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## FREEHAND DRAWING IN TEACHING HISTORY OF ARCHITECTURE

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## RYSUNEK ODRĘCZNY W NAUCZANIU HISTORII ARCHITEKTURY

### Abstract

Apart from learning experience and reinforcement of knowledge required to pass tests and exams, the sketchbook enhances students' understanding of architectural forms and helps them develop the ability of conveying complicated historical spatial and urban facilities. Despite the common use of computers in the profession of an architect, this form of improving drawing skills is invaluable and fully justified. The maintaining of a sketchbook builds up students' skills and teaches them how to freely express themselves while conveying their objectives, ideas and designs.

*Keywords: history of architecture, sketchbook, hand-made drawing*

### Streszczenie

W ramach przedmiotu historia architektury studenci kierunku architektura ZUT w Szczecinie mają do wykonania szkicowniki, które obok walorów poznawczych i utrwalających materiał objęty zakresem zaliczenia, umożliwiają pełniejsze zrozumienie formy architektonicznej oraz rozwijają umiejętności przekazu skomplikowanych historycznych układów przestrzennych i urbanistycznych. Wobec wszechobecnego imperatywu komputeryzacji w zawodzie architekta taka forma doskonalenia rysunku odręcznego, jest nie do przecenienia i w pełni uzasadniona. Szkicownik „buduje” warsztat studenta architektury oraz uczy swobody wypowiedzi w przekazywaniu własnych założeń ideowych i projektowych.

*Słowa kluczowe: historia architektury, szkicownik, rysunek odręczny*

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## 1. Introduction

The Renaissance Italy was a cradle for defining the contemporary role and function of an architect and the system of educating young architects. There, the medieval tradition of the architect-bricklayer, member of a guild, evolved to develop the architect-artist, a member of academy. This is especially true about Florence where at the turn of the 14<sup>th</sup> and 15<sup>th</sup> centuries art and culture thrived both politically and economically. The foundation of the process was the development of education, as well as knowledge and art promoted by magnates, which started at the end of the 13<sup>th</sup> century. ‘It was one of few situations in the history when the measure of success in the struggle for military and political supremacy were, at least to a certain extent, achievements in culture’<sup>1</sup>. Artists and architects ceased to be mere craftsmen but became high ranking members of the society, and architecture attracted children of potent people, such as Filippo Brunelleschi the son of Filippo Lapi, a public notary participating in diplomatic missions, and Leon Battista Alberti whose grandfather was a rich and influential Florence patrician.

One of several subjects taught in Renaissance Florence workshops, among painting, paint making, sculpture, metallurgy, mathematics, jewelry, literature, was drawing, in particular geometry rules defined by Filippo Brunelleschi. One of great individuals of the early Renaissance, Leon Battista Alberti, referred to the role of drawing in the trade of an architect in his treaty *Libri de Re aedificatoria decam*. One chapter in volume one was entitled *About drawings and their significance*. According to the author ‘the art of building involves drawing and executing’, and ‘The property and purpose of a drawing is to establish the location, dimensions, beautiful style and pleasant arrangement of a building through various attempts. This should facilitate defining the shape and proportions of the building’<sup>2</sup>. A similar opinion was expressed by Antonio di Pietro Averlino also known as Filarete architect and theoretician, the author of the idea of an ideal city Sforzinda: ‘if you want to be an expert on (architectural) plans, you should first read and learn about drawing’<sup>3</sup>.

Another stage of developing the architectural drawing code involved *Fabbrica*, a building institution responsible for one of the most important Renaissance architectural projects of the early 16<sup>th</sup> century, namely St Peter Basilica in Rome. The institution was headed by the most distinguished artists and architects of the mature Renaissance, including Donato Bramante, Rafael Santi, Baldassare Peruzzio, Giacomo della Porte and Michelangelo. The output of the institution included about 300 drawings and contributed to developing the contemporary language of expressing ideas, concepts and architectural drawing<sup>4</sup>.

Architecture became free of guild limits under the patronage of St Luke the Evangelist who supported painters, embroiderers, sculptors and architects when a new institution

<sup>1</sup> P. Johson, *Krótką historia renesansu*, Wydawnictwo Dolnośląskie, Wrocław 2004, s. 39.

<sup>2</sup> L.B. Alberti, *Książ dziesięć o sztuce budowania*, Państwowe Wydawnictwo Naukowe, Warszawa 1960, s. 19.

<sup>3</sup> K. Ulatowski, *Historia architektury renesansu włoskiego*, Państwowe Wydawnictwo Naukowe, Poznań 1957, s. 78.

<sup>4</sup> I. Kozłowska, *Obrazy przeszłości*, Czasopismo Techniczne, A/2013, Wydawnictwo Politechniki Krakowskiej, Kraków 2013, s. 264.

developed, namely the academy. The first Accademia delle Arti del Disegno was established in Florence by Cosimo I de' Medici of Tuscany in 1563. The institution was run by Giorgio Vasari, an architect and painter, much appreciated for *Lives of the Most Excellent Painters, Sculptors, and Architects*. Equally appreciated was Accademia Nazionale di San Luca established by Pope Gregory XIII and mannerist painter Federico Zuccaro in Rome in 1577. The Statute of the academy was used as a model by other academia established later, and introduced regular lectures and exhibitions, thus developing tastes among general public and promoting new aesthetic theories.

## 2. Freehand drawing in teaching history of architecture

The model of architectural education developed in Renaissance was adopted by modern education institution in Europe, which at the turn of the 18<sup>th</sup> and 19<sup>th</sup> centuries started teaching architecture. A similar model of teaching has been applied from the beginning of the Szczecin University of Technology, the then Polytechnic of Szczecin<sup>5</sup>.

The history of architecture and urban planning included in the basic curriculum as a major subject at the S1 level is divided into 2 blocks: S1-3 and S4-5 and implemented in the form of lectures and laboratory classes<sup>6</sup>.

### Block S1-3:

Semester 1 – history of ancient architecture (Egypt, Mesopotamia, Greece, Rome) 15 hours of lectures/30 hours of practical exercise. Person responsible: dr inż. arch. Maciej Płotkowiak, lead teacher: inż. arch. Agnieszka Lambrecht, inż. arch. Jakub Gołębiwski, dr inż. arch. Ewa Augustyn - Lenzion, and dr inż. arch. Halina Rutyna.

Semester 2 – history of medieval architecture (early Christian, pre-Roman and Roman architecture): 15 hours of lectures/30 hours of practical exercise. Person responsible: dr inż. arch. Maciej Płotkowiak, lead teacher: inż. arch. Jakub Gołębiwski and dr inż. arch. Ewa Lenzion.

Semester 3 – history of medieval architecture (gothic European and Polish architecture): 15 hours of lectures/30 hours of practical exercise. Person responsible: dr inż. arch. Maciej Płotkowiak, lead teacher: inż. arch. Jakub Gołębiwski and dr inż. arch. Ewa Lenzion.

<sup>5</sup> In 1947 the School of Engineering was established which since 1948 had a separate Faculty of Architecture that was closed in 1952. In 1955 the School of Engineering became the Szczecin Polytechnic. In the academic year of 1969/70 the course on architecture was re-established. The merger of the Szczecin Polytechnic and Academia marked the establishing on 1st January 2009 of the Western Pomerania University of Technology (Source: <http://www.wbia.zut.edu.pl/wbia/o-wydziale/historia-wydzialu.html>).

<sup>6</sup> Part of curriculum based on syllabus of 2014/2015 Course in Architecture: <http://www.krk.zut.edu.pl/pl/2014-2015/wydzial-budownictwa-i-architektury/architektura-i-urbanistyka-S1/sylabus-42789-historia-architektury-i-urbanistyki.html>.

**Block S4-5:**

Semester 4 – history of modern architecture (Renaissance in Italy, Europe and Poland): 15 hours of lectures/30 hours of practical exercise. Person responsible: dr inż. arch. Joanna Arlet, lead teacher: dr inż. arch. Izabela Kozłowska and dr inż. arch. Halina Rutyna.

Semester 5 – history of modern architecture (Baroque in Italy, Europe, Poland and Classicism in Europe and Poland): 15 hours of lectures/30 hours of practical exercise. Person responsible: dr inż. arch. Joanna Arlet, lead teacher: dr inż. arch. Izabela Kozłowska, dr inż. arch. Halina Rutyna.

At all levels of teaching history, including S1-3 and S4-5, a sketchbook is an integral part of laboratory classes. In total 5 semesters of teaching and contact with freehand drawing through drawing architectural facilities, from the simplest ones and less complex Egyptian architectural forms, through architecture of ancient Greece and Rome, Roman and Gothic forms, to more complex architectural facilities of Renaissance and Baroque.

According to the basic curriculum, the grade comprises a summary assessment of two multimedia presentations on selected topics and two written papers per semester and a grade for maintaining the sketchbook with drawings of selected facilities.

The maintaining of a sketchbook develops skills of presenting specific architectural facilities in a graphic form. Learning outcomes of A\_1A\_C-V/4-5\_U01 education include specific drawing skills to be acquired by students by regular development of sketches. The learning outcomes of A\_1A\_C-V/4-5\_W01 education include basic knowledge about the history of architecture and urban planning, the most distinguished architects of a period, major facilities for the development of architecture and theoretical works and aesthetic views. One of the assessment criteria, apart from recognizing architectural and urban facilities and their authors, is the ability of graphic presentation of projections and facades similar to their originals.

The proposed form of maintaining a sketchbook includes as minimum A4 format, Bristol board type of paper, and free drawing technique.

A sample scope of sketchbook requirements for semester 4 S1 includes the ability to draw projections and facades of 29 architectural and urban facilities in Europe and Poland, of which: 13 are facilities of Italian Renaissance, 6 architectural facilities of England, France, Netherlands and Spain, and 10 facilities of Polish Renaissance.

At this level of education, students should be able to sketch works by Filippo Brunelleschi: Spedale degli Innocenti and Pazzi Chapel; palaces of Florence: Strozzi Palace; works by Leon Battista Alberti: Santa Maria Novella Church in Florence and St Andrew Church of Mantua; by Michelangelo: St Peter Basilica, place of Capitol; Roman palaces: Farneze Palace; by Donato Bramante: Tempietto in Rome (Ill. 1); by Andrea Palladio –Villa Rotonda (Ill. 2), San Giorgio Maggiore Church in Venece; and squares: St Annunziata Square in Florence, St Mark Square in Venice, plans for ideal cities: Sforzinda, Palma Nova, Freudenstadt; and changes of windows in Italian Renaissance. As regards European Renaissance, students need to be able to develop projections of castles in Chambord, Fontainebleau and palaces such as the Louvre and Tuileries and Town Hall of Antwerp, palace of Carl V in Grenada and Queen's House Inigo Jones. As regards the Polish Renaissance, students in their sketchbooks present the following: the Renaissance extension to the Wawel Castle, Sigmund Chapel, Villa in Wola Justowska, Renaissance

extension of the Pomeranian Dukes Castle in Szczecin, Castle in Baranów Sandomierski, Town Hall in Poznań, functional arrangement of a Renaissance tenement house, development of Polish attic and urban schemes for Zamość and Gdańsk.

During laboratory classes on Renaissance architecture, each student is required to draw about 2 facilities during one class.

The variety of drawings in the sketchbook and details to be memorized frequently cause objections among students who demand the mandatory scope to be reduced. However, it seems that such requirements are not fully justified, since the intention of people running the architecture history course is to educate students as regards their ability to determine proportions, distinguish constituent parts and their mutual relations in architectural and urban facilities and their efficient and abbreviated presentation in the form of a freehand drawing.

Facilities to be exercised in the sketchbook are mandatory during written tests and final exams. Not only do students need to recognize them and draw them in their sketchbooks, but they are also required to show the ability of their graphic presentation during written tests. Two thirds of the questions in the test require answers in the form of a drawing, whereas during the written exam all questions are answered by drawing. Maintaining a sketchbook and drawing during tests and exams are a serious burden for a student and require good memory but, at the same time, they are fundamental as regards students' skills and are fast and cheap ways of presentation of architectural and urban forms, compared to CAD methods

### **3. Conclusions**

Apart from learning experience and reinforcement of knowledge required to pass tests and exams, the sketchbook enhances students' understanding of architectural forms and helps them develop the ability of conveying complicated historical spatial and urban facilities. Despite the common use of computers in the profession of an architect, this form of improving drawing skills is invaluable and fully justified. The maintaining of a sketchbook builds up students' skills and teaches them how to freely express themselves while conveying their objectives, ideas and designs.



III. 1. The fragment of sketchbook, Tempietto in Rome – Donato Bramante (author: student Magdalena Andruszkiewicz, 2012)



III. 2. The fragment of sketchbook, Villa Rotonda – Andrea Palladio (author: student Magdalena Andruszkiewicz, 2012)

## References

- [1] Alberti L.B., *Ksiąg dziesięć o sztuce budowania*, Państwowe Wydawnictwo Naukowe, Warszawa 1960.
- [2] Johson P., *Krótką historia renesansu*, Wydawnictwo Dolnośląskie, Wrocław 2004.
- [3] Kozłowska I., *Obrazy przeszłości*, Czasopismo Techniczne, A/2013, Wydawnictwo Politechniki Krakowskiej, Kraków 2013, s. 264-267.
- [4] Parcell S., *Four Historical Definitions of Architecture*, McGill-Queen's 2012.
- [5] Ulatowski K., *Historia architektury renesansu włoskiego*, Państwowe Wydawnictwo Naukowe, Poznań 1957.
- [6] Goldstein C., *Teaching Art: Academies and Schools from Vasari to Albers*, Cambridge University Press, Cambridge–New York 1996.