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‘ORGANISERS OF LIFE’
– RATIONALITY OR INTUITION?
A HOME AS AN EXAMPLE
OF A CREATIVE DESIGN ATTITUDE

„ORGANIZATORZY ŻYCIA”
– RACJONALNOŚĆ CZY INTUICJA?
DOM MIESZKALNY
JAKO PRZYKŁAD POSTAWY TWÓRCZEJ

A b s t r a c t

Designing poses an architect problems with the use of objective knowledge, investor’s wishes or in last place, his own intuition: a susceptibility to the location; an ability to use of the sensual perception, etc. Homes as architectural works are the buildings which are built most frequently. And here during the design process, perhaps strongest, the unique conflict between what is rational and what is intuitive arises. The article attempts to formulate an answer to the question how rationality or/and intuition stimulate the development process of the most intimate building – a human shelter.

Keywords: architectural object, home, creative attitude, design process

S t r e s z c z e n i e

W procesie projektowania architekt staje przed wyborem zobiektywizowanej wiedzy o obiekcie, życzeń inwestora czy wreszcie własnej intuicji – wrażliwości na miejsce, w którym budynek powstaje, albo też umiejętności wykorzystania doznań zmysłowych itp. Domy mieszkalne to dzieła architektoniczne, które powstają chyba najczęściej. I w procesie projektowania których chyba najsilniej dochodzi do głosu swoisty spór między tym, co racjonalne, a tym, co jedynie uświadomione. Artykuł próbuje odpowiedzieć na pytanie – w jaki sposób racjonalność i/lub intuicja oddziałują na proces powstawania najbardziej intymnego budynku – schronienia człowieka.

Słowa kluczowe: obiekt architektoniczny, dom mieszkalny, postawa twórcza, proces projektowania

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*You won't pass your knowledge to anyone
Your hearing and touch are only yours
everyone must create anew
his infinity and his beginning
(...)*

*If you trust your five senses
the world will contract into a hazelnut*

*If you believe in your rushing thoughts
you will go far into failing darkness
on the great stilts of telescopes
(...)*

Z. Herbert¹

1. Rational intuition

Watching architecture students struggling to develop their first building plans is always somehow challenging. Also because usually the first project of a building is a single-family house. And in such designs the students are confronted with their only partially consciously defined descriptions and meanings of spaces. But also with very strong beliefs and, already lived through at home, habits. A teacher has at the same time to combine reason and intuition and to have enough persuasion to change the mind of someone strongly opposed to abandon already existing concepts of space and the 'right' and usually one-sided human behaviour in it. Tutorials became tiring when the student follows her own intuition and is especially strong-minded. Then no rational arguments exist to change even slightly the preconception. Intuition prevails with quite often disastrous effect.

But still intuition is somewhere at the base of every design logic. And the best examples of architecture are also very intuitive or at least it is not the strict consequence of reasoning that causes their strongest appeal. In 2017 Lodz's Museum of Art presented an interesting exhibition about the Polish Avant-garde from the 1920s and 30s and the De Stijl Group². The designs presented there depicted various concepts of housing solutions, with a main focus point – the Utrecht Schroeder House by Gerrit Thomas Rietveld. (1924). Not only were the house plans exhibited, but also a short film documented the process of the design. From the stance of the architect and from the client's stance, in this case also a co-author (or at least an influencer). And this presentation of the design process could have changed the perception of this well-known object, usually perceived as a nearly mathematical creation and known for its interplay of right-angle forms, planes, and lines. Because the design and construction was a mixture of the rational and intuitive activities. Even the choice of the plot was random and occurred only from the

¹ Z. Herbert, *The Troubles of the Little Creator*, p. 41–42, [in:] S. Barańczak, *A Fugitive from Utopia: The Poetry of Zbigniew Herbert*, Harvard University Press, Cambridge, MA., London, England 1987, p. 41–42; <https://books.google.pl/books?isbn=0674326857> [Accessed: 18.05.2018].

² The designation 'organizers of life' is borrowed from the name of this exhibition. (*Organizers of Life. De Stijl, the Polish Avant-garde, and Design*, exhibition in Lodz Museum of Art (MS1), curators Kurc-Maj P., Saciuk-Gąsowska A., 24 November 2017–25 February 2018).

existence of a neglected rest plot. The plans were changed to accommodate the requirements of the authorities so that the ground floor was different from the open plan of the first storey – one of the most often presented spaces with its graphic planes, coloured surfaces and big openings. These changes occurred because of the owner's suggestions. The documentary stressed the role of the architect's training and his rational way of thinking grounded in the craftsman's background. But this design, even as extremely logical, shows an enormous amount of intuitively used elements. Geometry can be trained but still the effect of perfect proportions comes to life not through the application of mathematical rules. Not every perfectly designed project has this inexpressible something which makes one stop and wonder.

As architecture shapes a building into a dwelling, a house, a home, it also expresses, sometimes directly, the lifestyle of the occupants, the trends of the time or the personality of the architect. Depending on the circumstances, different elements dominate. By definition a home is something individual, correspondent to someone's needs, aspirations or just possibilities. As it is a residence and a dwelling it defines someone's existence. One can say that all architecture is a form of dwelling as the word suggests protection and security against the outside environment, familiarity and intimacy of private life. An impact on the intuition of the design of a home also has sensory perception, mostly because of the independent reality of individual experience of the space.

The usual influence of the building frame on the life and behaviour in a home takes symbolic significance. When an architect takes a stance on design as her only prerogative the user's role diminishes. The house is then an object of domination and only the inborn intuition can overcome the arrogance of the designer. All designs to some degree answer a question of an attitude towards the authority of the designer or the client (with additional variables of building codes, materials, construction, financing etc.). And in much respect the answer to all this is more intuitive than rational even if based on knowledge and common sense.

Architects from the Modern Movement in their projects intended to show their philosophy of life and the iconic houses of the 20th century express this intention. They are the epitome of cleanness and structurality. The lines are straight and the houses make an impression of a kind of sharpness which make them somehow distant and rational. Rational meant as avoidance of emotion. And emotion, on the contrary, is something connected with intuition and sensuality. With pleasure, physical comfort and a little bit of self-indulgence. The straight lines of a railing designed to be also a bookshelf in Le Corbusier's Maison La Roche (1923–1925) command admiration, but more intellectual than emotional (Ill. 2).

On the balcony of the Villa La Roche, flanking the main triple height hall, a wide shelf presents a working surface along the top of the unit which holds two rows of books. Usually, large and small books are stored on shelves of the same depth – here one shelf, intended for storage of large books protrudes forward beyond the others, but remains flush with the over-arching work surface above. The books are held in a De Stijl composition of projecting and receding planes, nurtured tenderly through working drawings, simultaneously addressing issues of practicality and artistic inspiration³.

The surroundings of the house with its apparent disorder is more challenging and unexpected (Ill. 1). And it is framed. It cannot be perceived without the border of a theatrically designed terrace wall or the frame of the living room window. But for the architect the idea of framing

³ F. Samuel, *Le Corbusier in Detail*, Elsevier, Oxford 2008, p. 108–109.



Ill. 1. Framed intuitive cityscape. View from the living room in Le Corbusier's Maison La Roche (Paris, Auteil), 1923–1925. Photo by R. Mikielewicz, 2010

was central in the philosophy of unified design. His frames could be heavily emphasised or minimally detailed but they were adapted to house people, to delimit views, to store collections or even to extend into the natural environment. They created stops and flows within spaces⁴.

Every detail of Le Corbusier's houses (and of course other projects) was thought through but also intuitive, in the specific sense of intuitive use of elements which are so extremely well-thought-out that they are implemented intuitively into a design to fit the overall concept. Something achieved after years of training and consideration.

Even when modernist houses seem to concentrate more on form and momentarily use or function than other aspects of the building life cycle the experience of their space make an lasting impression which also could be rational or only intuitively felt. Formalistic designs are often criticised as not sufficient nowadays, so Brenda and Robert Vale, champions of green architecture and inexpensive housing, when explaining their approach to more sustainability declare *one intention in designing the autonomous house was to make a building that posterity would not consider a liability*⁵. The Vales cite an interesting definition of an

⁴ *Ibidem*, p. 101–125.

⁵ B. Vale, R. Vale, *The New Autonomous House*, Thames & Hudson, New York 2002, p. 57.

autonomous house formed by K. Lapthorne, which in a way could be applied to every design of a new contemporary house:

Once again the house must express the transition from hand to horizon; be shaped by climate and living patterns; create rich visual variety; create shade and coolness in summer, warmth and shelter in winter; store its water; consume its wastes; draw energy from the environment; enrich the soil; support its inhabitants; maintain itself; and be in tune with the natural rhythms. In short the autonomy of any other animal group... The mark of the autonomously serviced house will be the mark of the individual⁶.

The question at hand is if such a house will be more rational than intuitive in design approach. At the moment, because of the uncountable variables which have to be integrated in the design process, the mere rationality of it seems questionable.

2. A leeway for appropriation

The already mentioned complexity of a sustainable approach to the design of houses is looked for to find an answer in the use of computer methods as BIM technology. To look for a design which could integrate all aspects of the building life cycle is in a way as to try to foresee all possible developments in function, altering of materials, changes in energy efficiency etc. A task nearly unsolvable because of possible unexpected changes. But it is an enormous difference to a *frozen in time* design of an architectonic object which exists only in the mind of its designer and is seen more as an objet d'art and not as a living and changeable structure. These aspects of building existence increasingly come into focus⁷. And the help to master all the necessary data comes from computers. What is especially interesting is that behind this extremely rational, nearly inhuman design approach lies the idea of the autopoiesis of architecture. This notion and a new approach to theory of architecture. Autopoiesis starts in biology as description of life as a self-production process. Applied to architecture through Patrik Schumacher, a partner at Zaha Hadid Architects, after a transfer to the theory of social systems (as formulated by philosopher and sociologist Niklas Luhmann) is understood as a system of self-referential communication structures capable of reproducing all its specific structures within their own internal process⁸. As for the social systems Luhmann theorizes the historical development in close analogy to the theory of evolution and identifies a key condition for the take off of accelerated revolutionary processes: the differentiation of the evolutionary mechanisms of variation, selection and retention⁹. Even then the theory of autopoiesis of architecture refers to theoretical elements of the design process, the author described a methodology of establishing architecture as a part of society systems where theory

⁶ K. Lapthorne, *Integration of Autonomous and Industrialized Building Systems*, Working Paper 7, Technical Research Division, Department of Architecture, University of Cambridge, Cambridge 1973, p. 4, [in:] B. Vale, R. Vale, *op.cit.*, p. 9.

⁷ See f. ex. S. Cairns, J. M. Jacobs, *Buildings Must Die: A Perverse View of Architecture*, The MIT Press, Cambridge, Massachusetts 2014.

⁸ P. Schumacher, *The Autopoiesis of Architecture. A New Framework for Architecture*, Vol. I, A John Wiley and Sons Ltd, Publication, London 2011; Schumacher P., *The Autopoiesis of Architecture. A New Agenda for Architecture*, Vol. II, A John Wiley and Sons Ltd, Publication, London 2012.

⁹ P. Schumacher, *The Autopoiesis of Architecture. A New Framework for Architecture*, Vol. I, *op.cit.*, p. 33.



III. 2. Rationality. Pure lines of the bookshelf in the banister of the entresol's balustrade. Maison La Roche (Paris, Auteil), Le Corbusier, 1923–1925. Photo by R. Mikielewicz, 2010

enables patterns, progresses and regulations to be created within a discipline and closely observed the contemporary developments¹⁰. The theory resulted in parametric design, one of the leading contemporary architectural trends, where 'key design processes are variation and correlation' based on the laws of nature¹¹.

Thus everything is potentially made to network and resonate with everything else. This should result in overall intensification of relations that gives the urban field a performative density, informational richness and cognitive coherence that make for good legibility, easy navigation and thus quick, effective participation in a complex social arena where everybody's ability to scan an ever-increasing simultaneity of events and to move through a rapid succession of communicative encounters constitutes the quintessential cultural skill¹².

For Patrik Schumacher the design process *does not depend upon any successful rational reconstruction*¹³. But to be rational the design process has to be a problem-solving one and

¹⁰ *Ibidem*, p. 30–32.

¹¹ P. Schumacher, *The Autopoiesis of Architecture. A New Agenda for Architecture*, Vol. II, *op.cit.*, p. 678.

¹² *Ibidem*, p. 678.

¹³ *Ibidem*, p. 260.

meant as a kind of adaptive action, demanded by a specific situation in the environment¹⁴. He recognizes as key the difference *between well-structured and ill-structured problems* and the amount of information required to solve them¹⁵. Even if understanding the design as something rational he tends in the end to the conclusion that *contemporary design work is (...) no longer (fully) covered by a standard schema of rationality. Each new system of representation, each new diagramming technique (...) not only expands the solution space in which solutions can be elaborated but is also prone to throw up new values and new goals*¹⁶.

Computational techniques which enable the complicated aspects of a design to be integrated more consciously also force us to question the intuitiveness of the creative process and changes the approach to it. So many architects see the solution to the kind of automation in the design process in the social engagement of architects and projects especially of housing estates which involve the habitants in the process¹⁷. Such engagements can range from involvement in public policy making (service on boards or commissions, community design charrettes, forms of research) to asset-based designs integrated in various social projects. The asset-based design is addressed to people who are not cash-rich but may possess other resources. Here the main element is to immerse oneself into the community to ask questions, listen and learn. *Visiting the home of a neighbourhood resident can build personal relationships and provide valuable insight into the culture of a community. Sharing a meal with a client can teach designers more about local dynamics than a boilerplate questionnaire can*¹⁸.

*There are countless things you can do as an individual to expand your work and be more active as a citizen-architect. Take it upon yourself to identify a problem in the public realm and pursue a solution. You can choose a known problem, or you might expose one that has been overlooked. Do it alone or build a team. You may not have all the answers, and this is fine; just be prepared to do what it takes to move the idea or project forward. If your proposal resonates with people, you may be surprised by how much interest and support your efforts generate*¹⁹

In terms of creative design this socially engaged approach is especially interesting, as represented by Alejandro Aravena in his Elemental projects, where the architect leave part of the space in a house empty to be filled by the future user²⁰. The houses which repeat patterns of traditional Latin American architecture give a chance to people who otherwise could not afford a home. The main aim was to build social houses which will be *low-rise, sufficiently*

¹⁴ *Ibidem*, p. 263–310.

¹⁵ *Ibidem*, p. 332.

¹⁶ *Ibidem*, p. 349.

¹⁷ *Expanding Architecture: Design as Activism*, B. Bell, K. Wakeford, ed., Metropolis Books, New York 2008.

¹⁸ A. Hendler-Voss, S. Hendler-Voss, *Designing with an Asset-Based Approach*, p. 124–139 in *Expanding Architecture...*, *op.cit.*, p. 127.

¹⁹ J. Peterson, *Mobilizing Mainstream Professionals to Work for the Public Good*, p. 94–103 in *Expanding Architecture...*, *op.cit.*, p. 103.

²⁰ A. Aravena, A. Iacobelli, *Elemental. Incremental Housing and Participatory Design Manual*, Hatje Cantz Verlag, Ostfilden 2016.

*dense (...) without overcrowding and with the possibility to grow*²¹. The design of a ‘porous’ building which allows expansion of the used space allowed to combine both these features. The elemental first project was the estate of Quinta Monroy in Iquique, Chile (2003–2004)²². 25 units of row houses are organised around 4 courtyards. One half of the building is built, the other remains as a void until it is filled. Partially completed concrete shell-and-core structures enabled the residents to fill and expand the building on their own, at the speed which their financial means allowed.

The architectural design is reduced to a kind of minimum and the designer’s attitude is to take his creative ego back and live with the sometimes not so aesthetic result of the construction process. In a way Aravena then gives his rational, trained creative power to mere intuition of an untrained habitant and his needs.

Paradoxically in such design the architect limits himself to design a frame to be filled in. But it is a completely different frame from that visual one so important to Le Corbusier. And in this sense Aravena’s design is as much about communication as the parametric design and both are deeply grounded in the development of the contemporary society.

The problem is how much if any intuition will the computer based design process allow and whom – a computer program, an artificial intelligence or the responsible designer? The question which remains is if any intuition is necessary in the design process of architecture. And especially in the design process of a home.

3. ‘Cradle-to-cradle’ design’s new rationality

The aspect of the designer’s intuition is strongly underlined by one of the best known contemporary architects, Daniel Libeskind in his autobiography. He understands intuition as a kind of a response to the environment and society, but also a place. He stresses that in architecture the main problem constructs how one imagines his place of living. As he remarks, not everything has to be presented in full light, some things remain better in the recesses of darkness²³. Libeskind describes in the book his own experience with the selection of his own flat in Lower Manhattan. A flat which he and his wife have seen as inhabitable suddenly caught his attention. He remained inside alone and stayed by the window. After his wife returned his mind was set. The deciding factor was the light, not the wrong plan and functionality. The light perception made for a trained architect the perfect place to live²⁴.

One can find many such examples. Examples of intuitively changed elements of designs, of unobvious choices which look perfectly rational in the end design or after construction. Small details or decisions which change the whole space divisions. Houses designed to fulfill the main idea of habitability, which somewhere in the core is as intuitive as it is rational because it embraces as much the reason as the emotions which make the essence of life. What changes the contemporary perception of the rational and intuitive

²¹ *Ibidem*, p. 21.

²² *Ibidem*, p. 82–193.

²³ D. Libeskind, S. Crichton, *Entwürfe meines Lebens. Autobiografie*, Goldmann Verlag, München 2006, p. 85.

²⁴ *Ibidem*, p. 88–89.

approach to design is the problem of sustainability. Even someone as obsessed with the rationality of computational techniques as Patrik Schumacher sees the necessity of recognising the finality of a world powered by creation of wealth²⁵. The contradiction is superfluous because the autopoiesis architecture theory paradoxically starts in a biological notion and the understanding of technical elements as structures of nature-like abilities. Strangely, Schumacher omitted one of the most influential theories of a ‘cradle-to-cradle’ which implicates at least in the main idea the same notion of self-dependency and self-renewal even as the idea is starting from a different point of origin. A chemist and an architect (Michael Braungart and William McDonough) in 2002, so a decade earlier than Schumacher, in ‘Cradle to Cradle: Remaking the Way We Make Things’ described a completely new, also in the terms of sustainability, approach toward development and the way things should be designed. The core of the book builds a notion of a reconceptualized design based on a cycle of perpetual renewal. Such revolutionary logic and new rationality can be found in the use of design as a means for the change of resource use, production and consumption²⁶. This point of view is based on the understanding of the necessity to integrate the buildings into the urban context, but also of the overall energy flow as it is defined in the definitions of ecology in its basic biological notion. ‘Cradle-to-cradle’ is a rewording of an old saying ‘from cradle to grave’. The linear life of materials and products in the industrialized society as in a ‘cradle-to-grave’ approach, contradicts the life cycle in nature, where waste is changed into new life. In ‘cradle-to-cradle’ the materials and things, once their utility is spent, could be cycled back as so called ‘technical nutrients’ into the techno- or biosphere. They are recycled not only because of their function or form, but also because of their chemical composition – to avoid dangers of unknown side-effects. The authors assume that architectural universal solutions represented also in contemporary buildings are locked into the cradle-to-grave design as they represent a one-size-fits-all design. *A cradle-to-cradle building should behave like a tree, (...), and be connected to the flow of natural energies around it (sun, wind, water), so that it is able to, for example, change with the seasons, produce more energy than it consumes, and purify its own water. (...) In such biomimetic architecture, innovation is designed in from the start. Capacities of redundancy, convertibility, and adaptability are planned for on the drawing board, so that the built end product can endlessly be redesigned in its material, ecological, and social realization. This is an architecture of perpetual beginnings*²⁷.

A home is a space of perpetual beginnings because such is life, it can be redesigned endlessly in material and in the social sphere fulfilling the requirements of the new rationality of the ‘cradle-to-cradle’ design. A home is also a statement about an individual: the inhabitant and the designer. Homes differ even if designed as standardised structures without individual markings. In the end homes are able at the same time to epitomise the rationality and the intuition of design embracing all aspects of the twists of human thought.

²⁵ P. Schumacher, *The Autopoiesis of Architecture. A New Agenda for Architecture*, Vol. II, *op.cit.*, p. 676.

²⁶ M. Braungart, W. McDonough, *Cradle to cradle. Remaking the way we make things*, Vintage Books, London 2009; S. Cairns, J. M. Jacobs, *Buildings Must Die*, *op.cit.*, p. 221–222.

²⁷ S. Cairns, J. M. Jacobs, *Buildings Must Die: A Perverse View of Architecture*, The MIT Press, Cambridge, Massachusetts 2014, p. 224.

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