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THE DISCREET CHARM OF THE SKETCH

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Abstract

The sketch is an inseparable part of the process of creating an architectural space, being present at every stage of its development – during the stage when an idea is formed, all the way to the moment of the work itself. It is useful as a means of writing down an architect's thoughts, in presenting his work to a client, as well as a supporting tool during the process of overseeing the construction of a building. Thanks to its indeterminate nature it stimulates the imagination during the early stages of design, being at the same time the easiest means of communicating one's thoughts on the construction site. The article outlines the usefulness of the sketch as a tool that an architect can use, basing on the examples provided by contemporary creators of architecture.

Keywords: sketch, architectural object, perception, space

Streszczenie

Szkic architektoniczny jest nieodłącznym elementem procesu kreacji przestrzeni architektonicznej, towarzysząc jej na każdym etapie powstawania zarówno idei, jak i samego dzieła. Jest przydatny jako element zapisu myśli architekta, jako element prezentacji w kontaktach z zamawiającym, ale również jako uzupełniające narzędzie w procesie nadzoru nad wznoszeniem obiektu. Dzięki swej wieloznaczności jest elementem pobudzającym wyobraźnię na etapie wstępnym powstawania projektu, a jednocześnie dzięki łatwości tworzenia szkicu jest najprostszym sposobem kontaktu i przekazu myśli również na placu budowy. Artykuł przedstawia przydatność szkicu jako narzędzia w pracy architekta na przykładach twórczości współczesnych twórców architektury

Słowa kluczowe: szkic, obiekt architektoniczny, percepcja, przestrzeń

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1. Introduction/the role of the sketch

When discussing the topic of the sketch, architects usually think of similar concepts. To them, it is one of the steps of arriving at the final design solutions of a design in the form of recording their thoughts with the use of a freehand drawing. At the initial stage of the development of an idea, there exist many doubts and questions about the shape of an idea, its logical structure and its final form. This process is often accompanied by a sort of creative restlessness. The sketch can be seen as an emanation of this restlessness. It often leaves a lot of room for interpretation as it frequently consists of a large number of overlapping lines, which often signifies the multitude of ideas that are spawned in the imagination of the author. At times, it is so complicated that without knowing what its author really meant we can arrive at a somewhat different conclusion. There is, however, no doubt that the sketch stimulates the imagination. The sketch is a sort of errata – whether used during the first meetings with the client, during negotiations and meetings discussing technical matters, even when the idea has its form fixed and accepted. The discussion can move on to a specific element or part of the composition, while having as an axis a fixed and defined object. The role of the sketch, with some modifications, is similar during a design's construction phase. It can depict certain technological solutions, which can be read by contractors at a construction site. It illustrates an interpretation of clearly defined drawings that had been developed earlier. It can also be a means of presenting alternative design solutions on the go, including technical details.

2. The drawing and its role

Throughout history, freehand drawing has been one of the first means of communication between people, as well as of recording information. It is used to record the events of one's life and the emotions tied to them (ill. 2). The first writing systems were also based on drawings¹.

To this day, the drawing is the most universal method of illustration, used both in high and applied art. Throughout the course of the development of drawing, the tools used to perform it and the theory behind it have been greatly expanded.

The first plans of Egyptian buildings were drawn on sheets of papyrus, specially treated pieces of wood or on a layer of gypsum.

The very term “to draw” in some languages can be derived from the tool that was used to perform the action. In ancient Greece, the action of drawing, painting or writing was defined with a single term “graphein”. It stemmed from the name of a drawing utensil. During later periods, the word gained additional meaning, yet that which pertained to the act of drawing

¹ Proper writing systems were developed from pictograms, with the writing systems of the Cheyennes and Iroquois of North America, the writing of the Jukagirs of northern Syberia, as well as old Egyptian hieroglyphics, in which word-pictures represented a particular idea, creating an ideographic writing system, *Encyklopedia PWN*, Wydawnictwo Naukowe PWN, electronic edition (<http://encyklopedia.pwn.pl/haslo/pismo;3957699.html>).

was still related to the word “grapho” (ie. skiagraphé, perspective drawing). The Romans used the Greek term “graphis” at first². Afterwards, the term “linea” came to be understood as a line on a drawing, hence Pliny the Elder’s³ term *pictura linearis*.

During the early Middle Ages, drawing was not used on a large scale to depict buildings or their plans. There are findings which point to the use of illustrative drawings. Buildings and their designs were again depicted in drawn form during the Gothic period. However, it was the Renaissance that brought with it the full potential of the drawing as a tool for precise illustration of an author’s idea. Painting, sculpture and architecture were described using the term “*arti del disegno*”, or the drawing arts⁴. The Italian word *disegno* meant the idea, the concept, but also a drawing. Lorenzo Ghiberti⁵ was the first to claim that drawing is the foundation of all other arts. All of the writers of the time, who wrote about the arts, were in agreement that the drawing is an integral part of a good work. Michelangelo supposedly claimed that “The skill of drawing is the source and core of the art of painting, sculpture and architecture, and of all depiction of what the senses can perceive (...). The draftsman who becomes the master of this skill, has in his possession an invaluable treasure”⁶.

The architectural freehand drawing was often treated as a part of the design documentation that was required to construct a building, or as a means of reaching the final design solutions (ill. 2). The techniques used in drawing have entered common usage, becoming an important element of architectural education⁷.

The role of drawing as a means of presenting architectural ideas became more and more prized as time went on.

At times, the drawing of a building can illustrate the idea behind it much better, as well as provide a clarity of thought, due to the fact that the built result is often a compromise between the audacity of the author and factors like the financial capabilities of the client, or other mundane factors, like the local zoning conditions present at the site. This is an

² A described by Vitruvius, *De Architectura Libri Decem*, Wydawnictwo Prószyński i S-ka, Warszawa 2004.

³ *Wyciątki co do sztuk z trzech rozdziałów Pliniusza ściągające się do malarstwa y snycerstwa u dawnych*, W Drukarni Piarskiéy, a publication financed with the help of grants from the „System upowszechniania piśmienniczych zbiorów specjalnych OSSOLINEUM we Wrocławiu poprzez digitalizację i publikację internetową jako promocja i popularyzacja dziedzictwa kulturowego” project; oai:www.dbc.wroc.pl:publication:6705; *O sztuce u dawnych, czyli Winkelman Polski, Stanisława Potockiego* (http://www.europeana.eu/portal/record/09404/id_oai_www_dbc_wroc_pl_6189.html?query=pliniusza+starszego&qt=false).

⁴ *Encyklopedia PWN*, Wydawnictwo Naukowe PWN, digital edition (<http://encyklopedia.pwn.pl/haslo/sztuka;3983499.html>).

⁵ L. Ghiberti, *I commentarii*, wyd. Giunti, 1998.

⁶ F. de Hollanda, *Dialogki Romani* (1548), a fragment in *Disegno – rysunek u źródeł sztuki nowożytnej*, red. T. J. Żuchowski, S. Dudzik, Wyd. Uniwersytetu Mikołaja Kopernika, Toruń 2001, scientific session proceedings material, Toruń 2000.

⁷ Białkiewicz A., *O rysunku architektonicznym*, Teka Kom. Arch. Urb. Stud. Krajobr. – OL PAN, 53-60, 2006, s. 56.

important situation, as it shows that we can take interest in architectural drawings as a separate issue⁸.

3. The drawing and the sketch during the construction phase of a design

Constructing buildings is a costly affair. The physical process of building a structure requires sound preparation. Over time, there has developed a system of organizing and communicating the architectural idea and its presentation, which includes ways to depict the development of an idea and the way it is meant to be implemented. The drawing, regardless of how it is made, and the architectural sketch are the two most often used forms of depicting an architectural idea. The sketch⁹ communicates an early phase of the development of an idea, it is, by nature, unfinished, which does not mean that it is imperfect¹⁰. The sketch not only illustrates the end result of the creative process, it also shows the very process of creation. We can observe, through the multitude of lines that mutually overlap, the search for the final form of the depiction of a work and the multiple choices the author needs to make until the very end. These thoughts, registered in the multitude of uneven lines become a drawing – a “static endpoint”, as Arnheim puts it¹¹. The large number of lines causes the effect that the sketch can be interpreted in many ways.

The sketch also proves to be a useful tool at a later design stage. This stage is most often the search for inspiration, the means to record it and analyze it. The sketch is used here akin to writer’s notepad, used to collect the author’s impressions and thoughts at work, during travel (Ill. 3) or while looking at other works of architecture.

The way the leading creators of modern architecture work shows us the importance of the sketch and freehand drawing. Each of their buildings shows us that they too can emphasize the importance of freehand drawing in the process of design. Many architects record their vision of their design in the form of an artistically and spatially defined image – although very basic in its form – an image that is drawn at the beginning of the creative process. Most of the ideas that are recorded in the form of sketches remain an integral part of the work until it is finished. They are recordings of the main spatial solutions.

P. Zumthor was content with a sketch that illustrates the basic factors that shape the functioning of a building (Ill. 4). The sketches of Dominique Perrault, although highly

⁸ Drawing museum – Sir John Sloane’s Museum, founded in 1833 at the architect’s home, 13 Lincoln’s Inn Fields, London, Great Britain, it contains a large collection of architectural drawings from as early as the XVI century, as well as architectural models and other items of material culture (<http://www.soane.org>).

⁹ “The sketch – the first recording of the concept of an artistic work, the design of an artistic work (of a painting or sculpture), made hastily using a simple technique, evaluated and modified over the course of creative work”, *Encyklopedia PWN*, Wydawnictwo Naukowe PWN, digital edition (<http://encyklopedia.pwn.pl/encyklopedia/szkic;1.html>).

¹⁰ See the works of Tatarkiewicz and his thoughts on the nature of completeness and perfection, P. Gajewski, *Zapisy myśli o przestrzeni*, Politechnika Krakowska, Kraków 2001, p. 114.

¹¹ R. Arnheim, *Sztuka i percepcja wzrokowa*, Słowo/Obraz/Terytoria, Gdańsk 2004, p. 201.

synthetic and of an uneven line, are a sort of a resume of the idea of the building and contain only the basic information regarding the volume of the geometry of the building of the Bibliothèque Nationale de France in Paris and their relations, as well as information regarding the number of levels and the important elements that influence the functionality of the complex as functional mechanisms (Ill. 5). The sketches of the Planetarium in Valencia by Santiago Calatrava are a search for inspiration, relations and a point of egress into a concept, and are a recording of the path of its evolution (Ill. 6). The sketches of Zaha Hadid are, on the other hand, full of expression and highly synthetic, being more of an impression and the impulse to create a dynamic architectural space of the Museum of XXI Century Art in Rome (Ill. 7), or the Salerno Maritime Terminal (Ill. 8), rather than being a presentation of the geometry of the buildings themselves.

The currently active architectural schools can be divided into those, that stress the matter of teaching freehand drawing and those that do not. The elimination of the teaching of freehand drawing often has its source at the fascination with the possibilities offered by computer aided design and the ever growing improvement of graphics design software. The technical possibilities are impressive in this regard. These tendencies are visible especially in the USA and the countries of Western Europe. Digital design techniques play an important role in making it easier to develop design documentation at the technical and construction stages, allowing the entire construction process to be much smoother and faster. Computer aided design allows us to make our documentation much more precise, as well as permits simplifications and calculations that need to be performed. There is a visible trend towards the return to the teaching of freehand drawing where it was previously not included in the curriculum. It seems evident then, that the restriction in teaching freehand drawing has negatively impacted the entire process of teaching architectural design. Currently, one of the basic rules of educating architects and their further professional development is that they are to be taught the art of realistic freehand drawing based on perspective and the proper construction of geometry. The sketch is a very general form of drawing. IT is treated as the first phase of recording one's idea of a building and can serve as a means of arriving at a point in the creative process where it can become the subject of a fully fledged realistic image.

4. Conclusions

“Reality is not digital, it is not binary, it is analog. It is something gradual,. In other words, reality is a quality of objects in the same manner as they have mass”¹². This view is often the winning argument in whether or not a school of architecture should teach freehand drawing as a part of the design process of a building. We can observe that despite computer aided design becoming the factual norm, the importance of freehand drawing is rising, and it is viewed as a basic tool to stimulate one's spatial imagination. During an architect's

¹² A. Asanowicz, *Zapis przestrzeni jest przestrzenią*, [in:] *Definiowanie przestrzeni architektonicznej – Zapis przestrzeni architektonicznej*, M. Misiągiewicz, D. Kozłowski (red.), Monography 441, vol. 2, Architecture series, Wydawnictwo PK, Kraków 2013, p. 7.

work, the drawing and sketch fulfil two very basic roles: they develop a precise spatial imagination, which is the cornerstone of the creative process, in addition to being the basic means of communication.

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- III. 1. Leang Bulu Betue cave paintings, discovered near the Indonesian village of Maros on the island of Sulawesi, during the 1960's by Clementine Heeren-Pal, dated in 2014 by the team of Dr Maxime Aubert from Griffith University in Australia to around 40 000 BC, thought to be the oldest of its kind in the world (<http://www.world-archaeology.com/world/asia/indonesia/artistic-origins-redefined.htm>)
 - III. 2. Fragment of one of the pages of Lenardo da Vinci's manuscript dedicated to the construction of an ideal city (source: Luciano Berti, Marco Rosci, *Sztuka Świata*, Arkady, Warszawa 1994, p. 272)
 - III. 3. Sketch of the Manhattan island from the ocean side, Le Corbusier, 1937 (source: *Le Corbusier's Secret Laboratory, From Painting to Architecture*, Hatje Cantz Verlag, Ostfildem, 2013, p. 79)
 - III. 4. Sketch of the Kunsthau Bregenz building, Zumthor P. (source: Ch. Spiegel, *Kunsthau Bregenz*, Verlag Gerd Hatje, Ostildem, Ruit, 1999, p. 11)
 - III. 5. Sketch of the Bibliotheque Nationale de France building, Dominique Perrault (source: E. Guttman, C. Chamberlain, *In interview with Dominique Perrault* (<http://www.mlstudio.co.uk/blog/tag/hda>))
 - III. 6. Sketch of the Planetarium building in Valencia, Santiago Calatrava (source: P. Jodidio, *Calatrava Complete Works 1979–2009*, Verlag Taschen GmbH, Koeln, 2009, p. 218-219)
 - III. 7. Sketch of the Museum of XXI Century Art in Rome, Zaha Hadid (source: <http://www.zaha-hadid.com/architecture/maxxi>)
 - III. 8. Sketch of the Salerno Maritime Terminal building in Salerno, Zaha Hadid (source: <http://www.zaha-hadid.com/architecture/salerno-maritime-terminal>)

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- [7] <http://www.soane.org/>
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