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## RATIONALISTIC AND INTUITIVE WAY TO ARCHITECTURE

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### RACJONALISTYCZNA I INTUICYJNA DROGA DO ARCHITEKTURY

#### Abstract

Today, the emblematic architecture has become almost exclusively self-referential, and the traditional manuals of composition for elements and parts seem to have lost all the value of legitimacy and recognition. To understand these transformations, it is necessary to reject the „rational and irrational” oppositional binomial, to try to understand the wider range of compositional operations within the structure of the architectural language itself. This combination of „rationality/intuition” does not have in itself a character of exclusivity, because in every project there are some rational and irrational intertwined elements. These aspects are in our memory and our mind is able to re-elaborate them through specific narratives that are also nourished by the important experiential aspect, establishing new relationships and architectural outcomes.

*Keywords: architecture, mind, memory, narrative*

#### Streszczenie

Współcześnie, architektura symboliczna stała się prawie wyłącznie autoreferencyjna, a tradycyjne podręczniki do kompozycji zdają się tracić całą zasadność i uznanie. Aby zrozumieć te przemiany i szerszy zakres działań kompozycyjnych w strukturze samego języka architektury, konieczne jest odrzucenie przeciwieństwa „racjonalne i irracjonalne”. Połączenie „racjonalności/intuicji” nie ma w sobie charakteru wyłączności, ponieważ w każdym projekcie występują elementy racjonalne i nieracjonalne. Aspekty te są w naszej pamięci i umysł jest w stanie ponownie je rozwinąć przez konkretne narracje, które są również wzbogacane przez ważny aspekt empiryczny, ustanawiając nowe relacje i rezultaty architektoniczne.

*Słowa kluczowe: architektura, myśl, pamięć, narracja*

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## 1. Rational vs irrational

In the last thirty years, contemporary architecture has undergone a fundamental change: starting from Bilbao, emblematic architectures are referable to recognizable outcomes, to real habitable works of art in which the author can be clearly identified in the form itself and in his personal language, which is forbidden to copy, not transmissible and covered by the approach of copyright and plagiarism. This phenomenon, for which the emblematic architecture has become only self-referential, had never been manifested before: in architecture, in fact, the style of creation was syntax, a precise language of belonging, expressing recognizable and transmissible design and artistic choices. Apparently, the emblematic contemporary works seems to be absolutely delegated to the irrational part of poetics and personal creativity. The creative outcome has enshrined the death of manuals, conceived as the last manual of the modern movement, that is *Le Modulor*, developed within the tradition of Vitruvius and Leon Battista Alberti. If previously “ornament was crime”, today “plagiarism is crime”. From the *Précis des leçons d'architecture* by J. N. L. Durand, a combinatorial compositional method based on the rationality and modularity of constructive and compositional grids, up to *Vers une architecture* with Le Corbusier's “five points”, which defines basic principles for conceiving the rational architectural space through rules and elements, it seems that today the manuals of the composition for elements, parts or architecture of architecture, has any value of legitimacy and recognition no longer. The Handbook as a grammar is replaced by the Dictionary, which contains different points of view: from “*S, m, l, xl*” of Koolhaas to *Metapolis* of Gausa, Guallart, Soriano, up to the *Ex libris* of Corbellini, the current handbook becomes an alphabetic device set with keywords, which expands the complexity and quantity of things and words of contemporary architecture.

Today there is not a status of linguistic legitimacy as in the past, when the different “schools” of architecture were based on specific manuals and thus produced recognizable architectural outcomes. The language had its own grammatical and compositional structure, and the architectures could be recognized as rationalist operations, or rather, as the result of clear rational operations. A clear example of this are the formal analogies between the Ville Savoye of Le Corbusier and the house called “su palafitte” by Figini and Pollini in Milan: different architectural outcomes within a common design practice that referred to the typical logical processes of science and technology.

Despite this rigid grammar structured by elements, the poetics of space, which belongs exclusively to the creative and irrational part, still found its explication in positional geometry, which is the measure of its poetry. In fact, it is fundamental to understand that all the manuals established and explained the possible compositional rules but also defined, at the same time, the range of negation, in a sort of legitimization process. In other words, the manuals also defined the whole set of unwritten rules with respect to all that it was not legitimate to use in the construction process, or in the compositional process. This field was reserved for the primitive, the imaginative, but above all for the irrational. For example, Le Corbusier was the first one that legitimized the bizarre and imaginative poetry of Gaudí, recognizing in the Sagrada Familia something that went beyond rationalism. What an inversion has occurred!

In reality, the apparent rational/irrational binomial does not present itself as an exclusive or alternative process, both in the modern movement and in the contemporaneity. In fact at the beginning of the 20th century, some possible encroachments have been investigated by

Constructivism with only apparently irrational outcomes, but certainly very revolutionary, because they were based not on functionality but on plastic creativity. Not accepting the strictly Euclidean composition, artists and architects introduced elements of the fourth degree geometry, such as new conformative tools of the interventions on architecture and the city: some examples are the Malevič Prouns with the Tatlin International Third Monument, the proposal for the Lenin Institute of Leonidov or the audacious structures of Šuchov for Moscow, just to name a few. Therefore, a part of the Modern Movement was characterized by an aspect then deemed irrational.

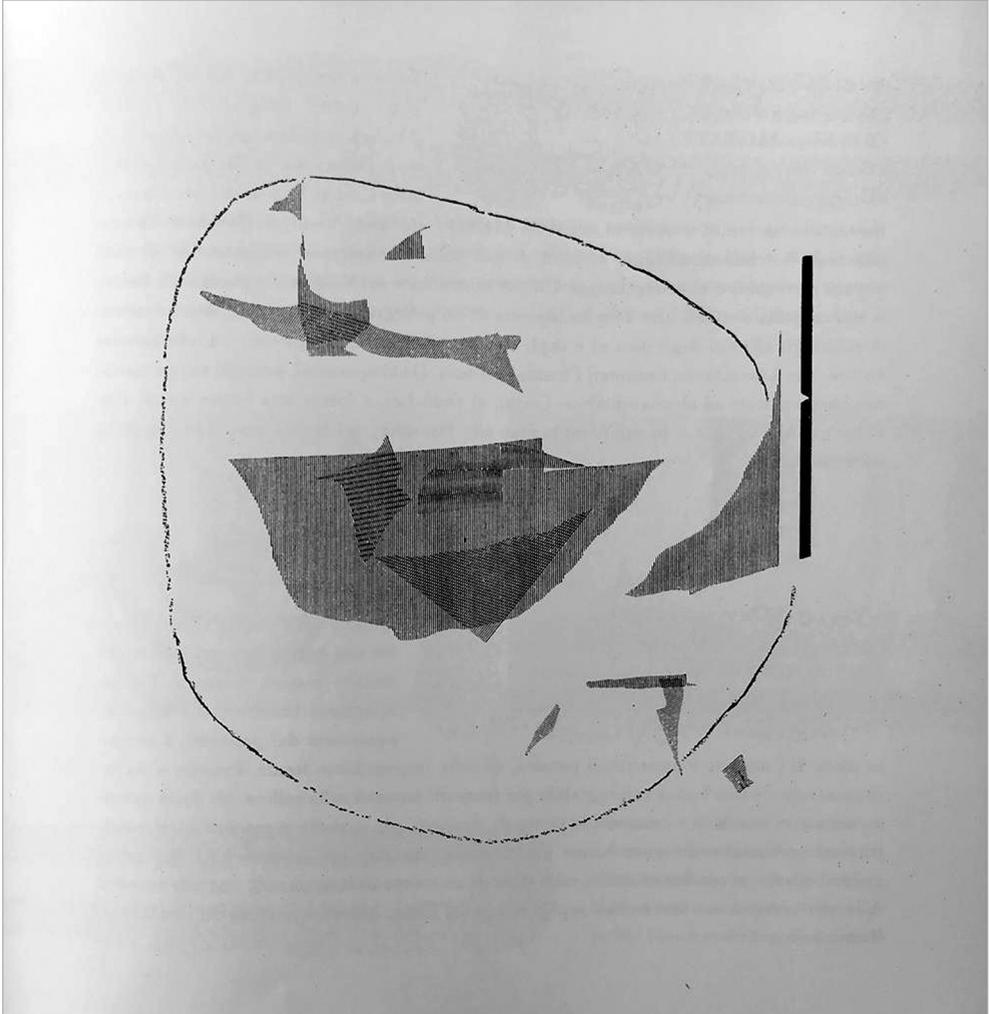
Le Corbusier himself experiences the contradictions of the Modern Movement, especially when he begins to “feel” the rational logic of the number and the harmony of pure and clear volumes, as a limit to poetry, which also needs on primitive, playful and sentimental aspects. In the chapel of Notre Dame du Haut in Ronchamp, the construction of the large reinforced concrete frame (which was one of the dogmas of rational architecture) reconstitutes the ancient, pierced and of great thickness walls typical of ancient castles and medieval towers, as in buildings in stone, *and the light / illuminates some shapes / and these shapes have / an emotional power / for the play of proportions / for the game of relationships / unexpected, amazing* [Ill. 1]. The reinforced concrete frame constituted the innovative revolution of rationalism but, at the same time, it also decreed its death: the great freedom of composition for distinct elements, which was the basis of the rational composition of the Modern Movement in creating of new spatiality, had in fact paved the way for a new great creative ability of geometries that, albeit in distinct parts, went well beyond the composition of the elements through frames.

## 2. Inside architecture

The question is: what change has occurred since the twentieth century up to our contemporary?

The correct key to understand these transformations is certainly to reject the “rational and irrational or intuitive” oppositional binomia, in order to try to understand the passage from the manual for elementary linguistic elements and structures to a wider category of compositional operations within the same structure of architectural language.

Aldo Rossi in *The architecture of the city* no longer defines a grammar for architectural elements but adopts a principle of operative narration through rhetorical figures and key words: the different “parts” and “permanences” tell of the heterogeneous, stratified and conflicting overlapping of intentions and objects of the contemporary city. Rem Koolhaas in *Delirious of New York* defines an abstract grid of Manhattan where the section of the skyscraper has in itself the negation of the distributive characteristics, of the traditional functions and of the classical internal-external relations. The belonging to the contemporary takes place through the implementation of operational categories in analogy to the adoption of architectural elements implemented by the Modern Movement: but the replacement of the architectural elements with “textual” operations does not lead to known compositional outcomes, but rather presupposes a long list of outcomes and operational equalities, which have in them a great formal value, that is, a simultaneous hypothesis of visions, a matrix of possibilities for architectural outcomes, as in his famous *maquettes*. To this new compositional process, can be added the *deux ex machina*, that is the rational



III. 1. From Le Corbusier. „Ronchamp”, Verlag Gerd Hatje, Stuttgart 1957

choice of which outcome is closest to the poetics of the single author, rather than to the belonging of the architectural structure to a linguistics.

On the other hand, the reflection of the construction of the city can not afford exclusively (emblematic) Architecture, and in this fracture between architecture, city and urbanity (both of expansion and substitution) manifests itself the decadence of linguistic manuals. The absence of the rational “certainty of belonging” has legitimized an increasing interest in “Process Architecture”, in which the different components that realize the whole architectural act, legitimize the transformation of places leading the composition and poetics of space to the poetic minority and the absolute silence. In other words, it is what Rem Koolhaas had anticipated in his “*S, m, l, xl*”, when he had highlighted that a conspicuous portion of the body

of the next architecture would be consisted by implants, energy and components, that should be reported in the architectural composition. But his lesson has remained mostly unheard.

From the deconstructivist revolution to the phenomenon of the “archistar”, this replacement is confirmed by the observation that the emblematic architecture, having no more manuals and linguistic references, has not yet found a method and a disciplinary language capable of transforming and decoding nominal operations into a knowledge rationally expendable and transmissible: that is in “a school”.

Paying attention exclusively to the energy-sustainable characteristics of the project as a whole, from the single element to the circularity of the construction/demolition process proposed by the virtuous *re-cycle* of parts and components, today everything seems to be formally and apparently possible. The manuals have been replaced by design manuals of architectural components as the only possible *ratio et veritas* of doing.

Starting from the self referentiality of architectural outcomes up to the manuals for component as rationality of the architectural project, the only possible solution is to resume the investigation of the transmissible aspects of architecture, as our teachers have taught us. This means working to the limit in the boundary that defines the space, working through the vacuum to separate objects from the surface, removing without deleting to reveal traces, selecting the different traces within categories, defining a reference figurative system through a positional logic, measuring relationships through a topological geometry, defining a measure in relation to the scale, inserting found or invented objects in the palimpsest and urban stage, inserting figures in the field, stratifying the vacuum-matter to recompose the complexity of contemporary spaces. Therefore it is necessary to resume the urban project and the operational typology, the grammar of the key-words inside and outside the architecture: in other words, it is necessary to re-appropriate the structure of the compositional operations on the configuration and strategy of the container and not in the outcome of the content.

### 3. Perceptions, narratives

Nothing is born of nothingness, creativity is based on knowledge and on the relations between known things, and it does not exist without the capability of our mind to re-elaborate and establish relationships between what is in our memory. The more fragmented materials are deposited in memory, the greater is our ability to establish relationships among them. According to Bachelard, *La Poétique de l'espace* is a complex process, so it is not possible to proceed with simplifications, even if in the mental process of architecture, the image often comes before the rational thought of architecture, which indeed it contributes to enrich. The drawings by Massimo Scolari or Aldo Rossi attest this important conceptual design process, in which rational and irrational elements are interwoven, drawing upon our knowledge developed over time: it is a work of deep excavation in the most archaic and absolute places and forms. The *Machines a penser* seen at the Venice exhibition in 2018, as well as the *refuge-rooms* of the Adorno, Heidegger and Wittgenstein philosophers are the elementary places, physical and mental, which stimulate the unconscious and intuition, and bring us back to the world of architectural archetypes. We can remember how the images and the metaphysical vision of the world, from De Chirico to Magritte, have influenced the 20th century architecture and art. The invention of enigmatically juxtaposed ideas, that the visitor can appreciate without any

optical deception, also constitutes the mysterious charm of *the Bruder Klaus chapel* by Zumthor, in which the rational monolith unveils the irrational space without any deception, in a mechanism of strong emotional impact, which is transmitted by this small primitive architecture through the composition of matter.

Continuing in these reflections about relationship between architecture and mind, it is interesting to analyze the set of processes regarding thought and perception of space, and the ways by which the living world relates to its environment, to generate beauty. What are the useful tools for translating this idea of beauty into the architectural project?

Considering architecture as the reflection of the human mind, which studies the relationship between man and artefacts in terms of thought and perception in the external environment, the considerations that Bateson applies in *Mind and nature* can be significant, particularly with regard to the “theory of narration”, understood as an essential “connective structure” as for creating relationships. In fact, analyzing the parts that make up an architectural artifact or a part of the city, each of these elements is not characterized by what it is in itself, but by the mutual relations that it establishes with other objects, with the external environment and with the man. For example, if we analyze the *Capriccio with Palladian buildings* by Canaletto, the relationships between the parties, at various levels, are much more important than the different elements considered individually: for men, this implies mental processes that are based on narration. This shows that the creation of a story is closely linked to the history of the “context”, understood as the framework within which the design actions acquire meaning. Trying to solve the themes of the great complexity of the natural and anthropic environment, the architecture has always analyzed the context, but often limited to the study of the form or the content of the individual parts that compose it. On the contrary, the messages present in the context have not always been codified within an overall reasoning capable of ensuring a global understanding of the context itself. In this sense, the narrative is configured as the structure able to generate a hierarchy of contextual components, which allow us to put order in the large number of messages of the external environment.

These considerations can be better understood by analyzing the installation “Peter Zumthor from a small village in Switzerland” presented at the Architecture Biennale 2016 in Venice, as part of the presentation of his project for the Los Angeles County Museum of Art. The model of a part of the new museum project consisted of clothes designed by the South Korean designer Christina Kim, arranged along two curved lines separated by a footbridge. The woven-footbridge system surrounds the model of a part of the new museum project. The goal is to put the observer in the conditions to perceive a content, and therefore a meaning, based on the same processes that the human mind regularly uses, ie creating a hierarchy of messages in the internal context through the creation of organized connections. In a first level the relationship between the different parts that make up the fabric texture is defined, placing them in a specific spatial order; in the second level a relationship is established between the two fabric files and the project model; in the third level the objects that make up the context are placed in points of the space that allow them to acquire the desired meaning, also considering the temporal aspect, that is holding the sequences of interaction between the visitor and the installation itself. Rationalism attempted to give a coherent response to the needs of reason operating at the level of consciousness and, from the technical point of view, the rationalized architecture produced solutions that proved to be not always satisfactory.

#### 4. Equivalences

Can architecture be referred to a narrative theory?

We are aware of the integration between the different parts of the mind, because our consciousness operates in a framework of “thought economy” in which a large part of our cognitive processes are entrusted to the unconscious, as Bateson explains in *Steps to an ecology of mind*. The unconscious is that “primary process” that stands out for its “metaphorical character”: the metaphor keeps the relationship unchanged, while it transfers images of different things to the terms of the relationship. Going back to the installation of Zumthor, the overall meaning is defined by the relationship between the parts, so that if the fabrics were replaced with other objects, in terms of meaning there would not be variations. The meaning of a message transmitted through a narrative, in fact, is linked to an idea of “redundancy” in which if an observer sees only a part of an element, he can conjectures what appears on the other side. Looking at the series of photographs by Alfred Stieglitz *Equivalents* (1922-35) in which the shapes and lines represent our experiences, inner thoughts and emotions, or the pics of contemporary photographer Sebastião Salgado, the images generate an idea of greater understanding of what surrounds us, defining a meaning. The natural world is characterized by “redundancy” and each man, as a part of it, has a similar mental structure: if a fragment of visible information is meaningful, this redundancy allows our mind to go back to the missing part of the message, and thus understand its global meaning. In the case of architecture, it is possible to try to create spaces that possess these characteristics, allowing to the people who live there to identify a meaning with respect to the project, but at the same time to activate mechanisms at a more general level, which concern those mind- man-environment relations that Zumthor has defined as “atmospheres”.

The core of the issue is not to propose an irrational approach to architecture but to recognize that there are deep connections between our life and architecture: a painting or a photograph strike us beyond the subject, but architecture seems to speak directly to us, communicating a profound sense for us, hiding inside and behind it. Together with rational or irrational aspects, the experiential part of architecture can not be forgotten because it has to do with “living” in its essence, the “staying at things” for Heidegger, as a relationship between man and his environment. Things, objects and meanings fuel architecture as an overwriting of the mind, settling rationally and unconsciously themselves in memory. But also the experiential aspect is fundamental.

These reflections bring me back to what was probably my first encounter with an architecture. Between 1970 and 1977, when I was a child, I spent a long summer period in the Enel marine colony of Riccione, which later I discovered to have been designed by Giancarlo De Carlo between 1961 and 1963. The building was characterized by a organization of the plant and volumes suitable for children, with a significant weaving of connections and spaces. Both inside and outside, the problem of “cohabitation”, understood as a relationship between people, was solved through large spaces in which the external relationship was present in its many forms. “Crossing” the empty garden, which was also the playground, “stand” in bright voids open on the landscape to paint or read, “see” from the cover the great emptiness of the sea boundless in the distance: these are experiences of memory. There were not many tourists, nor recurrent visits of parents as it happens today, so that architecture “designed to accommodate” children had to do its job at the best, to tell other stories. I found completely natural “to live together”, to devote myself to various activities that were completely new to

me. At that time I did not know anything about art or architecture, because I had not studied it at school yet, but that fundamental architectural relationship between body-mind and environment had to be very clear. I remained deeply fascinated by the definition, in topological terms, of the different spatial arrangements: the closed, open, continuous, discontinuous space, the limit, the threshold of this architecture, the atmosphere. Some time ago I happened to review this architecture, that I remembered with deep nostalgia, obsolete and abandoned. Tears came to my eyes, because at that moment everything came back to my mind, and I felt that this architecture had talked to me so much.

The architecture is a wonderful process in which thousands of human components are involved; intuition is an unconscious process based on logical reasoning on knowledge and on the ability to associate ideas and on multiple experiences. In the rational mental path we draw upon our knowledge and the different memories interact with each other, in order to arrive at architectural solutions. The mission of architecture is therefore that of harmonizing the material world with life and with the processes that regulate it: the unifying beauty between the different parts of the mind is the meaning of this narration, the code chosen by architecture to highlight it.

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