

International design workshops as an intensive form of architectural education

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ABSTRACT: One of the most important aspects of education within the discipline of architecture and urban planning is to associate the many aspects and conditions defining processes that shape urban space and architectural form. What is expected from an architect is a positive synergetic effect through creative, non-standard thinking and the solving of complicated functional, spatial and aesthetic relationships. The purpose of this article is to describe the experiences gathered from more than 10 years of international co-operation in a unique form of intensive education within the discipline of architecture and urban planning. It was found that international design workshops in architectural education can exert a beneficial influence on the understanding of a range of issues, and should be promoted and applied worldwide.

INTRODUCTION

The international design workshop series, conducted by the Architecture Faculty of Gazi University in Ankara, and supported by an international network of universities, has encouraged the wider use of short-term forms of international co-operation, focused on solving specific problems related to architectural, urban planning and artistic creations. Students from the architecture faculties of a number of different European universities have participated in the workshops. The intensive programme (IP) format of the workshops has allowed a number of creative-thinking stimuli to be shared with the students, and has produced large packages of information, of both a general and local character, knowledge about planning, and design rules, as well as methods focused on the selected workshop topics.

The atmosphere of these meetings, the linguistic and social challenges, as well as the ambitious, team-based professional competition, supported by the advice and comments provided to the workshop participants by international tutors, has generated intellectual mobilisation and the intensification of creative thinking. The authors describe selected examples of workshop topics, their organisation, the teaching methods used and the results obtained.

This innovative form of education has opened students' minds to the different art of solving spatial, social, environmental and aesthetic problems, to the need for synergic teamworking, to new, previously unknown design methods, to attractive solutions to problems and to innovative forms of presentation. Above all, it has opened up the minds of all workshop participants to the possibilities of international professional co-operation and knowledge exchange, to new discoveries, and has enabled them to foster their skills.

WINTER SCHOOL PROGRAMME

It has become a tradition for some representatives of European architectural schools to fly to snow-covered Ankara at the end of January, to work with an international group of students on topics concerning the development of the capital of Turkey. The coldness of wintertime has been warmed by the cordial hospitality of the Turkish organisers and the power and inventive potential of the international students. The international character of the student groups has produced synergies and more interesting outputs than expected.

Contributing to the success of the workshop has also been the effort of a group of international professors, who have accompanied the work of the students, all the time stimulating, giving advice, and supporting students with their skills, knowledge and ideas. As the European Erasmus-Intensive Programme (Erasmus-IP), which has given great support to the workshop organisation in Turkey has closed, the time has come for retrospective summaries and evaluation of the achievements collected during the decade.

The didactic experiences from the international architectural and urban workshops, led in the form of the intensive programmes described in this article, were conducted at the Faculty of Architecture of Gazi University in Ankara (Turkey) during a period of 10 years, from 2003 to 2014. The genesis of the organisation of the workshops derived from the architectural studio course, initiated by Prof. Nur Çağlar, as an additional one-week creative education programme during the winter didactic break that was enriched by the participation of foreign tutors, in the *Winter School of Architecture*. The success of this form of education prompted the organisers to apply for workshop funding from the European Erasmus fund, to allow for the participation of international students and academic teachers of architecture from other co-operating European academic centres.

The workshops took place in three-year thematic cycles, organised and led by professors affiliated to the Faculty of Architecture of Gazi University. Between 2007 and 2009, the programme was expanded into a two-week activity, under the name of European Winter School in Architectural Design (EWSAD) under the ongoing co-ordination of Nur Çağlar. From 2010 to 2012, the Winter School was carried out as a project of the Erasmus-Intensive Programme, under the name of Winter School Roving Architectural Design Studios (WS-RADS) and co-ordinated by Assoc. Prof. Esin Boyacıoğlu.

In 2013 and 2014, the programme was turned into an architectural design studio, under the name Winter School International Research and Education (WIRE) [1][2]. The workshops were attended by students and professors of architecture and urban planning from universities in Poland, Great Britain, Belgium, Germany, Slovenia, France, Portugal, Italy, the Netherlands, Spain, Austria and Finland, as well as students from various academic centres in Turkey, and particularly from Ankara. Since 2004, the authors have had the opportunity and privilege, with groups of international students and associates, to participate in and co-create a high number of creative meetings of this type.

INTENSIVE EDUCATION AT THE WINTER SCHOOL

The architectural classes conducted in the form of workshops are becoming a popular tool in the education in this discipline and supplement the education based on the design studio [3-6]. Smatanová and Dubovcová suggest that:

Many universities offer workshops that are often generally understood as comprising intensive, short-term design studios. However, this definition is not exact enough [6].

According to Brooks-Harris and Stock-Ward, a general definition of a workshop is:

...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 [7].

The Winter School workshops presented in the article fall within this definition. The programme of the Winter School has been developed to complement the traditional academic education process with new, innovative didactic forms. The possibility of co-operation with students from foreign universities in a strictly limited time has created conditions similar to the functioning of contemporary, international architectural design studios. The ability to work creatively under time pressure has become increasingly important as a preparation for working within the architectural profession. This practical experience has been accompanied and enriched by the need for team-working skills and their application in a multicultural environment given the different levels of linguistic and professional preparation of the participating students.

An additional motivational factor for the workshops was the competition between the groups. The student groups of circa 10 to 15 students were composed of representatives from different countries, so competition between groups did not have a national character, but was design task-oriented. The working conditions created during the workshops were, therefore, quite different from those during the regular semester courses at most universities, and provided opportunities for the educational process to be enriched with new experiences and for new competencies to be acquired. Social competencies and language skills have been extremely important.

During the workshops, the lack of competence of some students was revealed, and which could have been improved under the programme. It is necessary to stress that the ability of students in terms of both language and professional skills was very different - from excellent to not satisfactory. This made the workshops extremely hard to conduct. It was essential for the tutors to recognise the ability of students to perceive certain activities and scope of work at the very beginning of the workshops, in terms of their different levels of language and computer proficiency. It was also a demanding task for the tutors to deliver knowledge understandably, and to encourage the participants to co-operate, build international teams and discuss problems in international groups.

Another important challenge that the organisers and tutors had to face was the organisation of the learning.

The workshop periods were divided into two: an analytical session - with brainstorming, discussions, and idea creation; and a working session - with the preparation of the final statement, presentations, and so on (see Table 1).

Table 1: Educational challenges, methods and effects.

Educational challenges	Methods applied	Effects obtained
Low degree of socialisation	<ul style="list-style-type: none"> • Introduction of group integration tasks at the beginning of the workshop • Social and cultural evening activities 	Increase in the efficiency of group collaboration
Insufficient language skills	Support of group members with lower language skills by the tutor and other group members	Prevention of exclusion from joint work
Problems in group-working and finding common solutions. Students were not taught enough about teamworking, discussions and subordination in everyday work	<ul style="list-style-type: none"> • Brainstorming and discussions aimed at developing joint solutions, moderated by a group tutor • Using a common platform to share knowledge and ideas 	Development of a common idea, or choosing an idea through democratic dialogue, eliminating the dictate of the strongest personality
Unknown abilities of students, including their proficiency and skills	Introduction of short tasks by the tutor, enabling recognition of the skills and advantages of individual group members	Adjustment of the division of tasks in the group to the skills of participants, involving mutual learning from one another

Between the first and second periods, a short review of ideas and problems discovered was introduced. In the intermediate period, an excursion or social event took place. The socialising factor is most important in the working procedure of the workshop, to open up the students' minds to co-operative teamwork, ease of talking and the free exchange of ideas.

Students work together in the first period, where more discussions take place, not only in the presence of tutors, but also among themselves. The second working period was devoted mostly to the realisation of individual tasks, given by the tutors or resulting from the internal division of work within the group. In Table 2, an example is shown of the time schedule of a workshop prepared by a tutor. They have matched, in a simplified form, the time schedule derived from the *real project*, shortened and limited to the conceptual phase. The idea was to make the students familiar with the necessity of time planning in the design process, as well as with the milestones, internal relations and sequences between the different project elements and phases.

Table 2: Exemplary workshop time schedule.

Lost space: winter school workshop												
Time schedule		Days										
No.	Subject	1	2	3	4	5	S	6	7	8	9	10
1	Introduction	■										
2	Lecture	■										
3	Group building		■									
4	Task for the group		■									
5	Site analysis - workout			■								
6	Site analysis - conclusions			■								
7	Functional programme				■							
8	Brainstorming discussion				■							
9	Individual concepts					■						
10	Evaluation of concepts					■						
11	Establishing the leading idea						■					
12	Tasks for groups							■				
13	Sketches								■			
14	CAD design									■		
15	Modelling										■	
16	Master plan											■
17	Description								■			
18	PowerPoint presentation									■		
19	Final project evaluation										■	
20	Final presentation											■
21	Dissemination of the results											■

A particularly important aspect during the first part of the workshop was the formulation of a design problem. This was a multi-stage process, dependent on various actors (see Table 3).

Table 3: Steps towards formulating the design tasks for the groups.

No.	Design task formulation	Entity responsible
1	Defining the theme of the workshop or series of workshops; definition of the main problem to solve in the particular workshop	Organisers
2	Introduction and lectures, site visit	Organisers/keynote speakers
3	Definition of the group task and definition of the team tasks within the tutor group	Tutors
4	Discussion with students about the workshop task	Tutors/students
5	Analysis of information and materials, site visit	
6	Exchange of experiences within the group	
7	Elaboration of the workplan	

The theme of the workshop was defined by the organisers. However, the participants (tutors and students) had the opportunity to specify and select a specific issue to be dealt with during the workshop, as part of the guiding idea announced. Introductory lectures and study tours organised on the first day of the workshop had a significant impact on this process. They made it possible for students to become familiar with the workshop issues presented, in a broader context, and for the design tasks that the group would deal with to be indicated. Tutors played an important role in this matter.

Generally, the interesting thing about international projects is that foreign professionals are able to observe local problems from quite a different viewpoint, highlighting the polarity of ideas. Their role was to take part in the discussions and in the differentiation of the final project solutions. It was also the task of the tutors to watch members of their group analytically and suggest to them those tasks which could be performed, and also to challenge the students to discover some new approaches, or to improve their skills in design and performance techniques.

The open formula for selecting a specific design task was conducive to a diversity of issues within the main topic of the workshop. It was up to the tutors to decide on the degree of involvement of a group in developing the problem. Engaging the group in defining the problem further promoted the involvement of participants in the search for a solution. In this context, it was worth paying attention to non-standard activities that stimulated the group to be creative at the beginning of the workshop (Figure 1). Among these are:

- Introductory lectures for all workshop participants, prepared by specialists in a field related to the subject of the workshop.
- Lectures by tutors leading each group, answering issues related to the problem presented.
- Joint research walks, implemented by the tutor and the group, combined with discussion and analysis of conclusions.
- Surveys among the population of the area affected by the project task.
- Visits of *roving critics*, which allowed for a critical view and possible modification of assumptions made by the group, and so on.

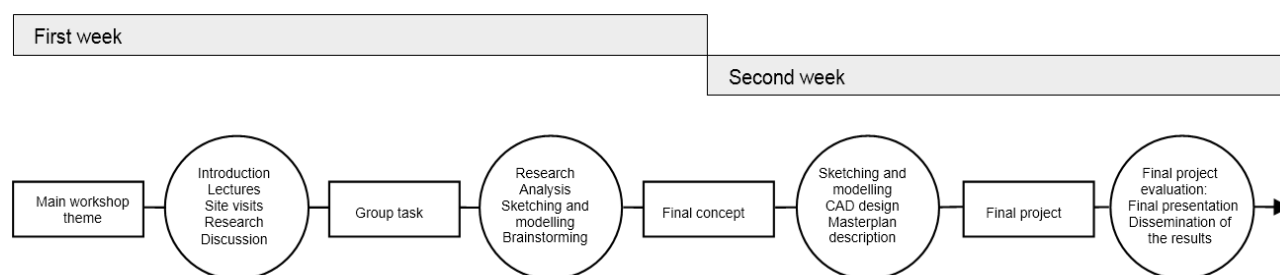


Figure 1: Progress during the workshop.

The application of innovative and experimental educational methods also occurred later in the workshop, focused on the search for design solutions. In addition to some well-known and proven workshop techniques involving the preparation of a large number of working sketches and models, other activities were applied, often inspired by tutors and resulting from their personal experience in the educational process. In this context, literature, music, film, and theatre, as well as sociology and philosophy, helped when interpreting phenomena presented in architecture, urban planning and spatial planning. Activities belonging to other branches of art and science were also often helpful in presenting the results of the groups' work and the concepts presented.

During the ten years of the intensive programme (IP), an evolution of its subjects can be observed. Originally, it was focused on architectural and urban problems in Ankara, and later on more universal themes, based on sociology, philosophy and art. The last two editions, initiated by Prof. Zeynep Uludag, were focused primarily on the relationships between architecture and art, providing a diverse cross-section of project in terms of themes and forms of presentation

regarding the broadly understood processes of shaping human living space. The examples below show a number of educational methods used during various workshop types.

PROJECTS OF THE WINTER SCHOOL

Towers in the City (2004)

The aim of this workshop was to discuss the justification of the location of towers and their impact on the functionality and landscape of the city, using Ankara as an example. Workshop participants asked themselves questions about the form and function of towers, as well as their impact on the urban structure of the city. An important part of the workshop was the analytical phase, defining the concept of the tower in various contexts: the relation between the architectural form of the tower and its philosophy; the symbolic meaning of towers; the environmental impact assessment of tower buildings; structural problems of high-rise buildings; the functional integration of public and social functions in high-rise buildings. The analyses revealed a broader view of the topic of high-rise buildings in the city, which are developing extremely rapidly in Ankara. The issue of a pragmatic solution to the function of tall buildings, and giving them an attractive aesthetic form, was extended to include the anthropological, cultural and social context of them.

Lost Space at the Hippodrome in Ankara (2007)

The theme of this workshop was transformation of the existing hippodrome area in the centre of Ankara, which was no longer used. Participants were expected to fill a given space with useful architecture of an attractive shape, but also to introduce new thinking about the adjacent area that could initiate the urbanisation process of this part of the city. The methodology of the workshop involved the introduction of lectures on theory, onsite analyses, sketching, and modelling of project proposals, as well as development of the final project. In the meantime, discussions and work presentations were organised along with other studios. The students worked in small groups of three to five people. Each group developed a part of the project corresponding to the main design idea, which was presented on the last day of the workshop. The conceptual design of land development was presented in the form of 3D computer models and physical models. The project was also presented in the form of a multimedia presentation.

Ankara Central District Kizilay: WS RADS (2011) IP

The subject of the International Winter School RADS 2011 concerned the Kizilay area, a large area in the centre of Ankara. Workshop participants were free to choose the most important issues of their projects in the given area. The aim of the workshop was to define the status quo of this area by finding the hidden features and values of it and by implementing some improvements. During the work, a new method of analysing urban space was introduced, based on an emotional and sensory evaluation of its character. Students, with the help of hand sketches, presented the relationship between the space and a selected musical piece depicting it. The experiment consisted of four steps. The last was an attempt to transform the ingenious sketches based on the analysed musical piece into architectural concepts.

The second part of the workshop was conducted with more traditional analytical tools. Analysis of the terrain plan and the relationship between pedestrian flows and car traffic within the area was carried out. The final effect of the work was the creation of a conceptual *Masterplan of the Kizilay Redevelopment*.

The City as a Performance Stage: WIRE (2014)

During the WIRE 2014, the group of teaching staff (tutors) of the partner institutions was enlarged by the invitation of external lecturers and roving critics from architecture, art, philosophy, sociology and urban planning, to enhance the interdisciplinary quality of the meeting. The interdisciplinary nature of the workshop resulted in the application of innovative and experimental educational practices and new design strategies. To facilitate the development of innovative practices in architectural education and to support the development of ICT-based content, services, pedagogies and practice, under WIRE 2014, there was also promotion of interdisciplinary approaches for the integration of art and architecture in the design studio.

The subject of WIRE 2014 was the design of an architectural stage and the performance of a theatrical scene, play or dance. The task was to design an abstract object that could be used as stage design for a theatrical scene; a film; a novel or a poem. This theatrical installation was an experimental design process that engaged students in theoretical, social, spatial and material issues in architecture, while producing and exhibiting them on an architectural stage.

After the development of conceptual models, the groups started the construction of real models. Designing a 1:1 architectural stage in the studio offered the possibility of experimenting in theatrical events, performances and spaces.

The final presentation of each group took place on a 1:1 construction of an architectural stage. Such an experience encouraged students to get involved in interdisciplinary research, both for discovering new design methods and also new presentation methods, as well as mock-ups of conceptual designs [1].

DISSEMINATION OF RESULTS: ANKARA INTERNATIONAL EDUCATION EXPERIMENTATION MODEL

The experimental workshop education conducted at the Architecture Faculty of Gazi University in Ankara has demonstrated the possibility of joint, international and intergenerational discussion on important aspects relating to shaping the city. Creativity and innovation have been expressed in sketches, working models, mockups, renderings, performances, outdoor actions and presentations. The workshops have brought long-lasting benefits to the participants. Each workshop has reflected an important aspect of the students' educational careers and has included contact with other cultures, represented by students and professors, as well as confronting new problems, which, after working through and discussing them, have resulted in interesting solutions.

The Ankara international education experimentation model has improved year by year, and has become a great success, with a large range of benefits, both for students participating and for the overall development of international understanding and research. The success of the Ankara teaching model has encouraged other participating universities to organise similar workshops. New workshop initiatives have been undertaken in Lisbon, Eindhoven, Szczecin, Gdańsk, Milan, Bochum, Izmir and other places, often with the financial help of the local municipalities, if not Erasmus funds. The results of the workshops have been published in many formats by the participating universities: as books, on Web sites, in folders, posters and articles, and in conference presentations.

CONCLUSIONS

The phenomenon of mutual learning between members of creative workshop groups has emerged as a new model of design-based, innovative and inventive education, somewhat on the margins of official education. It can also clearly be seen that learning in a *from desk-to-desk* manner, within a teamworking group, seems to be better absorbed by students and is better perceived than the *ex-cathedra* educational manner, highlighting the importance of the interpersonal relationship between tutors and students, a model of project-based, goal-oriented teamwork in the overall design process and allowing for innovative thinking. It is clear evidence of the essential function of synergy in the design process.

For particular students, the value of the workshop has been in being confronted with *novelty*, *otherness* or *strangeness*. The individual educational benefits for students have been focused on meeting specific, individual needs and filling educational gaps, as well as the development of new initiatives, fresh and innovative thinking, and creativity. The workshop meetings, presentations and international lectures have also contributed to improving language skills and international friendship and understanding.

It is worth mentioning the role played by the Erasmus IP Project funds, which have allowed the financing and participation of an international group of students and professors at the workshops, as well as the construction of intellectual and professional bridges between a modernising Turkey and a uniting Europe. Therefore, the authors wish to conclude with the idea that international design workshops in architectural education, an educational form containing a whole set of factors that have a positive influence on local and international understanding of spatial, aesthetical, functional and policy problems, should be promoted and applied worldwide.

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