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Elementary architecture – between rationalism and poetic of form

Architektura elementarna – pomiedzy racjonalizmem a poetyką formy

Abstract

The purpose of the article is to define the range of academic-didactic subject practiced in The Chair of Elementary Architecture of WAPK, known as Elementary Architecture – Between Rationalism and Poetic of Form. The wide academic range, as well as the aim of the research, allow only to present several aspects of defining contemporary architectural space. They aim to establish the origins, sources of architectural ideas in broad reference to structural rationalism and resulting from it poetic of form.

Keywords: elementary architecture, rationalism, poetic of form

Streszczenie

Artykuł jest próbą określenia zakresu tematyki naukowo-dydaktycznej uprawianej w Pracowni Architektury Elementarnej WA PK pod nazwą Architektura Elementarna – pomiędzy racjonalizmem a poetyką formy. Szeroki zakres badawczy i cel poszukiwań pozwalają jedynie na poruszenie niektórych aspektów definiowania współczesnych przestrzeni architektonicznej, których sensem jest ustanownie źródła idei architektonicznej w szerokich odniesieniach do strukturalnego racjonalizmu i z niego wynikającej poetyki formy architektonicznej.

Słowa kluczowe: architektura elementarna, racjonalizm, poetyka formy

1. Rationalism and Intuition. Geometry

We are raised to respect the knowledge originating from reason. We are taught to choose things deriving from our experience, culture and knowledge. The rational mode of thinking, commonly known as the empiric view of the world around us, is limited to studying physical phenomena and facts that can be measured and proved. This intellectual attitude focuses on separate elements and isolated facts deriving from direct experience. Thinking is strictly limited to technical and practical processes that are best formed in theories and methodologies based on practice and experience. Friedrich Schelling wrote that if architecture was to be absolute art so it had to be identified with reason (without any indirectness). Architecture becomes beautiful only when it is independent from need. Architecture becomes beautiful when it is independent from itself [1, p. 272]. Architecture cannot represent the universe only through the form. It must represent the universe both in essence and in form. Rational ideal and perfection reveal before us the unlimited source of representation.

Kant took a different stand – The sources of knowledge are two fundamental components: intuition and thought. Our thinking is based on imagination. It means that it is based on our senses, so the only way to understand objects is to imagine them. Intellect alone is not able to perceive anything and senses cannot think. Only the combination of both can become knowledge. When we accept that thinking is the process of high-levelled imagining – only then we conclude that the whole knowledge is based on imagination [2].

This type of thinking looks for phenomena and experience that describe more than just the sum of parts. The main object of deliberation is not reality as itself, but the search for universal *Idea* for bigger *Content* that would glue everything together. This seems close to defining the problem by Etienne Louis-Boullée, Le Corbusier and Mies van der Rohe. For them, architecture as an expression was the metaphor of its own structure fulfilling the aim that was its representation. A building is understood as any figurative meaning incorporated in the physical structure through forms, essential as the whole and in its parts. On the other hand, interpretation following the poetic of architecture does not give us the certainty of judgment because it is based on the principle of similarity and distant references. This is the problem the poetic of form deals with.

Therefore, thinking of architecture must establish the elementary starting point for examining the essence of architecture that is rooted in any aesthetic rationalism. And the aesthetic is understood not only as the potential of geometry, but also as its poetic interpretation. Elementary means basic, original, inseparable (perhaps – modest) – the simplest in thinking and creating fundamental meanings to architecture – through its geometrical and material references. We discover it in specific designing 'tactics', but also in theories referring to meanings fundamental to the contemporary – from proto-modern 'primitive hut' of Abbé Laugier, stripped of ornaments 'cave' of Adolf Loos, Louis Kahn's 'pre-form', Le Corbusier's purity and Tadao Ando's purity of forms.

Geometry is fundamental for building elementary meanings. Geometry – means the perfection of form and its remains in the history of architecture and culture. Geometry – enforcing a judgment that is reaching the explicit and clear relationship between the concept

and its practical realisation on paper. It seems that the creation of the consistent range of knowledge – from the rudiments of architecture to the advanced architectural formula might become a principle transmitted by credible and comprehensible language.

Elementary – also means designated by the consistent logical process of controlling in its essential rudiments the balance of the poles of architecture – general and detailed.

2. Limitation and Simplicity

It seems that the paradigm of limiting each structure and the form of this structure is still valid. Le Corbusier's purity, Mies's 'clarity of form', the reduction of contemporary minimalism and the rationalism of the Italian Novecento establish the continuity of architecture as the art of limitation. The idea of simplicity, developed at the beginning of the 20th century, did not impoverish life. It rather became the opportunity to create the path to fully experienced reality and to help us understand the process of defining architecture in its essential rudiments. As Gerrit Rietveld said: the biggest becomes accessible by the smallest [3, p. 33]. The similar idea of the process of the simplest perception of architecture is defined by John Pawson as the recurring ideal that divided various cultures searching for the path free from too many objects. Pawson writes: 'it is an elusive quality. Wide geographical and historical spread of various cultures interested in its attraction does not help define its essence' [4, p.8]. For the contemporary followers of reduction in architecture, the undeniable authority is a Benedictine architect Hans van der Laan. According to him, the experience of architecture is the strive for a clear division of a building into parts both in scale and detail. Hans van der Laan differed functional, expressive and monumental forms. They were adequate to three contexts of human life: nature, culture and liturgy. There should exist proper proportions and balance between them. He thought the great civilisations were mistaken to stress the expressive aspect of designing. This mistake resulted from decadence. Or it might have been an attempt to overcome the civilizational barrier.

Identical in this context is ideological, architectural 'patience' of Peter Zumthor. It defines vernacular effort, labour in which the aspect of industrial technology is clearly rejected by the architect. The model work – chapel in Wachendorf – seems the negation of the manifesto so as art does not need expression – so as the architect considered it harmful, because it disturbs and collides with true values of art, that are always totally material-formal. Exactly in this order.

3. Interpretations of the building material

The question of the rules of building has always been present in the theory of architecture. Raimund Abraham reminds that the essence of an architect's job is to understand how one stone is laid on the other. If architecture tries to organise space, so the structure organises matter to sustain the object's stability. That is why it is important which material is used and how it binds – they serve to prolong the life of the building. We accept that, maintaining that

the structural language is connected with architecture more than with other arts. The example of logic incorporated in triglyph, reflecting in the column-architrave system, is not only the feature characterising the principle of classical architecture. It also shows the complexity of architecture's technical aspect, as well as give us the idea of what is the limitation and solidity of structural type. Because of that, architecture seems not only the art of forms, but mainly the art of structured/ structural objects. Mortar between stones or shoring might define artistry, precision or their lack in the creator and his work. That is why we claim that the building of architectural work reflects the time and structure of the human mind.

If we accept the assumption that any architectural aesthetics are interested in the real object of aesthetic experience, we certainly accept the existence of material basis which creates this object. It is due to the material, that the unreal world of ideas and ideals, thoughts and words, concepts and drawings transfer art into the space of real values that become subject to final judgment and feeling. Similarly to paintings and sculptures, the transformation of concept into the real object gives architecture the meaning of art incorporated in the relation between shape and material. Therefore – idea and matter in architecture are inseparable – together with form and matter they are aesthetic unity. The sense of architectural art lies in the relations between the thoughtful configuration of ideas and the qualities of matter. Using the material in the simplest way, from general to detail, does not only search for the relations between the idea and matter of the work. It is rather a non-impulsive reach for the simple and communicative essence of architecture. According to this principle, architecture should be self-describing and introvert. Therefore, the language used by the creator of the building should strictly derive from logic, simplicity, geometry and figures – in other words – from the technique. Schelling wrote: 'matter is absolute truth and reason is its essence' [1, p. 525].

4. Models, Prototypes and Standards. 'The Hut' and 'The Cave'

In the times when architecture was defined by the canon of ancient models, buildings created a consistent and clear field of knowledge completed by the collection of traditional meanings. For Leon Battista Alberti in *De re aedificatoria libri decam* or Andrea Palladio in *Studio elementare degli ordini di architettura* was obvious to use the template of details, proportions, orders derived from a Vitruvian past. Tables describing various ways of constructing and building the parts of colonnades were used to order materials in which they were to be modelled. Order meant the incorporation of the established principles in the reality of Renaissance.

Nowadays, nobody negates the fact that form and content are spread in architecture. But those who think that contemporary architecture lacks identity, and its postmodern embodiments change as quickly as in the kaleidoscope, are wrong. The multitude and richness of contemporary architecture allow us to repeat after Jorge Luis Borges, that, even though everybody whispers miserably that our century is incapable of spinning cohesive plots, it is because of these plots deciding about the shape of the whole, that our century might be superior to the past.

There are no doubts, that the history of architecture is full of examples proving genial inventiveness of its creators. On the other hand, most works of art are repetition. The sense of architectural idea is shown in the same way in the 'first', 'innovative' work, as well as in the sincere will of modelling followers. There are among them creators 'discovering' the new qualities of the model; or 'composers' transforming the established order – for them, art is the expression of general truths and solid fictions through the idealisation of form and matter. Architecture in the 21st century is a constant search for originality supported by geometrical models from the past, which define the present day of architecture. The relation idea-matter-architecture has not changed either. It still reveals before us limitless models for newly build objects.

Le Corbusier referred to 'poetic reaction' resulting from proper, wise and splendid play of blocks in the light. The architect saw the purity and precision of form and plan in prisms, pyramids, spheres and cylinders. The logic and peace of 'innate' in subconsciousness elementary blocks was the aim for total architecture revolution of the 20th century.

For Mies van der Rohe, the solution of the logic of architecture had to be simple, because it was supposed to establish the model/pattern of universal simplicity. He always claimed that there had to be such field where the answers – a priori – create one, closed, proper architectural system. The key to this analogy is not 'logical space' but rather Wittgenstein's principle of the search for clarity. The lack of ornament, together with precision, measures and proportions are the fundamental features of Rohe's theories and all his buildings, which allow us to find similarities to Wittgenstein's 'Logical-Philosophical Treatise'.

Louis Kahn finds 'order' between space and the technology of structure as inseparable connection and natural creating of rational beauty. To show the world, how the building is made, what are its parts, what it creates and how it 'works' – this is the harmony and the attempt to grasp the essence of architecture closed in expression '*Order is*'. The mode of ordering monolithic space through logic and the building method might have derived from the very beginning – the drawing as the 'frame' of the ideal relations of the whole to its parts and of parts to the whole. Kahn wrote: '[…] If we learned to draw just the way we built, from the bottom to the top, stopping the pencil to mark the places where the next stages of construction join together, the ornament would grow from love to expressing the method' [5, p.256][Ill. 1].

Since the times of Kahn, Le Corbusier, Mies van der Rohe, the understanding of concrete, brick or steel has become the ability of immediate transformation of thought into form – where architecture as the art of free, yet ordered choice became the aesthetic domain pointing to that what is ideal in things. For all those mentioned above, 'elementary' meant the return to the beginning of form and their rational interpretation – those ancient ones using the perfection of shape and geometry, and the modern ones describing the abstraction of the source of architectural form. Terms: 'archetype', 'pre-form', 'model', 'prototype', 'paradigm', 'canon', were not only synonyms. They were rather the transmutation of the formula of contemporary meaning of architecture.

We search for the sources for elementary architecture in the phenomenon of the line of the horizon which divides the shape created 'beneath the earth' or 'beneath the sky'. The theories of architecture tell us about *the cave* giving shelter and safety – carved space linked to the earth or rock hiding before the viewer the material logic of the building. They also tell us about

the hut – the manifested form (from bone, wood or steel) revealing before the viewer the logic of matter and resulting from it created shape. The archetype of 'the cave' created by carving space refers to the meaning of darkness, emptiness, shutting off – it is stability and connection with the base, it is the archetype of home. The archetype of 'the hut' built from frame creates the world opened to the outside, it is a model of a wooden ark – it is a permanent attempt to universalise space and its dematerialisation [ill.2].

Both archetypes are the source of the genetics of this kind of architecture that is based on cyclical, subconscious image of materiality and immateriality of architecture. This binary world is also the place for Adolf Loos vision – there are two things that belong to architecture: a monument and a tomb. The rest should be expelled from the world of art.

5. Basic Meanings of City and Place. City As the Work of Art

Nowadays, we are designing our cities without a common idea of a plan. Under the pretext of building spatial order, a town/city is created without any references to the surroundings, without analysing urban space as an act of creating a work of art. The idea of a contemporary city as a geometrical composition is not ideology – it is the search for the elementary order, understood as the search for an alternative way of living in the city filled with compact buildings of the centre and the chaos of the outskirts. An elementary city, hides within itself – an analogue city, a modern city, a traditional city. Even though such a city seems to hide an obvious paradox, yet it is an idea incorporating the composition of the place – defined by the simplicity of geometrical units and determined by the shape of elementary meanings of urban planning. The sense of such city should lie in creating recognisable places without unnecessary needs of future transformations.

Traditionally 'closed' building quarters, as well as 'open' forms of the city architecture established in the 20th century by modernists, might be helpful in creating the model urban composition. Describing important local urban space according to the building hierarchy, proper scale, views, close-ups or adequate division of City and Place should identify the balanced relation between the built space and empty space (nature).

The Modern Movement focused on the housing industry, by rejecting the ideas of monument (Camillo Sitte) and concentrating on the connection between the city and nature (Ebenezer Howard). The fundamental question became new elementary parts: rejection of the street as a place, a building quarter and a monument as the basic elements of the city, accepting nature as context, determining the capacity of units creating/building the city. The Postmodern Movement rebuilt the relation of the positive space where the basics became again a square, a quarter and a street. The Contemporary Movement, inheriting after both modernisms, describes the state of decentralisation and tries to interpret the values of functionalism and postmodernism.

Each urban system described their own rules called elementary parts, but did not describe the most relevant point – the hierarchy of importance between them through recognising the figure of the city as the compositional priority. The question of identity still remains a problem

– the form of places and buildings representing the identity of the dwellers. We should look for clues in the term the architecture of the city.

Composing a city cannot be done without basic figures describing its outline and spatial shape: a quarter, a block, a housing estate, the centre-square, a courtyard, a park/garden, an avenue, a basin, a gate, a dominant, a wall, the stairs, a mount, a monument…. etc. It seems that the most important among them is still the idea of the square. The square, more than any other places, pictures the building of the city as *the work of art*. The city shows its intention of representation through the square. The city cannot give up on the square, unless it means degradation and the loss of identity. The motivation for composing might also be any space determined by geometry play that creates the order of the solution of urban planning. A composition that takes into account the ideality of form – known as the art of building cities [6,p.63].

6. Not a Summary – 26 Aphorisms by Snozzi instead [7]

1) When I think: a man, I think: exploited.
2) Architecture cannot be created by revolution, and revolution is not enough to create architecture.
3) Do not avoid responsibility: work with form. That is where you find man.
4) Architecture comes from real needs, but it overcomes them.
5) If you want to discover architecture, look at the ruins.
6) An aqueduct becomes alive when it stops delivering water.
7) There is nothing to think about, there is everything to discover.
8) When the graduates stop serving the architectural studios, School will make a huge step forward.
9) Before a design becomes the instrument of change, it is mainly the tool of perception.
10) Architecture is an emptiness that must be defined by you.
11) Architecture is measured by an eye and a step….. a liner to a geodesist.
12) A building always starts from the fundaments.
13) Looking for elasticity? Build walls always from stone.
14) Diversity is the prelude to monotony, if you want to avoid it, always repeat the same element.
15) Nature cannot stand anything but the truth. But I think it was already said by Adolph Loos.
16) A real lawn reaches the roots of the Earth.
17) Each intervention assumes destruction, destroy with a conscience.
18) What a waste of energy, why to pay for air conditioning, heating, electricity…. A window would be enough.
19) Not so long ago all forms of human settlement were 'geological maps'.
20) When you design a path, a street, a courtyard, a house, a quarter – think about a city.
21) When all red lights disappear from the city – you will be close to the solution.
22) When you design a street or a car park, think, a human is driving.

23) Thanks to human effort a city includes the fire of volcanoes, the sand of the desert, the jungle and the steppe, flora and fauna… nature in its whole beauty.
24) An alpinist is happy in the mountains. He knows there is a city beyond the horizon.
25) A sailor is happy at the sea. He knows there is a city beyond the horizon.
26) …. But the main thing that counts is light!

Translation Berta Chojnowska

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