EDUCATION BY RESEARCH IN URBAN DESIGN STUDIO

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Abstract

The design studio teaching mode is the core teaching mode of planning professions, including urban design and urban planning. In urban design studios students experience learning by design, they learn how to develop their own creative urban design solutions which represent the main results of the studio work. However, these creative urban design proposals for the specific areas and spaces are developed on the basis of thorough urban research. In the research part of urban design studio students learn the methodologies to analyze the urban space, to identify its problems and potentials. The paper examines the possibilities to combine the aims of the international research projects with the specific teaching and educational requirements of urban design studios.

Keywords: Urban design studio, urban research, problem based education.

1 INTRODUCTION

The design studio occupies a central position in architectural education and in contemporary design pedagogy [1]. Design studios are a form of collaborative learning characterised by intensive exchange with group members and peers, they serve as a testing ground for all types of knowledge gained in theory and lecture courses [2]. In the studio students learn to “think architecturally”, they experience “learning by doing”, “knowing by action”, and “reflection in action” [3, 4]. The design studio teaching mode is crucial for architects and urban planners to develop their competencies in comprehension of complex relations between buildings and their sites, landscapes and environment [5]. Salama [6] points out the need for sustainable discourse on design pedagogy and the need for an in-depth examination of the studio method of architectural education, which should be the subject of continuous scrutiny, to reduce the gap between educational experiences and the effectiveness of those experiences in implementing change in the built environment. At the same time, in higher education there is the need to create synergy between the key higher education activities – research and education. Research by design is often used to support research activities in design education.

We have examined the possibilities to implement the approach of “education by research” and to combine the research activities with educational aims of urban design studio at the Faculty of Architecture, Slovak University of Technology, using the example of DANUrB – Interreg Danube Transnational Programme international project, aiming to create a comprehensive spatio-cultural network, a “Danube Cultural Promenade” connecting communities along the river Danube and unifying these into one tourism destination “Danube Urban Brand”.

2 METHODOLOGY

In urban design studios students develop their own creative urban design solutions which represent the main results of the studio work. However, these creative urban design proposals for the specific areas and spaces are developed on the basis of thorough urban research. In the research part of urban design studio students learn the methodologies to analyze the urban space, to identify its problems and potentials.

Štúrovo – the pilot city of the DANUrB project in Slovakia has been selected as a study area for the Small Urban Design Studio of the bachelor programme of Architecture and Urbanism at the Faculty of Architecture Slovak University of Technology in Bratislava. A group of 50 Slovak students of the Faculty of Architecture Slovak University of Technology in Bratislava and 9 Erasmus+ students attending the Small Urban Design Studio have carried out the research with focus on identification of hidden or unexplored cultural and social heritage, with potential to enhance economic, tourism and socio-cultural development of the pilot city and with focus on design aimed to enhance the identity of the city.

Students have been divided into groups, in order to use various methodologies to analyze the urban space:
analysis of the city Štúrovo in broader spatial context;
Štúrovo – Esztergom relations;
natural conditions, landscape, nature protection areas;
functional and operational analysis;
transport route analysis;
historical analysis of urban development;
analysis of historical and cultural heritage;
socio-economic analysis;
socio-cultural analysis;
analysis of master plan;
analysis of urban composition;
permeability of urban-structure, barriers in urban space;
volume-spatial analysis of urban structure.

Except these conventional methodologies of urban research, students have used also creative methods of urban research such as walking, photography, mapping of soundscapes, or the method of mind mapping to map the features of the city. The students split up into small groups have conducted an experimental urban analysis of selected routes searching for specific features of Štúrovo, to complete the analyses by perceptions of the environment.

The graphical part of the analyses has been elaborated in scales from 1:10 000, to 1:1000.

3 RESULTS

The results of the on-site research executed by students in Štúrovo have been presented, discussed and shared among students (Fig. 1, Fig. 2). The information they got during the research part of the studio have been compared and verified between groups.

Figure 1. Example of the working result of the urban research conducted in Štúrovo by students Dang The Anh and Eva Jandová, supervisor Viera Joklová, summer semester 2017. Photograph: Ján Urban.
According the results of the site research students have identified the strengths and weaknesses, the opportunities and threats (Table 1), the problems and the possibilities to valorize the potentials of urban structure and cultural heritage of Štúrovo for further development proposal in the design part of the urban design studio.

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<td>Esztergom</td>
<td>appearance</td>
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Students participating in the Small Urban Design Studio put the theory on investigating the urban environment into practice and developed their own portrait of Štúrovo. The students during the research process got a better understanding of the various aspects that characterize the research in the urban field and they became confident in their roles as researchers. They became familiar with creative methodologies of urban research.

The students have tested the methodologies of research focusing on revealing the hidden potential of spatial structure and cultural heritage of Danube pilot town – Štúrovo. Undergraduate students approach research from a very different angle than do researchers. As noted by Fister [7], students who are initiates in disciplines, not experts, do not go about research the same way that their professors do. As stated by Voigt [8], it is enrichment when we can exploit the diversity of different approaches to planning in order to illuminate problems from various angles and thus recognize and understand them better. The student approach and results of the student research helps the partners of the DANUrB project to find and propose the most suitable DANUrB methodologies to research the spatial structure and the cultural heritage of DANUrB towns.

4 CONCLUSIONS

The example of introduction experiential learning and evaluation research in the education process of urban design studio has shown that the aims of the international research projects can be integrated
with the specific teaching and educational aims of urban design studios. Salama [9] advocates the integration of research into undergraduate architectural education by arguing for the exposure of students to primary source materials that enable them to get as close as possible to the realities being studied. Additional educational events and research based pedagogy complementing traditional teaching practices are highly appreciated by students [10].

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REFERENCES


