

Aesthetic sensibility and technical skills of an architect as a result of the fine arts learning—Curricula changes at the Faculty of Architecture, Silesian University of Technology in Gliwice

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Suggested Citation:

Komara, B. & Kucharczyk-Brusb, B. (2018). Aesthetic sensibility and technical skills of an architect as a result of the fine arts learning—Curricula changes at the Faculty of Architecture, Silesian University of Technology in Gliwice. *Global Journal of Arts Education*. 8(2), 54–60.

Received date September 13, 2017; revised date February 17, 2018; accepted date April 28, 2018.

Selection and peer review under responsibility of Prof. Dr. Ayse Cakir Ilhan, Ankara University, Turkey.

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Abstract

The paper presents the consequences for the architectural profession resulting from the evolution of the process of fine arts teaching on the example of the changing curricula at the Faculty of Architecture, Silesian University of Technology. The curricula in arts subjects ranging from the 90s up till now will be analyzed. Conducted analysis of the changes lead to a number of conclusions about impoverishment of aesthetic sensitivity and artistic skills of students and contemporary graduates. Currently, students mostly use computer drawings because they have poor ability to create understandable freehand sketches. We postulate the return to the past, good practices, to increase the number of the fine arts teaching hours, seeking better links between engineering design and artistic as well. It is principle that the use of new technologies workshop (including a PC) must go hand in hand with advanced knowledge about art solutions in every architectural project.

Keywords: Fine arts teaching programmes, handwritten sketches, architecture student's aesthetic sensitivity.

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1. Introduction

Education of architecture students in the fine arts, in particular: freehand drawing, painting and modelling, is very important. A key aspect is to not only develop spatial imagination, aesthetic sensitivity and technical skills of future adepts of architectural design process, but also to learn fast and efficiently transfer their own ideas to the paper—the ability valuable for an architect. At the initial stage of the design process: when talking with customers, with cooperators of the company, when recording own ideas generated in the head, a drawing made with pencil, pen, brush or a stick is a tool quickest and most direct. Skilfully made quick sketch, watercolour or several respectively composed coloured stains may become an interesting figure of intent, constituting a ‘forerunner’ to the design concept being developed or become a source of inspiration to a brand new idea. Handwritten sketches of architects, examples of which are shown below (see Figure 1), are often interesting, distinct graphic works, at which computer visualisations seem to be only smoothed, polite, candy-vision work, devoid of soul and the individual feature of its author.



Figure 1. (a) A fragment of project board by Norman Foster presented at the 10th International Architecture Exhibition in Venice (2006). (b) Conceptual sketches by Renzo Piano presented at the 10th International Architecture Exhibition in Venice (2006)

The ability to perform freehand sketches assisted by various art techniques may be acquired in the course of study only by numerous effectively spent hours of practical classes, where students personally perform various works of drawing, painting and graphics. At the Faculty of Architecture of the Silesian University Technology the tradition of acquiring knowledge of the fine arts reached the period before the war and derived from the University of Lvov. The curriculum for many decades remained essentially unchanged and included a wide range of issues of visual arts in architecture passed to students throughout the whole 5-years-long course of study. Stationary classes were supplemented by numerous open-air classes and practical activities during vacation. After 1990 the design process introduced a new tool—the computer and since then computer visualisations have gradually begun to displace freehand methods used so far to present students’ creative ideas. Programme changes led to the downsizing of fine arts items of curriculum and reducing of the number of hours of teaching the subjects.

2. Changes in the process of teaching fine arts at the Faculty of Architecture, Silesian University of Technology in Gliwice—From 90s to modern times

The political transformation of 1989 did not bring substantial changes to the curriculum in the field of fine arts at the Faculty of Architecture of the Silesian University of Technology. For the first decade, it remained unchanged and moved a wide range of issues relating to the education of future architects’ aesthetic sensitivity and developing their artistic skills. It was not until years after 2000 which resulted in significant changes in the learning process. Fewer hours of teaching the arts were spent with a simultaneous increase in the number of student groups under one academic teacher. Open-air and vacation practices were reduced or cancelled. Also names for different subjects have been changed.

Before the period of political transformation all fields of study in Poland were carried out under the uniform, master-degree system, usually taking 5 years of study. The reform on higher education in Poland that has been introduced—following the example of Western countries—divided the study course into Bachelor's and complementary Master's degree programme. Also at the Silesian University of Technology, under the Act of 27 July 2005 (Polish Ministry of Science and Higher Education, 2005) and published 2 years later the Decree of the Minister of Science and Higher Education (Polish Ministry of Science and Higher Education, 2007) the programme was split into two steps—engineering study, lasting at the Faculty of Architecture eight semesters and three-semester Master's degree study. Introduction of a new, two-stage education system entailed reforms in the curriculum, now based on specified by the university coherent learning outcomes in line of the National Qualifications Framework for Higher Education, and the learning process leading to these outcomes, together with the ECTS points' values assigned to the various modules of the process. While estimating the number of ECTS credits for each module (course), they assumed—in accordance with the University President regulation—that one ECTS corresponds to the time effects of education, which requires the student to obtain an average of 30 hours, including lectures organised according to the study plan (contact hours) and individual work specified in the curriculum. Saved in the study plan ECTS credits (240 ECTS for the Bachelor's degree and 90 credits for Master's), converted to hours of classes, distorts somewhat the picture of effective number of hours provided for each subject.

In 2011 they clarified the provisions on education standards for the field of study 'Architecture'. The qualifications for the Bachelor's degree graduate were defined, as he: *'should have knowledge of: the history and theory of architecture and urban planning, fine arts, building and construction technology, construction, building physics and architectural and urban design (...) have the skills (...) to create projects that meet the aesthetic requirements, functional and technical'*. Under the government Ordinance (Polish Ministry of Science and Higher Education, 2011) fine arts and their technology workshop were qualified to the second group of educational content (directional), but were not specified a minimum of ECTS credits for the individual courses (components of content), only the total number of credits for the whole group (68 pts. ECTS). Teaching contents and learning outcomes were also clarified and which courses of the fine arts teaching should include:

- Content of education: the development of spatial, artistic and compositional sensitivity—studies of drawing, painting and sculpture from nature and imagination; art techniques workshop and modelling.
- Learning outcomes: skills and competences—the use of artistic workshop, addressing issues of art, the use of techniques workshop.

For the Master's degree graduate the educational content and learning outcomes in the field of fine arts and techniques workshop were not identified.

The above mentioned, currently in force legal provisions contain very general, yet little comprehensible phrases. They give the possibility of free interpretation of the content and thus give the chance to reduce traditional subjects (drawing, painting) in favour of the computer technology.

3. The evolution of the process of teaching the fine arts

As part of the curriculum and the intention of developing students' aesthetic sensitivity and artistic workshop the following courses were carried out at the Faculty of Architecture of the Silesian University of Technology:

- 90s of the twentieth century: Drawing, Painting, Graphics, Sculpture, Facultative Courses on Fine Arts in Architecture.
- Since the academic year 2007/2008 the concept of general 'Artistic Techniques' was introduced, which included drawing and painting, as well as (since the 2013/2014) small sculpture forms. Moreover, new subjects were introduced: Visual Techniques and Visual Arts in Architecture.

The evolution of the process of teaching fine arts at the Faculty of Architecture of the Silesian University of Technology in Gliwice—within the period of years 90s of the twentieth century to modern times—can be described briefly as follows:

- 90s of the twentieth century
 - Year 1—Drawing: The curriculum started from drawing fundamental, geometrical structures, through analysis of basic spatial forms (simple furniture, dishes, appliances) consisting of rectangular elements, round and cylindrical forms, then architectural details (head, column, stairs), to complex still life systems, figures, architectural interiors, greenery and nature sketches, own, abstract drawing compositions, drawn in various techniques, with a full analysis of lighting. Classes were defined as laboratories and provided 4 hours teaching a week, run in groups of approximately 10 persons (10 students per one academic teacher); freehand drawing classes continued throughout the first year of study.
 - Year I—Open-air Drawing and Painting: After the first year the plein-air course was organised in the form of an organised trip (later on—stationary, in Gliwice), taking 3 and then 2 weeks at the beginning of the summer vacations. It was compulsory for all first-year students. Open-air programme was set individually, depending on the location, usually comprising analysis of architecture and architectural detail of the urban environment, also studies of greenery of the nature (for more information see: Krzyrkowska & Palus, 2015).
 - Year II—Painting: Curriculum began with colour exercises aimed at understanding the colour range (gamut of warm and cold tints, abstract compositions with simple colour systems), through collages of colour patches to the full-colour painting study of still life and other forms; during the course students have the opportunity to get acquainted with various techniques and tools for painting (tempera, watercolour, oil, brush, spatula, etc.). Laboratory classes, 4 hours teaching a week, conducted in groups approximately 10 persons, throughout the second year of study.
 - Year III—Drawing, Painting and Graphic Design: During the courses drawing, painting and designing exercises were carried out, closely linked to the architecture, using a variety of techniques from many fields of fine arts: typography—lettering and design of the sign, graphics issues (monotype), designing mosaics, sgraffito, wall painting, stained glass and artistic blacksmith. Laboratory classes, 3 hours teaching a week, conducted in groups *ibid*.
 - Year IV—Sculpture: A 2-hour laboratory classes for one semester, performing two topics: (1) a study of the nature—the human head and (2) the project of architectural abstract composition.
 - Years IV and V—optional, facultative subjects on the practical use of visual arts in architectural design—a 2-hour lecture, a total of 60 hours of teaching.

Summarising, the total number of teaching hours performed for the fine art courses was about 510 hours (including 12% of the hours of elective—60 h) and consisted of:

- hand drawing (drawing, painting) at the 1st, 2nd, 3rd and 4th semester of one-stage MSc study—240 hours in total,
- a 3-week, open-air course of drawing and painting—approximately 90 hours in total,
- fine arts in architecture at the 5th and 6th semester—90 hours in total,
- sculpture at 8th semester or 9th semester of one-stage MSc study—30 hours in total,
- elective courses—60 hours in total.

- Stage ‘transitional’—2001–2011

During 10 years period changes and amendments in the curriculum of Architecture and Urban Planning study are still undergoing, also referring to the courses of fine arts. There comes a gradual reduction of the number of teaching hours allocated to them and the total reduction of some of them:

- reduction of the number of teaching hours for the initial semesters: first from 4 to 3, then into 2 per 4th semester, and subsequently—the total elimination of classes in 4th semester,
- elimination of the open-air drawing course (2008 year),
- elimination of the fine art courses in the third year of study,
- gradual elimination of sculpture course—along with the expiration of cohorts continuing education at the one-stage, 5-year MSc study system.

Moreover—which is extremely detrimental to the educational process—the numerosity of students’ groups gradually increased: from 10 persons to 15 or even slightly more students per one teacher conducting classes. The last cohort continuing their studies at one-stage system started in the academic year 2006/2007. In their curriculum the following courses of fine arts were written, including in total 210 hours of teaching carried out during the study:

- hand drawing (drawing, painting) on the 1st, 2nd, 3rd and 4th semester of MSc study—3 hours of laboratory per week (conducted in groups of approximately 15 persons),
- sculpture at the 9th semester of MSc study—2 hours of laboratory per week (conducted in groups of approximately 15 persons).

The first academic year in which they implemented engineering, Bachelor’s studies was the year 2007/2008. The curriculum included the courses called Art Techniques (drawing and painting) on the 1st, 2nd and 3rd semester—3 hours of laboratory per week (conducted in groups of 12–15 students), which yielded a total number of 135 hours of teaching hours in the field of fine arts.

In the school year 2009/2010 they introduced the full-time MSc education at the Silesian University of Technology Faculty of Architecture with the programme which included classes on the subject of Visual Arts in Architecture (design of stained glass, sgraffito, mosaics, etc.)—2 hours laboratory per week at the 2nd semester, which increased the summary number of fine arts teaching hours for the BSc and MSc to 165.

- The current curriculum (since the school year: 2013/2014)

As the effect of the implemented by the law recommendations another amendments to the BSc and MSc study curriculum were provided and since the 2013/2014 academic year, the programme of teaching fine arts issues at the Faculty of Architecture of the Silesian University of Technology, at the first and second stage of the study of Architecture and Urban Planning includes the following items:

- Fine Arts Techniques (drawing, painting and small spatial forms) at 1st, 2nd and 3rd semester—3 hours of classes per week (ongoing in groups of 30–32 students), that are assigned sequentially: 2, 2 and 3 ECTS credits; due to time constraints classes with drawing and painting in relation to the former scheme is geared more to stimulate the imagination of students, hence their subjects from nature are intertwined with drawings of the imagination.
- Visual Techniques at 4th semester—2 hours of project classes per week (conducted in groups of 12–15 students), which is assigned with 2 ECTS credits; activities carried out in the framework of two topics: detail in the architecture, architectural structure analysis: for each topic analysis of the composition and colours are carried out and developed with the system of board design, typography, illustration, photo, etc.
- Visual Arts in Architecture (2 ECTS)—the elective course occurring at the second stage of studies was transformed into a lecture—1 hour lecture on the 2nd semester; due to the fact that the subject is ‘the elective mandatory’ and all the students participate in it, course credit achievement is based on the posters prepared by groups of students of 5-persons; poster

themes in 2013/2014 concerned ideological concept of visual information in the building of the Faculty of Architecture, Silesian University of Technology.

The total number of teaching hours performed for subjects in the field of fine arts **summarised** for the BSc and MSc studies is now 180 hours (including 15 hours of elective courses).

4. Summary

In the period before the reform on higher education deep and accurate study of fine art courses and the real training workshop resulted in a high level of technical skills of students and graduates in the use of traditional graphic communication tools. Knowledge of the numerous and varied graphic and painting techniques influenced positively the—generally understood—aesthetic sensitivity of students. This was clearly reflected in the high level of student works on **architectural objects at the design courses**.

Currently, as a result of the changes described in the paper, we observe a marked decline in artistic skills of students, their aesthetic sensitivity, colour-matching skills to the proposed design solutions, skills of quick, sketchy submit of their project ideas (see Figure 2). The effect of lowering the level of aesthetic sensitivity may decrease the future architects' professional culture, and yet they will be responsible for the spatial order and aesthetics of the built environment.

The authors of the paper, **as the persons carrying out fine art classes**, have the impression that the new curricula reducing **the time of fine art teaching contribute to the loss of good practices, lack of time for the development of art techniques workshop** and thus diminish **spatial imagination of future architects**.



Figure 2. Inability to submit their design concepts—Faculty of Architecture students' sketches showing the residential interior developed by them during the study course (2014/2015)

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