (eg. Agenda 21, Habitat Agenda, New Athens Charter, etc.) and by international organizations (UNEP, UN HABITAT, WHO, UNICEF, etc.).

The concept of social cohesion is based on creating the conditions for fulfilling the needs of different population groups, regardless of their political, economic or social power, therefore manifests concern for "non-productive" population groups, such as children, youth, elderly, people with special needs, etc. It can be argued that validation of the concept is based on the quantity of actors which would support it, instead on the power/dominance actors able to impose their model of development. Including a wider range of actors has a strategic importance because it goes beyond short-term effects in the urban space and activities that respond to the trends and uncontrolled privatization processes.⁶

The city of social balance tends to minimize the social inequities which manifest as spatial inequities and make the city territory more inconsistent. By balanced spatial development and social and spatial cohesion, several positive effects can be achieved: minimizing the difference between center and periphery, the development of secondary centers and the optimal equalization of quality of life in the city.⁷ The concept gives priority to the public space in the city and does not favor (economic) growth at any cost. Imperfections of market mechanisms, the effects of unlimited economic growth and points of spatial conflict, being the weak points of contemporary city, present the starting point of defining socially sustainable city.⁸

¹ Source: Mihaljević, G. (1992).

² Source: REC: [www.rec.org/REC/Programs/Sustainable cities](http://www.rec.org/REC/Programs/Sustainable%20cities).

³ Source: Centre for Sustainable Development <http://home.wmin.ac.uk/cfsd/research.htm>

⁴ Source: Stockholm Environment Institute <http://www.sei-international.org/>

⁵ Source: Zakon o javnim službama / Public Services Act/ (Sl.Glasnik RS, 42/91, 71/94.).

⁶ Source: Mitrović, B. (2006) „City of social balance“, in: Milić V., Djokić V. (eds.): “Belgrade The Capital“, Faculty of Architecture- University of Belgrade, Berlage Institute, Rotterdam, Fakultat für Architektur der RWTH Aachen.

⁷ Source: Kazepov, Y. (2005) (ed.): “Cities of Europe, changing contexts, local arrangements and the challenge to urban cohesion”, Blackwell Publishing.

⁸ Stiglitz, J. (2000) “Economics of the Public Sector”, W.W.Norton, New York.

Operationalization of the principles of socially sustainable city should be expressed through at least:

- Social sustainability and the application of the principle of equality by creating the spatial conditions to minimize social differences and favoring social and territorial cohesion.
- Sustainable urban planning - local planning strategy which take into consideration the welfare of the local economy and population;
- Sustainable land use;
- Institutional sustainability, which includes improvement of procedures and institutional arrangements and introduction of integrated approach.

4 TRANSITION AND THE CONSEQUENCES REFLECTING ON PUBLIC SPACE

The trends of privatization and the encouragement of the flow of capital in transition countries are shaping the understanding of public interest. Local political surrounding is usually strong support to such trends and it is by its nature oriented towards short-term effects and much less focused on long-term strategy of the city development.

Not having intention to elaborate many positive and negative effects of transition in Serbia, we shall review only the significant effects in the public sector. The ownership transformation and privatization of public enterprises and public services, private use of public urban construction land, legislative support for the private ownership of urban construction land and reduced financial support for the public sector are just some of the current changes and problems in the transition period.

In economic terms, the goal of transition should be a provision of conditions for the introduction of organized and systematic market relations, healthy competition and the supply and demand within the framework of welfare state. In the countries with long tradition of market relations, the rules arranging the relationship between private and public sector are defined and respected, as well as the level of state and local government intervention in the market, according to established criteria (although we cannot say that these relations are always fully defined and unambiguous). The fundamental problem arises in the absence of these criteria. Then the solution for the most conflict situations in urban environment between public and private interest is solved in the process of arbitrary and ad hoc decision making. The situation in Serbia, although the transition takes a long time, indicates the lack of criteria and standards and lack of clear policy and strategy development for the public sector and also the propositions under which it can be transformed in the process of transition.

In this context, sustainable planning and market demands in the current urban planning practice in Serbia are generally seen as conflicting concepts that mostly exclude each other. It is very common situation in the urban planning practice that sustainable solutions are usually not interesting to the market and investors, while on the other hand investors' interests in many cases cannot be understood as sustainable. Furthermore, local government generally neglects some aspects of sustainability, such as institutional or economic.

5 TREATMENT OF SOME SPORTS AND RECREATIONAL AREAS IN BELGRADE IN THE CONTEXT OF TRANSITION AND SUSTAINABLE DEVELOPMENT

Trends of the transformation of public urban construction land and public buildings in Belgrade in recent years illustrate the above standpoint. This is particularly visible when it comes to sports and recreational areas which used to be public during the socialistic period. As a case study for this paper three examples of planning treatment for sports and recreational areas in Belgrade will be presented, following the approach of learning from mistakes.

In Belgrade, over more than a decade, we are witnessing an ownership transformation of many health, education, sports, recreation and similar facilities. Privatization of public land and buildings is happening ad-hoc and decisions are made individually and utterly arbitrary. In this way the market behavior in relation to public spaces and facilities, enters "back door", without having analyzed the concept of development or strategic orientation.

We have to emphasize the unjustly neglected fact that we are discussing a very important resource – public facilities infrastructure/network, legacy from different sociopolitical environment. This infrastructure/network are often overwhelmed by problems related to the maintenance, lack of financial resources and

qualified working staff, nevertheless it is still a relatively diversified and balanced network. Let us mention the fact that many developing countries, with different or similar sociopolitical and economic history does not have such capital (as is the case with many Asian countries).

Of particular concern is the general social approval and support to these models of behavior in space. Public facilities have been transformed for other purposes, privatized and new, commercial facilities have been introduced. Sometimes, they even are not brought to a new purpose. As an argument and justification for such actions, greater efficiency after the ownership transformation, the need for rationalization of some services, high maintenance costs and hiring qualified work force are brought up. This way, the standard of living, which is tightly bond to the quality and spatial distribution of public services, and which has already been getting worse for other reasons, is imperiled. Hereby, the essential connections between the public facilities network development and the concept of social cohesion and social sustainability has been left out of sight.

Belgrade has several sports facilities and complexes of national and international importance which are designed for professional sport and big sports events,⁹ also more than 25 sports facilities and complexes, dispersed in urban districts and secondary urban centres. Nearly each of the 16 Belgrade municipalities has at least one sports facility. In addition, there are hundreds of sports and children's playgrounds in the city, relatively evenly dispersed. All these facilities were situated on the public urban construction land. Such ownership implied the obligation for the custody and tending by the city government institutions, particularly Belgrade Land Development Public Agency as the main holder. The ownership also obliged for further financial commitments to build, equip and maintain through the Belgrade Land Development Public Agency (using the City budget financial resources), as well as for the City Secretariat for Youth and Sports and Ministry of Education and Sport (Directorate of Sports). (using the State budget financial resources).

On the other hand, Belgrade Land Development Public Agency financed most of Belgrade detailed regulatory plans. These plans should have been defined in accordance with the sports and recreation development policy, the State and local regulations and the ownership status (Since according to The Planning and building Act (2003, Republic of Serbia) all urban plans, including Belgrade General Plan had a power to define public and private ownership over the urban construction land).



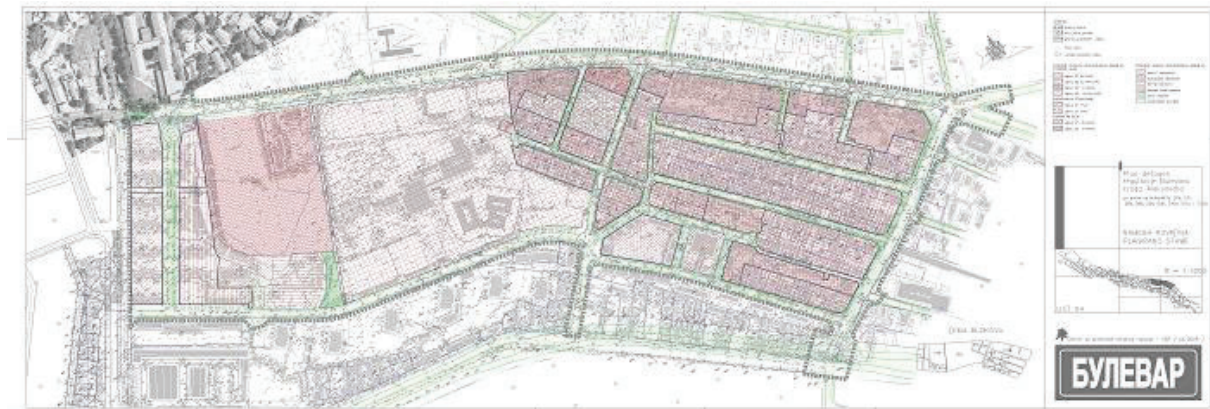
Under the conditions of the lack of funds, the City has encouraged private initiative and the ad-hoc solutions. However, to facilitate the financing of sports facilities and complexes by private individuals and firms, the status of the land had to be changed. So the land of complexes with high potential, such as stadiums of Partisan and Red Star sports clubs, received the status of private urban construction land. City Budget and Administration has certainly made a significant benefit by such transformation, understanding it as a short-term action and considering it as an "exemplary market adjustment," but what about the City and its citizens? Belgrade has irretrievably lost a significant part of urban resources – urban construction land, and citizens, to say the least, the ability to influence this process.

A similar trend is established in relation to local/district sports and recreational centers and the need to transform the ownership and the status of urban construction land again occurred. Such was the case with the Sports and recreation complex Olimp, in Belgrade municipality Zvezdara territory. However, given the lower level of attractiveness of these sites and land, no significant interest was manifested in its privatization.

⁹ Mentioned categories are defined by the Sports and Recreation Facilities Act (Sl. Glasnik RS 17/96.).

From the long-term point of view, the consequences of the approach “less interest – less action” by the City government is more convenient for the development of the city than it is the case with short term actions and decisions. The problem is, however, that the solutions resulted from the daily political decisions, non-compliant initiatives and in the absence of defined and clear attitude and criteria of city authorities and central government institutions. Inconsistency and lack of communication between different levels of institutions makes their acting quite "unsustainable", creating a gap that will emerge "planning" decisions of very questionable quality.

On the other hand, the citizens and the Administration of the local community of Zvezdara have showed a great interest to keep the Olimp complex as a public facility. During the long and controversial process of designing and adopting the local regulatory plan of the Sports and recreation complex Olimp and the surrounding housing blocks, the citizens have taken the solid and consistent standpoint about the preservation of the local green, sports and recreational areas. Even though the Planning and Building Act (2003, Republic of Serbia) have given the citizens the chance to participate in the planning process only at the moment the draft plan version was almost finalised (that is, during the public review procedure) citizens of the local community of Zvezdara have made a significant pressure to the local and city administration bodies to get involved more often, thus making a great impact on the planned solution. The City municipality Zvezdara supported and confirmed the citizens' standpoint by municipal assembly decisions.



After a couple of years of negotiation with the City administration and urban planning bodies, The local municipality administratives of Zvezdara have managed to keep the local sports and recreation complex olimp for its citizens. The status and the ownership over the urban construction land assigned to the sports complex have remained public.

Though the case study of sport complex of Olimp in Belgrade shows that the city administrative bodies lacked the understanding of the citizens' interest and also had a little respect to the sustainable idea ‘think globally – act locally’, it also tells a lot about the awareness of citizens about their own quality of life and livability. It is specially important having in mind the citizens of Serbia are not yet fully informed or/and educated about the planning process participation and that they are still not involved in great number, although it is an established practice in many countries. The described situation should not be an unusual and extraordinary process, given that the detailed regulatory plan, as the most detailed planning document is the most understandable planning document to ordinary citizen.

The described examples clearly suggest the need for policy development in the field of public service, with careful, systematic and balanced harmonization of private and public sector and also the need for stronger legal and institutional support for participation in the planning process.

6 CONCLUSION

Summarizing, we have recognised the potentials, problems and limitations in the current state of the public sector and public services in Serbia and we point out some directions for solutions.

Potentials are as follows:

- Public services network consisting of many subsystems is in great need of transformation, reorganization and modernization.

- Sports and recreation facilities infrastructure makes it one of the vital segments of future urban development in Belgrade.
- Some of the most important problems and constraints in this field are:
- Public sector and public urban construction land and facilities are exposed to the serious consequences of uncontrolled or poorly controlled development.
- Different and often conflicting aspirations and actions of institutions, as well as different groups of actors.
- Absence of policy development and regulatory fragmentation.
- Arbitrariness in decision-making regarding the development and transformation of public services.
- Future solutions must certainly be based on goals and objectives relating to:
- Development of public services in order to create favorable social environment.
- Availability of public services for all citizens.
- Encouragement of the development of public services since they support the communication.
- Spatial distribution of public services as a way of meeting the needs of population equally.
- Balancing the quality of public services.
- Protection of public spaces and promotion of public interest.
- Minimizing the spatial differences in the development of the city arising from social differences and differences related to the development of public services, thus achieving consistent and balanced development of urban territory.
- Application of the principles of sustainable urban renewal, including social regeneration.
- Overcoming institutional separation of management, planning, funding and implementation in the field of public services.
- The integral part of the solution should be the criteria for qualitative and ownership transformation of public services.

7 REFERENCES

- BEGOVIĆ, B.: Upravljanje lokalnim javnim ustanovama i preduzećima: mogući pravci reforme, in: Hiber, D.(ed.): Principi modernog upravljanja lokalnom zajednicom, Centar za liberalno-demokratske studije, Belgrade, 2002.
- HEALEY, P.: Collaborative Planning, shaping Places in fragmented Societies, London, 1997.
- HAUGHTON, G., HUNTER, C.: Sustainable cities, London, 1996.
- KAZEPOV, Y. (ed.): Cities of Europe - changing contexts, local arrangements, and challenge to urban cohesion, London 2005.
- MIHALJEVIĆ, G.: Kontroverze javnog dobra, in: Gligorijević, Ž. (ur.): Javno dobro – Komunikacije 2004, Zbornik radova, CEP – Centar za planiranje urbanog razvoja, Belgrade, 2004.
- MITROVIĆ, B.: City of social balance, in: Milić V., Djokić V. (eds.): Belgrade the Capital, Belgrade, Rotterdam, Aachen, 2006.
- STIGLITZ, J.: Economics of the Public Sector, New York, 2000.
- VUJOŠEVIĆ M.: Planiranje u postsocijalističkoj političkoj i ekonomskoj tranziciji, IAUS, Beograd, 2003.
- VUJOŠEVIĆ M., NEDOVIĆ-BUDIĆ Z.: Planning and societal context – The case of Belgrade, Serbia, in Tsenkova S., Nedović-Budić Z. (eds.): The Urban Mosaic of Post-Socialist Europe. Space, Institutions and Policy, New York, 2006.
- Local regulatory plan for D7-D12 areas in Belgrade, Centre for Urban Development Planning, Belgrade, 2004.
- Local regulatory plan of Partizan stadium complex in Belgrade, Centre for Urban development Planning, Belgrade, 2004.
- Local regulatory plan of Crvena zvezda stadium complex in Belgrade, Belgrade City Planning Institute, Belgrade, 2003.
- Sports and Recreation Facilities Act, Republic of Serbia, 1996.
- Public Services Act, Republic of Serbia, 1991, 1994.
- Planning and building Act, Republic of Serbia, 2003.