

A lost reality

An external reality: The reality which we experience through our senses, what we see, hear, smell, taste and sense.

An internal reality: Our experiences beyond the senses, what we think, feel, believe, etc.

In the realm of the external reality, we can, and constantly do expect a rather wide common ground of agreement with other human beings. In relation to the internal reality it is relatively objective.

In the realm of internal reality we expect much less agreement (although more than we can ever find), in relation to the external reality it is more subjective.

Two people Stand in front of a big blue soft and hot "thing", we can expect more or less an agreement about "it" being big , blue, soft and hot. What "it" reminds them of, evokes in them or makes them feel will be much less likely to be similar.

While the effect of the complexity of "it" will be relatively little on the agreement in terms of the external realities of the two, it will have an enormous effect on the internal realities.

The more complex "it" is the less one could expect to find resemblance in the way the internal realities of different humans will be affected.

Albeit crude, these distinctions might be helpful in relation to the following question: Where in terms of external and internal realities lie the Architectural field of operation?

Architects have always wanted to see their work as reaching far beyond the external reality, that is beyond the physical organization of matter in space and its experience through the senses. More often than not, they explain their work in terms of an internal reality. They have a concept, an idea, an intention of some sort, a political, artistic or any other agenda.

The experience of the user can and often is, described in terms of an internal reality, Architecture reminds us of things, evokes feelings, creates atmospheres, etc.

It is not the fact that an internal reality, of non physical intentions and effects exists for Architects and users in relation to Architecture which I am questioning, it is the relationship between the two internal realities.

An external reality of material organization in space and its experience through the senses, is an inevitable mediator between two internal realities, that of the designer and that of the user (the designer is not there to explain intentions). Regardless of the degree in which one believes in the ability to communicate between the two internal realities, the external reality remains his field of operation. Whether one is aware of it or not, happy about it or not, communication at any level or degree, if it is taking place it is through the physical organization of material in space.

As such, one would expect to find the external reality rather popular as a main driving force in the design process, one would at least expect to find an

increasingly growing Architectural data base about the effects of the organization of matter in space on human being.

In 1928 a group of young Architects came together to form the principles of a new architecture that claimed to deal with the external reality. The flowing quotes describing the intentions of the Modern Movement in Architecture may be sufficient to build such expectations:

'I have turned my back on the schools, on the history of the styles, on the pedantic composition of the masters...inspired by the spirit of honesty, I search in the past and in the present, ... For vernacular houses, human houses for human-man and spirit-man which are shining exhortations marvelous examples of efficiency, economy, lyricism and intelligence'¹

'I shall find my clue in cold analysis, at each stage my duty will be to put the question "why"? Nothing has any right to exist which cannot give a precise answer'.²

'Architecture has nothing to do with the various "styles". The styles of Louis XIV,XV,XVI, or gothic are to Architecture what a feather is on a woman's head; it is sometimes pretty, though not always, and never anything more'³

'Form is not anymore a point of departure, the decisive factor to which all other considerations must be subordinated, it is no longer predetermined...it takes shape from the problem itself...'³

Free from any foreign interests of styles and decorations, the new Architecture promised to deal with reality as it is. With the human conditions, needs and wants, nothing else. The form of this type of Architecture will be generated for those human needs.

I would like now to test these intentions first in relation to some of the theory which was developed by modern Architects, and then in relation to reality itself, as in observations on the performance of some specific examples.

One of the claims Le Corbusier kept on repeating was that the problem of the house is not well stated (relying probably on Abb'e Laugier who said 'if a problem is well stated, the solution will be indicated). Corbusier's claim sounds reasonable considering the existing approaches to Architecture at the time. He then goes on, stating the problem clearly at last:

'A house: a shelter against heat, cold, rain, thieves and the inquisitive, a receptacle for light and sun, a certain number of cells appropriated to cooking, work, and personal life'⁴.

¹ Twentieth-Century Living and twentieth-century building, from The Studio Year Book on Decorative Art, Le-Corbusier, 1930.

² libid.,1.

³ Towards a new Architecture, Le-Corbusier, p-25.

⁴ libid.,3, p-114

Although somewhat reductive, such minimum definition can be helpful in a first step of defining general objectives, somewhat true everywhere. If one could develop a set of Architectural responses for basic human needs, the next step if we are to deal with reality would be to find ways to deal with more complex, and specific conditions.

The following quotes show a set of completely different intentions.

*'we must find and apply new methods, clear methods allowing us to work out useful plans for the home, lending themselves naturally to standardization, industrialization, taylorization.'*⁵

*'Architecture is governed by standards, standards are a matter of logic analysis and precise study, standards are based on a problem which has been well stated.'*⁶

*'we must create the mass-production spirit. The spirit of constructing mass-production houses. The spirit of living in mass-production houses'*⁷

*'if we eliminate from our heart and minds all dead concepts in regard to the house, and look at the question from a critical and objective point of view, we shall arrive at the "house-machine" the mass-production house, healthy (and morally too) and beautiful'*⁸

The realistic identification of common human needs outlines the limitations of standards. It reveals the crucial point at which they lose validity. From this point onwards, if reality is the subject, new solutions, increasingly specific, must be formed.

The modernists motivation appears to be completely different - to find the minimum habitable house and mass produce it for everyone everywhere.

The demand for standardization is presented here as an inevitable demand of life. In fact it was a limitation imposed by the concept of the machine itself, and as we know today, a temporary one.

The machine is here not only a metaphor but an ultimate scientific truth with which Architecture must be aligned.

It seems that the new Architecture, more than dealing with human reality as it is, was dealing with the machine as it was.

The machine, designed to replace our hands, is here replacing our brains. Rather than demanding from the machine to overcome the need for identity, in order to better suit our complex needs, we demanded our needs to align with the simplicity of the machine.

Ironically, about 60 years later as by-products of reverse engineering and space technology, the machine "released itself" from the demands for both identity

⁵ The Radiant City, Le-Corbusier, p-30.

⁶ Towards a new Architecture, Le-Corbusier, p-145-6.

⁷ libid.,6, p-4.

⁸ libid.,6,p-4.

and pre-planning. Preoccupied in old concepts we are yet to realize the potentials of such new possibilities.

The new Architecture was clearly not about human beings and their needs. What was it about then?

'architecture has another meaning and other ends to pursue than showing construction and responding to needs...Architecture is an art above all others which achieves a state of platonic grandeur, mathematical order, speculation, the perception of the harmony which lies in emotional relationships. This is the aim of Architecture'.⁹

'...cubes, cones, spheres, cylinders or pyramids are the great primary forms which light reveals to advantage; the image of these is distinct and tangible within us without ambiguity. It is for that reason that these are beautiful forms, the most beautiful forms. Everybody is agreed as to that, the child, the savage and the metaphysician.'¹⁰

'...the surface of the temple or the factory is in most cases a wall with holes for doors and windows; these holes are often the destruction of form, they must be made an accentuation of forms. If the essentials of architecture lie in spheres, cones, and cylinders the generating and accusing lines of these forms are the basis of pure geometry.'¹¹

As a result of the scientific explanation (it is beautiful and everyone knows it), the Euclidean geometry, developed in ancient Greece as a means of measurement and navigation, becomes 'the essentials of Architecture'. Throughout 'the radiant city' and 'towards a new Architecture' by Le Corbusier I could not find any explanation for the choice of these basic forms, which goes beyond "it" being beautiful, pure and looking good with light.

One of le-Corbusier's favorite metaphors to Architecture is an Airplane. The following quote, reveals an interesting approach to geometry in general.

'The lesson of the airplane is not primarily in the forms it has created, and above all we must learn to see in an airplane not a bird or a dragon fly, but a machine for flying; the lesson of the airplane lies in the logic which governed the enunciation of the problem and which led to its successful realization'¹²

Corbusier suggests we appreciate in the Airplane the mere fact that "it" can fly, ignoring the geometry from the obvious reasons that it is in fact organic and not "pure". In fact, the airplane was not revolutionary in terms of containing a motor or being a product of industry. "It" can fly precisely because of its Geometry. Not a superimposed "pure" Geometry, but rather Generated carefully out of the specific needs and wants of "flying". Every line, every surface as well as the choice

⁹ Towards a new Architecture, Le-Corbusier, p-110-111.

¹⁰ libid.,9, p-29.

¹¹ libid.,9, p-40-41.

¹² libid.,9, p-110.

of materials can be explained in terms of the internal needs, from the way in which the object will be used, not in the way it will receive light and shade.

The airplane is indeed a very good example for Architecture which is really concerned with the reality of human needs and wants, it shows what is possible to achieve with a sincere effort, truly innocent from irrelevant intentions. Where is that Architecture with which the same degree of honesty and clarity deals with the human condition, without ignoring its complexity and specificity?

I would now like to look at some of the key elements of Modern Architecture as described in "The Radiant City" in relation to observations in reality.

A large area in the city of Tel-Aviv in Israel was recently declared an area for conservation, being one of the best examples of Modern Architecture. Partly designed in Bauhaus style and partly following the key Characteristics of Modern Architecture as declared clearly in the first CIAM in 1928, Tel-Aviv is a good example of Modern Architecture which was constantly inhabited.

*'The pillars are erected three to four meters in height...the space beneath the house will be completely restored. Children will play there, sheltered from rain or sun...the garden will extend underneath the house...plants, flowers and trees grow better in roof gardens than in the open ground...gardens planted on roofs do splendidly.'*¹³

Living in Israel for 25 years, I had the chance to observe carefully a city in which large parts have been designed precisely following the above principles, being throughout this time "Architecturally uneducated" I can only describe what I have seen:

The dark spaces beneath the houses are hardly ever used, children play more in the parking lots and on the streets than underneath the houses (parks hardly exists, as there is enough open space under the house and on the roof). The spaces beneath the houses are popular however among drug dealers, prostitutes, and as public urinals. As time goes by, these spaces differ in quality according to the inhabitants socio economic standing; they range between a mere decorative useless garden for the higher class, and filthy spaces accumulating garbage and human waste for the lower class,(these are at least used as mentioned above). The roof gardens in majority of the cases belong to the top floor only, in some cases a bit of green can be seen from the street level(if one observes carefully), in other cases the roof became a fancy Penthouse. This creates an interesting phenomenon where the first four or five floors may be in horrible conditions, while the top Penthouse is in mint condition.

Tel-Aviv is a beach city; it has a large shore to the Mediterranean Sea. It reaches high degrees of temperature and humidity in the summer. Under these climatic Conditions, the pure white rendered surfaces of sharp right angled corners, stay white and sharp for a very short time. It would not be an exaggeration to say that

¹³ Twentieth-Century Living and twentieth-century building, from The Studio Year Book on Decorative Art, Le-Corbusier, 1930.

without constant and expensive renovations, Modern Architecture in Tel-Aviv is literally falling to pieces.

Unlike the other key elements of Modern Architecture, the idea of the pillars and the roof gardens do not seem to be purely formal as these elements might to some extent disturb the "pure geometry" it seems that there is another motivation behind it.

*'What is the point of using pilotis? To make houses more healthful and at the same time allow the use of insulating materials which are often fragile or liable to decay and so should be placed as far from the ground and possible shocks'*¹⁴

The motivation to raise an entire city four meters above ground cannot rely on the fragility of insulating materials and their protection from the "dangerous" ground alone. Far from being practical in any sense it seems that it is the inhabitants and the geometry which Corbusier wanted to protect from the "impure nature". As I mentioned before, nature with its forces has indeed a destructive influence on sharp edged and white painted geometry.

The following quotes from the manual of the dwelling in 'Towards a new Architecture' reinforces the suspicions that a deep repulsion from anything "natural"

Stand behind an apparently functional reasoning.

'...never undress in your bedroom, it is not a clean thing to do and makes the room horribly untidy...if you can, put the kitchen at the top of the house to avoid smells...bear in your mind economy in your actions, your household management and in your thoughts'.¹⁵

In conclusion it seems that behind a set of apparently rational realistic and practical agenda of Modern Architecture, the real concern was primarily of an esthetic and stylistic nature, reinforced from time to time with idealistic, reductive and fictional agenda of what life ought to be, naturally far from what it is.

I do not wish to undermine the importance of the Modern Movement who released Architecture, at least conceptually, from the need to satisfy irrelevant styles.

Going back to the Tel-Aviv example, some young Architects took the ideas of economy very seriously and while the external forms were aligned with the Modern style, the interior organization of the apartments is often ingenious. The economic negotiation of space within the flats is in some cases on the edge of an optical illusion, where a 70-90 meters floor plan, including all the necessities of the house, reads much larger and spacious to the viewer.

The Architectural tragedy is not that Modern Architecture was not really about human needs - it at least claimed to be that, and doing so declared it as legitimate. The problem with claiming to do something while actually doing something else is that both supporters and objectors might form their opinion on a false set of assumptions.

¹⁴ The Radiant City, Le-Corbusier, p-33.

¹⁵ Towards a new Architecture, Le-Corbusier, p-122-123.

Although Modern Architecture has been criticized among other things as being not really functional, It seems that a wide conception of "we tried reality, it does not work" was somehow established in the minds of Architects and critics. The following quotes from critics of Modern Architecture may reflect some of that notion.

*'if the CIAM does not wish to become a nostalgic monument to the rationalist period, if it has deep in its heart, to quote Goethe, the problem more than the truth, then it must discuss these historical themes, which, however they may seem out of place in a professional meeting, are in reality most vital insofar as they help us to understand our origins, our predecessors, and thusly our historical function.'*¹⁶

*'Modern Architecture has given proof that new values can be found by boldly grasping our technical resources and applying them with perception'*¹⁷

*'Intoxicated by the image of technology triumphant, and with the slogan form follows function; we have made our rationality and our perception of the built environment a slave to industrial efficiency'*¹⁸

These critics seem to accept the rationality of the Modern Movement, in order to admire it, attack it or claim that it is not enough.

But more than the written word it is reality itself in terms of the direction Architecture took after the Modern, which may reinforce the suspicion that although Modern Architecture was not really rational or functional it was denied as such by the Post Modernists.

I would like now too look at some of the theory of Post-Modern Architecture, in order to trace what was and to some extent still is the new approach toward the external reality.

In his book 'The Language of Post-Modern Architecture' (1977), Charles Jencks is constantly attacking Modern Architecture in Post-Modern terms, that is, in terms of the meanings it was expressing, and the metaphors it "used".

On the Modernists;

*'...their buildings ended up looking like metaphors of function and economics and are condemned as such'*¹⁹

According to Jencks, Architecture is measured in terms of the metaphors it is communicating, whether intentional or not, and so inevitably dependant on the set of values of the viewer. It is not surprising therefore that for him the mistake of the Modernists was not the fact that the machine and economy where used as metaphors. The problem for him is that these are "bad" metaphors.

'The characteristics of the Post-Modern come from its attempt to cut across the spectrum of tastes with a variety of styles, thus it seeks a radical eclecticism or multiple coding'

¹⁶ Bruno Zevi, "Della cultura architettonica: Messaggio al congres international d'Architecture Moderne," *Metron* 51-52 (1949)

¹⁷ from the introduction of "a history of modern Architecture" Jurgen Joedicke, 1961

¹⁸ Rationality in Architecture and in the design process, Heryk Skolimowski. p-164, *The Rationalists*, edited by Dennis Sharp. 1978

¹⁹ *The Language of post-modern Architecture*, Charles Jencks, 1977, p – 48.

'The Architect must over-code his buildings, using a redundancy of popular signs and metaphors, if his work is to communicate as intended and survive the transformation of fast changing codes'

Architecture is here reduced to "a mean of communication" for symbols and metaphors. It is then a reasonable recommendation to throw as much as possible into the "mix", hoping that something will be "understood".

After criticizing a hot-dog stand in the shape of a hot-dog, for being too obvious, Jencks praises the chapel in Ronchamp by Corbusier, for its suggestiveness, and declares it as possibly the first Post-Modern building.

The metaphors suggested by Ronchamp according to Jencks include; Swiss cheese, a duck, a ship, praying hands, and a crab shell.

I have used here the word metaphor as used by Jencks in the book, in fact what Jencks describes are not metaphors but rather associations.

Two foreign entities, which resemble one another, are linked in an associative manner. It is only when we start thinking about one, in terms borrowed from the realm of the other that it becomes a metaphor.

The only metaphor I can find in the book is that by Jenks himself - between Architecture and a poetic language. When we start thinking about Architecture in terms of a poetic language its objective begins to be story telling - the transfer of messages by means of symbols, signs and associations.

The enjoyment from such Architecture is dependant to a large extent on the capability of the viewer to understand it, "to get the message".

Whether managing to pass the message or not, Post-Modern Architecture does not even claim to be dealing with human beings as inhabitants and with their needs or wants. It is an Architecture of intentions, not of results. The **user** in such Architecture becomes the **viewer**, as it is all about how "it" looks rather than functions. In fact it seems that the **user** is not really necessary any more, his existence might have a destructive effect for the **viewer**.

'The house is a machine for living in' was one of Le-Corbusier's favorite slogans; it appears numerous times in his writings. The slogan itself already suggests that the house is not about living, it is already about something else. Pre occupied with pure geometries and philosophies, Modern Architecture did not really provide the house which is a machine to live in. This to my mind is not really surprising or tragic.

What I find very surprising and indeed tragic is that we are yet to see the house which is 'a thing for living in'.

Free from all needs to symbolize, satisfy irrelevant styles, and convey imaginary associations.

Free from all superimposed and irrelevant metaphors...

Can a house be at last about living? With all the complexities and specificities it demands, at a specific place, for specific users, with specific needs and wants?

Free from all superimposed and irrelevant geometries...

Can the specific conditions, internal and external forces, needs and wants, generate the geometry they really call for?

Free from pseudo scientific "precise" analysis, used in the end **graphically**, in a way which renders its "precision" meaningless.

How about precisely comfortable, or precisely performing, Can it be just more or less, fantastic? Can it be roughly great?

If it can, and I believe it can and eventually will, it is not simple and will take time.

As in order to respond to life as it is, and not as we imagine it to be, we have to develop specific tools that will help us to better understand what "it" is.

Constantly busy with other things which Architecture was about, we did not develop anything of that sort.

In the same way that in the machine age we used the machine as an extension for our heads rather than for our hands, we are now using the computer as an extension for our hands rather than for our heads.

We use the computer as an automatic pencil, asking it to draw quicker and more precise than our hands, where it's real potential lies in its computing power. We can ask it to calculate what we could never calculate in our heads.

Using advanced software, we can start demanding from the computer simulations of human behavior, increasingly informative.

We must be constantly careful, in order not to fall in to the same traps again and not to expect these simulations to do the work for us. As aiding tools these simulations will help us to reveal and understand hidden yet important patterns of human behavior to which we must then find the way to respond architecturally.

The idea to create simulations of our lives via computer sounds futuristic and horrible.

In fact, buildings designed according to irrelevant considerations have been programming our real lives from the day we were born. Designed, based on considerations which are far from being related to us, these buildings are programming almost every step we make.

It is precisely these types of programmed simulations, along with many other tools, that can help us to break free.

Such simulations exist already and are being put to work in the realm of environmental design - simulations of sun, air and light conditions as well as thermal comfort can be used as aiding tools. They are powerful as form defining tools provided we allow the form to respond to the environmental conditions.

Environmental design is often dismissed or ignored by Architecture which is about "something else", (for it will definably disturb "pure" simplistic geometries).

An Architecture about human needs and wants will find environmental design as one of the most advanced and relevant realms we have today.

Computer simulations, as helpful as they may become, will never and should never replace observations of real life. All assumptions, whether obtained from a simulation or any other source, are useless if we do not check them against the reality, if possible in the real contexts of the project.

Methods of large scale, on-site modeling in malleable materials (i.e. expanded polystyrene) may help us to form feedback loops between assumptions and empirical experiments, Architectural actions and human re-actions.

It will not be easy, and it will take time, time which we might find when Architecture will stop being about an irrelevant "else", when "it" will be about what "it" is.

...sit on **this** which is about sitting, next to **that** which is about sleeping, looking through **it** which is about seeing, within a **thing** which is about being...

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- Towards a new Architecture, Le-Corbusier, London 1931(1986 edition)
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- Modern Movements in Architecture, Charles Jencks, 1973
- A History of Modern Architecture, Jorgen Joedicke, Germany, 1958
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