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O1 INTELLECTUAL OUTPUT  
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Best practice guidelines / report

# REVIEW



## BEST PRACTICES

In Educating Sustainability  
and Heritage

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**Enhancing of Heritage Awareness and  
Sustainability of Built Environment in  
Architectural and Urban Design Higher Education**



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## REVIEW: Best Practices In Educating Sustainability and Heritage

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In current time, as a society, we face multiple challenges and dualities: enable growth yet prevent disruption of the existing urban structure, give a response to the needs of the present without compromising the ability of future generations to meet their own needs, preserve the unique architectural and urban heritage that testifies about our past yet innovate within the architectural and urban design for our present.

With the architectural profession's ongoing stratification between architectural theory and praxis, future architects must take both critical and constructive positions regarding future spatial development. A contemporary built environment will have to balance heritage awareness and sustainable approaches while creating new shapes and conditions for new realities. In this complex scenario, a profile of future architects is under question, along with the institutions' structures and programs that are educating them.

Bearing this in mind, HERSUS partners strive to reassess these dualities in the educational process, hence enhancing and testing innovative and creative teaching practices in the field of sustainability of the built heritage. The project strives to improve educators' and researchers' competence and motivation to include curricula elements that will have tangible results, preparing architectural students and educators to become real actors of the environmental change.

Previously mentioned challenges require vital research and continuous improvement of curricular and extracurricular activities in higher education. To have a successful outcome, they must be transnationally carried out and need to achieve a balance between theory (research and education) and practice (institutional and professional). Both locally and globally alternative practices are developed parallel to institutional architectural education, creating

different methodologies and built structures. Within this arena, HERSUS research project is striving to explore new perspectives and challenges regarding the teaching-learning of heritage awareness and sustainability.

This publication presents the results of the first four months of the project and is structured in three main parts:

- Built Architectural and Urban projects (20 projects, four from each of the five partner organizations)
- Pedagogical and Educational Models (20 courses, four from each of the five partner organizations)
- Influence of National Policies on the Sustainability of Heritage (one report per each partner organization)

The applied approach balanced between different geographies, cultures, and scales provides new insight into the complexity of the definition of heritage in the contemporary context, testifying that heritage transposes from an urban artifact to the urban landscape. It confirms the increasing complexity of thinking about urban and architectural heritage, representing a growing challenge for both researchers and educators to implement such topics in curricula.

The prepared publication's quality was contributed by architectural offices and individuals from five different countries, public bodies, and students whose works were used to illustrate the specific course methodologies.

Vladan Djokić, HERSUS project leader

# EDITORS PERSPECTIVES

THE UNIVERSITY OF BELGRADE -  
FACULTY OF ARCHITECTURE



The work on IO1 was mainly shaped by the contributors' endeavour to interconnect often opposed notions of theory and practice, academic and professional institutions.

When considering sustainability and heritage in the regional context, the University of Belgrade – Faculty of Architecture (UB-FA) continuously tends to enhance and test innovative teaching practices in the field of education. This includes various types of courses from lectures to workshops, from design projects to written thesis and research methodology courses, from compulsory to elective courses, including all study levels: undergraduate, graduate, and doctoral. In the Review, UB-FA (Serbia) will present the courses (1) *Green Construction- Lessons of the past*, (2) *Among Scales: Programming the New Modernity of Belgrade*, (3) *Design Studio 06U*, and (4) *Energy Rehabilitation and certification of existing buildings – case study*. The course types vary from lectures and theoretical projects to workshops, studio design, and seminars. The courses were selected with the intention to present the competence and motivation of educators and researchers to include curricula elements that will have tangible results and a very environmentally sensitive relationship with built heritage and sustainability concepts. In this context, such an approach aims to spread the importance of built heritage within the new generation of students while considering the entire environment, humans, and society in general, preparing students and educators to become real actors of the environmental change. In regard to case studies of built projects, UB-FA presented projects that reflect the development of new intercultural approaches to heritage and the exceptional strength and will of the architects and urban planners to preserve and enhance architectural and urban heritage qualities on different scales. The selected case

studies are (1) *Conservation and Reuse of the Nebojsa Tower in the City of Belgrade and Founding of a Museum and a Cultural Centre*, (2) *Office Building Bulevar 79*, (3) *Museum of Coal Mining and Centre of Industrial Heritage*, and (4) *Detailed Regulation Plan for the Old core of Zemun*. The case studies are located in urban (2) and historical centres (1,4) in Belgrade or mountain areas in Serbia (3). The current use varies between cultural (1, 3), office (2), and mix-use with central activities (4). Sustainability issues, such as effective re-use and enabled social activity, upgrading energy efficiency, and traditional materials, are involved in the projects. Evaluation of energy efficiency and public competition were used as tools for the implementation of the new uses. The projects were rewarded and nominated on several occasions and were disseminated through exhibitions, presentations, publications, and workshops.

In the review of the current state concerned with heritage in national and sectoral policies, UBFA particularly highlighted the lack of (1) representation (regarding lack of guidelines, evaluation, and research methods, recognition of various urban heritage types (industrial, vernacular, modernistic, intangible)), and (2) mechanisms for financing the revitalization and funding in general (a national budget that decreases in time)), identified within *Strategy of Sustainable Urban Development of the Republic of Serbia Until 2030*. The abovementioned problems were identified as the leading causes for continuous and evident devastation of cultural heritage. Additional issues are perceived in unbalanced and fragmented spatial interventions, often illegal, affecting the loss of unique spatial patterns and relations.

UNIVERSITÀ IUAV DI VENEZIA



The current analysis of the educational programmes and courses in IUAV highlights how Sustainability and Cultural Heritage are enhanced by architectural and urban master degrees and postgraduate programmes. IUAV programmes and courses offer



different and complementary approaches regarding the themes of Sustainability. IUAV offers broad programmes, such as Master Degree Programme in Architecture (thought in Italian), Master Degree Programme in Architecture (thought in English), City and Environment: Planning and Policies and IUAV - Specialisation School in Architectural and Landscape Heritage, postgraduate program, IUAV-SSIBAP

The detailed examination of the specific courses highlights how Heritage awareness has been traditionally present in the IUAV approach to the training and design process (research, documentation, values assessment, design strategies, and proposal). IUAV educational offer presents two different kinds of courses, focused on Sustainability and Cultural Heritage: the monodisciplinary courses and the integrated workshops. The monodisciplinary courses aim to give the students the tools to approach architectural problems with the autonomy of judgment improved by the knowledge of the historical and theoretical frame. The integrated workshops offer learning opportunities and work experience under the direct supervision of high-profile professionals and teachers. The master's degree thesis provides a turning point to the students' educational path, where all the main issues related to Heritage and Sustainability could be managed and detailed. Accordingly, IUAV presented courses (1) *Integrated Design Lab – Focus 3: Regeneration and Conservation of Historic Buildings and Environments*, (2) *Studio 2: Sustainable City Project, City, and Environment: Planning and Policies in Italian*, (3) *Restoration Theories and Techniques*, and (4) *Elements of applied petrography: Deterioration of stone and lithoid materials*. This list expresses the different IUAV approaches on Sustainability, dealing not only with environmental or technological issues but also with social, economic, and cultural aspects. For example, specific design proposals on cultural Heritage express Sustainability in terms of re-use and improvement of a part of a city or a building. The team's four local case studies are adherent to the IUAV approach towards Heritage and Sustainability. The choice aims to underline the idea of Sustainability

concerning environmental or technological issues and social, economic, and cultural aspects. All the case studies are in historical contexts and/or areas with high cultural value (Venice, Verona urban area, Venzone, Treviso Sile River natural park). The re-use of ancient buildings to create new social and cultural values is coherent to the European Commission's argument about the recent years' soil thematic strategy. Accordingly, IUAV decided to present (1) *Punta della Dogana, Venezia (VE)*, (2) *Ex-bakery of Santa Marta area, Verona (VR)*, (3) *Rebuilding program of Venzone, Venzone (UD)*, and (4) *H-Farm project, Roncade (TV)*. Having in mind the long tradition of architecture and urban design in Italy and its relation to the regulatory framework, IUAV presented the timeline of the leading national urban, landscape, and environmental legal provisions regarding cultural / built heritage and sustainable development. The report focuses on the period from 1860 to 2020, highlighting the primary laws, establishing key institutions, adopting the main Charters and Decrees that strongly influenced the interlink between heritage and Sustainability.

## THE UNIVERSITY OF CYPRUS



The University of Cyprus (UCY) starts from the premise that teaching sustainability issues in the context of heritage architecture courses require a multidisciplinary approach, highlighting the challenge to find a balance between addressing architectural heritage for future societies while covering contemporary socio-economic needs and sustainable requirements.

This is the general concept of the postgraduate programs *Conservation and Restoration of Historic Buildings and Sites* and *Energy Technologies and Sustainable Design* at the University of Cyprus.

These two programs provide necessary knowledge and expertise in conserving built heritage and building energy performance, respectively. They both address, to a lesser or greater extent, issues of social, economic, environmental, and cultural

sustainability associated with the built environment, and they also promote the enhancement of digital competences and skills for supporting a competent work profile, as an emerging demand of our society. The challenge for the two programs' future development is to further address the connection between cultural heritage and sustainable development. This will develop critical thinking on how current and future practitioners may preserve, use and develop architectural, cultural heritage in a sustainable way and how cultural heritage may be used as a driving force for sustainable development.

As an integral segment of above mention programs, UCY (Cyprus) presented the courses (1) *Architecture and the Critical History of Ecology*, (2) *History and Critical Theory of Conservation*, (3) *Special Topics on Recording and Documenting Buildings and Sites*, and (4) *Capstone Design Project*. The selected courses types include lectures, theoretical projects, workshops, studio design, compulsory and elective. The courses' purposes and objectives are related to both sustainability and cultural heritage, while learning outcomes are related to the theory and practice, providing students with the necessary knowledge and expertise in building energy performance and the conservation of built heritage, respectively. The selected courses address aspects of sustainability and promote cultural heritage as a base for environmental development.

UCY (Cyprus) presented the case studies (1) *Urban Landscape Rehabilitation in Lefkara*, (2) *HYBUILD Aglantzia Case Study*, (3) *Restoration of Alexandros Dimitriou Tower*, and (4) *Restoration of a vernacular dwelling in Kapedes*. All the buildings selected are listed, predominantly with residential use. Selected case studies were used as a basis to address specific sustainability issues, such as the rehabilitation of traditional rural settlements, the use of traditional materials and techniques, the incorporation of renewable energy systems in the structures, and the upgrading of the energy efficiency of the buildings. UCY has shown tremendous effort both to select relevant cases and explain in detail tools and technologies used in the project documentation, design,

and construction, such as data loggers for monitoring temperature and moisture, weather stations for monitoring external and internal environmental conditions.

In the report on the Influence of national policies on the sustainability of heritage from the architectural and urban design perspective, UCY highlighted the efforts in Cyprus in the previous 40 years regarding architectural heritage preservation and documentation through the implementation of the Laws, Acts, Inventories, and Programs.

The UCY specifically emphasizes the efforts in protecting and improving vernacular architecture. The current philosophy and practice in the field of architectural conservation aim to establish a balance between necessary functional modification and improvements of energy efficiency (retrofitting) while safeguarding the special architectural and historical aspects of heritage buildings or sites.

## THE ARISTOTLE UNIVERSITY OF THESSALONIKI



This introvert examination focused on sustainability and cultural heritage themes, allowing mapping of curricula and course structures of the educational methodologies and material employed.

AUTH's contribution analyzed three programs of study offered at the school that are relevant to the themes of sustainability and cultural heritage, such as (1) *the 5yr Integrated M.Arch Program*, (2) *the Program of Postgraduate Studies Environmental Architectural and Urban Design*, and (3) *Interdepartmental Postgraduate Studies Program, Protection, Conservation and Restoration of Cultural Monuments*. The first one is the result of School professors' long-term effort, perceivable in the discussion of General Staff Assemblies, numerous meetings of the Study Committees, open presentations and discussions with teachers and students, and a two-day conference entitled "Architecture Studies: Continuity and Change". The other two

programs offer specialist knowledge at the postgraduate level. From 1998, the Interdepartmental Postgraduate Studies Program deals with the conservation and restoration of historical buildings, traditional materials, and techniques, digital methodologies for surveying historic buildings, and environmental aspects of heritage structures. On the other hand, the Postgraduate program of Studies EAAD was only recently introduced (2015-16), reflecting the emersion of environmental studies in a national context and is one of only two programs that deal with environmental urban and architectural design in Greece.

A thorough examination of the aforementioned programs was also carried out through detailed analysis of specific courses contained within the respective curricula (1) *Design Studio 7 - Architectural Design In Historical Context*, (2) *Architectural Design Studio II*, (3) *Urban Design Studio I & II* and (4) *Interdisciplinary Studio Course*. In the context of this review, the above selection reflects the ethos of architectural educational practices that prevail at the school, whereby specialized knowledge is introduced through theoretical courses and seminars, is supported through technical teaching and practice, and is ultimately consolidated through interdisciplinary design studios. These do not only focus on a singular approach to the design project's evolution but integrate theoretical approaches, supported by lectures (tutors) and presentations/submissions of small thesis/studies (students), practical exercises, software tutorials, etc.

The review of educational practices is followed by four case studies of realized projects that reflect the issues, practices, and open questions that prevail in the discussion of sustainability and cultural heritage at the local level. All case studies focus on the historic urban context and reflect multifaceted approaches in designing for sustainability, conservation, reuse, resilience. The studies are representative of different scales of intervention: (1) *Bioclimatic upgrade of the greater area of Hrimatistiriou Square* at the historical Centre of Thessaloniki, (2) *Creative reuse of the*

*barracks at the Pavlos Melas Metropolitan Park* (former military camp), Municipality of Pavlos Melas, Thessaloniki, (3) *Restoration and environmental upgrade of Vernacular Residence at Ano Poli* (Upper/Old city) of Thessaloniki, and (4) *Restoration and creative reuse of a building block consisting of 13+ historic structures, in Plaka, Athens, to house the State Museum of Modern Greek Culture*.

The above case studies are followed by a report on the National legal and regulatory framework under which the projects were developed, which makes further references to the practical context, the initiatives, and national and international programs that instigate and support such initiatives, programs, designs, and applications.

#### THE UNIVERSITY OF SEVILLE



In this Review, the University of Seville (USE) focused its pedagogical and educational models at the School of Architecture, University of Seville, while the framework of best practices in Sustainability and Built heritage is regarded in the scope of Andalusia. The decentralized character of Spanish geopolitics and the transference of power to the different autonomous governments in terms of heritage management and architectural and urban policies, in general, make one autonomous region the proper framework for this study. Starting from the historical relevance of heritage in Andalusia, established interlink between the architects involved in the professional practice to teach at the university, intensive research on the field, and strong collaboration with public institutions, USE has presented the endeavor to translate this context into education. It has been done through an integral presence of heritage training in the School of Architecture curricula, especially within programs Fundamentos de Arquitectura, The Máster Universitario en Arquitectura y Patrimonio Histórico (MARPH) /Master's degree in Architecture and Historical Heritage, and The Máster Universitario en

Ciudad y Arquitectura Sostenibles (MCAS) / Master degree in Sustainable Architecture and Cities.

For the purpose of the selection of case studies of best practices, the following has been taken into account: (1) focus both on contents and on innovative methods, (2) focus both monographic and those cases where heritage and sustainability appear as a transversal, although essential vector, (3) both compulsory and optional courses, (4) show courses of the last three semesters of the main program on architecture, the semester 8 focused on heritage being 9 and 10 the specialization semesters of the degree.

Accordingly, four case studies were selected (1) *Landscape, City and Architecture in Andalusia*, (2) *Architectural History, Theory and Composition 3*, (3) *Architectural History, Theory and Composition 4: City*, and (4) *Architecture and Heritage*. In this sense, USE highlights that courses in the postgraduate programs are traditionally structured in a set of lectures and/or workshops offered by different professors. This is why innovative methods and coherent curricula is best shown within these last three semesters of the degree on architecture.

In the field of practice, specially built projects, USE applied specific criteria for case studies selection: territorial balance; notions of scales and ownership; diverse aspects and contributions from the professional practice in the context of built heritage and sustainability; awards and acknowledgments while focusing on the less recognized heritage both for institutions and society; temporality, focusing on case studies of the 21st century, as representative of the mature phase of Andalusian practice.

Accordingly, USE presented the case studies of (1) *Rehabilitation of Casa Diáñez (Diáñez House) as administrative building*, Alcalá de los Gazules historic center, Cádiz; (2) *Recovery of King's Path*, Gaitanes Gorge, Service Road of the hydroelectric dam of The Gaitanejo, Paraje Natural Desfiladero Natural de los Gaitanes (Álora, Antequera, Ardales), Málaga; (3) *Recovery of the Cerro*

*de San Miguel and the Darro river area*. Rehabilitation of the Nasrid wall of San Miguel Alto and its surroundings, Upper Albayzin, Granada, and (4) *Rehabilitation of Santa Ana Ceramic Factory as the Public Museum of Ceramics*, Triana historic neighborhood, Sevilla.

USE completed the diagnosis with a report on urban policies that regulate heritage protection, conservation, and management, offering an insight into Andalusian policies in the Spanish context. USE specifically highlights the regulative framework on all three levels: national, regional, and municipal, while providing an in-depth review of the international context, charters, and recommendations.

# Pedagogical and Educational Models



Serbia (Belgrade)



Italy (Venice)



Cyprus (Nicosia)



Greece (Thessaloniki)



Spain (Seville)



SERBIA

×

Vladan Djokić  
Milica Milojević  
Mladen Pešić

course

01

UNIVERSITY LEVEL COURSE  
DETAILS

Institution

✗ University of Belgrade

Type of Institution

✗ Higher Education Institution

District

✗ Belgrade, Serbia

Department

✗ Department for Urbanism

Faculty

✗ Faculty of Architecture

Study program to which this course  
belongs

✗ Single-Cycle 5-Year Study  
Programme in Architecture

Study Programmes	BACHELOR STUDIES / 3 YEARS / 180 ECTS				
	INTEGRATED STUDIES, Single-cycle 5-year studies / 5 YEARS / 300 ECTS				
	Bachelor of Architecture – B.Arch.			Master of Architecture – M.Arch.	
	FIRST YEAR B-I	SECOND YEAR B-II	THIRD YEAR B-III	FOURTH YEAR I	FIFTH YEAR I
FIRST SEMESTER	STUDY UNIT SPACE AND SHAPE	HOUSING	ARCHITECTURAL DESIGN METHODOLOGY	URBAN SOCIOLOGY	URBAN ECONOMY
	STUDY UNIT INTRODUCTION TO ARCHITECTURE AND ARTS	HISTORY OF ARCHITECTURE – SHAPING OF SPACE AND STYLE	INDUSTRY AND COMMERCE BUILDINGS	STUDIO M01 A – Design project	STUDIO M03 A – Design project
	THE CITY: FORMS AND PROCESSES	STUDY UNIT URBAN DESIGN I	ARCHITECTURAL HERITAGE IN SERBIA	STUDIO M01 A – Seminar	STUDIO M03 A – Seminar
	ARCHITECTURAL STRUCTURES I: Elements of buildings' materialisation	ARCHITECTURAL STRUCTURES I	URBAN ANALYSIS AND PLANNING	STUDIO M01 A – Workshop	STUDIO M03 A – Workshop
	MATERIALS AND BUILDINGS' PHYSICS	STRUCTURAL PRINCIPLES OF ARCHITECTURAL BUILDINGS	ARCHITECTURAL UTILITIES		
	MATHEMATICS IN ARCHITECTURE	STUDIO 01-a FAMILY HOUSING	DESIGN AND CALCULATION OF ARCHITECTURAL STRUCTURES 2	Elective course: HISTORY AND THEORY 1	Elective course: HISTORY AND THEORY 2
	ARCHITECTURAL GEOMETRY I	STUDIO 01-b URBAN DESIGN OF RESIDENTIAL ASSEMBLIES	STUDIO 01-a – ARCHITECTURAL TECHNOLOGIES – Project	Elective course 1: ARCHITECTURE	Elective course 2: ARCHITECTURE
	TRANSFORMATION OF GRAPHICAL FORM	VISUAL REPRESENTATION IN ARCHITECTURE	Development STUDIO 01-b – MULTIFAMILY HOUSING (B)	Elective course 1: URBANISM	Elective course 2: URBANISM
			STUDIO 01-b – ARCHITECTURE AND NATURE (B)	Elective course 1: ARCHITECTURAL TECHNOLOGIES	Elective course 2: ARCHITECTURAL TECHNOLOGIES
	STUDY UNIT ELEMENTS OF ARCHITECTURAL DESIGN	EDUCATION AND SPACE	ARCHITECTURAL DESIGN PROCESS	PHILOSOPHY	PROFESSIONAL INTERNSHIP – A
	HISTORY OF MODERN ARCHITECTURE AND URBANISM	ADMINISTRATION BUILDINGS	URBAN RENEWAL	STUDIO M02 U – Design project	MASTER THESIS – A
	HISTORY OF MODERN ART AND DESIGN	HISTORY OF ARTS	CONSTRUCTION MANAGEMENT	STUDIO M02 U – Seminar	MASTER PROJECT – A
URBAN MORPHOLOGY	STUDY UNIT URBAN DESIGN 2	STRUCTURAL SYSTEMS	STUDIO M02 U – Workshop	MASTER FINAL PROJECT – A	
SECOND SEMESTER					
	ARCHITECTURAL STRUCTURES 2	ARCHITECTURAL STRUCTURES 4	LEGISLATION		
	SYNTHESIS OF ELEMENTS AND ASSEMBLIES – MASSIVE STRUCTURE DESIGN	DESIGN AND CALCULATION OF ARCHITECTURAL STRUCTURES 3	PROFESSIONAL INTERNSHIP	Elective course: HISTORY AND THEORY 2	
	MECHANICS AND STRENGTH OF MATERIALS	STUDIO 02-a – SUSTAINABLE URBAN COMMUNITIES (B)	ELECTIVE COURSE	Elective course 2: ARCHITECTURE	
	ARCHITECTURAL GEOMETRY 2	STUDIO 02-a – MULTIFAMILY HOUSING (B)	STUDIO 02-a – SYNTHESIS	Elective course 2: URBANISM	
		STUDIO 02-b ARCHITECTURAL STRUCTURES: COLOUR AND VISUAL CONCEPTION	STUDIO 02-a – SYNTHESIS OF BASIC LEVEL STUDIO 02-b – URBAN DEVELOPMENT AND RENEWAL	Elective course 2: ARCHITECTURAL TECHNOLOGIES	

A diagram that illustrates the position of the course in the structure of the study program:



Level

X Postgraduate (Integrated studies)

Year/Semester

X 4<sup>th</sup> Year, 8<sup>th</sup> Semester

Course Type

X Studio design

X Seminar

X Workshop

Elective or Compulsory Course

X Compulsory

ECTS

X 20 (Studio design - 15, Seminar - 4, Workshop - 1)

Lectures/week (hours)

X 15 (30)

Studios/labs/week

X 15 (150)

Academic/ Teaching Personnel

X Prof.Vladan Đokić, Ph.D.

Ass. Prof. Milica Milojević, Ph.D.

Teaching ass. Mladen Pešić, Ph.D.

Program of Study Content

X Design Project

**COURSE CONTENT AND STRUCTURE**

A Design Studio course is always site-specific and contextually based. Within the studio, urban morphology, both as a theoretical framework and a practical tool, is used for site-specific design and context-sensitive research. Within the Design studio, the teaching process is organized so that it is intensely devoted to fostering individual approaches of students and a culture of communication, both verbal and visual. The course consists of three independent parts – Seminar, Workshop, and Design Studio. Each mentor/ teacher within the course can organize it according to his own methods. According to this, a specific methodological approach was

developed within the Design Studio by teachers in question.

**THE COURSE PURPOSE AND OBJECTIVES IN GENERAL AS WELL AS IN RELATION TO SUSTAINABILITY AND CULTURAL HERITAGE**

The course aims to develop applied research methods, techniques and sensibilities towards spatial aspects of ambient values. The students recognize the topic of intervention during the field work - in direct contact with the real space and environment, real actors, and current processes, in their own conceived research action. The course purpose is to achieve innovation in context, while developing skills and tools for innovative design of contextual forms suitable for activating the development processes of reconstruction of urban centers.

**KEY FEATURES**



**TO WHAT EXTENT DOES THE COURSE ADDRESS ASPECTS OF SUSTAINABILITY AND PROMOTE CULTURAL HERITAGE AS A BASE FOR SOCIAL, ECONOMIC AND ENVIRONMENTAL DEVELOPMENT**

**SOCIAL**



**ECONOMIC**



**ENVIRONMENTAL**





**THE LEARNING OUTCOMES IN GENERAL (SKILLS, ABILITIES, KNOWLEDGE) WITH REGARD TO SUSTAINABILITY AND CULTURAL HERITAGE**

After finishing this course students should have knowledge and ability to:

- understand the application of appropriate theoretical concepts during design in the Studio, showing thoughtful and critical access;
- apply theories of urban design, planning, urban renewal, and revitalisation;
- understand the influences of the design and development of cities in the past and present on the contemporary environment;
- understand current planning policies and legislation regarding the built environment, including social, economic and aspects of environmental protection and their importance for urban development planning;

**THE EDUCATIONAL /TEACHING METHODOLOGY (GENERAL PRINCIPLES, PEDAGOGY AND MANAGEMENT STRATEGIES USED FOR CLASSROOM INSTRUCTION)**

The seminar is run through the semester parallel with Workshop and Design Studio. The workshop is organized at the beginning of the semester as a week-long study trip and at the end of the semester in the form of an exhibition on the site. Workshop results are used as inputs for the Design Studio, deciding the theme, programme and character of the future spatial interventions. The main result of Seminar is the verbalization of student's unique ideas and research tactics. Design Studio is emphasizing the role of the research. In this process, divergent thinking in order to generate individual themes and spatial interventions is promoted. Critical thinking is fostered as a way of self-evaluation at the end and during the design process.

**TEACHING/LEARNING MATERIALS (DIDACTIC MATERIALS, RESOURCES, SOFTWARE, ETC.)**

The Design Studio 06U course is comprised of two parts: the research part (including field work on a specific spatial polygon, research of theoretical sources, current expert studies and relevant documents) and the design part (intervention ideas and designs within the city center and designing spatial concepts of different types of use of square space). Studio methodology comprises of joint work in the studio through lectures and interactive forms of teaching and individual research projects and designs that are structured in three independent parts – Seminar, Workshop and Design Studio.

**OBSTACLES, IMPEDIMENTS, PROBLEMS, AND CHALLENGES REGARDING TEACHING SUSTAINABILITY OR/ AND CULTURAL HERITAGE IN THIS COURSE (IF ANY). PLEASE MENTION THEM BRIEFLY**

✗ Yes, in Sustainability

Keeping in mind that Design tasks within the Studio are connected with specific sites and locations with particular forms of cultural heritage it is difficult to explain and present all the aspects of sustainability to the students. Also, the Studio's intention is to foster individual approaches of each student to the issue of urban and architectural design and theory. Because of that, it is challenging to teach sustainability principles that will be implemented in student designs. Aspects and principles of sustainability are detectable within the functional aspect of designs. Very often they stay hidden within the design presentation and because of that it is important to emphasize the importance of Studio Seminar as a tool for the development of issues and aspects of design sustainability and to make this part of the work within Studio more visible and recognizable.

**PRACTITIONERS/PROFESSIONALS/  
EXPERTS INVOLVED IN THE  
EDUCATIONAL PROCESS? IF YES,  
PLEASE MENTION THEIR EXPERTISE  
AND THEIR ROLE IN THE COURSE**

Yes

Each year various representatives of local municipalities and experts from different fields are included within the different phases of joint work within the Design Studio. They are included in the preparation phase when Design Brief is developed as consultants, within the phase of workshop and site survey as guest lectures and in the several design reviews as guest critics.

**EXTERNAL PARTICIPANTS, VISITORS  
GUEST LECTURERS, ETC, INVOLVED IN  
THE EDUCATIONAL PROCESS? IF YES,  
PLEASE MENTION THEIR EXPERTISE  
AND THEIR ROLE TO THE PROGRAM OF  
STUDY**

Yes

Depending on the Studio theme through the years within the Studio different actors in the role of quest critics were involved – tourism experts, local experts from urban planning offices, representatives of cultural institutions, etc.

**RELATIONSHIP BETWEEN THE COURSE  
AND THE CURRENT LOCAL NEEDS/  
REQUIREMENTS OF LABOUR MARKET  
IN THE FIELD OF ARCHITECTURAL  
AND URBAN DESIGN IN RELATION TO  
SUSTAINABILITY AND HERITAGE**

At this moment there is not a direct connection between the course and the labour market in the field of architectural and urban design concerning sustainability and heritage.

**TO WHOM IT IS ADDRESSED (TARGET  
AUDIENCE)**

To students of Single-cycle 5-year Study Programme in Architecture

**Workload/weekly study hours**

15 hours weekly

**Language**

Serbian

**Evaluation Methods**

Project

Project presentation

**Grading System**

Numerical

**Employment influence evaluation**

(alumni feedback about employability)

N/A

**RESULTS**



Figure 1 and 2. Student design project 2017/2018  
Topola  
Student: Erna Vasiljević



Figure 3. Student design project 2018/2019 Trebinje  
 Student: Tamara Vićović

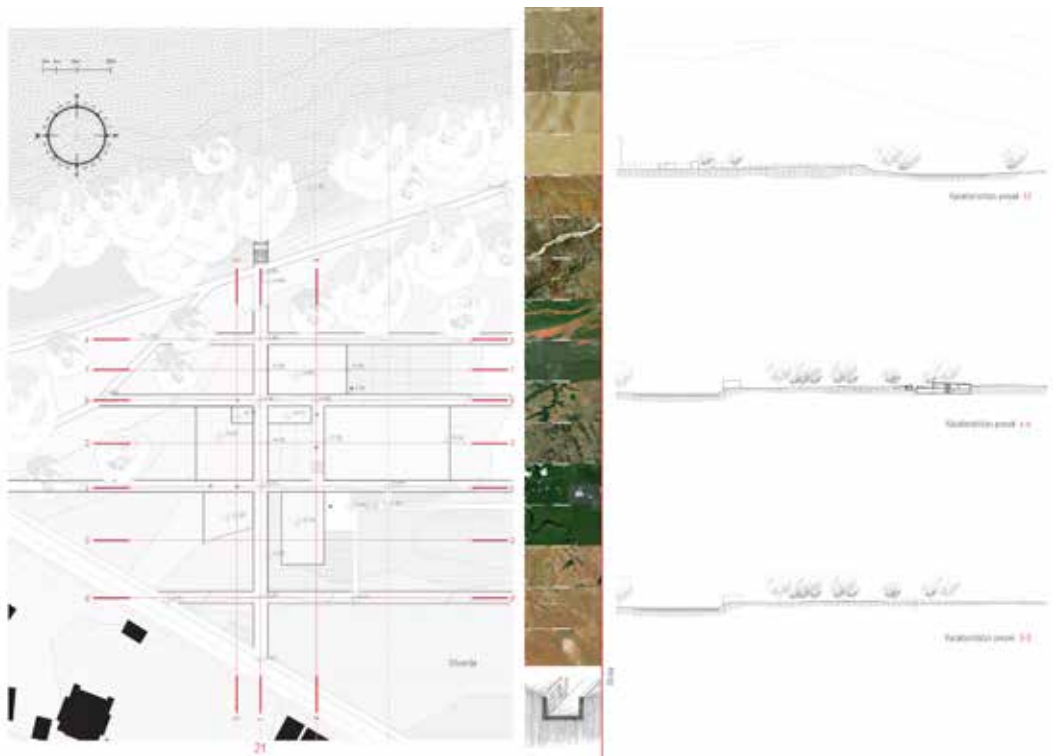


Figure 4. Student design project 2019/2020 Trstenik  
 Student: Ivana Janošev