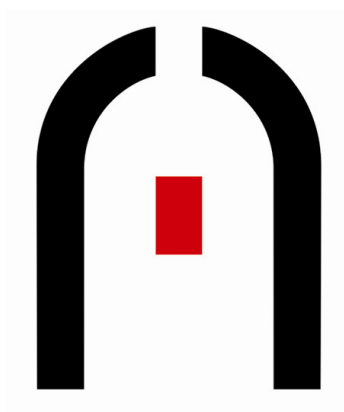


FACULTY OF ARCHITECTURE



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RESEARCH CENTRE IN ARCHITECTURE AND URBAN DESIGN

GENERAL PRESENTATION

The concept of sustainable urban development is nowadays a new dimension of the urban design. It involves in an integrated way different levels of the society in the planning of the new urban areas in connection with the historical protected zones. This tendency is part of the specific contemporary answers to the globalization challenges. The relation between the built heritage and the development of the cities make necessary a good knowledge of the urban history, of the society evolution and of all tendencies in the contemporary urban development.

Architectural form is another research topic considering the basic fundamentals of today's man made environment in relation with nature. The possibilities to adapt already existing tendencies to contemporary phenomena related to technology and digital techniques, but also with ecology, are known as sustainable (self sustained) development. In this kind of approach form is both a generating source and final result, dominating architectural design.

OBJECTIVES

The main objective of the research is to find the characteristics of the urban development and the particularities of the city zones and ensembles. Based on the analysis, another preoccupation is to propose viable solutions for the urban planning in the same time with the integration and the rehabilitation of the built heritage.

The study of the characteristics of the contemporary architecture and its development tendencies in order to propose suitable solutions for the design of the built environment is another main objective of the researchers.

There is also important to find how the contemporary architecture may be inserted in the existing natural and built sites and how could it to transform them in the benefit of their quality.

MAIN RESEARCH FIELDS

- History of urbanism and its applications in contemporary design.

Keywords: urban design, urbanism, settlement, city, evolution.

- Urban analysis and planning. Urban studies for sustainable development.

Keywords: urban areas, territory, sustainable development, urban network.

- Integrated protection of the historical zones in a sustainable urban development.

Keywords: built urban areas, historical zones, sites and zones, rehabilitation.

- Historical and critical evaluation of modern architecture.

Keywords: space, functionalism, modular, environment, typology

- Characteristics of the Architecture in the second half of the 20th century

Keywords: modernism, geometric shape, international style, rationalism.

- Forms, symbols and representation methods.

Keywords: symbol, architectural form, geometry, art, alternative form.

Researches in SUSTAINABLE TERRITORY DEVELOPMENT

FIELD DESCRIPTION

The laboratory proposes an integrated approach on urban development through integrated urban development programs for the city as a whole and to define realistic development goals for the urban area and a vision for the treatment of the city. These principles integrate the three main converging directions of research: spatial development, territorial planning and sustainable development which permit a holistic approach, needing knowledge from the architectural, planning, constructions and construction materials, energetic and telecommunication, restoration, natural and constructed patrimony conservation, transportation, social mobility, economic development, hydromechanics, natural environment protection domain, etc.

This research field is important to create and provide high quality public spaces, to modernise the infrastructure network and to rise the energetic efficiency, to promote a cheap and efficient urban transportation system.

ACTIVITIES

Researches to give solutions for the complex needs of the urban system in order to propose the territorial urbanization respecting the ecological criteria.

Solutions to find new directions of acting at the urban level.

Realization of studies of territorial urbanization and different categories of urban plans.

Urban plans used by the local administration for the development of settlements and territory.

Territorial development plans (PATN, PATJ, PATZI,), general development plans (PUG), area development plans (PUZ), area rehabilitation, restoration and re-functioning.

Consultant and technical expertise in territorial development.

Projects of landscape design.

RESEARCH TEAM

Prof.dr.arh. Teodor Octavian Gheorghiu

Prof. Dr. arh. Smaranda Bica

Assoc. prof.dr.arh. Radu Radoslav

Ass. Arh. Bogdan Demetrescu

Arh. Ana Branea

Arh. Marius Gaman

RESULTS**BOOKS**

1. Radoslav, R., *Student Trends*, nr 2, 2008-2009 Ed. Politehnica, Timisoara, 2010, ISBN 978-606-554-198-6
2. Gheorghiu, T.O., *Guideline Local Urbanism Regulation for Berzasca*, Ed. Altip, 2010, ISBN 978-973-117-277-4.

PUBLISHED PAPERS

1. Gheorghiu, T.O., *The Rural Urbanism in the Banat District of the 18th and 19th Centuries*, in „Urbanismul” – New Serie 7-8, 2010-2011, Bucharest, ISSN 1844-802X, pp. 17 - 22.
2. Gheorghiu, T., *From the Danube to the Black Sea – an Adventure of the Administrative Void*, in „Urbanismul” - New Serie, 5-6, 2010, ISSN 1844-802X, pp. 51-57.
3. Bica, S., Rosiu, L., Bocan, *Traffic Calming Street Layout Proposal for the City Centre of Timisoara*, BENA Conference „Global and Regional Environmental Protection”, vol II, Timisoara, 2010, Conference Papers, ISBN 978-606-554-211-2, pp. 118-121.

CONTRACTS

1. Contract nr. 07198/ 2008 BC, *The Territory Plan of the Hunedoara District*.

Value: 20,00 RON

Beneficiary: SC QUANTUM LEAP SA for the District Council of Hunedoara

INTERNATIONAL PROGRAMMES

1. COST: TU 0701, project: *Improving the quality of suburban buildin stock*.

Beneficiary: EU RTD FRAMEWORK PROGRAMME

Partners: Faculty of Architecture - University of Ferrara, Ministry of Environment - Finlanda, Porto University - Portugalia, The Council of Timisoara

CONTACT PERSON

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Researches in HISTORY OF URBANISM AND ITS APPLICATIONS IN CONTEMPORARY DESIGN**FIELD DESCRIPTION**

Historical researches of human settlements in order to detect the rules of urban development.

Studies of urban structures, typologic and morphologic elements, particularities of the urban evolution.

Studies to establish the main principles in urbanplanning.

Studies to detect the relation between the human needs and behaviour and the setting development.

Researches in urban evolution of cities, villages and territory.

Researches in architectural and urban history of the evolution of cities and villages in the western side of Romania.

Researches to detect the characteristics of the architecture in the western part of Romania during the three last centuries.

ACTIVITIES

Archives investigations, research in the teritorry, analytical studies.

Inventory of the valuable architecture in Banat in order to propose methods of their integration in the contemporary life.

Solutions to increase the quality of urban projects. Studies for an inventory of protected areas.

Historical urban studies for the projects of urban planning.

RESEARCH TEAM

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Prof. dr. arh. Smaranda Bica

Ass. arh.Catalina Bocan

Ass. arh. Mirela Szitar

Ass.arh. Cristian Blidariu

RESULTS**BOOKS**

1. Gheorghiu, T.O., *Human Settlements – History of Urbanism in Europe and the Surrounding Regions till the Renaissance*, vol II Art Press, Timisoara, 2010, ISBN 978-973-108-289-9.
2. Gheorghiu, T.O., *Human Settlements – History of Urbanism in Europe and the Surrounding Regions till the Renaissance*, vol III Art Press, Timisoara, 2010, ISBN 978-973-108-313-1.
3. Gizzi, S., Polichetti, G., Bica, S., Graf, R., Celac, M., Fumo, M., Migliorini, M., Castagnaro, A., Ascione, G., Mehr, M., *Kastellos – Architettura Rom in Romania*, Ed. Giannini, Neapole, ISBN 13 978-88-7431-497-3

PUBLISHED PAPERS

1. Gheorghiu, T. O., *Arad - Heritage Values between Protection and Destruction*, in „Transsylvania Nostra” nr. 2, Cluj, 2010, ISSN 1842-5631, pp. 23 -36.
2. Gheorghiu, T. O., *The Evolution of the Health Systems and of the Social Assistance till the Middle of the 20th Century*, in „Historia Urbana”, Sibiu, 2010, ISBN 1221-650X, pp. 41-50.
3. Bocan, C., Bica, S., *Traffic Calming Possible Measures in Residential Areas – Study Case Timisoara* in “Global and Regional Environmental Protection”, Vol. 2, Timisoara, 2010, ISBN 978-606-554-210-5 and 978-606-554-212-9, pp. 122-125.
4. Bica, S., Bocan, C., *Traffic Calming Street Layout Proposal for the City Centre of Timisoara*, In “Global and Regional Environmental Protection”, Vol. 2, Timisoara, 2010, ISBN 978-606-554-210-5 and 978-606-554-212-9, pp. 118-121.
5. Szitar, M., Grecea, D., Ciutina A., *Sustainable Development and the Quality of Built Environment – Evaluation System and Criteria*, in Proceedings of The 12th National Conference on Metallic Structures Timisoara, 2010, ISBN 978-973-638-464-6, pp. 143-154.
6. Szitar, M., Havasi, B., Grecea, D., *Sustainable Development in Higher Education: The Built Environment Disciplines*, in “Global and Regional Environmental Protection”, Vol. 2, Timisoara, 2010, ISBN 978-606-554-212-9, pp. 270-273.

CONTRACTS

1. *Historical and Urban Study of Berzasca, district Caras-Severin, preliminary PUG Berzasca.*

Beneficiary: The Council of Berzasca

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**Researches in HISTORICAL MONUMENTS
AND PROTECTION OF THE BUILT
HERITAGE**

FIELD DESCRIPTION

Study of the buildings and urban zones with a high architectural and historical value.
Detect the best forms and possibilities of protection.
Search for historical monuments and sites in the county of Banat.
Collaboration with institutions and organisations involved in the protection of the built heritage.
Study of civil, industrial and vernacular buildings with high architectural and historical value.

ACTIVITIES

Archives of information about the buildings and zones of architectural interest – Inventory of historical monuments.
Analyse of the damages produced by different causes to historical monuments and sites.
Proposals of rehabilitation and prevention.
Projects of restoration and conservation.
Historical studies for the Territorial development plans (PATN, PATJ, PATZI,), general development plans (PUG), area development plans (PUZ) which contain protected areas.
Expertise of diferents types of damages asked in restoration projects, projects of restoration and conservation.

RESEARCH TEAM

Prof.dr.arh. Smaranda Bica
Assoc.prof.dr.arh. Liliana Roșiu
Ass.arh. Alfred Schwalie
Ass. Arh. Mihai Donici
Ass. Arh. Romeo Szorad
Arh. Doina Antoniu

RESULTS**PUBLISHED PAPERS**

1. Roșiu, L., Bica, S., Schwalie, A., *The Prevention of the Cultural Landscape, an Important Feature in Environmental Protection*, BENA Conference „Global and Regional Environmental Protection”, vol. I, Timisoara, 2010, Conference Papers, ISBN 978-606-554-211-2, pp. 92-95.

2. Rosiu, L., Bica, S., *The Relation between Architectural Elements and Structural System in the Rehabilitation of the Old Bridges in Timisoara*, Conference „Structures and Architecture”, ICSA 2010 Guimaraes, 21-23 July 2010, Conference Papers, ISBN 973-0-415-49249-2, pp. 335-336.
3. Roşiu, L., *Aggression Forms on the Built Heritage of Timisoara*, in „Transsylvania Nostra”, nr. 2/ 2010, Cluj, ISBN 1842-5631, pp. 17-22.
4. Rosiu, L., *The Significance of the Historical Monument for the Rural Communities of the Banat Region*, National Conference „Art Landscape Transformation in the Rural Environment, Alexandria, 8-9 April 2010, ISBN 978-973-8922-92-1, pp. 89-97.
5. Schwalie, A., Rosiu, L., Bica, S., *Wood Architecture Related to Nature Protected Areas. Case Study – The Natural Park of the Apuseni Mountains*, BENA Conference „Global and Regional Environmental Protection”, vol. II, Timisoara, 2010, Conference Papers, ISBN 978-606-554-211-2, pp. 158-161.
6. Popovici-Donici, M., Schwalie, A., Bica, S., *Loam in modern housing supporting an architecture with local authenticity*, BENA Conference „Global and Regional Environmental Protection”, vol. II, Timisoara, 2010, Conference Papers, ISBN 978-606-554-211-2, pp. 165-168.

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Researches in HISTORICAL AND CRITICAL EVALUATION AND STRUCTURAL BEHAVIOUR OF MODERN ARCHITECTURE

FIELD DESCRIPTION

Study of the sources of modern architecture in relationship with a critical overview of the contemporary urban planning.

Search of the characteristics and qualities of the contemporary architecture and its development tendencies and its relation with the built environment.

Study of the contemporary tendencies of the urban architecture.

Stability studies for steel structures in special conditions.

ACTIVITIES

Theoretical contributions to the theory of architecture and in the analysis of the contemporary architectural development.

Projects of architecture.

RESEARCH TEAM

Assoc. prof. dr. arch. Vlad Gaivoronschi

Assoc. prof. dr. arch. Ioan Andreescu

Lect. dr. ing. Ioan Mircea Cristutiu

Assist. Arch. Marius Miclăuş

Assist. Arh. Erica Dudas

Assist. Arch. Marius Harta

Ass. Arh. Toma Claudiu

RESULTS

BOOKS

1. Dudas, E., Bica, S., Dumitrescu, C., Gaivoronschi, V., Gheorghiu, T. O., Ionasiu, A. F., Radoslav, R., Rosiu, L., *Data – 40 Years of High Superior Architecture Education in Timisoara*, Arhitekt Studio A, Timisoara, 2010, ISBN 978-973-0-09400-8.
2. Gaivoronschi, V., Andreescu, I., *51 Architecture Agencies*, Ed. Alexa Hociung, Raluca Antonescu, Timisoara, 2010, ISBN 978-973-0-09383-4.
3. Andreescu, I., Anthology – *Arhitekt: after 20 Years*, Ed. Fundatia Arhitekt Design, Bucuresti, 2010, ISBN 978-606-9206858-0

PUBLISHED PAPERS

1. Nagy, Z., Campian, C., Cristutiu I. M., Benke, I., *Case study: The supporting steel structure of the ice rink - City of Tragu Mures*, in “Structures and architecture”, Guimaraes-Portugal, CRC Press Taylor&Francis group, 2010 (Eds. Paolo J.S. Cruz), ISBN 978-0-415-49249-2, pp. 597-604.
2. Gaivoronschi, V., Andreescu, I., “*Risks and promises of a European building quality evaluation grid*”, in „Recent advances in risk management and mitigation” 2010, ISBN 978-960-474-182-3, pp. 132-137.
3. Andreescu, I., Gaivoronschi, V., “*Complex risk management strategies during restauration and reconversion at an XVIII century building complex in Timişoara*” in „Recent advances in risk management and mitigation” 2010, ISBN 978-960-474-182-3, pp.138-143.
4. Andreescu, I., Gaivoronschi, V., *The Landscape. From the sacred garden to the urban landform*, in “Landscape architecture”, ISBN 978-960-474-237-0, pp. 393-398.
5. Toma, C., Baldea, M., Wenczel, A., *Blackbox- bowling.billiards.darts.club*, in Arhitekt Design, ISSN 1224-886X.

6. Gaivoronschi, V., „*Harmonia House*” in *Igloo - habitat & arhitectura*, nr. 108, ISSN 1583-7688, pp. 52-58.
7. Andreescu, I., „*The Landscape, from the Sacred Garden to the Urban Project*”, in *Arhitext Design*, nr. 1-2, 2010, ISSN 1224-886X, pp. 142-149.
8. Cristutiu I. M., Nagy Z., *Initial Imperfection Influences on the Structural Behavior of Steel Portal Frames with Variable Cross Sections and some Sustainability Considerations - Case Study*, in 6th WSEAS International Conference on Energy “Environment, Ecosystems and Sustainable Development” (EEESD '10) WSEAS Press, ISBN ISSN 1792-5924; ISSN 1792-5940; ISBN 978-960-474-237-0
9. Nagy, Z., Cristutiu I. M., *The reconversion of Metecom in Satu-Mare using steel structures*, in The 14-th International Conference on Civil Engineering and Architecture, EPKO 2010, Sumuleu de Ciuc, ISBN cd, pp. 260-266.
10. Cristutiu, I. M., Grecea, D., *Influence of Connected Members Components on the Structural Performance of Bolted Beam-to-Column Joints of Pitched Roof Portal Frames*, in Proceedings of International Workshop “Global and Regional Environmental Protection” Glorep 2010, Timisoara, ISBN 978-606-554-212-9, pp. 201-203.
11. Nagy, Z., Cristutiu I. M., *Sustainability aspects of an ice rink – city of Tg. Mureş, Romania – Case study* in Proceedings of International Workshop “Global and Regional Environmental Protection” Glorep 2010, Timisoara, ISBN: 978-606-554-212-9, pp. 253-261.
12. Cristutiu, I. M., Muntean, N., *Erection and manufacturing imperfection influence on steel frame behavior* in Proceedings of International Workshop “Global and Regional Environmental Protection” Glorep 2010, Timisoara, ISBN 978-606-554-212-9, pp. 228-235.
13. Andreescu, I., *Joze Plecnic or the Other Modern*, in *Arhitext Design*, nr 7, 2010, ISSN 1224-886X, pp. 38-46.

CONTRACTS

1. Contract TE_38, CNCSIS-TE The Stability of Metallic Frames with Elements with Variable Section

Value: 741,06 RON

Beneficiary: CNCSIS - UEFISCSU

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