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 fundaments 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, PATI, 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. Tudor Morar

Ass. Arh. Ana Branea

Arh. Marius Gaman

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**RESULTS**

**PUBLISHED PAPERS**


**CONTRACTS**

**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

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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 urban planning.

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 territory, 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**

Prof.dr.arh. Teodor Octavian Gheorghiu

Ass.arh.Catalina Bocan

Ass. Arh. Mirela Szitar

Ass.arh. Cristian Blidariu
**RESULTS**


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**PUBLISHED PAPERS**


**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 different types of damages asked in restoration projects, projects of restoration and conservation.

**RESEARCH TEAM**

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

**RESULTS**


**CONTRACTS**

1. Historical Study of the Town Nădărag, district Timiş, preliminary PUG.

   Value: 12000 RON

   Beneficiary: S.C. GEOLINK SRL and The Council of Nădărag

2. Historical Study of the Ineu Fortress

   Value: 6000 RON

   Beneficiary: SC ARTEX SRL

3. Historical Study of the Şoimoş Fortress

   Value: 4400 RON

   Beneficiary: SC ARTEX SRL
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 planing.

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 Mirea Cristescu
Lect. Dr. ing. Marius Moşoarca
Ass. Arch. Marius Harta
Ass. Arh. Bogdan Demetrescu
Ass. Arh. Toma Claudiu

RESULTS
BOOKS
1. Gioncu, V., Earthquake engineering for structural design, Taylor & Francis, 2011,

PUBLISHED PAPERS

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