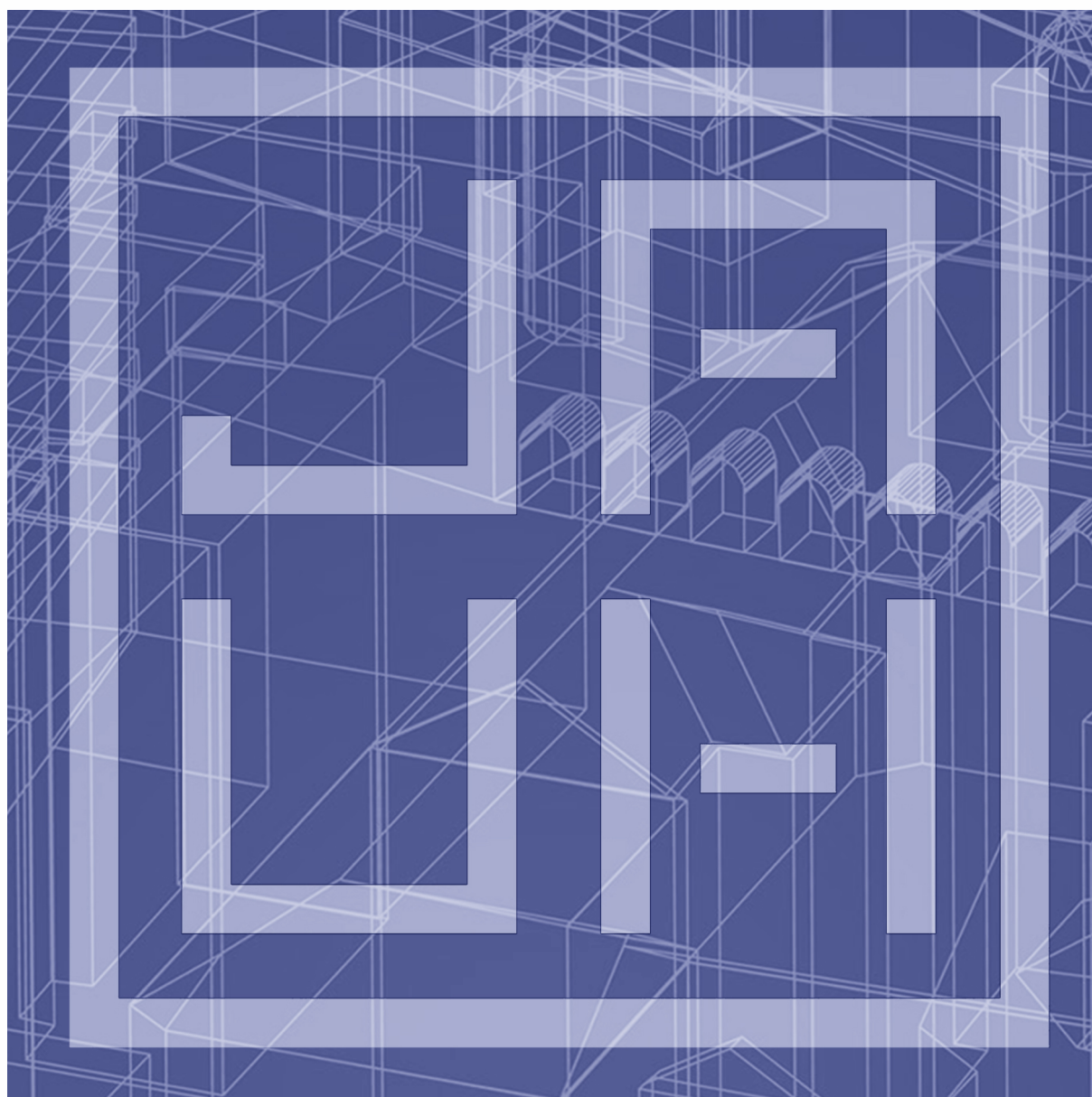


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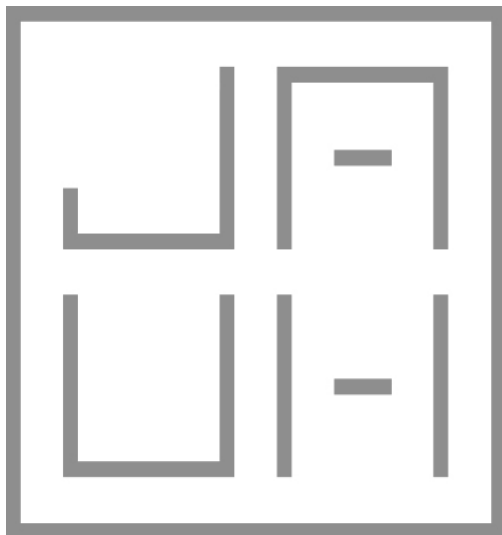
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Aims & scope

The Journal of Architecture, Urbanism and Heritage is a peer-review academic journal which publishes original research papers and advances theory, research and practice in the fields of architecture and urban planning.

The interdisciplinary scholarly publication is aimed at advancing conceptual, scientific, and applied understandings of Architecture, Interior design, Urbanism, Built environment and Preservation and heritage studies.

Its articles include recent research findings, empirical research papers, theoretical and integrative review articles, book reviews and innovative new practices, creating a link between theory and practice, researchers and practicing professionals.

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**Reactions on the New European Bauhaus Design Curricula:
Project Oriented Approach at the Master Course
Sustainable City
(University of Belgrade - Faculty of Architecture)**

Vladimir Mihajlov¹, Aleksandra Stupar², Ivan Simic³, AleksandarGrujicic⁴
University of Belgrade, Faculty of Architecture, Serbia^{1,2,3,4}
vladimir.mihajlov@arh.bg.ac.rs¹; stupar@arh.bg.ac.rs²; ivan.simic@arh.bg.ac.rs³;
aleksandar.grujicic@arh.bg.ac.rs⁴

ABSTRACT

Design education in architecture and its allied disciplines represents one of the cornerstones for design professionals, contributing to the sustainable future of the built environment. However, despite the dedication of educators, the changing focus in design pedagogy is still not fully embraced in the university setting. Recent concerns about outmoded and static approaches in the higher education have, therefore, triggered some new insights casing the updating, upgrading and improvement of programs. Consequently, critical thinking and inquiry, creativity and innovation, research and investigation, collaboration and civic engagement, supported by technical competences, have become increasingly valued in the contemporary design pedagogy.

Following this trend, one of the master courses at the University of Belgrade - Faculty of Architecture, entitled Sustainable City, has been structured around the project oriented approach. The curriculum supports student` work, with the final test in the form of a Civil Initiative Project Proposal which responds to various ongoing competitions and calls. The process is finalised through a Civil Initiative Project Proposal data set, established on the Teams platform, providing the possibility of an active involvement into practice, while solving the various problems of local communities.

Keywords: design education, architecture, practice, active involvement, local communities, civil initiative project proposal

1 INTRODUCTION: THE ROLE OF ARCHITECTURAL EDUCATION IN SUPPORTING THE CONTEMPORARY SOCIETY

After the recent concerns about the inflexibility of outdated pedagogical approaches in the higher education, the university curricula related to the design courses have been gradually adjusted to the contemporary paradigms of general sustainability and resilience. Due to their significant role in shaping and developing the future of the built environment of global settlements, the architectural and urban design have also adjusted their methodologies to the increased dynamic of changes and multiple challenges. Based on the desired qualities of critical thinking and inquiry, creativity and innovation, research and investigation, collaboration and civic engagement, many courses have also taken into consideration a variety of approaches and different contextual factors. However, the high level of diversity and a lack of common understanding have resulted in a heated debate among educators and academics regarding two major elements - the type of changes in the design pedagogy which would respond to the needs of the contemporary design profession and provide the best results, and their actual (and adequate) effects on the aspirations of the contemporary society and its transformations. These discussions resulted in a comprehensive report published by the MIT School of Architecture and Planning (Beinart, 1981). However, this was not an isolated effort and many other studies have followed, contributing significantly to the establishment of a new discourse on the design pedagogy, while also representing a prelude and an encouragement for a debate on the current architectural education and practice.

For example, the book *Voices in Architectural Education: Cultural Politics and Pedagogy* (Dutton, et. al. eds. 1991) challenges architectural educators to intensify interaction with students in the political, social, and cultural terms. It establishes links between architectural education and society and presents a conceptualisation of architectural pedagogy

within a critical analysis of the larger society. The work of Teymur (1992) - *Architectural Education: Issues in Educational Policies and Practice* - contextualises the debate on architectural education and discusses the role and impact of various theories in design teaching. He also supports the notion of education for international practice and global exchange.

The local context was considered in the book *Architecture: Art or Profession? Three Hundred Years of Architectural Education in Britain* (Crimson and Lubbock, 1994) which provided the first general history of architectural education, while discussing the relation between an architect's education and the overall built environment, as well as the lessons of the past. Salama (1995) provided an insight into the new trends in architectural education, highlighting the role of the design studio and considering various innovative concepts within this teaching model.

The more recent discourse on design pedagogy also emphasises the importance of civil initiatives including the best practices into teaching and learning. Major contributions to this more pragmatic trend include the initial ideas of Boyer and Mitgang (1996), arguing for a more liberal, flexible, and integrated curriculum connected to actual problems, as well as the edited volume of Pilling and Nicol (2000) dealing with the relation between architectural education and contemporary professional challenges. Salama (2009) also delivers an updated perspective on architectural and urban pedagogy, while Harriss and Widder (2014) underline the importance of the successful, evidence-based live projects in the architectural curricula.

2 TOWARDS MORE SUSTAINABLE URBAN COMMUNITIES: NEW EUROPEAN BAUHAUS AGENDA

The appearance of a New Design Pedagogy in the late 1990s, emphasised the context of more sustainable urban communities. This approach also caused the re-thinking of traditional methods, design tools, techniques, models and characteristics. Consequently, the design

process generated new methodologies - case study model, community-based design learning model and participative curriculum model. Additionally, critical inquiry and the Process-Oriented Design Pedagogy (from the late 1990s to the mid 2010s) were linked to creative thinking and successful intelligence in architecture and design (Salama, 2016). Finally, the problems in urban communities caused some new focuses in the 2020s: Interchangeable design pedagogies, Community based design pedagogy and live project studios, which are a recently promoted concept of the New European Bauhaus Paper (NEB, 2021). New directions for pedagogy in architecture forced design educators and the schools of architecture to meet the challenges posed by new educational trends, re-emerging learning philosophies and the new digital technology. Current digital tools can facilitate the assessment of performative criteria, such as daylight, shading, noise, air and water qualities, biodiversity health, comfort, user appreciation, energy, water, waste and related services (e.g. shared mobility), all essential to maximising the opportunities for passive design techniques. However, digital tools are not used coherently, systemically and at the wider scale, addressing all the aspects from the New European Bauhaus agenda and the Green Deal goals (NEB, 2021).

3 PROJECT ORIENTED APPROACH: THE CASE OF THE COURSE SUSTAINABLE CITY

The project oriented approach implemented during the course Sustainable City, creates a curriculum which supports active student participation in the real problems of local communities. Located at the 1st year of master studies, both as an obligatory and elective course (depending on the selected master program) represents a research polygon for curriculum design and further upgrading. Following the ideas of Chen and Hoffman (2017), who successfully applied experimental and innovative game-based curriculum design to the studies of urban surrounding, as well as the work of Kelly (2006, 2010) focused reflexive thinking and journaling in education, the curriculum of

Sustainable City tends to apply predictive learning and future design. These educational interventions are used to study the potential impact of changes on environmental values. Through the examples selected by students, a number of specific urban problems related to different aspects of sustainability are identified and described. The final test is conceived in the form of a Civil Initiative Project Proposal tackling the problems from the different ongoing competitions and project calls. The study process ends with the Civil Initiative Project Proposal data set, established on the Teams platform. Its role is to provide the possibility of an active involvement in the current practice and to address (and solve) various problems of urban communities.

By implementing this approach, the course enables students to determine and define their desired futures for the selected urban environments. These possible development options and opportunities are based on the synergy of foresight techniques and the long-term socio-cultural potentials of urban communities. Accordingly, this path leads to a designed academic intervention and the assessment of the possible results of environmentally shaped and future-oriented thinking, overcoming a gap between different environmental attitudes and ecological behaviours (Stupar, Mihajlov & Simic, 2017).

3.1 The Phases of Learning

By introducing the students' participation, the curriculum directly supports their research divided into two main phases: reflexive and creative, which are introduced during 14 weeks of the course and practiced through four steps-phases. The process of education implemented during the course could be explained by Kolb's learning cycle (Kolb, 1984). (Figure 1):

- The first one consists of thematic discussions on the rising issues of urban ecology, urban population, available and-or limited resources, energy, air, water and waste systems, transportation, vegetation, local surrounding, etc. (time horizon 2030). This phase aims at

increasing a students` environmental consciousness.

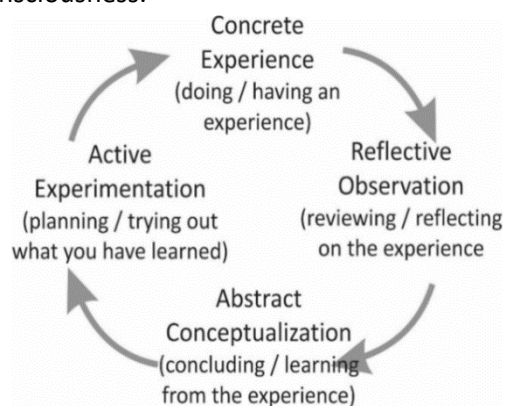


Figure 1. Kolb's learning cycle in the context of reflexive thinking (1984), adapted in the context of the Sustainable City course

- The second phase is related to the reflexive thinking. Students write down their impressions, addressing numerous questions related to: a) problems which might trigger their reaction/intellectual response; b) images/discussions which challenge their viewpoints/perspectives; c) methods for improving the sustainability of cities; d) their willingness to study the local environment in situ.
- The part related to the case study focuses on an urban transformation processes. Through the examples selected by students, a number of specific urban problems related to different aspects of sustainability are identified and described, as a practical contribution.
- The creative phase (exam) is the last step in the process. It includes the students` proposals and recommendations for improving the selected urban environment, tested through a development of a small pilot project. These projects could tackle different problems and propose solutions in various forms and modes - from public innovations, tactical urbanism, urban revitalisation, adaptation to climate change, business-driven sustainable solutions, etc. Through this phase students verify their ability for preparing proposals for research grants, aiming at the desirable urban transformations via affordable solutions and a precise ecological purpose (e.g. tree planting,

useful resource recycling, waste discount and reuse, urban green infrastructure preservation, defensive mangrove forest, experiencing vegetarianism, business start up programs etc.)

4 THE RESULTS: ENVIRONMENTAL ATTITUDES, CURRICULUM EXPERIENCES

The results of students` surveys are presented in the form of a Civic Initiative Project Proposal, applicable for different funding sources (e.g. civil society organisations, local initiatives, individuals and other interested parties). (Figure 2).

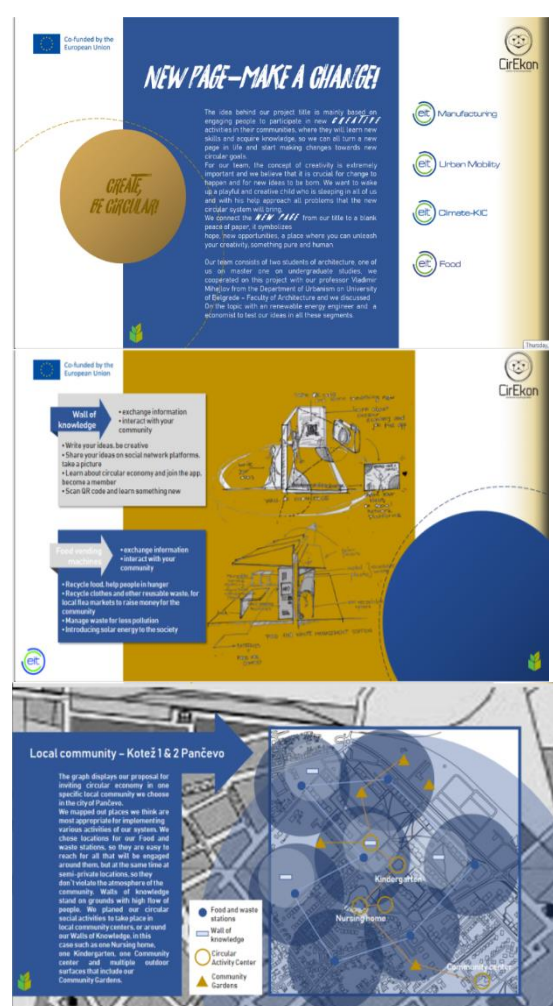


Figure 2. The proposal for improving the sustainability of the urban environment in Pancevo, tested by developing a small pilot project: students Emilija Drndarski and Sara Brkic (1st award at the CirEkon and EIT Food Competition for Engaging Citizens in Circular Economy)

5 CONCLUSION

The curriculum design, aimed at discovering the feasible and sustainable alterations of attitudes and roles via pedagogical stimulus, generated four principal questions for the involved lecturers:

1. What are the preferred attitudes of students regarding the surrounding and sustainable futures?
2. Do their attitudes alternate drastically when exposed to a pedagogical stimulus related to a sustainable foresight?
3. What are the images and eventualities of their desired/anticipated environments?
4. Do the interventions from pilot projects have an impact on their own environmental awareness and future actions?

The analysis of the curriculum and its results revealed that students' environmental awareness and the ability to envision the sustainable futures was increased after attending the course. Furthermore, the course layout additionally sought to probe students' attitudes in their favoured/anticipated environments in a qualitative mode, exploring the increase of their awareness, as well as the responsibilities and effects they could have on the environment. The improvement of their general attitude was influenced by the introduction of reflexive thinking and workshop discussions. (Figure 3.)

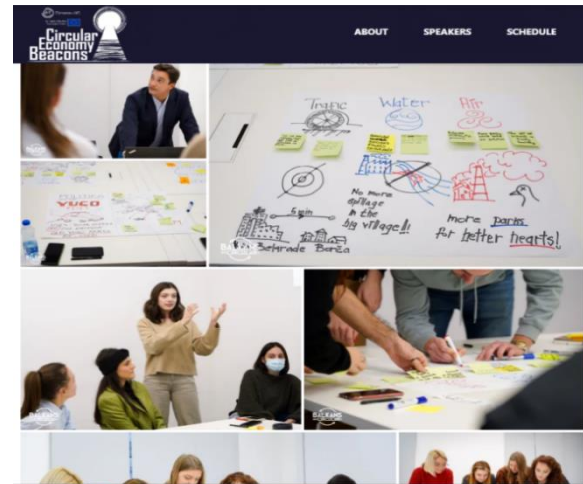


Figure 3. The workshop Balkans Go Circular: The database support to the Civil Initiative Project Proposals. Organized by EIT Climate KIC and CirEkon d.o.o. on December 15th, 2022, at the Serbian Chamber of Commerce, The participants were students from the course Sustainable City

<https://circular-beacons.net/wrapping-up-the-year-with-balkans-go-circular-conference/>

Consequently, the participating students summarised their perception of the course through 4 dimensions:

1. **Curriculum experience**, as a catalyst for expanding the research beyond the limitations of a classroom, enabling the closer insight into the real urban and natural features of a city;
2. **Linking motivation with reflexive thinking** in order to interconnect technological, cultural, spiritual, ecological aspects of environment, as well as to increase environmental consciousness;
3. **Ability to act in a social responsible manner** - which implies that in the anticipated ecological future change is possible. Upgrading the curriculum by stimulating the participation of students represents a strong and positive momentum for a radical change, supporting the hypothesis which claims that the ability to act can be enhanced through future-oriented educational interventions.
4. **Visions of a future urban society** - students are constantly encouraged to question their empirical views and the nature of cities, as well

as the dominant paradigms, looking at the connections between the outside and the inside world.

Considering this feedback, the course continues to develop and its data base could receive more public attention opening new possibilities for an interchange of theory, practice and education, as well as for some new initiatives to be explored, tested and verified - both at the University and among local communities. (Figure 4.)

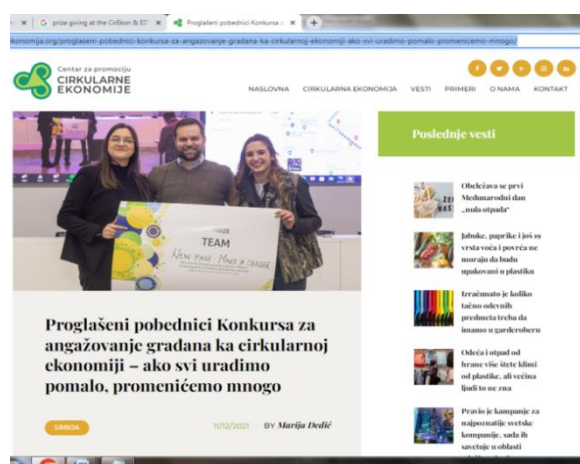


Figure 4. The awards ceremony at the CirEkon & EIT Food Competition "Engagement of students towards circular economy" on December 10th, 2021. Winners Emilija Dndarski and Sara Brkic (supervisor Associate Professor Dr. Vladimir Mihajlov), project entitled New Page - Make a Change. <https://cirkularnaekonomija.org/proglaseni-pobednici-konkursa-za-angazovanje-gradana-ka-cirkularnoj-ekonomiji-ako-svi-uradimo-pomalo-promenicemo-mnogo/>

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