Workshop as a tool in architectural education

Katarína Smatanová & Alexandra Dubovcová

Slovak University of Technology in Bratislava
Bratislava, Slovakia

ABSTRACT: Complementing standard forms of architectural education, such as seminars and design studios, current shifts and challenges for the architectural profession have lately increased interest in the application of workshops. These are short-term, educational seminars emphasising interaction and exchange of information among a usually small number of participants. Recently, workshops have also become popular in the Faculty of Architecture at Slovak University of Technology in Bratislava, Slovakia. Based on the experience from 15 workshops held at the institution in the last three years, the article scrutinises the application of workshops as formal tools of architectural education. In more detail, the article looks at the advantages of the application of workshops for students, as well as for lecturers and on the negatives connected with their application. Finally, through discussing suitable content for workshops, the authors of the article attempt to define the right place for this educational practice within standard educational tools.

INTRODUCTION

In recent years, there have been significant changes and shifts of challenges in architectural practice. Complexities of the current world bring along uncertainties that are often contradictory to what has been embodied in architecture for centuries, as a discipline occupied by rigid forms of built environment. In order to provide suitable responses and prepare future architects for these new practices, architectural education must also reflect these changes [1][2]. Standard curricula that are designed for standard topics must embrace new issues; teaching is facing incorporation of changes in its objectives and criteria, and teachers' tasks [3]. Formal educational tools are not always capable of responding flexibly to these new topics. Workshops, due to their time-scale and other specificities, seem to be able to react more responsively to actual topics and problems and, therefore, provide one of tools for education for the *new architecture*.

WORKSHOPS IN ARCHITECTURAL EDUCATION

A design studio is considered to be a core component of architectural education. The literature suggests that architecture students should *learn by doing*; reflecting, thinking and doing in the process of finding solutions to assigned design problems [4][5]. Design studio encompasses all these processes; it is based on the combination of students' knowledge from different fields of what they learned on seminars, and also their creativity.

Currently, the literature on architectural education does not clearly define what a *workshop* is or what it is not. Many universities offer workshops that are often generally understood as comprising intensive, short-term design studios. However, this definition is not exact enough.

Historically, the term workshop defined a place where things were made and sold [6]. As for current needs, Brooks-Harris and Stock-Ward suggest a general definition of a workshops as …*a short-term learning experience that encourages active, experiential learning and uses a variety of learning activities to meet the needs of diverse learners*, with possible workshop emphases: problem solving, skill-building, increasing knowledge, systemic change, personal awareness/self-improvement [6]. Therefore, this article also attempts to place workshops within this definition and to identify various roles that workshops might play in formal architectural education.

WORKSHOPS AT THE FACULTY OF ARCHITECTURE, STU BRATISLAVA

Similar to trends at other universities, workshops are also becoming a popular format in the Faculty of Architecture at STU Bratislava. In the last three years, more than 15 activities that were described as *workshops* were run by the

Faculty itself or in cooperation with other universities or institutional bodies. Analysis of their nature, content and aims identified three positions of workshops in relation to a standard curriculum (see Table 1):

Table 1: Workshop at the Faculty of Architecture, STU Bratislava.

Position of workshops in relation to a standard curriculum	Workshop
Workshops outside of a standard curriculum	Freedom Square, (Non)public space, cykloFAKulta, 3D workshop Future City Design, Young's - Vianopulty, Young's - Design of Market, Architects in Roma Settlements, Autumn School of Architecture in Banská Štiavnica, Workshop for Ciachovňa, Biennale Sessions Workshop, *Arrange your field office*
Workshops that are used as a supplement of standard design studios	Creative workshops (Studio Design III) Architecture from architecture
Courses that are completely taught in *workshop* format	Art workshops Pptional courses (such as Materials in Monument Conservations)

Workshops Outside of a Standard Curriculum

These are activities that students attend on a voluntary basis. Workshops may take place any time through the academic year, often causing students to miss formal lectures. However, the content of workshops often reflects actual topics, since they mostly emerge from an impetus from non-academic bodies, such as civic associations or from proactive lecturers who want students to be introduced to urgent themes. The framework of the courses allows workshop to become a formal part of education via an optional course *summer-school*. These types of workshops are in the focus of this article, because of their potential for architectural education, but also difficulties with their organisation.

Workshops that are Used to Supplement Standard Design Studios

These are activities that students also attend in their free time, however, their topics and aims are connected to ongoing design studios. The workshops' aim is to provide students with additional skills or knowledge, for instance in the field of computer skills or model-making.

Courses that are Completely Taught in a *Workshop* Format

These are mostly optional courses that are completely taught in a workshop form due to theirs scope of topic.

EXPERIENCES: WORKSHOPS OUTSIDE OF STANDARD CURRICULA

In-depth analysis of 11 workshops that took place outside formal education in the last three years at the Faculty identified certain specific traits that all of these have in common. It is this specificity that makes workshops into a unique educational format and, therefore, essential tools of current architectural education. Regarding their specific outcomes and ability to respond quickly on urgent themes, workshops serve also as tools of *active* architectural pedagogy.

The material below scrutinises the main characteristics of all workshops that have taken place at the Faculty, illustrating the outcomes of three of them: 3D workshop Future City Design; cykloFAkulta; and (Non)public spaces.

Topics - Architecture and Urban Design Education

Workshops prove to be a good format to test the introduction of new topics into the standard curriculum, and appropriate pedagogical tools that enable students to succeed in broader disciplines [2]. This involves topics, such as experimental architecture, or experimental architectural tools (allowing for *digitalised* study process) or actual topics that require fast action (e.g. post-disaster planning), interdisciplinary topics. However, the shorter time scope of workshops does not always allow for in-depth details of project elaboration to be gone into.

Format of the Workshops

Generally, the aim is to create an interesting format full of new experiences. As Brooks-Harris argues, if one creates an active and experiential learning environment, then, it is possible to encourage workshop learners to recognise their

own compassion, intelligence and courage [6]. Therefore, workshops often take place at the Faculty's field office in Banská Štiavnica, which offers not only accommodation, but also capacity for a full teaching process equipped with up-to-date digital technologies.

The standard length of the workshops is 5-7 days, and students are tutored in groups of 8 students per lecturer, creating a group of not more than 25 students. Workshop *work* is also supported by experts from different fields and open lectures embracing the topic from various perspectives (see Figure 1 for more detail). Besides standard drawing and rendering, in order to support the experiential learning, tools used during workshops also involve 3D printing, physical models.
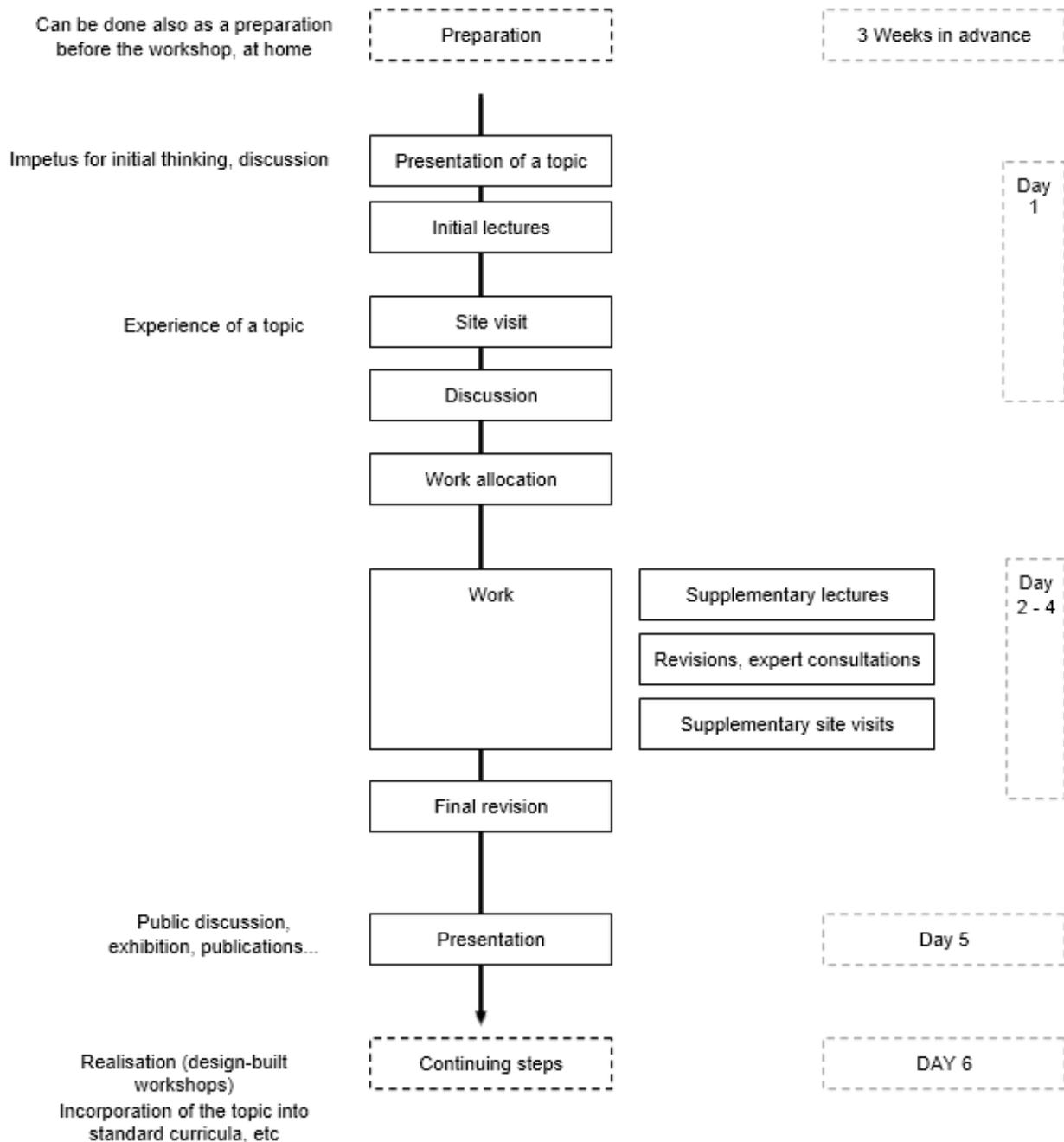

Figure 1: Process of workshop.

Students

The format and scope of the workshops are characterised by effective, intensive and more demanding works. Such work effort requires tighter collaboration between students. Sometimes, the short-time frame also brings out a quite tense situation, through which students may develop tight relationships and learn to collaborate effectively. Furthermore, the tutoring schemes allow students to understand the topics better, as they have more lecturers available to prepare them for practice. During workshops students solve real-life problems and aim to find real-life solutions, and often meet people from the public or various disciplinary backgrounds.

Learning Styles

Often mentioned difficulties connected to application of workshops are that different workshop participants have different needs, levels of experience and individual interests, resulting in difficulties in preparing assignments or the scope of the lectures [5]. Therefore, the lecturers' preparation for workshops must be very detailed and thoughtful. However, the experiential nature of workshops causes students to remember what they learned better [5].

Tutors

As mentioned before, the workshop format puts more organisational and preparation emphasis on tutors and lecturers.

Brooks-Harris and Stock-Ward suggest that in order to entail the special character of workshop, it is necessary for a tutor to act as a facilitator of experiential learning rather than merely as a teacher and instructor, by encouraging learning between and among all participants [6].

Students are mostly more motivated - to work, but also generally to participate. Informality, which aims at going beyond the normal and ordinary, provides an environment excluding the current order and rules where hierarchy is taken down. The most important benefits of informality are motivation, a communicative environment where different ideas come together, expressing oneself individually and gaining self-confidence [7].

Workshops allow for better management of students works, as they are grouped into smaller units. Also, students obtain feedback faster than during standard education processes.

Last but not least, workshops offer a better opportunity to involve external lecturers, or lecturers from different fields and disciplines into educational process, since external lecturers cannot be involved into semestral education, as it would be more time-consuming for them.

Outcomes

Workshops serve as a tool of *active* architectural pedagogy, results of most of the workshops are visible faster, and outcomes are tangible, as the three following examples describe.

Workshop results can also serve as a robust basis for further research. Being a short-term tool, workshops also allow students to get involved in university research themes. Through workshops these themes can be pushed forward, but students also have an opportunity to get in touch with topics and practices that can inspire them to stay in academia and the research field.

Table 2: Outcomes of the workshops.

	Outcomes
Freedom Square	Publication encompassing ideas for reconstruction of Freedom Square in Bratislava.
Young's - Viano - Pulty	Designing and constructing of market stalls used for Faculty events.
(Non)public Space	Designing and building of a children's playground in Rankovce.
Autumn School of Architecture in Banská Štiavnica	Measurement and exact plans of old historical buildings in Banská Štiavnica.
cykloFAKulta	Published project of transformation of Radlinského Street from vehicular - to pedestrian friendly that are currently in the processes of realisation by the City Council of Bratislava. Consequent activities involved provision of a bike park at the Faculty and preparation of an electronic bike-sharing system.
Young's - Design for Market	Design of chosen market stands in the New Central Market Bratislava, in the participative cooperation with market sellers.
Workshop for Ciachovňa	Redesign studies for historical building of Ciachovňa, exhibition.
Biennale Sessions Workshop	Comics; a set of postcards with the photographs of important modernist buildings; video projection on the object; a jewellery set based on the shapes of the most significant Slovak modernist buildings.
Arrange your field office	Interior design of field office in Banská Štiavnica
Architects in Roma Settlements	Designed and built small reconstruction and public space amenities aiming to upgrade the poor and excluded Roma ghetto in Komjatice.
3D workshop Future City Design	Virtual models made by students, transformed into the physical models using 3D printers.

3D Workshop Future City Design

A five-day workshop took place at the Faculty's field office in Banská Štiavnica. Via posters and invitations, the 3D workshop was presented to the students as a course of 3D print. In fact, it was an experiment, where ten students were given the task of Future City Design. The aim of this experiment was to track the influence of sci-fi movies in students' image of future cities. The process and the aims and programme of the workshop were concealed from students, to prevent them from *home preparation* for the task. Isolation from the Internet, controlled communication among the students and intensive work during the designing phase ensured that the outcomes were as objective as possible. In the next phase, virtual models of future cities were modelled in 3D programs and printed by a 3D printer.
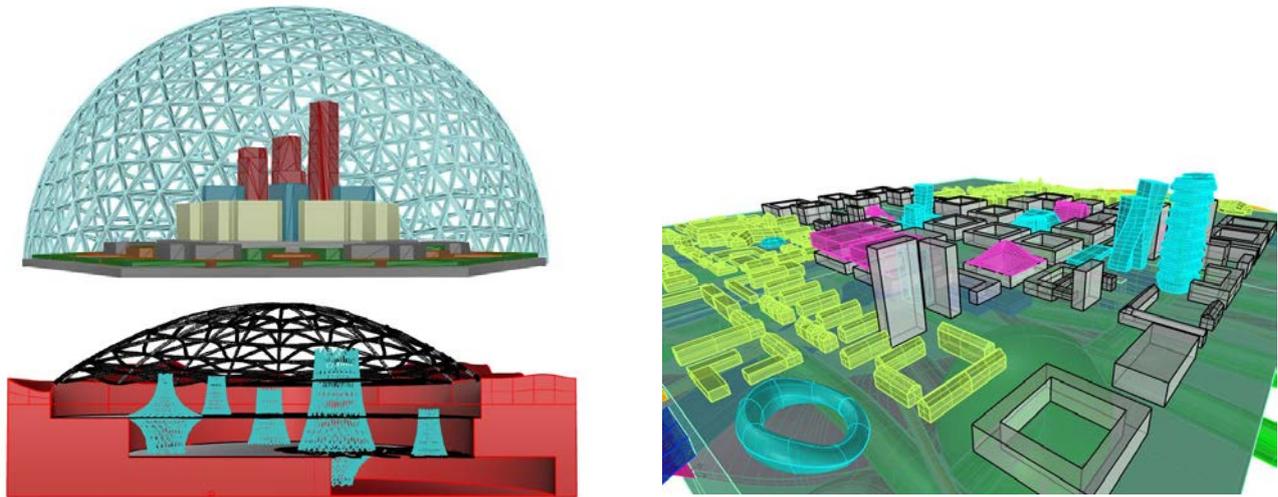

Figure 2: Outcomes of the 3D workshop on Future City Design - students' works.

cykloFAkulta

Project cykloFAkulta (bike Faculty) was based on the endeavours of the students to reflect on general ecological awareness and trends in urban design, specifically, in providing a bike-sharing system, and at the same time also bike-friendly routes to get around the campus. One of the first activities was, therefore, the project of transformation of Radlinského Street (the street connecting the city centre and the main University area) from vehicular - to pedestrian friendly in summer 2014, in cooperation with local NGO Cyklokoalícia. Students proposed designs and interventions of incorporating biking elements into the street and phases of transformation. All interventions were published in a special document and also became part of city-wide exhibition *95 Ideas for Bratislava*.

Currently, the project is in the processes of being realised by the City Council of Bratislava. Consequent activities also involved the provision of a bike park at the Faculty and preparation of electronic bike-sharing system.

Figure 3: Outcome of the workshop on cykloFAkulta - visualisation and process.

(Non)public Spaces

(Non)public Spaces comprised a series of workshops that took place during 2013 and 2014 in a ghetto area of the segregated Roma settlement in Rankovce. Students initially mapped the informal settlement structure and, then, through

participative design processes with local young people proposed the design of three playgrounds in the area. In the consequent series of three workshops one of these playgrounds was built and is currently in use by the local community.
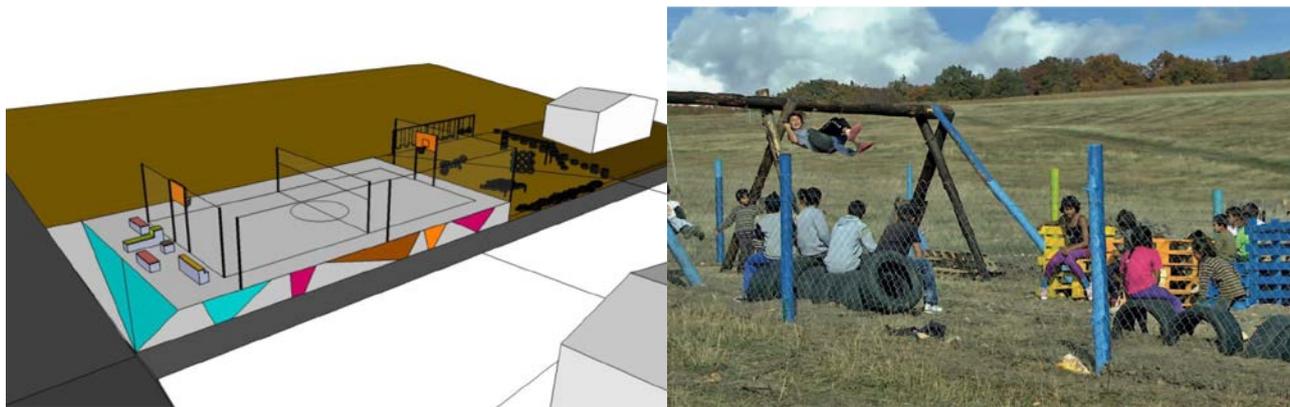

Figure 4: Outcome of the (Non)public Spaces workshop - visualisation and final project.

Constraints

The inclusion of workshops into standard curricula also brings along certain difficulties. These are predominantly connected to the short time frame of workshops' duration (e.g. organisational problems may threaten the workshop results) that increases requirements for organisation, preparation and a need for extra financing.

Compared to standard semestral education, workshops require more lecturers per student. Furthermore, as was already discussed, workshops often require students' free time. Since there is no systematically allocated time in academic year for workshops, students attending workshops may miss the curriculum of other subjects. Also, workshops are based on group work that is not suitable for everyone: there is a risk that one *spoiler* can have a strong negative influence on the work performance of the whole team. Therefore, the general questions for all the tutors and lecturers remain how to pick up the right students and how to provide a balanced formulation of workshop assignments?

CONCLUSIONS

The potentials and constraints of workshops as a tool in architectural education have been discussed. Based on experience, it can be concluded that workshops offer a range of advantages for architectural education. Predominantly, serving as pedagogical tools, workshops offer a great way of learning for the students: time-focused activity results in better embracement of the topic and also *experience* helps in faster learning and better remembering. The short timeframe for results also forces students to learn to collaborate more effectively. Workshops provide students with an opportunity to get in touch with practice, not only via external workshops tutors, but also when working on actual topics with real-life outcomes.

On the other hand, the format of workshops allows for an interdisciplinary approach and provide a new experience for tutors and, thus, may also provide a *safe ground* for different actors to meet.

Therefore, workshops deserve to become a part of standard tools in architectural education. In order to achieve this status, the standard curriculum must be adjusted to allow students to participate in workshops without having to miss other curricular subjects.

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