

Methodology of teaching *Contemporary Architecture*

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ABSTRACT: For many years, the tradition of teaching history of architecture had a canon of knowledge transfer in chronological order. The teaching of modern architecture (from the end of the 19th Century to today) took place only at the end of the first- and second-degree studies. This is quite late, because students who started learning design for the first two years did not receive the necessary knowledge about current trends in architecture. The system has been changed by the efforts of the author who runs the subject. Since 2012, the teaching of *Contemporary Architecture* has begun in the first semester and supports the design subjects. Student design achievements over the past decade have shown that the change had a significant impact on the awareness of future architects. It has been noted for several years that student projects are now more mature and embed contemporary aesthetic and technological trends.

INTRODUCTION

The architecture curricula at academic schools in Poland comprises design, technical, scientific and historical courses. The largest amount of time is devoted to design courses. In the first years of their education, students are introduced to technical and scientific subjects, i.e. mathematics, descriptive geometry, building structures, structural mechanics and computer science. History and artistic courses form a separate group in architectural education in European schools [1].

Programmes are modified from time to time and are subject to national regulations [2]. There are also new standards for education, which appear every few years. Architecture is the only curriculum in academic schools in Poland where nearly half of the courses are humanities subjects, and the rest technical.

One of the tasks of academic teachers, depending on the studies, is to teach aesthetics, which is difficult to teach. Critical viewing of realised buildings is generally accepted as, in part, aesthetic. Innovative, experimental approaches to teaching aesthetics have been introduced, for example at Slovak University of Technology in Bratislava, Slovakia. A type of architectural lecture was proposed, described as *edutainment*. The authors of the concept support the use of humour, including caricatures, as tools in architectural education [3].

From the beginning of their education, students should discern which forms are aesthetically pleasing and which are not. Architecture is an art that cannot be hidden or covered; realised structures are subject to permanent observation and evaluation. Architecture built today, as in the past, adds new value and art to the extant spatial and cultural environment. European cities during historic development have been transformed into complemented urban fabric and form, layered during centuries.

Towns and cities are diverse, reflecting physical configuration, local culture, historic events and economic successes and failures. These endow each region and locality with its own, unique atmosphere and identity. To build new forms embedded in this identity, graduates of schools of architecture should be familiar with and understand historic buildings created over the centuries. Contemporary architecture should incorporate inspirations derived from historic tradition and accomplishments.

For many years, in teaching architectural history in the Faculty of Architecture at Cracow University of Technology (FA-CUT), Kraków, Poland, there was a canon of chronological education: in the first year, the history of the architecture of antiquity (Egypt, Mesopotamia, Greece, Rome and Early Christianity); in the following year, the history of medieval architecture and that of the Early Modern period (Romanesque, Gothic, Renaissance, Baroque, Neo-Classicism, and architecture of the 19th Century) until the present day. Teaching of recent architecture begins as late as the third year and during Master's studies. This is quite late, as students in their first two years had no systematic

knowledge of current trends and tendencies in architecture. The author has filed an application to change the curriculum programme.

In the FA-CUT, from the year 2012, it was decided to start teaching Contemporary Architecture in the first semester, so that knowledge of recent trends and aesthetics could support the students. Design courses are the most important and have the highest number of credits in the European Credit Transfer and Accumulation System (ECTS). First year students, beginning their study in architectural and urban design should have knowledge of contemporary tendencies and trends, both in the world and in Polish architecture.

TEACHING CONTEMPORARY ARCHITECTURE

The course in which is discussed the history and progress of *Contemporary Architecture* (Table 1) encompasses three semesters. It consists of multimedia lectures; each of them repeated thrice, because of the number of students - circa 270 each year - and the need for smaller groups to facilitate good exchanges. The lecture hall, which is in the historic listed building of the Institute of History of Architecture and Monuments' Preservation at the foot of the Wawel Royal Castle in the centre of Kraków, is conducive to such pedagogy. Seminars are held in small groups of 24, supplementing the lectures. In the seminars students prepare - individually or in teams of two - a multimedia presentation regarding the oeuvre of a chosen architect. Each presentation is followed by a discussion.

Table 1: The course, Contemporary Architecture, at the FA-CUT.

Academic years 1999-2006			Academic years 2006-2012			Academic years 2012-2020		
One-degree studies	Lectures	Seminars		Lectures	Seminars		Lectures	Seminars
Semester 5	15	15	Semester 5, 1st degree	15	15	Semester 1, 1st degree	30	
Semester 6	15	15	Semester 6, 1st degree	15	15	Semester 2, 1st degree	15	15
Semester 7	15		Semester 3, 2nd degree	30		Semester 3, 1st degree	15	15
Semester 8	15							

The scope of the course in *Contemporary Architecture* covers the 1880s and the rise of Art Nouveau through Modernism/New Modernism, from the first decades of the 20th Century until today, as well as other trends in the 20th and 21st Centuries. In the second half of the 20th Century there appeared Postmodernism and a sophisticated trend called Deconstructivism. The scope of lectures also encompasses High-tech and Minimalism, which were popular at the close of the 20th Century, and new directions in the 21st Century, such as Biomorphism and Ornamentalism [4][5].

Students show great interest in the above topics. Lectures and seminars which broaden the scope of the course include recent realisations by famous architects, built in many countries. Each year, the Pritzker Prize is awarded to one living architect or a team of architects for their achievements in architecture. It is popularly known as *Architecture's Nobel*, even though the financial award is ten times lower (\$US100,000) than the Nobel Prize.

The prize was founded by the American Pritzker family (owners, of, among others, the chain of Hyatt hotels). The prize was established in 1979 and originally, a laureate received also a sculpture by Henry Moore. Since 1987 laureate/s receive a financial grant and a bronze medallion, with the name of the prize on one side; on the reverse there are three words: *firmness, commodity and delight*. They were formulated by Sir Henry Wotton in 1624 in his treatise, *Elements of Architecture* and are a quote from Marcus Vitruvius Pollio, who described fundamental principles of architecture 2000 years ago in *The Ten Books on Architecture*.

The lectures in the course are devoted to the oeuvres: mainly realisations and design philosophies of the laureates of the Pritzker Prize. Another prestigious competition for the best realisation in Europe is the Mies van der Rohe Award. This Award regarding contemporary architecture was initiated in 1987, by means of an agreement signed by the European Parliament and the City Council of Barcelona, where the famed pavilion, built for an international exhibition in the year 1929 and designed by Mies van der Rohe, was constructed. The first architect awarded in 1988 received €60,000. Since 2001, the Award has been organised by the Fundació Mies van der Rohe from Barcelona and by the European Commission.

The main idea of the prize is to stress the contribution of European architects to the development of new concepts and technologies in the recent realisations of architecture and urbanism. The laureates are awarded mainly every two years. During the lectures, the awarded competition entries are discussed, but also the situation of architecture in Poland, where new building technologies, techniques and materials appeared as late as in the 1990s; this was more than a dozen years after countries in the West. Well-known and often controversial architectural competitions, organised by the Association of Polish Architects are also presented and analysed.

A renowned architectural critic, Peter Buchanan, wrote that in the affluent countries of Western Europe, following the industrial city age, first post-industrial age and computer age, there comes a *conceptual age* [6]. In recent years, first in Western European countries and then in Poland, have been the completion of public buildings for culture. In the countries of Central Europe, during the 50 years after World War II, museums, theatres, concert halls and other buildings for the purpose of culture were realised sporadically. Only in the past 20 years, often with the support of the European Union, has there been an increase in realisations of buildings for culture, quite often designed by foreign architects.

The head of the course in Contemporary Architecture, who led student exchange workshops for many years in Great Britain in Plymouth and London, as well as in Florence, has been hoping that Cracovian students could learn about the architecture of Western Europe *in situ*, quite like their British and Italian counterparts. After 1989, Poles had the possibility of easier travel to Germany, Austria, Italy, Holland and France.

In Italy, above all, the destination is Venice, where the Biennale of Architecture takes place. It is a true salon of the newest architecture, pointing towards new directions and trends in architecture. Exhibitions of the oeuvre of the invited architects take place not only in national pavilions in the Giardini di Biennale or in the old Arsenal in Venice, but also in the accompanying thematic exhibitions, which were often located in the splendid Venetian palaces.

Many times, the author was able to present the Venice Biennale to the students. In the 1980s, within the framework of the Biennale, there were international competitions regarding design tasks in Venice or other places in Italy, but later - and now - curators invite pre-eminent world architects to present their recent designs and realisations. Within the framework of the course, trips were organised a few times to Berlin in the late 1990s, when many buildings were erected there, and later to Vienna, Graz, Prague, Amsterdam, Rotterdam, and even to Paris.

The year 2000 saw the EXPO exhibition in Hanover. Study trips were made by bus and, at times, between 100 and 200 students took part. Finance often was an obstacle. However, additional funding often was obtained by the Dean of the Faculty of Architecture and Pro-Rector for Student Affairs at Cracow University of Technology. In recent years, when many new buildings for culture started to appear in Poland, the FA-CUT managed to organise study trips in Poland to Łódź, Poznań, Wrocław, Szczecin and Warsaw. The essential condition for success of such a teaching method was thorough preparation and viewing the sites. This required considerable effort on the part of the head of the course and the entire team, both with respect to knowledge and organisation.

In seminars, students prepare a presentation regarding the oeuvre of a chosen contemporary architect, as well as a graphic poster showing characteristic features of the work of this architect. Exhibitions of these posters are organised yearly and the best works receive awards. Students prepare an academic essay of ten pages on the philosophy, style and an analysis of realisations, which were shown in the presentation. It is the students' first, critical, written work on recent architecture. This prepares students for essays required in their next few years of study as part of the BArch and MArch diploma designs. Due to the accreditation of students' diplomas by the Royal Institute of British Architects, an academic paper of 40 pages has been required, since 1999, as an attachment to Master diploma designs [7].

RESEARCH METHODOLOGY

To verify the premises of the course, a questionnaire with three questions (Table 2) was distributed among the students of the Faculty of Architecture at the CUT. The questions asked if the Contemporary Architecture course should be placed at the beginning of the curriculum or during the later semesters, and if the received knowledge helped students' architectural designs. Students of the first and third year of the first-degree (Bachelor) studies, as well as students of the Master diploma course, took part in the anonymous questionnaire. A total of 126 students participated in the research.

Table 2: Questionnaire.

No.	Question	Yes	Do not know
1	Are you of the opinion that the Contemporary Architecture course should begin from the first semester of the studies?	118	8
2	Does the knowledge of Contemporary Architecture help you in architectural design?	124	2
3	Does Contemporary Architecture broaden the scope of the later choice of subject matters of the diploma designs, both on BArch and MArch degrees?	109	17

The questionnaire results were reviewed with the achievements of the students of the Faculty. Awards won by students and graduates of the architecture curriculum (in this case for diploma projects) in prestigious regional, national and international competitions in the years 2013 to 2020 were taken into consideration. This followed the changes in the Contemporary Architecture programme.

MAIN FINDINGS

Research by means of the questionnaire has shown that the transferring of the course in Contemporary Architecture to the first years of studies considerably helps students in their search for design concepts, right from the beginning (Table 2). The students were of the opinion that this knowledge was most useful by providing inspiration from the presented realisations that shape contemporary, aesthetic architecture. The doubts expressed were caused by an apprehension that the knowledge may lead to subconscious imitation, instead of searching for something new and original.

The summary of accomplishments in Table 3 shows a considerable growth in the number of awards granted by external institutions to students and graduates of the architecture curriculum in the Faculty of Architecture in the years 2013 to May 2020 compared to only a few granted in the previous years.

In 2020, due to the Covid-19 epidemic, the diploma examinations and schedule of many national and international competitions were postponed. Nevertheless, from among 25 diploma designs nominated for the final round of the *Zbyszek Zawistowski Diploma of the Year Award* of the Association of Polish Architects (SARP), five were from the Faculty of Architecture at Cracow University of Technology. This is an excellent result, given there are more than 40 schools of architecture in Poland [8].

Table 3: Accomplishments of students and graduates. Awards and mentions for the diploma designs (Bachelor and Master's degree) in national and international architectural competitions [8].

Achievements	2013-14	2015-16	2017-18	2019-20
Awards of the President of the City of Krakow and Marshall of the Lesser Voivodeship, Poland (Małopolskie)	3	3	4	1
Awards and mentions of the Association of Monuments' Conservators and of the General Conservator of Monuments of the Republic of Poland	1	6	7	
Zbyszek Zawistowski Awards and mentions of the Association of Polish Architects (SARP) - nominations	1	5	7	6
Zbyszek Zawistowski Awards and mentions of the Association of Polish Architects (SARP) and of the ARCH journal			3	2
Awards and mentions in international student competitions		3	7	6
Awards and mentions in the national student competitions organised by the local self-governments and private corporations (e.g. timber in architecture, concrete in architecture)	4	3	5	4
Awards and mentions of the Society of Polish Urbanists (TUP) , Kraków Branch and of the TUP Main Board	5	9	8	3
Award of the Minister of Investment and Development				1

CONCLUSIONS

The change in Contemporary Architecture has produced a positive influence in the creativity of students. For several years, there have been more mature and better students' design projects which also reflect recent trends. These have received numerous awards both for course and diploma works. Before the changes there were only a few awards and mentions for such works in national and international competitions; now there is a noticeable tendency for success by Cracovian students. Many academic teachers, including the author of this article, believe participation in international competitions during studies, as well as being in touch with various methods of architectural education, during workshops or exchanges with foreign architectural schools, are crucial for future architects [9][10]. Comparisons and exchanges of experiences between academic schools are always instructive [11].

Contemporary architecture keeps on changing and developing and the future forms of architecture cannot be predicted. Transformations in the world of art linked to society, the evolution of culture and civilisation, often have unexpected dynamics. The architectural profession has great responsibility since architects create the surrounding space and give it physical shape, functional purpose and cultural meaning. Newly erected buildings and their aesthetic values may be counted among the works of high art.

Many contemporary philosophers are afraid that in today's world of popular culture, propagated by the mass media, with low aesthetic value, the culture, nature and environment which were produced in the past centuries may be lost. Piotr Dehnel, one of the valued Polish thinkers, is of the opinion that mass culture and mass society, which appear banal and spiritually idle, result from the price paid for ...*freedom and justice in civic society. And, let us admit, [it is] not an excessive price in comparison with the prize of human life, which was so often required in the 20th century and which was and is still paid by so many ...* [12].

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