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## DRAWING AS AN ELEMENT OF ARCHITECTURAL EDUCATION OF THE YOUNGEST

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### RYSUNEK JAKO ELEMENT EDUKACJI ARCHITEKTONICZNEJ NAJMŁODSZYCH

#### Abstract

The architectural drawing is a permanent part of the architect's work – it is a bridge between vision and its realization. It cannot be clearly classified. It can be either a medium conveying information, as well as an end in itself and there are many opportunities to use its potential. This article attempts to answer the question of whether drawing can support architectural education of young children (3–6). This period is very important for the development of a human being. Skillfully stimulated curiosity of a child allows to expand the possibilities of perception, which may lead to increased sensitivity to the shape and quality of the space.

*Keywords: architectural education of children, architectural drawing, perception*

#### Streszczenie

Rysunek architektoniczny jest stałym elementem pracy architekta – pomostem między wizją a jej urzeczywistnieniem. Nie pozwala się jednoznacznie sklasyfikować. Może być zarówno medium przenoszącym informacje, jak i celem samym w sobie. Możliwości wykorzystania jego potencjału jest wiele. Niniejszy artykuł stanowi próbę odpowiedzi na pytanie, czy rysunek może wspierać edukację architektoniczną najmłodszych dzieci (3–6). Okres ten ma ogromne znaczenie dla ich rozwoju – umiejętnie pobudzana ciekawość dziecka pozwala na poszerzenie jego możliwości percepcyjnych, co może zaowocować zwiększoną wrażliwością na kształt oraz jakość przestrzeni.

*Słowa kluczowe: edukacja architektoniczna najmłodszych, rysunek, percepcja*

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*To draw is to possess – it is an act of cognizance...;  
only dreams and death can compare with it.*

Amadeo Modigliani<sup>1</sup>

Freehand drawing has for centuries been related with an architectural profession. Each phase of work with a project has got its own reflection in the form of subsequent mapping – from an abstract sketch expressing the idea of a design (conceptual phase), through drawings serving as a presentation for investors (designing phase), to the technical solutions that are the base of a construction project documentation (executive phase). Despite the unquestionable utilitarian role of the drawing in architectural design, it is hard not to agree with the statement that its influence goes far beyond the frames of simple utility. In many cases it becomes a lot more than only the representation of a shape of a future building. Architectural drawings, even the ones without any reference in a realized physical object, are an important nexus of the cultural transmission – they bring an emotional load, often alone representing the world of architectural ideas [5]. The purposeful deformation in Le Corbusier's drawings or a simplification of a form of a record used by Mies van der Rohe stood in opposition to the XVIIIth and XIXth centuries' poetic, nearly picturesque visions of Piranesi or Viollet-le-Duc. Thus being a reflection of creative approaches of the designers, their manifestos and simultaneously a confirmation of the validity of their theses.

It is crucial not to forget that a drawing is very often the only form of architect's hand-made creation – in other steps in the investment process he monitors realization of his work by others, most frequently using hand sketches.

Le Corbusier, despite his personal fascination with technology and photography, was an outstanding draftsman and he emphasized how utterly important in the process of exploration of architecture is its drawing – following (with a pencil) the characteristic lines forming an object allows to understand it deeply, to explore its hidden secret [4]. Following such a reasoning, handmade sketch, either being a stroke of genius or a process of development leading up to a right solution, becomes an aim in itself – an act of primordial creation.

A fascination connected with drawing as a creative act is visible from the very beginning of the history of art. The very first cave paintings in Altamira and Lascaux are an expression of belief in the causative power of drawing. Enchanting reality with a plastic projection of a vision or in the form of painting or a sculpture can be found in many societies and almost in every period. On a very primary level every child holding in a clumsy hand a pencil, charcoal or a sharpened stick, modifies the reality. In such a context it is plausible to consider whether an architectural drawing, which is a record of a certain idea of a space, can become an interesting tool in an architectural education of a young child.

From the psychological standpoint the period between three and six is extremely important in the process of formation of the subsequent psychophysical abilities of the child [7]. According to research, stimulation of the child's natural curiosity in the preschool period can significantly extend its innate possibilities – this applies to both musical abilities, physical and intellectual, as well as those connected with perception and creativity.

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<sup>1</sup> Amedeo Clemente Modigliani (1884–1920) – Italian-Jewish painter, drawer and sculptor.

In this period, introducing workshops that help the children to improve spatial receptivity of the surrounding environment can bring a measurable effect in the future.

Drawing as a natural form of creative activity of children of such an age seems to be an ideal medium of communication between a teacher and a pupil. However, the early creativity of children is not in line with a realistic view of the surroundings and is not in accordance with graphical spatial projections [1]. Although the initial incomplete motor control gives place to a strictness and precision and a level of interest and insight in children are much higher than in an average adult, children's drawings lack characteristics and thus are commonly treaded as "imperfect". However, a closer analysis of preschool children's drawings enables opposite conclusions to be drawn– the youngsters, with the use of the most basic forms, render paramount traits of the structure of a particular object. Seeing more, they draw less – touching the very essence of things. They consciously refrain from adding details, even though they certainly note them and are able to render them. Moreover, in many cases, they are able to discover a pictorial equivalent (i.e. a circle that replaces, although not ideally, a rounded head, or a green referring only to an impression given by trees in general), by which the most important characteristics of the model can be depicted with the use of simplified tools.

Architectural drawing in many aspects can become an interesting medium supporting architectural education of the youngest. The simplification of form, focus on the main idea, an attempt to indicate the general rules governing a particular spatial structure – these are the traits which seem to relate it to an early creativity of children. On the other hand – the level of abstraction engaged both by architects and by children can be an obstacle to mutual understanding.

During a series of workshops conducted by students of the Faculty of Architecture of Poznan University of Technology, in one of the Poznan kindergartens, the above issues presented themselves with a full gamut of complexity. For the students of the last year of Master level studies finding a proper way to transfer their knowledge to the youngsters turned out to be an extremely complicated problem. A preliminary analysis, including issues related to developmental psychology, methods used in preschool education and architectural education, made it possible to formulate a program for the workshops in which architectural drawing played a crucial role. During the realization of those workshops it turned out that some of the tasks caused an unexpected difficulty – those were the one resulting from the lack of common ground of drawing.

In the opinion of students, materials that were the basis for those tasks were simplified to a satisfactory level, from children's point of view – the trouble was in misinterpretation. What is interesting, it was enough to change the way of leading to see that the vast majority overcame the barrier and converted the way of thinking about the depicted space (plans, sections). It can be stated that thanks to the architectural drawings and their adequate interpretation, a specific path was opened in their minds that allowed them to solve initially insolvable tasks, which turned out to be utterly trivial. In the research, which included subsequent observation of children's behavior during regular educational activities held in compliance with the core curriculum, it was stated that a part of the group could use the experience gained during the workshops and , while making various artistic works, used more or less consciously a newly learned manner of experiencing the space.

During another workshop the changed arrangement of actions was executed – here, a drawing was supposed to be the final result of the workshop, not the beginning of it. A group of children (whose age was similar to the previous group – from four to five) was asked to analyze the spatial structure of a small object – a wooden granary made in a traditional carpentry technology without the aid of nails. The work was done in three phases – the first involved a careful observation of a detailed physical model of that object. During that phase, children were free to touch, manipulate and view the model, they could look into the inside of it and they were precisely informed of its purpose and the method of construction. During the second phase, kids were divided into smaller groups and faced with the task to restore previously seen forms. Ready elements helped to construct an object much bigger, but lacking details – only the idea of the construction remained; such a construction for which no additional element was needed. With only the slightest help of the tutors, consequent groups laboriously achieved their objectives. The last phase was dedicated to drawing – kids were supposed to record on paper the information obtained earlier; they drew the form and the characteristic construction of the building as they memorized it. That phase was associated with the transition from the real, touchable and possible to personally experienced shape of the object to an abstract form. The order of actions was in accordance with the procedure described above, the concept of early works of children. Some of the participants coped with this task surprisingly well. In their drawings it was possible to distinguish the principal elements and, additionally, the abstract but correct idea of the object. Similarly as in the previous case the research assumed a further observation of children's performance. In a longer time perspective, particular changes were noticed in children's approach to depicting objects' structure in drawings.

The above described educational situations assumed the use of an architectural drawing as a medium for transmitting abstract ultra-material values.

During the above workshops, children learned how to experience the space, while remaining in the world of perception and imaging adequate to their age. A joy from an act of creation was not disturbed but rather enriched with a new perspective. The relatively small group of tested children does not allow to draw extensive and general conclusions, but with a reasonable likelihood it can be stated that an architectural drawing can become an interesting medium augmenting architectural education of young children. Although at first glance it seems to be too "mature" and thus not suitable for kids (many adult investors admit that they cannot read properly the meaning in architectural drawings: plans, sections, elevations, but also perspectives), soon it turns out to positively influence and expand children's cognitive abilities.

Both sides of the workshop, a teacher (architect) as well as a pupil (preschooler) can learn from this meeting something new for themselves – a child who did not succeed with its previous drawing will simply take another blank paper and start again.

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III. 1. Documentation of the workshop in kindergarten No. 46 in Poznan, organized by the Faculty of Architecture, Poznan University of Technology (photo by author, 2013)



## References

- [1] Arnheim R., *Sztuka i percepcja wzrokowa. Psychologia twórczego oka*, Wydawnictwo: słowo/obraz terytoria, Gdańsk 2004.
- [2] Białkiewicz A., *O rysunku architektonicznym*, Teka Kom. Arch. Urb. Stud. Krajobr. – OL PAN, 2006, pp. 53-60.
- [3] Fikus M., *Przestrzeń w zapisach architekta*, Agencja Wydawnicza ZEBRA, Poznań–Kraków 1999.
- [4] Jenks Ch., *Le Corbusier. Tragizm współczesnej architektury*, Wydawnictwa Artystyczne i Filmowe, Warszawa 1982.
- [5] Maluga L., *Autonomiczne rysunki architektoniczne*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2006.
- [6] Misiągiewicz M., *O prezentacji idei architektonicznej*, Wydawnictwo Politechniki Krakowskiej, Kraków 2003.
- [7] Szmidt K.J., *Pedagogika twórczości*, Gdańskie Wydawnictwo Psychologiczne, Sopot 2013.